
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended November 30, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number: 1-7102

**NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION**
(Exact name of registrant as specified in its charter)

District of Columbia

(State or other jurisdiction of incorporation or organization)

52-0891669

(I.R.S. Employer Identification No.)

20701 Cooperative Way, Dulles, Virginia, 20166

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: **(703) 467-1800**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

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PART I—FINANCIAL INFORMATION

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations (“MD&A”)

FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains certain statements that are considered “forward-looking statements” within the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended. Forward-looking statements, which are based on certain assumptions and describe our future plans, strategies and expectations, are generally identified by our use of words such as “intend,” “plan,” “may,” “should,” “will,” “project,” “estimate,” “anticipate,” “believe,” “expect,” “continue,” “potential,” “opportunity” and similar expressions, whether in the negative or affirmative. All statements about future expectations or projections, including statements about loan volume, the appropriateness of the allowance for loan losses, operating income and expenses, leverage and debt-to-equity ratios, borrower financial performance, impaired loans, and sources and uses of liquidity, are forward-looking statements. Although we believe that the expectations reflected in our forward-looking statements are based on reasonable assumptions, actual results and performance may differ materially from our forward-looking statements due to several factors. Factors that could cause future results to vary from our forward-looking statements include, but are not limited to, general economic conditions, legislative changes including those that could affect our tax status, governmental monetary and fiscal policies, demand for our loan products, lending competition, changes in the quality or composition of our loan portfolio, changes in our ability to access external financing, changes in the credit ratings on our debt, valuation of collateral supporting impaired loans, charges associated with our operation or disposition of foreclosed assets, technological changes within the rural electric utility industry, regulatory and economic conditions in the rural electric industry, nonperformance of counterparties to our derivative agreements, the costs and effects of legal or governmental proceedings involving us or our members and the factors listed and described under “Item 1A. Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended May 31, 2018 (“2018 Form 10-K”). Except as required by law, we undertake no obligation to update or publicly release any revisions to forward-looking statements to reflect events, circumstances or changes in expectations after the date on which the statement is made.

INTRODUCTION

National Rural Utilities Cooperative Finance Corporation (“CFC”) is a member-owned cooperative association incorporated under the laws of the District of Columbia in April 1969. CFC’s principal purpose is to provide its members with financing to supplement the loan programs of the Rural Utilities Service (“RUS”) of the United States Department of Agriculture (“USDA”). CFC makes loans to its rural electric members so they can acquire, construct and operate electric distribution, generation and transmission (“power supply”) systems and related facilities. CFC also provides its members with credit enhancements in the form of letters of credit and guarantees of debt obligations. As a cooperative, CFC is owned by and exclusively serves its membership, which consists of not-for-profit entities or subsidiaries or affiliates of not-for-profit entities. CFC is exempt from federal income taxes under Section 501(c)(4) of the Internal Revenue Code. As a member-owned cooperative, CFC’s objective is not to maximize profit, but rather to offer members cost-based financial products and services. CFC funds its activities primarily through a combination of public and private issuances of debt securities, member investments and retained equity. As a Section 501(c)(4) tax-exempt, member-owned cooperative, we cannot issue equity securities.

Our financial statements include the consolidated accounts of CFC, National Cooperative Services Corporation (“NCSC”), Rural Telephone Finance Cooperative (“RTFC”) and subsidiaries created and controlled by CFC to hold foreclosed assets resulting from defaulted loans or bankruptcy. NCSC is a taxable member-owned cooperative that may provide financing to members of CFC, government or quasi-government entities which own electric utility systems that meet the Rural Electrification Act definition of “rural” and for-profit and nonprofit entities that are owned, operated or controlled by, or provide significant benefits to certain members of CFC. RTFC is a taxable Subchapter T cooperative association that provides financing for its rural telecommunications members and their affiliates. CFC did not hold, and did not have any subsidiaries or other entities that held, foreclosed assets as of November 30, 2018 or May 31, 2018. See “Item 1. Business—Overview” in our 2018 Form 10-K for additional information on the business activities of each of these entities. Unless stated otherwise, references to “we,” “our” or “us” relate to CFC and its consolidated entities. All references to members within this document include members, associates and affiliates of CFC and its consolidated entities.

Our principal operations are currently organized for management reporting purposes into three business segments: CFC, NCSC and RTFC. Loans to members totaled \$25,294 million as of November 30, 2018, of which 96% was attributable to CFC. Total revenue, which consists of net interest income and fee and other income, was \$153 million for the six months ended November 30, 2018, of which 99% was attributable to CFC. We provide information on the financial performance of each of our business segments in “Note 13—Business Segments.”

Management monitors a variety of key indicators to evaluate our business performance. The following MD&A is intended to provide the reader with an understanding of our consolidated results of operations, financial condition and liquidity by discussing the factors influencing changes from period to period and the key measures used by management to evaluate performance, such as net interest income, net interest yield, loan growth, debt-to-equity ratio, and credit quality metrics. The MD&A section is provided as a supplement to, and should be read in conjunction with our unaudited condensed consolidated financial statements and related notes in this Report, our audited consolidated financial statements and related notes in our 2018 Form 10-K and additional information contained in our 2018 Form 10-K, including the risk factors discussed under “Part I—Item 1A. Risk Factors,” as well as any risk factors identified under “Part II—Item 1A. Risk Factors” in this Report.

SUMMARY OF SELECTED FINANCIAL DATA

Table 1 provides a summary of consolidated selected financial data for the three and six months ended November 30, 2018 and 2017, and as of November 30, 2018 and May 31, 2018. In addition to financial measures determined in accordance with generally accepted accounting principles in the United States (“GAAP”), management also evaluates performance based on certain non-GAAP measures and metrics, which we refer to as “adjusted” measures. Certain financial covenant provisions in our credit agreements are also based on non-GAAP financial measures. Our key non-GAAP financial measures are adjusted net income, adjusted net interest income, adjusted interest expense, adjusted net interest yield, adjusted times interest earned ratio (“adjusted TIER”) and adjusted debt-to-equity ratio. The most comparable GAAP measures are net income, net interest income, interest expense, net interest yield, TIER and debt-to-equity ratio, respectively. The primary adjustments we make to calculate these non-GAAP measures consist of (i) adjusting interest expense and net interest income to include the impact of net periodic derivative cash settlements; (ii) adjusting net income, senior debt and total equity to exclude the non-cash impact of the accounting for derivative financial instruments; (iii) adjusting senior debt to exclude the amount that funds CFC member loans guaranteed by RUS, subordinated deferrable debt and members’ subordinated certificates; and (iv) adjusting total equity to include subordinated deferrable debt and members’ subordinated certificates and exclude cumulative derivative forward value gains and losses and accumulated other comprehensive income (“AOCI”). We believe our non-GAAP adjusted measures, which are not a substitute for GAAP and may not be consistent with similarly titled non-GAAP measures used by other companies, provide meaningful information and are useful to investors because management evaluates performance based on these metrics, and certain financial covenants in our committed bank revolving line of credit agreements and debt indentures are based on adjusted measures. See “Non-GAAP Financial Measures” for a detailed reconciliation of these adjusted measures to the most comparable GAAP measures.

Table 1: Summary of Selected Financial Data

(Dollars in thousands)	Three Months Ended November 30,			Six Months Ended November 30,		
	2018	2017	Change	2018	2017	Change
Statement of income						
Interest income	\$ 281,253	\$ 265,823	6%	\$ 559,744	\$ 531,738	5%
Interest expense	(204,166)	(195,170)	5	(414,397)	(387,901)	7
Net interest income.....	77,087	70,653	9	145,347	143,837	1
Fee and other income.....	4,321	5,542	(22)	7,506	9,487	(21)
Total revenue	81,408	76,195	7	152,853	153,324	—
Benefit for loan losses	1,788	304	488	1,897	602	215
Derivative gains ⁽¹⁾	63,343	125,593	(50)	70,526	79,395	(11)
Results of operations of foreclosed assets.....	—	(10)	**	—	(34)	**
Operating expenses ⁽²⁾	(23,870)	(21,914)	9	(47,075)	(43,550)	8
Other non-interest expense	(2,700)	(618)	337	(10,194)	(1,140)	794
Income before income taxes	119,969	179,550	(33)	168,007	188,597	(11)
Income tax expense	(243)	(827)	(71)	(303)	(859)	(65)
Net income.....	\$ 119,726	\$ 178,723	(33)	\$ 167,704	\$ 187,738	(11)
Adjusted operational financial measures						
Adjusted interest expense ⁽³⁾	\$ (215,971)	\$ (214,805)	1%	\$ (439,031)	\$ (427,758)	3%
Adjusted net interest income ⁽³⁾	65,282	51,018	28	120,713	103,980	16
Adjusted net income ⁽³⁾	44,578	33,495	33	72,544	68,486	6
Selected ratios						
Fixed-charge coverage ratio/ TIER ⁽⁴⁾	1.59	1.92	(33) bps	1.40	1.48	(8) bps
Adjusted TIER ⁽³⁾	1.21	1.16	5	1.17	1.16	1
Net interest yield ⁽⁵⁾	1.19%	1.12%	7	1.12%	1.14%	(2)
Adjusted net interest yield ⁽³⁾⁽⁶⁾	1.01	0.81	20	0.93	0.83	10

	November 30, 2018	May 31, 2018	Change
Balance sheet			
Cash, cash equivalents and restricted cash.....	\$ 242,932	\$ 238,824	2%
Investment securities	645,059	609,851	6
Loans to members ⁽⁷⁾	25,294,175	25,178,608	—
Allowance for loan losses.....	(16,904)	(18,801)	(10)
Loans to members, net.....	25,277,271	25,159,807	—
Total assets.....	26,829,758	26,690,204	1
Short-term borrowings.....	4,100,606	3,795,910	8
Long-term debt	18,477,156	18,714,960	(1)
Subordinated deferrable debt.....	742,480	742,410	—
Members' subordinated certificates	1,376,689	1,379,982	—
Total debt outstanding	24,696,931	24,633,262	—
Total liabilities	25,202,620	25,184,351	—
Total equity	1,627,138	1,505,853	8
Guarantees ⁽⁸⁾	771,422	805,161	(4)
Selected ratios period end			
Allowance coverage ratio ⁽⁹⁾	0.07%	0.07%	— bps
Debt-to-equity ratio ⁽¹⁰⁾	15.49	16.72	(123)
Adjusted debt-to-equity ratio ⁽³⁾	6.15	6.18	(3)

** Calculation of percentage change is not meaningful.

⁽¹⁾ Consists of interest rate swap cash settlements and forward value gains (losses). Derivative cash settlement amounts represent net periodic contractual interest accruals related to derivatives not designated for hedge accounting. Derivative forward value gains (losses) represent changes in fair value during the period, excluding net periodic contractual interest accruals, related to derivatives not designated for hedge accounting and expense amounts reclassified into income related to the cumulative transition loss recorded in accumulated other comprehensive income as of June 1, 2001, as a result of the adoption of the derivative accounting guidance that required derivatives to be reported at fair value on the balance sheet.

⁽²⁾ Consists of salaries and employee benefits and the other general and administrative expenses components of non-interest expense, each of which are presented separately on our consolidated statements of income.

⁽³⁾ See “Non-GAAP Financial Measures” for details on the calculation of these non-GAAP adjusted measures and the reconciliation to the most comparable GAAP measures.

⁽⁴⁾ Calculated based on net income (loss) plus interest expense for the period divided by interest expense for the period. The fixed-charge coverage ratios and TIER were the same during each period presented because we did not have any capitalized interest during these periods.

⁽⁵⁾ Calculated based on annualized net interest income for the period divided by average interest-earning assets for the period.

⁽⁶⁾ Calculated based on annualized adjusted net interest income for the period divided by average interest-earning assets for the period.

⁽⁷⁾ Consists of the outstanding principal balance of member loans plus unamortized deferred loan origination costs, which totaled \$11 million as of both November 30, 2018 and May 31, 2018.

⁽⁸⁾ Reflects the total amount of member obligations for which CFC has guaranteed payment to a third party as of the end of each period. This amount represents our maximum exposure to loss, which significantly exceeds the guarantee liability recorded on our consolidated balance sheets. See “Note 11 —Guarantees” for additional information.

⁽⁹⁾ Calculated based on the allowance for loan losses at period end divided by total outstanding loans at period end.

⁽¹⁰⁾ Calculated based on total liabilities at period end divided by total equity at period end.

EXECUTIVE SUMMARY

Our primary objective as a member-owned cooperative lender is to provide cost-based financial products to our rural electric members while maintaining a sound financial position required for investment-grade credit ratings on our debt instruments. Our objective is not to maximize net income; therefore, the rates we charge our member-borrowers reflect our adjusted interest expense plus a spread to cover our operating expenses, a provision for loan losses and earnings sufficient to achieve interest coverage to meet our financial objectives. Our goal is to earn an annual minimum adjusted TIER of 1.10 and to maintain an adjusted debt-to-equity ratio at approximately or below 6.00-to-1.

We are subject to period-to-period volatility in our reported GAAP results due to changes in market conditions and differences in the way our financial assets and liabilities are accounted for under GAAP. Our financial assets and liabilities expose us to interest-rate risk. We use derivatives, primarily interest rate swaps, as part of our strategy in managing this risk. Our derivatives are intended to economically hedge and manage the interest-rate sensitivity mismatch between our financial assets and liabilities. We are required under GAAP to carry derivatives at fair value on our consolidated balance sheet; however, the financial assets and liabilities for which we use derivatives to economically hedge are carried at amortized cost. Changes in interest rates and spreads result in periodic fluctuations in the fair value of our derivatives, which may cause volatility in our earnings because we do not apply hedge accounting for our interest rate swaps. As a result, the mark-to-market changes in our interest rate swaps are recorded in earnings. Based on the composition of our interest rate swaps, we generally record derivative losses in earnings when interest rates decline and derivative gains when interest rates rise. This earnings volatility generally is not indicative of the underlying economics of our business, as the derivative forward fair value gains or losses recorded each period may or may not be realized over time, depending on the terms of our derivative instruments and future changes in market conditions that impact the periodic cash settlement amounts of our interest rate swaps. As such, management uses our adjusted non-GAAP results to evaluate our operating performance. Our adjusted results include realized net periodic interest rate swap settlement amounts but exclude the impact of unrealized forward fair value gains and losses. Our financial debt covenants are also based on our non-GAAP adjusted results, as the forward fair value gains and losses related to our interest rate swaps do not affect our cash flows, liquidity or ability to service our debt.

Financial Performance

Reported Results

We reported net income of \$120 million and a TIER of 1.59 for the quarter ended November 30, 2018 (“current quarter”), compared with net income of \$179 million and a TIER of 1.92 for the same prior-year quarter. We reported net income of \$168 million and a TIER of 1.40 for the six months ended November 30, 2018, compared with net income of \$188 million and a TIER of 1.48 for the same prior-year period. Our debt-to-equity ratio decreased to 15.49 as of November 30, 2018, from 16.72 as of May 31, 2018, primarily due to an increase in equity resulting from our reported net income of \$168 million for the six months ended November 30, 2018, which was partially offset by patronage capital retirement of \$48 million in August 2018.

The decrease in reported net income of \$59 million in the current quarter from the same-prior year quarter was primarily due to a decrease in derivative gains of \$63 million. We recognized derivative gains of \$63 million in the current quarter, compared with derivative gains of \$126 million in the same prior-year quarter. The derivative gains in both periods were attributable to increases in the fair value of our pay-fixed swaps as interest rates increased across the swap curve during each period. The rise in medium- and longer-term rates, however, was not as pronounced during the current quarter, which resulted in lower derivative gains relative to the same prior-year quarter. The decrease in derivative gains of \$63 million was partially offset by an increase in net interest income of \$6 million. The increase in net interest income resulted from the combined impact of an increase in the net interest yield of 7 basis points to 1.19% and an increase in average interest-earning assets of \$766 million, or 3%.

The decrease in our reported net income of \$20 million for the six months ended November 30, 2018 was primarily driven by a decrease in derivative gains of \$8 million, a loss on the early extinguishment of debt of \$7 million and an increase in operating expenses of \$4 million. We recognized derivative gains of \$71 million for the six months ended November 30, 2018, compared with derivative gains of \$79 million during the comparable prior-year period. Net interest income increased slightly by \$2 million, driven by an increase in average interest-earning assets of \$918 million, or 4%, which was partially

offset by a decline in the net interest yield of 2 basis points to 1.12%. The decline in the net interest yield was largely attributable to an increase in our overall average cost of funds due to a higher average cost for our short-term and variable-rate borrowings as a result of the rise in short-term interest rates.

On July 12, 2018, we early redeemed \$300 million aggregate principal amount of our 10.375% collateral trust bonds due November 1, 2018, and repaid the remaining \$700 million principal amounts of these bonds at maturity. We replaced this higher-cost debt with lower cost funding, which reduced our interest expense and had a favorable impact on our average cost of funds and net interest yield for the current quarter and six months ended six months ended November 30, 2018.

Adjusted Non-GAAP Results

Our adjusted net income totaled \$45 million and our adjusted TIER was 1.21 for the current quarter, compared with adjusted net income of \$33 million and adjusted TIER of 1.16 for the same prior-year quarter. Our adjusted net income totaled \$73 million and our adjusted TIER was 1.17 for the six months ended November 30, 2018, compared with adjusted net income of \$68 million and adjusted TIER of 1.16 for the same prior-year period. Our adjusted debt-to-equity ratio decreased to 6.15 as of November 30, 2018, from 6.18 as of May 31, 2018, primarily attributable to an increase in adjusted equity due to our adjusted net income of \$73 million, which was partially offset by the patronage capital retirement of \$48 million.

The increase in adjusted net income of \$12 million, or in the current quarter from the same prior-year quarter was primarily driven by an increase in adjusted net interest income of \$14 million, which was partially offset by an increase in operating expenses of \$2 million. The increase in adjusted net interest income was driven by an increase in the adjusted net interest yield of 20 basis points to 1.01% and the increase in average interest-earning assets. The increase in the adjusted net interest yield reflected the combined impact of an increase in the average yield on interest-earning assets of 11 basis points to 4.34% and a decline in our adjusted average cost of funds of 10 basis points to 3.53%.

The increase in adjusted net income of \$5 million during the six months ended November 30, 2018, was primarily driven by an increase in adjusted net interest income of \$17 million, which was partially offset by the loss on the early extinguishment of debt of \$7 million and an increase in operating expenses of \$4 million. The increase in adjusted net interest income was attributable to an increase in the adjusted net interest yield of 10 basis point to 0.93% and the increase in average interest-earning assets. The increase in the adjusted net interest yield reflected the combined impact of an increase in the average yield on interest earning assets of 6 basis points to 4.29% and a decline in our adjusted average cost of funds of 3 basis points to 3.57%.

The decrease in the average cost of funds in the current quarter and for the six months ended November 30, 2018 was primarily due to a reduction in adjusted interest expense from the early redemption and maturity of the \$1 billion aggregate principal amount of the 10.375% collateral trust bonds and a reduction in net periodic derivative cash settlement amounts. The reduction in net periodic derivative cash settlements was attributable to the rise in short-term interest rates, which resulted in an increase in the periodic floating interest rate amounts due to us on our pay-fixed swaps, as the floating interest rate payment amounts are typically determined based on the 3-month London Interbank Offered Rate (“LIBOR”).

Lending Activity

Loans to members totaled \$25,294 million as of November 30, 2018, an increase of \$116 million from May 31, 2018. CFC distribution loans increased by \$261 million, which was partially offset by decreases in CFC power supply loans, NCSC loans and RTFC loans of \$133 million, \$19 million and \$8 million, respectively.

Long-term loan advances totaled \$814 million during the six months ended November 30, 2018, with approximately 83% of those advances for capital expenditures by members and 14% for the refinancing of loans made by other lenders. In comparison, long-term loan advances totaled \$1,127 million during the prior year six months ended November 30, 2017, with approximately 58% of those advances for capital expenditures and 31% for refinancing of loans made by other lenders. The decrease in long-term loan advances from the same prior-year period reflects weaker demand from borrowers, due in part to more limited refinancings by our members of loans made by other lenders. In addition, although growth in U.S. electricity consumption has been relatively stagnant over the last several years, many of our members had an overall more profitable year due to an increase in electricity consumption as a result of weather conditions, which reduced their need for long-term borrowings.

CFC had long-term fixed-rate loans totaling \$439 million that were scheduled to reprice during the six months ended November 30, 2018. Of this total, \$296 million repriced to a new long-term fixed rate; \$88 million repriced to a long-term variable rate; and \$55 million was repaid in full.

Credit Quality

The overall credit quality of our loan portfolio remained high as of November 30, 2018, as evidenced by our strong credit performance metrics. We had no delinquent or nonperforming loans as of November 30, 2018, and no loan defaults or charge-offs during the six months ended November 30, 2018. Outstanding loans to electric utility organizations represented approximately 99% of total outstanding loan portfolio as of November 30, 2018, unchanged from May 31, 2018. We historically have had limited defaults and losses on loans in our electric utility loan portfolio. We generally lend to members on a senior secured basis, which reduces the risk of loss in the event of a borrower default. Of our total loans outstanding, 93% were secured and 7% were unsecured as of both November 30, 2018 and May 31, 2018.

Financing Activity

We issue debt primarily to fund growth in our loan portfolio. As such, our outstanding debt volume generally increases and decreases in response to member loan demand. Total debt outstanding increased by \$64 million to \$24,697 million as of November 30, 2018, from May 31, 2018, resulting from the modest increase in loans to members. Increases in dealer medium-term notes of \$272 million and in member commercial paper, select notes and daily liquidity fund notes of \$433 million were largely offset by decreases in collateral trust bonds and Federal Agricultural Mortgage Corporation (“Farmer Mac”) notes payable of \$553 million and \$128 million, respectively. Outstanding dealer commercial paper of \$1,059 million as of November 30, 2018 was below our targeted limit of \$1,250 million.

On October 31, 2018, we issued \$325 million aggregate principal amount of 3.90% collateral trust bonds due 2028 and \$300 million aggregate principal amount of 4.40% collateral trust bonds due 2048.

On November 15, 2018, we closed on a \$750 million committed loan facility (“Series N”) from the Federal Financing Bank under the Guaranteed Underwriter Program of the USDA (“Guaranteed Underwriter Program”). Pursuant to this facility, we may borrow any time before July 15, 2023. Each advance is subject to quarterly amortization and a final maturity not longer than 20 years from the advance date. With the closing of this committed loan facility, the amount available for access under the Guaranteed Underwriter Program increased to \$1,875 million as of November 30, 2018.

On November 28, 2018, we amended the three-year and five-year committed bank revolving line of credit agreements to extend the maturity dates to November 28, 2021 and November 28, 2023, respectively, and to terminate certain bank commitments totaling \$53 million under the three-year agreement and \$57 million under the five-year agreement. The total commitment amount under the amended three-year and five-year bank revolving line of credit agreements is \$1,440 million and \$1,535 million, respectively, resulting in a combined total commitment amount under the two facilities of \$2,975 million.

We provide additional information on our financing activities below under “Consolidated Balance Sheet Analysis—Debt” and “Liquidity Risk.”

Outlook for the Next 12 Months

We currently expect that our net interest income, adjusted net interest income, net income, adjusted net income, tier, adjusted tier, net interest yield and adjusted net interest yield will increase over the next 12 months as a result of a projected decrease in our average cost of funds largely due to the early redemption and maturity of higher-cost debt, including the \$1 billion aggregate principal amount of 10.375% collateral trust bonds due November 1, 2018. We have replaced this higher-cost debt with lower cost funding, which we expect will contribute to a continued reduction in our average cost of funds and adjusted average cost of funds.

Long-term debt scheduled to mature over the next 12 months totaled \$2,318 million as of November 30, 2018. We believe we have sufficient liquidity from the combination of existing cash and cash equivalents, member loan repayments, committed bank revolving lines of credit, committed loan facilities under the Guaranteed Underwriter Program, revolving

note purchase agreements with Farmer Mac and our ability to issue debt in the capital markets, to our members and in private placements, to meet the demand for member loan advances and satisfy our obligations to repay long-term debt maturing over the next 12 months. As of November 30, 2018, sources of liquidity readily available for access totaled \$7,811 million, consisting of (i) \$227 million in cash and cash equivalents; (ii) up to \$1,875 million available under committed loan facilities under the Guaranteed Underwriter Program; (iii) up to \$2,972 million available for access under committed bank revolving line of credit agreements; (iv) up to \$300 million available under a committed revolving note purchase agreement with Farmer Mac; and (v) up to \$2,437 million available under a revolving note purchase agreement with Farmer Mac, subject to market conditions.

We believe we can continue to roll over outstanding member short-term debt of \$3,042 million as of November 30, 2018, based on our expectation that our members will continue to reinvest their excess cash in our commercial paper, daily liquidity fund notes, select notes and medium-term notes. We expect to continue accessing the dealer commercial paper market to help meet our liquidity needs. Although the intra-period amount of outstanding dealer commercial paper may fluctuate based on our liquidity requirements, we intend to manage our short-term wholesale funding risk by maintaining outstanding dealer commercial paper at an amount near or below \$1,250 million for the foreseeable future. We expect to continue to be in compliance with the covenants under our committed bank revolving line of credit agreements, which will allow us to mitigate roll-over risk, as we can draw on these facilities to repay dealer or member commercial paper that cannot be refinanced with similar debt.

While we are not subject to bank regulatory capital rules, we generally aim to maintain an adjusted debt-to-equity ratio at approximately or below 6.00-to-1. Our adjusted debt-to-equity ratio was 6.15 as of November 30, 2018, above our targeted threshold. Based on our forecast of loan advances and adjusted equity over the next 12 months, we anticipate that our adjusted debt-to-equity ratio will remain above the target and near the current ratio.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements in accordance with GAAP requires management to make a number of judgments, estimates and assumptions that affect the amount of assets, liabilities, income and expenses in the consolidated financial statements. Understanding our accounting policies and the extent to which we use management's judgment and estimates in applying these policies is integral to understanding our financial statements. We provide a discussion of our significant accounting policies under "Note 1—Summary of Significant Accounting Policies" in our 2018 Form 10-K.

We have identified certain accounting policies as critical because they involve significant judgments and assumptions about highly complex and inherently uncertain matters, and the use of reasonably different estimates and assumptions could have a material impact on our results of operations or financial condition. Our most critical accounting policies and estimates involve the determination of the allowance for loan losses and fair value. We evaluate our critical accounting estimates and judgments required by our policies on an ongoing basis and update them as necessary based on changing conditions. There were no material changes in the key inputs and assumptions used in our critical accounting policies during the six months ended November 30, 2018. Management has discussed significant judgments and assumptions in applying our critical accounting policies with the Audit Committee of our board of directors. We provide additional information on our critical accounting policies and estimates under "MD&A—Critical Accounting Policies and Estimates" in our 2018 Form 10-K. See "Item 1A. Risk Factors" in our 2018 Form 10-K for a discussion of the risks associated with management's judgments and estimates in applying our accounting policies and methods.

RECENT ACCOUNTING CHANGES AND OTHER DEVELOPMENTS

See "Note 1—Summary of Significant Accounting Policies" for information on accounting standards adopted during the current quarter, as well as recently issued accounting standards not yet required to be adopted and the expected impact of the adoption of these accounting standards. To the extent we believe the adoption of new accounting standards has had or will have a material impact on our consolidated results of operations, financial condition or liquidity, we also discuss the impact in the applicable section(s) of this MD&A.

CONSOLIDATED RESULTS OF OPERATIONS

The section below provides a comparative discussion of our condensed consolidated results of operations between the three months ended November 30, 2018 and 2017 and the six months ended November 30, 2018 and 2017. Following this section, we provide a comparative analysis of our condensed consolidated balance sheets as of November 30, 2018 and May 31, 2018. You should read these sections together with our “Executive Summary—Outlook for the Next 12 Months” where we discuss trends and other factors that we expect will affect our future results of operations.

Net Interest Income

Net interest income represents the difference between the interest income earned on our interest-earning assets, which includes loans and investment securities, and the interest expense on our interest-bearing liabilities. Our net interest yield represents the difference between the yield on our interest-earning assets and the cost of our interest-bearing liabilities plus the impact from non-interest bearing funding. We expect net interest income and our net interest yield to fluctuate based on changes in interest rates and changes in the amount and composition of our interest-earning assets and interest-bearing liabilities. We do not fund each individual loan with specific debt. Rather, we attempt to minimize costs and maximize efficiency by proportionately funding large aggregated amounts of loans.

Table 2 presents average balances for the three and six months ended November 30, 2018 and 2017, and for each major category of our interest-earning assets and interest-bearing liabilities, the interest income earned or interest expense incurred, and the average yield or cost. Table 2 also presents non-GAAP adjusted interest expense, adjusted net interest income and adjusted net interest yield, which reflect the inclusion of net accrued periodic derivative cash settlements in interest expense. We provide reconciliations of our non-GAAP adjusted measures to the most comparable GAAP measures under “Non-GAAP Financial Measures.”

Table 2: Average Balances, Interest Income/Interest Expense and Average Yield/Cost

(Dollars in thousands)	Three Months Ended November 30,					
	2018			2017		
	Average Balance	Interest Income/Expense	Average Yield/Cost	Average Balance	Interest Income/Expense	Average Yield/Cost
Assets:						
Long-term fixed-rate loans ⁽¹⁾	\$ 22,688,250	\$ 253,340	4.48%	\$ 22,458,429	\$ 248,926	4.45%
Long-term variable-rate loans	1,096,965	10,066	3.68	886,257	6,097	2.76
Line of credit loans	1,351,917	11,752	3.49	1,330,776	8,588	2.59
TDR loans ⁽²⁾	12,184	211	6.95	12,929	222	6.89
Other income, net ⁽³⁾	—	(251)	—	—	(306)	—
Total loans	25,149,316	275,118	4.39	24,688,391	263,527	4.28
Cash, time deposits and investment securities	833,165	6,135	2.95	528,158	2,296	1.74
Total interest-earning assets	\$ 25,982,481	\$ 281,253	4.34%	\$ 25,216,549	\$ 265,823	4.23%
Other assets, less allowance for loan losses	1,090,619			526,627		
Total assets	<u>\$ 27,073,100</u>			<u>\$ 25,743,176</u>		
Liabilities:						
Short-term borrowings	\$ 3,816,429	\$ 22,619	2.38%	\$ 2,998,298	\$ 10,116	1.35%
Medium-term notes	3,910,610	33,816	3.47	3,375,389	27,544	3.27
Collateral trust bonds	7,265,598	68,934	3.81	7,637,919	85,321	4.48
Guaranteed Underwriter Program notes payable ..	4,835,203	35,014	2.90	5,066,574	35,688	2.83
Farmer Mac notes payable	2,556,991	19,697	3.09	2,496,587	11,947	1.92
Other notes payable	29,923	322	4.32	35,295	391	4.44
Subordinated deferrable debt	742,456	9,417	5.09	742,319	9,417	5.09
Subordinated certificates	1,377,089	14,347	4.18	1,415,352	14,746	4.18
Total interest-bearing liabilities	\$ 24,534,299	\$ 204,166	3.34%	\$ 23,767,733	\$ 195,170	3.29%
Other liabilities	976,113			842,246		
Total liabilities	25,510,412			24,609,979		
Total equity	1,562,688			1,133,197		
Total liabilities and equity	<u>\$ 27,073,100</u>			<u>\$ 25,743,176</u>		
Net interest spread ⁽⁴⁾			1.00%			0.94%
Impact of non-interest bearing funding ⁽⁵⁾			0.19			0.18
Net interest income/net interest yield ⁽⁶⁾		<u>\$ 77,087</u>	<u>1.19%</u>		<u>\$ 70,653</u>	<u>1.12%</u>
Adjusted net interest income/adjusted net interest yield:						
Interest income		\$ 281,253	4.34%		\$ 265,823	4.23%
Interest expense		204,166	3.34		195,170	3.29
Add: Net accrued periodic derivative cash settlements ⁽⁷⁾		11,805	0.43		19,635	0.72
Adjusted interest expense/adjusted average cost ⁽⁸⁾		<u>\$ 215,971</u>	<u>3.53%</u>		<u>\$ 214,805</u>	<u>3.63%</u>
Adjusted net interest spread ⁽⁴⁾			0.81%			0.60%
Impact of non-interest bearing funding ⁽⁵⁾			0.20			0.21
Adjusted net interest income/adjusted net interest yield ⁽⁹⁾		<u>\$ 65,282</u>	<u>1.01%</u>		<u>\$ 51,018</u>	<u>0.81%</u>

Six Months Ended November 30,

(Dollars in thousands)	2018			2017		
	Average Balance	Interest Income/Expense	Average Yield/Cost	Average Balance	Interest Income/Expense	Average Yield/Cost
Assets:						
Long-term fixed-rate loans ⁽¹⁾	\$ 22,691,903	\$ 505,141	4.44%	\$ 22,414,622	\$ 498,290	4.43%
Long-term variable-rate loans	1,084,188	19,447	3.58	864,494	11,960	2.76
Line of credit loans	1,387,579	23,385	3.36	1,342,124	17,295	2.57
TDR loans ⁽²⁾	12,369	429	6.92	13,026	448	6.86
Other income, net ⁽³⁾	—	(576)	—	—	(538)	—
Total loans	25,176,039	547,826	4.34	24,634,266	527,455	4.27
Cash, time deposits and investment securities	821,222	11,918	2.89	445,452	4,283	1.92
Total interest-earning assets	\$ 25,997,261	\$ 559,744	4.29%	\$ 25,079,718	\$ 531,738	4.23%
Other assets, less allowance for loan losses	907,444			543,490		
Total assets	\$ 26,904,705			\$ 25,623,208		
Liabilities:						
Short-term borrowings	\$ 3,667,402	\$ 42,038	2.29%	\$ 3,111,502	\$ 20,655	1.32%
Medium-term notes	3,833,484	66,226	3.45	3,192,063	52,660	3.29
Collateral trust bonds	7,370,550	146,639	3.97	7,636,669	170,598	4.46
Guaranteed Underwriter Program notes payable	4,841,855	70,348	2.90	5,030,955	71,290	2.83
Farmer Mac notes payable	2,674,397	40,808	3.04	2,502,096	23,437	1.87
Other notes payable	29,900	644	4.30	35,269	781	4.42
Subordinated deferrable debt	742,439	18,834	5.06	742,302	18,833	5.06
Subordinated certificates	1,377,524	28,860	4.18	1,416,619	29,647	4.17
Total interest-bearing liabilities	\$ 24,537,551	\$ 414,397	3.37%	\$ 23,667,475	\$ 387,901	3.27%
Other liabilities	836,273			847,751		
Total liabilities	25,373,824			24,515,226		
Total equity	1,530,881			1,107,982		
Total liabilities and equity	\$ 26,904,705			\$ 25,623,208		
Net interest spread ⁽⁴⁾			0.92%			0.96%
Impact of non-interest bearing funding ⁽⁵⁾			0.20			0.18
Net interest income/net interest yield ⁽⁶⁾		\$ 145,347	1.12%		\$ 143,837	1.14%
Adjusted net interest income/adjusted net interest yield:						
Interest income		\$ 559,744	4.29%		\$ 531,738	4.23%
Interest expense		414,397	3.37		387,901	3.27
Add: Net accrued periodic derivative cash settlements ⁽⁷⁾		24,634	0.45		39,857	0.74
Adjusted interest expense/adjusted average cost ⁽⁸⁾		\$ 439,031	3.57%		\$ 427,758	3.60%
Adjusted net interest spread ⁽⁴⁾			0.72%			0.63%
Impact of non-interest bearing funding ⁽⁵⁾			0.21			0.20
Adjusted net interest income/adjusted net interest yield ⁽⁹⁾		\$ 120,713	0.93%		\$ 103,980	0.83%

(1) Interest income on long-term, fixed-rate loans includes loan conversion fees, which are generally deferred and recognized as interest income using the effective interest method.

(2) Troubled debt restructuring ("TDR") loans.

(3) Consists of late payment fees and net amortization of deferred loan fees and loan origination costs.

- ⁽⁴⁾ Net interest spread represents the difference between the average yield on total average interest-earning assets and the average cost of total average interest-bearing liabilities. Adjusted net interest spread represents the difference between the average yield on total average interest-earning assets and the adjusted average cost of total average interest-bearing liabilities.
- ⁽⁵⁾ Includes other liabilities and equity.
- ⁽⁶⁾ Net interest yield is calculated based on annualized net interest income for the period divided by total average interest-earning assets for the period.
- ⁽⁷⁾ Represents the impact of net accrued periodic interest rate swap settlements during the period. This amount is added to interest expense to derive non-GAAP adjusted interest expense. The average (benefit)/cost associated with derivatives is calculated based on annualized net accrued periodic interest rate swap settlements during the period divided by the average outstanding notional amount of derivatives during the period. The average outstanding notional amount of interest rate swaps was \$11,123 million and \$10,902 million for the three months ended November 30, 2018 and 2017, respectively. The average outstanding notional amount of interest rate swaps was \$11,039 million and \$10,791 million for the six months ended November 30, 2018 and 2017, respectively.
- ⁽⁸⁾ Adjusted interest expense represents interest expense plus net accrued periodic interest rate swap cash settlements during the period. Net accrued periodic derivative cash settlements are reported on our consolidated statements of income as a component of derivative gains (losses). Adjusted average cost is calculated based on annualized adjusted interest expense for the period divided by total average interest-bearing liabilities during the period.
- ⁽⁹⁾ Adjusted net interest yield is calculated based on annualized adjusted net interest income for the period divided by total average interest-earning assets for the period.

Table 3 displays the change in net interest income between periods and the extent to which the variance is attributable to: (i) changes in the volume of our interest-earning assets and interest-bearing liabilities or (ii) changes in the interest rates of these assets and liabilities. The table also presents the change in adjusted net interest income between periods. Changes that are not solely due to either volume or rate are allocated to these categories on a pro-rata basis based on the absolute value of the change due to average volume and average rate.

Table 3: Rate/Volume Analysis of Changes in Interest Income/Interest Expense

(Dollars in thousands)	Three Months Ended November 30, 2018 versus 2017			Six Months Ended November 30, 2018 versus 2017		
	Total Variance	Variance due to: ⁽¹⁾		Total Variance	Variance due to: ⁽¹⁾	
		Volume	Rate		Volume	Rate
Interest income:						
Long-term fixed-rate loans	\$ 4,414	\$ 2,547	\$ 1,867	\$ 6,851	\$ 6,164	\$ 687
Long-term variable-rate loans	3,969	1,450	2,519	7,487	3,039	4,448
Line of credit loans	3,164	136	3,028	6,090	586	5,504
Restructured loans	(11)	(13)	2	(19)	(23)	4
Other income, net	55	—	55	(38)	—	(38)
Total loans	11,591	4,120	7,471	20,371	9,766	10,605
Cash, time deposits and investment securities	3,839	1,326	2,513	7,635	3,613	4,022
Interest income	15,430	5,446	9,984	28,006	13,379	14,627
Interest expense:						
Short-term borrowings.....	12,503	2,760	9,743	21,383	3,690	17,693
Medium-term notes	6,272	4,368	1,904	13,566	10,582	2,984
Collateral trust bonds.....	(16,387)	(4,159)	(12,228)	(23,959)	(5,945)	(18,014)
Guaranteed Underwriter Program notes payable	(674)	(1,630)	956	(942)	(2,680)	1,738
Farmer Mac notes payable.....	7,750	289	7,461	17,371	1,614	15,757
Other notes payable	(69)	(60)	(9)	(137)	(119)	(18)
Subordinated deferrable debt.....	—	2	(2)	1	3	(2)
Subordinated certificates	(399)	(399)	—	(787)	(818)	31
Interest expense	8,996	1,171	7,825	26,496	6,327	20,169
Net interest income.....	\$ 6,434	\$ 4,275	\$ 2,159	\$ 1,510	\$ 7,052	\$ (5,542)
Adjusted net interest income:						
Interest income	\$ 15,430	\$ 5,446	\$ 9,984	\$ 28,006	\$ 13,379	\$ 14,627
Interest expense	8,996	1,171	7,825	26,496	6,327	20,169
Net accrued periodic derivative cash settlements ⁽²⁾	(7,830)	399	(8,229)	(15,223)	913	(16,136)
Adjusted interest expense ⁽³⁾	1,166	1,570	(404)	11,273	7,240	4,033
Adjusted net interest income	\$ 14,264	\$ 3,876	\$ 10,388	\$ 16,733	\$ 6,139	\$ 10,594

⁽¹⁾The changes for each category of interest income and interest expense are divided between the portion of change attributable to the variance in volume and the portion of change attributable to the variance in rate for that category. The amount attributable to the combined impact of volume and rate has been allocated to each category based on the proportionate absolute dollar amount of change for that category.

⁽²⁾For net accrued periodic derivative cash settlements, the variance due to average volume represents the change in derivative cash settlements resulting from the change in the average notional amount of derivative contracts outstanding. The variance due to average rate represents the change in derivative cash settlements resulting from the net difference between the average rate paid and the average rate received for interest rate swaps during the period.

⁽³⁾ See “Non-GAAP Financial Measures” for additional information on our adjusted non-GAAP measures.

Reported Net Interest Income

Reported net interest income of \$77 million for the current quarter reflected an increase of \$6 million, or 9%, from the comparable prior-year quarter, driven by an increase in net interest yield of 6% (7 basis points) to 1.19% and an increase in average interest-earning assets of 3%.

- *Net Interest Yield:* The increase of 7 basis points in the net interest yield for the current quarter reflected the combined impact of an increase in the average yield on interest-earning assets of 11 basis points to 4.34%, which was partially offset by an increase in the average cost of funds of 5 basis points to 3.34% due to a higher average cost for our short-term and variable-rate borrowings as a result of the rise in short-term interest rates. The increase in the average cost of funds was somewhat mitigated by the benefit from the early redemption in July 2018 of \$300 million aggregate principal amount of our \$1 billion 10.375% collateral trust bonds due November 1, 2018, and the repayment of the remaining \$700 million of these bonds at maturity.
- *Average Interest-Earning Assets:* The increase in average interest-earning assets of 3% for the current quarter was attributable to growth in average total loans of \$461 million, or 2%, and an increase in our investment securities portfolio.

Reported net interest income of \$145 million for the six months ended November 30, 2018 reflected an increase of \$2 million, or 1%, from the comparable prior-year period, driven by an increase in average interest-earning assets of 4%, which was partially offset by a decrease in net interest yield of 2% (2 basis points) to 1.12%.

- *Net Interest Yield:* The decrease of 2 basis points in the net interest yield was attributable to a 10 basis points increase in the average cost of funds to 3.37%, which was partially offset by a 6 basis point increase in the average yield on interest-earning assets to 4.29%, largely due to interest rate increases on variable rate loans. The increase in the average yield on interest-earning assets and the increase in the average cost of funds were both largely due to an increase in rates on short-term and variable-rate loans and borrowings as a result of the continued rise in short-term interest rates. The 3-month London Interbank Offered Rate (“LIBOR”) was 2.74% as of November 30, 2018, an increase of 125 basis points from November 30, 2017, while the federal funds target rate was 2.25% as of November 30, 2018, up 100 basis points from November 30, 2017. The benefit from the early redemption and repayment of our \$1 billion 10.375% collateral trust bonds due November 1, 2018, partially offset the increase in the average cost of short-term and variable-rate borrowings.
- *Average Interest-Earning Assets:* The increase in average interest-earning assets of 4% for the six months ended November 30, 2018 was attributable to growth in average total loans of \$542 million, or 2%, and an expansion of our investment securities portfolio.

Adjusted Net Interest Income

Adjusted net interest income of \$65 million for the current quarter increased by \$14 million, or 28%, from the comparable prior-year quarter, driven by an increase in the adjusted net interest yield of 25% (20 basis points) to 1.01% and the increase in average interest-earning assets of 3%. The increase in the adjusted net interest yield reflected the combined impact of an increase in the average yield on interest-earning assets of 11 basis points to 4.34% and a decline in our adjusted average cost of funds of 10 basis points to 3.53%.

Adjusted net interest income of \$121 million for the six months ended November 30, 2018 increased by \$17 million, or 16%, from the comparable prior-year period, driven by an increase in the adjusted net interest yield of 12% (10 basis points) to 0.93% and the increase in average interest-earning assets of 4%. The increase in the adjusted net interest yield reflected the combined impact of an increase in the average yield on interest earning assets of 6 basis points to 4.29% and a decline in our adjusted average cost of funds of 3 basis points to 3.57%.

The decrease in the average cost of funds in the current quarter and for the six months ended November 30, 2018 was primarily due to a reduction in adjusted interest expense from the early redemption and maturity of the \$1 billion aggregate principal amount of the 10.375% collateral trust bonds and a reduction in net periodic derivative cash settlement amounts. The reduction in net periodic derivative cash settlements was attributable to the rise in short-term interest rates, which resulted in an increase in the periodic floating interest rate amounts due to us on our pay-fixed swaps, as the floating interest rate payment amounts are typically determined based on the 3-month LIBOR.

We recorded net periodic derivative cash settlement expense of \$12 million and \$20 million for the three months ended November 30, 2018 and 2017, respectively, and \$25 million and \$40 million for the six months ended November 30, 2018 and 2017, respectively. We include net accrued periodic derivative cash settlements during the period in the calculation of our adjusted average cost of funds, which, as a result, also impacts the calculation of adjusted net interest income and

adjusted net interest yield. See “Non-GAAP Financial Measures” for additional information on our adjusted measures, including a reconciliation of these measures to the most comparable GAAP measures.

Provision for Loan Losses

Our provision for loan losses in each period is primarily driven by the level of allowance that we determine is necessary for probable incurred loan losses inherent in our loan portfolio as of each balance sheet date.

We recorded a benefit for loan losses of \$2 million for both the three and six months ended November 30, 2018. In comparison, we recorded a benefit for loan losses of less than \$1 million for the same prior-year periods. The credit quality and performance statistics of our loan portfolio continued to remain strong. We had no payment defaults or charge-offs during the six months ended November 30, 2018, and no delinquent loans or nonperforming loans in our loan portfolio as of November 30, 2018 or May 31, 2018.

We provide additional information on our allowance for loan losses under “Credit Risk—Allowance for Loan Losses” and “Note 5—Allowance for Loan Losses” of this report. For additional information on our allowance methodology, see “MD&A—Critical Accounting Policies and Estimates” and “Note 1—Summary of Significant Accounting Policies” in our 2018 Form 10-K.

Non-Interest Income

Non-interest income consists of fee and other income, gains and losses on derivatives not accounted for in hedge accounting relationships and results of operations of foreclosed assets.

Table 4 presents the components of non-interest income recorded in results of operations for the three and six months ended November 30, 2018 and 2017.

Table 4: Non-Interest Income

(Dollars in thousands)	Three Months Ended November 30,		Six Months Ended November 30,	
	2018	2017	2018	2017
Non-interest income:				
Fee and other income.....	\$ 4,321	\$ 5,542	\$ 7,506	\$ 9,487
Derivative gains.....	63,343	125,593	70,526	79,395
Results of operations of foreclosed assets.....	—	(10)	—	(34)
Total non-interest income.....	<u>\$ 67,664</u>	<u>\$ 131,125</u>	<u>\$ 78,032</u>	<u>\$ 88,848</u>

The significant variances in non-interest income between periods were primarily attributable to changes in net derivative gains recognized in our consolidated statements of income.

Derivative Gains (Losses)

Our derivative instruments are an integral part of our interest rate risk management strategy. Our principal purpose in using derivatives is to manage our aggregate interest rate risk profile within prescribed risk parameters. The derivative instruments we use primarily include interest rate swaps, which we typically hold to maturity. In addition, we may on occasion use treasury locks to manage the interest rate risk associated with debt that is scheduled to reprice in the future. The primary factors affecting the fair value of our derivatives and derivative gains (losses) recorded in our results of operations include changes in interest rates, the shape of the swap curve and the composition of our derivative portfolio. We generally do not designate our interest rate swaps, which currently account for the substantial majority of our derivatives, for hedge accounting. Accordingly, changes in the fair value of interest rate swaps are reported in our consolidated statements of income under derivative gains (losses). However, we typically designate treasury locks as cash flow hedges. We did not have any derivatives designated as accounting hedges as of November 30, 2018. During the current quarter, we terminated a treasury lock that was previously designated as a cash flow hedge.

We currently use two types of interest rate swap agreements: (i) we pay a fixed rate and receive a variable rate (“pay-fixed swaps”); and (ii) we pay a variable rate and receive a fixed rate (“receive-fixed swaps”). The benchmark variable rate for the substantial majority of the floating rate payments under our swap agreements is 3-month LIBOR. Table 5 displays the average notional amount outstanding, by swap agreement type, and the weighted-average interest rate paid and received for interest rate swap settlements during the three and six months ended November 30, 2018 and 2017. As indicated in Table 5, our interest rate swap portfolio currently consists of a higher proportion of pay-fixed swaps than receive-fixed swaps, with pay-fixed swaps representing approximately 67% and 65% of the outstanding notional amount of our derivative portfolio as of both November 30, 2018 and May 31, 2018, respectively. The composition of our interest rate swap portfolio, however, may change as a result of changes in market conditions and actions taken to manage our exposure to interest rate risk.

Table 5: Derivative Average Notional Amounts and Average Interest Rates

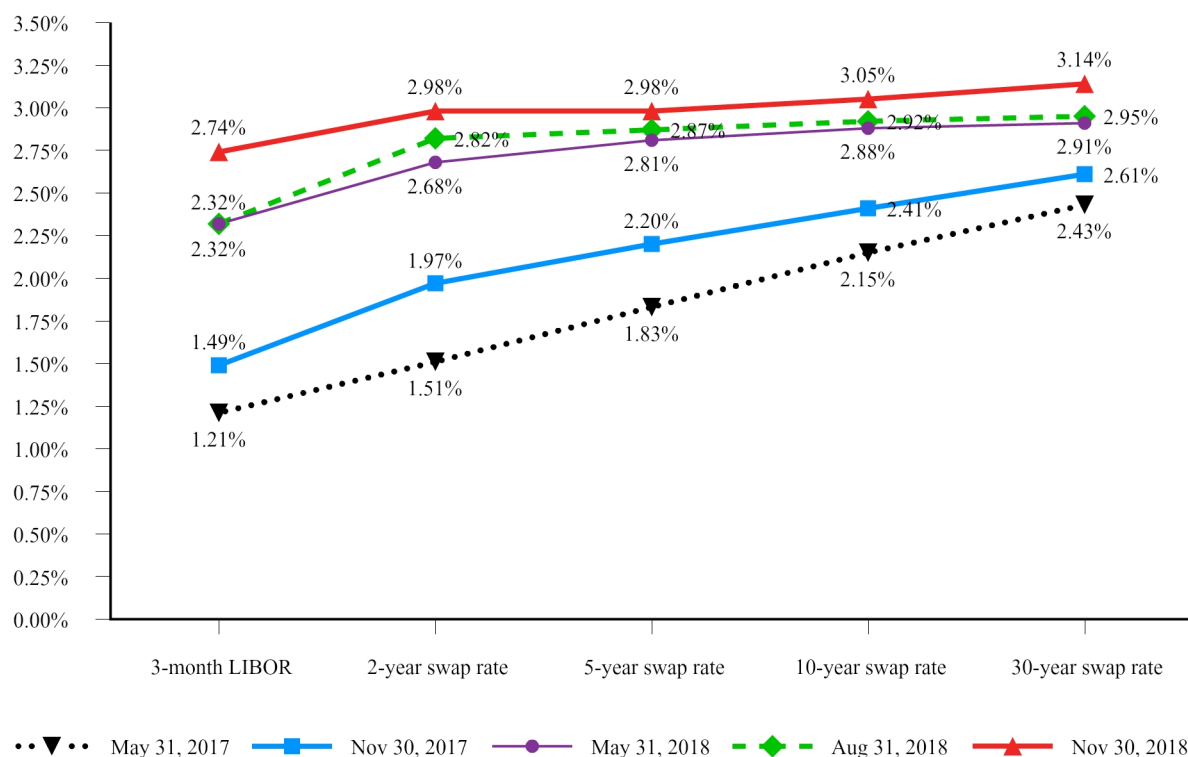
(Dollars in thousands)	Three Months Ended November 30,					
	2018			2017		
	Average Notional Balance	Weighted-Average Rate Paid	Weighted-Average Rate Received	Average Notional Balance	Weighted-Average Rate Paid	Weighted-Average Rate Received
Pay-fixed swaps.....	\$ 7,424,114	2.71%	2.35%	\$ 7,052,629	2.84%	1.35%
Receive-fixed swaps.....	3,699,000	3.05	2.52	3,849,001	1.91	2.63
Total.....	<u>\$11,123,114</u>	2.82%	2.41%	<u>\$10,901,630</u>	2.51%	1.80%

(Dollars in thousands)	Six Months Ended November 30,					
	2018			2017		
	Average Notional Balance	Weighted-Average Rate Paid	Weighted-Average Rate Received	Average Notional Balance	Weighted-Average Rate Paid	Weighted-Average Rate Received
Pay-fixed swaps.....	\$ 7,308,859	2.70%	2.30%	\$ 7,003,898	2.84%	1.31%
Receive-fixed swaps.....	3,729,738	3.01	2.52	3,787,525	1.87	2.63
Total.....	<u>\$11,038,597</u>	2.80%	2.37%	<u>\$10,791,423</u>	2.50%	1.77%

The average remaining maturity of our pay-fixed and receive-fixed swaps was 19 years and four years, respectively, as of both November 30, 2018 and 2017.

Pay-fixed swaps generally decrease in value as interest rates decline and increase in value as interest rates rise. In contrast, receive-fixed swaps generally increase in value as interest rates decline and decrease in value as interest rates rise. Because our pay-fixed and receive-fixed swaps are referenced to different maturity terms along the swap curve, different changes in the swap curve—parallel, flattening or steepening—will result in differences in the fair value of our derivatives. The chart below provides comparative swap curves as of the end of November 30, 2018, May 31, 2018, November 30, 2017 and May 31, 2017.

Comparative Swap Curves



Benchmark rates obtained from Bloomberg.

Table 6 presents the components of net derivative gains (losses) recorded in results of operations for the three and six months ended November 30, 2018 and 2017. Derivative cash settlements represent the net periodic contractual interest amount for our interest-rate swaps for the reporting period. Derivative forward value gains (losses) represent the change in fair value of our interest rate swaps during the reporting period due to changes in expected future interest rates over the remaining life of our derivative contracts.

Table 6: Derivative Gains (Losses)

(Dollars in thousands)	Three Months Ended November 30,		Six Months Ended November 30,	
	2018	2017	2018	2017
Derivative gains (losses) attributable to:				
Derivative cash settlements	\$ (11,805)	\$ (19,635)	\$ (24,634)	\$ (39,857)
Derivative forward value gains	75,148	145,228	95,160	119,252
Derivative gains	<u>\$ 63,343</u>	<u>\$ 125,593</u>	<u>\$ 70,526</u>	<u>\$ 79,395</u>

The net derivative gains of \$63 million and \$71 million for the three and six months ended November 30, 2018, were attributable to an increase in the fair value of our pay-fixed swaps resulting from an increase in interest rates across the swap yield curve, as depicted by the November 30, 2018 swap curve presented in the above chart.

The net derivative gains of \$126 million and \$79 million for the three and six months ended November 30, 2017, respectively, were also attributable to an increase in the fair value of our pay-fixed swaps as interest rates increased across the yield curve.

As discussed above, pay-fixed swaps, which represent a higher proportion of our derivative portfolio, typically increase in fair value when interest rates rise. Although interest rates rose in both the current year and prior year periods, the rise in medium- and longer-term rates was not as pronounced during the current quarter and year-to-date period. As a result, the derivative gains were lower relative to the same prior-year periods. For example, the 5-year swap rate increased by 11 basis points and 17 basis points during the three and six months ended November 30, 2018, respectively, while the 10-year swap rate increased by 13 basis points and 17 basis points, respectively. In comparison, the 5-year swap rate increased by 44 basis points and 37 basis points during the three and six months ended November 30, 2017, respectively, while the 10-year swap rate increased by 34 basis points and 26 basis points, respectively.

See “Note 9—Derivative Instruments and Hedging Activities” for additional information on our derivative instruments.

Non-Interest Expense

Non-interest expense consists of salaries and employee benefit expense, general and administrative expenses, losses on early extinguishment of debt and other miscellaneous expenses.

Table 7 presents the components of non-interest expense recorded in results of operations for the three and six months ended November 30, 2018 and 2017.

Table 7: Non-Interest Expense

(Dollars in thousands)	Three Months Ended November 30,		Six Months Ended November 30,	
	2018	2017	2018	2017
Non-interest expense:				
Salaries and employee benefits	\$ (12,392)	\$ (12,009)	\$ (25,074)	\$ (23,832)
Other general and administrative expenses	(11,478)	(9,905)	(22,001)	(19,718)
Losses on early extinguishment of debt	—	—	(7,100)	—
Other non-interest expense	(2,700)	(618)	(3,094)	(1,140)
Total non-interest expense	<u>\$ (26,570)</u>	<u>\$ (22,532)</u>	<u>\$ (57,269)</u>	<u>\$ (44,690)</u>

Non-interest expense of \$27 million for the current quarter increased by \$4 million, or 18%, from the comparable prior-year quarter, primarily due to increases in general and administrative expenses and other non-interest expense.

Non-interest expense of \$57 million for the six months ended November 30, 2018 increased by \$13 million, or 28%, from the comparable prior-year quarter. The increase was largely due to the loss on early extinguishment of debt of \$7 million, attributable to the premium paid for the early redemption of \$300 million of the \$1 billion collateral trust bonds, with a coupon rate of 10.375%, that matured on November 1, 2018.

Net Income (Loss) Attributable to Noncontrolling Interests

Net income (loss) attributable to noncontrolling interests represents 100% of the results of operations of NCSC and RTFC, as the members of NCSC and RTFC own or control 100% of the interest in their respective companies. The fluctuations in net income (loss) attributable to noncontrolling interests are primarily due to changes in the fair value of NCSC’s derivative instruments recognized in NCSC’s earnings.

We recorded net income attributable to noncontrolling interests of less than \$1 million for both the three and six months ended November 30, 2018. We recorded net income attributable to noncontrolling interests of \$1 million for both the three and six months ended November 30, 2017.

CONSOLIDATED BALANCE SHEET ANALYSIS

Total assets of \$26,830 million as of November 30, 2018 increased by \$139 million from May 31, 2018. Total liabilities of \$25,203 million as of November 30, 2018 increased by \$18 million from May 31, 2018. Total equity increased by \$121 million to \$1,627 million as of November 30, 2018, attributable to our reported net income of \$168 million during the six months ended November 30, 2018, which was partially offset by patronage capital retirement of \$48 million in August 2018.

Following is a discussion of changes in the major components of our assets and liabilities during the six months ended November 30, 2018. Period-end balance sheet amounts may vary from average balance sheet amounts due to liquidity and balance sheet management activities that are intended to manage liquidity requirements for the company and our customers and our market risk exposure in accordance with our risk appetite.

Loan Portfolio

We offer long-term fixed- and variable-rate loans and line of credit variable-rate loans. The substantial majority of loans in our portfolio represent advances under secured long-term facilities with terms up to 35 years. Borrowers have the option of selecting a fixed or variable interest rate for each advance for periods ranging from one year to the final maturity of the facility. Line of credit loans are typically revolving facilities and are generally unsecured.

Loans Outstanding

Table 8 summarizes loans to members, by loan type and by member class, as of November 30, 2018 and May 31, 2018. As indicated in Table 8, long-term fixed-rate loans accounted for 90% of loans to members as of both November 30, 2018 and May 31, 2018.

Table 8: Loans Outstanding by Type and Member Class

(Dollars in thousands)	November 30, 2018		May 31, 2018		Change
	Amount	% of Total	Amount	% of Total	
Loans by type:					
Long-term loans:					
Fixed-rate	\$ 22,713,588	90%	\$ 22,696,185	90%	\$ 17,403
Variable-rate	1,077,971	4	1,039,491	4	38,480
Total long-term loans.....	23,791,559	94	23,735,676	94	55,883
Lines of credit.....	1,491,394	6	1,431,818	6	59,576
Total loans outstanding.....	25,282,953	100	25,167,494	100	115,459
Deferred loan origination costs	11,222	—	11,114	—	108
Loans to members.....	\$ 25,294,175	100%	\$ 25,178,608	100%	\$ 115,567
Loans by member class:					
CFC:					
Distribution	\$ 19,812,973	79%	\$ 19,551,511	78%	\$ 261,462
Power supply.....	4,264,713	17	4,397,353	18	(132,640)
Statewide and associate.....	82,549	—	69,055	—	13,494
CFC total	24,160,235	96	24,017,919	96	142,316
NCSC.....	767,225	3	786,457	3	(19,232)
RTFC	355,493	1	363,118	1	(7,625)
Total loans outstanding.....	25,282,953	100	25,167,494	100	115,459
Deferred loan origination costs	11,222	—	11,114	—	108
Loans to members.....	\$ 25,294,175	100%	\$ 25,178,608	100%	\$ 115,567

Loans to members totaled \$25,294 million as of November 30, 2018, an increase of \$116 million from May 31, 2018. CFC distribution loans increased by \$261 million, which was partially offset by decreases in CFC power supply loans, NCSC loans and RTFC loans of \$133 million, \$19 million and \$8 million, respectively.

Long-term loan advances totaled \$814 million during the six months ended November 30, 2018, with approximately 83% of those advances for capital expenditures by members and 14% for the refinancing of loans made by other lenders. In comparison, long-term loan advances totaled \$1,127 million during the prior year six months ended November 30, 2017, with approximately 58% of those advances for capital expenditures and 31% for refinancing of loans made by other lenders. The decrease in long-term loan advances from the same prior-year period reflects weaker demand from borrowers, due in part to more limited refinancings by our members of loans made by other lenders. In addition, although growth in U.S. electricity consumption has been relatively stagnant over the last several years, many of our members had an overall more profitable year due to an increase in electricity consumption as a result of weather conditions, which reduced their need for long-term borrowings.

We provide additional information on our loan product types in “Item 1. Business—Loan Programs” and “Note 4—Loans” in our 2018 Form 10-K. See “Debt—Collateral Pledged” below for information on encumbered and unencumbered loans and “Credit Risk Management” for information on the credit risk profile of our loan portfolio.

Loan Retention Rate

Table 9 presents a comparison between the historical retention rate of CFC’s long-term fixed-rate loans that repriced, in accordance with our standard loan provisions, during the six months ended November 30, 2018 and loans that repriced during fiscal year 2018, and provides information on the percentage of loans that repriced to either another fixed-rate term or a variable rate. The retention rate is calculated based on the election made by the borrower at the repricing date. The average annual retention rate of CFC’s repriced loans has been 98% over the last three fiscal years.

Table 9: Historical Retention Rate and Repricing Selection⁽¹⁾

(Dollars in thousands)	Six Months Ended November 30, 2018		Fiscal Year Ended May 31, 2018	
	Amount	% of Total	Amount	% of Total
Loans retained:				
Long-term fixed rate selected	\$ 296,061	67%	\$ 741,792	82%
Long-term variable rate selected	87,508	20	157,539	17
Total loans retained by CFC	383,569	87	899,331	99
Loans repaid ⁽²⁾	55,427	13	4,637	1
Total	\$ 438,996	100%	\$ 903,968	100%

⁽¹⁾ Does not include NCSC and RTFC loans.

⁽²⁾ Includes loans totaling \$1 million as of May 31, 2018 that were converted to new loans at the repricing date and transferred to a third party as part of our direct loan sale program. See “Note 4—Loans” for information on our sale of loans.

Debt

We utilize both short-term borrowings and long-term debt as part of our funding strategy and asset/liability interest rate risk management. We seek to maintain diversified funding sources across products, programs and markets to manage funding concentrations and reduce our liquidity or debt rollover risk. Our funding sources include a variety of secured and unsecured debt securities in a wide range of maturities to our members and affiliates and in the capital markets.

Debt Outstanding

Table 10 displays the composition, by product type, of our outstanding debt as of November 30, 2018 and May 31, 2018. Table 10 also displays the composition of our debt based on several additional selected attributes.

Table 10: Total Debt Outstanding

(Dollars in thousands)	November 30, 2018	May 31, 2018	Change
Debt product type:			
Commercial paper:			
Members, at par	\$ 1,218,730	\$ 1,202,105	\$ 16,625
Dealer, net of discounts	<u>1,058,949</u>	<u>1,064,266</u>	<u>(5,317)</u>
Total commercial paper	<u>2,277,679</u>	<u>2,266,371</u>	<u>11,308</u>
Select notes to members	<u>1,031,022</u>	<u>780,472</u>	<u>250,550</u>
Daily liquidity fund notes to members	<u>566,935</u>	<u>400,635</u>	<u>166,300</u>
Medium-term notes:			
Members, at par	<u>622,066</u>	<u>643,821</u>	<u>(21,755)</u>
Dealer, net of discounts	<u>3,274,932</u>	<u>3,002,979</u>	<u>271,953</u>
Total medium-term notes	<u>3,896,998</u>	<u>3,646,800</u>	<u>250,198</u>
Collateral trust bonds	<u>7,086,149</u>	<u>7,639,093</u>	<u>(552,944)</u>
Guaranteed Underwriter Program notes payable	<u>4,925,542</u>	<u>4,856,143</u>	<u>69,399</u>
Farmer Mac notes payable	<u>2,763,482</u>	<u>2,891,496</u>	<u>(128,014)</u>
Other notes payable	<u>29,955</u>	<u>29,860</u>	<u>95</u>
Subordinated deferrable debt	<u>742,480</u>	<u>742,410</u>	<u>70</u>
Members' subordinated certificates:			
Membership subordinated certificates	<u>630,468</u>	<u>630,448</u>	<u>20</u>
Loan and guarantee subordinated certificates	<u>525,051</u>	<u>528,386</u>	<u>(3,335)</u>
Member capital securities	<u>221,170</u>	<u>221,148</u>	<u>22</u>
Total members' subordinated certificates	<u>1,376,689</u>	<u>1,379,982</u>	<u>(3,293)</u>
Total debt outstanding	<u>\$ 24,696,931</u>	<u>\$ 24,633,262</u>	<u>\$ 63,669</u>
Security type:			
Unsecured debt	<u>40%</u>	<u>37%</u>	
Secured debt	<u>60</u>	<u>63</u>	
Total	<u>100%</u>	<u>100%</u>	
Funding source:			
Members	<u>19%</u>	<u>18%</u>	
Private placement:			
Guaranteed Underwriter Program notes payable	<u>20</u>	<u>20</u>	
Farmer Mac notes payable	<u>11</u>	<u>12</u>	
Total private placement	<u>31</u>	<u>32</u>	
Capital markets	<u>50</u>	<u>50</u>	
Total	<u>100%</u>	<u>100%</u>	
Interest rate type:			
Fixed-rate debt	<u>73%</u>	<u>74%</u>	
Variable-rate debt	<u>27</u>	<u>26</u>	
Total	<u>100%</u>	<u>100%</u>	
Interest rate type, including the impact of swaps:			
Fixed-rate debt ⁽¹⁾	<u>88%</u>	<u>87%</u>	
Variable-rate debt ⁽²⁾	<u>12</u>	<u>13</u>	
Total	<u>100%</u>	<u>100%</u>	
Maturity classification:⁽³⁾			
Short-term borrowings	<u>17%</u>	<u>15%</u>	
Long-term and subordinated debt ⁽⁴⁾	<u>83</u>	<u>85</u>	
Total	<u>100%</u>	<u>100%</u>	

- (1) Includes variable-rate debt that has been swapped to a fixed rate, net of any fixed-rate debt that has been swapped to a variable rate.
- (2) Includes fixed-rate debt that has been swapped to a variable rate, net of any variable-rate debt that has been swapped to a fixed rate. Also includes commercial paper notes, which generally have maturities of less than 90 days. The interest rate on commercial paper notes does not change once the note has been issued; however, the interest rate for new commercial paper issuances changes daily.
- (3) Borrowings with an original contractual maturity of one year or less are classified as short-term borrowings. Borrowings with an original contractual maturity of greater than one year are classified as long-term debt.
- (4) Consists of long-term debt, subordinated deferrable debt and total members' subordinated debt reported on the condensed consolidated balance sheets. Maturity classification is based on the original contractual maturity as of the date of issuance of the debt.

Our outstanding debt volume generally increases and decreases in response to member loan demand. Total debt outstanding was \$24,697 million as of November 30, 2018, a slight increase of \$64 million from May 31, 2018. Decreases in collateral trust bonds and Farmer Mac notes payable of \$553 million and \$128 million, respectively, were largely offset by a combined increase in member commercial paper, select notes and daily liquidity fund notes of \$433 million and an increase in dealer medium-term notes of \$272 million.

Below is a summary of significant financing activities during the six months ended November 30, 2018.

- On July 12, 2018, we redeemed \$300 million of the \$1 billion aggregate principal amount of 10.375% collateral trust bonds due November 1, 2018. We repaid the remaining \$700 million principal amount of these bonds on the maturity date.
- On October 31, 2018, we issued \$325 million aggregate principal amount of 3.90% collateral trust bonds due 2028 and \$300 million aggregate principal amount of 4.40% collateral trust bonds due 2048.
- On November 15, 2018, we closed a \$750 committed loan facility (“Series N”) from the Federal Financing Bank under the Guaranteed Underwriter Program.
- On November 28, 2018 we amended the three-year and five-year committed bank revolving line of credit agreements to extend the maturity dates to November 28, 2021 and November 28, 2023, respectively, and to terminate certain third-party bank commitments.

Member Investments

Debt securities issued to our members represent an important, stable source of funding. Table 11 displays outstanding member debt, by debt product type, as of November 30, 2018 and May 31, 2018.

Table 11: Member Investments

(Dollars in thousands)	November 30, 2018		May 31, 2018		Change
	Amount	% of Total ⁽¹⁾	Amount	% of Total ⁽¹⁾	
Commercial paper	\$ 1,218,730	54%	\$ 1,202,105	53%	\$ 16,625
Select notes	1,031,022	100	780,472	100	250,550
Daily liquidity fund notes	566,935	100	400,635	100	166,300
Medium-term notes	622,066	16	643,821	18	(21,755)
Members' subordinated certificates.....	1,376,689	100	1,379,982	100	(3,293)
Total outstanding member debt	<u>\$ 4,815,442</u>		<u>\$ 4,407,015</u>		<u>\$ 408,427</u>
Percentage of total debt outstanding....	19%		18%		

⁽¹⁾ Represents outstanding debt attributable to members for each debt product type as a percentage of the total outstanding debt for each debt product type.

Member investments accounted for 19% and 18% of total debt outstanding as of November 30, 2018 and May 31, 2018, respectively. Over the last three fiscal years, outstanding member investments have averaged \$4,402 million on a quarterly basis.

Short-Term Borrowings

Short-term borrowings consist of borrowings with an original contractual maturity of one year or less and do not include the current portion of long-term debt. Short-term borrowings totaled \$4,101 million and accounted for 17% of total debt outstanding as of November 30, 2018, compared with \$3,796 million, or 15%, of total debt outstanding as of May 31, 2018. See “Liquidity Risk” below and for “Note 6—Short-Term Borrowings” for information on the composition of our short-term borrowings.

Long-Term and Subordinated Debt

Long-term debt, defined as debt with an original contractual maturity term of greater than one year, primarily consists of medium-term notes, collateral trust bonds, notes payable under the Guaranteed Underwriter Program and notes payable under our note purchase agreement with Farmer Mac. Subordinated debt consists of subordinated deferrable debt and members’ subordinated certificates. Our subordinated deferrable debt and members’ subordinated certificates have original contractual maturity terms of greater than one year.

Long-term and subordinated debt totaled \$20,596 million and accounted for 83% of total debt outstanding as of November 30, 2018, compared with \$20,837 million, or 85%, of total debt outstanding as of May 31, 2018. We provide additional information on our long-term debt below under “Liquidity Risk” and in “Note 7—Long-Term Debt” and “Note 8—Subordinated Deferrable Debt.”

Collateral Pledged

We are required to pledge loans or other collateral in borrowing transactions under our collateral trust bond indentures, note purchase agreements with Farmer Mac and bond agreements under the Guaranteed Underwriter Program. We are required to maintain pledged collateral equal to at least 100% of the face amount of outstanding borrowings. However, we typically maintain pledged collateral in excess of the required percentage to ensure that required collateral levels are maintained and to facilitate the timely execution of debt issuances by reducing or eliminating the lead time to pledge additional collateral. Under the provisions of our committed bank revolving line of credit agreements, the excess collateral that we are allowed to pledge cannot exceed 150% of the outstanding borrowings under our collateral trust bond indentures, Farmer Mac note purchase agreements or the Guaranteed Underwriter Program. In certain cases, provided that all conditions of eligibility under the different programs are satisfied, we may withdraw excess pledged collateral or transfer collateral from one borrowing program to another to facilitate a new debt issuance.

Table 12 displays the collateral coverage ratios as of November 30, 2018 and May 31, 2018 for the debt agreements noted above that require us to pledge collateral.

Table 12: Collateral Pledged

Debt Agreement	Requirement/Limit		Actual⁽¹⁾	
	Debt Indenture Minimum	Committed Bank Revolving Line of Credit Agreements Maximum	November 30, 2018	May 31, 2018
Collateral trust bonds 1994 indenture.....	100%	150%	122%	111%
Collateral trust bonds 2007 indenture.....	100	150	115	114
Guaranteed Underwriter Program notes payable	100	150	114	119
Farmer Mac notes payable.....	100	150	115	115
Clean Renewable Energy Bonds Series 2009A.....	100	150	119	109

⁽¹⁾ Calculated based on the amount of collateral pledged divided by the face amount of outstanding secured debt.

Of our total debt outstanding of \$24,697 million as of November 30, 2018, \$14,787 million, or 60%, was secured by pledged loans totaling \$17,274 million. In comparison, of our total debt outstanding of \$24,633 million as of May 31, 2018,

\$15,398 million, or 63%, was secured by pledged loans totaling \$18,145 million. Total debt outstanding on our condensed consolidated balance sheet is presented net of unamortized discounts and issuance costs. However, our collateral pledging requirements are based on the face amount of secured outstanding debt, which does not take into consideration the impact of net unamortized discounts and issuance costs.

Table 13 displays the unpaid principal balance of loans pledged for secured debt, the excess collateral pledged and unencumbered loans as of November 30, 2018 and May 31, 2018.

Table 13: Unencumbered Loans

(Dollars in thousands)	November 30, 2018	May 31, 2018
Total loans outstanding ⁽¹⁾	\$ 25,282,953	\$ 25,167,494
Less: Loans required to be pledged for secured debt ⁽²⁾	(15,063,291)	(15,677,138)
Loans pledged in excess of requirement ⁽²⁾⁽³⁾	(2,211,012)	(2,467,444)
Total pledged loans.....	(17,274,303)	(18,144,582)
Unencumbered loans	\$ 8,008,650	\$ 7,022,912
Unencumbered loans as a percentage of total loans	32%	28%

⁽¹⁾ Represents the unpaid principal amount of loans as of the end of each period presented and excludes unamortized deferred loan origination costs of \$11 million as of both November 30, 2018 and May 31, 2018.

⁽²⁾ Reflects unpaid principal balance of pledged loans.

⁽³⁾ Excludes cash collateral pledged to secure debt. If there is an event of default under most of our indentures, we can only withdraw the excess collateral if we substitute cash or permitted investments of equal value.

As displayed above in Table 13, we had excess loans pledged as collateral totaling \$2,211 million and \$2,467 million as of November 30, 2018 and May 31, 2018, respectively. We typically pledge loans in excess of the required amount for the following reasons: (i) our distribution and power supply loans are typically amortizing loans that require scheduled principal payments over the life of the loan, whereas the debt securities issued under secured indentures and agreements typically have bullet maturities; (ii) distribution and power supply borrowers have the option to prepay their loans; and (iii) individual loans may become ineligible for various reasons, some of which may be temporary.

We provide additional information on our borrowings, including the maturity profile, below in “Liquidity Risk.” Refer to “Note 4—Loans—Pledging of Loans” for additional information related to pledged collateral. Also refer to “Note 5—Short-Term Borrowings,” “Note 6—Long-Term Debt,” “Note 7—Subordinated Deferrable Debt” and “Note 8—Members’ Subordinated Certificates” in our 2018 Form 10-K for a more detailed description of each of our debt product types.

Equity

Table 14 presents the components of total CFC equity, total equity and total members’ equity as of November 30, 2018 and May 31, 2018. As displayed in Table 14, total members’ equity excludes the impact of cumulative unrealized derivative forward value gains (losses) recorded in earnings.

Table 14: Equity

(Dollars in thousands)	November 30, 2018	May 31, 2018	Change
Membership fees and educational fund:			
Membership fees.....	\$ 969	\$ 969	\$ —
Educational fund.....	1,431	1,976	(545)
Total membership fees and educational fund.....	2,400	2,945	(545)
Patronage capital allocated.....	763,986	811,493	(47,507)
Members' capital reserve.....	687,785	687,785	—
Total allocated equity.....	1,454,171	1,502,223	(48,052)
Unallocated net income (loss):			
Prior year-end cumulative derivative forward value losses ⁽¹⁾	(30,831)	(332,525)	301,694
Current year derivative forward value gains ⁽¹⁾	94,262	301,694	(207,432)
Current period-end cumulative derivative forward value gains (losses) ⁽¹⁾	63,431	(30,831)	94,262
Other unallocated net income (loss).....	76,154	(5,603)	81,757
Unallocated net income (loss).....	139,585	(36,434)	176,019
CFC retained equity.....	1,593,756	1,465,789	127,967
Accumulated other comprehensive income.....	832	8,544	(7,712)
Total CFC equity.....	1,594,588	1,474,333	120,255
Noncontrolling interests.....	32,550	31,520	1,030
Total equity.....	\$ 1,627,138	\$ 1,505,853	\$ 121,285

⁽¹⁾Represents derivative forward value gains (losses) for CFC only, as total CFC equity does not include the noncontrolling interests of the variable interest entities NCSC and RTFC, which we are required to consolidate. See “Note 13—Business Segments” for the statements of operations for CFC.

Total equity increased by \$121 million to \$1,627 million as of November 30, 2018. The increase was primarily attributable to our net income of \$168 million for the six months ended November 30, 2018, which was partially offset by patronage capital retirement of \$48 million in August 2018.

In July 2018, the CFC Board of Directors authorized the allocation of fiscal year 2018 adjusted net income as follows: \$95 million to members in the form of patronage capital; \$57 million to the members' capital reserve; and \$1 million to the cooperative educational fund. The amount of patronage capital allocated each year by CFC's Board of Directors is based on adjusted non-GAAP net income, which excludes the impact of derivative forward value gains (losses). See “Non-GAAP Financial Measures” for information on adjusted net income.

In July 2018, the CFC Board of Directors also authorized the retirement of patronage capital totaling \$48 million, which represented 50% of the patronage capital allocation for fiscal year 2018. This amount was returned to members in cash in August 2018. The remaining portion of the allocated amount will be retained by CFC for 25 years under guidelines adopted by the CFC Board of Directors in June 2009.

The CFC Board of Directors is required to make annual allocations of adjusted net income, if any. CFC has made annual retirements of allocated net earnings in 39 of the last 40 fiscal years; however, future retirements of allocated amounts are determined based on CFC's financial condition. The CFC Board of Directors has the authority to change the current practice for allocating and retiring net earnings at any time, subject to applicable laws. See “Item 1. Business—Allocation and Retirement of Patronage Capital” of our 2018 Form 10-K for additional information.

OFF-BALANCE SHEET ARRANGEMENTS

In the ordinary course of business, we engage in financial transactions that are not presented on our condensed consolidated balance sheets, or may be recorded on our condensed consolidated balance sheets in amounts that are different from the full contract or notional amount of the transaction. Our off-balance sheet arrangements consist primarily of guarantees of member obligations and unadvanced loan commitments intended to meet the financial needs of our members.

Guarantees

We provide guarantees for certain contractual obligations of our members to assist them in obtaining various forms of financing. We use the same credit policies and monitoring procedures in providing guarantees as we do for loans and commitments. If a member defaults on its obligation, we are obligated to pay required amounts pursuant to our guarantees. Meeting our guarantee obligations satisfies the underlying obligation of our member systems and prevents the exercise of remedies by the guarantee beneficiary based upon a payment default by a member. In general, the member is required to repay any amount advanced by us with accrued interest, pursuant to the documents evidencing the member's reimbursement obligation. Table 15 displays the notional amount of our outstanding guarantee obligations, by guarantee type and by company, as of November 30, 2018 and May 31, 2018.

Table 15: Guarantees Outstanding

(Dollars in thousands)	November 30, 2018	May 31, 2018	Change
Guarantee type:			
Long-term tax-exempt bonds	\$ 313,685	\$ 316,985	\$ (3,300)
Letters of credit	312,536	343,970	(31,434)
Other guarantees	145,201	144,206	995
Total	\$ 771,422	\$ 805,161	\$ (33,739)
Company:			
CFC	\$ 754,349	\$ 793,156	\$ (38,807)
NCSC	15,499	10,431	5,068
RTFC	1,574	1,574	—
Total	\$ 771,422	\$ 805,161	\$ (33,739)

Of the total notional amount of our outstanding guarantee obligations of \$771 million and \$805 million as of November 30, 2018 and May 31, 2018, respectively, 60% and 57%, respectively, were secured by a mortgage lien on substantially all of the assets and future revenue of our member cooperatives for which we provide guarantees.

In addition to providing a guarantee on long-term tax-exempt bonds issued by member cooperatives totaling \$314 million as of November 30, 2018, we also were the liquidity provider on \$248 million of those tax-exempt bonds. As liquidity provider, we may be required to purchase bonds that are tendered or put by investors. Investors provide notice to the remarketing agent that they will tender or put a certain amount of bonds at the next interest rate reset date. If the remarketing agent is unable to sell such bonds to other investors by the next interest rate reset date, we have unconditionally agreed to purchase such bonds. We were not required to perform as liquidity provider pursuant to these obligations during the six months ended November 30, 2018 or the prior fiscal year.

We had outstanding letters of credit for the benefit of our members totaling \$313 million as of November 30, 2018. These letters of credit relate to obligations for which we may be required to advance funds based on various trigger events specified in the letter of credit agreements. If we are required to advance funds, the member is obligated to repay the advance amount and accrued interest to us. In addition to these letters of credit, we had master letter of credit facilities in place as of November 30, 2018, under which we may be required to issue letters of credit to third parties for the benefit of our members up to an additional \$58 million as of November 30, 2018. All of our master letter of credit facilities as of November 30, 2018 were subject to material adverse change clauses at the time of issuance. Prior to issuing a letter of credit

under these facilities, we confirm that there has been no material adverse change in the business or condition, financial or otherwise, of the borrower since the time the loan was approved and that the borrower is currently in compliance with the letter of credit terms and conditions.

Table 16 presents the maturities for each of the next five fiscal years and thereafter of the notional amount of our outstanding guarantee obligations as of November 30, 2018.

Table 16: Maturities of Guarantee Obligations

(Dollars in thousands)	Outstanding Amount	Maturities of Guarantee Obligations					
		2019	2020	2021	2022	2023	Thereafter
Guarantees.....	\$ 771,422	\$ 150,074	\$ 144,532	\$ 121,756	\$ 27,687	\$ 160,594	\$ 166,779

We recorded a guarantee liability of \$10 million and \$11 million as of November 30, 2018 and May 31, 2018, respectively, for our guarantee and liquidity obligations associated with our members' debt. We provide additional information about our guarantee obligations in "Note 11—Guarantees."

Unadvanced Loan Commitments

Unadvanced loan commitments represent approved and executed loan contracts for which funds have not been advanced to borrowers. Our line of credit commitments include both contracts that are subject to material adverse change clauses and contracts that are not subject to material adverse change clauses, while our long-term loan commitments are subject to material adverse change clauses.

Table 17 displays the amount of unadvanced loan commitments, which consist of line of credit and long-term loan commitments, as of November 30, 2018 and May 31, 2018.

Table 17: Unadvanced Loan Commitments

(Dollars in thousands)	November 30, 2018		May 31, 2018		Change
	Amount	% of Total	Amount	% of Total	
Line of credit commitments:					
Conditional ⁽¹⁾	\$ 4,800,550	37%	\$ 4,835,434	38%	\$ (34,884)
Unconditional ⁽²⁾	3,053,902	23	2,857,350	23	196,552
Total line of credit unadvanced commitments.....	7,854,452	60	7,692,784	61	161,668
Total long-term loan unadvanced commitments ⁽¹⁾ ...	5,289,612	40	4,952,834	39	336,778
Total unadvanced loan commitments.....	\$13,144,064	100%	\$12,645,618	100%	\$ 498,446

⁽¹⁾Represents amount related to facilities that are subject to material adverse change clauses.

⁽²⁾Represents amount related to facilities that are not subject to material adverse change clauses.

Table 18 presents the amount of unadvanced loan commitments, by loan type, as of November 30, 2018 and the maturities of the commitment amounts for each of the next five fiscal years and thereafter.

Table 18: Notional Maturities of Unadvanced Loan Commitments

(Dollars in thousands)	Available Balance	Notional Maturities of Unadvanced Loan Commitments					
		2019	2020	2021	2022	2023	Thereafter
Line of credit loans.....	\$ 7,854,452	\$ 302,927	\$3,960,406	\$ 908,973	\$ 755,133	\$1,339,586	\$ 587,427
Long-term loans.....	5,289,612	417,526	545,467	688,422	1,636,893	1,193,023	808,281
Total.....	\$13,144,064	\$ 720,453	\$4,505,873	\$1,597,395	\$2,392,026	\$2,532,609	\$1,395,708

Unadvanced line of credit commitments accounted for 60% of total unadvanced loan commitments as of November 30, 2018, while unadvanced long-term loan commitments accounted for 40% of total unadvanced loan commitments. Unadvanced line of credit commitments are typically revolving facilities for periods not to exceed five years and generally serve as supplemental back-up liquidity to our borrowers. Historically, borrowers have not drawn the full commitment amount for line of credit facilities, and we have experienced a very low utilization rate on line of credit loan facilities regardless of whether or not we are obligated to fund the facility where a material adverse change exists. Our unadvanced long-term loan commitments have a five-year draw period under which a borrower may advance funds prior to the expiration of the commitment. We expect that the majority of the long-term unadvanced loan commitments of \$5,290 million will be advanced prior to the expiration of the commitment.

Because we historically have experienced a very low utilization rate on line of credit loan facilities, which account for the majority of our total unadvanced loan commitments, we believe the unadvanced loan commitment total of \$13,144 million as of November 30, 2018 is not necessarily representative of our future funding requirements.

Unadvanced Loan Commitments—Conditional

The majority of our line of credit commitments and all our unadvanced long-term loan commitments include material adverse change clauses. Unadvanced loan commitments subject to material adverse change clauses totaled \$10,090 million and \$9,789 million as of November 30, 2018 and May 31, 2018, respectively, and accounted for 77% of the combined total of unadvanced line of credit and long-term loan commitments as of both November 30, 2018 and May 31, 2018. Prior to making advances on these facilities, we confirm that there has been no material adverse change in the borrower's business or condition, financial or otherwise, since the time the loan was approved and confirm that the borrower is currently in compliance with loan terms and conditions. In some cases, the borrower's access to the full amount of the facility is further constrained by use of proceeds restrictions, imposition of borrower-specific restrictions, or by additional conditions that must be met prior to advancing funds. Since we generally do not charge a fee for the borrower to have an unadvanced amount on a loan facility that is subject to a material adverse change clause, our borrowers tend to request amounts in excess of their immediate estimated loan requirements.

Unadvanced Loan Commitments—Unconditional

Unadvanced loan commitments not subject to material adverse change clauses at the time of each advance consisted of unadvanced committed lines of credit totaling \$3,054 million and \$2,857 million as of November 30, 2018 and May 31, 2018, respectively. For contracts not subject to a material adverse change clause, we are generally required to advance amounts on the committed facilities as long as the borrower is in compliance with the terms and conditions of the facility.

Syndicated loan facilities, where the pricing is set at a spread over a market index rate as agreed upon by all of the participating financial institutions based on market conditions at the time of syndication, accounted for 90% of unconditional line of credit commitments as of November 30, 2018. The remaining 10% represented unconditional committed line of credit loans, which under any new advance would be made at rates determined by us.

Table 19 presents the maturities for each of the next five fiscal years and thereafter of the notional amount of unconditional committed lines of credit not subject to a material adverse change clause as of November 30, 2018.

Table 19: Maturities of Notional Amount of Unconditional Committed Lines of Credit

(Dollars in thousands)	Available Balance	Notional Maturities of Unconditional Committed Lines of Credit					
		2019	2020	2021	2022	2023	Thereafter
Committed lines of credit ..	\$ 3,053,902	\$ 110,000	\$ 347,582	\$ 479,348	\$ 455,400	\$ 1,228,176	\$ 433,396

See "MD&A—Off-Balance Sheet Arrangements" in our 2018 Form 10-K for additional information on our off-balance sheet arrangements.

RISK MANAGEMENT

Overview

We face a variety of risks that can significantly affect our financial performance, liquidity, reputation and ability to meet the expectations of our members, investors and other stakeholders. As a financial services company, the major categories of risk exposures inherent in our business activities include credit risk, liquidity risk, market risk and operational risk. These risk categories are summarized below.

- *Credit risk* is the risk that a borrower or other counterparty will be unable to meet its obligations in accordance with agreed-upon terms.
- *Liquidity risk* is the risk that we will be unable to fund our operations and meet our contractual obligations or that we will be unable to fund new loans to borrowers at a reasonable cost and tenor in a timely manner.
- *Market risk* is the risk that changes in market variables, such as movements in interest rates, may adversely affect the match between the timing of the contractual maturities, re-pricing and prepayments of our financial assets and the related financial liabilities funding those assets.
- *Operational risk* is the risk of loss resulting from inadequate or failed internal controls, processes, systems, human error or external events. Operational risk also includes compliance risk, fiduciary risk, reputational risk and litigation risk.

Effective risk management is critical to our overall operations and to achieving our primary objective of providing cost-based financial products to our rural electric members while maintaining the sound financial results required for investment-grade credit ratings on our rated debt instruments. Accordingly, we have a risk-management framework that is intended to govern the principal risks we face in conducting our business and the aggregate amount of risk we are willing to accept, referred to as risk appetite, in the context of CFC's mission and strategic objectives and initiatives. We provide information on our risk management framework in our 2018 Form 10-K under "Item 7. MD&A—Risk Management—Risk Management Framework."

CREDIT RISK

Our loan portfolio, which represents the largest component of assets on our balance sheet, and guarantees account for the substantial majority of our credit risk exposure. We also engage in certain non-lending activities that may give rise to credit and counterparty settlement risk, including the purchase of investment securities and entering into derivative transactions to manage interest rate risk. Our primary credit exposure is to rural electric cooperatives that provide essential electric services to end-users, the majority of which are residential customers. We also have a limited portfolio of loans to not-for-profit and for-profit telecommunication companies. We provide a discussion of our credit risk management processes and activities in our 2018 Form 10-K under "Item 7. MD&A—Credit Risk—Credit Risk Management."

Loan and Guarantee Portfolio Credit Risk

Below we provide information on the credit risk profile of our loan portfolio and guarantees, including security provisions, loan concentration, credit performance and our allowance for loan losses.

Security Provisions

Except when providing line of credit loans, we generally lend to our members on a senior secured basis. Long-term loans are generally secured on parity with other secured lenders (primarily RUS), if any, by all assets and revenue of the borrower with exceptions typical in utility mortgages. Line of credit loans are generally unsecured. In addition to the collateral pledged to secure our loans, distribution and power supply borrowers also are required to set rates charged to customers to achieve certain specified financial ratios.

Table 20 presents, by loan type and by company, the amount and percentage of secured and unsecured loans in our loan portfolio as of November 30, 2018 and May 31, 2018. Of our total loans outstanding, 93% were secured and 7% were unsecured as of both November 30, 2018 and May 31, 2018.

Table 20: Loan Portfolio Security Profile

(Dollars in thousands)	November 30, 2018				
	Secured	% of Total	Unsecured	% of Total	Total
Loan type:					
Long-term loans:					
Long-term fixed-rate loans.....	\$ 22,274,200	98%	\$ 439,388	2%	\$ 22,713,588
Long-term variable-rate loans.....	1,068,274	99	9,697	1	1,077,971
Total long-term loans.....	23,342,474	98	449,085	2	23,791,559
Line of credit loans.....	104,726	7	1,386,668	93	1,491,394
Total loans outstanding ⁽¹⁾	<u>\$ 23,447,200</u>	93	<u>\$ 1,835,753</u>	7	<u>\$ 25,282,953</u>
Company:					
CFC.....	\$ 22,414,376	93%	\$ 1,745,859	7%	\$ 24,160,235
NCSC.....	693,138	90	74,087	10	767,225
RTFC.....	339,686	96	15,807	4	355,493
Total loans outstanding ⁽¹⁾	<u>\$ 23,447,200</u>	93	<u>\$ 1,835,753</u>	7	<u>\$ 25,282,953</u>
May 31, 2018					
(Dollars in thousands)	Secured	% of Total	Unsecured	% of Total	Total
Loan type:					
Long-term loans:					
Long-term fixed-rate loans.....	\$ 22,220,087	98%	\$ 476,098	2%	\$ 22,696,185
Long-term variable-rate loans.....	996,970	96	42,521	4	1,039,491
Total long-term loans.....	23,217,057	98	518,619	2	23,735,676
Line of credit loans.....	69,097	5	1,362,721	95	1,431,818
Total loans outstanding ⁽¹⁾	<u>\$ 23,286,154</u>	93	<u>\$ 1,881,340</u>	7	<u>\$ 25,167,494</u>
Company:					
CFC.....	\$ 22,233,592	93%	\$ 1,784,327	7%	\$ 24,017,919
NCSC.....	703,396	89	83,061	11	786,457
RTFC.....	349,166	96	13,952	4	363,118
Total loans outstanding ⁽¹⁾	<u>\$ 23,286,154</u>	93	<u>\$ 1,881,340</u>	7	<u>\$ 25,167,494</u>

⁽¹⁾ Represents the unpaid principal amount of loans as of the end of each period presented and excludes deferred loan origination costs of \$11 million as of both November 30, 2018 and May 31, 2018.

As part of our strategy in managing our credit risk exposure, we entered into a long-term standby purchase commitment agreement with Farmer Mac in fiscal year 2016. Under this agreement, we may designate certain loans to be covered under the commitment, as approved by Farmer Mac, and in the event any such loan later goes into payment default for at least 90 days, upon request by us, Farmer Mac must purchase such loan at par value. The outstanding principal balance of loans covered under this agreement totaled \$643 million as of November 30, 2018, compared with \$660 million as of May 31, 2018. No loans have been put to Farmer Mac for purchase pursuant to this agreement. Our credit exposure is also mitigated by long-term loans guaranteed by RUS. Guaranteed RUS loans totaled \$158 million and \$161 million as of November 30, 2018 and May 31, 2018, respectively.

Credit Concentration

Concentrations may exist when there are amounts loaned to borrowers engaged in similar activities or in geographic areas that would cause them to be similarly impacted by economic or other conditions or when there are large exposures to single borrowers. As a tax-exempt, member-owned finance cooperative, CFC's principal focus is to provide funding to its rural electric utility cooperative members to assist them in acquiring, constructing and operating electric distribution, power supply systems and related facilities. Because we lend primarily to our rural electric utility cooperative members, we have a loan portfolio subject to single-industry and single-obligor concentrations. Outstanding loans to electric utility organizations represented approximately 99% of our total outstanding loan portfolio as of November 30, 2018, unchanged from May 31, 2018. Although our organizational structure and mission results in single-industry concentration, we serve a geographically diverse group of electric and telecommunications members throughout the United States and its territories, including all 50 states, the District of Columbia, American Samoa and Guam. Our consolidated membership totaled 1,449 members and 215 associates as of November 30, 2018. Texas had the largest concentration of outstanding loans to borrowers in any one state, with approximately 15% of total loans outstanding as of both November 30, 2018 and May 31, 2018.

Single-Obligor Concentration

Table 21 displays the combined exposure of loans and guarantees of the 20 largest borrowers, by exposure type and by company, as of November 30, 2018 and May 31, 2018. The 20 borrowers with the largest exposure consisted of nine distribution systems, 10 power supply systems and one NCSC associate member as of both November 30, 2018 and May 31, 2018. The largest total outstanding exposure to a single borrower or controlled group represented approximately 2% of total loans and guarantees outstanding as of both November 30, 2018 and May 31, 2018.

Table 21: Credit Exposure to 20 Largest Borrowers

(Dollars in thousands)	November 30, 2018		May 31, 2018		Change
	Amount	% of Total	Amount	% of Total	
By exposure type:					
Loans.....	\$ 5,485,246	21%	\$ 5,613,991	22%	\$ (128,745)
Guarantees.....	340,598	1	347,138	1	(6,540)
Total exposure to 20 largest borrowers.....	5,825,844	22	5,961,129	23	(135,285)
Less: Loans covered under Farmer Mac standby purchase commitment.....	(347,921)	(1)	(354,694)	(1)	6,773
Net exposure to 20 largest borrowers.....	\$ 5,477,923	21%	\$ 5,606,435	22%	\$ (128,512)
By company:					
CFC.....	\$ 5,576,453	21%	\$ 5,703,723	22%	\$ (127,270)
NCSC.....	249,391	1	257,406	1	(8,015)
Total exposure to 20 largest borrowers.....	5,825,844	22	5,961,129	23	(135,285)
Less: Loans covered under Farmer Mac standby purchase commitment.....	(347,921)	(1)	(354,694)	(1)	6,773
Net exposure to 20 largest borrowers.....	\$ 5,477,923	21%	\$ 5,606,435	22%	\$ (128,512)

Although CFC has been exposed to single-industry and single-obligor concentrations since inception in 1969, we historically have experienced limited defaults and very low credit losses in our electric loan portfolio. The likelihood of default and loss for our electric cooperative borrowers, which account for 99% of our outstanding loans as of November 30, 2018, has been low due to several factors. First, as discussed above, we generally lend to our members on a senior secured basis. Second, electric cooperatives typically are consumer-owned, not-for-profit entities that provide an essential service to end-users, the majority of which are residential customers. Third, electric cooperatives face limited competition, as they tend to operate in exclusive territories not serviced by public investor-owned utilities. Fourth, the majority operate in states where electric cooperatives are not subject to rate regulation. Thus, they are able to make rate adjustments to pass along increased costs to the end customer without first obtaining state regulatory approval, allowing them to cover operating costs and generate sufficient earnings and cash flows to service their debt obligations. Finally, they

tend to adhere to a conservative business strategy model that has historically resulted in a relatively stable, resilient operating environment and overall strong financial performance and credit strength for the electric cooperative network.

Credit Quality

Assessing the overall credit quality of our loan portfolio and measuring our credit risk is an ongoing process that involves tracking payment status, the internal risk ratings of our borrowers, troubled debt restructurings, nonperforming and impaired loans, charge-offs and other indicators of credit risk. We monitor and subject each borrower and loan facility in our loan portfolio to an individual risk assessment based on quantitative and qualitative factors. Internal risk ratings and payment status trends are indicators, among others, of the probability of borrower default and level of credit risk in our loan portfolio.

The overall credit quality of our loan portfolio remained high, as evidenced by our strong asset performance metrics, including low levels of criticized exposure. We generally lend to members on a senior secured basis, which reduces the risk of loss in the event of a borrower default. As displayed in Table 20 above, 93% of our total outstanding loans were secured as of both November 30, 2018 and May 31, 2018. We had no delinquent or nonperforming loans as of November 30, 2018 and May 31, 2018. In addition, we had no loan defaults or charge-offs during the six months ended November 30, 2018.

Borrower Risk Ratings

Our borrower risk ratings are intended to align with banking regulatory agency credit risk rating definitions of pass and criticized classifications, with loans classified as criticized further classified as special mention, substandard or doubtful. Pass ratings reflect relatively low probability of default, while criticized ratings have a higher probability of default. Loans with borrowers classified as criticized totaled \$184 million, or 0.73%, of total loans outstanding as of November 30, 2018. Of this amount, \$178 million, was classified as substandard. In comparison, loans with borrowers classified as criticized totaled \$178 million, or 0.71%, of total loans outstanding as of May 31, 2018. Of this amount, \$171 million was classified as substandard. We did not have any loans classified as doubtful as of November 30, 2018 or May 31, 2018. See “Note 4—Loans” for a description of each of the risk rating classifications.

Troubled Debt Restructurings

We actively monitor problem loans and, from time to time, attempt to work with borrowers to manage such exposures through loan workouts or modifications that better align with the borrower’s current ability to pay. A loan restructuring or modification of terms is accounted for as a troubled debt restructuring (“TDR”) if, for economic or legal reasons related to the borrower’s financial difficulties, a concession is granted to the borrower that we would not otherwise consider. TDR loans generally are initially placed on nonaccrual status, although in many cases such loans were already on nonaccrual status prior to modification. Interest accrued but not collected at the date a loan is placed on nonaccrual status is reversed against earnings. These loans may be returned to performing status and the accrual of interest resumed if the borrower performs under the modified terms for an extended period of time, and we expect the borrower to continue to perform in accordance with the modified terms. In certain limited circumstances in which a TDR loan is current at the modification date, the loan may remain on accrual status at the time of modification.

Table 22 presents the carrying value of loans modified as TDRs and the performance status as of November 30, 2018 and May 31, 2018. Our last modification of a loan that met the definition of a TDR occurred in fiscal year 2017. Although TDR loans may be returned to performing status if the borrower performs under the modified terms of the loan for an extended period of time, TDR loans are considered individually impaired.

Table 22: Troubled Debt Restructured Loans

(Dollars in thousands)	November 30, 2018		May 31, 2018	
	Carrying Amount	% of Total Loans Outstanding	Carrying Amount	% of Total Loans Outstanding
TDR loans:				
CFC	\$ 6,261	0.03%	\$ 6,507	0.03%
RTFC	5,842	0.02	6,092	0.02
Total TDR loans	<u>\$ 12,103</u>	<u>0.05%</u>	<u>\$ 12,599</u>	<u>0.05%</u>
Performance status of TDR loans:				
Performing TDR loans	\$ 12,103	0.05%	\$ 12,599	0.05%

As indicated in Table 22 above, we did not have any TDR loans classified as nonperforming as of November 30, 2018 or May 31, 2018.

Nonperforming Loans

In addition to TDR loans that may be classified as nonperforming, we also may have nonperforming loans that have not been modified as a TDR loan. We classify such loans as nonperforming at the earlier of the date when we determine: (i) interest or principal payments on the loan is past due 90 days or more; (ii) as a result of court proceedings, the collection of interest or principal payments based on the original contractual terms is not expected; or (iii) the full and timely collection of interest or principal is otherwise uncertain. Once a loan is classified as nonperforming, we generally place the loan on nonaccrual status. Interest accrued but not collected at the date a loan is placed on nonaccrual status is reversed against earnings. We had no loans classified as nonperforming as of November 30, 2018 or May 31, 2018.

Net Charge-Offs

Charge-offs represent the amount of a loan that has been removed from our consolidated balance sheet when the loan is deemed uncollectible. Generally the amount of a charge-off is the recorded investment in excess of the fair value of the expected cash flows from the loan, or, if the loan is collateral dependent, the fair value of the underlying collateral securing the loan. We report charge-offs net of amounts recovered on previously charged off loans. We had no loan defaults or charge-offs during the six months ended November 30, 2018 and 2017.

Historical Loan Losses

In its 49-year history, CFC has experienced only 16 defaults, of which 10 resulted in no loss and six resulted in the cumulative historical net charge-offs of \$86 million for our electric utility loan portfolio. Of this amount, \$67 million was attributable to electric utility power supply cooperatives and \$19 million was attributable to electric distribution cooperatives. We discuss the reasons loans to electric utility cooperatives, our principal lending market, typically have a relatively low risk of default above under “Credit Concentration.”

In comparison, since RTFC’s inception in 1987, we have had 15 defaults and cumulative net charge-offs attributable to telecommunication borrowers totaling \$427 million, the most significant of which was a charge-off of \$354 million in fiscal year 2011. This charge-off related to outstanding loans to Innovative Communications Corporation (“ICC”), a former RTFC member, and the transfer of ICC’s assets in foreclosure to Caribbean Asset Holdings, LLC.

Outstanding loans to electric utility organizations totaled \$24,928 million and accounted for 99% of our total outstanding loan portfolio as of November 30, 2018, while outstanding RTFC telecommunications loans totaled \$355 million and accounted for 1% of our total outstanding loan portfolio as of November 30, 2018.

We provide additional information on the credit quality of our loan portfolio in “Note 4—Loans.”

Allowance for Loan Losses

The allowance for loan losses represents management’s estimate of probable losses inherent in our loan portfolio as of each balance sheet date. We determine the allowance based on borrower risk ratings, historical loss experience, specific problem loans, economic conditions and other pertinent factors that, in management’s judgment, may affect the risk of loss in our loan portfolio.

Table 23 summarizes changes in the allowance for loan losses for the three and six months ended November 30, 2018 and 2017, and provides a comparison of the allowance by company as of November 30, 2018 and May 31, 2018.

Table 23: Allowance for Loan Losses

(Dollars in thousands)	Three Months Ended November 30,		Six Months Ended November 30,	
	2018	2017	2018	2017
Beginning balance.....	\$ 18,692	\$ 37,078	\$ 18,801	\$ 37,376
Benefit for loan losses.....	(1,788)	(304)	(1,897)	(602)
Ending balance.....	<u>\$ 16,904</u>	<u>\$ 36,774</u>	<u>\$ 16,904</u>	<u>\$ 36,774</u>
			<u>November 30, 2018</u>	<u>May 31, 2018</u>
Allowance for loan losses by company:				
CFC.....			\$ 12,174	\$ 12,300
NCSC.....			1,969	2,082
RTFC.....			2,761	4,419
Total.....			<u>\$ 16,904</u>	<u>\$ 18,801</u>
Allowance coverage ratios:				
Total loans outstanding ⁽¹⁾			\$ 25,282,953	\$ 25,167,494
Percentage of total loans outstanding.....			0.07%	0.07%

⁽¹⁾ Represents the unpaid principal amount of loans as of the end of each period presented and excludes unamortized deferred loan origination costs of \$11 million as of both November 30, 2018 and May 31, 2018.

Our allowance for loan losses decreased by \$2 million to \$17 million as of November 30, 2018 from May 31, 2018. The allowance coverage ratio was 0.07% as of both November 30, 2018 and May 31, 2018. We had no loans classified as nonperforming as of November 30, 2018 or May 31, 2018. We experienced no charge-offs during the three and six months ended November 30, 2018 and 2017. Loans designated as individually impaired totaled \$12 million and \$13 million as of November 30, 2018 and May 31, 2018, respectively, and the specific allowance related to those loans totaled \$1 million as of both November 30, 2018 and May 31, 2018.

See “MD&A—Critical Accounting Policies and Estimates—Allowance for Loan Losses” and “Note 1—Summary of Significant Accounting Policies” in our 2018 Form 10-K for additional information on the methodology for determining our allowance for loan losses and the key assumptions. See “Note 4—Loans” of this report for additional information on the credit quality of our loan portfolio.

Counterparty Credit Risk

We are exposed to counterparty credit risk related to the performance of the parties with which we enter into financial transactions, primarily for derivative instruments, cash and time deposit accounts and our investment security holdings. To mitigate this risk, we only enter into these transactions with financial institutions with investment-grade ratings. Our cash and time deposits with financial institutions generally have an original maturity of less than one year.

We manage our derivative counterparty credit risk by monitoring the overall credit worthiness of each counterparty based on our internal counterparty credit risk scoring model; using counterparty-specific credit risk limits; executing master netting arrangements; and diversifying our derivative transactions among multiple counterparties. We also require that our derivative counterparties be a participant in one of our committed bank revolving line of credit agreements. Our derivative counterparties had credit ratings ranging from Aa2 to Baa2 by Moody's Investors Service ("Moody's") and from AA- to BBB+ by S&P Global Inc. ("S&P") as of November 30, 2018. Our largest counterparty exposure, based on the outstanding notional amount, represented approximately 23% and 24% of the total outstanding notional amount of derivatives as of November 30, 2018 and May 31, 2018, respectively.

Credit Risk-Related Contingent Features

Our derivative contracts typically contain mutual early-termination provisions, generally in the form of a credit rating trigger. Under the mutual credit rating trigger provisions, either counterparty may, but is not obligated to, terminate and settle the agreement if the credit rating of the other counterparty falls below a level specified in the agreement. If a derivative contract is terminated, the amount to be received or paid by us would be equal to the prevailing fair value, as defined in the agreement, as of the termination date.

Our senior unsecured credit ratings from Moody's and S&P were A2 and A, respectively, as of November 30, 2018. Both Moody's and S&P had our ratings on stable outlook as of November 30, 2018. Table 24 displays the notional amounts of our derivative contracts with rating triggers as of November 30, 2018, and the payments that would be required if the contracts were terminated as of that date because of a downgrade of our unsecured credit ratings or the counterparty's unsecured credit ratings below A3/A-, below Baa1/BBB+, to or below Baa2/BBB, below Baa3/BBB-, or to or below Ba2/BB+ by Moody's or S&P, respectively. In calculating the payment amounts that would be required upon termination of the derivative contracts, we assumed that the amounts for each counterparty would be netted in accordance with the provisions of the counterparty's master netting agreements. The net payment amounts are based on the fair value of the underlying derivative instrument, excluding the credit risk valuation adjustment, plus any unpaid accrued interest amounts.

Table 24: Rating Triggers for Derivatives

(Dollars in thousands)	Notional Amount	Payable Due From CFC	Receivable Due to CFC	Net (Payable)/ Receivable
Impact of rating downgrade trigger:				
Falls below A3/A- ⁽¹⁾	\$ 52,555	\$ (7,819)	\$ —	\$ (7,819)
Falls below Baa1/BBB+	7,308,946	(37,072)	75,448	38,376
Falls to or below Baa2/BBB ⁽²⁾	525,293	—	7,137	7,137
Falls below Baa3/BBB-	222,643	(8,952)	—	(8,952)
Total	\$ 8,109,437	\$ (53,843)	\$ 82,585	\$ 28,742

⁽¹⁾ Rating trigger for CFC falls below A3/A-, while rating trigger for counterparty falls below Baa1/BBB+ by Moody's or S&P, respectively.

⁽²⁾ Rating trigger for CFC falls to or below Baa2/BBB, while rating trigger for counterparty falls to or below Ba2/BB+ by Moody's or S&P, respectively.

We have outstanding notional amount of derivatives with one counterparty subject to a ratings trigger and early termination provision in the event of a downgrade of CFC's senior unsecured credit ratings below Baa3, BBB- or BBB- by Moody's, S&P or Fitch Ratings Inc. ("Fitch"), respectively, which is not included in the above table, totaling \$165 million as of November 30, 2018. These contracts were in an unrealized gain position of \$2 million as of November 30, 2018.

The aggregate fair value amount, including the credit valuation adjustment, of all interest rate swaps with rating triggers that were in a net liability position was \$54 million as of November 30, 2018. There were no counterparties that fell below the rating trigger levels in our interest swap contracts as of November 30, 2018. If a counterparty has a credit rating that falls below the rating trigger level specified in the interest swap contract, we have the option to terminate all derivatives with the counterparty. However, we generally do not terminate such agreements prematurely because our interest rate swaps are critical to our matched funding strategy to mitigate interest rate risk.

See "Item 1A. Risk Factors" in our 2018 Form 10-K for additional information about credit risk related to our business.

LIQUIDITY RISK

We define liquidity as the ability to convert assets to cash quickly and efficiently, maintain access to readily available funding and rollover or issue new debt, under both normal operating conditions and periods of CFC-specific and/or market stress, to ensure that we can meet borrower loan requests, pay current and future obligations and fund our operations on a cost-effective basis. Our primary sources of liquidity include cash flows from operations, member loan repayments, committed bank revolving lines of credit, committed loan facilities under the Guaranteed Underwriter Program, revolving note purchase agreements with Farmer Mac and our ability to issue debt in the capital markets, to our members and in private placements. We provide a discussion of our liquidity risk-management framework and activities undertaken to manage liquidity risk in our 2018 Form 10-K under “Item 7. MD&A—Liquidity Risk—Liquidity Risk Management.”

Available Liquidity

As part of our strategy in managing liquidity risk and meeting our liquidity objectives, we seek to maintain a substantial level of on-balance sheet and off-balance sheet sources of liquidity that are readily available for access to meet our near-term liquidity needs. Table 25 presents the sources of our available liquidity as of November 30, 2018, compared with May 31, 2018.

Table 25: Available Liquidity

(Dollars in millions)	November 30, 2018			May 31, 2018		
	Total	Accessed	Available	Total	Accessed	Available
Cash and cash equivalents	\$ 227	\$ —	\$ 227	\$ 231	\$ —	\$ 231
Committed bank revolving line of credit agreements—unsecured ⁽¹⁾	2,975	3	2,972	3,085	3	3,082
Guaranteed Underwriter Program committed facilities—secured ⁽²⁾	7,298	5,423	1,875	6,548	5,323	1,225
Farmer Mac revolving note purchase agreement, dated March 24, 2011, as amended—secured ⁽³⁾ ..	5,200	2,763	2,437	5,200	2,791	2,409
Farmer Mac revolving note purchase agreement, dated July 31, 2015, as amended—secured	300	—	300	300	100	200
Total	<u>\$ 16,000</u>	<u>\$ 8,189</u>	<u>\$ 7,811</u>	<u>\$ 15,364</u>	<u>\$ 8,217</u>	<u>\$ 7,147</u>

⁽¹⁾ The committed bank revolving line of credit agreements consist of a three-year and a five-year line of credit agreement. The accessed amount of \$3 million as of both November 30, 2018 and May 31, 2018, relates to letters of credit issued pursuant to the five-year line of credit agreement.

⁽²⁾ The committed facilities under the Guaranteed Underwriter Program are not revolving.

⁽³⁾ Availability subject to market conditions.

We believe we have sufficient liquidity from the available on- and off-balance sheet liquidity sources presented above in Table 25 and our ability to issue debt to meet demand for member loan advances and satisfy our obligations to repay long-term debt maturing over the next 12 months.

Borrowing Capacity Under Current Facilities

Following is a discussion of our borrowing capacity and key terms and conditions under our revolving line of credit agreements with banks and committed loan facilities under the Guaranteed Underwriter Program and revolving note purchase agreements with Farmer Mac.

Committed Bank Revolving Line of Credit Agreements—Unsecured

Our committed bank revolving lines of credit may be used for general corporate purposes; however, we generally rely on them as a backup source of liquidity for our member and dealer commercial paper. We had \$2,975 million of commitments under committed bank revolving line of credit agreements as of November 30, 2018. Under our current committed bank

revolving line of credit agreements, we have the ability to request up to \$300 million of letters of credit, which would result in a reduction in the remaining available amount under the facilities.

On November 28, 2018, we amended the three-year and five-year committed bank revolving line of credit agreements to extend the maturity dates to November 28, 2021 and November 28, 2023, respectively, and to terminate certain third-party bank commitments totaling \$53 million under the three-year agreement and \$57 million under the five-year agreement. As a result, the total commitment amount from third-parties under the three-year facility and the five-year facility is \$1,440 million and \$1,535 million, respectively, resulting in a combined total commitment amount under the two facilities of \$2,975 million.

Table 26 presents the total commitment, the net amount available for use and the outstanding letters of credit under our committed bank revolving line of credit agreements as of November 30, 2018. We did not have any outstanding borrowings under our bank revolving line of credit agreements as of November 30, 2018.

Table 26: Committed Bank Revolving Line of Credit Agreements

(Dollars in millions)	November 30, 2018			Maturity	Annual Facility Fee ⁽¹⁾
	Total Commitment	Letters of Credit Outstanding	Net Available for Advance		
3-year agreement	\$ 1,440	\$ —	\$ 1,440	November 28, 2021	7.5 bps
5-year agreement	1,535	3	1,532	November 28, 2023	10 bps
Total	<u>\$ 2,975</u>	<u>\$ 3</u>	<u>\$ 2,972</u>		

⁽¹⁾Facility fee based on CFC's senior unsecured credit ratings in accordance with the established pricing schedules at the inception of the related agreement.

Our committed bank revolving line of credit agreements do not contain a material adverse change clause or rating triggers that would limit the banks' obligations to provide funding under the terms of the agreements; however, we must be in compliance with the covenants to draw on the facilities. We have been and expect to continue to be in compliance with the covenants under our committed bank revolving line of credit agreements. As such, we could draw on these facilities to repay dealer or member commercial paper that cannot be rolled over. See "Financial Ratios and Debt Covenants" below for additional information, including the specific financial ratio requirements under our committed bank revolving line of credit agreements.

Guaranteed Underwriter Program Committed Facilities—Secured

Under the Guaranteed Underwriter Program, we can borrow from the Federal Financing Bank and use the proceeds to make new loans and refinance existing indebtedness. As part of the program, we pay fees, based on outstanding borrowings, that support the USDA Rural Economic Development Loan and Grant program. The borrowings under this program are guaranteed by RUS.

On November 15, 2018, we closed on a \$750 million committed loan facility (Series N) from the Federal Financing Bank under the Guaranteed Underwriter Program. Pursuant to this facility, we may borrow any time before July 15, 2023. Each advance is subject to quarterly amortization and a final maturity not longer than 20 years from the advance date. The closing of this committed loan facility increased the amount available for access under the Guaranteed Underwriter Program to \$1,875 million as of November 30, 2018. Of this amount, \$375 million is available for advance through October 15, 2019, \$750 million is available for advance through July 15, 2022 and \$750 million is available for advance through July 15, 2023.

We are required to pledge eligible distribution system loans or power supply system loans as collateral in an amount at least equal to the total outstanding borrowings under the Guaranteed Underwriter Program. See "Consolidated Balance Sheet Analysis—Debt—Collateral Pledged" and "Note 4—Loans" for additional information on pledged collateral.

Farmer Mac Revolving Note Purchase Agreements—Secured

As indicated in Table 25, we have two revolving note purchase agreements with Farmer Mac, which together allow us to borrow up to \$5,500 million from Farmer Mac. Under our first revolving note purchase agreement with Farmer Mac, dated March 24, 2011, as amended, we can borrow, subject to market conditions, up to \$5,200 million at any time through January 11, 2022, and such date shall automatically extend on each anniversary date of the closing for an additional year, unless prior to any such anniversary date, Farmer Mac provides us with a notice that the draw period will not be extended beyond the remaining term. This revolving note purchase agreement allows us to borrow, repay and re-borrow funds at any time through maturity, as market conditions permit, provided that the outstanding principal amount at any time does not exceed the total available under the agreement. Each borrowing under the note purchase agreement is evidenced by a pricing agreement setting forth the interest rate, maturity date and other related terms as we may negotiate with Farmer Mac at the time of each such borrowing. We may select a fixed rate or variable rate at the time of each advance with a maturity as determined in the applicable pricing agreement. We had outstanding secured notes payable totaling \$2,763 million and \$2,791 million as of November 30, 2018 and May 31, 2018, respectively, under the Farmer Mac revolving note purchase agreement of \$5,200 million. The available borrowing amount totaled \$2,437 million as of November 30, 2018.

Under our second revolving note purchase agreement with Farmer Mac, dated July 31, 2015, as amended, we can borrow up to \$300 million at any time through December 20, 2023 at a fixed spread over LIBOR. This agreement also allows us to borrow, repay and re-borrow funds at any time through maturity, provided that the outstanding principal amount at any time does not exceed the total available under the agreement. Prior to the maturity date, Farmer Mac may terminate the agreement upon 30 days written notice to us on periodic facility renewal dates, the first of which is January 31, 2019. Subsequent facility renewal dates are on each June 20 or December 20 thereafter until the maturity date. We may terminate the agreement upon 30 days written notice at any time. Under the terms of the first revolving note purchase agreement with Farmer Mac described above, the \$5,200 million commitment will increase to \$5,500 million in the event the second revolving note purchase agreement is terminated. We had no outstanding notes payable under this agreement as of November 30, 2018. We had outstanding borrowings of \$100 million as of May 31, 2018 under this revolving note purchase agreement with Farmer Mac.

Pursuant to both Farmer Mac revolving note purchase agreements, we are required to pledge eligible distribution system or power supply system loans as collateral in an amount at least equal to the total principal amount of notes outstanding. See “Consolidated Balance Sheet Analysis—Debt—Collateral Pledged” and “Note 4—Loans” for additional information on pledged collateral.

Short-Term Borrowings and Long-Term and Subordinated Debt

Additional funding is provided by short-term borrowings and issuances of long-term and subordinated debt. We rely on short-term borrowings as a source to meet our daily, near-term funding needs. Long-term and subordinated debt represents the most significant component of our funding. The issuance of long-term debt allows us to reduce our reliance on short-term borrowings and effectively manage our refinancing and interest rate risk.

Short-Term Borrowings

Our short-term borrowings consist of commercial paper, which we offer to members and dealers, select notes and daily liquidity fund notes offered to members, and bank-bid notes and medium-term notes offered to members and dealers.

Table 27 displays the composition, by funding source, of our short-term borrowings as of November 30, 2018 and May 31, 2018. Member borrowings accounted for 74% of total short-term borrowings as of November 30, 2018, compared with 69% of total short-term borrowings as of May 31, 2018.

Table 27: Short-Term Borrowings—Funding Sources

(Dollars in thousands)	November 30, 2018		May 31, 2018	
	Amount Outstanding	% of Total Short-Term Borrowings	Amount Outstanding	% of Total Short-Term Borrowings
Funding source:				
Members	\$ 3,041,657	74%	\$ 2,631,644	69%
Capital markets	1,058,949	26	1,164,266	31
Total	<u>\$ 4,100,606</u>	<u>100%</u>	<u>\$ 3,795,910</u>	<u>100%</u>

Table 28 displays the composition, by product type, of our short-term borrowings as of November 30, 2018 and May 31, 2018.

Table 28: Short-Term Borrowings

(Dollars in thousands)	November 30, 2018		May 31, 2018	
	Amount Outstanding	% of Total Debt Outstanding	Amount Outstanding	% of Total Debt Outstanding
Short-term borrowings:				
Commercial paper:				
Commercial paper to dealers, net of discounts	\$ 1,058,949	4%	\$ 1,064,266	4%
Commercial paper to members, at par	1,218,730	5	1,202,105	5
Total commercial paper	<u>2,277,679</u>	<u>9</u>	<u>2,266,371</u>	<u>9</u>
Select notes to members	1,031,022	4	780,472	3
Daily liquidity fund notes to members	566,935	3	400,635	2
Medium-term notes to members	224,970	1	248,432	1
Farmer Mac revolving facility	—	—	100,000	—
Total short-term borrowings	<u>\$ 4,100,606</u>	<u>17%</u>	<u>\$ 3,795,910</u>	<u>15%</u>

Our short-term borrowings increased by \$305 million to \$4,101 million as of November 30, 2018 from May 31, 2018. Our intent is to manage our short-term wholesale funding risk by maintaining outstanding dealer commercial paper at an amount below \$1,250 million for the foreseeable future. Outstanding dealer commercial paper of \$1,059 million and \$1,064 million as of November 30, 2018 and May 31, 2018, respectively, was below our maximum threshold of \$1,250 million.

Long-Term and Subordinated Debt

In addition to access to private debt facilities, we also issue debt in the public capital markets. Pursuant to Rule 405 of the Securities Act, we are classified as a “well-known seasoned issuer.” See “Item 7. MD&A—Liquidity Risk” in our 2018 Form 10-K for additional information on our shelf registration statements with the SEC.

As discussed in “Consolidated Balance Sheet Analysis—Debt,” long-term and subordinated debt totaled \$20,596 million and accounted for 83% of total debt outstanding as of November 30, 2018, from \$20,837 million, or 85%, of total debt outstanding as of May 31, 2018. Table 29 summarizes long-term and subordinated debt issuances and repayments during the six months ended November 30, 2018.

Table 29: Issuances and Repayments of Long-Term and Subordinated Debt⁽¹⁾

(Dollars in thousands)	Six Months Ended November 30, 2018		
	Issuances	Repayments ⁽²⁾	Change
Long-term and subordinated debt activity:			
Collateral trust bonds	\$ 625,000	\$ 1,180,000	\$ (555,000)
Guaranteed Underwriter Program notes payable	100,000	30,832	69,168
Farmer Mac notes payable	250,000	278,015	(28,015)
Medium-term notes sold to members.....	92,800	91,093	1,707
Medium-term notes sold to dealers.....	301,957	31,497	270,460
Members' subordinated certificates	964	4,279	(3,315)
Total.....	<u>\$ 1,370,721</u>	<u>\$ 1,615,716</u>	<u>\$ (244,995)</u>

⁽¹⁾ Amounts exclude unamortized debt issuance costs and discounts.

⁽²⁾ Repayments include principal maturities, scheduled amortization payments, repurchases and redemptions.

Table 30 summarizes the scheduled amortization of the principal amount of long-term debt, subordinated deferrable debt and members' subordinated certificates as of November 30, 2018.

Table 30: Principal Maturity of Long-Term and Subordinated Debt

(Dollars in thousands)	Amount Maturing ⁽¹⁾	% of Total
Fiscal year ending:		
May 31, 2019	\$ 1,168,993	6%
May 31, 2020	1,560,914	7
May 31, 2021	1,806,498	9
May 31, 2022	1,908,045	9
May 31, 2023	1,171,211	6
Thereafter	12,980,419	63
Total.....	<u>\$ 20,596,080</u>	<u>100%</u>

⁽¹⁾ Excludes \$0.2 million in subscribed and unissued member subordinated certificates for which a payment has been received. Member loan subordinated certificates totaling \$272 million amortize annually based on the unpaid principal balance of the related loan.

We provide additional information on our financing activities above under "Consolidated Balance Sheet Analysis—Debt."

Investment Portfolio

In addition to our primary sources of liquidity discussed above, we have an investment portfolio composed of equity securities and held-to-maturity debt securities. We intend for our investment portfolio, which totaled \$645 million and \$710 million as of November 30, 2018 and May 31, 2018, respectively, to remain adequately liquid to serve as a contingent supplemental source of liquidity for unanticipated liquidity needs.

Pursuant to our investment policy and guidelines, all fixed-income debt securities, at the time of purchase, must be rated at least investment grade and on stable outlook based on external credit ratings from at least two of the leading global credit rating agencies, when available, or the corresponding equivalent, when not available. Securities rated investment grade, that is those rated Baa3 or higher by Moody's or BBB- or higher by S&P or BBB- or higher by Fitch, are generally considered by the rating agencies to be of lower credit risk than non-investment grade securities. We have the positive intent and ability to hold these securities to maturity. As such, we have classified them as held to maturity on our condensed consolidated balance sheet.

Our investment portfolio is unencumbered and structured so that securities have active secondary or resale markets under normal market conditions. The objective of the portfolio is to achieve returns commensurate with the level of risk assumed subject to CFC's investment policy and guidelines and liquidity requirements.

We provide additional information on our investment securities in "Note 3—Investment Securities."

Projected Near-Term Sources and Uses of Liquidity

As discussed above, our primary sources of liquidity include cash flows from operations, member loan repayments, committed bank revolving lines of credit, committed loan facilities, short-term borrowings and funds from the issuance of long-term and subordinated debt. Our primary uses of liquidity include loan advances to members, principal and interest payments on borrowings, periodic settlement payments related to derivative contracts, and operating expenses.

Table 31 below displays our projected sources and uses of cash, by quarter, over the next six quarters through the quarter ending May 31, 2020. Our projected liquidity position reflects our current plan to expand our investment portfolio. Our assumptions also include the following: (i) the estimated issuance of long-term debt, including collateral trust bonds and private placement of term debt, is based on maintaining a matched funding position within our loan portfolio with our bank revolving lines of credit serving as a backup liquidity facility for commercial paper and on maintaining outstanding dealer commercial paper at an amount below \$1,250 million; (ii) long-term loan scheduled amortization payments represent the scheduled long-term loan payments for loans outstanding as of November 30, 2018, and our current estimate of long-term loan prepayments, which the amount and timing of are subject to change; (iii) other loan repayments and other loan advances primarily relate to line of credit repayments and advances; (iv) long-term debt maturities reflect scheduled maturities of outstanding term debt for the periods presented; and (v) long-term loan advances reflect our current estimate of member demand for loans, the amount and timing of which are subject to change.

Table 31: Projected Sources and Uses of Liquidity⁽¹⁾

(Dollars in millions)	Projected Sources of Liquidity				Projected Uses of Liquidity				
	Long-Term Debt Issuance	Anticipated Long-Term Loan Repayments ⁽²⁾	Other Loan Repayments ⁽³⁾	Total Projected Sources of Liquidity	Long-Term Debt Maturities ⁽⁴⁾	Long-Term Loan Advances	Other Loan Advances ⁽⁵⁾	Total Projected Uses of Liquidity	Other Sources/ (Uses) of Liquidity ⁽⁵⁾
3Q FY 2019	\$ 1,320	\$ 405	\$ 106	\$ 1,831	\$ 780	\$ 790	\$ 547	\$ 2,117	\$ 168
4Q FY 2019	495	292	269	1,056	509	434	—	943	(219)
1Q FY 2020	340	321	—	661	294	328	—	622	(25)
2Q FY 2020	815	293	—	1,108	735	346	—	1,081	(74)
3Q FY 2020	690	317	—	1,007	571	501	—	1,072	42
4Q FY 2020	90	301	—	391	76	406	—	482	15
Total	\$ 3,750	\$ 1,929	\$ 375	\$ 6,054	\$ 2,965	\$ 2,805	\$ 547	\$ 6,317	\$ (93)

⁽¹⁾ The dates presented represent the end of each quarterly period through the quarter ending May 31, 2020.

⁽²⁾ Anticipated long-term loan repayments include scheduled long-term loan amortizations, anticipated cash repayments at repricing date and sales.

⁽³⁾ Other loan repayments include anticipated short-term loan repayments.

⁽⁴⁾ Long-term debt maturities also include medium-term notes with an original maturity of one year or less and expected early redemptions of debt.

⁽⁵⁾ Includes net increase or decrease to dealer commercial paper, and purchases and maturity of investments.

As displayed in Table 31, we currently project long-term advances of \$1,898 million over the next 12 months, which we anticipate will exceed anticipated loan repayments over the same period of \$1,311 million by approximately \$587 million. The estimates presented above are developed at a particular point in time based on our expected future business growth and funding. Our actual results and future estimates may vary, perhaps significantly, from the current projections, as a result of changes in market conditions, management actions or other factors.

Credit Ratings

Our funding and liquidity, borrowing capacity, ability to access capital markets and other sources of funds and the cost of these funds are partially dependent on our credit ratings. Rating agencies base their ratings on numerous factors, including liquidity, capital adequacy, industry position, member support, management, asset quality, quality of earnings and the probability of systemic support. Significant changes in these factors could result in different ratings. Table 32 displays our credit ratings as of November 30, 2018. Moody's, S&P and Fitch affirmed our ratings and outlook during the current quarter. Our credit ratings as of November 30, 2018 are unchanged from May 31, 2018, and as of the date of the filing of this Report.

Table 32: Credit Ratings

	November 30, 2018		
	Moody's	S&P	Fitch
Long-term issuer credit rating ⁽¹⁾	A2	A	A
Senior secured debt ⁽²⁾	A1	A	A+
Senior unsecured debt ⁽³⁾	A2	A	A
Subordinated debt	A3	BBB+	BBB+
Commercial paper	P-1	A-1	F1
Outlook	Stable	Stable	Stable

⁽¹⁾ Based on our senior unsecured debt rating.

⁽²⁾ Applies to our collateral trust bonds.

⁽³⁾ Applies to our medium-term notes.

In order to access the commercial paper markets at attractive rates, we believe we need to maintain our current commercial paper credit ratings of P-1 by Moody's, A-1 by S&P and F1 by Fitch. In addition, the notes payable to the Federal Financing Bank and guaranteed by RUS under the Guaranteed Underwriter Program contain a provision that if during any portion of the fiscal year, our senior secured credit ratings do not have at least two of the following ratings: (i) A3 or higher from Moody's, (ii) A- or higher from S&P, (iii) A- or higher from Fitch or (iv) an equivalent rating from a successor rating agency to any of the above rating agencies, we may not make cash patronage capital distributions in excess of 5% of total patronage capital. See "Credit Risk—Counterparty Credit Risk—Credit Risk-Related Contingent Features" above for information on credit rating provisions related to our derivative contracts.

Financial Ratios

Our debt-to-equity ratio decreased to 15.49-to-1 as of November 30, 2018, from 16.72-to-1 as of May 31, 2018, primarily due to an increase in equity resulting from our reported net income of \$168 million for the six months ended November 30, 2018, which was partially offset by the patronage capital retirement of \$48 million in August 2018.

Our adjusted debt-to-equity ratio decreased to 6.15-to-1 as of November 30, 2018, from 6.18-to-1 as of May 31, 2018, primarily attributable to an increase in adjusted equity due to our adjusted net income of \$73 million, which was partially offset by the patronage capital retirement of \$48 million. We provide a reconciliation of our adjusted debt-to-equity ratio to the most comparable GAAP measure and an explanation of the adjustments below in "Non-GAAP Financial Measures."

Debt Covenants

As part of our short-term and long-term borrowing arrangements, we are subject to various financial and operational covenants. If we fail to maintain specified financial ratios, such failure could constitute a default by CFC of certain debt covenants under our committed bank revolving line of credit agreements and senior debt indentures. We were in compliance with all covenants and conditions under our committed bank revolving line of credit agreements and senior debt indentures as of November 30, 2018.

As discussed above in “Summary of Selected Financial Data,” the financial covenants set forth in our committed bank revolving line of credit agreements and senior debt indentures are based on adjusted financial measures, including adjusted TIER. We provide a reconciliation of adjusted TIER and other non-GAAP measures disclosed in this report to the most comparable GAAP measures and an explanation of the adjustments below in “Non-GAAP Financial Measures.”

MARKET RISK

Interest rate risk represents our primary source of market risk. Interest rate risk is the risk to current or anticipated earnings or equity arising primarily from movements in interest rates. This risk results from differences between the timing of cash flows on our assets and the liabilities funding those assets. The timing of cash flows of our assets is impacted by re-pricing characteristics, prepayments and contractual maturities. Our interest rate risk exposure is primarily related to the funding of the fixed-rate loan portfolio. We provide a discussion of how we manage interest rate risk in our 2018 Form 10-K under “Item 7. MD&A—Market Risk—Market Risk Management.”

Matched Funding Objective

Our funding objective is to manage the matched funding of asset and liability repricing terms within a range of adjusted total assets (calculated by excluding derivative assets from total assets) deemed appropriate by the Asset Liability Committee based on the current environment and extended outlook for interest rates. We refer to the difference between fixed-rate loans scheduled for amortization or repricing and the fixed-rate liabilities and equity funding those loans as our interest rate gap. Our primary strategies for managing our interest rate risk include the use of derivatives and limiting the amount of fixed-rate assets that can be funded by variable-rate debt to a specified percentage of adjusted total assets based on market conditions. We provide our members with many options on loans with regard to interest rates, the term for which the selected interest rate is in effect and the ability to convert or prepay the loan. Long-term loans generally have maturities of up to 35 years. Borrowers may select fixed interest rates for periods of one year through the life of the loan. We do not match fund the majority of our fixed-rate loans with a specific debt issuance at the time the loans are advanced. We fund the amount of fixed-rate assets that exceed fixed-rate debt and members’ equity with short-term debt, primarily commercial paper.

Interest Rate Gap Analysis

To monitor and mitigate interest rate risk in the funding of fixed-rate assets, we perform a monthly interest rate gap analysis that provides a comparison between fixed-rate assets repricing or maturing by year and fixed-rate liabilities and members’ equity maturing by year.

We maintain an unmatched position on our fixed-rate assets within a targeted range of adjusted total assets. The limited unmatched position is intended to provide flexibility to ensure that we are able to match the current maturing portion of long-term fixed-rate loans based on maturity date and the opportunity in the current low interest rate environment to increase the gross yield on our fixed rate assets without taking what we would consider to be excessive risk.

Table 33 displays the scheduled amortization and repricing of fixed-rate assets and liabilities outstanding as of November 30, 2018. We exclude variable-rate loans from our interest rate gap analysis, as we do not consider the interest rate risk on these loans to be significant because they are subject to repricing at least monthly. Loans with variable interest rates accounted for 10% of our total loan portfolio as of both November 30, 2018 and May 31, 2018. Fixed-rate liabilities include debt issued at a fixed rate as well as variable-rate debt swapped to a fixed rate using interest rate swaps. Fixed-rate debt swapped to a variable rate using interest rate swaps is excluded from the analysis since it is used to match fund the variable-rate loan pool. With the exception of members’ subordinated certificates, which are generally issued with extended maturities, and commercial paper, our liabilities have average maturities that closely match the repricing terms (but not the maturities) of our fixed-rate loans.

Table 33: Interest Rate Gap Analysis

(Dollars in millions)	Prior to 5/31/19	Two Years 6/1/19 to 5/31/21	Two Years 6/1/21 to 5/31/23	Five Years 6/1/23 to 5/31/28	10 Years 6/1/28 to 5/31/38	6/1/38 and Thereafter	Total
Asset amortization and repricing	\$ 881	\$ 3,304	\$ 3,065	\$ 5,758	\$ 6,893	\$ 3,230	\$ 23,131
Liabilities and members' equity:							
Long-term debt ⁽¹⁾	\$ 734	\$ 3,362	\$ 3,017	\$ 5,936	\$ 4,750	\$ 1,715	\$ 19,514
Subordinated certificates	8	42	58	974	155	578	1,815
Members' equity ⁽²⁾	—	23	24	104	290	924	1,365
Total liabilities and members' equity ⁽³⁾	\$ 742	\$ 3,427	\$ 3,099	\$ 7,014	\$ 5,195	\$ 3,217	\$ 22,694
Gap ⁽⁴⁾	\$ 139	\$ (123)	\$ (34)	\$ (1,256)	\$ 1,698	\$ 13	\$ 437
Cumulative gap	139	16	(18)	(1,274)	424	437	
Cumulative gap as a % of total assets	0.52%	0.06%	(0.07)%	(4.75)%	1.58%	1.63%	
Cumulative gap as a % of adjusted total assets ⁽⁵⁾ ..	0.52	0.06	(0.07)	(4.81)	1.60	1.65	

⁽¹⁾Includes long-term fixed-rate debt and net fixed-rate swaps.

⁽²⁾Includes the portion of the allowance for loan losses and subordinated deferrable debt allocated to fund fixed-rate assets and excludes noncash adjustments from the accounting for derivative financial instruments.

⁽³⁾Debt is presented based on call date.

⁽⁴⁾Calculated based on the amount of assets amortizing and repricing less total liabilities and members' equity.

⁽⁵⁾Adjusted total assets represents total assets reported in our condensed consolidated balance sheets less derivative assets.

The difference, or interest rate gap, of \$437 million between the fixed-rate loans scheduled for amortization or repricing of \$23,131 million and the fixed-rate liabilities and equity funding the loans of \$22,694 million presented in Table 33 reflects the amount of fixed-rate assets that are funded with short-term and variable-rate debt as of November 30, 2018. The gap of \$437 million represented 1.63% of total assets and 1.65% of adjusted total assets (total assets excluding derivative assets) as of November 30, 2018. As discussed above, we manage this gap within a prescribed range because funding long-term, fixed-rate loans with short-term and variable-rate debt may expose us to higher interest rate and liquidity risk.

NON-GAAP FINANCIAL MEASURES

In addition to financial measures determined in accordance with GAAP, management evaluates performance based on certain non-GAAP measures, which we refer to as "adjusted" measures. We provide a discussion of each of these non-GAAP measures in our 2018 Form 10-K under "Item 7. MD&A—Non-GAAP Measures." Below we provide a reconciliation of our adjusted measures to the most comparable GAAP measures in this section. We believe our non-GAAP adjusted metrics, which are not a substitute for GAAP and may not be consistent with similarly titled non-GAAP measures used by other companies, provide meaningful information and are useful to investors because management uses these metrics to compare operating results across financial reporting periods, for internal budgeting and forecasting purposes, for compensation decisions and for short- and long-term strategic planning decisions. In addition, certain of the financial covenants in our committed bank revolving line of credit agreements and debt indentures are based on our adjusted measures.

Statements of Operations Non-GAAP Adjustments

Table 34 provides a reconciliation of adjusted interest expense, adjusted net interest income and adjusted net income to the comparable GAAP measures for the three and six months ended November 30, 2018 and 2017. The adjusted amounts are used in the calculation of our adjusted net interest yield and adjusted TIER.

Table 34: Adjusted Financial Measures — Income Statement

(Dollars in thousands)	Three Months Ended November 30,		Six Months Ended November 30,	
	2018	2017	2018	2017
Interest expense.....	\$ (204,166)	\$ (195,170)	\$ (414,397)	\$ (387,901)
Include: Derivative cash settlements.....	(11,805)	(19,635)	(24,634)	(39,857)
Adjusted interest expense.....	<u>\$ (215,971)</u>	<u>\$ (214,805)</u>	<u>\$ (439,031)</u>	<u>\$ (427,758)</u>
Net interest income	\$ 77,087	\$ 70,653	\$ 145,347	\$ 143,837
Include: Derivative cash settlements.....	(11,805)	(19,635)	(24,634)	(39,857)
Adjusted net interest income.....	<u>\$ 65,282</u>	<u>\$ 51,018</u>	<u>\$ 120,713</u>	<u>\$ 103,980</u>
Net income	\$ 119,726	\$ 178,723	\$ 167,704	\$ 187,738
Exclude: Derivative forward value gains.....	75,148	145,228	95,160	119,252
Adjusted net income.....	<u>\$ 44,578</u>	<u>\$ 33,495</u>	<u>\$ 72,544</u>	<u>\$ 68,486</u>

We consider the cost of derivatives to be an inherent cost of funding and hedging our loan portfolio and, therefore, economically similar to the interest expense that we recognize on debt issued for funding. We therefore include derivative cash settlements in our adjusted interest expense and exclude the unrealized forward value of derivatives from our adjusted net income.

TIER and Adjusted TIER

Table 35 presents our TIER and adjusted TIER for the three and six months ended November 30, 2018 and 2017.

Table 35: TIER and Adjusted TIER

	Three Months Ended November 30,		Six Months Ended November 30,	
	2018	2017	2018	2017
TIER ⁽¹⁾	<u>1.59</u>	<u>1.92</u>	<u>1.40</u>	<u>1.48</u>
Adjusted TIER ⁽²⁾	<u>1.21</u>	<u>1.16</u>	<u>1.17</u>	<u>1.16</u>

⁽¹⁾ TIER is calculated based on net income plus interest expense for the period divided by interest expense for the period.

⁽²⁾ Adjusted TIER is calculated based on adjusted net income plus adjusted interest expense for the period divided by adjusted interest expense for the period.

Debt-to-Equity and Adjusted Debt-to-Equity

Table 36 provides a reconciliation between the liabilities and equity used to calculate the debt-to-equity ratio and the adjusted debt-to-equity ratio as of November 30, 2018 and May 31, 2018. As indicated in the table below, subordinated debt is treated in the same manner as equity in calculating our adjusted-debt-to-equity ratio.

Table 36: Adjusted Financial Measures — Balance Sheet

(Dollars in thousands)	November 30, 2018	May 31, 2018
Total liabilities	\$ 25,202,620	\$ 25,184,351
Exclude:		
Derivative liabilities.....	255,112	275,932
Debt used to fund loans guaranteed by RUS.....	157,593	160,865
Subordinated deferrable debt.....	742,480	742,410
Subordinated certificates	1,376,689	1,379,982
Adjusted total liabilities.....	<u>\$ 22,670,746</u>	<u>\$ 22,625,162</u>
Total equity	\$ 1,627,138	\$ 1,505,853
Exclude:		
Prior year-end cumulative derivative forward value losses....	(34,974)	(340,976)
Current year cumulative derivative forward value gains.....	95,160	306,002
Accumulated other comprehensive income ⁽¹⁾	2,800	1,980
Include:		
Subordinated certificates	1,376,689	1,379,982
Subordinated deferrable debt.....	742,480	742,410
Adjusted total equity.....	<u>\$ 3,683,321</u>	<u>\$ 3,661,239</u>

⁽¹⁾ Represents the AOCI related to derivatives. See “Note 10—Equity” for a breakout of our AOCI components.

Table 37 displays the calculations of our debt-to-equity and adjusted debt-to-equity ratios as of November 30, 2018 and May 31, 2018.

Table 37: Debt-to-Equity Ratio

	November 30, 2018	May 31, 2018
Debt-to-equity ratio ⁽¹⁾	<u>15.49</u>	<u>16.72</u>
Adjusted debt-to-equity ratio ⁽²⁾	<u>6.15</u>	<u>6.18</u>

⁽¹⁾ Calculated based on total liabilities as of the end of the period divided by total equity as of the end of the period.

⁽²⁾ Calculated based on adjusted total liabilities at period end divided by adjusted total equity at period end.

Members’ Equity

Table 38 provides a reconciliation of members’ equity to total CFC equity as of November 30, 2018 and May 31, 2018.

Table 38: Members’ Equity

(Dollars in thousands)	November 30, 2018	May 31, 2018
Members’ equity:		
Total CFC equity	\$ 1,594,588	\$ 1,474,333
Excludes:		
Accumulated other comprehensive income.....	832	8,544
Current year-end cumulative derivative forward value gains (losses)	<u>63,431</u>	<u>(30,831)</u>
Subtotal.....	<u>64,263</u>	<u>(22,287)</u>
Members’ equity.....	<u>\$ 1,530,325</u>	<u>\$ 1,496,620</u>

Item 1. Financial Statements

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NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(UNAUDITED)

(Dollars in thousands)	Three Months Ended November 30,		Six Months Ended November 30,	
	2018	2017	2018	2017
Interest income	\$ 281,253	\$ 265,823	\$ 559,744	\$ 531,738
Interest expense	(204,166)	(195,170)	(414,397)	(387,901)
Net interest income	77,087	70,653	145,347	143,837
Benefit for loan losses	1,788	304	1,897	602
Net interest income after benefit for loan losses	78,875	70,957	147,244	144,439
Non-interest income:				
Fee and other income	4,321	5,542	7,506	9,487
Derivative gains	63,343	125,593	70,526	79,395
Results of operations of foreclosed assets	—	(10)	—	(34)
Total non-interest income	67,664	131,125	78,032	88,848
Non-interest expense:				
Salaries and employee benefits	(12,392)	(12,009)	(25,074)	(23,832)
Other general and administrative expenses	(11,478)	(9,905)	(22,001)	(19,718)
Losses on early extinguishment of debt	—	—	(7,100)	—
Other non-interest expense	(2,700)	(618)	(3,094)	(1,140)
Total non-interest expense	(26,570)	(22,532)	(57,269)	(44,690)
Income before income taxes	119,969	179,550	168,007	188,597
Income tax expense	(243)	(827)	(303)	(859)
Net income	119,726	178,723	167,704	187,738
Less: Net income attributable to noncontrolling interests.	(466)	(1,150)	(479)	(1,032)
Net income attributable to CFC	\$ 119,260	\$ 177,573	\$ 167,225	\$ 186,706

See accompanying notes to condensed consolidated financial statements.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(UNAUDITED)

(Dollars in thousands)	Three Months Ended November 30,		Six Months Ended November 30,	
	2018	2017	2018	2017
Net income	\$ 119,726	\$ 178,723	\$ 167,704	\$ 187,738
Other comprehensive income (loss):				
Unrealized losses on equity securities	—	8	—	(1,143)
Unrealized gain on cash flow hedge	1,035	—	1,059	—
Reclassification of derivative gains to net income	(120)	(194)	(239)	(386)
Defined benefit plan adjustments	131	126	262	253
Other comprehensive income (loss)	1,046	(60)	1,082	(1,276)
Total comprehensive income	120,772	178,663	168,786	186,462
Less: Total comprehensive income attributable to noncontrolling interests	(466)	(1,150)	(479)	(1,032)
Total comprehensive income attributable to CFC	\$ 120,306	\$ 177,513	\$ 168,307	\$ 185,430

See accompanying notes to condensed consolidated financial statements.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(UNAUDITED)

(Dollars in thousands)	November 30, 2018	May 31, 2018
Assets:		
Cash and cash equivalents	\$ 226,758	\$ 230,999
Restricted cash	16,174	7,825
Total cash, cash equivalents and restricted cash	<u>242,932</u>	<u>238,824</u>
Time deposits	—	100,000
Investment securities:		
Equity securities	86,988	89,332
Debt securities held to maturity, at amortized cost	558,071	520,519
Total investment securities	<u>645,059</u>	<u>609,851</u>
Loans to members	25,294,175	25,178,608
Less: Allowance for loan losses	(16,904)	(18,801)
Loans to members, net	<u>25,277,271</u>	<u>25,159,807</u>
Accrued interest receivable	133,988	127,442
Other receivables	37,824	39,220
Fixed assets, net	118,490	116,031
Derivative assets	319,687	244,526
Other assets	54,507	54,503
Total assets	<u><u>\$ 26,829,758</u></u>	<u><u>\$ 26,690,204</u></u>
Liabilities:		
Accrued interest payable	\$ 146,639	\$ 149,284
Debt outstanding:		
Short-term borrowings	4,100,606	3,795,910
Long-term debt	18,477,156	18,714,960
Subordinated deferrable debt	742,480	742,410
Members' subordinated certificates:		
Membership subordinated certificates	630,468	630,448
Loan and guarantee subordinated certificates	525,051	528,386
Member capital securities	221,170	221,148
Total members' subordinated certificates	<u>1,376,689</u>	<u>1,379,982</u>
Total debt outstanding	<u>24,696,931</u>	<u>24,633,262</u>
Deferred income	61,516	65,922
Derivative liabilities	255,112	275,932
Other liabilities	42,422	59,951
Total liabilities	<u>25,202,620</u>	<u>25,184,351</u>
Equity:		
CFC equity:		
Retained equity	1,593,756	1,465,789
Accumulated other comprehensive income (loss)	832	8,544
Total CFC equity	<u>1,594,588</u>	<u>1,474,333</u>
Noncontrolling interests	32,550	31,520
Total equity	<u>1,627,138</u>	<u>1,505,853</u>
Total liabilities and equity	<u><u>\$ 26,829,758</u></u>	<u><u>\$ 26,690,204</u></u>

See accompanying notes to condensed consolidated financial statements.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(UNAUDITED)

Three and Six Months Ended November 30, 2018

(Dollars in thousands)	Membership Fees and Educational Fund	Patronage Capital Allocated	Members' Capital Reserve	Unallocated Net Income (Loss)	CFC Retained Equity	Accumulated Other Comprehensive Income (Loss)	Total CFC Equity	Non-controlling Interests	Total Equity
Balance as of August 31, 2018	\$ 2,609	\$ 763,986	\$ 687,785	\$ 20,325	\$ 1,474,705	\$ (214)	\$ 1,474,491	\$ 32,085	\$ 1,506,576
Net income	—	—	—	119,260	119,260	—	119,260	466	119,726
Other comprehensive income	—	—	—	—	—	1,046	1,046	—	1,046
Other	(209)	—	—	—	(209)	—	(209)	(1)	(210)
Balance as of November 30, 2018	<u>\$ 2,400</u>	<u>\$ 763,986</u>	<u>\$ 687,785</u>	<u>\$ 139,585</u>	<u>\$ 1,593,756</u>	<u>\$ 832</u>	<u>\$ 1,594,588</u>	<u>\$ 32,550</u>	<u>\$ 1,627,138</u>
Balance as of May 31, 2018 ..	\$ 2,945	\$ 811,493	\$ 687,785	\$ (36,434)	\$ 1,465,789	\$ 8,544	\$ 1,474,333	\$ 31,520	\$ 1,505,853
Cumulative effect from adoption of new accounting standard	—	—	—	8,794	8,794	(8,794)	—	—	—
Balance as of June 1, 2018	2,945	811,493	687,785	(27,640)	1,474,583	(250)	1,474,333	31,520	1,505,853
Net income	—	—	—	167,225	167,225	—	167,225	479	167,704
Other comprehensive income	—	—	—	—	—	1,082	1,082	—	1,082
Patronage capital retirement ..	—	(47,507)	—	—	(47,507)	—	(47,507)	—	(47,507)
Other	(545)	—	—	—	(545)	—	(545)	551	6
Balance as of November 30, 2018	<u>\$ 2,400</u>	<u>\$ 763,986</u>	<u>\$ 687,785</u>	<u>\$ 139,585</u>	<u>\$ 1,593,756</u>	<u>\$ 832</u>	<u>\$ 1,594,588</u>	<u>\$ 32,550</u>	<u>\$ 1,627,138</u>

Three and Six Months Ended November 30, 2017

(Dollars in thousands)	Membership Fees and Educational Fund	Patronage Capital Allocated	Members' Capital Reserve	Unallocated Net Income (Loss)	CFC Retained Equity	Accumulated Other Comprehensive Income (Loss)	Total CFC Equity	Non-controlling Interests	Total Equity
Balance as of August 31, 2017	\$ 2,544	\$ 716,481	\$ 630,305	\$ (328,995)	\$ 1,020,335	\$ 11,959	\$ 1,032,294	\$ 29,286	\$ 1,061,580
Net income	—	—	—	177,573	177,573	—	177,573	1,150	178,723
Other comprehensive loss	—	—	—	—	—	(60)	(60)	—	(60)
Other	(178)	—	—	—	(178)	—	(178)	(17)	(195)
Balance as of November 30, 2017	<u>\$ 2,366</u>	<u>\$ 716,481</u>	<u>\$ 630,305</u>	<u>\$ (151,422)</u>	<u>\$ 1,197,730</u>	<u>\$ 11,899</u>	<u>\$ 1,209,629</u>	<u>\$ 30,419</u>	<u>\$ 1,240,048</u>
Balance as of May 31, 2017 ..	\$ 2,900	\$ 761,701	\$ 630,305	\$ (338,128)	\$ 1,056,778	\$ 13,175	\$ 1,069,953	\$ 28,852	\$ 1,098,805
Net income	—	—	—	186,706	186,706	—	186,706	1,032	187,738
Other comprehensive loss	—	—	—	—	—	(1,276)	(1,276)	—	(1,276)
Patronage capital retirement ..	—	(45,220)	—	—	(45,220)	—	(45,220)	—	(45,220)
Other	(534)	—	—	—	(534)	—	(534)	535	1
Balance as of November 30, 2017	<u>\$ 2,366</u>	<u>\$ 716,481</u>	<u>\$ 630,305</u>	<u>\$ (151,422)</u>	<u>\$ 1,197,730</u>	<u>\$ 11,899</u>	<u>\$ 1,209,629</u>	<u>\$ 30,419</u>	<u>\$ 1,240,048</u>

See accompanying notes to condensed consolidated financial statements.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)

(Dollars in thousands)	Six Months Ended November 30,	
	2018	2017
Cash flows from operating activities:		
Net income.....	\$ 167,704	\$ 187,738
Adjustments to reconcile net income to net cash provided by operating activities:		
Amortization of deferred loan fees	(5,201)	(6,149)
Amortization of debt issuance costs and deferred charges	5,596	5,148
Amortization of discount on long-term debt.....	5,416	4,943
Amortization of issuance costs for bank revolving lines of credit.....	2,813	2,768
Depreciation and amortization.....	4,346	3,769
Benefit for loan losses.....	(1,897)	(602)
Loss on early extinguishment of debt	7,100	—
Derivative forward value (gains) losses.....	(95,160)	(119,252)
Changes in operating assets and liabilities:		
Accrued interest receivable.....	(6,547)	(5,277)
Accrued interest payable.....	(2,645)	5,609
Deferred income.....	796	(133)
Other	(14,121)	(7,589)
Net cash provided by operating activities.....	68,200	70,973
Cash flows from investing activities:		
Advances on loans, net	(115,459)	(457,212)
Investment in fixed assets.....	(7,403)	(6,437)
Net proceeds from time deposits	100,000	175,000
Purchases of held-to-maturity investments.....	(52,845)	(248,181)
Proceeds from maturities of held-to-maturity investments	15,354	—
Net cash provided by (used in) investing activities	(60,353)	(536,830)
Cash flows from financing activities:		
Proceeds from (repayments of) short-term borrowings, net.....	341,562	181,501
Proceeds from short-term borrowings with original maturity greater than 90 days...	629,350	570,060
Repayments of short term-debt with original maturity greater than 90 days	(666,216)	(537,269)
Payments for issuance costs for revolving bank lines of credit.....	(2,342)	(2,402)
Proceeds from issuance of long-term debt, net of discount and issuance costs	1,362,714	625,021
Payments for retirement of long-term debt.....	(1,611,437)	(203,819)
Payments made on early extinguishment of debt	(7,100)	—
Proceeds from issuance of members' subordinated certificates	964	3,989
Payments for retirement of members' subordinated certificates	(4,279)	(23,340)
Payments for retirement of patronage capital	(46,953)	(44,667)
Repayments for membership fees, net.....	(2)	—
Net cash (used in) provided by financing activities.....	(3,739)	569,074
Net increase in cash, cash equivalents and restricted cash	4,108	103,217
Beginning cash, cash equivalents and restricted cash	238,824	188,421
Ending cash, cash equivalents and restricted cash	\$ 242,932	\$ 291,638
Supplemental disclosure of cash flow information:		
Cash paid for interest.....	\$ 405,249	\$ 374,098
Cash paid for income taxes.....	30	152

See accompanying notes to condensed consolidated financial statements.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(UNAUDITED)

NOTE 1—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company

National Rural Utilities Cooperative Finance Corporation (“CFC”) is a member-owned cooperative association incorporated under the laws of the District of Columbia in April 1969. CFC’s principal purpose is to provide its members with financing to supplement the loan programs of the Rural Utilities Service (“RUS”) of the United States Department of Agriculture (“USDA”). CFC makes loans to its rural electric members so they can acquire, construct and operate electric distribution systems, generation and transmission (“power supply”) systems and related facilities. CFC also provides its members with credit enhancements in the form of letters of credit and guarantees of debt obligations. As a cooperative, CFC is owned by and exclusively serves its membership, which consists of not-for-profit entities or subsidiaries or affiliates of not-for-profit entities. CFC is exempt from federal income taxes.

Basis of Presentation and Use of Estimates

The accompanying unaudited interim condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”). The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts and related disclosures during the period. Management’s most significant estimates and assumptions involve determining the allowance for loan losses and the fair value of financial assets and liabilities. Actual results could differ from these estimates. We believe these financial statements reflect all adjustments of a normal, recurring nature that are, in the opinion of management, necessary for the fair presentation of the results for the interim period. The results of operations for interim periods are not necessarily indicative of results for the entire fiscal year. Certain reclassifications have been made to prior periods to conform to the current presentation.

The accompanying financial statements should be read in conjunction with the audited consolidated financial statements, and related notes thereto, included in CFC’s Annual Report on Form 10-K for the fiscal year ended May 31, 2018 (“2018 Form 10-K”). Refer to “Note 1—Summary of Significant Accounting Policies” in our 2018 Form 10-K for a discussion of our significant accounting policies.

Principles of Consolidation

The accompanying condensed consolidated financial statements include the accounts of CFC, variable interest entities (“VIEs”) where CFC is the primary beneficiary and subsidiary entities created and controlled by CFC to hold foreclosed assets. CFC did not have any entities that held foreclosed assets as of November 30, 2018 or May 31, 2018. All intercompany balances and transactions have been eliminated. National Cooperative Services Corporation (“NCSC”) and Rural Telephone Finance Cooperative (“RTFC”) are VIEs which are required to be consolidated by CFC. NCSC is a taxable member-owned cooperative that may provide financing to members of CFC, government or quasi-government entities which own electric utility systems that meet the Rural Electrification Act definition of “rural,” and for-profit and nonprofit entities that are owned, operated or controlled by, or provide significant benefits to certain members of CFC. RTFC is a taxable Subchapter T cooperative association that provides financing for its rural telecommunications members and their affiliates. Unless stated otherwise, references to “we,” “our” or “us” relate to CFC and its consolidated entities.

Restricted Cash

Restricted cash, totaled \$16 million and \$8 million as of November 30, 2018 and May 31, 2018, respectively, and consists primarily of member funds held in escrow for certain specifically designated cooperative programs.

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Interest Income

The following table presents interest income, by interest-earning asset category, for the three and six months ended November 30, 2018 and 2017.

(Dollars in thousands)	Three Months Ended November 30,		Six Months Ended November 30,	
	2018	2017	2018	2017
Interest income by interest-earning asset type:				
Long-term fixed-rate loans ⁽¹⁾	\$ 253,340	\$ 248,926	\$ 505,141	\$ 498,290
Long-term variable-rate loans	10,066	6,097	19,447	11,960
Line of credit loans	11,752	8,588	23,385	17,295
TDR loans ⁽²⁾	211	222	429	448
Other income, net ⁽³⁾	(251)	(306)	(576)	(538)
Total loans	275,118	263,527	547,826	527,455
Cash, time deposits and investment securities	6,135	2,296	11,918	4,283
Total interest income	\$ 281,253	\$ 265,823	\$ 559,744	\$ 531,738

⁽¹⁾Includes loan conversion fees, which are generally deferred and recognized as interest income using the effective interest method.

⁽²⁾Troubled debt restructured ("TDR") loans.

⁽³⁾Consists of late payment fees, commitment fees and net amortization of deferred loan fees and loan origination costs.

Deferred income of \$62 million and \$66 million as of November 30, 2018 and May 31, 2018, respectively, consists primarily of deferred loan conversion fees totaling \$56 million and \$60 million, respectively. Deferred loan conversion fees are recognized in interest income using the effective interest method.

Interest Expense

The following table presents interest expense, by debt product type, for the three and six months ended November 30, 2018 and 2017.

(Dollars in thousands)	Three Months Ended November 30,		Six Months Ended November 30,	
	2018	2017	2018	2017
Interest expense by debt product type: ⁽¹⁾⁽²⁾				
Short-term borrowings	\$ 22,619	\$ 10,116	\$ 42,038	\$ 20,655
Medium-term notes	33,816	27,544	66,226	52,660
Collateral trust bonds	68,934	85,321	146,639	170,598
Guaranteed Underwriter Program notes payable	35,014	35,688	70,348	71,290
Farmer Mac notes payable	19,697	11,947	40,808	23,437
Other notes payable	322	391	644	781
Subordinated deferrable debt	9,417	9,417	18,834	18,833
Subordinated certificates	14,347	14,746	28,860	29,647
Total interest expense	\$ 204,166	\$ 195,170	\$ 414,397	\$ 387,901

⁽¹⁾Includes amortization of debt discounts and debt issuance costs, which are generally deferred and recognized as interest expense using the effective interest method. Issuance costs related to dealer commercial paper, however, are recognized as interest expense immediately as incurred.

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⁽²⁾ Includes fees related to funding arrangements, such as up-front fees paid to banks participating in our committed bank revolving line of credit agreements. Depending on the nature of the fee, amounts may be deferred and recognized as interest expense ratably over the term of the arrangement or recognized immediately as incurred.

Recent Accounting Changes and Other Developments

Accounting Standards Adopted in Fiscal Year 2019

Statement of Cash Flows—Restricted Cash

In November 2016, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2016-18, *Statement of Cash Flows—Restricted Cash*, which addresses the presentation of restricted cash in the statement of cash flows. The guidance requires that the statement of cash flows explain the change in the beginning-of-period and end-of-period total of cash, cash equivalents and restricted cash. Under previous guidance, we were required to explain the total change in cash and cash equivalents during the period. We adopted this guidance on June 1, 2018 on a retrospective basis. We made corresponding changes on our consolidated balance sheet to present a total for cash and cash equivalents and restricted cash.

Financial Instruments-Overall: Recognition and Measurement of Financial Assets and Financial Liabilities

In January 2016, FASB issued ASU 2016-01, *Financial Instruments-Overall: Recognition and Measurement of Financial Assets and Financial Liabilities*, which amends certain aspects of the recognition, measurement, presentation and disclosure of certain financial instruments, including equity investments and liabilities measured at fair value under the fair value option. Under this guidance, investments in equity securities must be measured at fair value through earnings, with certain exceptions, and entities can no longer classify investments in equity securities as available for sale or trading. We adopted this guidance on June 1, 2018 on a modified retrospective basis and recorded a cumulative-effect adjustment that increased retained earnings by \$9 million as a result of the transition adjustment to reclassify unrealized gains related to our equity securities from accumulated other comprehensive income (“AOCI”) to retained earnings. As a result of adopting this guidance, our investments in equity securities are no longer classified as available for sale and unrealized holding gains and losses are recorded in earnings. Previously, our equity securities were classified as available for sale and unrealized holding gains and losses were recorded in other comprehensive income.

Revenue from Contracts with Customers

In May 2014, FASB issued ASU 2014-09, *Revenue from Contracts with Customers*, which modifies the guidance used to recognize revenue from contracts with customers for transfers of goods or services and transfers of nonfinancial assets. This guidance applies to all contracts with customers to provide goods or services in the ordinary course of business, except for certain contracts specifically excluded from the scope, including financial instruments, guarantees, insurance contracts and leases. As a financial institution, substantially all of our revenue is in the form of interest income derived from financial instruments, primarily our investments in loans and securities. We adopted this guidance on June 1, 2018. Given the scope exception for financial instruments, the adoption of the guidance did not have an impact on our condensed consolidated financial statements and does not affect our accounting.

Accounting Standards Issued But Not Yet Adopted

Fair Value Measurement—Changes to the Disclosure Requirements for Fair Value Measurement

In August 2018, FASB issued ASU 2018-13, *Fair Value Measurement—Changes to the Disclosure Requirements for Fair Value Measurement*, which eliminates, adds and modifies certain disclosure requirements for fair value measurements as part of its disclosure framework project. The guidance is effective for public entities for fiscal years beginning after December 15, 2019, including interim periods within those years. Early adoption is permitted in any interim period or fiscal

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year before the effective date. The guidance is effective for us beginning June 1, 2020. We do not expect that the adoption of this guidance will have a material impact on our consolidated financial statements.

Derivatives and Hedging—Targeted Improvements to Accounting for Hedging Activities

In August 2017, FASB issued ASU 2017-12, *Derivatives and Hedging—Targeted Improvements to Accounting for Hedging Activities*, which expands the types of risk management strategies that qualify for hedge accounting treatment to more closely align the results of hedge accounting with the economics of certain risk management activities and simplifies certain hedge documentation and assessment requirement. It also eliminates the concept of separately recording hedge ineffectiveness and expands disclosure requirements. The guidance is effective for public entities for fiscal years beginning after December 15, 2018, including interim periods within those years. Early adoption is permitted in any interim period or fiscal year before the effective date. The guidance is effective for us beginning June 1, 2019. Hedge accounting is elective, and we currently apply hedge accounting on a limited basis, specifically when we enter into treasury rate lock agreements. If we continue to elect not to apply hedge accounting to our interest rate swaps, the adoption of the new guidance will not have a material impact on our consolidated financial statements.

Receivables—Nonrefundable Fees and Other Cost

In March 2017, FASB issued ASU 2017-08, *Receivables—Nonrefundable Fees and Other Costs*, which shortens the amortization period for the premium on certain callable debt securities to the earliest call date rather than the maturity date. The guidance is applicable to any individual debt security, purchased at a premium, with an explicit and noncontingent call feature with a fixed price on a preset date. The guidance does not impact the accounting for purchased callable debt securities held at a discount; the discount will continue to amortize to the maturity date. The guidance is effective for public entities in fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. This update is effective for us beginning June 1, 2019. Adoption of the guidance requires modified retrospective transition as of the beginning of the period of adoption through a cumulative-effect adjustment to retained earnings. We do not expect that the adoption of this guidance will have a material impact on our consolidated financial statements.

Financial Instruments—Credit Losses: Measurement of Credit Losses on Financial Instruments

In June 2016, FASB issued ASU 2016-13, *Financial Instruments—Credit Losses: Measurement of Credit Losses on Financial Instruments*, which replaces the existing incurred loss impairment model and establishes a single allowance framework based on a current expected credit loss model for financial assets carried at amortized cost, including loans and held-to-maturity debt securities. The current expected loss model requires an entity to estimate the credit losses expected over the life of the credit exposure upon initial recognition of that exposure when the financial asset is originated or acquired, which will generally result in earlier recognition of credit losses. The guidance also amends the other-than-temporary model for available-for-sale debt securities by requiring the use of an allowance, rather than directly reducing the carrying value of the security. The new guidance also requires expanded credit quality disclosures. The new standard is effective for fiscal years and interim periods within those fiscal years, beginning after December 15, 2019. This update is effective for us beginning June 1, 2020. While early adoption is permitted for us beginning in the first quarter of fiscal year 2020, we do not expect to elect that option. We are continuing to evaluate the impact of the guidance on our consolidated financial statements, including assessing and evaluating assumptions and models to estimate losses. We do not expect to early adopt this guidance. Upon adoption, we will be required to record a cumulative-effect adjustment to retained earnings. The impact on our consolidated financial statements from the adoption of this new guidance will depend on our portfolio composition and credit quality at the date of adoption as well as forecasts at that time.

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NOTE 2—VARIABLE INTEREST ENTITIES

NCSC and RTFC meet the definition of a VIE because they do not have sufficient equity investment at risk to finance their activities without financial support. CFC is the primary source of funding for NCSC and the sole source of funding for RTFC. Under the terms of management agreements, CFC manages the business operations of NCSC and RTFC. CFC also unconditionally guarantees full indemnification for any loan losses of NCSC and RTFC pursuant to guarantee agreements with each company. CFC earns management and guarantee fees from its agreements with NCSC and RTFC.

NCSC and RTFC creditors have no recourse against CFC in the event of a default by NCSC and RTFC, unless there is a guarantee agreement under which CFC has guaranteed NCSC or RTFC debt obligations to a third party. The following table provides information on incremental consolidated assets and liabilities of VIEs included in CFC's condensed consolidated financial statements, after intercompany eliminations, as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018	May 31, 2018
Total loans outstanding.....	\$ 1,122,717	\$ 1,149,574
Other assets.....	16,512	10,280
Total assets.....	\$ 1,139,229	\$ 1,159,854
Long-term debt.....	\$ 8,000	\$ 8,000
Other liabilities.....	39,759	33,923
Total liabilities.....	\$ 47,759	\$ 41,923

The following table provides information on CFC's credit commitments to NCSC and RTFC, and its potential exposure to loss as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018	May 31, 2018
CFC credit commitments.....	\$ 5,500,000	\$ 5,500,000
Outstanding commitments:		
Borrowings payable to CFC ⁽¹⁾	1,089,764	1,116,465
Credit enhancements:		
CFC third-party guarantees.....	17,073	12,005
Other credit enhancements.....	13,757	14,655
Total credit enhancements ⁽²⁾	30,830	26,660
Total outstanding commitments.....	1,120,594	1,143,125
CFC available credit commitments.....	\$ 4,379,406	\$ 4,356,875

⁽¹⁾ Borrowings payable to CFC are eliminated in consolidation.

⁽²⁾ Excludes interest due on these instruments.

CFC loans to NCSC and RTFC are secured by all assets and revenue of NCSC and RTFC. CFC's maximum potential exposure, including interest due, for the credit enhancements totaled \$32 million as of November 30, 2018. The maturities for obligations guaranteed by CFC extend through 2031.

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NOTE 3—INVESTMENT SECURITIES

We currently hold investments in equity and debt securities. We record purchases and sales of our investment securities on a trade-date basis. The accounting and measurement framework for investment securities differs depending on the security type and the classification.

Equity Securities

We previously had investments in equity securities that were classified as available for sale as of May 31, 2018. The unrealized gains and losses on these securities were recorded in other comprehensive income. Effective with our June 1, 2018 adoption of the financial instrument accounting standard on the recognition and measurement of financial assets and financial liabilities, unrealized gains and losses on equity securities are required to be recorded in earnings. The following table presents the fair value of our equity securities, all of which had readily determinable fair values, as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018	May 31, 2018
Equity securities at fair value:		
Farmer Mac—non-cumulative preferred stock.....	\$ 82,047	\$ 82,352
Farmer Mac—class A common stock	4,941	6,980
Total equity securities at fair value.....	<u>\$ 86,988</u>	<u>\$ 89,332</u>

We recorded unrealized losses on our investments in equity securities of \$1 million and \$2 million in earnings during the three and six months ended November 30, 2018, respectively. These unrealized losses are presented in other expenses on our condensed consolidated statements of income. We recorded unrealized gains on our investments in equity securities of less than \$1 million and unrealized losses on our investments in equity securities of \$1 million in other comprehensive income during the three and six months ended November 30, 2017, respectively. For additional information on our investments in equity securities, see “Note 1—Summary of Significant Accounting Policies” and “Note 10—Equity—Accumulated Other Comprehensive Income.”

Debt Securities

We currently classify and account for our investments in debt securities as held to maturity (“HTM”) because we have the positive intent and ability to hold these securities to maturity. If we acquire debt securities that we may sell prior to maturity in response to changes in our investment strategy, liquidity needs, credit risk mitigating considerations, market risk profile or for other reasons, we would classify such securities as available for sale. We report debt securities classified as HTM on our condensed consolidated balance sheets at amortized cost. Interest income, including amortization of premiums and accretion of discounts, is generally recognized over the contractual life of the securities based on the effective yield method.

Pursuant to our investment policy guidelines, all fixed-income debt securities, at the time of purchase, must be rated at least investment grade and on stable outlook based on external credit ratings from at least two of the leading global credit rating agencies, when available, or the corresponding equivalent, when not available. Securities rated investment grade, that is those rated Baa3 or higher by Moody’s Investors Service (“Moody’s”) or BBB- or higher by S&P or BBB- or higher by Fitch Ratings Inc. (“Fitch”), are generally considered by the rating agencies to be of lower credit risk than non-investment grade securities.

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Amortized Cost and Fair Value of Debt Securities

The following tables present the amortized cost and fair value of our investment securities and the corresponding gross unrealized gains and losses, by classification category and major security type, as of November 30, 2018 and May 31, 2018.

November 30, 2018				
(Dollars in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities held to maturity:				
Certificates of deposit	\$ 1,000	\$ —	\$ —	\$ 1,000
Commercial paper	12,858	—	(1)	12,857
U.S. agency debt securities	2,823	2	(1)	2,824
Corporate debt securities	470,536	21	(7,702)	462,855
Commercial MBS:				
Agency	7,313	5	(15)	7,303
Non-agency	3,453	1	(11)	3,443
Total commercial MBS	10,766	6	(26)	10,746
U.S. state and municipality debt securities	9,612	17	(10)	9,619
Foreign government debt securities	1,247	1	—	1,248
Other ABS ⁽¹⁾	49,229	1	(263)	48,967
Total debt securities held to maturity	<u>\$ 558,071</u>	<u>\$ 48</u>	<u>\$ (8,003)</u>	<u>\$ 550,116</u>
May 31, 2018				
(Dollars in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Debt securities held to maturity:				
Certificates of deposit	\$ 5,148	\$ —	\$ —	\$ 5,148
Commercial paper	9,134	—	—	9,134
U.S. agency debt securities	2,000	16	—	2,016
Corporate debt securities	455,721	714	(4,595)	451,840
Commercial MBS:				
Agency	7,024	63	—	7,087
Non-agency	3,453	3	(3)	3,453
Total commercial MBS	10,477	66	(3)	10,540
U.S. state and municipality debt securities	2,147	24	—	2,171
Foreign government debt securities	1,241	9	—	1,250
Other ABS ⁽¹⁾	34,651	11	(215)	34,447
Total debt securities held to maturity	<u>\$ 520,519</u>	<u>\$ 840</u>	<u>\$ (4,813)</u>	<u>\$ 516,546</u>

⁽¹⁾Consists primarily of securities backed by auto lease loans, equipment-backed loans, auto loans and credit card loans.

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Debt Securities in Gross Unrealized Loss Position

An unrealized loss exists when the fair value of an individual security is less than its amortized cost basis. The following table presents the fair value and gross unrealized losses for debt securities in a gross loss position, aggregated by security type, and the length of time the securities have been in a continuous unrealized loss position as of November 30, 2018 and May 31, 2018. The securities are segregated between investments that have been in a continuous unrealized loss position for less than 12 months and 12 months or more based on the point in time that the fair value declined below the amortized cost basis.

(Dollars in thousands)	November 30, 2018					
	Unrealized Loss Position Less than 12 Months		Unrealized Loss Position 12 Months or Longer		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Debt securities held to maturity:						
Commercial paper	\$ 2,164	\$ (1)	\$ —	\$ —	\$ 2,164	\$ (1)
U.S. agency debt securities	391	(1)	—	—	391	(1)
Corporate bonds	286,614	(3,234)	154,964	(4,468)	441,578	(7,702)
Commercial MBS:						
Agency	3,700	(15)	—	—	3,700	(15)
Non-agency	1,446	(11)	—	—	1,446	(11)
Total commercial MBS	5,146	(26)	—	—	5,146	(26)
U.S. state and municipality debt securities	3,917	(10)	—	—	3,917	(10)
Other ABS ⁽¹⁾	29,180	(98)	17,982	(165)	47,162	(263)
Total investment securities	<u>\$ 327,412</u>	<u>\$ (3,370)</u>	<u>\$ 172,946</u>	<u>\$ (4,633)</u>	<u>\$ 500,358</u>	<u>\$ (8,003)</u>
May 31, 2018						
(Dollars in thousands)	Unrealized Loss Position Less than 12 Months		Unrealized Loss Position 12 Months or Longer		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Held to maturity:						
Corporate debt securities	\$ 280,139	\$ (4,595)	\$ —	\$ —	\$ 280,139	\$ (4,595)
Commercial MBS, non-agency	1,451	(3)	—	—	1,451	(3)
Other ABS ⁽¹⁾	27,012	(215)	—	—	27,012	(215)
Total investment securities	<u>\$ 308,602</u>	<u>\$ (4,813)</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 308,602</u>	<u>\$ (4,813)</u>

⁽¹⁾Consists primarily of securities backed by auto lease loans, equipment-backed loans, auto loans and credit card loans.

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Other-Than-Temporary Impairment

We conduct periodic reviews of all securities with unrealized losses to evaluate whether the impairment is other than temporary. The number of individual securities in an unrealized loss position was 431 as of November 30, 2018. We have assessed each security with gross unrealized losses included in the above table for credit impairment. As part of that assessment, we concluded that the unrealized losses are driven by changes in market interest rates rather than by adverse changes in the credit quality of these securities. Based on our assessment, we expect to recover the entire amortized cost basis of these securities, as we do not intend to sell any of the securities and have concluded that it is more likely than not that we will not be required to sell prior to recovery of the amortized cost basis. Accordingly, we currently consider the impairment of these securities to be temporary.

Contractual Maturity and Yield

The following table presents, by major security type, the remaining contractual maturity based on amortized cost and fair value of our HTM investment securities as of November 30, 2018 and May 31, 2018. Because borrowers may have the right to call or prepay certain obligations, the expected maturities of our investments may differ from the scheduled contractual maturities presented below.

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(Dollars in thousands)	November 30, 2018				
	Due in 1 Year or Less	Due > 1 Year through 5 Years	Due > 5 Years through 10 Years	Due >10 Years	Total
Amortized cost:					
Certificates of deposit.....	\$ 1,000	\$ —	\$ —	\$ —	\$ 1,000
Commercial paper.....	12,858	—	—	—	12,858
U.S. agency debt securities.....	—	2,672	151	—	2,823
Corporate debt securities.....	25,428	403,664	41,444	—	470,536
Commercial MBS:					
Agency.....	—	342	6,971	—	7,313
Non-agency.....	—	—	—	3,453	3,453
Total commercial MBS.....	—	342	6,971	3,453	10,766
U.S. state and municipality debt securities.....	—	5,484	4,128	—	9,612
Foreign government debt securities.....	—	1,247	—	—	1,247
Other ABS ⁽¹⁾	993	45,791	2,445	—	49,229
Total.....	<u>\$ 40,279</u>	<u>\$ 459,200</u>	<u>\$ 55,139</u>	<u>\$ 3,453</u>	<u>\$ 558,071</u>
Fair value:					
Certificates of deposit.....	\$ 1,000	\$ —	\$ —	\$ —	\$ 1,000
Commercial paper.....	12,857	—	—	—	12,857
U.S. agency debt securities.....	—	2,672	152	—	2,824
Corporate debt securities.....	25,247	396,593	41,015	—	462,855
Commercial MBS:					
Agency.....	—	340	6,963	—	7,303
Non-Agency.....	—	—	—	3,443	3,443
Total Commercial MBS.....	—	340	6,963	3,443	10,746
U.S. State and Municipality Debt Securities.....	—	5,475	4,144	—	9,619
Foreign Government Debt Securities.....	—	1,248	—	—	1,248
Other ABS ⁽¹⁾	991	45,532	2,444	—	48,967
Total.....	<u>\$ 40,095</u>	<u>\$ 451,860</u>	<u>\$ 54,718</u>	<u>\$ 3,443</u>	<u>\$ 550,116</u>
Weighted average coupon ⁽²⁾	1.79%	2.98%	3.58%	3.13%	2.95%

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(Dollars in thousands)	May 31, 2018				
	Due in 1 Year or Less	Due > 1 Year through 5 Years	Due > 5 Years through 10 Years	Due >10 Years	Total
Amortized cost:					
Certificates of deposit	\$ 5,148	\$ —	\$ —	\$ —	\$ 5,148
Commercial paper	9,134	—	—	—	9,134
U.S. agency debt securities	—	2,000	—	—	2,000
Corporate debt securities	9,111	377,384	69,226	—	455,721
Commercial MBS:					
Agency	—	—	7,024	—	7,024
Non-Agency	—	—	—	3,453	3,453
Total Commercial MBS	—	—	7,024	3,453	10,477
U.S. State and Municipality Debt Securities	—	—	2,147	—	2,147
Foreign Government Debt Securities	—	1,241	—	—	1,241
Other ABS ⁽¹⁾	—	33,357	1,294	—	34,651
Total	<u>\$ 23,393</u>	<u>\$ 413,982</u>	<u>\$ 79,691</u>	<u>\$ 3,453</u>	<u>\$520,519</u>
Fair value:					
Certificates of deposit	\$ 5,148	\$ —	\$ —	\$ —	\$ 5,148
Commercial paper	9,134	—	—	—	9,134
U.S. agency debt securities	—	2,016	—	—	2,016
Corporate debt securities	9,056	373,284	69,500	—	451,840
Commercial MBS:					
Agency	—	—	7,087	—	7,087
Non-Agency	—	—	—	3,453	3,453
Total Commercial MBS	—	—	7,087	3,453	10,540
U.S. State and Municipality Debt Securities	—	—	2,171	—	2,171
Foreign Government Debt Securities	—	1,250	—	—	1,250
Other ABS ⁽¹⁾	—	33,157	1,290	—	34,447
Total	<u>\$ 23,338</u>	<u>\$ 409,707</u>	<u>\$ 80,048</u>	<u>\$ 3,453</u>	<u>\$516,546</u>
Weighted average coupon ⁽²⁾	1.81%	2.84%	3.60%	2.74%	2.91%

⁽¹⁾Consists primarily of securities backed by auto lease loans, equipment-backed loans, auto loans and credit card loans.

⁽²⁾Calculated based on the weighted average coupon rate, which excludes the impact of amortization of premium and accretion of discount.

The average contractual maturity and weighted average coupon of our HTM investment securities was three years and 2.95%, respectively, as of November 30, 2018. The average credit rating of these securities, based on the equivalent lowest credit rating by Moody's, S&P and Fitch was A2, A and A, respectively, as of November 30, 2018.

Realized Gains and Losses

We did not sell any of our investment securities during the three months ended November 30, 2018, and therefore have not recorded any realized gains or losses.

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NOTE 4—LOANS

Loans, which are classified as held for investment, are carried at the outstanding unpaid principal balance net of unamortized loan origination costs. The following table presents the outstanding principal balance of loans to members, including deferred loan origination costs, and unadvanced loan commitments by loan type and member class, as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018		May 31, 2018	
	Loans Outstanding	Unadvanced Commitments ⁽¹⁾	Loans Outstanding	Unadvanced Commitments ⁽¹⁾
Loan type:				
Long-term loans:				
Fixed rate.....	\$ 22,713,588	\$ —	\$ 22,696,185	\$ —
Variable rate.....	1,077,971	5,289,612	1,039,491	4,952,834
Total long-term loans.....	23,791,559	5,289,612	23,735,676	4,952,834
Lines of credit.....	1,491,394	7,854,452	1,431,818	7,692,784
Total loans outstanding.....	25,282,953	13,144,064	25,167,494	12,645,618
Deferred loan origination costs	11,222	—	11,114	—
Loans to members.....	\$ 25,294,175	\$ 13,144,064	\$ 25,178,608	\$ 12,645,618
Member class:				
CFC:				
Distribution	\$ 19,812,973	\$ 8,531,846	\$ 19,551,511	\$ 8,188,376
Power supply.....	4,264,713	3,592,293	4,397,353	3,407,095
Statewide and associate.....	82,549	130,909	69,055	128,025
Total CFC	24,160,235	12,255,048	24,017,919	11,723,496
NCSC.....	767,225	597,325	786,457	624,663
RTFC	355,493	291,691	363,118	297,459
Total loans outstanding.....	25,282,953	13,144,064	25,167,494	12,645,618
Deferred loan origination costs	11,222	—	11,114	—
Loans to members.....	\$ 25,294,175	\$ 13,144,064	\$ 25,178,608	\$ 12,645,618

⁽¹⁾The interest rate on unadvanced loan commitments is not set until an advance is made; therefore, all long-term unadvanced loan commitments are reported as variable-rate. However, the borrower may select either a fixed or a variable rate when an advance on a commitment is made.

Unadvanced Loan Commitments

Unadvanced loan commitments represent approved and executed loan contracts for which funds have not been advanced to borrowers. The following table summarizes the available balance under unadvanced loan commitments as of November 30, 2018 and the related maturities by fiscal year and thereafter by loan type:

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(Dollars in thousands)	Available Balance	Notional Maturities of Unadvanced Loan Commitments					
		2019	2020	2021	2022	2023	Thereafter
Line of credit loans...	\$ 7,854,452	\$ 302,927	\$ 3,960,406	\$ 908,973	\$ 755,133	\$ 1,339,586	\$ 587,427
Long-term loans	5,289,612	417,526	545,467	688,422	1,636,893	1,193,023	808,281
Total.....	<u>\$ 13,144,064</u>	<u>\$ 720,453</u>	<u>\$ 4,505,873</u>	<u>\$ 1,597,395</u>	<u>\$ 2,392,026</u>	<u>\$ 2,532,609</u>	<u>\$ 1,395,708</u>

Unadvanced line of credit commitments accounted for 60% of total unadvanced loan commitments as of November 30, 2018, while unadvanced long-term loan commitments accounted for 40% of total unadvanced loan commitments. Unadvanced line of credit commitments are typically revolving facilities for periods not to exceed five years. Unadvanced line of credit commitments generally serve as supplemental back-up liquidity to our borrowers. Historically, borrowers have not drawn the full commitment amount for line of credit facilities, and we have experienced a very low utilization rate on line of credit loan facilities regardless of whether or not we are obligated to fund the facility where a material adverse change exists.

Our unadvanced long-term loan commitments have a five-year draw period under which a borrower may advance funds prior to the expiration of the commitment. We expect that the majority of the long-term unadvanced loan commitments of \$5,290 million will be advanced prior to the expiration of the commitment.

Because we historically have experienced a very low utilization rate on line of credit loan facilities, which account for the majority of our total unadvanced loan commitments, we believe the unadvanced loan commitment total of \$13,144 million as of November 30, 2018 is not necessarily representative of our future funding cash requirements.

Unadvanced Loan Commitments—Conditional

The majority of our line of credit commitments and all of our unadvanced long-term loan commitments include material adverse change clauses. Unadvanced loan commitments subject to material adverse change clauses totaled \$10,090 million and \$9,789 million as of November 30, 2018 and May 31, 2018, respectively. Prior to making an advance on these facilities, we confirm that there has been no material adverse change in the business or condition, financial or otherwise, of the borrower since the time the loan was approved and confirm that the borrower is currently in compliance with loan terms and conditions. In some cases, the borrower's access to the full amount of the facility is further constrained by the designated purpose, imposition of borrower-specific restrictions or by additional conditions that must be met prior to advancing funds.

Unadvanced Loan Commitments—Unconditional

Unadvanced loan commitments not subject to material adverse change clauses at the time of each advance consisted of unadvanced committed lines of credit totaling \$3,054 million and \$2,857 million as of November 30, 2018 and May 31, 2018, respectively. As such, we are required to advance amounts on these committed facilities as long as the borrower is in compliance with the terms and conditions of the facility.

The following table summarizes the available balance under unconditional committed lines of credit, and the related maturities by fiscal year and thereafter, as of November 30, 2018.

(Dollars in thousands)	Available Balance	Notional Maturities of Unconditional Committed Lines of Credit					
		2019	2020	2021	2022	2023	Thereafter
Committed lines of credit	\$3,053,902	\$110,000	\$347,582	\$479,348	\$455,400	\$1,228,176	\$433,396

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Loan Sales

We transfer, from time to time, loans to third parties under our direct loan sale program. We did not have any loan sales during the six months ended November 30, 2018. We sold CFC loans with outstanding balances totaling \$110 million, at par for cash, during the six months ended November 30, 2017. We recorded immaterial losses upon the sale of these loans, attributable to the unamortized deferred loan origination costs associated with the transferred loans.

Pledging of Loans

We are required to pledge eligible mortgage notes in an amount at least equal to the outstanding balance of our secured debt. The following table summarizes our loans outstanding as collateral pledged to secure our collateral trust bonds, Clean Renewable Energy Bonds, notes payable to Farmer Mac and notes payable under the Guaranteed Underwriter Program of the USDA (“Guaranteed Underwriter Program”) and the amount of the corresponding debt outstanding as of November 30, 2018 and May 31, 2018. See “Note 6—Short-Term Borrowings” and “Note 7—Long-Term Debt” for information on our borrowings.

(Dollars in thousands)	November 30, 2018	May 31, 2018
Collateral trust bonds:		
2007 indenture:		
Distribution system mortgage notes	\$ 8,299,400	\$ 8,643,344
RUS-guaranteed loans qualifying as permitted investments	137,839	140,680
Total pledged collateral.....	<u>\$ 8,437,239</u>	<u>\$ 8,784,024</u>
Collateral trust bonds outstanding	7,322,711	7,697,711
1994 indenture:		
Distribution system mortgage notes	\$ 48,929	\$ 243,418
Collateral trust bonds outstanding	40,000	220,000
Farmer Mac:		
Distribution and power supply system mortgage notes	\$ 3,177,761	\$ 3,331,775
Notes payable outstanding	2,763,482	2,891,496
Clean Renewable Energy Bonds Series 2009A:		
Distribution and power supply system mortgage notes	\$ 13,755	\$ 12,615
Cash	1,087	415
Total pledged collateral.....	<u>\$ 14,842</u>	<u>\$ 13,030</u>
Notes payable outstanding	11,556	11,556
Federal Financing Bank:		
Distribution and power supply system mortgage notes	\$ 5,596,619	\$ 5,772,750
Notes payable outstanding	4,925,542	4,856,375

Credit Concentration

As a tax-exempt, member-owned finance cooperative, CFC’s principal focus is to provide funding to its rural electric utility cooperative members to assist them in acquiring, constructing and operating electric distribution systems, power supply systems and related facilities. We serve electric and telecommunications members throughout the United States and its

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territories, including 50 states, the District of Columbia, American Samoa and Guam. Our consolidated membership totaled 1,449 members and 215 associates as of November 30, 2018. Texas had the largest concentration of outstanding loans to borrowers in any one state, with approximately 15% of total loans outstanding as of both November 30, 2018 and May 31, 2018. Because we lend primarily to our rural electric utility cooperative members, we have a loan portfolio subject to single-industry and single-obligor concentration risks.

Loans outstanding to electric utility organizations represented approximately 99% of total loans outstanding as of November 30, 2018, unchanged from May 31, 2018. The remaining loans outstanding in our portfolio were to RTFC members, affiliates and associates in the telecommunications industry. The combined exposure of loans and guarantees outstanding for our 20 largest borrowers was 22% and 23% as of November 30, 2018 and May 31, 2018, respectively. The 20 largest borrowers consisted of nine distribution systems, 10 power supply systems and one NCSC associate member as of both November 30, 2018 and May 31, 2018. The largest total outstanding exposure to a single borrower or controlled group represented approximately 2% of total loans and guarantees outstanding as of both November 30, 2018 and May 31, 2018.

As part of our strategy in managing our credit exposure, we entered into a long-term standby purchase commitment agreement with Farmer Mac during fiscal year 2016. Under this agreement, we may designate certain long-term loans to be covered under the commitment, subject to approval by Farmer Mac, and in the event any such loan later goes into payment default for at least 90 days, upon request by us, Farmer Mac must purchase such loan at par value. The aggregate unpaid principal balance of designated and Farmer Mac approved loans was \$643 million and \$660 million as of November 30, 2018 and May 31, 2018, respectively. Under the agreement, we are required to pay Farmer Mac a monthly fee based on the unpaid principal balance of loans covered under the purchase commitment. No loans had been put to Farmer Mac for purchase, pursuant to this agreement, as of November 30, 2018. Also, we had long-term loans totaling \$158 million and \$161 million as of November 30, 2018 and May 31, 2018, respectively, guaranteed by RUS.

Credit Quality

Assessing the overall credit quality of our loan portfolio and measuring our credit risk is an ongoing process that involves tracking payment status, charge-offs, troubled debt restructurings, nonperforming and impaired loans, the internal risk ratings of our borrowers and other indicators of credit risk. We monitor and subject each borrower and loan facility in our loan portfolio to an individual risk assessment based on quantitative and qualitative factors. Internal risk ratings and payment status trends are indicators, among others, of the probability of borrower default and level of credit risk in our loan portfolio.

Borrower Risk Ratings

As part of our credit risk management process, we monitor and evaluate each borrower and loan in our loan portfolio and assign internal borrower and loan facility risk ratings based on quantitative and qualitative assessments. Our borrower risk ratings are intended to assess probability of default. Each risk rating is reassessed annually following the receipt of the borrower's audited financial statements; however, interim risk-rating downgrades or upgrades may occur as a result of significant developments or trends. Our borrower risk ratings are intended to align with banking regulatory agency credit risk rating definitions of pass and criticized classifications, with criticized divided between special mention, substandard and doubtful. Pass ratings reflect relatively low probability of default, while criticized ratings have a higher probability of default. Following is a description of each rating category.

- *Pass*: Borrowers that are not experiencing difficulty and/or not showing a potential or well-defined credit weakness.
- *Special Mention*: Borrowers that may be characterized by a potential credit weakness or deteriorating financial condition that is not sufficiently serious to warrant a classification of substandard or doubtful.
- *Substandard*: Borrowers that display a well-defined credit weakness that may jeopardize the full collection of principal and interest.

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- *Doubtful:* Borrowers that have a well-defined credit weakness or weaknesses that make full collection of principal and interest, on the basis of currently known facts, conditions and collateral values, highly questionable and improbable.

Loans to borrowers in the pass, special mention and substandard categories are generally considered not to be individually impaired and are included in the loan pools for determining the collective reserve component of the allowance for loan losses. Loans to borrowers in the doubtful category are considered to be impaired and are therefore individually assessed for impairment in determining the specific reserve component of the allowance for loan losses.

The following tables present total loans outstanding, by member class and borrower risk rating category, based on the risk ratings used in the estimation of our allowance for loan losses as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018				
	Pass	Special Mention	Substandard	Doubtful	Total
CFC:					
Distribution	\$ 19,683,219	\$ 6,364	\$ 123,390	\$ —	\$ 19,812,973
Power supply	4,216,130	—	48,583	—	4,264,713
Statewide and associate.....	82,549	—	—	—	82,549
CFC total	<u>23,981,898</u>	<u>6,364</u>	<u>171,973</u>	<u>—</u>	<u>24,160,235</u>
NCSC.....	767,225	—	—	—	767,225
RTFC	349,651	—	5,842	—	355,493
Total loans outstanding	<u>\$ 25,098,774</u>	<u>\$ 6,364</u>	<u>\$ 177,815</u>	<u>\$ —</u>	<u>\$ 25,282,953</u>

(Dollars in thousands)	May 31, 2018				
	Pass	Special Mention	Substandard	Doubtful	Total
CFC:					
Distribution	\$ 19,429,121	\$ 6,853	\$ 115,537	\$ —	\$ 19,551,511
Power supply	4,348,328	—	49,025	—	4,397,353
Statewide and associate.....	69,055	—	—	—	69,055
CFC total	<u>23,846,504</u>	<u>6,853</u>	<u>164,562</u>	<u>—</u>	<u>24,017,919</u>
NCSC.....	786,457	—	—	—	786,457
RTFC	356,503	523	6,092	—	363,118
Total loans outstanding	<u>\$ 24,989,464</u>	<u>\$ 7,376</u>	<u>\$ 170,654</u>	<u>\$ —</u>	<u>\$ 25,167,494</u>

We had loans to one electric distribution cooperative borrower and its subsidiary totaling \$172 million and \$165 million as of November 30, 2018 and May 31, 2018, respectively, that were classified as substandard. The electric distribution cooperative owns and operates a distribution and transmission system and is in the early stages of deploying retail broadband service. The borrower is currently experiencing financial difficulties due to recent net losses and weak cash flows. The borrower and its subsidiary are current with regard to all principal and interest payments and have never been delinquent. The borrower operates in a territory that is not rate-regulated and has the ability to adjust its electric rates to cover operating costs and service debt. Of the outstanding amount, all but \$17 million and \$7 million was secured under our typical collateral requirements for long-term loan advances as of November 30, 2018 and May 31, 2018, respectively. We currently expect to collect all principal and interest amounts due from the borrower and its subsidiary. Accordingly, the loans outstanding to this borrower and its subsidiary were not deemed to be impaired as of either November 30, 2018 or May 31, 2018.

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Payment Status of Loans

The tables below present the payment status of loans outstanding by member class as of November 30, 2018 and May 31, 2018. As indicated in the table, we did not have any past due loans as of either November 30, 2018 or May 31, 2018.

November 30, 2018						
(Dollars in thousands)	Current	30-89 Days Past Due	90 Days or More Past Due ⁽¹⁾	Total Past Due	Total Financing Receivables	Nonaccrual Loans
CFC:						
Distribution	\$ 19,812,973	\$ —	\$ —	\$ —	\$ 19,812,973	\$ —
Power supply	4,264,713	—	—	—	4,264,713	—
Statewide and associate...	82,549	—	—	—	82,549	—
CFC total	<u>24,160,235</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>24,160,235</u>	<u>—</u>
NCSC	767,225	—	—	—	767,225	—
RTFC	355,493	—	—	—	355,493	—
Total loans outstanding	<u>\$ 25,282,953</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 25,282,953</u>	<u>\$ —</u>
Percentage of total loans	100.00%	—%	—%	—%	100.00%	—%
May 31, 2018						
(Dollars in thousands)	Current	30-89 Days Past Due	90 Days or More Past Due ⁽¹⁾	Total Past Due	Total Financing Receivables	Nonaccrual Loans
CFC:						
Distribution	\$ 19,551,511	\$ —	\$ —	\$ —	\$ 19,551,511	\$ —
Power supply	4,397,353	—	—	—	4,397,353	—
Statewide and associate...	69,055	—	—	—	69,055	—
CFC total	<u>24,017,919</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>24,017,919</u>	<u>—</u>
NCSC	786,457	—	—	—	786,457	—
RTFC	363,118	—	—	—	363,118	—
Total loans outstanding	<u>\$ 25,167,494</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 25,167,494</u>	<u>\$ —</u>
Percentage of total loans	100.00%	—%	—%	—%	100.00%	—%

⁽¹⁾ All loans 90 days or more past due are on nonaccrual status.

Troubled Debt Restructurings

We did not have any loans modified as TDRs during the six months ended November 30, 2018. The following table provides a summary of loans modified as TDRs in prior periods, the performance status of these loans and the unadvanced loan commitments related to the TDR loans, by member class, as of November 30, 2018 and May 31, 2018.

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(Dollars in thousands)	November 30, 2018			May 31, 2018		
	Loans Outstanding	% of Total Loans	Unadvanced Commitments	Loans Outstanding	% of Total Loans	Unadvanced Commitments
TDR loans:						
Performing TDR loans:						
CFC/Distribution.....	\$ 6,261	0.03%	\$ —	\$ 6,507	0.03%	\$ —
RTFC	5,842	0.02	—	6,092	0.02	—
Total performing TDR loans.....	12,103	0.05	—	12,599	0.05	—
Total TDR loans.....	\$ 12,103	0.05%	\$ —	\$ 12,599	0.05%	\$ —

We did not have any TDR loans classified as nonperforming as of November 30, 2018 or May 31, 2018. TDR loans classified as performing as of November 30, 2018 and May 31, 2018 were performing in accordance with the terms of their respective restructured loan agreement and on accrual status as of the respective reported dates. One borrower with a TDR loan also had a line of credit facility, restricted for fuel purchases only, totaling \$6 million as of both November 30, 2018 and May 31, 2018. The outstanding amount under this facility totaled less than \$1 million as of both November 30, 2018 and May 31, 2018, and was classified as performing as of each respective date.

Nonperforming Loans

In addition to TDR loans that may be classified as nonperforming, we also may have nonperforming loans that have not been modified as a TDR. We did not have any loans classified as nonperforming as of either November 30, 2018 or May 31, 2018.

We had no foregone interest income for loans on nonaccrual status during the three and six months ended November 30, 2018 and 2017.

Impaired Loans

The following table provides information on loans classified as individually impaired loans as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018		May 31, 2018	
	Recorded Investment	Related Allowance	Recorded Investment	Related Allowance
With no specific allowance recorded:				
CFC	\$ 6,261	\$ —	\$ 6,507	\$ —
With a specific allowance recorded:				
RTFC	5,842	1,150	6,092	1,198
Total impaired loans	\$ 12,103	\$ 1,150	\$ 12,599	\$ 1,198

The following table presents, by company, the average recorded investment for individually impaired loans and the interest income recognized on these loans for the three and six months ended November 30, 2018 and 2017.

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(Dollars in thousands)	Three Months Ended November 30,			
	Average Recorded Investment		Interest Income Recognized	
	2018	2017	2018	2017
CFC.....	\$ 6,261	\$ 6,507	\$ 137	\$ 142
RTFC	5,923	6,423	74	80
Total impaired loans	<u>\$ 12,184</u>	<u>\$ 12,930</u>	<u>\$ 211</u>	<u>\$ 222</u>

(Dollars in thousands)	Six Months Ended November 30,			
	Average Recorded Investment		Interest Income Recognized	
	2018	2017	2018	2017
CFC.....	\$ 6,383	\$ 6,541	\$ 279	\$ 286
RTFC	5,986	6,486	150	162
Total impaired loans	<u>\$ 12,369</u>	<u>\$ 13,027</u>	<u>\$ 429</u>	<u>\$ 448</u>

Net Charge-Offs

Charge-offs represent the amount of a loan that has been removed from our consolidated balance sheet when the loan is deemed uncollectible. Generally the amount of a charge-off is the recorded investment in excess of the fair value of the expected cash flows from the loan, or, if the loan is collateral dependent, the fair value of the underlying collateral securing the loan. We report charge-offs net of amounts recovered on previously charged off loans. We had no loan defaults or charge-offs during the three and six months ended November 30, 2018 or 2017.

NOTE 5—ALLOWANCE FOR LOAN LOSSES

We maintain an allowance for loan losses that represents management’s estimate of probable losses inherent in our loan portfolio as of each balance sheet date. Our allowance for loan losses consists of a collective allowance for loans in our portfolio that are not individually impaired and a specific allowance for loans identified as individually impaired. The allowance for loan losses is reported separately on the consolidated balance sheet, and the provision for loan losses is separately reported on our consolidated statement of income.

The following tables summarize changes, by company, in the allowance for loan losses as of and for the three and six months ended November 30, 2018 and 2017.

(Dollars in thousands)	Three Months Ended November 30, 2018			
	CFC	NCSC	RTFC	Total
Balance as of August 31, 2018	\$ 12,508	\$ 2,012	\$ 4,172	\$ 18,692
Benefit for loan losses	(334)	(43)	(1,411)	(1,788)
Balance as of November 30, 2018.....	<u>\$ 12,174</u>	<u>\$ 1,969</u>	<u>\$ 2,761</u>	<u>\$ 16,904</u>

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Three Months Ended November 30, 2017				
(Dollars in thousands)	CFC	NCSC	RTFC	Total
Balance as of August 31, 2017	\$ 29,521	\$ 2,736	\$ 4,821	\$ 37,078
Provision (benefit) for loan losses	(722)	381	37	(304)
Balance as of November 30, 2017	<u>\$ 28,799</u>	<u>\$ 3,117</u>	<u>\$ 4,858</u>	<u>\$ 36,774</u>

Six Months Ended November 30, 2018				
(Dollars in thousands)	CFC	NCSC	RTFC	Total
Balance as of May 31, 2018	\$ 12,300	\$ 2,082	\$ 4,419	\$ 18,801
Benefit for loan losses	(126)	(113)	(1,658)	(1,897)
Balance as of November 30, 2018	<u>\$ 12,174</u>	<u>\$ 1,969</u>	<u>\$ 2,761</u>	<u>\$ 16,904</u>

Six Months Ended November 30, 2017				
(Dollars in thousands)	CFC	NCSC	RTFC	Total
Balance as of May 31, 2017	\$ 29,499	\$ 2,910	\$ 4,967	\$ 37,376
Provision (benefit) for loan losses	(700)	207	(109)	(602)
Balance as of November 30, 2017	<u>\$ 28,799</u>	<u>\$ 3,117</u>	<u>\$ 4,858</u>	<u>\$ 36,774</u>

The tables below present, by company, the components of our allowance for loan losses and the recorded investment of the related loans as of November 30, 2018 and May 31, 2018.

November 30, 2018				
(Dollars in thousands)	CFC	NCSC	RTFC	Total
Ending balance of the allowance:				
Collective allowance	\$ 12,174	\$ 1,969	\$ 1,611	\$ 15,754
Specific allowance	—	—	1,150	1,150
Total ending balance of the allowance	<u>\$ 12,174</u>	<u>\$ 1,969</u>	<u>\$ 2,761</u>	<u>\$ 16,904</u>
Recorded investment in loans:				
Collectively evaluated loans	\$ 24,153,974	\$ 767,225	\$ 349,651	\$ 25,270,850
Individually evaluated loans	6,261	—	5,842	12,103
Total recorded investment in loans	<u>\$ 24,160,235</u>	<u>\$ 767,225</u>	<u>\$ 355,493</u>	<u>\$ 25,282,953</u>
Total recorded investment in loans, net ⁽¹⁾	<u>\$ 24,148,061</u>	<u>\$ 765,256</u>	<u>\$ 352,732</u>	<u>\$ 25,266,049</u>

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(Dollars in thousands)	May 31, 2018			
	CFC	NCSC	RTFC	Total
Ending balance of the allowance:				
Collective allowance	\$ 12,300	\$ 2,082	\$ 3,221	\$ 17,603
Specific allowance.....	—	—	1,198	1,198
Total ending balance of the allowance.....	<u>\$ 12,300</u>	<u>\$ 2,082</u>	<u>\$ 4,419</u>	<u>\$ 18,801</u>
Recorded investment in loans:				
Collectively evaluated loans.....	\$ 24,011,412	\$ 786,457	\$ 357,026	\$ 25,154,895
Individually evaluated loans.....	6,507	—	6,092	12,599
Total recorded investment in loans	<u>\$ 24,017,919</u>	<u>\$ 786,457</u>	<u>\$ 363,118</u>	<u>\$ 25,167,494</u>
Total recorded investment in loans, net ⁽¹⁾	\$ 24,005,619	\$ 784,375	\$ 358,699	\$ 25,148,693

⁽¹⁾ Excludes unamortized deferred loan origination costs of \$11 million as of both November 30, 2018 and May 31, 2018.

In addition to the allowance for loan losses, we also maintain a reserve for unadvanced loan commitments at a level estimated by management to provide for probable losses under these commitments as of each balance sheet date, which was less than \$1 million as of both November 30, 2018 and May 31, 2018.

NOTE 6—SHORT-TERM BORROWINGS

Short-term borrowings consist of borrowings with an original contractual maturity of one year or less and do not include the current portion of long-term debt. Our short-term borrowings totaled \$4,101 million and accounted for 17% of total debt outstanding as of November 30, 2018, compared with \$3,796 million, or 15%, of total debt outstanding as of May 31, 2018. The following table displays short-term borrowings outstanding as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018	May 31, 2018
Short-term borrowings:		
Commercial paper:		
Commercial paper to dealers, net of discounts	\$ 1,058,949	\$ 1,064,266
Commercial paper to members, at par	<u>1,218,730</u>	<u>1,202,105</u>
Total commercial paper	<u>2,277,679</u>	<u>2,266,371</u>
Select notes to members	1,031,022	780,472
Daily liquidity fund notes to members	566,935	400,635
Medium-term notes to members	224,970	248,432
Farmer Mac revolving facility	—	100,000
Total short-term borrowings	<u>\$ 4,100,606</u>	<u>\$ 3,795,910</u>

Committed Bank Revolving Line of Credit Agreements

We had \$2,975 million and \$3,085 million of commitments under committed bank revolving line of credit agreements as of November 30, 2018 and May 31, 2018, respectively. Under our current committed bank revolving line of credit agreements,

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we have the ability to request up to \$300 million of letters of credit, which would result in a reduction in the remaining available amount under the facilities.

On November 28, 2018, we amended the three-year and five-year committed bank revolving line of credit agreements to extend the maturity dates to November 28, 2021 and November 28, 2023, respectively, and to terminate certain third-party bank commitments totaling \$53 million under the three-year agreement and \$57 million under the five-year agreement. As a result, the total commitment amount from third-parties under the three-year facility and the five-year facility is \$1,440 million and \$1,535 million, respectively, resulting in a combined total commitment amount under the two facilities of \$2,975 million.

The following table presents the total commitment, the net amount available for use and the outstanding letters of credit under our committed bank revolving line of credit agreements as of November 30, 2018 and May 31, 2018.

(Dollars in millions)	November 30, 2018			May 31, 2018			Maturity	Annual Facility Fee ⁽¹⁾
	Total Commitment	Letters of Credit Outstanding	Net Available for Use	Total Commitment	Letters of Credit Outstanding	Net Available for Use		
3-year agreement....	\$ —	\$ —	\$ —	\$ 1,492	\$ —	\$ 1,492	November 20, 2020	7.5 bps
3-year agreement....	1,440	—	1,440	—	—	—	November 28, 2021	7.5 bps
Total 3-year agreement	1,440	—	1,440	1,492	—	1,492		
5-year agreement....	—	—	—	1,593	3	1,590	November 20, 2022	10 bps
5-year agreement....	1,535	3	1,532	—	—	—	November 28, 2023	10 bps
Total 5-year agreement	1,535	3	1,532	1,593	3	1,590		
Total.....	\$ 2,975	\$ 3	\$ 2,972	\$ 3,085	\$ 3	\$ 3,082		

⁽¹⁾ Facility fee determined by CFC's senior unsecured credit ratings based on the pricing schedules put in place at the inception of the related agreement.

We had no borrowings outstanding under our committed bank revolving line of credit agreements as of November 30, 2018 or May 31, 2018, and we were in compliance with all covenants and conditions under the agreements as of each date.

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NOTE 7—LONG-TERM DEBT

The following table displays long-term debt outstanding, by debt type, as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018	May 31, 2018
Unsecured long-term debt:		
Medium-term notes sold through dealers	\$ 3,296,932	\$ 3,026,472
Medium-term notes sold to members	397,096	395,389
Subtotal medium-term notes	3,694,028	3,421,861
Unamortized discount	(1,094)	(1,256)
Debt issuance costs	(20,906)	(22,237)
Total unsecured medium-term notes	3,672,028	3,398,368
Unsecured notes payable	18,892	18,892
Unamortized discount	(229)	(277)
Debt issuance costs	(56)	(68)
Total unsecured notes payable	18,607	18,547
Total unsecured long-term debt	3,690,635	3,416,915
Secured long-term debt:		
Collateral trust bonds	7,362,711	7,917,711
Unamortized discount	(246,914)	(250,421)
Debt issuance costs	(29,648)	(28,197)
Total collateral trust bonds	7,086,149	7,639,093
Guaranteed Underwriter Program notes payable	4,925,542	4,856,375
Debt issuance costs	—	(232)
Total Guaranteed Underwriter Program notes payable	4,925,542	4,856,143
Farmer Mac notes payable	2,763,482	2,791,496
Other secured notes payable	11,556	11,556
Debt issuance costs	(208)	(243)
Total other secured notes payable	11,348	11,313
Total secured notes payable	7,700,372	7,658,952
Total secured long-term debt	14,786,521	15,298,045
Total long-term debt	\$ 18,477,156	\$ 18,714,960

Collateral Trust Bonds

Collateral trust bonds represent secured obligations sold to investors in the capital markets. Collateral trust bonds are secured by the pledge of mortgage notes or eligible securities in an amount at least equal to the principal balance of the bonds outstanding.

On July 12, 2018, we redeemed \$300 million of the \$1 billion 10.375% collateral trust bonds due November 1, 2018, at a premium of \$7 million. We repaid the remaining \$700 million of these bonds on the maturity date.

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On October 31, 2018, we issued \$325 million aggregate principal amount of 3.90% collateral trust bonds due 2028 and \$300 million aggregate principal amount of 4.40% collateral trust bonds due 2048.

Secured Notes Payable

We had outstanding secured notes payable totaling \$4,926 million and \$4,856 million as of November 30, 2018 and May 31, 2018, respectively, under bond purchase agreements with the Federal Financing Bank and a bond guarantee agreement with RUS issued under the Guaranteed Underwriter Program, which provides guarantees to the Federal Financing Bank. We pay RUS a fee of 30 basis points per year on the total amount outstanding. On November 15, 2018, we closed on a \$750 million committed loan facility (Series N) from the Federal Financing Bank under the Guaranteed Underwriter Program. Pursuant to this facility, we may borrow any time before July 15, 2023. Each advance is subject to quarterly amortization and a final maturity not longer than 20 years from the advance date. We had up to \$1,875 million available for access under the Guaranteed Underwriter Program as of November 30, 2018.

We are required to pledge eligible distribution system or power supply system loans as collateral in an amount at least equal to the total principal amount of notes outstanding under the Guaranteed Underwriter Program. See “Note 4—Loans” for additional information on the collateral pledged to secure notes payable under this program.

We have two revolving note purchase agreements with Farmer Mac, which together allow us to borrow up to \$5,500 million from Farmer Mac. Under our first revolving note purchase agreement with Farmer Mac, dated March 24, 2011, as amended, we can currently borrow, subject to market conditions, up to \$5,200 million at any time through January 11, 2022, and such date shall automatically extend on each anniversary date of the closing for an additional year, unless prior to any such anniversary date, Farmer Mac provides us with a notice that the draw period will not be extended beyond the remaining term. This revolving note purchase agreement allows us to borrow, repay and re-borrow funds at any time through maturity, as market conditions permit, provided that the outstanding principal amount at any time does not exceed the total available under the agreement. Each borrowing under the revolving note purchase agreement is evidenced by a pricing agreement setting forth the interest rate, maturity date and other related terms as we may negotiate with Farmer Mac at the time of each such borrowing. We may select a fixed rate or variable rate at the time of each advance with a maturity as determined in the applicable pricing agreement. Under this note purchase agreement with Farmer Mac, we had outstanding secured notes payable totaling \$2,763 million and \$2,791 million as of November 30, 2018 and May 31, 2018, respectively.

Under our second revolving note purchase agreement with Farmer Mac, dated July 31, 2015, as amended, we can borrow up to \$300 million at any time through December 20, 2023 at a fixed spread over LIBOR. This agreement also allows us to borrow, repay and re-borrow funds at any time through maturity, provided that the outstanding principal amount at any time does not exceed the total available under the agreement. Prior to the maturity date, Farmer Mac may terminate the agreement upon 30 days written notice to us on periodic facility renewal dates, the first of which is January 31, 2019. Subsequent facility renewal dates are on each June 20 or December 20 thereafter until the maturity date. We may terminate the agreement upon 30 days written notice at any time. Under the terms of the first revolving note purchase agreement with Farmer Mac described above, the \$5,200 million commitment will increase to \$5,500 million in the event the second revolving note purchase agreement is terminated.

We are required to pledge eligible distribution system or power supply system loans as collateral in an amount at least equal to the total principal amount of notes outstanding under each of our Farmer Mac revolving note purchase agreements. See “Note 4—Loans” for additional information on the collateral pledged to secure notes payable under these programs.

We were in compliance with all covenants and conditions under our senior debt indentures as of November 30, 2018 and May 31, 2018.

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NOTE 8—SUBORDINATED DEFERRABLE DEBT

The following table presents subordinated deferrable debt outstanding as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018	May 31, 2018
4.75% due 2043 with a call date of April 30, 2023.....	\$ 400,000	\$ 400,000
5.25% due 2046 with a call date of April 20, 2026.....	350,000	350,000
Debt issuance costs	(7,520)	(7,590)
Total subordinated deferrable debt.....	<u>\$ 742,480</u>	<u>\$ 742,410</u>

NOTE 9—DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

We are an end user of derivative financial instruments and do not engage in derivative trading. We use derivatives, primarily interest rate swaps and Treasury rate locks, to manage interest rate risk. Derivatives may be privately negotiated contracts, which are often referred to as over-the-counter (“OTC”) derivatives, or they may be listed and traded on an exchange. We generally engage in OTC derivative transactions.

Accounting for Derivatives

In accordance with the accounting standards for derivatives and hedging activities, we record derivative instruments at fair value as either a derivative asset or derivative liability on our condensed consolidated balance sheets. We report derivative asset and liability amounts on a gross basis based on individual contracts, which does not take into consideration the effects of master netting agreements or collateral netting. Derivatives in a gain position are reported as derivative assets on our condensed consolidated balance sheets, while derivatives in a loss position are reported as derivative liabilities. Accrued interest related to derivatives is reported on our condensed consolidated balance sheets as a component of either accrued interest and other receivables or accrued interest payable.

If we do not elect hedge accounting treatment, changes in the fair value of derivative instruments, which consist of net accrued periodic derivative cash settlements and derivative forward value amounts, are recognized in our consolidated statements of income under derivative gains (losses). If we elect hedge accounting treatment for derivatives, we formally document, designate and assess the effectiveness of the hedge relationship. Changes in the fair value of derivatives designated as qualifying fair value hedges are recorded in earnings together with offsetting changes in the fair value of the hedged item and any related ineffectiveness. Changes in the fair value of derivatives designated as qualifying cash flow hedges are recorded as a component of OCI, to the extent that the hedge relationships are effective, and reclassified AOCI to earnings using the effective interest method over the term of the forecasted transaction. Any ineffectiveness in the hedging relationship is recognized as a component of derivative gains (losses) in our consolidated statement of income.

We generally do not designate interest rate swaps, which represented all of our outstanding derivatives as of November 30, 2018, for hedge accounting. Accordingly, changes in the fair value of interest rate swaps are reported in our consolidated statements of income under derivative gains (losses). Net periodic cash settlements related to interest rate swaps are classified as an operating activity in our consolidated statements of cash flows.

Outstanding Notional Amount of Derivatives not Designated as Accounting Hedges

The notional amount provides an indication of the volume of our derivatives activity, but this amount is not recorded on our condensed consolidated balance sheets. The notional amount is used only as the basis on which interest payments are determined and is not the amount exchanged. The following table shows the outstanding notional amounts and the weighted-average rate paid and received for our interest rate swaps, by type, as of November 30, 2018 and May 31, 2018.

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The substantial majority of our interest rate swaps use an index based on the London Interbank Offered Rate (“LIBOR”) for either the pay or receive leg of the swap agreement.

(Dollars in thousands)	November 30, 2018			May 31, 2018		
	Notional Amount	Weighted-Average Rate Paid	Weighted-Average Rate Received	Notional Amount	Weighted-Average Rate Paid	Weighted-Average Rate Received
Pay-fixed swaps	\$ 7,362,136	2.83%	2.52%	\$ 6,987,999	2.83%	2.30%
Receive-fixed swaps	3,699,000	3.12	2.52	3,824,000	2.93	2.50
Total interest rate swaps	<u>11,061,136</u>	2.93	2.52	<u>10,811,999</u>	2.86	2.37
Forward pay-fixed swaps	83,017			256,154		
Total.....	<u>\$11,144,153</u>			<u>\$11,068,153</u>		

Cash Flow Hedge

In anticipation of the repricing of \$100 million in notes payable outstanding under the Guaranteed Underwriter Program, we entered into a treasury rate lock agreement with a notional amount of \$100 million on May 25, 2018. The agreement, which was scheduled to mature on October 12, 2018, was designated as a cash flow hedge of the forecasted transaction. We recorded an unrealized loss in AOCI of \$1 million as of May 31, 2018 related to this cash flow hedge. On September 25, 2018, we terminated this cash flow hedge as the forecasted transaction was no longer expected to occur. Upon termination, the fair value of the derivative had shifted to a gain of \$1 million from a loss of \$1 million as of May 31, 2018. We reversed the loss recorded in AOCI and recognized the gain in earnings as a component of derivative gains on our condensed consolidated statements of income.

Impact of Derivatives on Condensed Consolidated Balance Sheets

The following table displays the fair value of the derivative assets and derivative liabilities recorded on our condensed consolidated balance sheets and the related outstanding notional amount of our interest rate swaps by derivatives type, as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018		May 31, 2018	
	Fair Value	Notional Balance	Fair Value	Notional Balance
Derivative assets:				
Interest rate swaps	<u>\$ 319,687</u>	<u>\$ 5,883,946</u>	<u>\$ 244,526</u>	<u>\$ 5,264,971</u>
Derivative liabilities:				
Treasury rate lock—cash flow hedge	\$ —	\$ —	\$ 1,059	\$ 100,000
Interest rate swaps	<u>255,112</u>	<u>5,260,207</u>	<u>274,873</u>	<u>5,803,182</u>
Total derivative liabilities	<u>\$ 255,112</u>	<u>\$ 5,260,207</u>	<u>\$ 275,932</u>	<u>\$ 5,903,182</u>

All of our master swap agreements include netting provisions that allow for offsetting of all contracts with a given counterparty in the event of default by one of the two parties. However, as indicated above, we report derivative asset and liability amounts on a gross basis by individual contracts. The following table presents the gross fair value of derivative assets and liabilities reported on our condensed consolidated balance sheets as of November 30, 2018 and May 31, 2018, and provides information on the impact of netting provisions and collateral pledged.

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November 30, 2018						
(Dollars in thousands)	Gross Amount of Recognized Assets/ Liabilities	Gross Amount Offset in the Balance Sheet	Net Amount of Assets/ Liabilities Presented in the Balance Sheet	Gross Amount Not Offset in the Balance Sheet		Net Amount
				Financial Instruments	Cash Collateral Pledged	
Derivative assets:						
Interest rate swaps	\$ 319,687	\$ —	\$ 319,687	\$ 202,952	\$ —	\$ 116,735
Derivative liabilities:						
Interest rate swaps	255,112	—	255,112	202,952	—	52,160

May 31, 2018						
(Dollars in thousands)	Gross Amount of Recognized Assets/ Liabilities	Gross Amount Offset in the Balance Sheet	Net Amount of Assets/ Liabilities Presented in the Balance Sheet	Gross Amount Not Offset in the Balance Sheet		Net Amount
				Financial Instruments	Cash Collateral Pledged	
Derivative assets:						
Interest rate swaps	\$ 244,526	\$ —	\$ 244,526	\$ 196,633	\$ —	\$ 47,893
Derivative liabilities:						
Treasury rate lock—cash flow hedge	1,059	—	1,059	—	—	1,059
Interest rate swaps	274,873	—	274,873	196,633	—	78,240

Impact of Derivatives on Condensed Consolidated Statements of Income

Derivative gains (losses) reported in our condensed consolidated statements of income consist of derivative cash settlements and derivative forward value gains (losses). Derivative cash settlements represent net contractual interest expense accruals on interest rate swaps during the period. The derivative forward value gains (losses) represent the change in fair value of our interest rate swaps during the reporting period due to changes in the estimate of future interest rates over the remaining life of our derivative contracts.

The following table presents the components of the derivative gains (losses) reported in our condensed consolidated statements of income for our interest rate swaps for the three and six months ended November 30, 2018 and 2017.

(Dollars in thousands)	Three Months Ended November 30,		Six Months Ended November 30,	
	2018	2017	2018	2017
Derivative cash settlements	\$ (11,805)	\$ (19,635)	\$ (24,634)	\$ (39,857)
Derivative forward value gains	75,148	145,228	95,160	119,252
Derivative gains	<u>\$ 63,343</u>	<u>\$ 125,593</u>	<u>\$ 70,526</u>	<u>\$ 79,395</u>

As noted above, during fiscal year 2018, we entered into a treasury rate lock agreement that was designated as a cash flow hedge of a forecasted transaction. This cash flow hedge was terminated on September 25, 2018 and a gain of \$1 million was recorded upon termination as a component of derivative cash settlements in our condensed consolidated statements of income.

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Credit Risk-Related Contingent Features

Our derivative contracts typically contain mutual early termination provisions, generally in the form of a credit rating trigger. Under the mutual credit rating trigger provisions, either counterparty may, but is not obligated to, terminate and settle the agreement if the credit rating of the other counterparty falls below a level specified in the agreement. If a derivative contract is terminated, the amount to be received or paid by us would be equal to the prevailing fair value, as defined in the agreement, as of the termination date.

Our senior unsecured credit ratings from Moody's and S&P were A2 and A, respectively, as of November 30, 2018. Both Moody's and S&P had our ratings on stable outlook as of November 30, 2018. The following table displays the notional amounts of our derivative contracts with rating triggers as of November 30, 2018, and the payments that would be required if the contracts were terminated as of that date because of a downgrade of our unsecured credit ratings or the counterparty's unsecured credit ratings below A3/A-, below Baa1/BBB+, to or below Baa2/BBB, below Baa3/BBB-, or to or below Ba2/BB+ by Moody's or S&P, respectively. In calculating the payment amounts that would be required upon termination of the derivative contracts, we assumed that the amounts for each counterparty would be netted in accordance with the provisions of the master netting agreements for each counterparty. The net payment amounts are based on the fair value of the underlying derivative instrument, excluding the credit risk valuation adjustment, plus any unpaid accrued interest amounts.

(Dollars in thousands)	Notional Amount	Payable Due from CFC	Receivable Due to CFC	Net (Payable)/ Receivable
Impact of rating downgrade trigger:				
Falls below A3/A- ⁽¹⁾	\$ 52,555	\$ (7,819)	\$ —	\$ (7,819)
Falls below Baa1/BBB+	7,308,946	(37,072)	75,448	38,376
Falls to or below Baa2/BBB ⁽²⁾	525,293	—	7,137	7,137
Falls below Baa3/BBB-	222,643	(8,952)	—	(8,952)
Total	\$ 8,109,437	\$ (53,843)	\$ 82,585	\$ 28,742

⁽¹⁾ Rating trigger for CFC falls below A3/A-, while rating trigger for counterparty falls below Baa1/BBB+ by Moody's or S&P, respectively.

⁽²⁾ Rating trigger for CFC falls to or below Baa2/BBB, while rating trigger for counterparty falls to or below Ba2/BB+ by Moody's or S&P, respectively.

We have outstanding notional amount of derivatives with one counterparty subject to a ratings trigger and early termination provision in the event of a downgrade of CFC's senior unsecured credit ratings below Baa3, BBB- or BBB- by Moody's, S&P or Fitch, respectively, which is not included in the above table, totaling \$165 million as of November 30, 2018. These contracts were in an unrealized gain position of \$2 million as of November 30, 2018.

Our largest counterparty exposure, based on the outstanding notional amount, accounted for approximately 23% and 24% of the total outstanding notional amount of derivatives as of November 30, 2018 and May 31, 2018, respectively. The aggregate fair value amount, including the credit risk valuation adjustment, of all interest rate swaps with rating triggers that were in a net liability position was \$54 million as of November 30, 2018.

NOTE 10—EQUITY

Total equity increased by \$121 million to \$1,627 million as of November 30, 2018. The increase was primarily attributable to our reported net income of \$168 million for the six months ended November 30, 2018, which was partially offset by the patronage capital retirement of \$48 million in August 2018.

In July 2018, the CFC Board of Directors authorized the allocation of the fiscal year 2018 net earnings as follows: \$95 million to members in the form of patronage, \$57 million to the members' capital reserve and \$1 million to the cooperative

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educational fund. The amount of patronage capital allocated each year by CFC’s Board of Directors is based on adjusted net income, which excludes the impact of derivative forward value gains (losses). See “MD&A—Non-GAAP Financial Measures” for information on adjusted net income.

In July 2018, the CFC Board of Directors authorized the retirement of allocated net earnings totaling \$48 million, representing 50% of the fiscal year 2018 allocation. This amount was returned to members in cash in August 2018. The remaining portion of the allocated amount will be retained by CFC for 25 years under guidelines adopted by the CFC Board of Directors in June 2009.

The CFC Board of Directors is required to make annual allocations of adjusted net income, if any. CFC has made annual retirements of allocated net earnings in 39 of the last 40 fiscal years; however, future retirements of allocated amounts are determined based on CFC’s financial condition. The CFC Board of Directors has the authority to change the current practice for allocating and retiring net earnings at any time, subject to applicable laws. See “Item 1. Business—Allocation and Retirement of Patronage Capital” of our 2018 Form 10-K for additional information.

Accumulated Other Comprehensive Income (Loss)

The following tables summarize, by component, the activity in AOCI as of and for the three and six months ended November 30, 2018 and 2017.

(Dollars in thousands)	Three Months Ended November 30, 2018				
	Unrealized Gains (Losses) Equity Securities	Unrealized Gains Derivatives	Unrealized Gains (Losses) Cash Flow Hedges	Unrealized Losses Defined Benefit Plan	Total
Beginning balance	\$ —	\$ 2,920	\$ (1,035)	\$ (2,099)	\$ (214)
Unrealized gains	—	—	1,035	—	1,035
(Gains) losses reclassified into earnings..	—	(120)	—	131	11
Other comprehensive income (loss)	—	(120)	1,035	131	1,046
Ending balance	<u>\$ —</u>	<u>\$ 2,800</u>	<u>\$ —</u>	<u>\$ (1,968)</u>	<u>\$ 832</u>

(Dollars in thousands)	Three Months Ended November 30, 2017				
	Unrealized Gains (Losses) Equity Securities	Unrealized Gains Derivatives	Unrealized Gains (Losses) Cash Flow Hedges	Unrealized Losses Defined Benefit Plan	Total
Beginning balance	\$ 10,865	\$ 3,407	\$ 103	\$ (2,416)	\$ 11,959
Unrealized gains	8	—	—	—	8
(Gains) losses reclassified into earnings..	—	(126)	(68)	126	(68)
Other comprehensive income (loss)	8	(126)	(68)	126	(60)
Ending balance	<u>\$ 10,873</u>	<u>\$ 3,281</u>	<u>\$ 35</u>	<u>\$ (2,290)</u>	<u>\$ 11,899</u>

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Six Months Ended November 30, 2018					
(Dollars in thousands)	Unrealized Gains (Losses) Equity Securities	Unrealized Gains Derivatives	Unrealized Gains (Losses) Cash Flow Hedges	Unrealized Losses Defined Benefit Plan	Total
Beginning balance.....	\$ 8,794	\$ 3,039	\$ (1,059)	\$ (2,230)	\$ 8,544
Cumulative effect from adoption of new accounting standard ⁽¹⁾	(8,794)	—	—	—	(8,794)
Unrealized gains.....	—	—	1,059	—	1,059
(Gains) losses reclassified into earnings ..	—	(239)	—	262	23
Other comprehensive income (loss).....	—	(239)	1,059	262	1,082
Ending balance.....	<u>\$ —</u>	<u>\$ 2,800</u>	<u>\$ —</u>	<u>\$ (1,968)</u>	<u>\$ 832</u>
Six Months Ended November 30, 2017					
(Dollars in thousands)	Unrealized Gains (Losses) Equity Securities	Unrealized Gains Derivatives	Unrealized Gains (Losses) Cash Flow Hedges	Unrealized Losses Defined Benefit Plan	Total
Beginning balance	\$ 12,016	\$ 3,531	\$ 171	\$ (2,543)	\$ 13,175
Unrealized losses.....	(1,143)	—	—	—	(1,143)
(Gains) losses reclassified into earnings ..	—	(250)	(136)	253	(133)
Other comprehensive income (loss).....	(1,143)	(250)	(136)	253	(1,276)
Ending balance	<u>\$ 10,873</u>	<u>\$ 3,281</u>	<u>\$ 35</u>	<u>\$ (2,290)</u>	<u>\$ 11,899</u>

⁽¹⁾ Represents the adjustment to AOCI as a result of the new accounting standards adopted during the six months ended November 30, 2018, see “Note 1— Summary of Significant Accounting Policies.

We expect to reclassify less than \$1 million of amounts in AOCI related to unrealized derivative gains into earnings over the next 12 months.

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NOTE 11—GUARANTEES

The following table summarizes total guarantees, by type of guarantee and by member class, as of November 30, 2018 and May 31, 2018.

(Dollars in thousands)	November 30, 2018	May 31, 2018
Total by type:		
Long-term tax-exempt bonds ⁽¹⁾	\$ 313,685	\$ 316,985
Letters of credit ⁽²⁾	312,536	343,970
Other guarantees	145,201	144,206
Total	<u>\$ 771,422</u>	<u>\$ 805,161</u>
Total by member class:		
CFC:		
Distribution	\$ 201,189	\$ 201,993
Power supply	549,825	587,837
Statewide and associate	3,335	3,326
CFC total	<u>754,349</u>	<u>793,156</u>
NCSC	15,499	10,431
RTFC	1,574	1,574
Total	<u>\$ 771,422</u>	<u>\$ 805,161</u>

⁽¹⁾Represents the outstanding principal amount of long-term fixed-rate and variable-rate guaranteed bonds.

⁽²⁾Reflects our maximum potential exposure for letters of credit.

Long-term tax-exempt bonds of \$314 million and \$317 million as of November 30, 2018 and May 31, 2018, respectively, included \$248 million and \$250 million, respectively, of adjustable or variable-rate bonds that may be converted to a fixed rate as specified in the applicable indenture for each bond offering. We are unable to determine the maximum amount of interest that we may be required to pay related to the remaining adjustable and variable-rate bonds. Many of these bonds have a call provision that allows us to call the bond in the event of a default, which would limit our exposure to future interest payments on these bonds. Our maximum potential exposure generally is secured by mortgage liens on the members' assets and future revenue. If a member's debt is accelerated because of a determination that the interest thereon is not tax-exempt, the member's obligation to reimburse us for any guarantee payments will be treated as a long-term loan. The remaining long-term tax-exempt bonds of \$66 million as of November 30, 2018 are fixed-rate. The maximum potential exposure for these bonds, including the outstanding principal of \$66 million and related interest through maturity, totaled \$92 million as of November 30, 2018. The maturities for long-term tax-exempt bonds and the related guarantees extend through calendar year 2042.

Of the outstanding letters of credit of \$313 million and \$344 million as of November 30, 2018 and May 31, 2018, respectively, \$124 million and \$120 million, respectively, were secured. We did not have any letters of credit outstanding that provided for standby liquidity for adjustable and floating-rate tax-exempt bonds issued for the benefit of our members as of November 30, 2018. The maturities for the outstanding letters of credit as of November 30, 2018 extend through calendar year 2028.

In addition to the letters of credit listed in the table above, under master letter of credit facilities in place as of November 30, 2018, we may be required to issue up to an additional \$58 million in letters of credit to third parties for the benefit of our

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
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members. All of our master letter of credit facilities were subject to material adverse change clauses at the time of issuance as of November 30, 2018. Prior to issuing a letter of credit, we would confirm that there has been no material adverse change in the business or condition, financial or otherwise, of the borrower since the time the loan was approved and confirm that the borrower is currently in compliance with the letter of credit terms and conditions.

The maximum potential exposure for other guarantees was \$146 million and \$145 million as of November 30, 2018 and May 31, 2018, respectively, all of which were unsecured. The maturities for these other guarantees listed in the table above extend through calendar year 2025.

Guarantees under which our right of recovery from our members was not secured totaled \$308 million and \$344 million and represented 40% and 43% of total guarantees as of November 30, 2018 and May 31, 2018, respectively.

In addition to the guarantees described above, we were also the liquidity provider for \$248 million of variable-rate tax-exempt bonds as of November 30, 2018, issued for our member cooperatives. While the bonds are in variable-rate mode, in return for a fee, we have unconditionally agreed to purchase bonds tendered or put for redemption if the remarketing agents are unable to sell such bonds to other investors. We were not required to perform as liquidity provider pursuant to these obligations during the six months ended November 30, 2018 or the prior fiscal year.

Guarantee Liability

As of November 30, 2018 and May 31, 2018, we recorded a guarantee liability of \$10 million and \$11 million as of November 30, 2018 and May 31, 2018, respectively, which represents the contingent and noncontingent exposures related to guarantees and liquidity obligations. The contingent guarantee liability was \$1 million as of both November 30, 2018 and May 31, 2018, based on management's estimate of exposure to losses within the guarantee portfolio. The remaining balance of the total guarantee liability of \$9 million and \$10 million as of November 30, 2018 and May 31, 2018, respectively, relates to our noncontingent obligation to stand ready to perform over the term of our guarantees and liquidity obligations that we have entered into or modified since January 1, 2003.

NOTE 12—FAIR VALUE MEASUREMENT

We use fair value measurements for the initial recording of certain assets and liabilities and periodic remeasurement of certain assets and liabilities on a recurring or nonrecurring basis. The accounting guidance for fair value measurements and disclosures establishes a three-level fair value hierarchy that prioritizes the inputs into the valuation techniques used to measure fair value. The levels of the fair value hierarchy, in priority order, include Level 1, Level 2 and Level 3. For additional information regarding the fair value hierarchy and a description of the methodologies we use to measure fair value, see "Note 13—Fair Value Measurement" to the Consolidated Financial Statements in our 2018 Form 10-K.

The following tables present the carrying value and fair value for all of our financial instruments, including those carried at amortized cost, as of November 30, 2018 and May 31, 2018. The tables also display the classification within the fair value hierarchy of the valuation technique used in estimating fair value.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
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(Dollars in thousands)	November 30, 2018		Fair Value Measurement Level		
	Carrying Value	Fair Value	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents	\$ 226,758	\$ 226,758	\$ 226,758	\$ —	\$ —
Restricted cash	16,174	16,174	16,174	—	—
Equity securities.....	86,988	86,988	86,988	—	—
Debt securities held-to-maturity	558,071	550,116	—	550,116	—
Deferred compensation investments	5,001	5,001	5,001	—	—
Loans to members, net	25,277,271	23,830,865	—	—	23,830,865
Accrued interest receivable.....	133,988	133,988	—	133,988	—
Debt service reserve funds	17,151	17,151	17,151	—	—
Derivative assets	319,687	319,687	—	319,687	—
Liabilities:					
Short-term borrowings	\$ 4,100,606	\$ 4,100,581	\$ —	\$ 4,100,581	\$ —
Long-term debt.....	18,477,156	18,370,056	—	10,837,939	7,532,117
Accrued interest payable.....	146,639	146,639	—	146,639	—
Guarantee liability.....	9,612	9,249	—	—	9,249
Derivative liabilities.....	255,112	255,112	—	255,112	—
Subordinated deferrable debt	742,480	738,620	—	738,620	—
Members' subordinated certificates	1,376,689	1,376,689	—	—	1,376,689
Assets:					
Cash and cash equivalents	\$ 230,999	\$ 230,999	\$ 230,999	\$ —	\$ —
Restricted cash	7,825	7,825	7,825	—	—
Time deposits	100,000	100,000	—	100,000	—
Equity securities.....	89,332	89,332	89,332	—	—
Debt securities held to maturity	520,519	516,546	—	516,546	—
Deferred compensation investments	5,194	5,194	5,194	—	—
Loans to members, net	25,159,807	24,167,886	—	—	24,167,886
Accrued interest receivable.....	127,442	127,442	—	127,442	—
Debt service reserve funds	17,151	17,151	17,151	—	—
Derivative assets	244,526	244,526	—	244,526	—
Liabilities:					
Short-term borrowings	\$ 3,795,910	\$ 3,795,799	\$ —	\$ 3,695,799	\$ 100,000
Long-term debt.....	18,714,960	18,909,276	—	11,373,216	7,536,060
Accrued interest payable.....	149,284	149,284	—	149,284	—
Guarantee liability.....	10,589	10,454	—	—	10,454
Derivative liabilities.....	275,932	275,932	—	275,932	—
Subordinated deferrable debt	742,410	766,088	—	766,088	—
Members' subordinated certificates	1,379,982	1,380,004	—	—	1,380,004

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
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Transfers Between Levels

We monitor the availability of observable market data to assess the appropriate classification of financial instruments within the fair value hierarchy and transfer between Level 1, Level 2, and Level 3 accordingly. Observable market data includes but is not limited to quoted prices and market transactions. Changes in economic conditions or market liquidity generally will drive changes in availability of observable market data. Changes in availability of observable market data, which also may result in changes in the valuation technique used, are generally the cause of transfers between levels. We did not have any transfers between levels for financial instruments measured at fair value on a recurring basis for the six months ended November 30, 2018 and 2017.

Recurring Fair Value Measurements

The following table presents the carrying value and fair value of financial instruments reported in our condensed consolidated financial statements at fair value on a recurring basis as of November 30, 2018 and May 31, 2018, and the classification of the valuation technique within the fair value hierarchy.

(Dollars in thousands)	November 30, 2018			May 31, 2018		
	Level 1	Level 2	Total	Level 1	Level 2	Total
Equity securities	\$ 86,988	\$ —	\$ 86,988	\$ 89,332	\$ —	\$ 89,332
Deferred compensation investments.....	5,001	—	5,001	5,194	—	5,194
Derivative assets.....	—	319,687	319,687	—	244,526	244,526
Derivative liabilities	—	255,112	255,112	—	275,932	275,932

Nonrecurring Fair Value

We did not have any assets or liabilities reported in our condensed consolidated financial statements at fair value on a nonrecurring basis during the three and six months ended November 30, 2018 and 2017.

Significant Unobservable Level 3 Inputs

Impaired Loans

We utilize the fair value of estimated cash flows or the collateral underlying the loan to determine the fair value and specific allowance for impaired loans. The valuation technique used to determine fair value of the impaired loans provided by both our internal staff and third-party specialists includes market multiples (i.e., comparable companies). The significant unobservable inputs used in the determination of fair value for individually impaired loans is a multiple of earnings before interest, taxes, depreciation and amortization based on various factors (i.e., financial condition of the borrower). In estimating the fair value of the collateral, we may use third-party valuation specialists, internal estimates or a combination of both. The significant unobservable inputs for estimating the fair value of impaired collateral-dependent loans are reviewed by our Credit Risk Management group to assess the reasonableness of the assumptions used and the accuracy of the work performed. In cases where we rely on third-party inputs, we use the final unadjusted third-party valuation analysis as support for any adjustments to our consolidated financial statements and disclosures.

Because of the limited amount of impaired loans as of November 30, 2018 and May 31, 2018, we do not believe that potential changes in the significant unobservable inputs used in the determination of the fair value for impaired loans will have a material impact on the fair value measurement of these assets or our results of operations.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
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NOTE 13—BUSINESS SEGMENTS

The following tables display segment results for the three and six months ended November 30, 2018 and 2017, and assets attributable to each segment as of November 30, 2018 and November 30, 2017.

(Dollars in thousands)	Three Months Ended November 30, 2018			
	CFC	Other	Elimination	Consolidated Total
Statement of operations:				
Interest income.....	\$ 279,033	\$ 12,945	\$ (10,725)	\$ 281,253
Interest expense	(203,985)	(10,906)	10,725	(204,166)
Net interest income	75,048	2,039	—	77,087
Benefit for loan losses	1,788	—	—	1,788
Net interest income after benefit for loan losses	76,836	2,039	—	78,875
Non-interest income:				
Fee and other income	5,623	490	(1,792)	4,321
Derivative gains (losses):				
Derivative cash settlements	(11,546)	(259)	—	(11,805)
Derivative forward value gains	74,591	557	—	75,148
Derivative gains.....	63,045	298	—	63,343
Total non-interest income	68,668	788	(1,792)	67,664
Non-interest expense:				
General and administrative expenses	(23,544)	(1,919)	1,593	(23,870)
Other non-interest expense	(2,700)	(199)	199	(2,700)
Total non-interest expense	(26,244)	(2,118)	1,792	(26,570)
Income before income taxes	119,260	709	—	119,969
Income tax expense.....	—	(243)	—	(243)
Net income	\$ 119,260	\$ 466	\$ —	\$ 119,726

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Three Months Ended November 30, 2017

(Dollars in thousands)	CFC	Other	Elimination	Consolidated Total
Statement of operations:				
Interest income.....	\$ 263,180	\$ 12,257	\$ (9,614)	\$ 265,823
Interest expense	(194,943)	(9,841)	9,614	(195,170)
Net interest income	68,237	2,416	—	70,653
Benefit for loan losses	304	—	—	304
Net interest income after benefit for loan losses	68,541	2,416	—	70,957
Non-interest income:				
Fee and other income	5,490	301	(249)	5,542
Derivative gains (losses):				
Derivative cash settlements	(18,990)	(645)	—	(19,635)
Derivative forward value gains	143,452	1,776	—	145,228
Derivative gains.....	124,462	1,131	—	125,593
Results of operations of foreclosed assets.....	(10)	—	—	(10)
Total non-interest income	129,942	1,432	(249)	131,125
Non-interest expense:				
General and administrative expenses	(20,292)	(1,622)	—	(21,914)
Other non-interest expense	(618)	(249)	249	(618)
Total non-interest expense	(20,910)	(1,871)	249	(22,532)
Income before income taxes	177,573	1,977	—	179,550
Income tax expense.....	—	(827)	—	(827)
Net income	\$ 177,573	\$ 1,150	\$ —	\$ 178,723

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
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Six Months Ended November 30, 2018

(Dollars in thousands)	CFC	Other	Elimination	Consolidated Total
Statement of income:				
Interest income.....	\$ 555,276	\$ 25,929	\$ (21,461)	\$ 559,744
Interest expense	(414,035)	(21,823)	21,461	(414,397)
Net interest income	141,241	4,106	—	145,347
Benefit for loan losses	1,897	—	—	1,897
Net interest income after benefit for loan losses	143,138	4,106	—	147,244
Non-interest income:				
Fee and other income	10,096	1,054	(3,644)	7,506
Derivative gains (losses):				
Derivative cash settlements	(24,108)	(526)	—	(24,634)
Derivative forward value gains	94,262	898	—	95,160
Derivative gains.....	70,154	372	—	70,526
Total non-interest income	80,250	1,426	(3,644)	78,032
Non-interest expense:				
General and administrative expenses	(45,969)	(4,293)	3,187	(47,075)
Losses on early extinguishment of debt.....	(7,100)	—	—	(7,100)
Other non-interest expense	(3,094)	(457)	457	(3,094)
Total non-interest expense	(56,163)	(4,750)	3,644	(57,269)
Income before income taxes	167,225	782	—	168,007
Income tax expense.....	—	(303)	—	(303)
Net income	\$ 167,225	\$ 479	\$ —	\$ 167,704

November 30, 2018

	CFC	Other	Elimination	Consolidated Total
Assets:				
Total loans outstanding.....	\$ 25,250,000	\$ 1,122,718	\$ (1,089,765)	\$ 25,282,953
Deferred loan origination costs.....	11,222	—	—	11,222
Loans to members.....	25,261,222	1,122,718	(1,089,765)	25,294,175
Less: Allowance for loan losses	(16,904)	—	—	(16,904)
Loans to members, net.....	25,244,318	1,122,718	(1,089,765)	25,277,271
Other assets.....	1,542,099	112,923	(102,535)	1,552,487
Total assets	\$ 26,786,417	\$ 1,235,641	\$ (1,192,300)	\$ 26,829,758

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
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Six Months Ended November 30, 2017

(Dollars in thousands)	CFC	Other	Elimination	Consolidated Total
Statement of income:				
Interest income.....	\$ 526,591	\$ 23,206	\$ (18,059)	\$ 531,738
Interest expense	(387,448)	(18,512)	18,059	(387,901)
Net interest income	139,143	4,694	—	143,837
Benefit for loan losses	602	—	—	602
Net interest income after benefit for loan losses	139,745	4,694	—	144,439
Non-interest income:				
Fee and other income	9,378	701	(592)	9,487
Derivative gains (losses):				
Derivative cash settlements	(38,554)	(1,303)	—	(39,857)
Derivative forward value gains	117,341	1,911	—	119,252
Derivative gains.....	78,787	608	—	79,395
Results of operations of foreclosed assets.....	(34)	—	—	(34)
Total non-interest income	88,131	1,309	(592)	88,848
Non-interest expense:				
General and administrative expenses	(40,030)	(3,520)	—	(43,550)
Other non-interest expense	(1,140)	(592)	592	(1,140)
Total non-interest expense	(41,170)	(4,112)	592	(44,690)
Income before income taxes	186,706	1,891	—	188,597
Income tax expense.....	—	(859)	—	(859)
Net income	\$ 186,706	\$ 1,032	\$ —	\$ 187,738

November 30, 2017

	CFC	Other	Elimination	Consolidated Total
Assets:				
Total loans outstanding.....	\$ 24,777,423	\$ 1,111,438	\$ (1,075,319)	\$ 24,813,542
Deferred loan origination costs.....	11,149	—	—	11,149
Loans to members.....	24,788,572	1,111,438	(1,075,319)	24,824,691
Less: Allowance for loan losses	(36,774)	—	—	(36,774)
Loans to members, net.....	24,751,798	1,111,438	(1,075,319)	24,787,917
Other assets.....	1,081,850	107,516	(97,040)	1,092,326
Total assets	\$ 25,833,648	\$ 1,218,954	\$ (1,172,359)	\$ 25,880,243

Item 3. Quantitative and Qualitative Disclosures About Market Risk

For quantitative and qualitative disclosures about market risk, see “Part I—Item 2. MD&A—Market Risk” and “Note 9—Derivative Instruments and Hedging Activities.”

Item 4. Controls and Procedures

As of the end of the period covered by this report, senior management, including the Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934. Based on this evaluation process, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures are effective. There were no changes in our internal control over financial reporting that occurred during the three months ended November 30, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings

From time to time, CFC is subject to certain legal proceedings and claims in the ordinary course of business, including litigation with borrowers related to enforcement or collection actions. Management presently believes that the ultimate outcome of these proceedings, individually and in the aggregate, will not materially harm our financial position, liquidity or results of operations. CFC establishes reserves for specific legal matters when it determines that the likelihood of an unfavorable outcome is probable and the loss is reasonably estimable. Accordingly, no reserve has been recorded with respect to any legal proceedings at this time.

Item 1A. Risk Factors

Refer to “Part I—Item 1A. Risk Factors” in our 2018 Form 10-K for information regarding factors that could affect our results of operations, financial condition and liquidity. We are not aware of any material changes in the risk factors set forth under “Part I—Item 1A. Risk Factors” in our 2018 Form 10-K.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Not applicable.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

The following exhibits are incorporated by reference or filed as part of this Report.

EXHIBIT INDEX

Exhibit No.	Description
10.1*	— Amendment No. 3 dated as of November 28, 2018 to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 maturing on November 28, 2021.
10.2*	— Amendment No. 3 dated as of November 28, 2018 to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 maturing on November 28, 2023.
10.3*	— Series N Bond Purchase Agreement between the Registrant, Federal Financing Bank and Rural Utilities Service dated as of November 15, 2018 for up to \$750,000,000.
10.4*	— Series N Future Advance Bond from the Registrant to the Federal Financing Bank dated as of November 15, 2018 for up to \$750,000,000 maturing on July 15, 2043.
10.5*	— Fifth Amended, Restated and Consolidated Pledge Agreement dated as of November 15, 2018 between the Registrant, the Rural Utilities Service and U.S. Bank National Association.
10.6*	— Fifth Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 15, 2018 between the Registrant and the Rural Utilities Service.
31.1*	— Certification of the Chief Executive Officer required by Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	— Certification of the Chief Financial Officer required by Section 302 of the Sarbanes-Oxley Act of 2002
32.1†	— Certification of the Chief Executive Officer required by Section 906 of the Sarbanes-Oxley Act of 2002
32.2†	— Certification of the Chief Financial Officer required by Section 906 of the Sarbanes-Oxley Act of 2002
101.INS*	— XBRL Instance Document
101.SCH*	— XBRL Taxonomy Extension Schema Document
101.CAL*	— XBRL Taxonomy Calculation Linkbase Document
101.LAB*	— XBRL Taxonomy Label Linkbase Document
101.PRE*	— XBRL Taxonomy Presentation Linkbase Document
101.DEF*	— XBRL Taxonomy Definition Linkbase Document

*Indicates a document being filed with this Report.

†Indicates a document that is furnished with this Report, which shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that Section.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION

Date: January 11, 2019

By: /s/ J. ANDREW DON

J. Andrew Don

Senior Vice President and Chief Financial Officer

By: /s/ ROBERT E. GEIER

Robert E. Geier

Controller (Principal Accounting Officer)

AMENDMENT NO. 3

Dated as of November 28, 2018

to the

AMENDED AND RESTATED REVOLVING CREDIT AGREEMENT

Dated as of November 19, 2015

Among

NATIONAL RURAL UTILITIES

COOPERATIVE FINANCE CORPORATION,

THE BANKS PARTY HERETO,

MIZUHO BANK, LTD.,

as Administrative Agent and Initial Issuing Bank,

JPMORGAN CHASE BANK, N.A.,

as Syndication Agent

and

MUFG BANK, LTD. (F/K/A THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.),

THE BANK OF NOVA SCOTIA

and

ROYAL BANK OF CANADA,

as Co-Documentation Agents

AMENDMENT NO. 3

AMENDMENT NO. 3 dated as of November 28, 2018 (this “Amendment”) to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015, as amended by Amendment No. 1 dated as of November 18, 2016 and as further amended by Amendment No. 2 dated as of November 20, 2017, among NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, a not-for-profit cooperative association incorporated under the laws of the District of Columbia, the BANKS party thereto from time to time, MIZUHO BANK, LTD., as Administrative Agent and as Initial Issuing Bank, JPMORGAN CHASE BANK, N.A., as Syndication Agent, and MUFG BANK, LTD. (F/K/A THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.), THE BANK OF NOVA SCOTIA and ROYAL BANK OF CANADA, as Co-Documentation Agents (the “Existing Credit Agreement” and, as amended by this Amendment, the “Amended Credit Agreement”).

WITNESSETH:

WHEREAS, the Borrower has requested that the Banks party to the Existing Credit Agreement, immediately prior to the effectiveness of this Amendment (each, an “Existing Bank”), enter into this Amendment pursuant to which (i) the Existing Banks agree to extend the termination of their Commitments to November 28, 2021 (the “Extended Commitment Termination Date”) and (ii) certain other provisions of the Existing Credit Agreement will be amended;

WHEREAS, each financial institution identified on Schedule 1 hereto as an “Extending Bank” (each, an “Extending Bank”) has agreed, on the terms and conditions set forth herein, to provide Commitments terminating on the Extended Commitment Termination Date in the amounts set forth on Schedule 1 hereto opposite such Extending Bank’s name under the heading “Commitment” (the “Extended Commitments”);

WHEREAS, on the Third Amendment Effective Date (as defined in Section 7 below), the existing Commitment of each Extending Bank will be converted into an Extended Commitment; and

WHEREAS, certain other financial institutions referred to herein as “Non-Extending Banks” (each, a “Non-Extending Bank”) have informed the Borrower of their desire to terminate their existing Commitment;

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

Section 1. *Defined Terms; References.* Unless otherwise specifically defined herein, each term used herein that is defined in the Existing Credit Agreement or in the Amended Credit Agreement, as the context shall require, has the meaning assigned to such term in the Existing Credit Agreement or in the Amended Credit Agreement, as applicable. Each reference to “hereof”, “hereunder”, “herein” and “hereby” and each other similar reference and each reference to “this Amendment” and each other similar reference contained in the Existing Credit Agreement shall, on and after the Third Amendment Effective Date, refer to the Amended Credit Agreement.

Section 2. *Amended Terms and Third Amendment Effective Date Transactions.*

(a) Each of the parties hereto agrees that, effective on the Third Amendment Effective Date, the Existing Credit Agreement shall be amended to delete the stricken text (indicated textually in the same manner as the following example: ~~stricken text~~) and to add the double-underlined text (indicated textually in the same manner as the following example: double-underlined text) as set forth in the amended pages of the Existing Credit Agreement attached hereto as Exhibit A, and the Banks party hereto authorize the Administrative Agent and the Borrower to prepare a conformed copy of the Amended Credit Agreement that includes the changes contained in, and consistent with, the amended pages attached as Exhibit A.

(b) On the Third Amendment Effective Date, the Commitment of each Existing Bank that is an Extending Bank will be converted into an Extended Commitment under the Amended Credit Agreement in the amounts set forth on Schedule 1 hereto, so that the Commitment of such Extending Bank under the Amended Credit Agreement shall equal such Extended Bank’s Extended Commitments.

(c) Notwithstanding Section 2.10 of the Existing Credit Agreement, on the Third Amendment Effective Date, the Commitment of each Non-Extending Bank shall be terminated and such Non-Extending Bank shall no longer be considered as a Bank under the Amended Credit Agreement.

Section 3. *Representations of Borrower.* The Borrower represents and warrants, as of the date hereof, that:

(a) the Borrower has the corporate power and authority to execute, deliver and perform its obligations under this Amendment and under the Amended Credit Agreement, and has taken all necessary corporate action to authorize the execution, delivery and performance by it of this Amendment and the Amended Credit Agreement. The Borrower has duly executed and delivered this Amendment, and this Amendment and the Amended Credit Agreement constitutes its legal, valid and binding obligation enforceable in accordance with its terms, except as enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting the enforcement of creditors’ rights generally and by general equitable principles (regardless of whether enforcement is sought by proceeding in equity or at law);

(b) no material authorization, consent, approval or license of, or declaration, filing or registration with or exemption by, any Governmental Authority,

body or agency is required in connection with the execution, delivery and performance by the Borrower of this Amendment. The Banks acknowledge that the Borrower may file this Amendment with the Securities and Exchange Commission on or after the Third Amendment Effective Date; and

(c) the execution, delivery and performance by the Borrower of this Amendment and the Amended Credit Agreement, the borrowings contemplated hereunder and the use of the proceeds thereof will not (i) contravene any material provision of any law, statute, rule or regulation or any order, writ, injunction or decree of any court or Governmental Authority to which the Borrower is subject, (ii) require any consent under, or violate or result in any breach of any of the material terms, covenants, conditions or provisions of, or constitute a material default under, or give rise to any right to accelerate or to require the prepayment, repurchase or redemption of any obligation under, or result in the creation or imposition of (or the obligation to create or impose) any Lien upon any of the property or assets of the Borrower pursuant to the terms of the Amended Credit Agreement or any material indenture, mortgage, deed of trust, agreement or instrument, in each case to which the Borrower is a party or by which it or any its property or assets is bound or to which it may be subject, or (iii) violate any provision of the articles of incorporation or by-laws, as applicable, of the Borrower.

Section 4. GOVERNING LAW. (a) THIS AMENDMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.

(b) EACH PARTY HERETO HEREBY IRREVOCABLY AND UNCONDITIONALLY SUBMITS, FOR ITSELF AND ITS PROPERTY, TO THE EXCLUSIVE JURISDICTION OF THE SUPREME COURT OF THE STATE OF NEW YORK SITTING IN NEW YORK COUNTY AND OF THE UNITED STATES DISTRICT COURT OF THE SOUTHERN DISTRICT OF NEW YORK, AND ANY APPELLATE COURT FROM ANY THEREOF, IN ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AMENDMENT, OR FOR RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT, AND EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY AND UNCONDITIONALLY AGREES THAT ALL CLAIMS IN RESPECT OF ANY SUCH ACTION OR PROCEEDING MAY BE HEARD AND DETERMINED IN SUCH NEW YORK STATE COURT OR, TO THE EXTENT PERMITTED BY LAW, IN SUCH FEDERAL COURT. EACH OF THE PARTIES HERETO AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, THAT A FINAL JUDGMENT IN ANY SUCH ACTION OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW. NOTHING IN THIS AMENDMENT SHALL AFFECT ANY RIGHT THAT ANY PARTY HERETO OR ANY BANK MAY OTHERWISE HAVE TO BRING ANY ACTION OR PROCEEDING RELATING TO THIS AMENDMENT AGAINST ANY OTHER PARTY HERETO OR ANY BANK OR THEIR RESPECTIVE PROPERTIES IN THE COURTS OF ANY JURISDICTION.

(c) EACH PARTY HERETO HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVES, TO THE FULLEST EXTENT IT MAY LEGALLY

AND EFFECTIVELY DO SO, ANY OBJECTION WHICH IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF VENUE OF ANY SUIT, ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AMENDMENT IN ANY COURT REFERRED TO IN PARAGRAPH (B) OF THIS SECTION. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH ACTION OR PROCEEDING IN ANY SUCH COURT.

(d) EACH PARTY TO THIS AMENDMENT IRREVOCABLY CONSENTS TO SERVICE OF PROCESS IN THE MANNER PROVIDED FOR NOTICES IN SECTION 9.01 OF THE AMENDED CREDIT AGREEMENT. NOTHING IN THIS AMENDMENT WILL AFFECT THE RIGHT OF ANY PARTY TO THIS AMENDMENT TO SERVE PROCESS IN ANY OTHER MANNER PERMITTED BY LAW.

Section 5. WAIVER OF JURY TRIAL. EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AMENDMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

Section 6. Counterparts. This Amendment may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

Section 7. Effectiveness. This Amendment shall become effective on the date (the “Third Amendment Effective Date”) on which the Administrative Agent shall have received the following documents or other items, each dated the Third Amendment Effective Date unless otherwise indicated:

(a) receipt by the Administrative Agent of counterparts hereof signed by each of the parties hereto (or, in the case of any party as to which an executed counterpart shall not have been received, receipt by the Administrative Agent in form satisfactory to it of telegraphic, telex or other written confirmation from such party of execution of a counterpart hereof by such party), including receipt of consent from (i) each Extending Bank, (ii) each Non-Extending Bank and (iii) the Required Banks under the Existing Credit Agreement;

(b) receipt by the Administrative Agent of an opinion of the General Counsel of the Borrower, substantially in the form of Exhibit F to the Existing Credit Agreement, *provided* that an enforceability opinion under New York law, that is reasonably acceptable to the Administrative Agent, shall be furnished by the Borrower’s New York counsel, Norton Rose Fulbright US LLP, subject to customary assumptions, qualifications and limitations;

(c) receipt by the Administrative Agent of a certificate signed by any one of the Chief Financial Officer, the Chief Executive Officer, the Treasurer, an Assistant Secretary-Treasurer, the Controller or the Vice President, Capital Markets Relations of the Borrower to the effect that the conditions set forth in clauses (c) through (g), inclusive, of Section 3.03 of the Amended Credit Agreement have been satisfied as of the Third Amendment Effective Date and, in the case of clauses (c), (d) and (g), setting forth in reasonable detail the calculations required to establish such compliance;

(d) receipt by the Administrative Agent of a certificate of an officer of the Borrower acceptable to the Administrative Agent stating that all consents, authorizations, notices and filings required or advisable in connection with this Amendment are in full force and effect, and the Administrative Agent shall have received evidence thereof reasonably satisfactory to it;

(e) receipt by the Administrative Agent and the Syndication Agent (or their respective permitted assigns) and by each Bank Party of all fees, including such fees that are owed to each Non-Extending Bank, required to be paid in the respective amounts heretofore mutually agreed in writing, and all expenses required to be reimbursed pursuant to the terms of the Existing Credit Agreement and for which invoices have been presented, at least one (1) business day prior to the Third Amendment Effective Date;

(f) receipt by the Administrative Agent and the Banks of a Beneficial Ownership Certification on the Third Amendment Effective Date and all documentation and other information required by regulatory authorities under applicable “know your customer” and anti-money laundering rules and regulations, including, without limitation, the USA PATRIOT Act (Title III of Pub. L. 107-56) and the FinCEN beneficial ownership regulations under the Beneficial Ownership Regulation; and

(g) receipt by the Administrative Agent of all documents the Administrative Agent may reasonably request relating to the existence of the Borrower, the corporate authority for and the validity of this Amendment all in form and substance reasonably satisfactory to the Administrative Agent.

The Administrative Agent shall promptly notify the Borrower and the Bank Parties of the Third Amendment Effective Date, and such notice shall be conclusive and binding on all parties hereto.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed as of the date first above written.

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE
CORPORATION

By: /s/ J. ANDREW DON

Name: J. Andrew Don

Title: Senior Vice President and
Chief Financial Officer

MIZUHO BANK, LTD., as
Administrative Agent, Initial Issuing
Bank and Extending Bank

By: /s/ Donna Demagistris

Name: Donna Demagistris

Title: Authorized Signatory

JPMORGAN CHASE BANK, N.A., as
Syndication Agent and Extending Bank

By: /s/ Juan J. Javellana

Name: /s/ Juan J. Javellana

Title: Executive Director

SIGNATURE PAGE TO AMENDMENT NO. 3 (THE “AMENDMENT”) TO THE AMENDED AND RESTATED REVOLVING CREDIT AGREEMENT DATED AS OF NOVEMBER 19, 2015, AS AMENDED BY AMENDMENT NO. 1 TO THE EXISTING CREDIT AGREEMENT, DATED AS OF NOVEMBER 18, 2016, AND AS FURTHER AMENDED BY AMENDMENT NO. 2 TO THE EXISTING CREDIT AGREEMENT, DATED AS OF NOVEMBER 20, 2017, AMONG NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, AS BORROWER, THE BANKS PARTY THERETO, MIZUHO BANK, LTD., AS ADMINISTRATIVE AGENT, JPMORGAN CHASE BANK, N.A. AS SYNDICATION AGENT AND THE OTHER AGENTS PARTY THERETO (THE “EXISTING CREDIT AGREEMENT”).

Check only one of the following:

- The undersigned is a Bank with an existing Commitment and consents to this Amendment with respect to the full amount set forth on Schedule 1 hereto, which amount will be converted in full to an Extended Commitment
- The undersigned Bank with an existing Commitment consents to this Amendment with respect to its existing Commitment and also confirms its willingness to provide additional Commitment under the Amended Credit Agreement in an aggregate principal amount of \$_____.
- The undersigned is a “Non-Extending Bank” and consents to this Amendment and the termination of its existing Commitment.

ROYAL BANK OF CANADA

By: /s/ Justin Painter

Name: Justin Painter

Title: Authorized Signatory

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The Bank of Nova Scotia

By: /s/ David Dewar

Name: David Dewar

Title: Director

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MUFG BANK, LTD. (F/K/A THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.), a member of MUFG, a global financial group

By: /s/ Cherese Joseph

Name: Cherese Joseph

Title: Vice President

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PNC Bank, National Association

By: /s/ Kelly Miller
Name: Kelly Miller
Title: Sr. Vice President

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U.S. BANK NATIONAL ASSOCIATION

By: /s/ Michael E Temnick

Name: Michael E Temnick

Title: Vice President

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SUNTRUST BANK

By: /s/ Carmen Malizia
Name: Carmen Malizia
Title: Director

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REGIONS BANK

By: /s/ Tedrick Tarver

Name: Tedrick Tarver

Title: Vice President

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KeyBank, National Association

By: /s/ Benjamin C. Cooper

Name: Benjamin C. Cooper

Title: Vice President

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APPLE BANK FOR SAVINGS

By: /s/ Jonathan C. Byron

Name: Jonathan C. Byron

Title: Senior Vice President

SCHEDULE 1

EXTENDED COMMITMENTS

<u>Extending Banks</u>	<u>Commitment</u>
Mizuho Bank Ltd.	\$175,000,000.00
Royal Bank of Canada	\$175,000,000.00
The Bank of Nova Scotia	\$175,000,000.00
MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)	\$175,000,000.00
JPMorgan Chase Bank, N.A.	\$175,000,000.00
PNC Bank, National Association	\$150,000,000.00
US Bank National Association	\$125,000,000.00
SunTrust Bank	\$125,000,000.00
Regions Bank	\$75,000,000.00
KeyBank National Association	\$70,000,000.00
Apple Bank for Savings	\$20,000,000.00
Total	<u><u>\$1,440,000,000.00</u></u>

EXHIBIT A

NOT A LEGAL DOCUMENT

**COMPOSITE COPY REFLECTING
AMENDMENT NO. 23
DATED AS OF NOVEMBER 2028,
20172018**

AMENDED AND RESTATED REVOLVING CREDIT AGREEMENT

dated as of

November 19, 2015

among

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION,

THE BANKS LISTED HEREIN,
MIZUHO BANK, LTD.,
as Administrative Agent and Initial Issuing Bank,
JPMORGAN CHASE BANK, N.A.,
as Syndication Agent,

and

MUFG BANK, LTD.

(F/K/A THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.),
THE BANK OF NOVA SCOTIA,

and

ROYAL BANK OF CANADA

as Co-Documentation Agents

MIZUHO BANK, LTD.,
JPMORGAN CHASE BANK, N.A.,

MUFG BANK, LTD.

(F/K/A THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.),
THE BANK OF NOVA SCOTIA

and

RBC CAPITAL MARKETS
as Co-Lead Arrangers and Joint Bookrunners

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AMENDED AND RESTATED REVOLVING CREDIT AGREEMENT

This AMENDED AND RESTATED REVOLVING CREDIT AGREEMENT dated as of November 19, 2015, is made by and among NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, a not-for-profit cooperative association incorporated under the laws of the District of Columbia, as Borrower, the BANKS listed on the signature pages hereof, MIZUHO BANK, LTD., as Administrative Agent and as Initial Issuing Bank for the Letters of Credit issued or to be issued pursuant to this Agreement, JPMORGAN CHASE BANK, N.A., as Syndication Agent, and **MUFG BANK, LTD. (F/K/A THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.)**, THE BANK OF NOVA SCOTIA and ROYAL BANK OF CANADA, as Co-Documentation Agents.

WHEREAS, the Borrower, the several Banks, the Administrative Agent, the Syndication Agent and Co-Documentation Agents (as each is defined hereinafter) entered into a Revolving Credit Agreement dated as of October 21, 2011, as amended by Amendment No. 1 dated as of March 28, 2013, Amendment No. 2 dated as of October 28, 2013, Amendment No. 3 dated as of October 28, 2014 and Amendment No. 4 dated as of October 9, 2015 (collectively, the “Existing Credit Agreement”); and

WHEREAS, the Borrower has requested that the Banks, the Administrative Agent, the Syndication Agent and the Co-Documentation Agents agree, on the terms and conditions set forth herein, to amend and restate the Existing Credit Agreement. The Banks, Administrative Agent, Syndication Agent and Co-Documentation Agents have indicated their willingness to amend and restate the Existing Credit Agreement on the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto do hereby amend and restate the Existing Credit Agreement in its entirety and the parties hereto hereby agree as follows:

ARTICLE 1 Definitions

Section 1.01. *Definitions*. The following terms, as used herein, have the following meanings:

“**1994 Indenture**” means the Indenture dated as of February 15, 1994 and as amended as of September 16, 1994 between the Borrower and U.S. Bank National Association, as trustee, as amended and supplemented from time to time, providing for the issuance in series of certain collateral trust bonds of the Borrower.

“**2007 Indenture**” means the Indenture dated as of October 25, 2007 between the Borrower and U.S. Bank National Association, as trustee, as amended

and supplemented from time to time, providing for the issuance in series of certain collateral trust bonds of the Borrower.

“2016 Amendment” means Amendment No. 1 to this Agreement dated as of November 18, 2016 among the Borrower, the Administrative Agent, the Syndication Agent and the Banks thereto.

“2017 Amendment” means Amendment No. 2 to this Agreement dated as of November 20, 2017 among the Borrower, the Administrative Agent, the Syndication Agent and the Banks thereto.

“2017 Fee Letters” means those certain Fee Letters dated October 13, 2017 among the Borrower, the Administrative Agent and the Syndication Agent.

“2018 Amendment” means Amendment No. 3 to this Agreement dated as of November 28, 2018 among the Borrower, the Administrative Agent, the Syndication Agent and the Banks thereto.

“2018 Fee Letters” means those certain Fee Letters dated October 16, 2018 among the Borrower, the Administrative Agent and the Syndication Agent.

“Absolute Rate Auction” means a solicitation of Money Market Quotes setting forth Money Market Absolute Rates pursuant to Section 2.03.

“Additional Commitment Bank” has the meaning set forth in Section 2.22(d).

“Adjusted London Interbank Offered Rate” has the meaning set forth in Section 2.07(b).

“Administrative Agent” means Mizuho Bank, Ltd., in its capacity as administrative agent for the Banks hereunder, and its successors in such capacity.

“Administrative Questionnaire” means, with respect to each Bank, the administrative questionnaire in the form submitted to such Bank by the Administrative Agent and submitted to the Administrative Agent (with a copy to the Borrower) duly completed by such Bank.

“Aggregate Commitment” means the aggregate amount that is equal to the sum of the amounts of each of the Commitments.

“Agreement” means this Amended and Restated Revolving Credit Agreement, as the same may be amended from time to time.

“Amendment Effective Date” means the date this Agreement becomes effective in accordance with Section 3.01.

“**Anti-Corruption Laws**” means all laws, rules, and regulations of any jurisdiction applicable to the Borrower or its Subsidiaries from time to time concerning or relating to bribery~~-of~~, corruption **or money laundering**.

“**Anniversary Date**” has the meaning set forth in Section 2.22(a).

“**Applicable Law**” means, with respect to any Person, any and all laws, statutes, regulations, rules, orders, injunctions, decrees, judgments, writs determinations or awards having the force or effect of binding such Person at law and issued by any Governmental Authority, applicable to such Person, including all Environmental Laws.

“**Applicable Lending Office**” means, with respect to any Bank, (i) in the case of its Base Rate Loans, its Domestic Lending Office, (ii) in the case of its Euro-Dollar Loans, its Euro-Dollar Lending Office and (iii) in the case of its Money Market Loans, its Money Market Lending Office.

“**ASC 815**” means Accounting Standards Codification No. 815 Derivatives and Hedging, as amended from time to time (or any successor provision thereto).

“**ASC 830**” means Accounting Standards Codification No. 830 Foreign Currency Matters, as amended from time to time (or any successor provision thereto).

“**Assignee**” has the meaning set forth in Section 9.06(c).

“**Auto-Extension Letter of Credit**” has the meaning specified in Section 2.20(a)(iii).

“**Back-Up Letter of Credit**” has the meaning set forth in Section 2.01(b).

“**Bail-In Action**” means the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution.

“**Bail-In Legislation**” means, with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule.

“**Bank**” means at any time, any Bank that has a Commitment specified on the Commitment Schedule hereto or any Assignee thereof and any subsequent Assignee of such Assignee which becomes a Bank pursuant to Section 9.06(c).

“**Bank Extension Notice Date**” has the meaning set forth in Section 2.22(b).

“Bank Parties” mean the Banks and the Issuing Banks.

“Bankruptcy Event” means, with respect to any Person, such Person becomes the subject of a bankruptcy or insolvency proceeding, or has had a receiver, conservator, trustee, administrator, custodian, assignee for the benefit of creditors or similar Person charged with the reorganization or liquidation of its business appointed for it, or, in the good faith determination of the Administrative Agent, has taken any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any such proceeding or appointment, *provided* that a Bankruptcy Event shall not result solely by virtue of any ownership interest, or the acquisition of any ownership interest, in such Person by a Governmental Authority or instrumentality thereof, *provided, further*, that such ownership interest does not result in or provide such Person with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permit such Person (or such Governmental Authority or instrumentality) to reject, repudiate, disavow or disaffirm any contracts or agreements made by such Person.

“Base Rate” means, for any day, a rate per annum equal to the highest of (i) the Prime Rate for such day, (ii) the Federal Funds Rate for such day plus 0.50% and (iii) the Adjusted London Interbank Offered Rate taking into account any London Interbank Offered Rate floor under the definition of “London Interbank Offered Rate”, or a comparable or successor rate, which rate is selected by the Administrative Agent and Borrower as described in the definition of “London Interbank Offered Rate” in Section 2.07(b), for a one month Interest Period on such day (or if such day is not a Euro-Dollar Business Day, the immediately preceding Euro-Dollar Business Day) plus 1.00%.

“Base Rate Loan” means a Committed Loan that bears interest at the Base Rate pursuant to the applicable Notice of Committed Borrowing or Notice of Interest Rate Election or the last sentence of Section 2.08(a) or Article 8.

“Base Rate Margin” means a rate per annum determined in accordance with the Pricing Schedule.

“Beneficial Ownership Certification” means a certification regarding beneficial ownership required by the Beneficial Ownership Regulation.

“Beneficial Ownership Regulation” means 31 C.F.R. § 1010.230.

“Bonds” means any bonds issued pursuant to any of the Indentures, as the context may require.

“Borrower” means the National Rural Utilities Cooperative Finance Corporation, a not-for-profit cooperative association incorporated under the laws of the District of Columbia, and its successors.

“**Borrowing**” has the meaning set forth in Section 1.03.

“**Cash Collateral Account**” means a deposit account or a non-interest bearing securities account (as contemplated by Section 2.20(e)) opened, or to be opened, by the Administrative Agent and in which a Lien has been granted to the Administrative Agent for the benefit of each Bank and each Issuing Bank pursuant to documentation in form and substance reasonably satisfactory to the Administrative Agent and each Issuing Bank (which documents are hereby consented to by the Banks) to the extent that any Letter of Credit is required to be Cash Collateralized in accordance with this Agreement.

“**Cash Collateralize**” means to pledge and deposit with or deliver to the Administrative Agent, for the benefit of each Issuing Bank and each Bank, as collateral for the L/C Obligations, cash or deposit account balances, and “Cash Collateral” shall refer to such cash or deposit account balances.

“**Central Banking Authority**” means any central bank, reserve bank or monetary authority that is principally engaged in the regulation of the currency, money supply or commercial banking system of any given sovereign state or states.

“**Change in Law**” means (a) the adoption of any law, rule, regulation or treaty after the Effective Date, (b) any change in any law, rule, regulation or treaty or in the interpretation or application thereof by any Governmental Authority after the Effective Date or (c) compliance by any Bank Party (or, for purposes of Section 8.03(b), by its Applicable Lending Office or by such Bank Party’s holding company, if any) with any request, guideline or directive (whether or not having the force of law) of any Governmental Authority made or issued after the Effective Date; *provided however*, that notwithstanding anything therein to the contrary, (i) any requirements imposed under the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, regulations, guidelines or directives thereunder or enacted, adopted or issued in connection therewith and (ii) any requests, rules, guidelines or directives concerning capital adequacy promulgated by the Bank for International Settlements, the Basel Committee on Banking Regulations and Supervisory Practices (or any successor or similar authority) or the United States financial regulatory authorities, in each case pursuant to Basel III, shall be deemed to be a “Change in Law”, regardless of the date adopted, issued, promulgated or implemented, but only if any such requirements are generally applicable to (and for which reimbursement is generally being sought by the Banks in respect of) credit transactions similar to this transaction from borrowers similarly situated to the Borrower.

“**Code**” means the Internal Revenue Code of 1986, as amended.

“**Co-Documentation Agents**” means **MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)**, The Bank of Nova Scotia and Royal Bank of

Canada, each in their respective capacity as documentation agent hereunder, and their respective successors in such capacity.

“**Co-Lead Arrangers**” means Mizuho Bank, Ltd., JPMorgan Chase Bank, N.A., **MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)**, The Bank of Nova Scotia, and RBC Capital Markets,¹ each in their capacity as co-lead arranger and joint bookrunner.

“**Commitment**” means (i) with respect to any Bank, the amount, if any, set forth opposite the name of such Bank on the Commitment Schedule and (ii) with respect to any Bank that is an Assignee pursuant to Section 9.06(c), the amount of the transferor Bank’s commitment specified on the Commitment Schedule that is assigned to such Bank, and further, any subsequent assignment made by an Assignee to another Assignee of such amounts pursuant to Section 9.06(c), in each case as such amount may from time to time be increased or decreased from time to time in accordance with the terms and conditions of this Agreement.

“**Commitment Schedule**” means the commitment schedule attached hereto under the heading, Commitment Schedule.

“**Commitment Termination Date**” means November ~~2028~~, ~~2020~~**2021** or, if such day is not a Euro-Dollar Business Day, the immediately preceding Euro-Dollar Business Day.

“**Committed Borrowing**” means a Borrowing under Section 2.01(a).

“**Committed Loan**” means a Revolving Loan; *provided* that, if any such loan or loans (or portions thereof) are combined or subdivided pursuant to a Notice of Interest Rate Election, the term “Committed Loan” shall refer to the combined principal amount resulting from such combination or to each of the separate principal amounts resulting from such subdivision, as the case may be.

“**Confidential Information**” has the meaning set forth in Section 9.12.

“**Consolidated Entity**” means at any date any Subsidiary, and any other entity the accounts of which would be combined or consolidated with those of the Borrower in its combined or consolidated financial statements if such statements were prepared as of such date.

“**Credit Documentation**” has the meaning set forth in Section 9.15.

“**Credit Exposure**” means with respect to any Bank at any time, such Bank’s Pro Rata Share of each of (i) the aggregate principal amount of the Loans

¹RBC Capital Markets is a brand name for the capital markets businesses of Royal Bank of Canada and its affiliates.

(a) income Taxes imposed on (or measured by) net income and franchise Taxes by the United States of America, or by the jurisdiction under the laws of which such Recipient is organized or in which its principal office is located or, in the case of any Bank Party, in which its applicable lending office is located or are Other Connection Taxes, (b) any branch profits Taxes imposed by the United States of America or any similar Taxes imposed by any other jurisdiction in which the Borrower is located or are Other Connection Taxes, (c) in the case of a Non U.S. Bank Party (other than an assignee pursuant to a request by the Borrower under Section 2.18(b)), any U.S. Federal withholding Taxes resulting from any law in effect on the date such Non U.S. Bank Party becomes a party to this Agreement (or designates a new lending office) or is attributable to such Non U.S. Bank Party's failure to comply with Section 2.16(f), except to the extent that such Non U.S. Bank Party (or its assignor, if any) was entitled, at the time of designation of a new lending office (or assignment), to receive additional amounts from the Borrower with respect to such withholding Taxes pursuant to Section 2.16(a) and (d) any U.S. Federal withholding Taxes imposed under FATCA.

“**Existing Commitment Termination Date**” has the meaning set forth in Section 2.22(d).

“**Existing Credit Agreement**” has the meaning set forth in first WHEREAS clause above.

“**Existing Letters of Credit**” means the letters of credit issued and outstanding under the Existing Credit Agreement as of the Amendment Effective Date and set forth in the Existing Letters of Credit Schedule hereto.

“**Extended Commitment**” means an Extended Commitment as defined in the ~~2017~~2018 Amendment.

“**Extension Date**” has the meaning set forth in Section 2.22(d).

“**Facility Fee Rate**” means a rate per annum determined in accordance with the Pricing Schedule.

“**Farmer Mac**” means the Federal Agricultural Mortgage Corporation, a corporation organized and existing under the laws of the United States of America and a federally-chartered instrumentality of the United States of America and an institution of the Farm Credit System.

“**Farmer Mac Master Note Purchase Agreement**” means that certain Master Note Purchase Agreement, dated as of July 31, 2015, among Farmer Mac Mortgage Securities Corporation, a wholly owned subsidiary of Farmer Mac, Farmer Mac and the Borrower.

“**Farmer Mac Master Note Purchase Agreement Liens**” means Liens on any assets of the Borrower required to be pledged as collateral to support

Indebtedness of the Borrower having substantially similar terms as to subordination as those contained in the instruments and documents relating to the foregoing Indebtedness or that would be junior to any of the foregoing; *provided* that such Indebtedness (a) will not mature prior to the Maturity Date and (b) does not require payments of principal prior to the Commitment Termination Date, except pursuant to acceleration or at the option of the Borrower.

“**Recipient**” means, as applicable, (a) the Administrative Agent, (b) any Bank and (c) the Issuing Bank.

“**REDLG Program Liens**” means Liens on any asset of the Borrower required to be pledged as collateral to support obligations of the Borrower with respect to any government Guarantee provided pursuant to regulations issued under the Rural Electrification Act of 1936, 7 U.S.C. 901 et. seq., and the Food, Conservation and Energy Act of 2008, Pub. L. 110-234 Stat. 923 (“**REDLG Obligations**”) so long as such Guarantee supports long-term Indebtedness issued by the Borrower and permitted by Section 5.09.

“**REDLG Obligations**” has the meaning set forth in the definition of REDLG Program Liens.

“**Regulation U**” means Regulation U of the Board of Governors of the Federal Reserve System, as in effect from time to time.

“**Regulation X**” means Regulation X of the Board of Governors of the Federal Reserve System, as in effect from time to time.

“**Reportable Event**” means an event described in Section 4043(c) of ERISA or regulations promulgated by the Department of Labor thereunder (with respect to which the 30 day notice requirement has not been waived by the PBGC).

“**Required Banks**” means, subject to Section 2.19, at any time Banks having at least 51% of the sum of (i) the aggregate amount of the unused Commitments, (ii) the aggregate principal outstanding amount of the Loans and (iii) the Outstanding Amount of all L/C Obligations (with the aggregate amount of each Bank’s participation in L/C Obligations deemed “held” by such Bank for purposes of this definition).

“**Responsible Officer**” means (i) with respect to the Borrower, the Chief Financial Officer, the Chief Executive Officer, ~~the Chief Operating Officer~~, an Assistant Secretary-Treasurer, the Controller, the Vice President, Capital Markets Relations or, in each case, an authorized signatory of such Person and (ii) with respect to any other Person, the president, any vice-president, the chief financial officer, any assistant-treasurer or, in each case, an authorized signatory of such Person.

“Third Amendment Effective Date” means the Third Amendment Effective Date as defined in the 2018 Amendment.

“TIER” means, for any period, the ratio of (x) Net Income *plus* Interest Expense *plus* Derivative Cash Settlements to (y) Interest Expense *plus* Derivative Cash Settlements, in each case for such period.

“Trade Letter of Credit” means any Existing Letter of Credit issued under the Existing Credit Agreement or any Letter of Credit issued under this Agreement, in each case, for the benefit of a supplier of goods or services to effect payment for such goods or services.

“Type” refers to whether a Loan is a Base Rate Loan, a Euro-Dollar Loan, a Money Market Absolute Rate Loan or a Money Market LIBOR Loan.

“Unreimbursed Amount” has the meaning specified in Section 2.20(b)(i).

“U.S. GAAP” means the generally accepted accounting principles as promulgated, from time to time, by the Financial Accounting Standards Board.

“U.S. Person” means a “United States person” within the meaning of Section 7701(a)(30) of the Code.

“U.S. Tax Certificate” has the meaning assigned to such term in Section 2.16(f)(ii)(D)(2).

“Withholding Agent” means the Borrower and the Administrative Agent.

“Write-Down and Conversion Powers” means, with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule.

Section 1.02. *Accounting Terms and Determinations.* Unless otherwise specified herein, all accounting terms used herein shall be interpreted, all accounting determinations hereunder shall be made and all financial statements required to be delivered hereunder shall be prepared in accordance with U.S. GAAP as in effect from time to time, applied on a basis consistent (except for changes concurred in by the Borrower’s independent public accountants) with the most recent audited financial statements of the Borrower and its Consolidated Entities delivered to the Bank Parties.

Section 1.03. *Types of Borrowings.* The term **“Borrowing”** denotes the aggregation of Loans of one or more Banks to be made to the Borrower pursuant to Article 2 on a single date and for a single Interest Period. Borrowings are classified for purposes of this Agreement either by reference to the pricing of Loans comprising such Borrowing (e.g., a **“Euro-Dollar Borrowing”** is a

generally complied with by comparable financial institutions) from any Governmental Authority with jurisdiction over such Issuing Bank shall prohibit, or request that the Issuing Bank refrain from the issuance of Letters of Credit generally or such Letter of Credit in particular or shall impose upon such Issuing Bank with respect to such Letter of Credit any restriction, reserve or capital requirement (for which such Issuing Bank is not otherwise compensated hereunder) not in effect on the **SecondThird** Amendment Effective Date, or shall impose upon such Issuing Bank any unreimbursed loss, cost or expense which was not applicable on the **SecondThird** Amendment Effective Date and which such Issuing Bank in good faith reasonably deems material to it; *provided, however*, that in the event a Bank Party participating in the Letters of Credit is not affected by any such restriction, requirement or imposition, and is able to issue such Letter of Credit and expressly agrees in its sole discretion to issue such Letter of Credit, such Bank Party, subject to the consent of the Administrative Agent, such consent not to be unreasonably withheld, conditioned or delayed, shall issue such Letter of Credit and shall be deemed the Issuing Bank with regard to such Letter of Credit for all purposes of this Agreement;

(B) the making of such L/C Credit Extension would violate any Applicable Laws;

(C) except as otherwise agreed by the Administrative Agent and such Issuing Bank, such Letter of Credit is in an initial face amount less than \$25,000;

(D) such L/C Credit Extension is to be denominated in a currency other than Dollars;

(E) such L/C Credit Extension contains any provisions for automatic reinstatement of the stated amount after any L/C Borrowing thereunder; or

(F) a default of any Bank's obligations to fund under Section 2.20 exists, or any Bank is then a Defaulting Bank, unless, after giving effect to Section 2.19(a)(iv)) with respect to such Bank, such Issuing Bank has entered into satisfactory arrangements, including the delivery of Cash Collateral satisfactory to the Issuing Bank (in its sole discretion) with the Borrower or such Bank to eliminate such Issuing Bank's risk.

(iii) No Issuing Bank shall be under the obligation to amend any Letter of Credit if (A) such Issuing Bank would have no obligation at such time to issue such Letter of Credit in its amended form under the terms

the applicable Issuing Bank of the L/C Obligations (whether or not such maximum amount is then in effect under such Letter of Credit) (the “**Fronting Fee**”). The Fronting Fee shall be computed on a quarterly basis in arrears on the basis of the actual number of days elapsed in a year of 360 days (including the first day but excluding the last day), as pro-rated for any partial quarter, as applicable, and shall be due and payable on each January 1, April 1, July 1 and October 1, commencing with the first such date to occur after the issuance of such Letter of Credit, on the Letter of Credit Expiration Date and thereafter on demand. In addition, the Borrower shall, with respect to all Letters of Credit issued at its request, pay directly to each Issuing Bank for its own account the customary issuance, presentation, amendment and other processing fees, and other standard costs and charges, of such Issuing Bank relating to letters of credit as from time to time in effect. Such customary fees and standard costs and charges are due and payable on demand and are nonrefundable.

(e) *Amendment Fees.* The Borrower agrees to pay to the Administrative Agent for the account of each Bank on the ~~Second~~**Third** Amendment Effective Date the upfront fees required to be paid on such date, as set forth in the ~~2017~~**2018** Fee Letters.

Section 2.10. *Optional Termination or Reduction of Commitments.*

During the Revolving Credit Period, the Borrower may, upon at least three Domestic Business Days’ notice to the Administrative Agent (which notice the Administrative Agent will promptly deliver to the Banks), (i) terminate all Commitments at any time, if no Loans are outstanding at such time or (ii) ratably reduce from time to time by an aggregate amount of \$10,000,000 or any larger multiple of \$1,000,000, the aggregate amount of the Commitments in excess of the aggregate outstanding principal amount of the Loans.

Section 2.11. *Mandatory Termination of Commitments.* The Commitments shall terminate on the Commitment Termination Date.

Section 2.12. *Optional Prepayments.* (a) Subject in the case of Euro-Dollar Loans to Section 2.14, the Borrower may (i) on any Domestic Business Day, upon notice to the Administrative Agent, prepay any Group of Base Rate Loans (or any Money Market Borrowing bearing interest at the Base Rate pursuant to Section 8.01(a)) or (ii) upon at least three Euro-Dollar Business Days’ notice to the Administrative Agent, prepay any Group of Euro-Dollar Loans, in each case in whole at any time, or from time to time in part in amounts aggregating \$10,000,000 or any larger multiple of \$1,000,000, by paying the principal amount to be prepaid together with accrued interest thereon to the date of prepayment. Each such optional prepayment shall be applied to prepay ratably the Loans of the several Banks included in such Group of Loans (or such Money Market Borrowing).

Section 2.21. [*Reserved*]

Section 2.22. *Extension of Commitment Termination Date.* (a) The Borrower may, by notice to the Administrative Agent (which shall promptly notify the Banks) not earlier than 45 days prior to any anniversary of the ~~Second~~**Third** Amendment Effective Date (each, an “**Anniversary Date**”) but no later than 30 days prior to any such Anniversary Date, request that each Bank extend such Bank’s Commitment Termination Date for an additional one year after the Commitment Termination Date then in effect for such Bank hereunder (the “**Existing Commitment Termination Date**”); *provided, however*, the Borrower may request no more than two extensions pursuant to this Section.

(b) In the event it receives a notice from the Administrative Agent pursuant to Section 2.22(a), each Bank, acting in its sole and individual discretion, shall, by notice to the Administrative Agent given not earlier than 30 days prior to the applicable Anniversary Date and not later than the date (the “**Bank Extension Notice Date**”) that is 20 days prior to the applicable Anniversary Date, advise the Administrative Agent whether or not such Bank agrees to such extension (and each Bank that determines not to so extend its Existing Commitment Termination Date (a “**Non-Extending Bank**”) shall notify the Administrative Agent of such fact promptly after such determination (but in any event no later than the Bank Extension Notice Date)), and any Bank that does not so advise the Administrative Agent on or before the Bank Extension Notice Date shall be deemed to be a Non-Extending Bank. The election of any Bank to agree to any such extension shall not obligate any other Bank to so agree.

(c) The Administrative Agent shall notify the Borrower of each Bank’s determination (or deemed determination) under this Section no later than the date that is 15 days prior to the applicable Anniversary Date, or, if such date is not a Business Day, on the next preceding Business Day (the “**Specified Date**”).

(d) The Borrower shall have the right on or before the fifth Business Day after the Specified Date (the “**Extension Date**”) to replace each Non-Extending Bank (i) with an existing Bank, and/or (ii) by adding as “Banks” under this Agreement in place thereof, one or more Persons (each Bank in clauses (i) and (ii), an “**Additional Commitment Bank**”), each of which Additional Commitment Banks shall be an Assignee and shall have entered into an agreement in form and substance satisfactory to the Borrower and the Administrative Agent pursuant to which such Additional Commitment Bank shall, effective as of the Extension Date, undertake a Commitment (and, if any such Additional Commitment Bank is already a Bank, its Commitment shall be in addition to such Bank’s Commitment hereunder on such date); *provided* that the aggregate amount of the Commitments for all Additional Commitment Banks shall be no more than the aggregate amount of the Commitments of all Non-Extending Banks; *provided, further*, that the existing Banks shall have the right to increase their Commitments up to the amount

(i) automatically terminate on its Existing Commitment Termination Date or (ii) at the option of the Borrower, with respect to the Commitments of all Non-Extending Banks that have advised the Borrower of their unwillingness to agree to an extension in response to a notice delivered pursuant to Section 2.22(a), terminate on any Anniversary Date occurring prior thereto (in each case without regard to any extension by any other Bank); it being understood and agreed that such Non-Extending Bank's participations in Letters of Credit outstanding on such Existing Commitment Termination Date or such Anniversary Date, as the case may be, shall terminate thereon and any and all fees and expenses owed to each Non-Extending Bank as of that date shall be paid by the Borrower to such Non-Extending Bank.

ARTICLE 3 Conditions

Section 3.01. *Effectiveness.* (i) The Existing Credit Agreement became effective on the Effective Date and (ii) this Agreement shall become effective on the date (the "**Amendment Effective Date**") on which the Administrative Agent shall have received the following documents or other items, each dated the Amendment Effective Date unless otherwise indicated:

(a) receipt by the Administrative Agent of counterparts hereof signed by each of the parties hereto (or, in the case of any party as to which an executed counterpart shall not have been received, receipt by the Administrative Agent in form satisfactory to it in facsimile transmission, electronic submission or other writing from such party of execution of a counterpart hereof by such party);

(b) receipt by the Administrative Agent for the account of each Bank that has requested a Note of a duly executed Note dated on or before the Amendment Effective Date complying with the provisions of Section 2.05;

(c) receipt by the Administrative Agent of an opinion of the General Counsel of the Borrower, substantially in the form of Exhibit F hereto, *provided* that an enforceability opinion under New York law, that is reasonably acceptable to the Administrative Agent, shall be furnished by the Borrower's New York counsel, Norton Rose Fulbright US LLP, subject to customary assumptions, qualifications and limitations;

(d) receipt by the Administrative Agent of a certificate signed by any one of the Chief Financial Officer, the Chief Executive Officer, ~~the Chief Operating Officer~~, an Assistant Secretary-Treasurer, the Controller or the Vice President, Capital Markets Relations of the Borrower to the effect that the conditions set forth in clauses (c) through (g), inclusive, of Section 3.03 have been satisfied as of the Amendment Effective Date and, in the case of clauses (c), (e) and (g), setting forth in reasonable detail the calculations required to establish such compliance;

(e) receipt by the Administrative Agent, with a copy for each Bank, of a certificate of an officer of the Borrower acceptable to the Administrative Agent stating that all consents, authorizations, notices and filings required or advisable in connection with this Agreement are in full force and effect, and the Administrative Agent shall have received evidence thereof reasonably satisfactory to it;

(f) receipt by the Administrative Agent and the Syndication Agent (or their respective assigns) and by each Bank Party of all fees required to be paid in the respective amounts heretofore mutually agreed in writing, and all expenses for which invoices have been presented, on or before the Amendment Effective Date;

(g) receipt by the Administrative Agent and the Banks of all documentation and other information requested by the Administrative Agent or such Bank and required by regulatory authorities under applicable “know your customer” and anti-money laundering rules and regulations, including, without limitation, the USA PATRIOT Act (Title III of Pub. L. 107-56); and

(h) receipt by the Administrative Agent of all documents the Required Banks may reasonably request relating to the existence of the Borrower, the corporate authority for and the validity of this Agreement and the Notes, and any other matters relevant hereto, all in form and substance reasonably satisfactory to the Administrative Agent.

The Administrative Agent shall promptly notify the Borrower and the Bank Parties of the Amendment Effective Date, and such notice shall be conclusive and binding on all parties hereto.

Section 3.02. [Reserved]

Section 3.03. *Borrowings and L/C Credit Extensions*. The obligation of any Bank to make a Loan on the occasion of any Borrowing and the obligation of the Issuing Bank to issue, amend or increase the principal amount thereof or extend any Letter of Credit (other than an extension pursuant to an Auto-Extension Letter of Credit in accordance with the original terms thereof) is subject to the satisfaction of the following conditions, in each case at the time of such Borrowing or L/C Credit Extensions and immediately thereafter:

(a) The Amendment Effective Date shall have occurred on or prior to November 19, 2015, the First Amendment Effective Date shall have occurred on or prior to November 18, 2016-~~and~~, the Second Amendment Effective Date shall have occurred on or prior to November 20, 2017 **and the Third Amendment Effective Date shall have occurred on or prior to November 28, 2018;**

(b) receipt by the Administrative Agent of a Notice of Borrowing as required by Section 2.02 or 2.03, as the case may be;

(c) the fact that the Borrower is in compliance with Section 7.11 of the 1994 Indenture, as such Indenture is in effect as of the Effective Date and the Amendment Effective Date;

(d) Prior to the Commitment Termination Date, the fact that the sum of (i) the aggregate outstanding principal amount of the Loans and (ii) the Outstanding Amount of L/C Obligations will not exceed the Aggregate Commitments (as such Commitments may be increased or decreased from time to time in accordance with the terms and conditions of this Agreement);

(e) the fact that no Default shall have occurred and be continuing;

(f) the fact that the representations and warranties of the Borrower (in the case of a Borrowing or L/C Credit Extension, other than the representations set forth in Section 4.02(c), Section 4.03 and Section 4.14) contained in this Agreement shall be true in all material respects (other than any such representations or warranties that, by their terms, refer to a specific date other than the date of Borrowing or L/C Credit Extension, in which case such representations and warranties shall be true in all material respects as of such specific date); *provided that*, (i) in the case of the representations set forth in Section 4.02(a) and Section 4.02(b) being made after the Amendment Effective Date shall be deemed to refer to the most recent balance sheets and statements furnished pursuant to Section 5.03(b)(ii) and Section 5.03(b)(i), respectively and (ii) in the case of the representation set forth in Section 4.06 being made after the ~~Second~~**Third** Amendment Effective Date, such representation shall be true except to the extent not reasonably expected to have a material adverse effect on the business, financial position or results of operations of the Borrower; and

(g) the fact that (i) there shall be no collateral securing Bonds issued pursuant to any Indenture of a type other than the types of collateral permitted to secure Bonds issued pursuant to such Indenture as of the date hereof, (ii) the allowable amount of eligible collateral then pledged under any Indenture shall not exceed 150% of the aggregate principal amount of Bonds then outstanding under such Indenture and (iii) no collateral shall secure Bonds other than (A) eligible collateral under such Indenture, the allowable amount of which is included within the computation under subsection (ii) above or (B) collateral previously so pledged which ceases to be such eligible collateral not as a result of any acts or omissions to act of the Borrower (other than the declaration of an “**event of default**” as defined in a mortgage which results in the exercise of any right or remedy described in such mortgage).

Each Borrowing or L/C Credit Extension hereunder shall be deemed to be a representation and warranty by the Borrower on the date of such Borrowing or L/C Credit Extension as to the facts specified in clauses (c), (d), (e), (f) and (g) of this Section 3.03.

not cause such an Event of Default under, or the violation of any covenant contained in, any Indenture.

Section 4.08. *Compliance with ERISA.* The Plans (other than Plans consisting of multiemployer plans (as defined in Section 4001 of ERISA)) are in substantial compliance with ERISA other than any failure to comply that is not reasonably likely to have a material adverse effect on the business, results of operations or financial position of the Borrower, no such Plan is insolvent or in reorganization other than an insolvency or reorganization that is not reasonably likely to have a material adverse effect on the business, results of operations or financial position of the Borrower, and no such Plan has an accumulated or waived funding deficiency within the meaning of Section 412 of the Internal Revenue Code other than any accumulated or waived funding deficiency that is not reasonably likely to have a material adverse effect on the business, results of operations or financial position of the Borrower. No Plan consisting of a multiemployer plan (as defined in Section 4001 of ERISA) is in reorganization. Neither the Borrower nor a Subsidiary of the Borrower nor any member of the ERISA Group has incurred any material liability (including any material contingent liability) to or on account of a Plan pursuant to Section 4062, 4063, 4064, 4201 or 4204 of ERISA, no proceedings have been instituted to terminate any Plan, and no condition exists which presents a material risk to the Borrower of incurring a material liability to or on account of a Plan pursuant to any of the foregoing Sections of ERISA.

Section 4.09. *Compliance with Other Laws.* The Borrower and each Subsidiary is in compliance with all applicable requirements of law and all applicable rules and regulations of each Federal, State, municipal or other governmental department, agency or authority, domestic or foreign, except to the extent that the failure to comply would not reasonably be expected to have a material adverse effect on the business, financial position or results of operations of the Borrower and its Consolidated Entities, taken as a whole.

Section 4.10. *Tax Status.* The Borrower is exempt from payment of Federal income tax under Section 501(c)(4) of the Internal Revenue Code.

Section 4.11. *Investment Company Act.* The Borrower is not an “investment company” or a company “controlled” by an “investment company”, within the meaning of the Investment Company Act of 1940, as amended.

Section 4.12. *Disclosure.* Neither this Agreement nor any document, certificate, **including without limitation any Beneficial Ownership Certification**, or financial statement furnished to any Bank by or on behalf of the Borrower in connection herewith (all such documents, certificates and financial statements, taken as a whole) contains, as of the date of delivery thereof and taken as a whole, any untrue statement of a material fact or omits to state any material fact necessary in order to make the statements contained herein and therein, in the light of the circumstances under which they were made, not misleading; *provided*

Section 4.16. *FinCEN Beneficial Ownership Certification.* On the Third Amendment Effective Date, the Borrower delivered to the Administrative Agent and the Banks a Beneficial Ownership Certification and all documentation and other information requested by the Administrative Agent or such Bank and required by regulatory authorities under applicable “know your customer” and anti-money laundering rules and regulations, including, without limitation, the USA PATRIOT Act (Title III of Pub. L. 107-56) and the FinCEN beneficial ownership regulations under the Beneficial Ownership Regulation.

ARTICLE 5
Covenants

The Borrower agrees that, so long as any Bank Party has any Commitment hereunder or any amount payable under any Note or any fee payable pursuant to Section 2.09 or any other amount then due and payable hereunder remains unpaid or any Letter of Credit remains outstanding:

Section 5.01. *Corporate Existence.* Except as otherwise permitted by Section 5.02 hereof, the Borrower, at its own cost and expense, will, and will cause each Subsidiary to, do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence, and its material rights and franchises; *provided, however,* that neither the Borrower nor any Subsidiary shall be required to preserve any right or franchise or, in the case of a Subsidiary, its corporate existence, if its Board of Directors shall determine that the preservation thereof is no longer desirable in the conduct of the business of the Borrower or such Subsidiary (*provided* that the termination of the corporate existence of a Subsidiary shall be permitted if the Board of Directors of the Borrower shall determine that its existence is not desirable in the conduct of the business of the Borrower) and that the loss thereof is not disadvantageous in any material respect to the Banks.

Section 5.02. *Disposition of Assets, Merger, Character of Business, etc.* The Borrower will not wind up or liquidate its business or sell, lease, transfer or otherwise dispose of all or substantially all of its assets as an entirety or in a series of related transactions and will not consolidate with or merge with or into any other Person other than a merger with a Subsidiary in which the Borrower is the surviving Person. The Borrower will not engage in any business other than the business contemplated by its certificate of incorporation and by-laws, each as in effect on the Amendment Effective Date.

Section 5.03. *Financial Information.* (a) The Borrower will, and will cause each Subsidiary other than the Subsidiaries listed on Schedule 5.03(a) to, keep its books of account in accordance with U.S. GAAP.

(b) The Borrower will (subject to the last paragraph of this Section 5.03) furnish to the Administrative Agent for distribution to the Banks:

(i) as soon as available and in any event within 60 days after the close of each of the first three quarters of each fiscal year of the Borrower, as at the end of, and for the period commencing at the end of the previous fiscal year and ending with, such quarter, unaudited consolidated balance sheets of the Borrower and its Consolidated Entities and the related unaudited consolidated statements of operations, changes in equity and cash flow of the Borrower and its Consolidated Entities for such quarter and for the portion of the Borrower's fiscal year ended at the end of such quarter, setting forth in each case in comparative form the figures for the corresponding quarter and the corresponding portion of the Borrower's previous fiscal year, all in reasonable detail and certified (subject to normal year-end adjustments) as to fairness of presentation in accordance with U.S. GAAP in all material respects and consistency (except for changes concurred in by the Borrower's independent public accountants) by the Chief Executive Officer, the Chief Financial Officer, ~~Chief Operating Officer~~, an Assistant Secretary-Treasurer or the Controller of the Borrower;

(ii) as soon as practicable and in any event within the earlier of (i) two Domestic Business Days after filing with the Securities and Exchange Commission and (ii) 120 days after the close of each fiscal year of the Borrower, as at the end of and for the fiscal year just closed, consolidated balance sheets of the Borrower and its Consolidated Entities and the related consolidated statements of operations, changes in equity and cash flow for such fiscal year for the Borrower and its Consolidated Entities, all in reasonable detail and certified (without any qualification as to the scope of the audit) by KPMG LLP or other independent public accountants of nationally recognized standing selected by the Borrower, who shall have audited the books and accounts of the Borrower for such fiscal year;

(iii) with reasonable promptness, copies of all regular and periodical reports (including Current Reports on Form 8-K) filed with, or furnished to, the Securities and Exchange Commission;

(iv) promptly after the public announcement of, or promptly after receiving a written notice of, a change (whether an increase or decrease) in any rating issued by either S&P or Moody's, solely to the extent that the Borrower is then under an existing contract with such agency for the provision of ratings information pertaining to any securities of, or guaranteed by, the Borrower or any of its Subsidiaries or affiliates, a notice setting forth such change; and

**MUFG BANK, LTD. (F/K/A THE BANK
OF TOKYO-MITSUBISHI UFJ, LTD.),** as
Co-Documentation Agent and as a Bank

By: /s/ Robert MacFarlane

Name: Robert MacFarlane

Title: Director

AGENT SCHEDULE

<u>Institution</u>	<u>Title</u>
Mizuho Bank, Ltd.	Administrative Agent
JPMorgan Chase Bank, N.A.	Syndication Agent
MUFG Bank, Ltd. (f/k/a The Bank of Tokyo- Mitsubishi UFJ, Ltd.)	Co-Documentation Agent
The Bank of Nova Scotia	Co-Documentation Agent
Royal Bank of Canada	Co-Documentation Agent

EXISTING COMMITMENT SCHEDULE

<u>Institution</u>	<u>Commitment Prior to the SecondThird Amendment Effective Date</u>	<u>Loans Outstanding on the SecondThird Amendment Effective Date</u>
<u>Bank</u>		
Mizuho Bank Ltd.	\$187,500,000.00	\$0
Royal Bank of Canada	\$187,500,000.00	\$0
The Bank of Nova Scotia	\$187,500,000.00	\$0
MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)	\$187,500,000.00	\$0
JPMorgan Chase Bank, N.A.	\$180,000,000.00	\$0
PNC Bank, National Association	\$150,000,000.00	\$0
US Bank National Association	\$125,000,000.00	\$0
SunTrust Bank	\$125,000,000.00	\$0
Regions Bank	\$75,000,000.00	\$0
KeyBank National Association	\$70,000,000.00	\$0
Industrial and Commercial Bank of China Limited, New York Branch	\$40,000,000.00	\$0
Apple Bank for Savings	\$17,500,000.00	\$0
Total	<u>\$1,532,500,000.00</u>	<u>\$0</u>

COMMITMENT SCHEDULE

Commitment Schedule

<u>Bank</u>	<u>Commitment</u>
Mizuho Bank Ltd.	\$187,500,000.00 175,000,000.00
Royal Bank of Canada	\$187,500,000.00 175,000,000.00
The Bank of Nova Scotia	\$187,500,000.00 175,000,000.00
MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)	\$187,500,000.00 175,000,000.00
JPMorgan Chase Bank, N.A.	\$180,000,000.00 175,000,000.00
PNC Bank, National Association	\$150,000,000.00
US Bank National Association	\$125,000,000.00
SunTrust Bank	\$125,000,000.00
Regions Bank	\$75,000,000.00
KeyBank National Association	\$70,000,000.00
Apple Bank for Savings	\$17,500,000.00 20,000,000.00
Total:	<u>92,500,000.00</u> <u>1,440,000.00</u> <u>\$1,4</u>

Commitment Schedule

FORM OF NOTE

New York, New York
[DATE]

For value received, National Rural Utilities Cooperative Finance Corporation, a not-for-profit cooperative association incorporated under the laws of the District of Columbia (the “**Borrower**”), promises to pay to the order of [] (the “**Bank**”), for the account of its Applicable Lending Office, the principal sum of \$[_____ (\$ _____), or, if less, the aggregate unpaid principal amount

of each Loan and L/C Borrowing made by the Bank to the Borrower pursuant to the Revolving Credit Agreement referred to below on the Maturity Date with respect to such Loan or L/C Borrowing. The Borrower promises to pay interest on the unpaid principal amount of each such Loan and L/C Borrowing on the dates and at the rate or rates provided for in the Revolving Credit Agreement. All such payments of principal and interest shall be made in lawful money of the United States in Federal or other immediately available funds at the office of Mizuho Bank, Ltd., 1251 Avenue of the Americas, New York, New York 10020, Attn: Cole Darrington, Email: lau_agent@mizuhocbus.com.

All Loans and L/C Borrowings made by the Bank, the respective types and maturities thereof and all repayments of the principal thereof shall be recorded by the Bank and, prior to any transfer hereof, appropriate notations to evidence the foregoing information with respect to each such Loan then outstanding may be endorsed by the Bank on the schedule attached hereto, or on a continuation of such schedule attached to and made a part hereof; *provided* that the failure of the Bank to make any such recordation or endorsement shall not affect the obligations of the Borrower hereunder or under the Revolving Credit Agreement.

This note is one of the Notes referred to in that certain Amended and Restated Revolving Credit Agreement, dated as of November 19, 2015, among the Borrower, the Banks listed on the signature pages thereof, Mizuho Bank, Ltd., as Administrative Agent and Initial Issuing Bank, JPMorgan Chase Bank, N.A., as Syndication Agent, and **MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)**, The Bank of Nova Scotia and Royal Bank of Canada as Co-Documentation Agents (as the same may be amended, supplemented or otherwise modified, from time to time, in each case, pursuant to the terms and conditions thereof, the “**Revolving Credit Agreement**”). Terms defined in the Revolving Credit Agreement are used herein with the same meanings. Reference is made to the Revolving Credit Agreement for provisions for the prepayment hereof and the acceleration of the maturity hereof. This Note shall be governed by and construed in accordance with the laws of the State of New York.

A-1

FORM OF MONEY MARKET QUOTE REQUEST

[Date]

To: Mizuho Bank, Ltd. (the “**Administrative Agent**”)

From: National Rural Utilities Cooperative Finance Corporation (the “**Borrower**”)

Re: Amended and Restated Revolving Credit Agreement, dated as of November 19, 2015, among the Borrower, the Banks listed on the signature pages thereof, Mizuho Bank, Ltd., as Administrative Agent and Initial Issuing Bank, JPMorgan Chase Bank, N.A., as Syndication Agent, and **MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)**, The Bank of Nova Scotia and Royal Bank of Canada as Co-Documentation Agents (as amended, supplemented, or otherwise modified from time to time, in each case, pursuant to the terms and conditions thereof the “**Revolving Credit Agreement**”)

We hereby give notice pursuant to Section 2.03 of the Revolving Credit Agreement that we request Money Market Quotes for the following proposed Money Market Borrowing(s):

Date of Borrowing: _____

*Principal Amount*¹

*Interest Period*²

\$

Such Money Market Quotes should offer a Money Market [Margin] [Absolute Rate]. [The applicable base rate is the London Interbank Offered Rate.]

Terms used herein have the meanings assigned to them in the Revolving Credit Agreement.

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE
CORPORATION

By: _____

¹Amount must be \$10,000,000 or a larger multiple of \$1,000,000.

²Any number of whole months (but not less than one month) (LIBOR Auction) or not less than 30 days (Absolute Rate Auction), subject to the provisions of the definition of Interest Period.

FORM OF INVITATION FOR MONEY MARKET QUOTES

[Date]

To: [Name of Bank]

Re: Invitation for Money Market Quotes to the National Rural Utilities Cooperative Finance Corporation (the “**Borrower**”)

Pursuant to Section 2.03 of the Amended and Restated Revolving Credit Agreement, dated as of November 19, 2015, among the Borrower, the Banks listed on the signature pages thereof, Mizuho Bank, Ltd., as Administrative Agent and Initial Issuing Bank, JPMorgan Chase Bank, N.A., as Syndication Agent, and **MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)**, The Bank of Nova Scotia and Royal Bank of Canada as Co-Documentation Agents (as amended, supplemented or otherwise modified from time to time, in each case, pursuant to the terms and conditions thereof, the “**Revolving Credit Agreement**”):

Date of Borrowing: _____

Principal Amount

Interest Period

\$

Such Money Market Quotes should offer a Money Market [Margin] [Absolute Rate]. [The applicable base rate is the London Interbank Offered Rate.]

Please respond to this invitation by no later than 9:30 A.M. (New York City time) on [date].

MIZUHO BANK, LTD.

By:

Name:

Title: Authorized Officer

[*provided*, that the aggregate principal amount of Money Market Loans for which the above offers may be accepted shall not exceed \$_____.]**

We understand and agree that the offer[s] set forth above [is][are] subject to the satisfaction of the applicable conditions set forth in the Amended and Restated Revolving Credit Agreement, dated as of November 19, 2015, among the Borrower, the Banks listed on the signature pages thereof, Mizuho Bank, Ltd., as Administrative Agent and Initial Issuing Bank, JPMorgan Chase Bank, N.A., as Syndication Agent, and **MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)**, The Bank of Nova Scotia and Royal Bank of Canada as Co-Documentation Agents, as amended, supplemented or otherwise modified from time to time, in each case, pursuant to the terms and conditions thereof.

Very truly yours, [NAME
OF BANK]

By: _____
Name:
Title: Authorized Officer

Dated: _____

~~OPINION OF GENERAL COUNSEL OF THE BORROWER~~

November ~~11~~²⁸, ~~2017~~²⁰¹⁸

To the Administrative Agent and each of the Banks party
to the Revolving Credit Agreement referred to below
c/o Mizuho Bank, Ltd.
1251 Avenue of the Americas
New York, New York 10020

Ladies and Gentlemen:

Reference is hereby made to (i) that certain Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 (as amended by the Amendments (defined below), the “**Extended Agreement**”), by and among the Borrower, the Banks listed on the signature pages thereof, Mizuho Bank, Ltd., as Administrative Agent and Initial Issuing Bank, JPMorgan Chase Bank, N.A., as Syndication Agent, and **MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)**, The Bank of Nova Scotia, and Royal Bank of Canada, as Co-Documentation Agents, (ii) that certain Amendment No. 1 dated as of November 18, 2016 (“**Amendment No. 1**”), by and among the Borrower, the Banks listed on the signature pages thereof, Mizuho Bank, Ltd., as Administrative Agent and Initial Issuing Bank, JPMorgan Chase Bank, N.A., as Syndication Agent, and **MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)**, The Bank of Nova Scotia, and Royal Bank of Canada, as Co-Documentation Agents and (iii) that certain Amendment No. ~~23~~²³ dated as of November ~~2028~~²⁰¹⁷~~2018~~²⁰¹⁸ (“**Amendment No. 23**” and together with Amendment No. 1 **and Amendment No. 2**, the “**Amendments**”), by and among the Borrower, the Banks listed on the signature pages thereof, Mizuho Bank, Ltd., as Administrative Agent and Initial Issuing Bank, JPMorgan Chase Bank, N.A., as Syndication Agent, and **MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)**, The Bank of Nova Scotia, and Royal Bank of Canada, as Co-Documentation Agents. I, Roberta B. Aronson, General Counsel of the National Rural Utilities Cooperative Finance Corporation (the “**Borrower**”), am delivering this opinion at the request of the Borrower pursuant to Section 7(b) of Amendment No. ~~23~~²³. Terms defined in the Extended Agreement are used herein as therein defined.

I have examined originals or copies, certified or otherwise identified to my satisfaction, of such documents, corporate records, certificates of public officials and other instruments and have conducted such other investigations of fact and law as I have deemed necessary or advisable for purposes of this opinion. This opinion is limited to the laws of the District of Columbia.

Upon the basis of the foregoing, I am of the opinion that:

ASSIGNMENT AND ASSUMPTION AGREEMENT

AGREEMENT dated as of _____, 20__ among [ASSIGNOR] (the “**Assignor**”), [ASSIGNEE] (the “**Assignee**”), NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION (the “**Borrower**”) and MIZUHO BANK, LTD., as Administrative Agent (the “**Agent**”).

W I T N E S S E T H

WHEREAS, this Assignment and Assumption Agreement (the “**Agreement**”) relates to the Amended and Restated Revolving Credit Agreement, dated as of November 19, 2015 (as amended, supplemented or otherwise modified from time to time, in each case pursuant to the terms and conditions thereof, (the “**Credit Agreement**”), among the Borrower, the Banks listed on the signature pages thereof, Mizuho Bank, Ltd., as Administrative Agent and Initial Issuing Bank (the “**Agent**”), and JPMorgan Chase Bank, N.A., as Syndication Agent, and **MUFG Bank, Ltd. (f/k/a** The Bank of Tokyo-Mitsubishi UFJ, Ltd.), The Bank of Nova Scotia and Royal Bank of Canada, as Co-Documentation Agents.

WHEREAS, as provided under the Credit Agreement, the Assignor has a Commitment to make Loans and/or make or participate in L/C Obligations to the Borrower in an aggregate principal amount at any time outstanding not to exceed \$ _____;

WHEREAS, Committed Loans and L/C Obligations made to the Borrower by the Assignor under the Credit Agreement in the aggregate principal amount of \$ _____ are outstanding at the date hereof; and

WHEREAS, the Assignor proposes to assign to the Assignee all of the rights of the Assignor under the Credit Agreement in respect of a portion of its Commitment thereunder in an amount equal to \$ _____ (the “**Assigned Amount**”), together with a corresponding portion of its outstanding Committed Loans and/or L/C Obligations, and the Assignee proposes to accept assignment of such rights and assume the corresponding obligations from the Assignor on such terms;

NOW, THEREFORE, in consideration of the foregoing and the mutual agreements contained herein, the parties hereto agree as follows:

SECTION 1. *Definitions*. All capitalized terms not otherwise defined herein shall have the respective meanings set forth in the Credit Agreement.

SECTION 2. *Assignment*. The Assignor hereby assigns and sells to the Assignee all of the rights of the Assignor under the Credit Agreement to the extent of the Assigned Amount, and the Assignee hereby accepts such assignment from

[FORM OF]

U.S. TAX CERTIFICATE

**(For Non-U.S. Bank Parties That Are Not Partnerships For U.S. Federal
Income Tax Purposes)**

Reference is hereby made to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 (as amended, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), among the Borrower, the Banks listed on the signature pages thereof, Mizuho Bank, Ltd., as Administrative Agent and Initial Issuing Bank, JPMorgan Chase Bank, N.A., as Syndication Agent, and **MUFG Bank, Ltd. (f/k/a** The Bank of Tokyo-Mitsubishi UFJ, Ltd.), The Bank of Nova Scotia and Royal Bank of Canada, as Co-Documentation Agents.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a member of Borrower, it does not exercise voting power over Borrower and is not a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code and (v) the interest payments in question are not effectively connected with the undersigned’s conduct of a U.S. trade or business.

The undersigned has furnished the Administrative Agent and the Borrower with a certificate of its non-U.S. person status on IRS Form W-8BEN. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Administrative Agent and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF BANK PARTY]

By: _____
Name:

[FORM OF]

U.S. TAX CERTIFICATE

(For Non-U.S. Bank Parties That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 (as amended, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), among the Borrower, the Banks listed on the signature pages thereof, Mizuho Bank, Ltd., as Administrative Agent and Initial Issuing Bank, JPMorgan Chase Bank, N.A., as Syndication Agent, and **MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)**, The Bank of Nova Scotia and Royal Bank of Canada, as Co-Documentation Agents.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such Loan(s) (as well as any Note(s) evidencing such Loan(s)), (iii) with respect to the extension of credit pursuant to this Credit Agreement, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a member of Borrower, exercise voting power over Borrower or otherwise is a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, (v) none of its partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code, and (vi) the interest payments in question are not effectively connected with the undersigned’s or its partners/members’ conduct of a U.S. trade or business.

The undersigned has furnished the Administrative Agent and the Borrower with IRS Form W-8IMY accompanied by an IRS Form W-8BEN from each of its partners/members claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Administrative Agent and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

[FORM OF]

U.S. TAX CERTIFICATE

**(For Non-U.S. Participants That Are Not Partnerships For U.S. Federal
Income Tax Purposes)**

Reference is hereby made to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 (as amended, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), among the Borrower, the Banks listed on the signature pages thereof, Mizuho Bank, Ltd., as Administrative Agent and Initial Issuing Bank, JPMorgan Chase Bank, N.A., as Syndication Agent, and **MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)**, The Bank of Nova Scotia and Royal Bank of Canada, as Co-Documentation Agents.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the participation in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code, and (v) the interest payments in question are not effectively connected with the undersigned’s conduct of a U.S. trade or business.

The undersigned has furnished its participating Bank with a certificate of its non-U.S. person status on IRS Form W-8BEN. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Bank in writing and (2) the undersigned shall have at all times furnished such Bank with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF PARTICIPANT]

By: _____

Name:

Title:

Date: , 20[]

[FORM OF]
U.S. TAX CERTIFICATE

(For Non-U.S. Participants That Are Partnerships For U.S. Federal Income
Tax Purposes)

Reference is hereby made to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 (as amended, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), among the Borrower, the Banks listed on the signature pages thereof, Mizuho Bank, Ltd., as Administrative Agent and Initial Issuing Bank, JPMorgan Chase Bank, N.A., as Syndication Agent, and **MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)**, The Bank of Nova Scotia and Royal Bank of Canada, as Co-Documentation Agents.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the participation in respect of which it is providing this certificate, (ii) its partners/members are the sole beneficial owners of such participation, (iii) with respect such participation, neither the undersigned nor any of its partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its partners/members is a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, (v) none of its partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code, and (vi) the interest payments in question are not effectively connected with the undersigned’s or its partners/members’ conduct of a U.S. trade or business.

The undersigned has furnished its participating Bank with IRS

Form W-8IMY accompanied by an IRS Form W-8BEN from each of its partners/members claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Bank and

(2) the undersigned shall have at all times furnished such Bank with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF PARTICIPANT]

AMENDMENT NO. 3

Dated as of November 28, 2018

to the

AMENDED AND RESTATED REVOLVING CREDIT AGREEMENT

Dated as of November 19, 2015

Among

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION,

THE BANKS PARTY HERETO,

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent and Initial Issuing Bank,

MIZUHO BANK, LTD.
as Syndication Agent

and

MUFG BANK, LTD. (F/K/A THE BANK OF TOKYO-MITSUBISHI UFJ,
LTD.),

THE BANK OF NOVA SCOTIA

and

ROYAL BANK OF CANADA,
as Co-Documentation Agents

AMENDMENT NO. 3

AMENDMENT NO. 3 dated as of November 28, 2018 (this "Amendment") to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015, as amended by Amendment No. 1 dated as of November 18, 2016 and as further amended by Amendment No. 2 dated as of November 20, 2017, among NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, a not-for-profit cooperative association incorporated under the laws of the District of Columbia, the BANKS party thereto from time to time, JPMORGAN CHASE BANK, N.A., as Administrative Agent and as Initial Issuing Bank, MIZUHO BANK (USA), as Syndication Agent, and MUFG BANK, LTD. (F/K/A THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.), THE BANK OF NOVA SCOTIA and ROYAL BANK OF CANADA, as Co-Documentation Agents (the "Existing Credit Agreement") and, as amended by this Amendment, the "Amended Credit Agreement").

WITNESSETH:

WHEREAS, the Borrower has requested that the Banks party to the Existing Credit Agreement, immediately prior to the effectiveness of this Amendment (each, an "Existing Bank") enter into this Amendment pursuant to which (i) the Existing Banks agree to extend the termination of their Commitments to November 28, 2023 (the "Extended Commitment Termination Date") and (ii) certain other provisions of the Existing Credit Agreement will be amended;

WHEREAS, each financial institution identified on Schedule 1 hereto as an "Extending Bank" (each, an "Extending Bank") has agreed, on the terms and conditions set forth herein, to provide Commitments terminating on the Extended Commitment Termination Date in the amounts set forth on Schedule 1 hereto opposite such Extending Bank's name under the heading "Commitment" (the "Extended Commitments");

WHEREAS, on the Third Amendment Effective Date (as defined in Section 7 below), the existing Commitment of each Extending Bank will be converted into an Extended Commitment;

WHEREAS, certain other financial institutions referred to herein as "Non-Extending Banks" (each, a "Non-Extending Bank") have informed the Borrower of their desire to terminate their existing Commitment; and

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

Section 1. *Defined Terms; References.* Unless otherwise specifically defined herein, each term used herein that is defined in the Existing Credit Agreement or in the Amended Credit Agreement, as the context shall require, has the meaning assigned to such term in the Existing Credit Agreement or in the Amended Credit Agreement, as applicable. Each reference to “hereof”, “hereunder”, “herein” and “hereby” and each other similar reference and each reference to “this Amendment” and each other similar reference contained in the Existing Credit Agreement shall, on and after the Third Amendment Effective Date, refer to the Amended Credit Agreement.

Section 2. *Amended Terms and Third Amendment Effective Date Transactions.*

(a) Each of the parties hereto agrees that, effective on the Third Amendment Effective Date, the Existing Credit Agreement shall be amended to delete the stricken text (indicated textually in the same manner as the following example: ~~stricken text~~) and to add the double-underlined text (indicated textually in the same manner as the following example: double-underlined text) as set forth in the amended pages of the Existing Credit Agreement attached hereto as Exhibit A, and the Banks party hereto authorize the Administrative Agent and the Borrower to prepare a conformed copy of the Amended Credit Agreement that includes the changes contained in, and consistent with, the amended pages attached as Exhibit A.

(b) On the Third Amendment Effective Date, the Commitment of each Existing Bank that is an Extending Bank will be converted into an Extended Commitment under the Amended Credit Agreement in the amounts set forth on Schedule 1 hereto, so that the aggregate Commitment of such Extending Bank under the Amended Credit Agreement shall equal such Extended Bank’s Extended Commitments.

(c) Notwithstanding Section 2.10 of the Existing Credit Agreement, on the Third Amendment Effective Date, the Commitment of each Non-Extending Bank shall be terminated and such Non-Extending Bank shall no longer be considered as a Bank under the Amended Credit Agreement.

Section 3. *Representations of Borrower.* The Borrower represents and warrants, as of the date hereof, that:

(a) the Borrower has the corporate power and authority to execute, deliver and perform its obligations under this Amendment and under the Amended Credit Agreement, and has taken all necessary corporate action to authorize the execution, delivery and performance by it of this Amendment and the Amended Credit Agreement. The Borrower has duly executed and delivered this Amendment, and this Amendment and the Amended Credit Agreement constitutes its legal, valid and binding obligation enforceable in accordance with its terms, except as enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting the enforcement of creditors’ rights generally and by general equitable principles (regardless of whether enforcement is sought by proceeding in equity or at law);

(b) no material authorization, consent, approval or license of, or declaration, filing or registration with or exemption by, any Governmental Authority, body or agency is required in

connection with the execution, delivery and performance by the Borrower of this Amendment. The Banks acknowledge that the Borrower may file this Amendment with the Securities and Exchange Commission on or after the Third Amendment Effective Date; and

(c) the execution, delivery and performance by the Borrower of this Amendment and the Amended Credit Agreement, the borrowings contemplated hereunder and the use of the proceeds thereof will not (i) contravene any material provision of any law, statute, rule or regulation or any order, writ, injunction or decree of any court or Governmental Authority to which the Borrower is subject, (ii) require any consent under, or violate or result in any breach of any of the material terms, covenants, conditions or provisions of, or constitute a material default under, or give rise to any right to accelerate or to require the prepayment, repurchase or redemption of any obligation under, or result in the creation or imposition of (or the obligation to create or impose) any Lien upon any of the property or assets of the Borrower pursuant to the terms of the Amended Credit Agreement or any material indenture, mortgage, deed of trust, agreement or instrument, in each case to which the Borrower is a party or by which it or any its property or assets is bound or to which it may be subject, or (iii) violate any provision of the articles of incorporation or by-laws, as applicable, of the Borrower.

Section 4. GOVERNING LAW. (a) THIS AMENDMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.

(b) EACH PARTY HERETO HEREBY IRREVOCABLY AND UNCONDITIONALLY SUBMITS, FOR ITSELF AND ITS PROPERTY, TO THE EXCLUSIVE JURISDICTION OF THE SUPREME COURT OF THE STATE OF NEW YORK SITTING IN NEW YORK COUNTY AND OF THE UNITED STATES DISTRICT COURT OF THE SOUTHERN DISTRICT OF NEW YORK, AND ANY APPELLATE COURT FROM ANY THEREOF, IN ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AMENDMENT, OR FOR RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT, AND EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY AND UNCONDITIONALLY AGREES THAT ALL CLAIMS IN RESPECT OF ANY SUCH ACTION OR PROCEEDING MAY BE HEARD AND DETERMINED IN SUCH NEW YORK STATE COURT OR, TO THE EXTENT PERMITTED BY LAW, IN SUCH FEDERAL COURT. EACH OF THE PARTIES HERETO AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, THAT A FINAL JUDGMENT IN ANY SUCH ACTION OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW. NOTHING IN THIS AMENDMENT SHALL AFFECT ANY RIGHT THAT ANY PARTY HERETO OR ANY BANK MAY OTHERWISE HAVE TO BRING ANY ACTION OR PROCEEDING RELATING TO THIS AMENDMENT AGAINST ANY OTHER PARTY HERETO OR ANY BANK OR THEIR RESPECTIVE PROPERTIES IN THE COURTS OF ANY JURISDICTION.

(c) EACH PARTY HERETO HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVES, TO THE FULLEST EXTENT IT MAY LEGALLY AND EFFECTIVELY DO SO, ANY OBJECTION WHICH IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF VENUE OF ANY SUIT, ACTION OR PROCEEDING ARISING OUT

OF OR RELATING TO THIS AMENDMENT IN ANY COURT REFERRED TO IN PARAGRAPH (B) OF THIS SECTION. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, THE DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF SUCH ACTION OR PROCEEDING IN ANY SUCH COURT.

(d) EACH PARTY TO THIS AMENDMENT IRREVOCABLY CONSENTS TO SERVICE OF PROCESS IN THE MANNER PROVIDED FOR NOTICES IN SECTION 9.01 OF THE AMENDED CREDIT AGREEMENT. NOTHING IN THIS AMENDMENT WILL AFFECT THE RIGHT OF ANY PARTY TO THIS AMENDMENT TO SERVE PROCESS IN ANY OTHER MANNER PERMITTED BY LAW.

Section 5. *WAIVER OF JURY TRIAL.* EACH PARTY HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AMENDMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

Section 6. *Counterparts.* This Amendment may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

Section 7. *Effectiveness.* This Amendment shall become effective on the date (the “Third Amendment Effective Date”) on which the Administrative Agent shall have received the following documents or other items, each dated the Third Amendment Effective Date unless otherwise indicated:

(a) receipt by the Administrative Agent of counterparts hereof signed by each of the parties hereto (or, in the case of any party as to which an executed counterpart shall not have been received, receipt by the Administrative Agent in form satisfactory to it of telegraphic, telex or other written confirmation from such party of execution of a counterpart hereof by such party), including receipt of consent from (i) each Extending Bank, (ii) each Non-Extending Bank and (iii) the Required Banks under the Existing Credit Agreement;

(b) receipt by the Administrative Agent of an opinion of the General Counsel of the Borrower, substantially in the form of Exhibit F to the Existing Credit Agreement, *provided* that an enforceability opinion under New York law, that is reasonably acceptable to the Administrative Agent, shall be furnished by the Borrower’s New York counsel, Norton Rose Fulbright US LLP, subject to customary assumptions, qualifications and limitations;

(c) receipt by the Administrative Agent of a certificate signed by any one of the Chief Financial Officer, the Chief Executive Officer, the Treasurer, an Assistant Secretary-Treasurer, the Controller or the Vice President, Capital Markets Relations of the Borrower to the effect that the conditions set forth in clauses (c) through (g), inclusive, of Section 3.03 of the Amended Credit Agreement have been satisfied as of the Third Amendment Effective Date and, in the case of clauses (c), (d) and (g), setting forth in reasonable detail the calculations required to establish such compliance;

(d) receipt by the Administrative Agent of a certificate of an officer of the Borrower acceptable to the Administrative Agent stating that all consents, authorizations, notices and filings required or advisable in connection with this Amendment are in full force and effect, and the Administrative Agent shall have received evidence thereof reasonably satisfactory to it;

(e) receipt by the Administrative Agent and the Syndication Agent (or their respective permitted assigns) and by each Bank Party of all fees, including such fees that are owed to each Non-Extending Bank, required to be paid in the respective amounts heretofore mutually agreed in writing, and all expenses required to be reimbursed pursuant to the terms of the Existing Credit Agreement and for which invoices have been presented, at least one (1) business day prior to the Third Amendment Effective Date;

(f) receipt by the Administrative Agent and the Banks of a Beneficial Ownership Certification on the Third Amendment Effective Date and all documentation and other information required by regulatory authorities under applicable “know your customer” and anti-money laundering rules and regulations, including, without limitation, the USA PATRIOT Act (Title III of Pub. L. 107-56) and the FinCEN beneficial ownership regulations under the Beneficial Ownership Regulation; and

(g) receipt by the Administrative Agent of all documents the Administrative Agent may reasonably request relating to the existence of the Borrower, the corporate authority for and the validity of this Amendment all in form and substance reasonably satisfactory to the Administrative Agent.

The Administrative Agent shall promptly notify the Borrower and the Bank Parties of the Third Amendment Effective Date, and such notice shall be conclusive and binding on all parties hereto.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed as of the date first above written.

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE
CORPORATION

By: /s/ J. ANDREW DON

Name: J. Andrew Don

Title: Senior Vice President and
Chief Financial Officer

JPMORGAN CHASE BANK, N.A., as
Administrative Agent, Initial Issuing Bank
and Extending Bank

By: /s/ JUAN J. JAVELLANA

Name: /s/ Juan J. Javellana

Title: Executive Director

MIZUHO BANK, LTD., as Syndication Agent
and Extended Bank

By: /s/ DONNA DEMAGISTRIS

Name: Donna DeMagistris

Title: Authorized Signatory

SIGNATURE PAGE TO AMENDMENT NO. 3 (THE “**AMENDMENT**”) TO THE AMENDED AND RESTATED REVOLVING CREDIT AGREEMENT DATED AS OF NOVEMBER 19, 2015, AS AMENDED BY AMENDMENT NO. 1 TO THE EXISTING CREDIT AGREEMENT, DATED AS OF NOVEMBER 18, 2016, AS FURTHER AMENDED BY AMENDMENT NO. 2 TO THE EXISTING CREDIT AGREEMENT, DATED AS OF NOVEMBER 20, 2017, AMONG NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, AS BORROWER, THE BANKS PARTY THERETO, JPMORGAN CHASE BANK, N.A., AS ADMINISTRATIVE AGENT, MIZUHO BANK (USA) AS SYNDICATION AGENT AND THE OTHER AGENTS PARTY THERETO (THE “**EXISTING CREDIT AGREEMENT**”).

Check only one of the following:

- The undersigned is a Bank with an existing Commitment and consents to this Amendment with respect to the full amount set forth on Schedule 1 hereto, which amount will be converted in full to an Extended Commitment.

- The undersigned Bank with an existing Commitment consents to this Amendment with respect to its existing Commitment and also confirms its willingness to provide additional Commitment under the Amended Credit Agreement in an aggregate principal amount of \$ _____.

- The undersigned is a “Non-Extending Bank” and consents to this Amendment and the termination of its existing Commitment.

ROYAL BANK OF CANADA

By: /s/ JUSTIN PAINTER

Name: Justin Painter

Title: Authorized Signatory

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THE BANK OF NOVA SCOTIA

By: /s/ DAVID DEWAR
Name: David Dewar
Title: Director

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MUFG BANK, LTD. (F/K/A THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.), a member of MUFG, a global financial group

By: /s/ CHERESE JOSEPH

Name: Chereese Joseph

Title: Vice President

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KEYBANK, NATIONAL ASSOCIATION

By: /s/ BENJAMIN C. COOPER
Name: Benjamin C. Cooper
Title: Vice President

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PNC Bank, National Association

By: /s/ KELLY MILLER

Name: Kelly Miller

Title: Vice President

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US Bank National Association

By: /s/ MICHAEL E. TEMNICK
Name: Michael E. Temnick
Title: Vice President

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SUNTRUST BANK

By: /s/ CARMEN MALIZIA

Name: Carmen Malizia

Title: Director

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REGIONS BANK

By: /s/ TEDRICK TARVER

Name: Tedrick Tarver

Title: Vice President

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- The undersigned is a “Non-Extending Bank” and consents to this Amendment and the termination of its existing Commitment.

Apple Bank for Savings

By: /s/ JONATHAN C. BYRON

Name: Jonathan C. Byron

Title: Senior Vice President

SCHEDULE 1

EXTENDED COMMITMENTS

<u>Extending Banks</u>	<u>Commitment</u>
JPMorgan Chase Bank, N.A.	\$175,000,000.00
Mizuho Bank, Ltd.	\$175,000,000.00
Royal Bank of Canada	\$175,000,000.00
The Bank of Nova Scotia	\$175,000,000.00
MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)	\$175,000,000.00
KeyBank National Association	\$180,000,000.00
PNC Bank, National Association	\$150,000,000.00
US Bank National Association	\$125,000,000.00
SunTrust Bank	\$125,000,000.00
Regions Bank	\$75,000,000.00
Apple Bank for Savings	\$5,000,000.00
<u>Total:</u>	<u>\$1,535,000,000.00</u>

EXHIBIT A

NOT A LEGAL DOCUMENT

**COMPOSITE COPY REFLECTING
AMENDMENT NO. ~~23~~
DATED AS OF NOVEMBER ~~2028~~, ~~2017~~2018**

AMENDED AND RESTATED REVOLVING CREDIT AGREEMENT

dated as of

November 19, 2015

among

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION,

THE BANKS LISTED HEREIN,

JPMORGAN CHASE BANK, N.A.,
as Administrative Agent and Initial Issuing Bank,

MIZUHO BANK, LTD.,
as successor Syndication Agent,

and

MUFG BANK, LTD.
(F/K/A THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.),
THE BANK OF NOVA SCOTIA,
and
ROYAL BANK OF CANADA
as Co-Documentation Agents

J.P. MORGAN CHASE BANK, N.A.

MIZUHO BANK, LTD.

MUFG BANK, LTD.
(F/K/A THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.),
THE BANK OF NOVA SCOTIA,
and
RBC CAPITAL MARKETS

AMENDED AND RESTATED REVOLVING CREDIT AGREEMENT

This AMENDED AND RESTATED REVOLVING CREDIT AGREEMENT dated as of November 19, 2015, is made by and among NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, a not-for-profit cooperative association incorporated under the laws of the District of Columbia, as Borrower, the BANKS listed on the signature pages hereof, JPMORGAN CHASE BANK, N.A., as Administrative Agent and as Initial Issuing Bank for the Letters of Credit issued or to be issued pursuant to this Agreement, MIZUHO BANK, LTD., as successor Syndication Agent, and [MUFU BANK, LTD. \(F/K/A THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.\)](#), THE BANK OF NOVA SCOTIA and ROYAL BANK OF CANADA, as Co-Documentation Agents.

WHEREAS, the Borrower, the several Banks, the Administrative Agent, the Syndication Agent and Co-Documentation Agents (as each is defined hereinafter) entered into a Revolving Credit Agreement dated as of October 21, 2011, as amended by Amendment No. 1 dated as of March 28, 2013, Amendment No. 2 dated as of October 28, 2013 and Amendment No. 3 dated as of October 28, 2014 (collectively, the “Existing Credit Agreement”); and

WHEREAS, the Borrower has requested that the Banks, the Administrative Agent, the Syndication Agent and the Co-Documentation Agents agree, on the terms and conditions set forth herein, to amend and restate the Existing Credit Agreement. The Banks, Administrative Agent, Syndication Agent and Co-Documentation Agents have indicated their willingness to amend and restate the Existing Credit Agreement on the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto do hereby amend and restate the Existing Credit Agreement in its entirety and the parties hereto hereby agree as follows:

ARTICLE 1

DEFINITIONS

Section 1.01. *Definitions.* The following terms, as used herein, have the following meanings:

“**1994 Indenture**” means the Indenture dated as of February 15, 1994 and as amended as of September 16, 1994 between the Borrower and U.S. Bank National Association, as trustee, as amended and supplemented from time to time, providing for the issuance in series of certain collateral trust bonds of the Borrower.

“**2007 Indenture**” means the Indenture dated as of October 25, 2007 between the Borrower and U.S. Bank National Association, as trustee, as amended

and supplemented from time to time, providing for the issuance in series of certain collateral trust bonds of the Borrower.

“**2016 Amendment**” means Amendment No. 1 to this Agreement dated as of November 18, 2016 among the Borrower, the Administrative Agent, the Syndication Agent and the Banks thereto.

“**2017 Amendment**” means Amendment No. 2 to this Agreement dated as of November 20, 2017 among the Borrower, the Administrative Agent, the Syndication Agent and the Banks thereto.

“**2017 Fee Letters**” means those certain Fee Letters dated October 13, 2017 among the Borrower, the Administrative Agent and the Syndication Agent.

“**2018 Amendment**” means Amendment No. 3 to this Agreement dated as of November 28, 2018 among the Borrower, the Administrative Agent, the Syndication Agent and the Banks thereto.

“**2018 Fee Letters**” means those certain Fee Letters dated October 16, 2018 among the Borrower, the Administrative Agent and the Syndication Agent.

“**Absolute Rate Auction**” means a solicitation of Money Market Quotes setting forth Money Market Absolute Rates pursuant to Section 2.03.

“**Additional Commitment Bank**” has the meaning set forth in Section 2.22(d).

“**Adjusted London Interbank Offered Rate**” has the meaning set forth in Section 2.07(b).

“**Administrative Agent**” means JPMorgan Chase Bank, N.A., in its capacity as administrative agent for the Banks hereunder, and its successors in such capacity.

“**Administrative Questionnaire**” means, with respect to each Bank, the administrative questionnaire in the form submitted to such Bank by the Administrative Agent and submitted to the Administrative Agent (with a copy to the Borrower) duly completed by such Bank.

“**Aggregate Commitment**” means the aggregate amount that is equal to the sum of the amounts of each of the Commitments.

“**Agreement**” means this Amended and Restated Revolving Credit Agreement, as the same may be amended from time to time.

“**Amendment Effective Date**” means the date this Agreement becomes effective in accordance with Section 3.01.

“**Anti-Corruption Laws**” means all laws, rules, and regulations of any jurisdiction applicable to the Borrower or its Subsidiaries from time to time concerning or relating to bribery ~~or~~ corruption or money laundering.

“**Anniversary Date**” has the meaning set forth in Section 2.22(a).

“**Applicable Law**” means, with respect to any Person, any and all laws, statutes, regulations, rules, orders, injunctions, decrees, judgments, writs determinations or awards having the force or effect of binding such Person at law and issued by any Governmental Authority, applicable to such Person, including all Environmental Laws.

“**Applicable Lending Office**” means, with respect to any Bank, (i) in the case of its Base Rate Loans, its Domestic Lending Office, (ii) in the case of its Euro-Dollar Loans, its Euro-Dollar Lending Office and (iii) in the case of its Money Market Loans, its Money Market Lending Office.

“**ASC 815**” means Accounting Standards Codification No. 815 Derivatives and Hedging, as amended from time to time (or any successor provision thereto).

“**ASC 830**” means Accounting Standards Codification No. 830 Foreign Currency Matters, as amended from time to time (or any successor provision thereto).

“**Assignee**” has the meaning set forth in Section 9.06(c).

“**Auto-Extension Letter of Credit**” has the meaning specified in Section 2.20(a)(iii).

“**Back-Up Letter of Credit**” has the meaning set forth in Section 2.01(b).

“**Bail-In Action**” means the exercise of any Write-Down and Conversion Powers by the applicable EEA Resolution Authority in respect of any liability of an EEA Financial Institution.

“**Bail-In Legislation**” means, with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule.

“**Bank**” means at any time, any Bank that has a Commitment specified on the Commitment Schedule hereto or any Assignee thereof and any subsequent Assignee of such Assignee which becomes a Bank pursuant to Section 9.06(c).

“**Bank Extension Notice Date**” has the meaning set forth in Section 2.22(b).

“**Bank Parties**” mean the Banks and the Issuing Banks.

“**Bankruptcy Event**” means, with respect to any Person, such Person becomes the subject of a bankruptcy or insolvency proceeding, or has had a receiver, conservator, trustee, administrator, custodian, assignee for the benefit of creditors or similar Person charged with the reorganization or liquidation of its business appointed for it, or, in the good faith determination of the Administrative Agent, has taken any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any such proceeding or appointment, *provided* that a Bankruptcy Event shall not result solely by virtue of any ownership interest, or the acquisition of any ownership interest, in such Person by a Governmental Authority or instrumentality thereof, *provided, further*, that such ownership interest does not result in or provide such Person with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permit such Person (or such Governmental Authority or instrumentality) to reject, repudiate, disavow or disaffirm any contracts or agreements made by such Person.

“**Base Rate**” means, for any day, a rate per annum equal to the highest of (i) the Prime Rate for such day, (ii) the Federal Funds Rate for such day plus 0.50% and (iii) the Adjusted London Interbank Offered Rate, taking into account any London Interbank Offered Rate floor under the definition of “London Interbank Offered Rate”, or a comparable or successor rate, which rate is selected by the Administrative Agent and the Borrower as described in the definition of London Interbank Offered Rate in Section 2.07(b), for a one month Interest Period on such day (or if such day is not a Euro-Dollar Business Day, the immediately preceding Euro-Dollar Business Day) plus 1.00%.

“**Base Rate Loan**” means a Committed Loan that bears interest at the Base Rate pursuant to the applicable Notice of Committed Borrowing or Notice of Interest Rate Election or the last sentence of Section 2.08(a) or Article 8.

“**Base Rate Margin**” means a rate per annum determined in accordance with the Pricing Schedule.

“Beneficial Ownership Certification” means a certification regarding beneficial ownership required by the Beneficial Ownership Regulation.

“Beneficial Ownership Regulation” means 31 C.F.R. § 1010.230.

“**Bonds**” means any bonds issued pursuant to any of the Indentures, as the context may require.

“**Co-Documentation Agents**” means [MUFG Bank, Ltd. \(f/k/a](#) The Bank of Tokyo-Mitsubishi UFJ, Ltd.), The Bank of Nova Scotia and Royal Bank of Canada, each in their respective capacity as documentation agent hereunder, and their respective successors in such capacity.

“**Co-Lead Arrangers**” means J.P. Morgan Chase Bank, N.A., Mizuho Bank, Ltd., [MUFG Bank, Ltd. \(f/k/a](#) The Bank of Tokyo-Mitsubishi UFJ, Ltd.), The Bank of Nova Scotia, and RBC Capital Markets, each in their capacity as co-lead arranger and joint bookrunner.

“**Commitment**” means (i) with respect to any Bank, the amount, if any, set forth opposite the name of such Bank on the Commitment Schedule and (ii) with respect to any Bank that is an Assignee pursuant to Section 9.06(c), the amount of the transferor Bank’s commitment specified on the Commitment Schedule that is assigned to such Bank, and further, any subsequent assignment made by an Assignee to another Assignee of such amounts pursuant to Section 9.06(c), in each case as such amount may from time to time be increased or decreased from time to time in accordance with the terms and conditions of this Agreement.

“**Commitment Schedule**” means the commitment schedule attached hereto under the heading, Commitment Schedule.

“**Commitment Termination Date**” means November ~~2028~~, ~~2022~~[2023](#) or, if such day is not a Euro-Dollar Business Day, the immediately preceding Euro-Dollar Business Day.

“**Committed Borrowing**” means a Borrowing under Section 2.01(a).

“**Committed Loan**” means a Revolving Loan; *provided* that, if any such loan or loans (or portions thereof) are combined or subdivided pursuant to a Notice of Interest Rate Election, the term “Committed Loan” shall refer to the combined principal amount resulting from such combination or to each of the separate principal amounts resulting from such subdivision, as the case may be.

“**Confidential Information**” has the meaning set forth in Section 9.12.

“**Consolidated Entity**” means at any date any Subsidiary, and any other entity the accounts of which would be combined or consolidated with those of the Borrower in its combined or consolidated financial statements if such statements were prepared as of such date.

“**Credit Documentation**” has the meaning set forth in Section 9.15.

¹RBC Capital Markets is a brand name for the capital markets businesses of Royal Bank of Canada and its affiliates.

(a) income Taxes imposed on (or measured by) net income and franchise Taxes by the United States of America, or by the jurisdiction under the laws of which such Recipient is organized or in which its principal office is located or, in the case of any Bank Party, in which its applicable lending office is located or are Other Connection Taxes, (b) any branch profits Taxes imposed by the United States of America or any similar Taxes imposed by any other jurisdiction in which the Borrower is located or are Other Connection Taxes, (c) in the case of a Non U.S. Bank Party (other than an assignee pursuant to a request by the Borrower under Section 2.19(b)), any U.S. Federal withholding Taxes resulting from any law in effect on the date such Non U.S. Bank Party becomes a party to this Agreement (or designates a new lending office) or is attributable to such Non U.S. Bank Party's failure to comply with Section 2.16(f), except to the extent that such Non U.S. Bank Party (or its assignor, if any) was entitled, at the time of designation of a new lending office (or assignment), to receive additional amounts from the Borrower with respect to such withholding Taxes pursuant to Section 2.16(a) and (d) any U.S. Federal withholding Taxes imposed under FATCA.

“Existing Commitment Termination Date” has the meaning set forth in Section 2.22(a).

“Existing Credit Agreement” has the meaning set forth in first WHEREAS clause above.

“Existing Letters of Credit” means the letters of credit issued and outstanding under the Existing Credit Agreement as of the Amendment Effective Date and set forth in the Existing Letters of Credit Schedule hereto.

“Extended Commitment” means an Extended Commitment as defined in the ~~2017~~2018 Amendment.

“Extension Date” has the meaning set forth in Section 2.22(d).

“Facility Fee Rate” means a rate per annum determined in accordance with the Pricing Schedule.

“Farmer Mac” means the Federal Agricultural Mortgage Corporation, a corporation organized and existing under the laws of the United States of America and a federally-chartered instrumentality of the United States of America and an institution of the Farm Credit System.

“Farmer Mac Master Note Purchase Agreement” means that certain Master Note Purchase Agreement, dated as of July 31, 2015, among Farmer Mac Mortgage Securities Corporation, a wholly owned subsidiary of Farmer Mac, Farmer Mac and the Borrower.

“Farmer Mac Master Note Purchase Agreement Liens” means Liens on any assets of the Borrower required to be pledged as collateral to support

not require payments of principal prior to the Commitment Termination Date, except pursuant to acceleration or at the option of the Borrower.

“**Recipient**” means, as applicable, (a) the Administrative Agent, (b) any Bank and (c) the Issuing Bank.

“**REDLG Program Liens**” means Liens on any asset of the Borrower required to be pledged as collateral to support obligations of the Borrower with respect to any government Guarantee provided pursuant to regulations issued under the Rural Electrification Act of 1936, 7 U.S.C. 901 et. seq., and the Food, Conservation and Energy Act of 2008, Pub. L. 110-234 Stat. 923 (“**REDLG Obligations**”) so long as such Guarantee supports long-term Indebtedness issued by the Borrower and permitted by Section 5.09.

“**REDLG Obligations**” has the meaning set forth in the definition of REDLG Program Liens.

“**Regulation U**” means Regulation U of the Board of Governors of the Federal Reserve System, as in effect from time to time.

“**Regulation X**” means Regulation X of the Board of Governors of the Federal Reserve System, as in effect from time to time.

“**Reportable Event**” means an event described in Section 4043(c) of ERISA or regulations promulgated by the Department of Labor thereunder (with respect to which the 30 day notice requirement has not been waived by the PBGC).

“**Required Banks**” means, subject to Section 2.19, at any time Banks having at least 51% of the sum of (i) the aggregate amount of the unused Commitments, (ii) the aggregate principal outstanding amount of the Loans and (iii) the Outstanding Amount of all L/C Obligations (with the aggregate amount of each Bank’s participation in L/C Obligations deemed “held” by such Bank for purposes of this definition).

“**Responsible Officer**” means (i) with respect to the Borrower, the Chief Financial Officer, the Chief Executive Officer, ~~the Chief Operating Officer~~, an Assistant Secretary-Treasurer, the Controller, the Vice President, Capital Markets Relations or, in each case, an authorized signatory of such Person and (ii) with respect to any other Person, the president, any vice-president, the chief financial officer, any assistant-treasurer or, in each case, an authorized signatory of such Person.

“**Revolving Credit Period**” means the period from and including the Effective Date to but excluding the Commitment Termination Date.

“**Standby Letter of Credit**” means any Letter of Credit issued under this Agreement, other than (i) a Trade Letter of Credit, (ii) a Performance Letter of Credit or (iii) a Backup Letter of Credit in support of either a performance letter of credit or a trade letter of credit issued by the Borrower.

“**Start-up Investments**” has the meaning set forth in Section 5.12.

“**Subsidiary**” of any Person means (i) any corporation more than 50% of whose stock of any class or classes having by the terms thereof ordinary voting power to elect a majority of the directors of such corporation (irrespective of whether or not at the time stock of any class or classes of such corporation shall have or might have voting power by reason of the happening of any contingency) is at the time owned by such Person directly or indirectly through its Subsidiaries, and (ii) any other Person in which such Person directly or indirectly through Subsidiaries has more than a 50% voting and equity interest; *provided* that no Person whose only assets are RUS Guaranteed Loans and investments incidental thereto shall be deemed a Subsidiary.

“**Superior Indebtedness**” means all Indebtedness of the Borrower and its Consolidated Entities (other than Members’ Subordinated Certificates and Qualified Subordinated Indebtedness), but excluding (i) Indebtedness of the Borrower or any of its Consolidated Entities to the extent that the proceeds of such Indebtedness are used to fund Guaranteed Portions of RUS Guaranteed Loans and (ii) any indebtedness of any Member Guaranteed by the Borrower or any of its Consolidated Entities (“**Guaranteed Indebtedness**”), to the extent that either (x) the long-term unsecured debt of such Member is rated at least BBB+ by S&P or Baal by Moody’s, (y) the long-term secured debt of such Member is rated at least A- by S&P or A3 by Moody’s or (z) the payment of principal and interest by the Borrower or any of its Consolidated Entities in respect of such Guaranteed Indebtedness is covered by insurance or reinsurance provided by an insurer having an insurance financial strength rating of AAA by S&P or a financial strength rating of Aaa by Moody’s.

“**Syndication Agent**” means Mizuho Bank, Ltd., in its capacity as Syndication Agent hereunder, and its successors in such capacity.

“**Taxes**” means any present or future taxes, levies, imposts, duties, deductions, withholdings, assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

“Third Amendment Effective Date” means the Third Amendment Effective Date as defined in the 2018 Amendment.

any Governmental Authority with jurisdiction over such Issuing Bank shall prohibit, or request that the Issuing Bank refrain from the issuance of Letters of Credit generally or such Letter of Credit in particular or shall impose upon such Issuing Bank with respect to such Letter of Credit any restriction, reserve or capital requirement (for which such Issuing Bank is not otherwise compensated hereunder) not in effect on the ~~Second~~Third Amendment Effective Date, or shall impose upon such Issuing Bank any unreimbursed loss, cost or expense which was not applicable on the ~~Second~~Third Amendment Effective Date and which such Issuing Bank in good faith reasonably deems material to it; *provided, however*, that in the event a Bank Party participating in the Letters of Credit is not affected by any such restriction, requirement or imposition, and is able to issue such Letter of Credit and expressly agrees in its sole discretion to issue such Letter of Credit, such Bank Party, subject to the consent of the Administrative Agent, such consent not to be unreasonably withheld, conditioned or delayed, shall issue such Letter of Credit and shall be deemed the Issuing Bank with regard to such Letter of Credit for all purposes of this Agreement;

(B) the making of such L/C Credit Extension would violate any Applicable Laws;

(C) except as otherwise agreed by the Administrative Agent and such Issuing Bank, such Letter of Credit is in an initial face amount less than \$25,000;

(D) such L/C Credit Extension is to be denominated in a currency other than Dollars;

(E) such L/C Credit Extension contains any provisions for automatic reinstatement of the stated amount after any L/C Borrowing thereunder; or

(F) a default of any Bank's obligations to fund under Section 2.20 exists, or any Bank is then a Defaulting Bank, unless, after giving effect to Section 2.19(a)(iv)) with respect to such Bank, such Issuing Bank has entered into satisfactory arrangements, including the delivery of Cash Collateral satisfactory to the Issuing Bank (in its sole discretion) with the Borrower or such Bank to eliminate such Issuing Bank's risk.

(iii) No Issuing Bank shall be under the obligation to amend any Letter of Credit if (A) such Issuing Bank would have no obligation at such time to issue such Letter of Credit in its amended form under the terms

payment-related Event of Default exists, all Letter of Credit Fees shall accrue at a rate per annum equal to the Euro-Dollar Margin plus 2%.

(d) *Fronting Fee and Documentary and Processing Charges Payable to Issuing Banks, Etc.* The Borrower shall pay directly to the relevant Issuing Bank for its own account a fronting fee with respect to each Letter of Credit issued hereunder on the average daily maximum amount available to be drawn under such Letter of Credit in an amount to be agreed between the Borrower and the applicable Issuing Bank of the L/C Obligations (whether or not such maximum amount is then in effect under such Letter of Credit) (the “**Fronting Fee**”). The Fronting Fee shall be computed on a quarterly basis in arrears on the basis of the actual number of days elapsed in a year of 360 days (including the first day but excluding the last day), as pro-rated for any partial quarter, as applicable, and shall be due and payable on each January 1, April 1, July 1 and October 1, commencing with the first such date to occur after the issuance of such Letter of Credit, on the Letter of Credit Expiration Date and thereafter on demand. In addition, the Borrower shall, with respect to all Letters of Credit issued at its request, pay directly to each Issuing Bank for its own account the customary issuance, presentation, amendment and other processing fees, and other standard costs and charges, of such Issuing Bank relating to letters of credit as from time to time in effect. Such customary fees and standard costs and charges are due and payable on demand and are nonrefundable.

(e) *Amendment Fees.* The Borrower agrees to pay to the Administrative Agent for the account of each Bank on the ~~Second~~Third Amendment Effective Date the upfront fees required to be paid on such date, as set forth in the ~~2017~~2018 Fee Letters.

Section 2.10. *Optional Termination or Reduction of Commitments.* During the Revolving Credit Period, the Borrower may, upon at least three Domestic Business Days’ notice to the Administrative Agent (which notice the Administrative Agent will promptly deliver to the Banks), (i) terminate all Commitments at any time, if no Loans are outstanding at such time or (ii) ratably reduce from time to time by an aggregate amount of \$10,000,000 or any larger multiple of \$1,000,000, the aggregate amount of the Commitments in excess of the aggregate outstanding principal amount of the Loans.

Section 2.11. *Mandatory Termination of Commitments.* The Commitments shall terminate on the Commitment Termination Date.

Section 2.12. *Optional Prepayments.* (a) Subject in the case of Euro-Dollar Loans to Section 2.14, the Borrower may (i) on any Domestic Business Day, upon notice to the Administrative Agent, prepay any Group of Base Rate Loans (or any Money Market Borrowing bearing interest at the Base Rate pursuant to Section 8.01(a)) or (ii) upon at least three Euro-Dollar Business Days’ notice to the Administrative Agent, prepay any Group of Euro-Dollar Loans, in each case in whole at any time, or from time to time in part in amounts aggregating

Issuing Bank, as applicable. The Administrative Agent shall notify the Banks of any such replacement or addition, as applicable, of an Issuing Bank. Where an Issuing Bank is replaced, at the time such replacement shall become effective, the Borrower shall pay all unpaid fees accrued for account of the replaced Issuing Bank. Furthermore, from and after the effective date of such replacement, the successor Issuing Bank, shall have all the rights and obligations of the replaced Issuing Bank under this Agreement with respect to Letters of Credit to be issued thereafter. References herein to the term “Issuing Bank” shall be deemed to refer to any successor or additional Issuing Bank, as applicable, or to any previous Issuing Bank, or to any successor or additional Issuing Banks, as applicable, and all previous Issuing Banks, as the context shall require. After the replacement of an Issuing Bank hereunder, the replaced Issuing Bank shall remain a party hereto and shall continue to have all the rights and obligations of an Issuing Bank under this Agreement with respect to Letters of Credit issued by it prior to such replacement, but shall not be required to issue additional Letters of Credit.

Section 2.21. [*Reserved*]

Section 2.22. *Extension of Commitment Termination Date.* (a) The Borrower may, by notice to the Administrative Agent (which shall promptly notify the Banks) not earlier than 45 days prior to any anniversary of the ~~Second~~Third Amendment Effective Date (each, an “**Anniversary Date**”) but no later than 30 days prior to any such Anniversary Date, request that each Bank extend such Bank’s Commitment Termination Date for an additional one year after the Commitment Termination Date then in effect for such Bank hereunder (the “**Existing Commitment Termination Date**”); *provided, however*, the Borrower may request no more than two extensions pursuant to this Section.

(b) In the event it receives a notice from the Administrative Agent pursuant to Section 2.22(a), each Bank, acting in its sole and individual discretion, shall, by notice to the Administrative Agent given not earlier than 30 days prior to the applicable Anniversary Date and not later than the date (the “Bank Extension Notice Date”) that is 20 days prior to the applicable Anniversary Date, advise the Administrative Agent whether or not such Bank agrees to such extension (and each Bank that determines not to so extend its Existing Commitment Termination Date (a “Non-Extending Bank”) shall notify the Administrative Agent of such fact promptly after such determination (but in any event no later than the Bank Extension Notice Date)), and any Bank that does not so advise the Administrative Agent on or before the Bank Extension Notice Date shall be deemed to be a Non-Extending Bank. The election of any Bank to agree to any such extension shall not obligate any other Bank to so agree.

(c) The Administrative Agent shall notify the Borrower of each Bank’s determination (or deemed determination) under this Section no later than the date that is 15 days prior to the applicable Anniversary Date, or, if such date is not a Business Day, on the next preceding Business Day (the “Specified Date”).

that an enforceability opinion under New York law, that is reasonably acceptable to the Administrative Agent, shall be furnished by the Borrower's New York counsel, Norton Rose Fulbright US LLP, subject to customary assumptions, qualifications and limitations;

(d) receipt by the Administrative Agent of a certificate signed by any one of the Chief Financial Officer, the Chief Executive Officer, ~~the Chief Operating Officer~~, Assistant Secretary-Treasurer, the Controller or the Vice President, Capital Markets Relations of the Borrower to the effect that the conditions set forth in clauses (c) through (g), inclusive, of Section 3.03 have been satisfied as of the Amendment Effective Date and, in the case of clauses (c), (e) and (g), setting forth in reasonable detail the calculations required to establish such compliance;

(e) receipt by the Administrative Agent, with a copy for each Bank, of a certificate of an officer of the Borrower acceptable to the Administrative Agent stating that all consents, authorizations, notices and filings required or advisable in connection with this Agreement are in full force and effect, and the Administrative Agent shall have received evidence thereof reasonably satisfactory to it;

(f) receipt by the Administrative Agent and the Syndication Agent (or their respective assigns) and by each Bank Party of all fees required to be paid in the respective amounts heretofore mutually agreed in writing, and all expenses for which invoices have been presented, on or before the Amendment Effective Date;

(g) receipt by the Administrative Agent and the Banks of all documentation and other information requested by the Administrative Agent or such Bank and required by regulatory authorities under applicable "know your customer" and anti-money laundering rules and regulations, including, without limitation, the USA PATRIOT Act (Title III of Pub. L. 107-56); and

(h) receipt by the Administrative Agent of all documents the Required Banks may reasonably request relating to the existence of the Borrower, the corporate authority for and the validity of this Agreement and the Notes, and any other matters relevant hereto, all in form and substance reasonably satisfactory to the Administrative Agent.

The Administrative Agent shall promptly notify the Borrower and the Bank Parties of the Amendment Effective Date, and such notice shall be conclusive and binding on all parties hereto.

Section 3.02. [Reserved]

Section 3.03. *Borrowings and L/C Credit Extensions.* The obligation of any Bank to make a Loan on the occasion of any Borrowing and the obligation of the Issuing Bank to issue, amend or increase the principal amount thereof or extend any Letter of Credit (other than an extension pursuant to an Auto-

Extension Letter of Credit in accordance with the original terms thereof) is subject to the satisfaction of the following conditions, in each case at the time of such Borrowing or L/C Credit Extensions and immediately thereafter:

(a) The Amendment Effective Date shall have occurred on or prior to November 19, 2015, the First Amendment Effective Date shall have occurred on or prior to November 18, 2016 ~~and~~, the Second Amendment Effective Date shall have occurred on or prior to November 20, 2017 and the Third Amendment Effective Date shall have occurred on or prior to November 28, 2018;

(b) receipt by the Administrative Agent of a Notice of Borrowing as required by Section 2.02 or 2.03, as the case may be;

(c) the fact that the Borrower is in compliance with Section 7.11 of the 1994 Indenture, as such Indenture is in effect as of the Effective Date and the Amendment Effective Date;

(d) Prior to the Commitment Termination Date, the fact that the sum of (i) the aggregate outstanding principal amount of the Loans and (ii) the Outstanding Amount of L/C Obligations will not exceed the Aggregate Commitments (as such Commitments may be increased or decreased from time to time in accordance with the terms and conditions of this Agreement);

(e) the fact that no Default shall have occurred and be continuing;

(f) the fact that the representations and warranties of the Borrower (in the case of a Borrowing or L/C Credit Extension, other than the representations set forth in Section 4.02(c), Section 4.03 and Section 4.14) contained in this Agreement shall be true in all material respects (other than any such representations or warranties that, by their terms, refer to a specific date other than the date of Borrowing or L/C Credit Extension, in which case such representations and warranties shall be true in all material respects as of such specific date); *provided that*, (i) in the case of the representations set forth in Section 4.02(a) and Section 4.02(b) being made after the Amendment Effective Date shall be deemed to refer to the most recent balance sheets and statements furnished pursuant to Section 5.03(b)(ii) and Section 5.03(b)(i), respectively and (ii) in the case of the representation set forth in Section 4.06 being made after the ~~Second~~Third Amendment Effective Date, such representation shall be true except to the extent not reasonably expected to have a material adverse effect on the business, financial position or results of operations of the Borrower; and

(g) the fact that (i) there shall be no collateral securing Bonds issued pursuant to any Indenture of a type other than the types of collateral permitted to secure Bonds issued pursuant to such Indenture as of the date hereof, (ii) the allowable amount of eligible collateral then pledged under any Indenture shall not exceed 150% of the aggregate principal amount of Bonds then outstanding under such Indenture and (iii) no collateral shall secure Bonds other than (A) eligible

Section 4.10. *Tax Status.* The Borrower is exempt from payment of Federal income tax under Section 501(c)(4) of the Internal Revenue Code.

Section 4.11. *Investment Company Act.* The Borrower is not an “investment company” or a company “controlled” by an “investment company”, within the meaning of the Investment Company Act of 1940, as amended.

Section 4.12. *Disclosure.* Neither this Agreement nor any document, certificate, **including without limitation any Beneficial Ownership Certification**, or financial statement furnished to any Bank by or on behalf of the Borrower in connection herewith (all such documents, certificates and financial statements, taken as a whole) contains, as of the date of delivery thereof and taken as a whole, any untrue statement of a material fact or omits to state any material fact necessary in order to make the statements contained herein and therein, in the light of the circumstances under which they were made, not misleading; *provided that*, with respect to projected financial information, the Borrower represents only that such information was prepared in good faith based upon assumptions believed by it to be reasonable at the time.

Section 4.13. *Subsidiaries.* Each of the Borrower’s corporate Subsidiaries is a corporation duly incorporated, validly existing and in good standing under the laws of its jurisdiction of incorporation, and has all corporate powers and all material governmental licenses, authorizations, consents and approvals required to carry on its business as now conducted.

Section 4.14. *Environmental Matters.* In the ordinary course of its business, the Borrower conducts reviews, to the extent appropriate given the nature of its business operations, of the effect of Environmental Laws on the business, operations and properties of the Borrower and its Subsidiaries, in the course of which it identifies and evaluates associated liabilities and costs (including, without limitation, any capital or operating expenditures required for clean-up or closure of properties presently or previously owned, any capital or operating expenditures required to achieve or maintain compliance with environmental protection standards imposed by law or as a condition of any license, permit or contract, any related constraints on operating activities, including any periodic or permanent shutdown of any facility or reduction in the level of or change in the nature of operations conducted thereat, any costs or liabilities in connection with off-site disposal of wastes or Hazardous Substances, and any actual or potential liabilities to third parties, including employees, and any related costs and expenses). On the basis of this review, the Borrower has reasonably concluded that such associated liabilities and costs, including the cost of compliance with Environmental Laws, are unlikely to have a material adverse effect on the business, financial position or results of operations of the Borrower and its Consolidated Entities, considered as a whole.

Section 4.15. *Anti-Corruption Laws and Sanctions.* The Borrower has implemented and maintains in effect policies and procedures designed to cause

compliance by the Borrower and its Subsidiaries and, when conducting business of behalf of the Borrower or its Subsidiaries, their respective directors, officers and employees with Anti-Corruption Laws and applicable Sanctions, and the Borrower and its Subsidiaries and, to the knowledge of the Borrower, their respective officers, employees and directors, are in compliance with Anti-Corruption Laws and applicable Sanctions in all material respects. None of (a) the Borrower, any Subsidiary or to the knowledge of the Borrower or such Subsidiary any of their respective directors, officers or employees, or (b) to the knowledge of the Borrower, any agent of the Borrower or any Subsidiary that will act in any capacity in connection with or directly benefit from the credit facility established hereby, is a Sanctioned Person. No Borrowing or Letter of Credit, use of proceeds or other transaction contemplated by this Agreement will violate Anti-Corruption Laws or applicable Sanctions.

Section 4.16. FinCEN Beneficial Ownership Certification. On the Third Amendment Effective Date, the Borrower delivered to the Administrative Agent and the Banks a Beneficial Ownership Certification and all documentation and other information requested by the Administrative Agent or such Bank and required by regulatory authorities under applicable “know your customer” and anti-money laundering rules and regulations, including, without limitation, the USA PATRIOT Act (Title III of Pub. L. 107-56) and the FinCEN beneficial ownership regulations under the Beneficial Ownership Regulation.

ARTICLE 5 COVENANTS

The Borrower agrees that, so long as any Bank Party has any Commitment hereunder or any amount payable under any Note or any fee payable pursuant to Section 2.09 or any other amount then due and payable hereunder remains unpaid or any Letter of Credit remains outstanding:

Section 5.01. *Corporate Existence.* Except as otherwise permitted by Section 5.02 hereof, the Borrower, at its own cost and expense, will, and will cause each Subsidiary to, do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence, and its material rights and franchises; *provided, however,* that neither the Borrower nor any Subsidiary shall be required to preserve any right or franchise or, in the case of a Subsidiary, its corporate existence, if its Board of Directors shall determine that the preservation thereof is no longer desirable in the conduct of the business of the Borrower or such Subsidiary (*provided* that the termination of the corporate existence of a Subsidiary shall be permitted if the Board of Directors of the Borrower shall determine that its existence is not desirable in the conduct of the business of the Borrower) and that the loss thereof is not disadvantageous in any material respect to the Banks.

Section 5.02. *Disposition of Assets, Merger, Character of Business, etc.* The Borrower will not wind up or liquidate its business or sell, lease, transfer or otherwise dispose of all or substantially all of its assets as an entirety or in a series of related transactions and will not consolidate with or merge with or into any other Person other than a merger with a Subsidiary in which the Borrower is the surviving Person. The Borrower will not engage in any business other than the business contemplated by its certificate of incorporation and by-laws, each as in effect on the Amendment Effective Date.

Section 5.03. *Financial Information.* (a) The Borrower will, and will cause each Subsidiary other than the Subsidiaries listed on Schedule 5.03(a) to, keep its books of account in accordance with U.S. GAAP.

(b) The Borrower will (subject to the last paragraph of this Section 5.03) furnish to the Administrative Agent for distribution to the Banks:

(i) as soon as available and in any event within 60 days after the close of each of the first three quarters of each fiscal year of the Borrower, as at the end of, and for the period commencing at the end of the previous fiscal year and ending with, such quarter, unaudited consolidated balance sheets of the Borrower and its Consolidated Entities and the related unaudited consolidated statements of operations, changes in equity and cash flow of the Borrower and its Consolidated Entities for such quarter and for the portion of the Borrower's fiscal year ended at the end of such quarter, setting forth in each case in comparative form the figures for the corresponding quarter and the corresponding portion of the Borrower's previous fiscal year, all in reasonable detail and certified (subject to normal year-end adjustments) as to fairness of presentation in accordance with U.S. GAAP in all material respects and consistency (except for changes concurred in by the Borrower's independent public accountants) by the Chief Executive Officer, the Chief Financial Officer, ~~Chief Operating Officer~~, an Assistant Secretary-Treasurer or the Controller of the Borrower;

(ii) as soon as practicable and in any event within the earlier of (i) two Domestic Business Days after filing with the Securities and Exchange Commission and (ii) 120 days after the close of each fiscal year of the Borrower, as at the end of and for the fiscal year just closed, consolidated balance sheets of the Borrower and its Consolidated Entities and the related consolidated statements of operations, changes in equity and cash flow for such fiscal year for the Borrower and its Consolidated Entities, all in reasonable detail and certified (without any qualification as to the scope of the audit) by KPMG LLP or other independent public accountants of nationally recognized standing selected by the Borrower, who shall have audited the books and accounts of the Borrower for such fiscal year;

MUFG BANK, LTD. (F/K/A THE BANK
OF TOKYO-MITSUBISHI UFJ, LTD.)

By: /s/ ROBERT MACFARLANE
Name: Robert MacFarlane
Title: Director

AGENT SCHEDULE

<u>Institution</u>	<u>Title</u>
JPMorgan Chase Bank, N.A.	Administrative Agent
Mizuho Bank, Ltd.	Syndication Agent
The <u>MUFG Bank, Ltd. (f/k/aThe</u> Bank of Tokyo- Mitsubishi UFJ, Ltd.)	Co-Documentation Agent
The Bank of Nova Scotia	Co-Documentation Agent
Royal Bank of Canada	Co-Documentation Agent

EXISTING COMMITMENT SCHEDULE

<u>Institution</u>	<u>Commitment Prior to the SecondThird Amendment Effective Date</u>	<u>Loans Outstanding on the SecondThird Amendment Effective Date</u>
<u>Bank</u>		\$0
JPMorgan Chase Bank, N.A.	\$180,000,000.00	\$0
Mizuho Bank (USA)	\$187,500,000.00	\$0
Royal Bank of Canada	\$187,500,000.00	\$0
The Bank of Nova Scotia	\$187,500,000.00	\$0
<u>MUFG Bank, Ltd. (f/k/a The Bank of Tokyo- Mitsubishi UFJ, Ltd.)</u>	\$187,500,000.00	\$0
KeyBank National Association	\$180,000,000.00	\$0
PNC Bank, National Association	\$150,000,000.00	\$0
US Bank National Association	\$125,000,000.00	\$0
SunTrust Bank	\$125,000,000.00	\$0
Regions Bank	\$75,000,000.00	\$0
Industrial and Commercial Bank of China Limited, New York Branch	\$40,000,000.00	\$0
Apple Bank for Savings	\$7,500,000.00	\$0
<u>Total:</u>	<u>\$1,632,500,000.00</u> <u>1,592,500,000.00</u>	<u>\$0</u>

COMMITMENT SCHEDULE

Commitment Schedule

<u>Bank</u>	<u>Commitment</u>
JPMorgan Chase Bank, N.A.	\$180,000,000.00 <u>175,000,000.00</u>
Mizuho Bank (USA)	\$187,500,000.00 <u>175,000,000.00</u>
Royal Bank of Canada	\$187,500,000.00 <u>175,000,000.00</u>
The Bank of Nova Scotia	\$187,500,000.00 <u>175,000,000.00</u>
<u>MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.)</u>	\$187,500,000.00 <u>175,000,000.00</u>
KeyBank National Association	\$180,000,000.00
PNC Bank, National Association	\$150,000,000.00
US Bank National Association	\$125,000,000.00
SunTrust Bank	\$125,000,000.00
Regions Bank	\$75,000,000.00
Apple Bank for Savings	\$7,500,000.00 <u>5,000,000.00</u>
Total:	\$1,592,500,000.00 <u>1,535,000,000.00</u>

EXISTING LETTERS OF CREDIT

L/C# TFTX-374881 – Deseret Generation & Transmission Cooperative

Beneficiary: Rockwood Casualty Insurance Company

Amount: \$1,000,000

Effective Date: October 16, 2012

Expiration Date: November ~~30~~28, ~~2017~~2018

L/C# SLCLSTL11173 – Allamakee-Clayton Electric Cooperative, Inc.

Beneficiary: Universal Service Administrative Company

Amount: \$436,080

Effective Date: March 18, 2016

Expiration Date: March 18, 2018

EXHIBIT A

FORM OF NOTE

New York, New York

[DATE]

For value received, National Rural Utilities Cooperative Finance Corporation, a not-for-profit cooperative association incorporated under the laws of the District of Columbia (the “**Borrower**”), promises to pay to the order of [•] (the “**Bank**”), for the account of its Applicable Lending Office, the principal sum of [\$ _____] (\$ _____),] or, if less, the aggregate unpaid principal amount of each Loan and L/C Borrowing made by the Bank to the Borrower pursuant to the Revolving Credit Agreement referred to below on the Maturity Date with respect to such Loan or L/C Borrowing. The Borrower promises to pay interest on the unpaid principal amount of each such Loan and L/C Borrowing on the dates and at the rate or rates provided for in the Revolving Credit Agreement. All such payments of principal and interest shall be made in lawful money of the United States in Federal or other immediately available funds at the office of JPMorgan Chase Bank, N.A., 1111 Fannin St., 10th Floor, Houston, TX 77002, Attn: Leslie Hill.

All Loans and L/C Borrowings made by the Bank, the respective types and maturities thereof and all repayments of the principal thereof shall be recorded by the Bank and, prior to any transfer hereof, appropriate notations to evidence the foregoing information with respect to each such Loan then outstanding may be endorsed by the Bank on the schedule attached hereto, or on a continuation of such schedule attached to and made a part hereof; *provided* that the failure of the Bank to make any such recordation or endorsement shall not affect the obligations of the Borrower hereunder or under the Revolving Credit Agreement.

This note is one of the Notes referred to in that certain Amended and Restated Revolving Credit Agreement, dated as of November 19, 2015, among the Borrower, the Banks listed on the signature pages thereof, JPMorgan Chase Bank, N.A., as Administrative Agent and Initial Issuing Bank, Mizuho Bank (USA), as Syndication Agent, and [MUFG Bank, Ltd. \(f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.\)](#), The Bank of Nova Scotia and Royal Bank of Canada as Co-Documentation Agents (as the same may be amended, supplemented or otherwise modified, from time to time, in each case, pursuant to the terms and conditions thereof, the “**Revolving Credit Agreement**”). Terms defined in the Revolving Credit Agreement are used herein with the same meanings. Reference is made to the Revolving Credit Agreement for provisions for the prepayment hereof and the acceleration of the maturity hereof. This Note shall be governed by and construed in accordance with the laws of the State of New York.

EXHIBIT C

FORM OF MONEY MARKET QUOTE REQUEST

[Date]

To: JPMorgan Chase Bank, N.A. (the “**Administrative Agent**”)

From: National Rural Utilities Cooperative Finance Corporation
(the “**Borrower**”)

Re: Amended and Restated Revolving Credit Agreement, dated as of November 19, 2015, among the Borrower, the Banks listed on the signature pages thereof, JPMorgan Chase Bank, N.A., as Administrative Agent and Initial Issuing Bank, Mizuho Bank (USA), as Syndication Agent, and MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.), The Bank of Nova Scotia and Royal Bank of Canada, as Co-Documentation Agents (as amended, supplemented, or otherwise modified from time to time, in each case, pursuant to the terms and conditions thereof, the “**Revolving Credit Agreement**”)

We hereby give notice pursuant to Section 2.03 of the Revolving Credit Agreement that we request Money Market Quotes for the following proposed Money Market Borrowing(s):

Date of Borrowing: _____

*Principal Amount*¹

*Interest Period*²

\$

Such Money Market Quotes should offer a Money Market [Margin] [Absolute Rate]. [The applicable base rate is the London Interbank Offered Rate.]

Terms used herein have the meanings assigned to them in the Revolving Credit Agreement.

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE
CORPORATION

By:

¹Amount must be \$10,000,000 or a larger multiple of \$1,000,000.

²Any number of whole months (but not less than one month) (LIBOR Auction) or not less than 30 days (Absolute Rate Auction), subject to the provisions of the definition of Interest Period.

EXHIBIT D

FORM OF INVITATION FOR MONEY MARKET QUOTES

[Date]

To: [Name of Bank]

Re: Invitation for Money Market Quotes to the National Rural Utilities
Cooperative Finance Corporation (the “**Borrower**”)

Pursuant to Section 2.03 of the Amended and Restated Revolving Credit Agreement, dated as of November 19, 2015, among the Borrower, the Banks listed on the signature pages thereof, JPMorgan Chase Bank, N.A., as Administrative Agent and Initial Issuing Bank, Mizuho Bank (USA), as Syndication Agent, and MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.), The Bank of Nova Scotia and Royal Bank of Canada, as Co-Documentation Agents (as amended, supplemented or otherwise modified from time to time, in each case, pursuant to the terms and conditions thereof, the “**Revolving Credit Agreement**”):

Date of Borrowing: _____

Principal Amount

Interest Period

\$

Such Money Market Quotes should offer a Money Market [Margin] [Absolute Rate]. [The applicable base rate is the London Interbank Offered Rate.]

Please respond to this invitation by no later than 9:30 A.M. (New York City time) on [date].

JPMORGAN CHASE BANK, N.A.

By:

Name:

Title: Authorized Officer

[*provided*, that the aggregate principal amount of Money Market Loans for which the above offers may be accepted shall not exceed \$ _____.]**

We understand and agree that the offer[s] set forth above [is] [are] subject to the satisfaction of the applicable conditions set forth in the Amended and Restated Revolving Credit Agreement, dated as of November 19, 2015, among the Borrower, the Banks listed on the signature pages thereof, JPMorgan Chase Bank, N.A., as Administrative Agent and Initial Issuing Bank, Mizuho Bank (USA), as Syndication Agent, and **MUFG Bank, Ltd. (f/k/a** The Bank of Tokyo-Mitsubishi UFJ, Ltd.), The Bank of Nova Scotia and Royal Bank of Canada, as Co-Documentation Agents, as amended, supplemented or otherwise modified from time to time, in each case, pursuant to the terms and conditions thereof.

Very truly yours,

[NAME OF BANK]

By:

Name:

Title: Authorized Officer

Dated:

EXHIBIT F

OPINION OF GENERAL COUNSEL OF THE BORROWER

November ~~1~~28, ~~2017~~2018

To the Administrative Agent and each of the Banks party
to the Revolving Credit Agreement referred to below
c/o JPMorgan Chase Bank, N.A.
1111 Fannin Street, 10th Floor
Houston, TX 77002

Ladies and Gentlemen:

Reference is hereby made to (i) that certain Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 (as amended by the Amendments (defined below), the “**Extended Agreement**”), by and among the Borrower, the Banks listed on the signature pages thereof, JPMorgan Chase Bank, N.A., as Administrative Agent and Initial Issuing Bank, Mizuho Bank (USA), as successor Syndication Agent, and MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.), The Bank of Nova Scotia, and Royal Bank of Canada, as Co-Documentation Agents, (ii) that certain Amendment No. 1 dated as of November 18, 2016 (“**Amendment No. 1**”), by and among the Borrower, the Banks listed on the signature pages thereof, JPMorgan Chase Bank, N.A., as Administrative Agent and Initial Issuing Bank, Mizuho Bank (USA), as Syndication Agent, and MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.), The Bank of Nova Scotia, and Royal Bank of Canada, as Co-Documentation Agents and (iii) that certain Amendment No. ~~2~~3 dated as of November ~~2028~~, ~~2017~~2018 (“Amendment No. ~~2~~3” and together with Amendment No. 1 and Amendment No. 2, the “Amendments”), by and among the Borrower, the Banks listed on the signature pages thereof, JPMorgan Chase Bank, N.A., as Administrative Agent and Initial Issuing Bank, Mizuho Bank, Ltd., as Syndication Agent, and MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.), The Bank of Nova Scotia, and Royal Bank of Canada, as Co-Documentation Agents. I, Roberta B. Aronson, General Counsel of the National Rural Utilities Cooperative Finance Corporation (the “**Borrower**”), am delivering this opinion at the request of the Borrower pursuant to Section 7(b) of Amendment No. 2. Terms defined in the Extended Agreement are used herein as therein defined.

I have examined originals or copies, certified or otherwise identified to my satisfaction, of such documents, corporate records, certificates of public officials and other instruments and have conducted such other investigations of fact and law as I have deemed necessary or advisable for purposes of this opinion. This opinion is limited to the laws of the District of Columbia.

Upon the basis of the foregoing, I am of the opinion that:

EXHIBIT G

ASSIGNMENT AND ASSUMPTION AGREEMENT

AGREEMENT dated as of _____, 20__ among [ASSIGNOR] (the “**Assignor**”), [ASSIGNEE] (the “**Assignee**”), NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION (the “**Borrower**”) and JPMORGAN CHASE BANK, N.A., as Administrative Agent (the “**Agent**”).

W I T N E S S E T H

WHEREAS, this Assignment and Assumption Agreement (the “**Agreement**”) relates to the Amended and Restated Revolving Credit Agreement, dated as of November 19, 2015 (as amended, supplemented or otherwise modified from time to time, in each case pursuant to the terms and conditions thereof, (the “**Credit Agreement**”), among the Borrower, the Banks listed on the signature pages thereof, JPMorgan Chase Bank, N.A., as Administrative Agent and Initial Issuing Bank (the “**Agent**”), and Mizuho Bank (USA), as Syndication Agent, and MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.), The Bank of Nova Scotia and Royal Bank of Canada, as Co-Documentation Agents.

WHEREAS, as provided under the Credit Agreement, the Assignor has a Commitment to make Loans and/or make or participate in L/C Obligations to the Borrower in an aggregate principal amount at any time outstanding not to exceed \$ _____;

WHEREAS, Committed Loans and L/C Obligations made to the Borrower by the Assignor under the Credit Agreement in the aggregate principal amount of \$ _____ are outstanding at the date hereof; and

WHEREAS, the Assignor proposes to assign to the Assignee all of the rights of the Assignor under the Credit Agreement in respect of a portion of its Commitment thereunder in an amount equal to \$ _____ (the “**Assigned Amount**”), together with a corresponding portion of its outstanding Committed Loans and/or L/C Obligations, and the Assignee proposes to accept assignment of such rights and assume the corresponding obligations from the Assignor on such terms;

NOW, THEREFORE, in consideration of the foregoing and the mutual agreements contained herein, the parties hereto agree as follows:

SECTION 1. *Definitions.* All capitalized terms not otherwise defined herein shall have the respective meanings set forth in the Credit Agreement.

SECTION 2. *Assignment.* The Assignor hereby assigns and sells to the Assignee all of the rights of the Assignor under the Credit Agreement to the extent of the Assigned Amount, and the Assignee hereby accepts such assignment from

[FORM OF]

U.S. TAX CERTIFICATE

**(For Non-U.S. Bank Parties That Are Not Partnerships For U.S. Federal
Income Tax Purposes)**

Reference is hereby made to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 (as amended, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), among the Borrower, the Banks listed on the signature pages thereof, JPMorgan Chase Bank, N.A., as Administrative Agent and Initial Issuing Bank, Mizuho Bank (USA), as Syndication Agent, and MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.), The Bank of Nova Scotia and Royal Bank of Canada, as Co-Documentation Agents.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a member of Borrower, it does not exercise voting power over Borrower and is not a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code and (v) the interest payments in question are not effectively connected with the undersigned’s conduct of a U.S. trade or business.

The undersigned has furnished the Administrative Agent and the Borrower with a certificate of its non-U.S. person status on IRS Form W-8BEN. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Administrative Agent and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF BANK PARTY]

By:

Name:

[FORM OF]

U.S. TAX CERTIFICATE

(For Non-U.S. Bank Parties That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 (as amended, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), among the Borrower, the Banks listed on the signature pages thereof, JPMorgan Chase Bank, N.A., as Administrative Agent and Initial Issuing Bank, Mizuho Bank (USA), as Syndication Agent, and [MUFG Bank, Ltd. \(f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.\)](#), The Bank of Nova Scotia and Royal Bank of Canada, as Co-Documentation Agents.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such Loan(s) (as well as any Note(s) evidencing such Loan(s)), (iii) with respect to the extension of credit pursuant to this Credit Agreement, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a member of Borrower, exercise voting power over Borrower or otherwise is a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, (v) none of its partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code, and (vi) the interest payments in question are not effectively connected with the undersigned’s or its direct or indirect partners/members’ conduct of a U.S. trade or business.

The undersigned has furnished the Administrative Agent and the Borrower with IRS Form W-8IMY accompanied by an IRS Form W-8BEN from each of its partners/members claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Administrative Agent and (2) the undersigned shall have at all times furnished the Borrower and the Administrative Agent with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

[FORM OF]

**U.S. TAX CERTIFICATE
(For Non-U.S. Participants That Are Not Partnerships For U.S. Federal
Income Tax Purposes)**

Reference is hereby made to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 (as amended, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), among the Borrower, the Banks listed on the signature pages thereof, JPMorgan Chase Bank, N.A., as Administrative Agent and Initial Issuing Bank, Mizuho Bank (USA), as Syndication Agent, and MUFG Bank, Ltd. (f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.), The Bank of Nova Scotia and Royal Bank of Canada, as Co-Documentation Agents.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the participation in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code, and (v) the interest payments in question are not effectively connected with the undersigned’s conduct of a U.S. trade or business.

The undersigned has furnished its participating Bank with a certificate of its non-U.S. person status on IRS Form W-8BEN. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Bank in writing and (2) the undersigned shall have at all times furnished such Bank with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF PARTICIPANT]

By:

Name:

Title:

Date: _____, 20[]

[FORM OF]

U.S. TAX CERTIFICATE

(For Non-U.S. Participants That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Amended and Restated Revolving Credit Agreement dated as of November 19, 2015 (as amended, supplemented or otherwise modified from time to time, the “*Credit Agreement*”), among the Borrower, the Banks listed on the signature pages thereof, JPMorgan Chase Bank, N.A., as Administrative Agent and Initial Issuing Bank, Mizuho Bank (USA), as Syndication Agent, and [MUFG Bank, Ltd. \(f/k/a The Bank of Tokyo-Mitsubishi UFJ, Ltd.\)](#), The Bank of Nova Scotia and Royal Bank of Canada, as Co-Documentation Agents.

Pursuant to the provisions of Section 2.16 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the participation in respect of which it is providing this certificate, (ii) its partners/members are the sole beneficial owners of such participation, (iii) with respect such participation, neither the undersigned nor any of its partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its partners/members is a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, (v) none of its partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code, and (vi) the interest payments in question are not effectively connected with the undersigned’s or its partners/members’ conduct of a U.S. trade or business.

The undersigned has furnished its participating Bank with IRS Form W-8IMY accompanied by an IRS Form W-8BEN from each of its partners/members claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Bank and (2) the undersigned shall have at all times furnished such Bank with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Credit Agreement.

[NAME OF PARTICIPANT]

SERIES N BOND PURCHASE AGREEMENT

by and among

FEDERAL FINANCING BANK,

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION,

and

ADMINISTRATOR of the RURAL UTILITIES SERVICE

made as of

November 15, 2018

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EXHIBIT H FORM OF RUS GUARANTEE

SERIES N BOND PURCHASE AGREEMENT made as of November 15, 2018, by and among the **FEDERAL FINANCING BANK** ("**FFB**"), a body corporate and instrumentality of the United States of America, the **NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION** (the "**Borrower**"), a cooperative association organized and existing under the laws of the District of Columbia, and the **ADMINISTRATOR** of the **RURAL UTILITIES SERVICE** ("**RUS**"), a Rural Development agency of the United States Department of Agriculture.

WHEREAS, RUS is authorized, pursuant to the Guarantee Authority (as hereinafter defined), to guarantee loans that meet the requirements of the Guarantee Authority; and

WHEREAS, FFB is authorized, under section 6(a) of the FFB Act (as hereinafter defined), to make commitments to purchase, and to purchase on terms and conditions determined by FFB, any obligation that is issued, sold, or guaranteed by an agency of the United States of America; and

WHEREAS, FFB is entering into this Series N Bond Purchase Agreement, as authorized by section 6(a) of the FFB Act, setting out, among other things, FFB's agreement to purchase, pursuant to the FFB Act, the Bond (as hereinafter defined) to be issued by the Borrower, when the terms and conditions specified herein have been satisfied, as hereinafter provided; and

WHEREAS, RUS has determined that the Borrower meets the qualifications for being a "lender," as that term is used in the Guarantee Authority, and for being a "Guaranteed Lender," as that term is used in the regulations promulgated by RUS to carry out the Guarantee Authority; and

WHEREAS, RUS is authorized to enter into this Series N Bond Purchase Agreement; and

WHEREAS, the Borrower is authorized to enter into this Series N Bond Purchase Agreement.

NOW, THEREFORE, for and in consideration of the mutual agreements herein contained and for other good and valuable

consideration, the receipt and sufficiency of which is hereby acknowledged, FFB, RUS, and the Borrower agree as follows:

ARTICLE 1

DEFINITIONS AND RULES OF INTERPRETATION

Section 1.1 Definitions.

As used in this Agreement, the following terms shall have the respective meanings specified in this section 1.1, unless the context clearly requires otherwise.

"Advance" shall mean an advance of funds made by FFB under the Bond in accordance with the provisions of article 7 of this Agreement.

"Advance Identifier" shall mean, for each Advance, the particular sequence of letters and numbers constituting the Bond Identifier plus the particular sequence of additional numbers assigned by FFB to the respective Advance in the interest rate confirmation notice relating to such Advance delivered by FFB in accordance with section 7.7 of this Agreement.

"Advance Request" shall mean a letter from a Borrower requesting an Advance under the Bond, in the form of letter attached as Exhibit A to this Agreement.

"Advance Request Approval Notice" shall mean the written notice from RUS located at the end of an Advance Request advising FFB that such Advance Request has been approved on behalf of RUS.

"Bond" shall mean a future advance bond of the Borrower payable to FFB, in the form of bond that is attached as Exhibit B to this Agreement, as such bond may be amended, supplemented, and restated from time to time in accordance with its terms.

"Bond Guarantee Agreement" shall mean the Fifth Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 15, 2018, made between RUS and the Borrower, as such agreement may be amended, supplemented, and restated from time to time in accordance with its terms.

"Bond Identifier" shall mean the particular sequence of letters and numbers assigned by FFB to the Bond in the Principal Instruments acceptance notice relating to the Bond delivered by FFB in accordance with section 5.1 of this Agreement.

"Borrower Instruments" shall have the meaning specified in section 3.2.1 of this Agreement.

"Business Day" shall mean any day on which FFB and the Federal Reserve Bank of New York are both open for business.

"Certificate Specifying Authorized Borrower Officials" shall mean a certificate of the Borrower specifying the names and titles of those officials of the Borrower who are authorized to execute and deliver from time to time Advance Requests on behalf of the Borrower, and containing the original signature of each of those officials, substantially in the form of the Certificate Specifying Authorized Borrower Officials attached as Exhibit C to this Agreement.

"Certificate Specifying Authorized RUS Officials" shall mean a certificate specifying the names and titles of those officials of RUS who are authorized to execute and deliver Advance Request Approval Notices from time to time on behalf of RUS and setting out the original signature of each of those authorized officials, and specifying the name and title of those officials of RUS who are authorized to confirm telephonically the authenticity of the Advance Request Approval Notices from time to time on behalf of RUS and setting out the telephone number of each of those authorized officials, in the form of the Certificate Specifying Authorized RUS Officials attached as Exhibit D to this Agreement.

"FFB Act" shall mean the Federal Financing Bank Act of 1973 (Pub. L. No. 93-224, 87 Stat. 937, codified at 12 U.S.C. § 2281 et seq.), as amended.

"FFB Financing Options Fee" shall mean the fee, expressed in terms of a basis point increment in the basic interest rate established for an Advance, payable by the Borrower to the Holder if the Borrower elects to have a Fixed Premium Prepayment/ Refinancing Privilege apply to such Advance, as described in section 11.3 of this Agreement.

"First Call Date" shall have the meaning specified in section 11.3.2(a) of this Agreement.

"Fixed Premium Prepayment/Refinancing Privilege" shall have the meaning specified in section 11.3.1 of this Agreement.

"Governmental Authority" shall mean any federal, state, county, municipal, or regional authority, or any other entity of a similar nature, exercising any executive, legislative, judicial, regulatory, or administrative function of government.

"Guarantee Authority" shall mean section 313A of the Rural Electrification Act of 1936, as amended (codified at 7 U.S.C. § 940c-1).

"Holder" shall mean FFB, for so long as it shall be the holder of the Bond, and any successor or assignee of FFB, for so long as such successor or assignee shall be the holder of the Bond.

"Loan Commitment Amount" shall mean \$750,000,000.00.

"Market Value Premium (or Discount)" shall have the meaning specified in section 11.2 of this Agreement.

"Market Value Prepayment/Refinancing Privilege" shall have the meaning specified in section 11.2 of this Agreement.

"Maturity Date" shall have the meaning specified in section 7.3.1(a)(5) of this Agreement.

"No-Call Period" shall have the meaning specified in section 11.3.2 of this Agreement.

"Opinion of Borrower's Counsel re: Borrower Instruments" shall mean an opinion of counsel from the General Counsel of the Borrower, substantially in the form of opinion that is attached as Exhibit E to this Agreement.

"Opinion of RUS's Counsel re: RUS Guarantee" shall mean an opinion of counsel from the Acting General Counsel of the Department of Agriculture to the Administrator of RUS, substantially in the form of opinion that is attached as Exhibit F to this Agreement.

"Payment Date" shall mean January 15, April 15, July 15, and October 15 of each year.

"Person" shall mean any individual, corporation, partnership, joint venture, association, joint-stock company, trust, trust company, unincorporated organization or Governmental Authority.

"Pledge Agreement" shall mean the Fifth Amended, Restated and Consolidated Pledge Agreement dated as of November 15, 2018, made among the Borrower, RUS, and U.S. Bank National Association, a national association, as such agreement may be amended, supplemented, and restated from time to time in accordance with its terms.

"Principal Instruments" shall have the meaning specified in section 4.2 of this Agreement.

"Requested Advance Amount" shall have the meaning specified in section 7.3.1(a)(2) of this Agreement.

"Requested Advance Date" shall have the meaning specified in section 7.3.1(a)(3) of this Agreement.

"RUS Certificate" shall mean a certificate relating to the RUS Guarantee and other matters, in the form of certificate that is attached as Exhibit G to this Agreement.

"RUS Guarantee" shall mean a guarantee of the Bond issued by RUS, in the form of guarantee that is attached as Exhibit H to this Agreement.

"RUS Instruments" shall have the meaning specified in section 3.3.1 of this Agreement.

"this Agreement" shall mean this Series M Bond Purchase Agreement between FFB, RUS, and the Borrower.

"Uncontrollable Cause" shall mean, for FFB, an unforeseeable cause beyond the control and without the fault of FFB, being: act of God, fire, flood, severe weather, epidemic, quarantine restriction, explosion, sabotage, act of war, act of terrorism, riot, civil commotion, lapse of the statutory authority of the United States Department of the Treasury to raise cash through the issuance of Treasury debt instruments, disruption or failure of the Treasury Financial Communications System, closure of the Federal Government, or an unforeseen or unscheduled closure or evacuation of the FFB offices; and shall mean, for RUS, an unforeseeable cause beyond the control and without the fault of RUS, being: act of God, fire, flood, severe weather, epidemic, quarantine restriction, explosion, sabotage, act

of war, act of terrorism, riot, civil commotion, closure of the Federal Government, or an unforeseen or unscheduled closure or evacuation of the RUS offices.

Section 1.2 Rules of Interpretation.

Unless the context shall otherwise indicate, the terms defined in section 1.1 of this Agreement shall include the plural as well as the singular and the singular as well as the plural. The words "herein," "hereof," and "hereto," and words of similar import, refer to this Agreement as a whole.

ARTICLE 2

FFB COMMITMENT TO PURCHASE THE BOND

Subject to the terms and conditions of this Agreement, FFB agrees to purchase the Bond that is offered by the Borrower to FFB for purchase under this Agreement.

ARTICLE 3

COMMITMENT CONDITIONS

FFB shall be under no obligation to purchase the Bond under this Agreement unless and until each of the conditions specified in this article 3 has been satisfied.

Section 3.1 Commitment Amount Limit.

The maximum principal amount of the Bond that is offered for purchase shall not exceed the Loan Commitment Amount.

Section 3.2 Borrower Instruments.

3.2.1 Borrower Instruments. FFB shall have received from the Borrower the following instruments (such instruments being, collectively, the "Borrower Instruments"):

- (a) an original counterpart of this Agreement, duly executed by the Borrower; and

(b) the original Bond, duly executed by the Borrower.

3.2.2 Opinion of Borrower's Counsel re: Borrower Instruments. FFB shall have received from the Borrower an Opinion of Borrower's Counsel re: Borrower Instruments.

3.2.3 Certificate Specifying Authorized Borrower Officials. FFB shall have received from the Borrower a completed and signed Certificate Specifying Authorized Borrower Officials.

Section 3.3 RUS Instruments.

3.3.1 RUS Instruments. FFB shall have received from RUS the following instruments (such instruments being, collectively, the "RUS Instruments"):

(a) an original counterpart of this Agreement, duly executed by RUS;

(b) the original RUS Guarantee relating to the Bond, duly executed by RUS; and

(c) an original RUS Certificate relating to the RUS Guarantee and other matters, duly executed by RUS.

3.3.2 Opinion of RUS's Counsel re: RUS Guarantee. FFB shall have received a copy of the Opinion of RUS's Counsel re: RUS Guarantee.

3.3.3 Certificate Specifying Authorized RUS Officials. FFB shall have received from RUS a completed and signed Certificate Specifying Authorized RUS Officials.

ARTICLE 4

OFFER OF THE BOND FOR PURCHASE

The Bond that is to be offered to FFB for purchase under this Agreement shall be offered in accordance with the procedures described in this article 4.

Section 4.1 Delivery of Borrower Instruments to RUS.

The Borrower shall deliver to RUS, for redelivery to FFB, the following:

- (a) all of the Borrower Instruments, each duly executed by the Borrower;
- (b) an Opinion of Borrower's Counsel re: Borrower Instruments; and
- (c) a completed and signed Certificate Specifying Authorized Borrower Officials.

Section 4.2 Delivery of Principal Instruments by RUS to FFB.

RUS shall deliver to FFB all of the following instruments (collectively being the "Principal Instruments"):

- (a) all of the instruments described in section 4.1 of this Agreement;
- (b) all of the RUS Instruments, each duly executed by RUS;
- (c) a copy of the Opinion of RUS's Counsel re: RUS Guarantee; and
- (d) a completed and signed Certificate Specifying Authorized RUS Officials.

ARTICLE 5**PURCHASE OF THE BOND BY FFB****Section 5.1 Acceptance or Rejection of Principal Instruments.**

Within 5 Business Days after delivery to FFB of the Principal Instruments relating to the Bond that is offered for purchase under this Agreement, FFB shall deliver by facsimile transmission (fax) to RUS one of the following:

- (a) an acceptance notice, which notice shall:

(1) state that the Principal Instruments meet the terms and conditions detailed in article 3 of this Agreement, or are otherwise acceptable to FFB; and

(2) assign a Bond Identifier to the Bond for use by the Borrower and RUS in all communications to FFB making reference to the Bond; or

(b) a rejection notice, which notice shall state that one or more of the Principal Instruments does not meet the terms and conditions of this Agreement and specify how such instrument or instruments does not meet the terms and conditions of this Agreement.

Section 5.2 Purchase.

FFB shall not be deemed to have accepted the Bond offered for purchase under this Agreement until such time as FFB shall have delivered an acceptance notice accepting the Principal Instruments relating to the Bond; provided, however, that in the event that FFB shall make an Advance under the Bond, then FFB shall be deemed to have accepted the Bond offered for purchase.

ARTICLE 6

LOST, STOLEN, DESTROYED, OR MUTILATED BOND

Section 6.1 Borrower's Agreement.

In the event that the Bond purchased under this Agreement shall become lost, stolen, destroyed, or mutilated, the Borrower shall, upon the written request of FFB, execute and deliver, in replacement thereof, a new Bond of like tenor, dated and bearing interest from the date to which interest has been paid on such lost, stolen, destroyed, or mutilated Bond or, if no interest has been paid thereon, dated the same date as such lost, stolen, destroyed, or mutilated Bond. Upon delivery of such replacement Bond, the Borrower shall be released and discharged from any further liability on account of the lost, stolen, or destroyed Bond. If the Bond being replaced has been mutilated, such mutilated Bond shall be surrendered to the Borrower for cancellation.

Section 6.2 RUS's Agreement.

In the event that the Borrower delivers a replacement Bond for a lost, stolen, destroyed, or mutilated Bond, as provided in section 6.1 of this Agreement, RUS shall execute and deliver an RUS Guarantee of the replacement Bond in replacement of the RUS Guarantee of the lost, stolen, destroyed, or mutilated Bond.

Section 6.3 FFB's Agreement.

FFB agrees that, upon delivery by RUS of a replacement RUS Guarantee as provided in section 6.2 of this Agreement, RUS shall be released and discharged from any further liability on account of the RUS Guarantee of the lost, stolen, destroyed, or mutilated Bond.

ARTICLE 7**ADVANCES****Section 7.1 Commitment.**

Subject to the terms and conditions of this Agreement, FFB agrees to make Advances under the Bond for the account of the Borrower.

Section 7.2 Treasury Policies Applicable to Advances.

Each of the Borrower and RUS understands and consents to the following Treasury financial management policies generally applicable to all advances of funds:

- (a) each Advance will be requested by the Borrower, and each Advance Request will be approved by RUS, only at such time and in such amount as shall be necessary to meet the immediate payment or disbursing need of the Borrower;
- (b) Advances for investment purposes, other than to make loans permitted by the Guarantee Authority, will not be requested by the Borrower or approved by RUS; and
- (c) all interest earned on any lawful and permitted investment of Advances, other than loans permitted by the Guarantee Authority to be made, in excess of the interest accrued on such Advances, the fee payable under paragraph 9 of the Bond accrued on such Advances, and the guarantee fee

payable on such Advances under article IV of the Bond Guarantee Agreement, will be remitted to FFB.

Section 7.3 Conditions to Making Advances.

FFB shall be under no obligation to make any Advance under the Bond unless and until each of the conditions specified in this section 7.3 is satisfied.

7.3.1 Advance Requests. For each Advance, the Borrower shall have delivered to RUS, for review and approval before being forwarded to FFB, an Advance Request, which Advance Request:

(a) shall specify, among other things:

(1) the particular "Bond Identifier" that FFB assigned to this Bond (as provided in section 5.1 of this Agreement);

(2) the particular amount of funds that the Borrower requests to be advanced (such amount being the "Requested Advance Amount" for the respective Advance);

(3) the particular calendar date that the Borrower requests to be the date on which the respective Advance is to be made (such date being the "Requested Advance Date" for such Advance), which date must be a Business Day;

(4) the particular bank account to which the Borrower requests that the respective Advance be made;

(5) the particular calendar date that the Borrower selects to be the date on which the respective Advance is to mature (such date being the "Maturity Date" for such Advance), which date must meet all of the following criteria:

(A) the Maturity Date for the respective Advance must be a "Payment Date" (as that term is defined in paragraph 7 of the Bond);

(B) the Maturity Date for the respective Advance may not be a date that will occur after the twentieth anniversary of the

Requested Advance Date specified in the respective Advance Request;

(C) the Maturity Date for the respective Advance may not be a date that will occur after the particular date specified on page 1 of the Bond as being the "Final Maturity Date"; and

(D) the period of time between the Requested Advance Date for the respective Advance and the Maturity Date for such Advance may not be less than the period from the Requested Advance Date (if such date is a Payment Date) or the Payment Date immediately following the Requested Advance Date (if the Requested Advance Date is not a Payment Date) to the next Payment Date;

(6) the particular method for the repayment of principal of the respective Advance that the Borrower elects to apply to such Advance from among the three principal repayment methods described in paragraph 8(b) of the Bond; and

(7) with respect to each Advance for which the Borrower selects a Maturity Date that will occur on or after the fifth anniversary of the Requested Advance Date specified in the respective Advance Request, the particular prepayment/ refinancing privilege that the Borrower elects to apply to the respective Advance (i.e. either the Market Value Prepayment/ Refinancing Privilege described in section 11.2 of this Agreement or the Fixed Premium Prepayment/Refinancing Privilege described in section 11.3 of this Agreement); and

(b) shall have been duly executed by an official of the Borrower whose name and signature appear on the Certificate Specifying Authorized Borrower Officials delivered by the Borrower to FFB pursuant to section 3.2.3 of this Agreement; and

(c) shall have been received by FFB not later than the third Business Day before the Requested Advance Date specified in such Advance Request.

7.3.2 Advance Request Approval Notice. For each Advance, RUS shall have delivered to FFB the Borrower's executed Advance Request, together with RUS's executed

Advance Request Approval Notice, which Advance Request Approval Notice:

(a) shall have been duly executed on behalf of RUS by an official of RUS whose name and signature appear on the Certificate Specifying Authorized RUS Officials delivered to FFB pursuant to section 3.3.3 of this Agreement; and

(b) shall have been received by FFB not later than the third Business Day before the Requested Advance Date specified in such Advance Request.

7.3.3 Telephonic Confirmation of Authenticity of Advance Request Approval Notices. For each Advance, FFB shall have obtained telephonic confirmation of the authenticity of the related Advance Request Approval Notice from an official of RUS (a) whose name, title, and telephone number appear on the Certificate Specifying Authorized RUS Officials that has been delivered by RUS to FFB pursuant to section 3.3.3 of this Agreement; and (b) who is not the same official of RUS who executed the Advance Request Approval Notice on behalf of RUS.

7.3.4 Bond Maximum Principal Amount Limit. At the time of making any Advance under the Bond, the amount of such Advance, when added to the aggregate amount of all Advances previously made under the Bond, shall not exceed the maximum principal amount of the Bond.

7.3.5 Conditions Specified in Other Agreement. Each of the conditions specified in the Bond Guarantee Agreement as being conditions to making Advances under the Bond shall have been satisfied or waived in writing.

Section 7.4 Amount and Timing of Advances.

FFB shall make each Advance in the Requested Advance Amount specified in the respective Advance Request and on the Requested Advance Date specified in the respective Advance Request, subject to satisfaction of the conditions specified in section 7.3 of this Agreement and subject to the following additional limitations:

(a) in the event that the Requested Advance Date specified in the respective Advance Request is not a Business Day, FFB shall make the respective Advance on the first day thereafter that is a Business Day;

(b) in the event that the respective Advance Request and the related Advance Request Approval Notice are not received by FFB on or before the third Business Day before the Requested Advance Date specified in such Advance Request, FFB shall make the respective Advance as soon as practicable thereafter, but in any event not later than the third Business Day after the date on which the Requested Advance Date and the related Advance Request Approval Notice are received by FFB, unless the Borrower delivers to FFB and RUS a written cancellation of such Advance Request or a replacement Advance Request specifying a Requested Advance Date later than the expiration of the applicable advance notice period; and

(c) in the event that an Uncontrollable Cause prevents FFB from making the respective Advance on the Requested Advance Date specified in the respective Advance Request, FFB shall make such Advance as soon as such Uncontrollable Cause ceases to prevent FFB from making such Advance, unless the Borrower delivers to FFB and RUS a written cancellation of such Advance Request or a replacement Advance Request specifying a Requested Advance Date later than when such Uncontrollable Cause ceases to prevent FFB from making such Advance.

Section 7.5 Type of Funds and Means of Advance.

Each Advance shall be made in immediately available funds by electronic funds transfer to such bank account(s) as shall have been specified in the respective Advance Request.

Section 7.6 Interest Rate Applicable to Advances.

7.6.1 Initial Rate Determinations. The rate of interest applicable to each Advance made under the Bond shall be established as provided in paragraph 6 of the Bond, subject to section 7.6.2 of this Agreement.

7.6.2 Rate Re-determinations. In the event the Borrower elects to extend the maturity of all or any portion of the outstanding principal amount of any Advance, as provided in paragraph 15 of the Bond, or to refinance all or any portion of the outstanding principal amount of any Advance, as provided in paragraph 17 of the Bond, then the rate of interest applicable to the outstanding principal amount of such Advance shall be re-determined by FFB in

accordance with the terms of paragraph 15 or 17 of the Bond, as the case may be.

Section 7.7 Interest Rate Confirmation Notices.

7.7.1 Initial Rates. After making each Advance, FFB shall deliver, by facsimile transmission, to the Borrower and RUS written confirmation of the making of the respective Advance, which confirmation shall:

(a) state the date on which such Advance was made;

(b) state the interest rate applicable to such Advance; and

(c) assign an Advance Identifier to such Advance for use by the Borrower and RUS in all communications to FFB making reference to such Advance.

7.7.2 Re-determined Rates. In the event that the rate of interest applicable to the outstanding principal amount of any Advance is re-determined as provided in section 7.6.2. of this Agreement, FFB shall deliver, by facsimile transmission, to the Borrower and RUS written confirmation of the re-determination of such interest rate, which confirmation shall state the date on which the applicable interest rate was re-determined for such Advance and the re-determined interest rate.

Section 7.8 Borrower's Agreement.

The Borrower hereby agrees that each Advance made by FFB in accordance with an RUS-approved Advance Request delivered to FFB shall reduce, by the amount of the respective Advance made, FFB's remaining commitment in section 7.1 of this Agreement to make Advances under the Bond.

ARTICLE 8

REPRESENTATIONS AND WARRANTIES BY THE BORROWER

The Borrower makes to FFB each of the representations and warranties made by the Borrower to RUS in paragraphs (a), (b), (c), (d), (e), (f), (g), and (j) of section 8.2 of the Bond Guarantee Agreement, and each of those representations and

warranties of the Borrower are incorporated herein by reference as if set out in full herein.

ARTICLE 9

BILLING BY FFB

Section 9.1 Billing Statements to the Borrower and RUS.

After making each Advance, FFB shall prepare a billing statement detailing the amounts owed on the respective Advance and when such amounts are due. FFB shall deliver, by facsimile transmission, each such billing statement to the Borrower and RUS.

Section 9.2 Failure to Deliver or Receive Billing Statements No Release.

Failure on the part of FFB to deliver any billing statement or failure on the part of the Borrower or RUS to receive any billing statement shall not, however, relieve the Borrower of any of its payment obligations under the Bond or this Agreement or relieve RUS from any of its payment obligations under the RUS Guarantee or this Agreement.

Section 9.3 FFB Billing Determinations Conclusive.

9.3.1 Acknowledgment and Consent. The Borrower and RUS each acknowledge that FFB has described to it the rounding methodology employed by FFB in calculating the amount of accrued interest owed at any time on the Bond, and the Borrower and RUS each consent to this methodology.

9.3.2 Agreement. The Borrower and RUS each agree that any and all determinations made by FFB shall be conclusive and binding upon the Borrower and RUS with respect to the amount of accrued interest owed on the Bond determined using this rounding methodology.

ARTICLE 10**PAYMENTS TO FFB AND RUS****Section 10.1 Manner and Timing of Payment.**

Each amount that becomes due and owing on the Bond purchased under this Agreement shall be paid when and as due, as provided in the Bond.

Section 10.2 Application of Payments.

10.2.1 Priority of Payments. Each payment made on the Bond shall be applied, first, to the payment of Late Charges (if any) payable under paragraphs 11 and 18 of the Bond, then to the payment of premiums (if any) payable under paragraphs 16 and 17 of the Bond, then to the payment of unpaid accrued interest, then on account of outstanding principal, and then to the payment of the fee payable under paragraph 9 of the Bond.

10.2.2 Agreement between FFB and RUS. RUS agrees to transfer to FFB payments received by RUS under the Bond in such amounts as may be necessary to conform with the priority of payment requirements contained in section 10.2.1 of this Agreement.

ARTICLE 11**BORROWER'S PRIVILEGES TO PREPAY OR REFINANCE ADVANCES****Section 11.1 Automatic Application or Required Election.**

The prepayment/refinancing privilege described in section 11.2 of this Agreement shall apply automatically to each Advance that has a Maturity Date that will occur before the fifth anniversary of the Requested Advance Date specified in the respective Advance Request. With respect to each Advance for which the Borrower has selected a Maturity Date that will occur on or after the fifth anniversary of the Requested Advance Date specified in the respective Advance Request, the Borrower must elect, at the time of requesting the respective Advance, the particular prepayment/refinancing privilege that is to apply to such Advance from between the options described in sections 11.2 and 11.3 of this Agreement.

Section 11.2 "Market Value Prepayment/Refinancing Privilege".

If the prepayment/refinancing privilege described in this section 11.2 applies to an Advance (such privilege being the "Market Value Prepayment/Refinancing Privilege"), the Borrower shall have the privilege to prepay such Advance (as provided in paragraph 16 of the Bond) or to refinance such Advance (as provided in paragraph 17 of the Bond) at a prepayment or refinancing price that will include, in either case, a premium (or discount credit) equal to the difference between:

(a) the price for such Advance that would, if such Advance (including all unpaid interest accrued thereon through the date of prepayment or refinancing, as the case may be) were purchased by a third party and held to the "Maturity Date" applicable to the Advance, produce a yield to the third-party purchaser for the period from the date of purchase to such Maturity Date substantially equal to the interest rate that would be set on a loan from the Secretary of the Treasury to FFB to purchase an obligation having a payment schedule identical to the payment schedule of such Advance for the period from the date of prepayment or refinancing, as the case may be, to such Maturity Date; and

(b) the sum of:

(1) the outstanding principal amount of such Advance on the date of prepayment or refinancing, as the case may be; and

(2) all unpaid interest accrued on such Advance through the date of prepayment or refinancing, as the case may be,

(the difference between the price described in paragraph (a) of this section 11.2 and the sum of the amounts described in paragraph (b) of this section 11.2 being the "Market Value Premium (or Discount)"; if the price described in paragraph (a) is greater than the sum of the amounts described in paragraph (b), that difference is the premium; if the price described in paragraph (a) is less than the sum of the amounts described in paragraph (b), that difference is the discount credit). The price described in paragraph (a) of this section 11.2 shall be calculated by the United States Department of the Treasury as of the close of business on the second Business Day before the date of prepayment or refinancing, as the

case may be, using standard calculation methods of the United States Department of the Treasury. FFB shall provide the Borrower and RUS with written notice of the price described in paragraph (a) of this section 11.2 promptly upon completing the calculation.

Section 11.3 "Fixed Premium Prepayment/Refinancing Privilege".

11.3.1 Required Election and Selection. If the prepayment/refinancing privilege described in this section 11.3 applies to such Advance (such privilege being the "Fixed Premium Prepayment/Refinancing Privilege"), the Borrower shall have the privilege to prepay such Advance (as provided in paragraph 16 of the Bond) or to refinance such Advance (as provided in paragraph 17 of the Bond) at a prepayment or refinancing price that will include, in either case, a fixed premium determined by FFB at the time of such prepayment or refinancing, based on both the no-call period election described in section 11.3.2 of this Agreement and the premium selection described in section 11.3.3 of this Agreement made by the Borrower at the time of requesting such Advance.

11.3.2 "No-Call Period Election". First, the Borrower must elect whether or not the Fixed Premium Prepayment/ Refinancing Privilege that is to apply to the respective Advance shall include a 5-year period during which such Advance shall not be eligible for any prepayment or refinancing (such time period being a "No-Call Period"). The options are:

(a) "yes" -- the Borrower elects to have the Fixed Premium Prepayment/ Refinancing Privilege include a 5-year No-Call Period, i.e., the Borrower shall have the privilege to prepay the respective Advance (as provided in paragraph 16 of the Bond) or to refinance such Advance (as provided in paragraph 17 of the Bond) on or after (but not before):

(1) the fifth anniversary of the Requested Advance Date for such Advance (if such fifth anniversary date is a Payment Date); or

(2) the first Payment Date to occur after the fifth anniversary of the Requested Advance Date for such Advance (if such fifth anniversary date is not a Payment Date),

(in either case, such date being the "First Call Date" for such Advance); or

(b) "no" -- the Borrower elects to have the Fixed Premium Prepayment/Refinancing Privilege not include a 5-year No-Call Period, i.e., the Borrower shall have the privilege to prepay the respective Advance (as provided in paragraph 16 of the Bond) or to refinance such Advance (as provided in paragraph 17 of the Bond) on any Business Day.

11.3.3 "Premium Selection". Second, the Borrower must select the particular fixed premium that will be required in connection with any prepayment or refinancing of the respective Advance. The options are:

(a) "10 percent premium declining over 10 years" -- the price for any prepayment or refinancing of the respective Advance shall include a premium equal to 10 percent of the amount of principal being prepaid or refinanced, as the case may be, multiplied by a fraction:

(1) the numerator of which is the number of Payment Dates that occur between:

(A) in the case of a prepayment, the date of prepayment (if such date is a Payment Date) or the Payment Date immediately preceding the date of prepayment (if the date of prepayment is not a Payment Date), and, in the case of a refinancing, the date of refinancing, which date, in either case, shall be included in computing the number of Payment Dates; and

(B) the tenth anniversary of the applicable First Call Date (if the Borrower elected to have the prepayment/refinancing privilege include a 5-year No-Call Period) or the tenth anniversary of the Requested Advance Date (if the Borrower elected to have the prepayment/refinancing privilege not include a 5-year No-Call Period), which date, in either case, shall be excluded in computing the number of Payment Dates; and

(2) the denominator of which is 40,

and no premium on or after the tenth anniversary of the applicable First Call Date (if the Borrower elected to have the prepayment/refinancing privilege include a 5-year No-Call Period) or the tenth anniversary of the Requested Advance Date (if the Borrower elected to have the prepayment/refinancing privilege not include a 5-year No-Call Period);

(b) "5 percent premium declining over 5 years" -- the price for any prepayment or refinancing of the respective Advance shall include a premium equal to 5 percent of the amount of principal being prepaid or refinanced, as the case may be, multiplied by a fraction:

(1) the numerator of which is the number of Payment Dates that occur between:

(A) in the case of a prepayment, the date of prepayment (if such date is a Payment Date) or the Payment Date immediately preceding the date of prepayment (if the date of prepayment is not a Payment Date), and, in the case of a refinancing, the date of refinancing, which date, in either case, shall be included in computing the number of Payment Dates; and

(B) the fifth anniversary of the applicable First Call Date (if the Borrower elected to have the prepayment/refinancing privilege include a 5-year No-Call Period) or the fifth anniversary of the Requested Advance Date (if the Borrower elected to have the prepayment/refinancing privilege not include a 5-year No-Call Period), which date, in either case, shall be excluded in computing the number of Payment Dates; and

(2) the denominator of which is 20,

and no premium on or after the fifth anniversary of the applicable First Call Date (if the Borrower elected to have the prepayment/refinancing privilege include a 5-year No-Call Period) or the fifth anniversary of the Requested Advance Date (if the Borrower elected to have

the prepayment/refinancing privilege not include a 5-year No-Call Period); or

(c) "par" -- the price for any prepayment or refinancing of the respective Advance shall include no premium.

11.3.4 Standard for Calculating FFB Financing Options Fee for Fixed-Premium Prepayment/Refinancing Privilege. The fee assessed by FFB and payable by the Borrower to have the Fixed-Premium Prepayment/Refinancing Privilege described in this section 11.3 to apply to any Advance (such fee being an "FFB Financing Options Fee") shall be established on the basis of the determination made by FFB described in paragraph 6(d) of the Bond.

11.3.5 Calculation and Notification of FFB Financing Options Fee for Fixed-Premium Prepayment/Refinancing Privilege. FFB shall make the determination described in section 11.3.4 of this Agreement for each Advance to which the Borrower has elected to have the Fixed-Premium Prepayment/Refinancing Privilege apply, at the time of the establishment of the particular basic interest rate that is to apply to the respective Advance. After making such determination for each Advance, FFB shall notify the Borrower and RUS of the particular FFB Financing Options Fee (expressed in terms of a basis point increment) that is assessed by FFB and payable by such Borrower for such Fixed-Premium Prepayment/Refinancing Privilege in the particular interest rate confirmation notice relating to such Advance to be delivered by FFB in accordance with section 7.7 of this Agreement.

Section 11.4 New Notices and Billing Statements After Refinancings.

In the event of a refinancing of any Advance, FFB shall provide the Borrower and RUS with a new interest rate confirmation notice and a new billing statement reflecting the new interest rate applicable to such Advance.

ARTICLE 12**BOND SERVICING AND RELATED DUTIES AND RIGHTS****Section 12.1 Custody of Bond.**

Subject to section 15.4 of this Agreement, RUS shall have custody, as agent for FFB, of the original Bond that has been purchased by FFB under this Agreement until all amounts that are owed under the Bond have been paid in full or until such time as actual possession of the original Bond has been requested by FFB. If FFB requests RUS for actual possession of the original Bond, RUS shall promptly deliver the original Bond to FFB.

Section 12.2 RUS Duties as Bond Servicer and Guarantor.

12.2.1 Bond Servicing To Be Performed by RUS. Bond servicing shall be performed by RUS, as agent for FFB, for so long as FFB shall be the Holder of the Bond. Payment by FFB for RUS's servicing of the Bond shall be made in accordance with section 12.3 hereof.

12.2.2 Bond Servicing Duties. As a part of servicing the Bond, RUS shall:

(a) serve as principal point of contact for the Borrower with respect to any questions that the Borrower may have about its borrowings from FFB;

(b) hold, as agent for FFB, the original Bond in accordance with the terms of section 12.1 hereof;

(c) prepare and deliver to the Borrower billing statements, which billing statements shall reflect the terms of the billing statements prepared by FFB and delivered to RUS showing amounts owed with respect to each Advance made under the Bond;

(d) collect, as agent for FFB, all amounts paid by the Borrower under the Bond; and

(e) turn over to FFB all amounts collected under clause (d) of this section 12.2.2 when and as due under the Bond.

Section 12.3 Bond Servicing Fee.

RUS shall be compensated for performing the bond servicing described in this article 12 by deducting from the fee assessed by FFB under paragraph 9 of the Bond and collected by RUS an amount equal to the cost to RUS, as determined by RUS, of performing the bond servicing, provided, however, that the cost to RUS of performing bond servicing for any time period shall not exceed the fee assessed by FFB under paragraph 9 of the Bond for the same time period.

Section 12.4 Liability and Rights of RUS as Guarantor.

12.4.1 Liability as Guarantor. If the Bond is in payment default, RUS shall be liable to FFB in accordance with the terms of the RUS Guarantee, without regard to the sufficiency of the security or the remedies RUS may enforce against the Borrower.

12.4.2 Rights as Guarantor. In consideration of the RUS Guarantee, RUS shall have the sole authority (vis-a-vis FFB), if the Bond is in payment default, in respect of acceleration of the Bond, the exercise of other available remedies, and the disposition of sums or property recovered.

Section 12.5 Bond Payments Made by RUS.

12.5.1 General. RUS and FFB understand and agree that RUS, in its combined capacity as both bond servicer and guarantor of the Bond, shall pay to FFB all amounts due and owing under the Bond, when and as those amounts are due and payable under the terms of the Bond.

(a) Bond Servicing Payments. As bond servicer, RUS shall make payments by turning over to FFB, when and as due under the Bond, all amounts that have been collected by RUS under section 12.2.2(d) of this Agreement.

(b) Bond Guarantee Payments. As guarantor, RUS shall pay to FFB, when and as due under the Bond, the difference, if any, between the amounts that are owed to FFB under the terms of the Bond and the amounts that have been collected under section 12.2.2(d) of this Agreement.

12.5.2 RUS Payments To Be Made by Book Transfer. RUS shall make each payment under section 12.5.1 of this Agreement by internal transfer of funds on the books of the

United States Department of the Treasury from the account of RUS to the account of FFB specified by FFB from time to time.

12.5.3 Late Charges. Subject to section 12.5.4 of this Agreement, in the event that RUS shall fail to make any payment under section 12.5.1 of this Agreement when and as that payment by RUS to FFB is due (any such amount being then an "Overdue Amount"), the amount payable shall be that Overdue Amount with interest thereon (such interest being the "Late Charge"). The Late Charge shall accrue from the scheduled date of payment for the Overdue Amount (taking into account any Business Day adjustments under the Bond) to the actual date on which payment is made. The Late Charge applicable to RUS shall be calculated in the same manner as Late Charges applicable to the Borrower are calculated under the Bond.

12.5.4 Uncontrollable Cause. In the event that RUS is prevented by an Uncontrollable Cause from making any payment under section 12.5.1 of this Agreement at the time or in the manner as RUS is required to make that payment, then RUS shall make that payment as soon as the respective Uncontrollable Cause ceases to prevent RUS from making that payment. The amount that is then due and owing that is not paid due to an Uncontrollable Cause for RUS shall bear interest at the 91-day loan rate then established by FFB based on a determination made by the Secretary of the Treasury pursuant to section 6(b) of the FFB Act, such rate being subject to re-determination at 91-day intervals if the amount due and owing is not paid.

12.5.5 No Modification of Times for Payment. Nothing in section 12.5.3 or section 12.5.4 of this Agreement shall be construed as permitting or implying that RUS may, without the prior written consent of FFB, modify, extend, alter, or affect in any manner whatsoever (except as explicitly provided herein) the right of FFB to receive any and all payments on account of the Bond when and as due under the Bond.

12.5.6 Bond Assignment upon Payment in Full. Upon payment by RUS to FFB of all amounts required to be paid by RUS to FFB under section 12.5.1 of this Agreement with respect to the Bond, FFB shall assign and transfer to RUS all rights held by FFB in that Bond.

ARTICLE 13**AGREEMENTS AND OTHER RIGHTS OF RUS****Section 13.1 Delivery of Replacement Certificates Specifying Authorized RUS Officials.**

13.1.1 Annual Replacement Certificates. Promptly after the commencement of each fiscal year, RUS shall deliver to FFB a Certificate Specifying Authorized RUS Officials, updated as appropriate, in replacement of the original such certificate delivered pursuant to section 4.2(d) hereof.

13.1.2 Replacement Certificates within any Fiscal Year. RUS may at any time within any fiscal year deliver to FFB a revised Certificate Specifying Authorized RUS Officials, updated as appropriate, in replacement of the annual certificate delivered pursuant to section 13.1.1 hereof.

Section 13.2 Certain Agreements of RUS and FFB.

13.2.1 Agent for Compliance Purposes. In the event that FFB shall become subject to any duties under any applicable law or regulation solely because of its providing or having provided financing under the Bond, RUS shall serve as agent for FFB to the fullest extent permitted under that law or regulation in connection with satisfying the requirements of that law or regulation.

13.2.2 RUS's Agreement Regarding Its Appointment as Agent for FFB. Recognizing the legitimate needs of FFB to ensure that RUS, as compliance agent for FFB, has performed all duties to which FFB becomes subject under any applicable law or regulation solely because of providing or having provided financing under the Bond, and with RUS and FFB expressing their intent to cooperate in connection with the exchange of information related thereto, RUS agrees:

(a) to deliver to representatives of FFB or its designate, when requested to do so by FFB or its designate, actual possession of the original of any certificate, report, document, or paper collected or prepared by RUS, as compliance agent for FFB; or

(b) at the option of FFB, to permit representatives of FFB or its designate, during reasonable business hours, to have access to, and to inspect and make copies of, any and all certificates, reports, documents, or papers collected or prepared by RUS, as compliance agent for FFB.

13.2.3 Litigation Cooperation. When requested to do so by FFB, RUS shall cooperate with FFB in the prosecution or defense of any litigation that FFB may institute against any Person other than RUS or to which FFB is named as a party, as the case may be, arising out of FFB providing or having provided financing under the Bond.

Section 13.3 Reimbursement

13.3.1 RUS's Agreement to Reimburse. To the extent permitted by applicable law and subject to the availability of funds, RUS agrees to reimburse FFB (but not any successor, assignee or transferee of FFB) for any and all liabilities, losses, costs, or expenses of any nature that may be imposed upon, incurred by, or asserted against FFB by any Person other than RUS in any way relating to or arising out of FFB providing or having provided financing under the Bond, but specifically excluding any liability, loss, cost or expense relating to or arising out of any sale, assignment, or other transfer by FFB, pursuant to section 15.4 hereof, of all or any part of the Bond.

13.3.2 RUS's Agreement to Seek Appropriations. In the event that no funds are available to RUS at the time that RUS needs funds to reimburse FFB as contemplated by section 13.3.1 hereof, RUS agrees that it will diligently seek to obtain additional appropriations for that purpose.

13.3.3 FFB's Agreement to Deliver Notice. Solely for the purpose of assisting RUS in mitigating the extent of any reimbursement contemplated by section 13.3.1 hereof, FFB agrees that it will deliver notice to RUS of any and all liabilities, losses, costs, or expenses imposed upon, incurred by, or asserted against FFB promptly after FFB has actual knowledge of the imposition, incurrence, or assertion of such liability, loss, cost, or expense.

Section 13.4 Effect of RUS's Nonperformance

In the event that RUS shall fail to fulfill any of its agreements in this article 13, FFB shall nevertheless continue to make Advances under the Bond before the date of the respective failure.

Section 13.5 Right of RUS to Purchase Advances and Bonds

13.5.1 RUS's Right. Notwithstanding the provisions of the Bond, RUS may purchase from FFB all or any portion of any Advance that has been made under the Bond, or may purchase from FFB the Bond in its entirety, in either case in the same manner, at the same price, and subject to the same limitations as shall be applicable, under the terms of

the Bond, to a prepayment by the Borrower of all or any portion of any Advance that has been made under the Bond, or a prepayment by the Borrower of the Bond in its entirety, as the case may be.

13.5.2 Borrower's Acknowledgement of RUS's Right. Notwithstanding the provisions of the Bond, the Borrower acknowledges that RUS may purchase from FFB all or any portion of any Advance that has been made under the Bond, or may purchase from FFB the Bond in its entirety, in the same manner, at the same price, and subject to the same limitations as shall be applicable, under the terms of the Bond, to a prepayment by the Borrower of all or any portion of any Advance made under the Bond, or a prepayment by the Borrower of the Bond in its entirety, as the case may be.

ARTICLE 14

EFFECTIVE DATE, TERM, SURVIVAL

Section 14.1 Effective Date.

This Agreement shall be effective as of the date first above written.

Section 14.2 Term of Commitment to Make Advances.

The obligation of FFB under this Agreement to make Advances under the Bond issued by the Borrower shall expire on the "Last Day for an Advance" specified in the Bond.

Section 14.3 Survival.

14.3.1 Representations, Warranties, and Certifications. All representations, warranties, and certifications made by the Borrower in this Agreement, or in any agreement, instrument, or certificate delivered pursuant hereto, shall survive the execution and delivery of this Agreement, the purchasing of the Bond hereunder, and the making of Advances thereunder.

14.3.2 Remainder of Agreement. Notwithstanding the occurrence and passage of the Last Day for an Advance, the remainder of this Agreement shall remain in full force and effect until all amounts owed under this Agreement and the Bond purchased by FFB under this Agreement have been paid in full.

ARTICLE 15

MISCELLANEOUS

Section 15.1 Notices.

15.1.1 Addresses of the Parties. All notices and other communications hereunder or under the Bond to be made to any party shall be in writing and shall be addressed as follows:

To FFB:

Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, NW
Washington, DC 20220

Attention: Director of Lending

Telephone No. (202) 622-2470
Facsimile No. (202) 622-0707

To the Borrower:

National Rural Utilities Cooperative
Finance Corporation
20701 Cooperative Way
Dulles, VA 20166

Attention: Chief Financial Officer

Telephone: (703) 467-7402
Facsimile: (703) 467-5650

with a copy to:

National Rural Utilities Cooperative
Finance Corporation
20701 Cooperative Way
Dulles, VA 20166

Attention: General Counsel

Telephone: (703) 467-1872

Facsimile: (703) 467-5651

To RUS:

Office of Portfolio Management and Risk Assessment

Rural Utilities Service

U.S. Department of Agriculture

Mail Stop 1568, Room 0226-S

1400 Independence Avenue, SW

Washington, DC 20250

Attention: Amy McWilliams, Management Analyst

Telephone: (202) 205-8663

Facsimile: (844) 749-0736

The address, telephone number, or facsimile number for any party may be changed at any time and from time to time upon written notice given by such changing party to each other party hereto.

15.1.2 Permitted Means of Delivery. A properly addressed Advance Request, Advance Request Approval Notice, other notice, or other communication to FFB shall be deemed to have been delivered if it is sent by facsimile (fax) transmission. A properly addressed notice or other communication to the Borrower shall be deemed to have been delivered if it is sent by facsimile (fax) transmission. A properly addressed Advance Request, notice, or other communication to RUS shall be deemed to have been delivered if it is sent by facsimile (fax) transmission, provided that RUS shall receive the original of such faxed Advance Request, notice, or other communication within 5 Business Days.

15.1.3 Effective Date of Delivery. A properly addressed notice or other communication shall be deemed to have been "delivered" for purposes of this Agreement:

(a) if made by personal delivery, on the date of such personal delivery;

(b) if mailed by first class mail, registered or certified mail, express mail, or by any commercial overnight courier service, on the date that such mailing is received;

(c) if sent by facsimile (fax) transmission:

(1) if the transmission is received and receipt confirmed before 4:00 p.m. (Washington, DC, time) on any Business Day, on the date of such transmission; and

(2) if the transmission is received and receipt confirmed after 4:00 p.m. (Washington, DC, time) on any Business Day or any day that is not a Business Day, on the next Business Day.

15.1.4 Notices to FFB to Contain FFB Identification References. All notices to FFB making any reference to either the Bond or any Advance made thereunder shall identify the Bond or such Advance by the Bond Identifier or the respective Advance Identifier, as the case may be, assigned by FFB to the Bond or such Advance.

Section 15.2 Amendments.

15.2.1 This Agreement. No provision of this Agreement may be amended, modified, supplemented, waived, discharged, or terminated orally but only by an instrument in writing duly executed by each of the parties hereto.

15.2.2 Bond Guarantee Agreement. RUS and the Borrower agree that they will not enter into any amendment, modification, or waiver of section 9.9 of the Bond Guarantee

Agreement, or the consequences of a breach thereof, without the prior written consent of FFB.

Section 15.3 Successors and Assigns.

This Agreement shall be binding upon and inure to the benefit of each of FFB, the Borrower, and RUS, and each of their respective successors and assigns.

Section 15.4 Sale or Assignment of Bond.

15.4.1 Sale or Assignment Permitted. Subject to the agreement in the immediately following sentence, FFB may sell, assign, or otherwise transfer all or any part of the Bond or any participation share thereof. FFB agrees not to sell, assign, or otherwise transfer all or any part of the Bond or all or any part of the right to receive the principal of and interest on the Bond or any participation share thereof to a purchaser, assignee, or transferee that is not an agency or instrumentality of the United States or

a trust fund or other government account under the authority or control of the United States or any officer or officers thereof until such time as FFB and RUS have agreed upon mutually satisfactory arrangements for the servicing of the right to receive principal and interest payments on the Bond or Bonds and for making claims under the RUS Guarantee when FFB is not the Holder.

15.4.2 Notice of Sale, Etc. FFB will deliver to the Borrower and RUS written notice of any sale, assignment, or other transfer of the Bond promptly after any such sale, assignment, or other transfer.

15.4.3 Manner of Payment after Sale. Any sale, assignment, or other transfer of all or any part of the Bond may provide that, following such sale, assignment, or other transfer, payments on the Bond, with the exception of the fee described in paragraph 9 of the Bond, shall be made in the manner specified by the respective purchaser, assignee, or transferee, as the case may be. Payments of the fee described in paragraph 9 of the Bond shall be made in the manner specified by FFB in the written notice of the sale, assignment, or other transfer delivered by FFB to the Borrower and RUS as provided in section 15.4.2 of this Agreement.

15.4.4 Replacement Bonds.

(a) Borrower's Agreement. The Borrower agrees:

(1) to issue a replacement Bond or Bonds with the same aggregate principal amount, interest rate, maturity, and other terms as each respective Bond or Bonds sold, assigned, or transferred pursuant to section 15.4.1 of this Agreement; provided, however, that, when requested by the respective purchaser, assignee, or transferee, such replacement Bond or Bonds shall provide that payments thereunder shall be made in the manner specified by such purchaser, assignee, or transferee; and provided, further, however, that upon delivery of such replacement Bond, the Borrower shall be released and discharged from any further liability on account of the sold, assigned, or transferred Bond; and provided, further, however, that the Bond being replaced shall be surrendered to the Borrower for cancellation; and

(2) to effect the change in ownership on its records and on the face of each such replacement Bond issued, upon receipt of each Bond or Bonds so sold, assigned, or transferred.

(b) RUS's Agreement. If FFB elects to sell, assign, or transfer all or any part of the Bond or any participation share thereof, and if the respective purchaser, assignee, or transferee requests the Borrower to issue a replacement Bond or Bonds as provided in section 15.4.4(a) of this Agreement, RUS agrees that it will, upon the written request of FFB, execute and deliver an RUS Guarantee of the replacement Bond in replacement of the RUS Guarantee of the sold, assigned, or transferred Bond.

(c) FFB's Agreement. FFB agrees that, upon delivery by RUS of a replacement RUS Guarantee as provided in section 15.4.4(b) of this Agreement, RUS shall be released and discharged from any further liability on account of the RUS Guarantee of the sold, assigned, or transferred Bond.

Section 15.5 Forbearance Not a Waiver.

Any forbearance on the part of FFB from enforcing any term or condition of this Agreement shall not be construed to be a waiver of such term or condition or acquiescence by FFB in any failure on the part of Borrower to comply with or satisfy such term or condition.

Section 15.6 Rights Confined to Parties.

Nothing expressed or implied herein is intended or shall be construed to confer upon, or to give to, any Person other than FFB, the Borrower, and RUS, and their respective successors and permitted assigns, any right, remedy, or claim under or by reason of this Agreement or of any term, covenant, or condition hereof, and all of the terms, covenants, conditions, promises, and agreements contained herein shall be for the sole and exclusive benefit of FFB, the Borrower, and RUS, and their respective successors and permitted assigns.

Section 15.7 Governing Law.

This Agreement and the rights and obligations of the parties hereunder shall be governed by, and construed and interpreted in accordance with, the laws of the United States of America and not the law of the several States.

Section 15.8 Severability.

Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall not of itself invalidate or render unenforceable such provision in any other jurisdiction.

Section 15.9 Headings.

The descriptive headings of the various articles, sections, and subsections of this Agreement were formulated and inserted for convenience only and shall not be deemed to affect the meaning or construction of the provisions hereof.

Section 15.10 Counterparts.

This Agreement may be executed in separate counterparts, each of which when so executed and delivered shall be an original, but all of which together shall constitute but one and the same instrument.

IN WITNESS WHEREOF, FFB, the Borrower, and RUS have each caused this Agreement to be executed as of the day and year first above mentioned.

FEDERAL FINANCING BANK
("FFB")

By: /s/ GARY GRIPPO

Name: Gary Grippo

Title: Vice President and Treasurer

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION
(the "Borrower")

By: /s/ SHELDON C. PETERSEN

Name: Sheldon C. Petersen

Title: Governor and
Chief Executive Officer

ADMINISTRATOR of the
RURAL UTILITIES SERVICE
("RUS")

By: /s/ CHRISTOPHER A. MCLEAN

Name: Christopher A. McLean

Title: Acting Administrator

EXHIBIT A

TO

BOND PURCHASE AGREEMENT

FORM

OF

ADVANCE REQUEST

ADVANCE REQUEST (RUS APPROVAL REQUIRED)

REFER TO RURAL UTILITIES SERVICE (RUS) REGULATIONS AND INSTRUCTIONS FOR A DESCRIPTION OF (1) THE OTHER FORMS AND MATERIALS THAT ARE REQUIRED IN CONNECTION WITH EACH REQUEST FOR AN ADVANCE, AND (2) THE TIME LIMITS FOR SUBMITTING THOSE FORMS AND MATERIALS AND THIS ADVANCE REQUEST TO RUS.

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

*Office of Portfolio Management and Risk Assessment
Telephone: (202) 205-8663*

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM (TOGETHER WITH ALL OTHER FORMS AND MATERIAL REQUIRED BY RUS) TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

*Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1560, Room 0226-S
1400 Independence Avenue, SW
Washington, DC 20250*

*Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst*

*Telephone: (202) 205-8663
Facsimile: (844) 749-0736*

ADVANCE REQUEST

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier _____¹

The undersigned, as an authorized officer of the Borrower, hereby requests FFB to make an advance of funds ("this Advance") under, pursuant to, and in accordance with the applicable terms of the Bond.

The undersigned further requests that this Advance be made as follows:

- 1. Requested Advance Amount \$ _____ b
- 2. Requested Advance Date: _____ c
- 3. Wire Instructions:

A. CORRESPONDENT BANK (if any) FOR PAYEE'S BANK:

Name of financial institution _____

¹Insert the Bond Identifier that FFB assigned to the Bond (as provided in section 5.1(a)(2) of the Bond Purchase Agreement referred to in the Bond).

² Insert the particular amount of funds that the Borrower requests to be advanced, which amount must satisfy the condition specified in section 7.3.4 of the Bond Purchase Agreement referred to in the Bond.

³Insert the particular calendar date that the Borrower requests to be date on which this Advance is to be made, which date must meet the criteria for Requested Advance Dates specified in section 7.3.1(a)(3) of the Bond

Address of financial institution _____

ABA number of financial institution _____

B. PAYEE'S BANK AND ACCOUNT:

Name of financial institution _____

Address of financial institution _____

ABA number of financial institution _____

Account name _____

Account number _____

Taxpayer ID number _____

4. Maturity Date: _____⁴

5. Principal Repayment Method:

[SELECT 1 OF THE FOLLOWING 3 METHODS FOR THE REPAYMENT OF PRINCIPAL.]

"P" for the "equal principal installments" method
"G" for "graduated principal installments" method

⁴ Insert the particular calendar date that the Borrower selects to be the date on which this Advance is to mature, which date must meet all of the criteria for Maturity Dates specified in section 7.3.1(a)(5) of the Bond Purchase Agreement referred to in the Bond.

"L" for the "level debt service" method

6. Prepayment/Refinancing Privilege:

If (and only if) the Borrower selects, as the "Maturity Date" for this Advance, a date that will occur on or after the fifth anniversary of the "Requested Advance Date," then the Borrower must elect 1 of the following 2 alternative prepayment/refinancing privileges.

Alternative Prepayment/Refinancing Privileges:

 e

"M" for the "Market Value Prepayment/
Refinancing Privilege

"F" for the "Fixed Premium Prepayment/
Refinancing Privilege

***If (and only if) the Borrower elects the "Fixed Premium Prepayment/
Refinancing Privilege," then the Borrower must elect 1 of the following
2 alternative no-call period options.***

Alternative No-Call Period Options:

 f

"Y" for "yes," if the privilege is
to include a 5-year No-Call Period

"N" for "no," if the privilege is not
to include a 5-year No-Call Period

⁵Insert in the box "M" if the Borrower elects to have the Market Value Prepayment/Refinancing Privilege apply to this Advance. Insert in the box "F" if the Borrower elects to have a Fixed Premium Prepayment/Refinancing Privilege apply to this Advance.

⁶Insert in the box "Y" if the Borrower elects to have the Fixed Premium Prepayment/Refinancing Privilege include a 5-year No-Call Period during which this Advance will not be eligible for prepayment or refinancing. Insert in the box "N" if the Borrower elects to have the Fixed Premium Prepayment/Refinancing Privilege not include any 5-year No-Call Period, i.e. this Advance will be eligible for prepayment or refinancing on any Business day.

***If (and only if) the Borrower elects the "Fixed Premium Prepayment/
Refinancing Privilege, then the borrower must select 1 of the following 3
alternative premium options.***

Alternative Premium Options:

"X" for 10% premium declining over
10 years

 ⁹

"V" for 5% premium declining over
5 years

"P" for par (no premium)

⁷Insert in the box "X" if the Borrower selects a 10% premium declining over 10 years as the premium option for the Fixed Premium Prepayment/Refinancing Privilege that is to apply to this Advance. Insert in the box "V" if the Borrower selects a 5% premium declining over 5 years as the premium option for the Fixed Premium Prepayment/Refinancing Privilege that is to apply to this Advance. Insert in the box "P" if the Borrower selects par (no premium) as the premium option for the Fixed Premium Prepayment/Refinancing Privilege that is to apply to this Advance.

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Advance Request on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE
FINANCE CORPORATION
(the "Borrower")

By: _____

Name: _____

Title: _____

Date: _____

**NOTICE OF RUS APPROVAL OF
ADVANCE REQUEST**

Notice is hereby given to FFB that the preceding Advance Request made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

**FOR ACCOUNTING
USE ONLY:**

RUS Budget
Account
Number

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: _____

Name: _____

Title: _____

Date: _____

EXHIBIT B
TO
BOND PURCHASE AGREEMENT

FORM
OF
BOND

Bond Date	<u>November 15, 2018</u>
Place of Issue	<u>Washington, DC</u>
Last Day for an Advance (¶3)	<u>July 15, 2023</u>
Maximum Principal Amount (¶4)	<u>\$750,000,000.00</u>
Final Maturity Date (¶5)	<u>July 15, 2043</u>

**FUTURE ADVANCE BOND
SERIES N**

1. Promise to Pay.

FOR VALUE RECEIVED, NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, a cooperative association existing under the laws of the District of Columbia (the "Borrower," which term includes any successors or assigns) promises to pay the **FEDERAL FINANCING BANK ("FFB")**, a body corporate and instrumentality of the United States of America (FFB, for so long as it shall be the holder of this Bond, and any successor or assignee of FFB, for so long as such successor or assignee shall be the holder of this Bond, being the "Holder"), at the times, in the manner, and with interest at the rates to be established as hereinafter provided, such amounts as may be advanced from time to time by FFB to the Borrower under this Bond (each such amount being an "Advance", and more than one such amount being "Advances").

2. Reference to Certain Agreements.

(a) Bond Purchase Agreement. This Bond is the "Bond" referred to in, and entitled to the benefits of, the Series N Bond Purchase Agreement dated as of even date herewith, made by and among FFB, the Borrower, and the Administrator of the Rural

Utilities Service, a Rural Development agency of the United States Department of Agriculture ("RUS") (such agreement, as it may be amended, supplemented, and restated from time to time in accordance with its terms, being the "Bond Purchase Agreement").

(b) Bond Guarantee Agreement. This Bond is the "Bond" referred to in, and entitled to the benefits of, the Fifth Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 15, 2018, made between RUS and the Borrower (such agreement, as it may be amended, supplemented, and restated from time to time in accordance with its terms, being the "Bond Guarantee Agreement").

(c) Pledge Agreement. This Bond is the "Bond" referred to in the Fifth Amended, Restated and Consolidated Pledge Agreement dated as of November 15 2018, made among the Borrower, RUS, and U.S. Bank National Association, a national association (such agreement, as it may be amended, supplemented, and restated from time to time in accordance with its terms, being the "Pledge Agreement").

3. Advances; Advance Requests; RUS Approval Requirement; Last Day for an Advance.

(a) Subject to the terms and conditions of the Bond Purchase Agreement, FFB shall make Advances to the Borrower from time to time under this Bond, in each case upon delivery to FFB of a written request by the Borrower for an Advance under this Bond, in the form of request attached to the Bond Purchase Agreement as Exhibit A thereto (each such request being an "Advance Request") and completed as prescribed in section 7.3.1 of the Bond Purchase Agreement.

(b) To be effective, an Advance Request must first be delivered to RUS for approval and be approved by RUS in writing, and such Advance Request, together with written notification of RUS's approval thereof (each such notification being an "Advance Request Approval Notice"), must be received by FFB consistent with the advance notice requirements prescribed in sections 7.3.1(c) and 7.3.2(b) of the Bond Purchase Agreement.

(c) FFB shall make each requested Advance on the particular calendar date that the Borrower requested in the respective Advance Request to be the date on which the respective Advance is to be made (such date being the "Requested Advance Date" for such Advance), subject to the provisions of the Bond Purchase Agreement describing certain circumstances under which a requested Advance shall be made on a later date; provided, however, that no Advance shall be made under this Bond after the particular date specified on page 1 of this Bond as being the "Last Day for an Advance."

4. Principal Amount of Advances; Maximum Principal Amount.

The principal amount of each Advance shall be the particular dollar amount that the Borrower specified in the respective Advance Request as the "Requested Advance Amount" for the respective Advance; provided, however, that the aggregate principal amount of all Advances made under this Bond shall not exceed the particular amount specified on page 1 of this Bond as being the "Maximum Principal Amount."

5. Maturity Dates for Advances.

Subject to paragraph 15 of this Bond, each Advance shall mature on the particular calendar date that the Borrower selected in the respective Advance Request to be the date on which the respective Advance is to mature (such date being the "Maturity Date" for such Advance), provided that such Maturity Date meets all of the criteria for Maturity Dates prescribed in section 7.3.1(a)(5) of the Bond Purchase Agreement.

6. Computation of Interest on Advances.

(a) Subject to paragraphs 11 and 16 of this Bond, interest on the outstanding principal of each Advance shall accrue from the date on which the respective Advance is made to the date on which such principal is due.

(b) Interest on each Advance shall be computed on the basis of (1) actual days elapsed from (but not including) the date on which the respective Advance is made (for the first payment of interest due under this Bond for such Advance) or the date on which the payment of interest was last due (for all other payments of interest due under this Bond for such Advance), to (and including) the date on which the payment of interest is next due; and (2) a year of 365 days (except in calendar years including February 29, when the basis shall be a 366-day year).

(c) The basic interest rate for each Advance shall be established by FFB, as of the date on which the respective Advance is made, on the basis of the determination made by the Secretary of the Treasury pursuant to section 6(b) of the Federal Financing Bank Act of 1973, as amended (codified at 12 U.S.C. § 2281 et seq.) (the "FFB Act"); provided, however, that the shortest maturity used as the basis for any rate determination shall be the remaining maturity of the most recently auctioned United States Treasury bills having the shortest maturity of all United States Treasury bills then being regularly auctioned.

(d) In the event that (1) the Borrower has selected for any Advance a Maturity Date that will occur on or after the fifth anniversary of the Requested Advance Date for such Advance, and (2) the Borrower has elected for such Advance a prepayment/ refinancing privilege described in section 11.3 of the Bond

Purchase Agreement, then the interest rate for such Advance shall also include a price (expressed in terms of a basis point increment to the applicable basic interest rate) for the particular prepayment/refinancing privilege that the Borrower selected, which price shall be established by FFB on the basis of a determination made by FFB as to the difference between (A) the estimated market yield of a notional obligation if such obligation were to (i) be issued by the Secretary of the Treasury, (ii) have a maturity comparable to the maturity of such Advance, and (iii) include a prepayment and refinancing privilege identical to the particular prepayment/refinancing privilege that the Borrower elected for such Advance, and (B) the estimated market yield of a notional obligation if such obligation were to (i) be issued by the Secretary of the Treasury, (ii) have a maturity comparable to the maturity of such Advance, but (iii) not include such prepayment and refinancing privilege.

7. Payment of Interest; Payment Dates.

Interest accrued on the outstanding principal amount of each Advance shall be due and payable quarterly on January 15, April 15, July 15, and October 15 of each year (each such day being a "Payment Date"), beginning on the first Payment Date to occur after the date on which the respective Advance is made, up through and including the Maturity Date of such Advance; provided, however, that with respect to each Advance that is made in the 30-day period immediately preceding any Payment Date, payments of accrued interest on the outstanding principal amount of the respective Advance shall be due beginning on the second Payment Date to occur after the date on which such Advance is made.

8. Repayment of Principal; Principal Repayment Options.

(a) The principal amount of each Advance shall be payable in quarterly installments, which installments shall be due beginning on the first Payment Date to occur after the date on which the respective Advance is made, and shall be due on each Payment Date to occur thereafter until the principal amount of the respective Advance is repaid in full on or before the particular date specified on page 1 of this Bond as being the "Final Maturity Date" (such date being the "Final Maturity Date"); provided, however, that with respect to each Advance that is made in the 30-day period immediately preceding any Payment Date, principal installments shall be due beginning on the second Payment Date to occur after the date on which the respective Advance is made.

(b) In the respective Advance Request for each Advance, the Borrower must also select a method for the repayment of principal of such Advance from among the following options:

(1) "equal principal installments" -- the amount of each quarterly principal installment shall be substantially equal to the amount of every other quarterly principal installment and shall be sufficient, when added to all other such quarterly installments of equal principal, to repay the principal amount of such Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such Advance that will occur before the Final Maturity Date);

(2) "graduated principal installments" -- the amount of each of the first one-third (or nearest number of payments that rounds to one-third) of the total number of quarterly principal installments shall be substantially equal to one-half of the amount of each of the remaining quarterly principal installments, and shall be sufficient, when added to all other such quarterly installments of graduated principal, to repay the principal amount of such Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such Advance that will occur before the Final Maturity Date);
or

(3) "level debt service" -- the amount of each quarterly payment consisting of a principal installment and accrued interest shall be substantially equal to the amount of every other quarterly payment consisting of a principal installment and accrued interest, and shall be sufficient, when added to all other such level quarterly payments consisting of a principal installment and accrued interest, to repay the principal amount of such Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such Advance that will occur before the Final Maturity Date).

(c) For each Advance, the amount of principal that shall be due and payable on each of the dates specified in subparagraph (a) of this paragraph 8 shall be the amount of the principal installment due under a principal repayment schedule for the respective Advance that is computed in accordance with the principles of the particular method for the repayment of principal that is selected by the Borrower for such Advance from among the options described in subparagraph (b) of this paragraph 8. Except at the times described in the immediately following sentence, the method for the repayment of principal that is selected by the Borrower for any Advance, and the resulting principal repayment schedule that is so computed for such Advance, may not be changed. Notwithstanding the foregoing, with respect to each Advance for which the Borrower has selected a Maturity Date that will occur before the Final Maturity Date, the Borrower may change the particular method for the repayment of principal that was selected by the Borrower for the respective Advance from either the "equal principal installments" method or the "graduated principal installments"

method to the "level debt service" method at the time (if ever) that the Borrower elects to extend the maturity of such Advance (as provided in paragraph 15 of this Bond), effective as of the effective date of such maturity extension, or at the time (if ever) that the Borrower elects to refinance the outstanding principal amount of such Advance (as provided in paragraph 18 of this Bond), effective as of the effective date of such refinancing, and the principal repayment schedule for such Advance shall thereupon be newly computed in accordance with the "level debt service" method for the repayment of principal. After the Borrower has selected the Final Maturity Date as the Maturity Date for any Advance, the Borrower may so change the particular method for the repayment of principal of any Advance, and the principal repayment schedule for such Advance shall be so newly computed, only at the time (if ever) that the Borrower elects to refinance the outstanding principal amount of such Advance (as provided in paragraph 18 of this Bond), effective as of the effective date of such refinancing.

(d) With respect to each Advance that has a Maturity Date that will occur before the Final Maturity Date, the entire unpaid principal amount of the respective Advance shall be payable on such Maturity Date, subject to extensions of the maturity of such Advance (as provided in paragraph 15 of this Bond).

(e) Notwithstanding which of the methods for the repayment of principal described in subparagraph (b) of this paragraph 8 is selected by the Borrower for any Advance, the aggregate of all quarterly payments of principal and interest on such Advance shall be such as will repay the entire principal amount of such Advance, and pay all interest accrued thereon, on or before the Final Maturity Date.

9. Fee.

(a) A fee to cover expenses and contingencies, assessed by FFB pursuant to section 6(c) of the FFB Act, shall accrue on the outstanding principal amount of each Advance for the period from the date on which the respective Advance is made to the date on which the principal amount of such Advance is due, not taking into account any maturity extensions permitted by paragraph 15 of this Bond (such period being the "Advance Period").

(b) The fee on each Advance shall be:

(1) 12.5 basis points (0.125%) per annum of the unpaid principal balance of such Advance for an Advance Period of 10 years or less; and

(2) 25 basis points (0.25%) per annum of the unpaid principal balance of such Advance for an Advance Period greater than 10 years.

(c) The fee on each Advance shall be computed in the same manner as accrued interest is computed under paragraph 6(b) of this Bond, and shall be due and payable at the same times as accrued interest is due and payable under paragraph 7 of this Bond (adjusted as provided in paragraph 10 of this Bond if a Payment Date is not a Business Day). The fee on each Advance shall be credited to RUS as required by section 505(c) of the Federal Credit Reform Act of 1990, as amended (codified at 2 U.S.C. § 661d(c)).

10. Business Days.

(a) Whenever any Payment Date, the Maturity Date for any Advance, or the Final Maturity Date shall fall on a day on which either FFB or the Federal Reserve Bank of New York is not open for business, the payment that would otherwise be due on such Payment Date, Maturity Date, or Final Payment Date, as the case may be, shall be due on the first day thereafter on which FFB and the Federal Reserve Bank of New York are both open for business (any such day being a "Business Day").

(b) In the event that any Payment Date falls on a day other than a Business Day, then the extension of time for making the payment that would otherwise be due on such Payment Date shall be (1) taken into account in establishing the interest rate for the respective Advance, (2) included in computing interest due in connection with such payment, and (3) excluded in computing interest due in connection with the next payment.

(c) In the event that the Maturity Date for any Advance or the Final Maturity Date falls on a day other than a Business Day, then the extension of time for making the payment that would otherwise be due on such Maturity Date or the Final Maturity, as the case may be, shall be (1) taken into account in establishing the interest rate for such Advance, and (2) included in computing interest due in connection with such payment.

11. Late Payments.

(a) In the event that any payment of any amount owing under this Bond is not made when and as due (any such amount being then an "Overdue Amount"), then the amount payable shall be such Overdue Amount plus interest thereon (such interest being the "Late Charge") computed in accordance with this subparagraph (a).

(1) The Late Charge shall accrue from the scheduled date of payment for the Overdue Amount (taking into account paragraph 10 of this Bond) to the date on which payment is made.

(2) The Late Charge shall be computed on the basis of (A) actual days elapsed from (but not including) the

scheduled date of payment for such Overdue Amount (taking into account paragraph 10 of this Bond) to (and including) the date on which payment is made, and (B) a year of 365 days (except in calendar years including February 29, when the basis shall be a 366-day year).

(3) The Late Charge shall accrue at a rate (the "Late Charge Rate") equal to one and one-half times the rate to be determined by the Secretary of the Treasury taking into consideration the prevailing market yield on the remaining maturity of the most recent auctioned 13-week United States Treasury bills.

(4) The initial Late Charge Rate shall be in effect until the earlier to occur of either (A) the date on which payment of the Overdue Amount and the amount of accrued Late Charge is made, or (B) the first Payment Date to occur after the scheduled date of payment for such Overdue Amount. In the event that the Overdue Amount and the amount of the accrued Late Charge are not paid on or before such Payment Date, then the amount payable shall be the sum of the Overdue Amount and the amount of the accrued Late Charge, plus a Late Charge on such sum accruing at a new Late Charge Rate to be then determined in accordance with the principles of clause (3) of this subparagraph (a). For so long as any Overdue Amount remains unpaid, the Late Charge Rate shall be re-determined in accordance with the principles of clause (3) of this subparagraph (a) on each Payment Date to occur thereafter, and shall be applied to the Overdue Amount and all amounts of the accrued Late Charge to the date on which payment of the Overdue Amount and all amounts of the accrued Late Charge is made.

(b) Nothing in subparagraph (a) of this paragraph 11 shall be construed as permitting or implying that the Borrower may, without the written consent of FFB, modify, extend, alter or affect in any manner whatsoever (except as explicitly provided herein) the right of FFB to receive any and all payments on account of this Bond on the dates specified in this Bond.

12. Final Due Date.

Notwithstanding anything in this Bond to the contrary, all amounts outstanding under this Bond remaining unpaid as of the Final Maturity Date shall be due and payable on the Final Maturity Date.

13. Manner of Making Payments.

(a) For so long as FFB is the Holder of this Bond and RUS is the bond servicing agent for FFB (as provided in the Bond Purchase Agreement), each payment under this Bond shall be paid in immediately available funds by electronic funds transfer to the account of the United States Treasury (for credit to the

subaccount of RUS, as bond servicing agent for FFB) maintained at the Federal Reserve Bank of New York specified by RUS in a written notice to the Borrower, or to such other account as may be specified from time to time by RUS in a written notice to the Borrower.

(b) In the event that FFB is the Holder of this Bond and RUS is not the bond servicing agent for FFB, each payment under this Bond, with the exception of the fee described in paragraph 9 of this Bond, shall be paid in immediately available funds by electronic funds transfer to the account of the United States Treasury (for credit to the subaccount of FFB) maintained at the Federal Reserve Bank of New York specified by FFB in a written notice to the Borrower, or to such other account as may be specified from time to time by FFB in a written notice to the Borrower. In the event that FFB is the Holder of this Bond and RUS is not the bond servicing agent for FFB, each payment of the fee described in paragraph 9 of this Bond shall be paid in immediately available funds by electronic funds transfer to the account of the United States Treasury (for credit to the subaccount of RUS) maintained at the Federal Reserve Bank of New York specified from time to time by RUS in a written notice delivered by RUS to the Borrower.

(c) In the event that FFB is not the Holder of this Bond, then each payment under this Bond, with the exception of the fee described in paragraph 9 of this Bond, shall be made in immediately available funds by electronic funds transfer to such account as shall be specified by the Holder in a written notice to the Borrower. In the event that FFB is not the Holder of this Bond, each payment of the fee described in paragraph 9 of this Bond shall be made in the manner specified by FFB in the written notice delivered by FFB to the Borrower and RUS as provided in section 15.4.2 of the Bond Purchase Agreement.

14. Application of Payments.

Each payment made on this Bond shall be applied, first, to the payment of Late Charges (if any) payable under paragraphs 11 and 18 of this Bond, then to the payment of premiums (if any) payable under paragraphs 16 and 17 of this Bond, then to the payment of unpaid accrued interest, then on account of outstanding principal, and then to the payment of the fee payable under paragraph 9 of this Bond.

15. Maturity Extensions.

(a) With respect to each Advance (1) for which the Borrower has selected a Maturity Date that will occur before the twentieth anniversary of the Requested Advance Date specified in the respective Advance Request, or (2) for which a Maturity Date that will occur before the twentieth anniversary of the Requested Advance Date specified in the respective Advance Request has been determined as provided in subparagraph (b) of

this paragraph 15 (each such Maturity Date being an "Interim Maturity Date"), the Borrower may, effective as of such Interim Maturity Date, elect to extend the maturity of all or any portion of the outstanding principal amount of the respective Advance to a new Maturity Date to be selected by the Borrower in the manner and subject to the limitations specified in this subparagraph (a) (each such election being a "Maturity Extension Election"; each such elective extension of the maturity of any Advance that has an Interim Maturity Date being a "Maturity Extension"; and the Interim Maturity Date that is in effect for an Advance immediately before any such elective Maturity Extension being, from and after such Maturity Extension, the "Maturity Extension Effective Date").

(1) Except under the circumstances described in clause (3) of this subparagraph (a), the Borrower shall deliver to FFB (with a copy to RUS) written notification of each Maturity Extension Election, in the form of notification attached to this Bond as Annex 1-A (each such notification being a "Maturity Extension Election Notice"), making reference to the "Advance Identifier" (as that term is defined in the Bond Purchase Agreement) that FFB assigned to such Advance (as provided in the Bond Purchase Agreement) and specifying, among other things, the following:

(A) the amount of the outstanding principal of the such Advance with respect to which the Borrower elects to extend the maturity; and

(B) the new Maturity Date that the Borrower selects to be in effect for such principal amount after the respective Maturity Extension Effective Date, which date:

(i) may be either (I) a new Interim Maturity Date, or (II) the twentieth anniversary of the Requested Advance Date specified in the original Advance Request (if such twentieth anniversary date is a Payment Date) or the Payment Date immediately preceding such twentieth anniversary date (if such twentieth anniversary date is not a Payment Date); and

(ii) in the event that the Borrower selects a new Interim Maturity Date as the new Maturity Date for any Advance, must meet the criteria for Maturity Dates prescribed in section 7.3.1(a) (5) of the Bond Purchase Agreement (provided, however, that, for purposes of selecting a new Maturity Date in connection with a Maturity Extension Election, each of the references to the "Requested Advance Date" for the respective Advance in section 7.3.1(a)(5)(D) of the Bond

Purchase Agreement shall be deemed to be a reference to the "respective Maturity Extension Effective Date").

(2) To be effective, a Maturity Extension Election Notice must be received by FFB on or before the third Business Day before the Interim Maturity Date in effect for the respective Advance immediately before such Maturity Extension.

(3) In the event that either of the circumstances described in subclause (A) or (B) of the next sentence occurs, then a Maturity Extension Election Notice (in the form of notice attached to this Bond as Annex 1-B), to be effective, must first be delivered to RUS for approval and be approved by RUS in writing, and such Maturity Extension Election Notice, together with written notification of RUS's approval thereof, must be received by FFB on or before the third Business Day before the Interim Maturity Date in effect for the respective Advance immediately before such Maturity Extension. RUS approval of a Maturity Extension Election Notice will be required under either of the following circumstances:

(A) (i) any payment of any amount owing under this Bond is not made by the Borrower when and as due; (ii) payment is made by RUS in accordance with the guarantee set forth at the end of this Bond; and (iii) RUS delivers notice to both the Borrower and FFB advising each of them that each Maturity Extension Election Notice delivered by the Borrower after the date of such notice shall require the approval of RUS; or

(B) FFB at any time delivers written notice to both the Borrower and RUS advising each of them that each Maturity Extension Election Notice delivered by the Borrower after the date of such notice shall require the approval of RUS.

(b) With respect to any Advance that has an Interim Maturity Date, in the event that FFB does not receive a Maturity Extension Election Notice (and, if required under subparagraph (a)(3) of this paragraph 15, written notification of RUS's approval thereof) on or before the third Business Day before such Interim Maturity Date, then the maturity of such Advance shall be extended automatically in the manner and subject to the limitations specified in this subparagraph (b) (each such automatic extension of the maturity of any Advance that has an Interim Maturity Date also being a "Maturity Extension"; and the Interim Maturity Date that is in effect for an Advance immediately before any such automatic Maturity Extension also being, from and after such Maturity Extension, the "Maturity Extension Effective Date"). The new Maturity Date

for such Advance shall be the immediately following Payment Date. The amount of principal that will have its maturity extended automatically shall be the entire outstanding principal amount of such Advance on such Maturity Extension Effective Date, less the amount of any payment of principal made on such Maturity Extension Effective Date.

(c) In the event that the maturity of any Advance that has an Interim Maturity Date is extended under either subparagraph (a) or (b) of this paragraph 15, then the basic interest rate for such Advance, from and after the respective Maturity Extension Effective Date, shall be the particular rate that is established by FFB, as of such Maturity Extension Effective Date, in accordance with the principles of paragraph 6(c) of this Bond.

(d) In the event that the maturity of any Advance that has an Interim Maturity Date is extended under either subparagraph (a) or (b) of this paragraph 15, then the fee for such Advance, from and after the respective Maturity Extension Effective Date, shall be the particular fee that is assessed by FFB, as of such Maturity Extension Effective Date, with the new Advance Period being the period from the Maturity Extension Effective Date through the new Maturity Date, in accordance with the principles of paragraphs 9(b) and (c) of this Bond.

(e) In the event that (1) the maturity of any Advance that has an Interim Maturity Date is extended under either subparagraph (a) or (b) of this paragraph 15, and (2) the Maturity Date for such extended Advance is a date that will occur before the fifth anniversary of the respective Maturity Extension Effective Date, then the prepayment/refinancing privilege described in section 11.2 of the Bond Purchase Agreement shall apply automatically to such Advance.

(f) In the event that (1) the Borrower makes a Maturity Extension Election with respect to any Advance that has an Interim Maturity Date, and (2) the Borrower selects as the Maturity Date for such extended Advance a new Maturity Date that will occur on or after the fifth anniversary of the respective Maturity Extension Effective Date, then the Borrower must elect a prepayment/refinancing privilege for such extended Advance from between the options described in sections 11.2 and 11.3 of the Bond Purchase Agreement (provided, however, that each of the references to "the Requested Advance Date for such Advance" in section 11.3 of the Bond Purchase Agreement shall be deemed to be a reference to "the respective Maturity Extension Effective Date"). The Maturity Extension Election Notice delivered by the Borrower in connection with each such Maturity Extension Election must also specify the particular prepayment/refinancing privilege that the Borrower elects for the respective extended Advance. In the event that the Borrower elects for any such extended Advance a prepayment/refinancing privilege described in section 11.3 of the Bond Purchase Agreement, then the interest

rate for such extended Advance, from and after the respective Maturity Extension Effective Date, shall include a price (expressed in terms of a basis point increment to the applicable basic interest rate) for the particular prepayment/refinancing privilege that the Borrower elects, which price shall be established by FFB, as of such Maturity Extension Effective Date, in accordance with the principles of paragraph 6(d) of this Bond.

(g) The maturity of each Advance may be extended more than once as provided in this paragraph 15, but upon the twentieth anniversary of the Requested Advance Date specified in the original Advance Request (if such twentieth anniversary date is a Payment Date) or upon the Payment Date immediately preceding such twentieth anniversary date (if such twentieth anniversary date is not a Payment Date), no further Maturity Extensions may occur.

16. Prepayments.

(a) The Borrower may elect to prepay all or any portion of the outstanding principal amount of any Advance made under this Bond, or to prepay this Bond in its entirety, in the manner, at the price, and subject to the limitations specified in this paragraph 16 (each such election being a "Prepayment Election").

(b) For each Prepayment Election in which the Borrower elects to prepay a particular amount of the outstanding principal of an Advance, the Borrower shall deliver to RUS written notification of the respective Prepayment Election, in the form of notification attached to this Bond as Annex 2-A (each such notification being a "Prepayment Election Notice"), making reference to the Advance Identifier that FFB assigned to the respective Advance (as provided in the Bond Purchase Agreement) and specifying, among other things, the following:

(1) the particular date on which the Borrower intends to make the prepayment on such Advance (such date being the "Intended Prepayment Date" for such Advance), which date:

(A) must be a Business Day; and

(B) for any Advance for which the Borrower has selected a fixed premium prepayment/refinancing privilege that includes a 5-year period during which such Advance shall not be eligible for any prepayment or refinancing (such time period being a "No-Call Period"), may not be a date that will occur before the applicable "First Call Date" determined as provided in section 11.3.2 of the Bond Purchase Agreement (such date being the "First Call Date"); and

(2) the amount of principal of the respective Advance that the Borrower intends to prepay, which amount may be either:

(A) the total outstanding principal amount of such Advance; or

(B) an amount less than the total outstanding principal amount of such Advance (subject to subparagraph (g) of this paragraph 16) (any such amount being a "Portion").

(c) For each Prepayment Election in which the Borrower elects to have a particular amount of funds applied by FFB toward the prepayment of the outstanding principal of an Advance, the Borrower shall deliver to RUS written notification of the respective Prepayment Election, in the form of notification attached to this Bond as Annex 2-B (each such notification also being a "Prepayment Election Notice"), making reference to the Advance Identifier that FFB assigned to the respective Advance (as provided in the Bond Purchase Agreement) and specifying, among other things, the following:

(1) the particular date on which the Borrower intends to make the prepayment on such Advance (such date being the "Intended Prepayment Date" for such Advance), which date:

(A) must be a Business Day; and

(B) for any Advance for which the Borrower has selected a fixed premium prepayment/refinancing privilege that includes a 5-year No-Call Period, may not be a date that will occur before the applicable First Call Date; and

(2) the particular amount of funds that the Borrower elects to be applied by FFB toward a prepayment of the outstanding principal amount of such Advance.

(d) To be effective, a Prepayment Election Notice must be approved by RUS in writing, and such Prepayment Election Notice, together with written notification of RUS's approval thereof, must be received by FFB on or before the fifth Business Day before the date specified therein as the Intended Prepayment Date for the respective Advance or Portion.

(e) The Borrower shall pay to FFB a price for the prepayment of any Advance, any Portion of any Advance, or this Bond in its entirety (such price being the "Prepayment Price" for such Advance or Portion or this Bond, as the case may be) determined as follows:

(1) in the event that the Borrower elects to prepay the entire outstanding principal amount of any Advance,

then the Borrower shall pay to FFB a Prepayment Price for such Advance equal to the sum of:

(A) the entire outstanding principal amount of such Advance on the Intended Prepayment Date;

(B) all unpaid interest (and Late Charges, if any) accrued on such Advance through the Intended Prepayment Date; and

(C) the amount of the premium or discount credit (if any) that is required under the particular prepayment/refinancing privilege that applies to such Advance as provided in article 11 of the Bond Purchase Agreement;

(2) in the event that the Borrower elects to prepay a Portion of any Advance, then the Borrower shall pay to FFB a Prepayment Price for such Portion that would equal such Portion's pro rata share of the Prepayment Price that would be required for a prepayment of the entire outstanding principal amount of such Advance (determined in accordance with the principles of clause (1) of this subparagraph (e)); and

(3) in the event that the Borrower elects to prepay this Bond in its entirety, then the Borrower shall pay to FFB an amount equal to the sum of the Prepayment Prices for all outstanding Advances (determined in accordance with the principles of clause (1) of this subparagraph (e)).

(f) Payment of the Prepayment Price for any Advance, any Portion of any Advance, or this Bond in its entirety shall be due to FFB before 3:00 p.m. (Washington, DC, time) on the Intended Prepayment Date for such Advance or Portion or this Bond, as the case may be.

(g) Each prepayment of a Portion shall, as to the principal amount of such Portion, be subject to a minimum amount equal to \$100,000.00 of principal.

(h) The Borrower may make more than one Prepayment Election with respect to an Advance, each such Prepayment Election being made with respect to a different Portion of such Advance, until such time as the entire principal amount of such Advance is repaid in full.

17. Refinancings.

(a) The Borrower may elect to refinance the outstanding principal amount of any Advance (but not any Portion) in the manner, at the price, and subject to the limitations specified in this paragraph 17 (each such election being a "Refinancing Election").

(b) Except under the circumstances described in subparagraph (d) of this paragraph 17, the Borrower shall deliver to FFB (with a copy to RUS) written notification of each Refinancing Election, in the form of notification attached to this Bond as Annex 3-A (each such notification being a "Refinancing Election Notice"), making reference to the Advance Identifier that FFB assigned to the respective Advance (as provided in the Bond Purchase Agreement) and specifying, among other things, the following:

(1) the particular date on which the Borrower intends to refinance the respective Advance (such date being the "Intended Refinancing Date" for the respective Advance), which date:

(A) must be a Payment Date; and

(B) for any Advance for which the Borrower has selected a prepayment/refinancing privilege that includes a 5-year No-Call Period, may not be a date that will occur before the applicable First Call Date;

(2) the amount of the outstanding principal of the respective Advance that the Borrower elects to refinance (which may not be a Portion); and

(3) the Maturity Date that the Borrower selects to be in effect for such principal amount after such refinancing, which date may be:

(A) the Maturity Date that is in effect for such Advance immediately before such refinancing; or

(B) a new Maturity Date that the Borrower selects in connection with such Refinancing Election, provided that such new Maturity Date meets the criteria for Maturity Dates prescribed in section 7.3.1(a)(5) of the Bond Purchase Agreement (provided, however, that for purposes of selecting a new Maturity Date in connection with a Refinancing Election, each of the references to the "Requested Advance Date" for the respective Advance in section 7.3.1(a)(5)(D) of the Bond Purchase Agreement shall be deemed to be a reference to the "respective Refinancing Effective Date").

(c) To be effective, a Refinancing Election Notice must be received by FFB on or before the fifth Business Day before the date specified therein as the Intended Refinancing Date.

(d) In the event that either of the circumstances described in clause (1) or (2) of the next sentence shall have occurred, then a Refinancing Election Notice (in the form of notice attached to this Bond as Annex 3-B), to be effective, must first be delivered to RUS for approval and be approved by RUS in writing, and such Refinancing Election Notice, together with written notification of RUS's approval thereof, must be received by FFB on or before the fifth Business Day before the date specified therein to be the Intended Refinancing Date. RUS approval of a Refinancing Election Notice will be required under either of the following circumstances:

(1) (A) payment of any amount owing under this Bond is not made by the Borrower when and as due; (B) payment is made by RUS in accordance with the guarantee set forth at the end of this Bond; and (C) RUS delivers notice to both the Borrower and FFB advising each of them that each Refinancing Election Notice delivered by the Borrower after the date of such notice shall require the approval of RUS; or

(2) FFB at any time delivers written notice to both the Borrower and RUS advising each of them that each Refinancing Election Notice delivered by the Borrower after the date of such notice shall require the approval of RUS.

(e) The Borrower shall pay to FFB a price for the refinancing of any Advance (such price being the "Refinancing Price" for such Advance) equal to the sum of:

(1) all unpaid interest (and Late Charges, if any) accrued on such Advance through the Intended Refinancing Date; and

(2) the amount of the premium (if any) that is required under the particular prepayment/refinancing privilege that applies to such Advance as provided in article 11 of the Bond Purchase Agreement.

In the event that (A) the prepayment/refinancing privilege that applies to the particular Advance being refinanced is the privilege described in section 11.2 of the Bond Purchase Agreement, and (B) the Market Value Premium (or Discount) that is to be included in the Refinancing Price for such Advance is a discount on such Advance, then such discount shall be applied by FFB in the manner requested by the Borrower in a written notice delivered by the Borrower to FFB and approved by RUS in writing.

(f) Payment of the Refinancing Price for any Advance shall be due to FFB before 3:00 p.m. (Washington, DC, time) on the Intended Refinancing Date for such Advance.

(g) In the event that a Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB on or before the fifth Business Day before the Intended Refinancing Date specified therein, then the refinancing of the respective Advance shall become effective on such Intended Refinancing Date (in such event, the Intended Refinancing Date being the "Refinancing Effective Date"). In the event that a Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB after the fifth Business Day before the Intended Refinancing Date specified therein, then the refinancing of the respective Advance shall become effective on the fifth Business Day to occur after the day on which such Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB (in such event, the fifth Business Day to occur after the day on which such Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB being the "Refinancing Effective Date"), provided that the Borrower shall have paid to FFB, in addition to the Refinancing Price required under subparagraph (e) of this paragraph 17, the interest accrued from the Intended Refinancing Date through such Refinancing Effective Date.

(h) In the event that the Borrower makes a Refinancing Election with respect to any Advance, the basic interest rate for such Advance, from and after the respective Refinancing Effective Date, shall be the particular rate that is established by FFB, as of such Refinancing Effective Date, in accordance with the principles of paragraph 6(c) of this Bond.

(i) In the event that the Borrower makes a Refinancing Election with respect to any Advance, then the fee for such Advance, from and after the respective Refinancing Effective Date, shall be the particular fee that is assessed by FFB, as of such Refinancing Effective Date, with the new Advance Period being the period from the Refinancing Effective Date through the new Maturity Date, in accordance with the principles of paragraphs 9(b) and (c) of this Bond.

(j) In the event that (1) the Borrower makes a Refinancing Election with respect to any Advance, and (2) the Borrower selects as the Maturity Date for such refinanced Advance either (A) the Maturity Date that is in effect for such Advance immediately before such refinancing, and such Maturity Date will occur before the fifth anniversary of the respective Refinancing Effective Date, or (B) a new Maturity Date that will occur before the fifth anniversary of the respective Refinancing

Effective Date, then the prepayment/refinancing privilege described in section 11.2 of the Bond Purchase Agreement shall apply automatically to such Advance.

(k) In the event that (1) the Borrower makes a Refinancing Election with respect to any Advance, and (2) the Borrower selects as the Maturity Date for such refinanced Advance either (A) the Maturity Date that is in effect for such Advance immediately before such refinancing, and such Maturity Date will occur on or after the fifth anniversary of the respective Refinancing Effective Date, or (B) a new Maturity Date that will occur on or after the fifth anniversary of the respective Refinancing Effective Date, then the Borrower must elect a prepayment/refinancing privilege for such refinanced Advance from between the options described in sections 11.2 and 11.3 of the Bond Purchase Agreement (provided, however, that each of the references to the "Requested Advance Date for such Advance" in section 11.3 of the Bond Purchase Agreement shall be deemed to be a reference to the "respective Refinancing Effective Date"). The Refinancing Election Notice delivered by the Borrower in connection with each such Refinancing Election must also specify the particular prepayment/refinancing privilege that the Borrower elects for the respective refinanced Advance. In the event that the Borrower elects for any such refinanced Advance a prepayment/refinancing privilege described in section 11.3 of the Bond Purchase Agreement, then the interest rate for such refinanced Advance, from and after the respective Refinancing Effective Date, shall include a price (expressed in terms of a basis point increment to the applicable basic interest rate) for the particular prepayment/refinancing privilege that the Borrower elects, which increment shall be established by FFB, as of such Refinancing Effective Date, in accordance with the principles of paragraph 6(d) of this Bond.

(l) In the event that the Borrower makes a Refinancing Election with respect to any Advance, then the outstanding principal amount of such Advance, after the respective Refinancing Effective Date, shall be due and payable in accordance with this subparagraph (l).

(1) With respect to each Advance to which either the "equal principal installments" method or the "graduated principal installments" method for the repayment of principal applies, the amount of the quarterly principal installments that will be due after the respective Refinancing Effective Date shall be equal to the amount of the quarterly installments of equal principal or graduated principal, as the case may be, that were due in accordance with the principal repayment schedule that applied to such Advance immediately before the respective Refinancing Effective Date.

(2) With respect to each Advance to which the "level debt service" method for the repayment of principal

applies, the amount of the level quarterly payments consisting of a principal installment and accrued interest that will be due after the respective Refinancing Effective Date shall be newly computed so that the amount of each such quarterly payment consisting of a principal installment and accrued interest (taking into account the new interest rate that applies to such Advance from and after such Refinancing Effective Date) shall be substantially equal to the amount of every other quarterly payment consisting of a principal installment and accrued interest, and shall be sufficient, when added to all other such newly-computed level quarterly payments consisting of a principal installment and accrued interest, to repay the outstanding principal amount of such refinanced Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such refinanced Advance that will occur before the Final Maturity Date).

(3) The quarterly installments of equal principal or graduated principal, or the newly-computed level quarterly payments consisting of a principal installment and accrued interest, as the case may be, shall be due beginning on the first Payment Date to occur after the respective Refinancing Effective Date, and shall be due on each Payment Date to occur thereafter up through and including the earlier to occur of (A) the new Maturity Date that the Borrower selected for such refinanced Advance, on which date the entire unpaid principal amount of such refinanced Advance shall also be payable, subject to Maturity Extensions (as provided in paragraph 15 of this Note) if the new Maturity Date is an Interim Maturity Date, or (B) the date on which the entire principal amount of such refinanced Advance, and all unpaid interest (and Late Charges, if any) accrued thereon, are paid.

(m) The Borrower may make more than one Refinancing Election with respect to any Advance.

18. Rescission of Prepayment Elections and Refinancing Elections; Late Charges for Late Payments.

(a) The Borrower may rescind any Prepayment Election made in accordance with paragraph 16 of this Bond or any Refinancing Election made in accordance with paragraph 17 of this Bond, but only in accordance with this paragraph 18.

(b) The Borrower shall deliver to both FFB and RUS written notification of each rescission of a Prepayment Election or a Refinancing Election (each such notification being an "Election Rescission Notice") specifying the particular Advance for which the Borrower wishes to rescind such Prepayment Election or Refinancing Election, as the case may be, which specification must make reference to both:

(1) the particular Advance Identifier that FFB assigned to such Advance (as provided in the Bond Purchase Agreement); and

(2) the RUS account number for such Advance.

The Election Rescission Notice may be delivered by facsimile transmission to FFB at (202) 622-0707 and to RUS at (202) 720-1401, or at such other facsimile number or numbers as either FFB or RUS may from time to time communicate to the Borrower.

(c) To be effective, an Election Rescission Notice must be received by both FFB and RUS not later than 3:30 p.m. (Washington, DC, time) on the second Business Day before the Intended Prepayment Date or the Intended Refinancing Date, as the case may be.

(d) In the event that the Borrower (1) makes a Prepayment Election in accordance with paragraph 16 of this Bond or a Refinancing Election in accordance with paragraph 17 of this Bond; (2) does not rescind such Prepayment Election or Refinancing Election, as the case may be, in accordance with this paragraph 18; and (3) does not, before 3:00 p.m. (Washington, DC, time) on the Intended Prepayment Date or Intended Refinancing Date, as the case may be, pay to FFB the Prepayment Price described in paragraph 16(e) of this Bond or Refinancing Price described in paragraph 17(e) of this Bond, as the case may be, then a Late Charge shall accrue on any such unpaid amount from the Intended Prepayment Date or Intended Refinancing Date, as the case may be, to the date on which payment is made, computed in accordance with the principles of paragraph 11 of this Bond.

19. Amendments to Bond.

To the extent not inconsistent with applicable law, this Bond, for so long as FFB or its agent is the holder thereof, shall be subject to modification by such amendments, extensions, and renewals as may be agreed upon from time to time by FFB and the Borrower, with the approval of RUS.

20. Certain Waivers.

The Borrower hereby waives any requirement for presentment, protest, or other demand or notice with respect to this Bond.

21. Bond Effective Until Paid.

This Bond shall continue in full force and effect until all principal outstanding hereunder, all interest accrued hereunder, all premiums (if any) payable under paragraphs 16 and 17 of this Bond, all Late Charges (if any) payable under paragraphs 11 and

18 of this Bond, and all fees (if any) payable under paragraph 9 of this Bond have been paid in full.

22. RUS Guarantee of Bond.

Upon execution of the guarantee set forth at the end of this Bond (the "RUS Guarantee"), the payment by the Borrower of all amounts due and payable under this Bond, when and as due, shall be guaranteed by the United States of America, acting through RUS, pursuant to the Rural Electrification Act of 1936, as amended (codified at 7 U.S.C. § 901 et seq.). In consideration of the RUS Guarantee, the Borrower promises to RUS to make all payments due under this Bond when and as due.

23. Pledge Agreement.

This Bond is one of several Bonds referred to in the Pledge Agreement, wherein the Borrower made provision for the pledge and grant of a security interest in, under certain circumstances described therein, certain property of the Borrower, described therein, to secure the payment of and performance of certain obligations owed to RUS, as set forth in the Pledge Agreement.

24. Guarantee Payments; Reimbursement.

If RUS makes any payment, pursuant to the RUS Guarantee, of any amount due and payable under this Bond, when and as due, each and every such payment so made shall be deemed to be a payment hereunder; provided, however, that no payment by RUS pursuant to the RUS Guarantee shall be considered a payment for purposes of determining the existence of a failure by the Borrower to perform its obligation to RUS to make all payments under this Bond when and as due. RUS shall have any rights by way of subrogation, agreement or otherwise which arise as a result of such payment pursuant to the RUS Guarantee.

25. Default and Enforcement.

In case of a default by the Borrower under this Bond or the occurrence of an event of default under the Bond Guarantee Agreement, then, in consideration of the obligation of RUS under the RUS Guarantee, in that event, to make payments to FFB as provided in this Bond, RUS, in its own name, shall have all rights, powers, privileges, and remedies of the holder of this Bond, in accordance with the terms of this Bond, the Bond Guarantee Agreement, and the Pledge Agreement, including, without limitation, the right to enforce or collect all or any part of the obligation of the Borrower under this Bond or arising as a result of the RUS Guarantee, to file proofs of claim or any other document in any bankruptcy, insolvency, or other judicial proceeding, and to vote such proofs of claim.

26. Acceleration.

The entire unpaid principal amount of this Bond, and all interest thereon, may be declared, and upon such declaration shall become, due and payable to RUS, under the circumstances described, and in the manner and with the effect provided, in the Bond Guarantee Agreement.

IN WITNESS WHEREOF, the Borrower has caused this Bond to be signed in its corporate name and its corporate seal to be hereunder affixed and attested by its officers thereunto duly authorized, all as of the day and year first above written.

**NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION
(the "Borrower")**

BY:

Signature: _____

Print Name: Sheldon C. Petersen

Title: Governor and
Chief Executive Officer

ATTEST:

(SEAL)

Signature: _____

Print Name: Roberta B. Aronson

Title: Assistant Secretary-Treasurer

ANNEX 1-A
TO
FUTURE ADVANCE BOND
FORM
OF
MATURITY EXTENSION ELECTION NOTICE

MATURITY EXTENSION ELECTION NOTICE

PART 1 OF THIS FORM HAS BEEN COMPLETED BY RUS. THE BORROWER SHOULD COMPLETE PART 2 OF THIS FORM ONLY FOR THOSE PARTICULAR ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WITH RESPECT TO WHICH THE BORROWER ELECTS TO HAVE THE MATURITY EXTENDED TO A NEW MATURITY DATE OTHER THAN THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

*Office of Portfolio Analysis and Risk Assessment
Telephone: (202) 205-86634*

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO FFB AT THE FOLLOWING ADDRESS:

*Director of Lending
Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, NW
Washington, DC 20220*

*Telephone: (202) 622-2470
Facsimile: (202) 622-0707*

DELIVER A COPY OF THIS FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

*Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1568, Room 0226-S
1400 Independence Avenue, SW
Washington, DC 20250*

*Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst*

*Telephone: (202) 205-8663
Facsimile: (844) 749-0736*

THE BORROWER SHOULD NOT COMPLETE THIS FORM OR DELIVER IT TO FFB IF THE BORROWER DESIRES TO HAVE THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

IF THE BORROWER DOES NOT RETURN THIS FORM TO FFB, THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WILL BE EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

MATURITY EXTENSION ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier: _____

RUS Bond Number: _____

Part 1 (To be completed by RUS):

Each of the advances of funds ("Advances") identified in this Part 1 will mature on _____ (the "Maturity Date").

FFB ADVANCE IDENTIFIER	RUS ACCOUNT NUMBER	ORIGINAL ADVANCE DATE	ORIGINAL ADVANCE AMOUNT	OUTSTANDING PRINCIPAL AMOUNT
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____

Part 2:

Notice is hereby given to FFB (and RUS) of the Borrower's election that the maturity of each of the Advances identified in this Part 2 be extended as follows:

FFB ADVANCE IDENTIFIER ¹	OPTIONAL PRINCIPAL AMOUNT ²	AMOUNT OF PRINCIPAL TO BE EXTENDED ³	NEW MATURITY DATE ⁴	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE ⁵	5-YEAR NO-CALL PERIOD ⁶	PREMIUM OPTION ⁷
_____	\$	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹Complete 1 line in Part 2 for each Advance identified in Part 1 with respect to which the Borrower elects to have the maturity extended to a new Maturity Date other than the next Payment Date. Insert the FFB Advance Identifier that FFB assigned to the respective Advance for each Advance identified in Part 1 with respect to which the Borrower elects to have the maturity so extended.

²The Borrower has the option of making a payment of principal on the Maturity Date without any premium being charged. For each Advance, insert the amount of any such optional principal payment that will be paid on the Maturity Date.

³For each Advance, insert the amount of principal for which the maturity is to be extended. That amount must equal the difference between the outstanding principal amount for the respective Advance, as specified in Part 1, and the optional principal payment (if any) for such Advance inserted by the Borrower in Part 2.

⁴For each Advance, insert the particular calendar date that the Borrower selects to be the new Maturity Date to be in effect for the respective Advance after the Maturity Extension, which new Maturity Date must meet all the criteria for Maturity Dates specified in section 7.3.1(a)(5) of the Bond Purchase Agreement referred to in the Bond.

⁵Select 1 of the following 2 types of prepayment/refinancing privilege for an Advance only if the new Maturity Date selected for such Advance will occur on or after the fifth anniversary of the effective date of this Maturity Extension. The 2 types of prepayment/refinancing privilege are: the market value premium (or discount) privilege ("M") and a fixed premium privilege ("F"). Insert in the box the letter-symbol for the particular type of prepayment/refinancing privilege elected.

⁶Select 1 of the following 2 no-call period options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 2 no-call period options are: yes ("Y"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege include a 5-year period during which the Advance will not be eligible for prepayment or refinancing, and no ("N"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege not include any such a 5-year no-call period. Insert in the box the letter-symbol for the particular no-call period option elected.

⁷Select 1 of the following 3 premium options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 3 premium options are: a 10% premium declining over 10 years ("X"), a 5% premium declining over 5 years ("V"), and par (no premium) ("P"). Insert in the box the letter-symbol for the particular premium option selected.

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Maturity Extension Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE
CORPORATION
(the "Borrower")

By: _____

Name: _____

Title: _____

Date: _____

ANNEX 1-B

TO

FUTURE ADVANCE BOND

FORM

OF

MATURITY EXTENSION ELECTION NOTICE

(RUS APPROVAL REQUIRED)

**MATURITY EXTENSION ELECTION NOTICE
(RUS APPROVAL REQUIRED)**

PART 1 OF THIS FORM HAS BEEN COMPLETED BY RUS. THE BORROWER SHOULD COMPLETE PART 2 OF THIS FORM ONLY FOR THOSE PARTICULAR ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WITH RESPECT TO WHICH THE BORROWER ELECTS TO HAVE THE MATURITY EXTENDED TO A NEW MATURITY DATE OTHER THAN THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

*Office of Portfolio Analysis and Risk Assessment
Telephone: (202) 205-8663*

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

*Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1568, Room 0226-S
1400 Independence Avenue, SW
Washington, DC 20250*

*Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst*

*Telephone: (202) 205-8663
Facsimile: (844) 749-0736*

THE BORROWER SHOULD NOT COMPLETE THIS FORM OR DELIVER IT TO RUS IF THE BORROWER DESIRES TO HAVE THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

IF THE BORROWER DOES NOT RETURN THIS FORM TO RUS, THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WILL BE EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

MATURITY EXTENSION ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier: _____

RUS Bond Number: _____

Part 1 (To be completed by RUS):

Each of the advances of funds ("Advances") identified in this Part 1 will mature on _____ (the "Maturity Date").

FFB ADVANCE IDENTIFIER	RUS ACCOUNT NUMBER	ORIGINAL ADVANCE DATE	ORIGINAL ADVANCE AMOUNT	OUTSTANDING PRINCIPAL AMOUNT
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____

Part 2:

Notice is hereby given to FFB (and RUS) of the Borrower's election that the maturity of each of the Advances identified in this Part 2 be extended as follows:

FFB ADVANCE IDENTIFIER¹	OPTIONAL PRINCIPAL AMOUNT²	AMOUNT OF PRINCIPAL TO BE EXTENDED³	NEW MATURITY DATE⁴	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE⁵	5-YEAR NO-CALL PERIOD⁶	PREMIUM OPTION⁷
	\$			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	\$			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	\$			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	\$			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹Complete 1 line in Part 2 for each Advance identified in Part 1 with respect to which the Borrower elects to have the maturity extended to a new Maturity Date other than the next Payment Date. Insert the FFB Advance Identifier that FFB assigned to the respective Advance for each Advance identified in Part 1 with respect to which the Borrower elects to have the maturity so extended.

²The Borrower has the option of making a payment of principal on the Maturity Date without any premium being charged. For each Advance, insert the amount of any such optional principal payment that will be paid on the Maturity Date.

³For each Advance, insert the amount of principal for which the maturity is to be extended. That amount must equal the difference between the outstanding principal amount for the respective Advance, as specified in Part 1, and the optional principal payment (if any) for such Advance inserted by the Borrower in Part 2.

⁴For each Advance, insert the particular calendar date that the Borrower selects to be the new Maturity Date" to be in effect for the respective Advance after the Maturity Extension, which new Maturity Date must meet all the criteria for Maturity Dates specified in section 7.3.1(a)(5) of the Bond Purchase Agreement referred to in the Bond.

⁵Select 1 of the following 2 types of prepayment/refinancing privilege for an Advance only if the new Maturity Date selected for such Advance will occur on or after the fifth anniversary of the effective date of this Maturity Extension. The 2 types of prepayment/refinancing privilege are: the market value premium (or discount) privilege ("M") and a fixed premium privilege ("F"). Insert in the box the letter-symbol for the particular type of prepayment/refinancing privilege elected.

⁶Select 1 of the following 2 no-call period options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 2 no-call period options are: yes ("Y"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege include a 5-year period during which the Advance will not be eligible for prepayment or refinancing, and no ("N"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege not include any such a 5-year no-call period. Insert in the box the letter-symbol for the particular no-call period option elected.

⁷Select 1 of the following 3 premium options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 3 premium options are: a 10% premium declining over 10 years ("X"), a 5% premium declining over 5 years ("V"), and par (no premium) ("P"). Insert in the box the letter-symbol for the particular premium option selected.

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Maturity Extension Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE
FINANCE CORPORATION
(the "Borrower")

By: _____

Name: _____

Title: _____

Date: _____

**NOTICE OF RUS APPROVAL OF
MATURITY EXTENSION ELECTION NOTICE**

Notice is hereby given to FFB that the preceding Maturity Extension Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: _____

Name: _____

Title: _____

Date: _____

ANNEX 2-A
TO
FUTURE ADVANCE BOND

FORM
OF
PREPAYMENT ELECTION NOTICE
SPECIFIED PRINCIPAL AMOUNT(S)
(RUS APPROVAL REQUIRED)

**PREPAYMENT ELECTION NOTICE
SPECIFIED PRINCIPAL AMOUNT(S)
(RUS APPROVAL REQUIRED)**

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

*Office of Portfolio Analysis and Risk Assessment
Telephone: (202) 205-8663*

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

*Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1568, Room 0226-S
1400 Independence Avenue, SW
Washington, DC 20250*

*Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst*

*Telephone: (202) 205-8663
Facsimile: (844) 749-0736*

**PREPAYMENT ELECTION NOTICE
SPECIFIED PRINCIPAL AMOUNT(S)**

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier:

_____ 1

¹Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to prepay all or a portion of the outstanding principal amount of the advances of funds ("Advances") identified in this Part 1:

FFB ADVANCE IDENTIFIER²	RUS ACCOUNT NUMBER³	ORIGINAL ADVANCE DATE⁴	ORIGINAL ADVANCE AMOUNT⁵	OUTSTANDING PRINCIPAL AMOUNT⁶
			\$	\$
			\$	\$
			\$	\$

Part 2:

The Borrower intends to prepay all or a portion of the outstanding principal amount of each of the Advances identified in Part 1 on the following date (such date being the "Intended Prepayment Date"):

7

²Complete 1 line in Part 1 for each Advance that the Borrower intends to prepay in whole or in part. For each Advance, insert the FFB Advance Identifier for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

³For each Advance, insert the RUS Account Number for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

⁴For each Advance, insert the date on which FFB made the respective Advance to the Borrower.

⁵For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.

⁶Insert the outstanding principal amount of each Advance specified in Part 1 as of the day before the date on which the Borrower intends to make a prepayment on the respective Advances.

⁷Insert the particular calendar date that the Borrower selects to be the date on which the Borrower intends to prepay the Advances specified in Part 1, which date must meet the criteria for Intended Prepayment Date prescribed in paragraph 16(b)(1) of the Bond.

Part 3:

For each of the Advances identified in Part 1, the respective amount of principal that the Borrower intends to prepay on the Intended Prepayment Date is as follows:

FFB ADVANCE IDENTIFIER⁸	AMOUNT OF PRINCIPAL TO BE PREPAID⁹
_____	_____
_____	\$ _____
_____	\$ _____
_____	\$ _____

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Prepayment Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE
FINANCE CORPORATION
(the "Borrower")

By: _____

Name: _____

Title: _____

Date: _____

⁸Complete 1 line in Part 3 for each Advance identified in Part 1.

⁹For each Advance, insert the amount of principal that will be prepaid on the Intended Prepayment Date.

**NOTICE OF RUS APPROVAL OF
PREPAYMENT ELECTION NOTICE**

Notice is hereby given to FFB that the preceding Prepayment Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: _____

Name: _____

Title: _____

Date: _____

ANNEX 2-B

TO

FUTURE ADVANCE BOND

FORM

OF

PREPAYMENT ELECTION NOTICE

FIXED SUM TO BE APPLIED

(RUS APPROVAL REQUIRED)

**PREPAYMENT ELECTION NOTICE
FIXED SUM TO BE APPLIED
(RUS APPROVAL REQUIRED)**

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

*Office of Portfolio Management and Risk Assessment
Telephone: (202) 205-8663*

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

*Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1568, Room 0226-S
1400 Independence Avenue, SW
Washington, DC 20250*

*Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst*

*Telephone: (202) 205-8663
Facsimile: (844) 749-0736*

**PREPAYMENT ELECTION NOTICE
FIXED SUM TO BE APPLIED**

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier: _____ ¹

¹Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to prepay all or a portion of the outstanding principal amount of the advances of funds ("Advances") identified in this Part 1:

FFB ADVANCE IDENTIFIER²	RUS ACCOUNT NUMBER³	ORIGINAL ADVANCE DATE⁴	ORIGINAL ADVANCE AMOUNT⁵	OUTSTANDING PRINCIPAL AMOUNT⁶
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____

Part 2:

The Borrower intends to prepay all or a portion of the outstanding principal amount of the Advances identified in Part 1 on the following date (such date being the "Intended Prepayment Date"):

_____ ⁷

²Complete 1 line in Part 1 for each Advance that the Borrower intends to prepay in whole or in part. For each Advance, insert the FFB Advance Identifier for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

³For each Advance, insert the RUS Account Number for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

⁴For each Advance, insert the date on which FFB made the respective Advance to the Borrower.

⁵For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.

⁶Insert the outstanding principal amount of each Advance specified in Part 1 as of the day before the date on which the Borrower intends to make a prepayment on the respective Advances.

⁷Insert the particular calendar date that the Borrower selects to be the date on which the Borrower intends to prepay the Advances specified in Part 1, which date must meet the criteria for Intended Prepayment Date prescribed in paragraph 16(b)(1) of the Bond.

Part 3:

The Borrower elects to have the following amount of funds applied by FFB toward a prepayment of the outstanding principal amount of the Advances identified in Part 1, in the order in which they appear in Part 1:

8

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Prepayment Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE
FINANCE CORPORATION
(the "Borrower")

By: _____

Name: _____

Title: _____

Date: _____

⁸Insert the particular amount of funds that the Borrower elects to be applied by FFB toward a prepayment of the outstanding principal amount of the Advances identified in Part 1, in the order in which they appear in Part 1.

**NOTICE OF RUS APPROVAL OF
PREPAYMENT ELECTION NOTICE**

Notice is hereby given to FFB that the preceding Prepayment Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: _____

Name: _____

Title: _____

Date: _____

ANNEX 3-A
TO
FUTURE ADVANCE BOND

FORM
OF
REFINANCING ELECTION NOTICE

REFINANCING ELECTION NOTICE

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of Portfolio Management and Risk Assessment
Telephone: (202) 205-8663

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO FFB AT THE FOLLOWING ADDRESS:

Director of Lending
Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, NW
Washington, DC 20220

Telephone: (202) 622-2470
Facsimile: (202) 622-0707

DELIVER A COPY OF THIS FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1568, Room 0226-S
1400 Independence Avenue, SW
Washington, DC 20250

Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst

Telephone: (202) 205-8663
Facsimile: (844) 749-0736

REFINANCING ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Corporation

FFB Bond Identifier: _____¹

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to refinance the outstanding principal amount of each of the advances of funds ("Advances") identified in this Part 1:

FFB ADVANCE IDENTIFIER ²	RUS ACCOUNT NUMBER ³	ORIGINAL ADVANCE DATE ⁴	ORIGINAL ADVANCE AMOUNT ⁵	OUTSTANDING PRINCIPAL AMOUNT ⁶
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____

Part 2:

The Borrower intends to refinance the outstanding principal amount of each of the Advances identified in Part 1 on the following date (such date being the "Intended Refinancing Date"):

_____⁷

¹Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

²Complete 1 line in Part 1 for each Advance that the Borrower intends to refinance. For each Advance, insert the FFB Advance Identifier for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

³For each Advance, insert the RUS Account Number for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

⁴For each Advance, insert the date on which FFB made the respective Advance to the Borrower.

⁵For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.

⁶For each Advance, insert the outstanding principal amount of the respective Advance as of the day before the intended refinancing.

⁷Insert the particular calendar date that the Borrower selects to be the date on which the Borrower intends to refinance the Advances specified in Part 1, which date must meet the criteria for Intended Refinancing Date prescribed in paragraph 17(b)(1) of the Bond.

Part 3:

Notice is hereby given to FFB (and RUS) of the Borrower's election that each of the Advances identified in Part 1 is to be refinanced as follows:

FFB ADVANCE IDENTIFIER ⁸	AMOUNT OF PRINCIPAL TO BE REFINANCED ⁹	NEW MATURITY DATE ¹⁰	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE ¹¹	5-YEAR NO-CALL PERIOD ¹²	PREMIUM OPTION ¹³
_____	\$ _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$ _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$ _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$ _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

⁸Complete 1 line in Part 3 for each Advance identified in Part 1 as being an Advance the Borrower elects to refinance. Insert the FFB Advance Identifier that FFB assigned to the respective Advance.

⁹For each Advance, insert the amount of principal that is to be refinanced. This will be the same amount as the outstanding principal amount of the respective Advance inserted in Part 1.

¹⁰For each Advance, insert the particular calendar date that the Borrower selects to be the new Maturity Date to be in effect for the respective Advance after the refinancing, which new Maturity Date must meet all the criteria for Maturity Dates specified in section 7.3.1(a)(5) of the Bond Purchase Agreement referred to in the Bond.

¹¹Elect 1 of the following 2 types of prepayment/refinancing privilege for an Advance only if the new Maturity Date selected for such Advance will occur on or after the fifth anniversary of the effective date of this Maturity Extension. The 2 types of prepayment/refinancing privilege are: the market value premium (or discount) privilege ("M") and a fixed premium privilege ("F"). Insert in the box the letter-symbol for the particular type of prepayment/refinancing privilege elected.

¹²Elect 1 of the following 2 no-call period options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 2 no-call period options are: yes ("Y"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege include a 5-year period during which the Advance will not be eligible for prepayment or refinancing, and no ("N"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege not include any such a 5-year no-call period. Insert in the box the letter-symbol for the particular no-call period option elected.

¹³Select 1 of the following 3 premium options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 3 premium options are: a 10% premium declining over 10 years ("X"), a 5% premium declining over 5 years ("V"), and par (no premium) ("P"). Insert in the box the letter-symbol for the particular premium option selected.

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Refinancing Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE
FINANCE CORPORATION
(the "Borrower")

By: _____

Name: _____

Title: _____

Date: _____

ANNEX 3-B

TO

FUTURE ADVANCE BOND

FORM

OF

REFINANCING ELECTION NOTICE

(RUS APPROVAL REQUIRED)

REFINANCING ELECTION NOTICE (RUS APPROVAL REQUIRED)

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

*Office of Portfolio Management and Risk Assessment
Telephone: (202) 205-8663*

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

*Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1568, Room 0226-S
1400 Independence Avenue, SW
Washington, DC 20250*

*Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst*

*Telephone: (202) 205-8663
Facsimile: (844) 749-0736*

REFINANCING ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Corporation

FFB Bond Identifier: _____¹

¹Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to refinance the outstanding principal amount of each of the advances of funds ("Advances") identified in this Part 1:

FFB ADVANCE IDENTIFIER²	RUS ACCOUNT NUMBER³	ORIGINAL ADVANCE DATE⁴	ORIGINAL ADVANCE AMOUNT⁵	OUTSTANDING PRINCIPAL AMOUNT⁶
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____

Part 2:

The Borrower intends to refinance the outstanding principal amount of each of the Advances identified in Part 1 on the following date (such date being the "Intended Refinancing Date"):

_____ ⁷

²Complete 1 line in Part 1 for each Advance that the Borrower intends to refinance. For each Advance, insert the FFB Advance Identifier for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

³For each Advance, insert the RUS Account Number for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

⁴For each Advance, insert the date on which FFB made the respective Advance to the Borrower.

⁵For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.

⁶For each Advance, insert the outstanding principal amount of the respective Advance as of the day before the intended refinancing.

⁷Insert the particular calendar date that the Borrower selects to be the date on which the Borrower intends to refinance the Advances specified in Part 1, which date must meet the criteria for Intended Refinancing Date prescribed in paragraph 17(b)(1) of the Bond.

Part 3:

Notice is hereby given to FFB (and RUS) of the Borrower's election that each of the Advances identified in Part 1 is to be refinanced as follows:

FFB ADVANCE IDENTIFIER ⁸	AMOUNT OF PRINCIPAL TO BE REFINANCED ⁹	NEW MATURITY DATE ¹⁰	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE ¹¹	5-YEAR NO-CALL PERIOD ¹²	PREMIUM OPTION ¹³
	\$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	\$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	\$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	\$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

⁸Complete 1 line in Part 3 for each Advance identified in Part 1 as being an Advance the Borrower elects to refinance. Insert the FFB Advance Identifier that FFB assigned to the respective Advance.

⁹For each Advance, insert the amount of principal that is to be refinanced. This will be the same amount as the outstanding principal amount of the respective Advance inserted in Part 1.

¹⁰For each Advance, insert the particular calendar date that the Borrower selects to be the new Maturity Date" to be in effect for the respective Advance after the refinancing, which new Maturity Date must meet all the criteria for Maturity Dates specified in section 7.3.1(a)(5) of the Bond Purchase Agreement referred to in the Bond.

¹¹Elect 1 of the following 2 types of prepayment/refinancing privilege for an Advance only if the new Maturity Date selected for such Advance will occur on or after the fifth anniversary of the effective date of this Maturity Extension. The 2 types of prepayment/refinancing privilege are: the market value premium (or discount) privilege ("M") and a fixed premium privilege ("F"). Insert in the box the letter-symbol for the particular type of prepayment/refinancing privilege elected.

¹²Elect 1 of the following 2 no-call period options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 2 no-call period options are: yes ("Y"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege include a 5-year period during which the Advance will not be eligible for prepayment or refinancing, and no ("N"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege not include any such a 5-year no-call period. Insert in the box the letter-symbol for the particular no-call period option elected.

¹³Select 1 of the following 3 premium options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 3 premium options are: a 10% premium declining over 10 years ("X"), a 5% premium declining over 5 years ("V"), and par (no premium) ("P"). Insert in the box the letter-symbol for the particular premium option selected.

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Refinancing Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE
FINANCE CORPORATION
(the "Borrower")

By: _____

Name: _____

Title: _____

Date: _____

**NOTICE OF RUS APPROVAL OF
REFINANCING ELECTION NOTICE**

Notice is hereby given to FFB that the preceding Refinancing Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: _____

Name: _____

Title: _____

Date: _____

EXHIBIT C

TO

BOND PURCHASE AGREEMENT

FORM

OF

CERTIFICATE SPECIFYING AUTHORIZED BORROWER OFFICIALS

**CERTIFICATE SPECIFYING
AUTHORIZED BORROWER OFFICIALS**

Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, NW
Washington, DC 20220

Reference is made to the Series N Bond Purchase Agreement dated as of November 15, 2018 (the "Bond Purchase Agreement"), by and among the Federal Financing Bank ("FFB"), National Rural Utilities Cooperative Finance Corporation (the "Borrower"), and the Administrator of the Rural Utilities Service ("RUS"). Capitalized terms used herein and not defined herein shall have the respective meanings ascribed to them in the Bond Purchase Agreement.

This Certificate Specifying Authorized Borrower Officials is delivered to FFB pursuant to section 4.1(c) of the Bond Purchase Agreement.

The undersigned, on behalf of the Borrower, hereby certifies that:

- a. each of the individuals named below is the duly qualified and incumbent official of the Borrower holding the position title set out opposite the respective individual's name;
- b. each of the individuals named below is authorized to execute and deliver Advance Requests from time to time on behalf of the Borrower; and
- c. the signature of each such individual set out opposite the respective individual's name and title is the genuine signature of such individual:

<u>Name</u>	<u>Title</u>	<u>Signature</u>
Sheldon C. Petersen	Governor and Chief Executive Officer	_____

J. Andrew Don	Senior Vice President and Chief Financial Officer	_____
Roberta B. Aronson	Senior Vice President, General Counsel and Assistant Secretary- Treasurer	_____
Brad Captain	Senior Vice President, Corporate Relations and Assistant Secretary-Treasurer	_____

The undersigned certifies that the undersigned has been given the authority to execute this Certificate Specifying Authorized Borrower Officials on behalf of the Borrower and to deliver it to FFB, and that this authority is valid and in full force and effect on the date hereof.

IN WITNESS WHEREOF, the undersigned has executed this Certificate Specifying Authorized Borrower Officials and caused it to be delivered to FFB.

NATIONAL RURAL UTILITIES COOPERATIVE
FINANCE CORPORATION
(the "Borrower")

By: _____

Name: Roberta B. Aronson

Title: Assistant Secretary-Treasurer

Date: November 15, 2018

EXHIBIT D
TO
BOND PURCHASE AGREEMENT

FORM
OF
CERTIFICATE SPECIFYING AUTHORIZED RUS OFFICIALS

**CERTIFICATE SPECIFYING
AUTHORIZED RUS OFFICIALS**

Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, NW
Washington, DC 20220

Reference is made to the Series N Bond Purchase Agreement dated as of November 15, 2018 (the "Bond Purchase Agreement"), by and among the Federal Financing Bank ("FFB"), National Rural Utilities Cooperative Finance Corporation (the "Borrower"), and the Administrator of the Rural Utilities Service ("RUS"). Capitalized terms used herein and not defined herein shall have the respective meanings ascribed to them in the Bond Purchase Agreement.

This Certificate Specifying Authorized RUS Officials is delivered to FFB pursuant to section 4.2 or 13.1 of the Bond Purchase Agreement.

1. The undersigned, on behalf of RUS, hereby certifies that:
 - a. each of the individuals named below is the duly qualified and incumbent official of RUS holding the position title set out opposite the respective individual's name;
 - b. each of the individuals named below is authorized to execute and deliver Advance Request Approval Notices from time to time on behalf of RUS; and
 - c. the signature of each such individual set out opposite the respective individual's name and title is the genuine signature of such individual:

Christopher A. McLean	Acting Administrator Rural Utilities Service	_____
James F. Elliott	Deputy Assistant Administrator Electric Program	_____

2. The undersigned, on behalf of RUS, hereby certifies that:
 - a. each of the individuals named below is the duly qualified and incumbent official of RUS holding the position title set out opposite the respective individual's name;

b. each of the individuals named below is authorized to confirm telephonically the authenticity of Advance Request Approval Notices from time to time on behalf of RUS; and

c. the telephone number of each such individual is set out opposite the respective individual's name and title:

<u>Name</u>	<u>Title</u>	<u>Telephone Number</u>
Christopher A. McLean	Acting Administrator Rural Utilities Service	(202) 720-9545
James F. Elliott	Deputy Assistant Administrator Electric Program	(202) 720-9546

IN WITNESS WHEREOF, the undersigned has executed this Certificate Specifying Authorized RUS Officials and caused it to be delivered to FFB.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,

By: _____

Name: Christopher A. McLean

Title: Acting Administrator

Date: November 15, 2018

EXHIBIT E

TO

BOND PURCHASE AGREEMENT

FORM

OF

OPINION OF BORROWER'S COUNSEL

re:

BORROWER'S INSTRUMENTS

November 15, 2018

Administrator
Rural Utilities Service
United States Department of Agriculture
1400 Independence Avenue, S.W.
Washington, DC 20250

Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, N.W.
Washington, DC 20220

Gentlemen:

I am delivering this opinion as General Counsel ("Counsel") of National Rural Utilities Cooperative Finance Corporation, a District of Columbia cooperative association ("Borrower"), and am familiar with matters pertaining to the loan to Borrower in the principal amount of \$750,000,000.00, provided for in the Series N Bond Purchase Agreement ("Bond Purchase Agreement"), dated as of November 15, 2018 made by and among Borrower, the Federal Financing Bank ("FFB"), and the United States of America, acting through the Rural Utilities Service, a Rural Development agency of the United States Department of Agriculture ("RUS"), which loan has been guaranteed by RUS.

I have examined such corporate records and proceedings of Borrower, and such other documents as I have deemed necessary as a basis for the opinions hereinafter expressed.

I have also examined the following documents as executed and delivered: (a) the Bond Purchase Agreement, (b) the Future Advance Bond, dated as of November 15, 2018, in the maximum principal amount of \$750,000,000.00 ("Guaranteed Bond"), said Guaranteed Bond payable to FFB, (c) the Fifth Amended, Restated and Consolidated Bond Guarantee Agreement, dated as of November 15, 2018, made by and between RUS and Borrower, ("Guarantee Agreement"), (d) the Fifth Amended, Restated and Consolidated Pledge Agreement, dated as of November 15, 2018, made by and among Borrower, RUS and U.S. Bank National Association ("Pledge Agreement"), and (e) the Series N Reimbursement Note, dated as of November 15, 2018, issued by Borrower to RUS ("Reimbursement Note"). The documents described in items (a) through (e) above are collectively referred to herein as the "Bond Documents."

Based on the foregoing, but subject to the assumptions, exceptions, qualifications and limitations hereinafter expressed, I am of the opinion that:

(1) The Borrower has been duly incorporated and is validly existing as a member-owned cooperative association in good standing under the laws of the District of Columbia with corporate power and authority to execute and perform its obligations under the Bond Documents.

(2) The Bond Documents have been duly authorized, executed and delivered by the Borrower, and such documents constitute the legal, valid and binding agreements of the Borrower, enforceable against the Borrower in accordance with their respective terms subject to (a) applicable bankruptcy, reorganization, insolvency, moratorium and other laws of general applicability relating to or affecting creditors' rights generally, and (b) the application of general principles of equity regardless of whether such enforceability is considered in a proceeding in equity or at law.

(3) Neither the execution nor the delivery by the Borrower of any of the Bond Documents nor the consummation by the Borrower of any of the transactions contemplated therein, including, without limitation, the pledge of the Pledged Securities (as such term is defined in the Pledge Agreement) to RUS if required, nor the fulfillment by the Borrower of the terms of any of the Bond Documents will conflict with or violate, result in a breach of or constitute a default under any term or provision of the Articles of Incorporation or By-laws of the Borrower or any law or any regulation or any order known to Counsel currently applicable to the Borrower of any court, regulatory body, administrative agency or governmental body having jurisdiction over the Borrower or the terms of any indenture, deed of trust, note, note agreement or instrument to which the Borrower is a party or by which the Borrower or any of its properties is bound.

(4) No approval, authorization, consent, order, registration, filing, qualification, license or permit of or with any state or Federal court or governmental agency or body including, without limitation, RUS, having jurisdiction over the Borrower is required for any consummation by the Borrower of the transactions contemplated by the Bond Documents except such as have been obtained from RUS; provided, however, no opinion is expressed as to the applicability of any Federal or state securities law to any sale, transfer or other disposition of the Guaranteed Bond after the date hereof.

(5) The Fifth Amended, Restated and Consolidated Pledge Agreement creates a valid security interest in the Borrower's collateral described therein. Such security interest has been validly perfected by the filing of a financing statement under Article 9 of the Uniform Commercial Code as in effect in the District of Columbia (the "District of Columbia UCC"). No filings, recordings or similar actions, other than the filing of the financing statement, are necessary under the laws of the District of Columbia in order to establish or continue perfection of such security interest except for the filing of any continuation statements required under Article 9 of the District of Columbia UCC.

(6) There is no pending or, to the best of Counsel's knowledge, threatened action, suit or proceeding before any court or governmental agency, authority or body or any arbitrator with respect to the Borrower, or any of the Bond Documents, or which, if adversely determined, would have a material adverse effect on the Borrower's financial condition or its ability to perform its obligations under any of the Bond Documents, except as previously disclosed.

The foregoing opinions are subject to the following assumptions, exceptions, qualifications and limitations:

A. I am a member of the Bar of the District of Columbia and render no opinion on the laws of any jurisdiction other than the laws of the District of Columbia, the federal laws of the United States of America and the General Corporation Law of the District of Columbia.

B. My opinions are limited to the present laws and to the facts, as they presently exist. I assume no obligation to revise or supplement this opinion should the present laws of the jurisdictions referred to in paragraph A above be changed by legislative action, judicial decision or otherwise.

C. This letter is rendered to you in connection with the Bond Documents and the transactions related thereto, and may not be relied upon by any other person or by you in any other context or for any other purpose.

D. I have assumed with your permission (i) the genuineness of all signatures by each party other than the Borrower, (ii) the authenticity of documents submitted to me as originals and the conformity to authentic original documents of all documents submitted to me as copies, and (iii) the due execution and delivery, pursuant to due authorization, of the Bond Documents by each party other than the Borrower.

Yours sincerely,

Roberta B. Aronson
General Counsel

EXHIBIT F
TO
BOND PURCHASE AGREEMENT

FORM
OF
OPINION OF RUS'S COUNSEL

re:
RUS GUARANTEE

November 15, 2018

MEMORANDUM FOR: CHRISTOPHER A. McLEAN
ACTING ADMINISTRATOR
RURAL UTILITIES SERVICE

FROM: Stephen Alexander Vaden
Principal Deputy General Counsel

SUBJECT: Section 313A Legal Opinion

This is in response to your letter of November 15, 2018, written in your capacity as Acting Administrator of the Rural Utilities Service (“RUS”), a Rural Development agency of the United States Department of Agriculture (“USDA”). That letter requested an opinion from this office concerning your authority as Acting Administrator to execute and deliver a certain guarantee (the “Guarantee”) pursuant to the Rural Electrification Act of 1936, as amended, and whether the Guarantee when executed by you will be an incontestable obligation of the United States of America, acting through RUS, supported by the full faith and credit of the United States.

More particularly, the Guarantee is endorsed on a Future Advance Bond (the “Bond”) dated November 15, 2018, being issued by the National Rural Utilities Cooperative Finance Corporation (the “Borrower”), a cooperative association organized under the laws of the District of Columbia, to the Federal Financing Bank (the “FFB”), a body corporate and instrumentality of the United States of America. We have been advised that the Borrower is using the proceeds of the Bond for purposes specified in section 313A of the Rural Electrification Act of 1936 (defined herein).

We have examined the following:

1. The Rural Electrification Act of 1936, 7 U.S.C. §§ 901-950bb-1 (the “Rural Electrification Act of 1936”), as amended;
2. The Consolidated Appropriations Act, 2018, Pub. L. No. 115-141, Division A, 132 Stat. 348, 371-372 (the “Appropriations Act”);
3. Delegations of authority from the Secretary of Agriculture (the “Secretary”) to the Assistant to the Secretary for Rural Development pursuant to the delegations in 7 C.F.R. § 2.17 (2018), and redelegations from the Assistant to the Secretary for Rural Development to the Administrator, Rural Utilities Service, pursuant to the delegations in 7 C.F.R. § 2.47 (2018);
4. A designation of Christopher A. McLean as Acting Administrator of RUS, made by Kenneth L. Johnson, former Administrator of RUS, on August 20, 2018, which designation has not since been rescinded or modified by the Secretary;

5. The executed Bond of the Borrower in the maximum principal amount of seven hundred fifty million dollars (\$750,000,000), having a final maturity date of July 15, 2043, and payable to FFB and any successor or assign of FFB;

6. The Guarantee endorsed by the Acting Administrator of RUS, which is attached to the Bond; and

7. The Commitment Letter, dated August 8, 2018, from Kenneth L. Johnson, former Administrator of RUS, notifying the Borrower that RUS has approved the Guarantee.

Based upon the foregoing, having regard to legal considerations which we deem relevant, we are of the opinion that:

1. You are authorized under the Rural Electrification Act of 1936 and the Appropriations Act to execute and deliver the Guarantee.

2. The Guarantee has been executed by you pursuant to section 313A of the Rural Electrification Act of 1936.

3. The Guarantee is an enforceable obligation of RUS supported by the full faith and credit of the United States and incontestable except for fraud or misrepresentation of which the holder of the Guarantee had actual knowledge at the time it became a holder.

Based on the foregoing and upon such further investigation as we have deemed necessary, we are of the opinion that:

1. The execution and delivery of the Guarantee by the Acting Administrator is authorized by applicable law.

2. The Guarantee has been executed and delivered by an official of RUS who is duly authorized to execute and deliver such document.

3. The Guarantee is a valid obligation of the United States of America for which the full faith and credit of the United States of America are pledged.

EXHIBIT G
TO
BOND PURCHASE AGREEMENT

FORM
OF
RUS CERTIFICATE
RUS CERTIFICATE

Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, NW
Washington, DC 20220

Reference is made to:

- (a) the Series N Bond Purchase Agreement dated as of November 15, 2018 (the "Bond Purchase Agreement"), by and among the Federal Financing Bank ("FFB"), National Rural Utilities Cooperative Finance Corporation (the "Borrower"), and the Administrator of the Rural Utilities Service ("RUS"), a Rural Development agency of the United States Department of Agriculture;
- (b) the Series N Bond dated as of November 15, 2018 (the "Bond"), issued by the Borrower payable to FFB in the maximum principal amount of \$750,000,000.00; and
- (c) the RUS Guarantee dated as of November 15, 2018 (the "RUS Guarantee").

Pursuant to sections 3.3.1(c) and 4.2(b) of the Bond Purchase Agreement, the undersigned hereby certifies the following:

- 1. I am the Acting Administrator of RUS.
- 2. I am furnishing this RUS Certificate to FFB with the intent that it be relied upon by FFB as a basis for taking or withholding action pursuant to the Bond Purchase Agreement.
- 3. As the Administrator of RUS, I have executed the RUS Guarantee and caused it to be attached to the Bond.

4. The executed RUS Guarantee conforms exactly to the form of "RUS Guarantee" prescribed in the Bond Purchase Agreement.
5. RUS retains custody of the executed original Bond as agent for FFB under the terms of the Bond Purchase Agreement, subject to delivery of actual possession of the original Bond to FFB upon request by FFB.
6. RUS, as agent for FFB, has received from the Borrower the certification regarding lobbying that is required to be filed by recipients of federal loans, in the form of certificate set forth in Appendix A to 31 C.F.R. Part 21, and, if required under 31 C.F.R. Part 21, the disclosure form to report lobbying, in the form of disclosure form set forth in Appendix B to 31 C.F.R. Part 21. RUS retains custody of the executed original certificate (and, if applicable, disclosure form) as agent for FFB under the terms of the Bond Purchase Agreement, subject to delivery of actual possession of the original certificate (and, if applicable, disclosure form) to FFB or its designate upon request by FFB or its designate.
7. The Borrower does not have a judgment lien against any of the Borrower's property for a debt owed to the United States of America.

IN WITNESS WHEREOF, the undersigned has executed this RUS Certificate and caused it to be delivered to FFB.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,

By: _____

Name: Christopher A. McLean

Title: Acting Administrator

Date: November 15, 2018

EXHIBIT H
TO
BOND PURCHASE AGREEMENT

FORM
OF
RUS GUARANTEE

RUS GUARANTEE

The United States of America, acting through the Administrator of the Rural Utilities Service (“RUS”), a Rural Development agency of the United States Department of Agriculture, hereby guarantees to the Federal Financing Bank, its successors and assigns (“FFB”), all payments of principal, interest, premium (if any), and late charges (if any), when and as due in accordance with the terms of the Series N Bond dated November 15, 2018, issued by National Rural Utilities Cooperative Finance Corporation (the “Borrower”) payable to FFB in the maximum principal amount of \$750,000,000, to which this RUS Guarantee is attached (such bond being the “Bond”), with interest on the principal until paid, irrespective of (i) acceleration of such payments under the terms of the Bond, or (ii) receipt by RUS of any sums or property from its enforcement of its remedies for the Borrower’s default.

This RUS Guarantee is issued pursuant to section 313A of the Rural Electrification Act of 1936, as amended (7 U.S.C. § 940c-1), section 6 of the Federal Financing Bank Act of 1973 (12 U.S.C. § 2285), and the Series N Bond Purchase Agreement dated as of November 15, 2018, among FFB, the Borrower, and RUS.

UNITED STATES OF AMERICA

By: _____
Name: Christopher A. McLean
Title: Acting Administrator of the
Rural Utilities Service

Date: November 15, 2018

	Bond Date	<u>November 15, 2018</u>
FOR FFB USE ONLY: Bond Identifier: <u>CFC-0012</u> Purchase Date: <u>November 15, 2018</u>	Place of Issue	<u>Washington, DC</u>
	Last Day for an Advance (¶3)	<u>July 15, 2023</u>
	Maximum Principal Amount (¶4)	<u>\$750,000,000.00</u>
	Final Maturity Date (¶5)	<u>July 15, 2043</u>

**FUTURE ADVANCE BOND
SERIES N**

1. Promise to Pay.

FOR VALUE RECEIVED, NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, a cooperative association existing under the laws of the District of Columbia (the "Borrower," which term includes any successors or assigns) promises to pay the **FEDERAL FINANCING BANK ("FFB")**, a body corporate and instrumentality of the United States of America (FFB, for so long as it shall be the holder of this Bond, and any successor or assignee of FFB, for so long as such successor or assignee shall be the holder of this Bond, being the "Holder"), at the times, in the manner, and with interest at the rates to be established as hereinafter provided, such amounts as may be advanced from time to time by FFB to the Borrower under this Bond (each such amount being an "Advance", and more than one such amount being "Advances").

2. Reference to Certain Agreements.

(a) Bond Purchase Agreement. This Bond is the "Bond" referred to in, and entitled to the benefits of, the Series N Bond Purchase Agreement dated as of even date herewith, made by and among FFB, the Borrower, and the Administrator of the Rural Utilities Service, a Rural Development agency of the United

States Department of Agriculture ("RUS") (such agreement, as it may be amended, supplemented, and restated from time to time in accordance with its terms, being the "Bond Purchase Agreement").

(b) Bond Guarantee Agreement. This Bond is the "Bond" referred to in, and entitled to the benefits of, the Fifth Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 15, 2018, made between RUS and the Borrower (such agreement, as it may be amended, supplemented, and restated from time to time in accordance with its terms, being the "Bond Guarantee Agreement").

(c) Pledge Agreement. This Bond is the "Bond" referred to in the Fifth Amended, Restated and Consolidated Pledge Agreement dated as of November 15, 2018, made among the Borrower, RUS, and U.S. Bank National Association, a national association (such agreement, as it may be amended, supplemented, and restated from time to time in accordance with its terms, being the "Pledge Agreement").

3. Advances; Advance Requests; RUS Approval Requirement; Last Day for an Advance.

(a) Subject to the terms and conditions of the Bond Purchase Agreement, FFB shall make Advances to the Borrower from time to time under this Bond, in each case upon delivery to FFB of a written request by the Borrower for an Advance under this Bond, in the form of request attached to the Bond Purchase Agreement as Exhibit A thereto (each such request being an "Advance Request") and completed as prescribed in section 7.3.1 of the Bond Purchase Agreement.

(b) To be effective, an Advance Request must first be delivered to RUS for approval and be approved by RUS in writing, and such Advance Request, together with written notification of RUS's approval thereof (each such notification being an "Advance Request Approval Notice"), must be received by FFB consistent with the advance notice requirements prescribed in sections 7.3.1(c) and 7.3.2(b) of the Bond Purchase Agreement.

(c) FFB shall make each requested Advance on the particular calendar date that the Borrower requested in the respective Advance Request to be the date on which the respective Advance is to be made (such date being the "Requested Advance Date" for such Advance), subject to the provisions of the Bond Purchase Agreement describing certain circumstances under which a requested Advance shall be made on a later date; provided, however, that no Advance shall be made under this Bond after the particular date specified on page 1 of this Bond as being the "Last Day for an Advance."

4. Principal Amount of Advances; Maximum Principal Amount.

The principal amount of each Advance shall be the particular dollar amount that the Borrower specified in the respective Advance Request as the "Requested Advance Amount" for the respective Advance; provided, however, that the aggregate principal amount of all Advances made under this Bond shall not exceed the particular amount specified on page 1 of this Bond as being the "Maximum Principal Amount."

5. Maturity Dates for Advances.

Subject to paragraph 15 of this Bond, each Advance shall mature on the particular calendar date that the Borrower selected in the respective Advance Request to be the date on which the respective Advance is to mature (such date being the "Maturity Date" for such Advance), provided that such Maturity Date meets all of the criteria for Maturity Dates prescribed in section 7.3.1(a)(5) of the Bond Purchase Agreement.

6. Computation of Interest on Advances.

(a) Subject to paragraphs 11 and 16 of this Bond, interest on the outstanding principal of each Advance shall accrue from the date on which the respective Advance is made to the date on which such principal is due.

(b) Interest on each Advance shall be computed on the basis of (1) actual days elapsed from (but not including) the date on which the respective Advance is made (for the first payment of interest due under this Bond for such Advance) or the date on which the payment of interest was last due (for all other payments of interest due under this Bond for such Advance), to (and including) the date on which the payment of interest is next due; and (2) a year of 365 days (except in calendar years including February 29, when the basis shall be a 366-day year).

(c) The basic interest rate for each Advance shall be established by FFB, as of the date on which the respective Advance is made, on the basis of the determination made by the Secretary of the Treasury pursuant to section 6(b) of the Federal Financing Bank Act of 1973, as amended (codified at 12 U.S.C. § 2281 et seq.) (the "FFB Act"); provided, however, that the shortest maturity used as the basis for any rate determination shall be the remaining maturity of the most recently auctioned United States Treasury bills having the shortest maturity of all United States Treasury bills then being regularly auctioned.

(d) In the event that (1) the Borrower has selected for any Advance a Maturity Date that will occur on or after the fifth anniversary of the Requested Advance Date for such Advance, and (2) the Borrower has elected for such Advance a prepayment/ refinancing privilege described in section 11.3 of the Bond

Purchase Agreement, then the interest rate for such Advance shall also include a price (expressed in terms of a basis point increment to the applicable basic interest rate) for the particular prepayment/refinancing privilege that the Borrower selected, which price shall be established by FFB on the basis of a determination made by FFB as to the difference between (A) the estimated market yield of a notional obligation if such obligation were to (i) be issued by the Secretary of the Treasury, (ii) have a maturity comparable to the maturity of such Advance, and (iii) include a prepayment and refinancing privilege identical to the particular prepayment/refinancing privilege that the Borrower elected for such Advance, and (B) the estimated market yield of a notional obligation if such obligation were to (i) be issued by the Secretary of the Treasury, (ii) have a maturity comparable to the maturity of such Advance, but (iii) not include such prepayment and refinancing privilege.

7. Payment of Interest; Payment Dates.

Interest accrued on the outstanding principal amount of each Advance shall be due and payable quarterly on January 15, April 15, July 15, and October 15 of each year (each such day being a "Payment Date"), beginning on the first Payment Date to occur after the date on which the respective Advance is made, up through and including the Maturity Date of such Advance; provided, however, that with respect to each Advance that is made in the 30-day period immediately preceding any Payment Date, payments of accrued interest on the outstanding principal amount of the respective Advance shall be due beginning on the second Payment Date to occur after the date on which such Advance is made.

8. Repayment of Principal; Principal Repayment Options.

(a) The principal amount of each Advance shall be payable in quarterly installments, which installments shall be due beginning on the first Payment Date to occur after the date on which the respective Advance is made, and shall be due on each Payment Date to occur thereafter until the principal amount of the respective Advance is repaid in full on or before the particular date specified on page 1 of this Bond as being the "Final Maturity Date" (such date being the "Final Maturity Date"); provided, however, that with respect to each Advance that is made in the 30-day period immediately preceding any Payment Date, principal installments shall be due beginning on the second Payment Date to occur after the date on which the respective Advance is made.

(b) In the respective Advance Request for each Advance, the Borrower must also select a method for the repayment of principal of such Advance from among the following options:

(1) "equal principal installments" -- the amount of each quarterly principal installment shall be substantially equal to the amount of every other quarterly principal installment and shall be sufficient, when added to all other such quarterly installments of equal principal, to repay the principal amount of such Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such Advance that will occur before the Final Maturity Date);

(2) "graduated principal installments" -- the amount of each of the first one-third (or nearest number of payments that rounds to one-third) of the total number of quarterly principal installments shall be substantially equal to one-half of the amount of each of the remaining quarterly principal installments, and shall be sufficient, when added to all other such quarterly installments of graduated principal, to repay the principal amount of such Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such Advance that will occur before the Final Maturity Date); or

(3) "level debt service" -- the amount of each quarterly payment consisting of a principal installment and accrued interest shall be substantially equal to the amount of every other quarterly payment consisting of a principal installment and accrued interest, and shall be sufficient, when added to all other such level quarterly payments consisting of a principal installment and accrued interest, to repay the principal amount of such Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such Advance that will occur before the Final Maturity Date).

(c) For each Advance, the amount of principal that shall be due and payable on each of the dates specified in subparagraph (a) of this paragraph 8 shall be the amount of the principal installment due under a principal repayment schedule for the respective Advance that is computed in accordance with the principles of the particular method for the repayment of principal that is selected by the Borrower for such Advance from among the options described in subparagraph (b) of this paragraph 8. Except at the times described in the immediately following sentence, the method for the repayment of principal that is selected by the Borrower for any Advance, and the resulting principal repayment schedule that is so computed for such Advance, may not be changed. Notwithstanding the foregoing, with respect to each Advance for which the Borrower has selected a Maturity Date that will occur before the Final Maturity Date, the Borrower may change the particular method for the repayment of principal that was selected by the Borrower for the respective Advance from either the "equal principal installments"

method or the "graduated principal installments" method to the "level debt service" method at the time (if ever) that the Borrower elects to extend the maturity of such Advance (as provided in paragraph 15 of this Bond), effective as of the effective date of such maturity extension, or at the time (if ever) that the Borrower elects to refinance the outstanding principal amount of such Advance (as provided in paragraph 18 of this Bond), effective as of the effective date of such refinancing, and the principal repayment schedule for such Advance shall thereupon be newly computed in accordance with the "level debt service" method for the repayment of principal. After the Borrower has selected the Final Maturity Date as the Maturity Date for any Advance, the Borrower may so change the particular method for the repayment of principal of any Advance, and the principal repayment schedule for such Advance shall be so newly computed, only at the time (if ever) that the Borrower elects to refinance the outstanding principal amount of such Advance (as provided in paragraph 18 of this Bond), effective as of the effective date of such refinancing.

(d) With respect to each Advance that has a Maturity Date that will occur before the Final Maturity Date, the entire unpaid principal amount of the respective Advance shall be payable on such Maturity Date, subject to extensions of the maturity of such Advance (as provided in paragraph 15 of this Bond).

(e) Notwithstanding which of the methods for the repayment of principal described in subparagraph (b) of this paragraph 8 is selected by the Borrower for any Advance, the aggregate of all quarterly payments of principal and interest on such Advance shall be such as will repay the entire principal amount of such Advance, and pay all interest accrued thereon, on or before the Final Maturity Date.

9. Fee.

(a) A fee to cover expenses and contingencies, assessed by FFB pursuant to section 6(c) of the FFB Act, shall accrue on the outstanding principal amount of each Advance for the period from the date on which the respective Advance is made to the date on which the principal amount of such Advance is due, not taking into account any maturity extensions permitted by paragraph 15 of this Bond (such period being the "Advance Period").

(b) The fee on each Advance shall be:

(1) 12.5 basis points (0.125%) per annum of the unpaid principal balance of such Advance for an Advance Period of 10 years or less; and

(2) 25 basis points (0.25%) per annum of the unpaid principal balance of such Advance for an Advance Period greater than 10 years.

(c) The fee on each Advance shall be computed in the same manner as accrued interest is computed under paragraph 6(b) of this Bond, and shall be due and payable at the same times as accrued interest is due and payable under paragraph 7 of this Bond (adjusted as provided in paragraph 10 of this Bond if a Payment Date is not a Business Day). The fee on each Advance shall be credited to RUS as required by section 505(c) of the Federal Credit Reform Act of 1990, as amended (codified at 2 U.S.C. § 661d(c)).

10. Business Days.

(a) Whenever any Payment Date, the Maturity Date for any Advance, or the Final Maturity Date shall fall on a day on which either FFB or the Federal Reserve Bank of New York is not open for business, the payment that would otherwise be due on such Payment Date, Maturity Date, or Final Payment Date, as the case may be, shall be due on the first day thereafter on which FFB and the Federal Reserve Bank of New York are both open for business (any such day being a "Business Day").

(b) In the event that any Payment Date falls on a day other than a Business Day, then the extension of time for making the payment that would otherwise be due on such Payment Date shall be (1) taken into account in establishing the interest rate for the respective Advance, (2) included in computing interest due in connection with such payment, and (3) excluded in computing interest due in connection with the next payment.

(c) In the event that the Maturity Date for any Advance or the Final Maturity Date falls on a day other than a Business Day, then the extension of time for making the payment that would otherwise be due on such Maturity Date or the Final Maturity, as the case may be, shall be (1) taken into account in establishing the interest rate for such Advance, and (2) included in computing interest due in connection with such payment.

11. Late Payments.

(a) In the event that any payment of any amount owing under this Bond is not made when and as due (any such amount being then an "Overdue Amount"), then the amount payable shall be such Overdue Amount plus interest thereon (such interest being the "Late Charge") computed in accordance with this subparagraph (a).

(1) The Late Charge shall accrue from the scheduled date of payment for the Overdue Amount (taking into account paragraph 10 of this Bond) to the date on which payment is made.

(2) The Late Charge shall be computed on the basis of (A) actual days elapsed from (but not including) the

scheduled date of payment for such Overdue Amount (taking into account paragraph 10 of this Bond) to (and including) the date on which payment is made, and (B) a year of 365 days (except in calendar years including February 29, when the basis shall be a 366-day year).

(3) The Late Charge shall accrue at a rate (the "Late Charge Rate") equal to one and one-half times the rate to be determined by the Secretary of the Treasury taking into consideration the prevailing market yield on the remaining maturity of the most recent auctioned 13-week United States Treasury bills.

(4) The initial Late Charge Rate shall be in effect until the earlier to occur of either (A) the date on which payment of the Overdue Amount and the amount of accrued Late Charge is made, or (B) the first Payment Date to occur after the scheduled date of payment for such Overdue Amount. In the event that the Overdue Amount and the amount of the accrued Late Charge are not paid on or before such Payment Date, then the amount payable shall be the sum of the Overdue Amount and the amount of the accrued Late Charge, plus a Late Charge on such sum accruing at a new Late Charge Rate to be then determined in accordance with the principles of clause (3) of this subparagraph (a). For so long as any Overdue Amount remains unpaid, the Late Charge Rate shall be re-determined in accordance with the principles of clause (3) of this subparagraph (a) on each Payment Date to occur thereafter, and shall be applied to the Overdue Amount and all amounts of the accrued Late Charge to the date on which payment of the Overdue Amount and all amounts of the accrued Late Charge is made.

(b) Nothing in subparagraph (a) of this paragraph 11 shall be construed as permitting or implying that the Borrower may, without the written consent of FFB, modify, extend, alter or affect in any manner whatsoever (except as explicitly provided herein) the right of FFB to receive any and all payments on account of this Bond on the dates specified in this Bond.

12. Final Due Date.

Notwithstanding anything in this Bond to the contrary, all amounts outstanding under this Bond remaining unpaid as of the Final Maturity Date shall be due and payable on the Final Maturity Date.

13. Manner of Making Payments.

(a) For so long as FFB is the Holder of this Bond and RUS is the bond servicing agent for FFB (as provided in the Bond Purchase Agreement), each payment under this Bond shall be paid in immediately available funds by electronic funds transfer to the account of the United States Treasury (for credit to the

subaccount of RUS, as bond servicing agent for FFB) maintained at the Federal Reserve Bank of New York specified by RUS in a written notice to the Borrower, or to such other account as may be specified from time to time by RUS in a written notice to the Borrower.

(b) In the event that FFB is the Holder of this Bond and RUS is not the bond servicing agent for FFB, each payment under this Bond, with the exception of the fee described in paragraph 9 of this Bond, shall be paid in immediately available funds by electronic funds transfer to the account of the United States Treasury (for credit to the subaccount of FFB) maintained at the Federal Reserve Bank of New York specified by FFB in a written notice to the Borrower, or to such other account as may be specified from time to time by FFB in a written notice to the Borrower. In the event that FFB is the Holder of this Bond and RUS is not the bond servicing agent for FFB, each payment of the fee described in paragraph 9 of this Bond shall be paid in immediately available funds by electronic funds transfer to the account of the United States Treasury (for credit to the subaccount of RUS) maintained at the Federal Reserve Bank of New York specified from time to time by RUS in a written notice delivered by RUS to the Borrower.

(c) In the event that FFB is not the Holder of this Bond, then each payment under this Bond, with the exception of the fee described in paragraph 9 of this Bond, shall be made in immediately available funds by electronic funds transfer to such account as shall be specified by the Holder in a written notice to the Borrower. In the event that FFB is not the Holder of this Bond, each payment of the fee described in paragraph 9 of this Bond shall be made in the manner specified by FFB in the written notice delivered by FFB to the Borrower and RUS as provided in section 15.4.2 of the Bond Purchase Agreement.

14. Application of Payments.

Each payment made on this Bond shall be applied, first, to the payment of Late Charges (if any) payable under paragraphs 11 and 18 of this Bond, then to the payment of premiums (if any) payable under paragraphs 16 and 17 of this Bond, then to the payment of unpaid accrued interest, then on account of outstanding principal, and then to the payment of the fee payable under paragraph 9 of this Bond.

15. Maturity Extensions.

(a) With respect to each Advance (1) for which the Borrower has selected a Maturity Date that will occur before the twentieth anniversary of the Requested Advance Date specified in the respective Advance Request, or (2) for which a Maturity Date that will occur before the twentieth anniversary of the Requested Advance Date specified in the respective Advance Request has been determined as provided in subparagraph (b) of t

his paragraph 15 (each such Maturity Date being an "Interim Maturity Date"), the Borrower may, effective as of such Interim Maturity Date, elect to extend the maturity of all or any portion of the outstanding principal amount of the respective Advance to a new Maturity Date to be selected by the Borrower in the manner and subject to the limitations specified in this subparagraph (a) (each such election being a "Maturity Extension Election"; each such elective extension of the maturity of any Advance that has an Interim Maturity Date being a "Maturity Extension"; and the Interim Maturity Date that is in effect for an Advance immediately before any such elective Maturity Extension being, from and after such Maturity Extension, the "Maturity Extension Effective Date").

(1) Except under the circumstances described in clause (3) of this subparagraph (a), the Borrower shall deliver to FFB (with a copy to RUS) written notification of each Maturity Extension Election, in the form of notification attached to this Bond as Annex 1-A (each such notification being a "Maturity Extension Election Notice"), making reference to the "Advance Identifier" (as that term is defined in the Bond Purchase Agreement) that FFB assigned to such Advance (as provided in the Bond Purchase Agreement) and specifying, among other things, the following:

(A) the amount of the outstanding principal of the such Advance with respect to which the Borrower elects to extend the maturity; and

(B) the new Maturity Date that the Borrower selects to be in effect for such principal amount after the respective Maturity Extension Effective Date, which date:

(i) may be either (I) a new Interim Maturity Date, or (II) the twentieth anniversary of the Requested Advance Date specified in the original Advance Request (if such twentieth anniversary date is a Payment Date) or the Payment Date immediately preceding such twentieth anniversary date (if such twentieth anniversary date is not a Payment Date); and

(ii) in the event that the Borrower selects a new Interim Maturity Date as the new Maturity Date for any Advance, must meet the criteria for Maturity Dates prescribed in section 7.3.1(a)(5) of the Bond Purchase Agreement (provided, however, that, for purposes of selecting a new Maturity Date in connection with a Maturity Extension Election, each of the references to the "Requested Advance Date" for the respective Advance in section 7.3.1(a)(5)(D) of the Bond

Purchase Agreement shall be deemed to be a reference to the "respective Maturity Extension Effective Date").

(2) To be effective, a Maturity Extension Election Notice must be received by FFB on or before the third Business Day before the Interim Maturity Date in effect for the respective Advance immediately before such Maturity Extension.

(3) In the event that either of the circumstances described in subclause (A) or (B) of the next sentence occurs, then a Maturity Extension Election Notice (in the form of notice attached to this Bond as Annex 1-B), to be effective, must first be delivered to RUS for approval and be approved by RUS in writing, and such Maturity Extension Election Notice, together with written notification of RUS's approval thereof, must be received by FFB on or before the third Business Day before the Interim Maturity Date in effect for the respective Advance immediately before such Maturity Extension. RUS approval of a Maturity Extension Election Notice will be required under either of the following circumstances:

(A) (i) any payment of any amount owing under this Bond is not made by the Borrower when and as due; (ii) payment is made by RUS in accordance with the guarantee set forth at the end of this Bond; and (iii) RUS delivers notice to both the Borrower and FFB advising each of them that each Maturity Extension Election Notice delivered by the Borrower after the date of such notice shall require the approval of RUS; or

(B) FFB at any time delivers written notice to both the Borrower and RUS advising each of them that each Maturity Extension Election Notice delivered by the Borrower after the date of such notice shall require the approval of RUS.

(b) With respect to any Advance that has an Interim Maturity Date, in the event that FFB does not receive a Maturity Extension Election Notice (and, if required under subparagraph (a) (3) of this paragraph 15, written notification of RUS's approval thereof) on or before the third Business Day before such Interim Maturity Date, then the maturity of such Advance shall be extended automatically in the manner and subject to the limitations specified in this subparagraph (b) (each such automatic extension of the maturity of any Advance that has an Interim Maturity Date also being a "Maturity Extension"; and the Interim Maturity Date that is in effect for an Advance immediately before any such automatic Maturity Extension also being, from and after such Maturity Extension, the "Maturity Extension Effective Date"). The new Maturity Date

for such Advance shall be the immediately following Payment Date. The amount of principal that will have its maturity extended automatically shall be the entire outstanding principal amount of such Advance on such Maturity Extension Effective Date, less the amount of any payment of principal made on such Maturity Extension Effective Date.

(c) In the event that the maturity of any Advance that has an Interim Maturity Date is extended under either subparagraph (a) or (b) of this paragraph 15, then the basic interest rate for such Advance, from and after the respective Maturity Extension Effective Date, shall be the particular rate that is established by FFB, as of such Maturity Extension Effective Date, in accordance with the principles of paragraph 6(c) of this Bond.

(d) In the event that the maturity of any Advance that has an Interim Maturity Date is extended under either subparagraph (a) or (b) of this paragraph 15, then the fee for such Advance, from and after the respective Maturity Extension Effective Date, shall be the particular fee that is assessed by FFB, as of such Maturity Extension Effective Date, with the new Advance Period being the period from the Maturity Extension Effective Date through the new Maturity Date, in accordance with the principles of paragraphs 9(b) and (c) of this Bond.

(e) In the event that (1) the maturity of any Advance that has an Interim Maturity Date is extended under either subparagraph (a) or (b) of this paragraph 15, and (2) the Maturity Date for such extended Advance is a date that will occur before the fifth anniversary of the respective Maturity Extension Effective Date, then the prepayment/refinancing privilege described in section 11.2 of the Bond Purchase Agreement shall apply automatically to such Advance.

(f) In the event that (1) the Borrower makes a Maturity Extension Election with respect to any Advance that has an Interim Maturity Date, and (2) the Borrower selects as the Maturity Date for such extended Advance a new Maturity Date that will occur on or after the fifth anniversary of the respective Maturity Extension Effective Date, then the Borrower must elect a prepayment/refinancing privilege for such extended Advance from between the options described in sections 11.2 and 11.3 of the Bond Purchase Agreement (provided, however, that each of the references to "the Requested Advance Date for such Advance" in section 11.3 of the Bond Purchase Agreement shall be deemed to be a reference to "the respective Maturity Extension Effective Date"). The Maturity Extension Election Notice delivered by the Borrower in connection with each such Maturity Extension Election must also specify the particular prepayment/refinancing privilege that the Borrower elects for the respective extended Advance. In the event that the Borrower elects for any such extended Advance a prepayment/refinancing privilege described in section 11.3 of the Bond Purchase Agreement, then the interest

rate for such extended Advance, from and after the respective Maturity Extension Effective Date, shall include a price (expressed in terms of a basis point increment to the applicable basic interest rate) for the particular prepayment/refinancing privilege that the Borrower elects, which price shall be established by FFB, as of such Maturity Extension Effective Date, in accordance with the principles of paragraph 6(d) of this Bond.

(g) The maturity of each Advance may be extended more than once as provided in this paragraph 15, but upon the twentieth anniversary of the Requested Advance Date specified in the original Advance Request (if such twentieth anniversary date is a Payment Date) or upon the Payment Date immediately preceding such twentieth anniversary date (if such twentieth anniversary date is not a Payment Date), no further Maturity Extensions may occur.

16. Prepayments.

(a) The Borrower may elect to prepay all or any portion of the outstanding principal amount of any Advance made under this Bond, or to prepay this Bond in its entirety, in the manner, at the price, and subject to the limitations specified in this paragraph 16 (each such election being a "Prepayment Election").

(b) For each Prepayment Election in which the Borrower elects to prepay a particular amount of the outstanding principal of an Advance, the Borrower shall deliver to RUS written notification of the respective Prepayment Election, in the form of notification attached to this Bond as Annex 2-A (each such notification being a "Prepayment Election Notice"), making reference to the Advance Identifier that FFB assigned to the respective Advance (as provided in the Bond Purchase Agreement) and specifying, among other things, the following:

(1) the particular date on which the Borrower intends to make the prepayment on such Advance (such date being the "Intended Prepayment Date" for such Advance), which date:

(A) must be a Business Day; and

(B) for any Advance for which the Borrower has selected a fixed premium prepayment/refinancing privilege that includes a 5-year period during which such Advance shall not be eligible for any prepayment or refinancing (such time period being a "No-Call Period"), may not be a date that will occur before the applicable "First Call Date" determined as provided in section 11.3.2 of the Bond Purchase Agreement (such date being the "First Call Date"); and

(2) the amount of principal of the respective Advance that the Borrower intends to prepay, which amount may be either:

(A) the total outstanding principal amount of such Advance; or

(B) an amount less than the total outstanding principal amount of such Advance (subject to subparagraph (g) of this paragraph 16) (any such amount being a "Portion").

(c) For each Prepayment Election in which the Borrower elects to have a particular amount of funds applied by FFB toward the prepayment of the outstanding principal of an Advance, the Borrower shall deliver to RUS written notification of the respective Prepayment Election, in the form of notification attached to this Bond as Annex 2-B (each such notification also being a "Prepayment Election Notice"), making reference to the Advance Identifier that FFB assigned to the respective Advance (as provided in the Bond Purchase Agreement) and specifying, among other things, the following:

(1) the particular date on which the Borrower intends to make the prepayment on such Advance (such date being the "Intended Prepayment Date" for such Advance), which date:

(A) must be a Business Day; and

(B) for any Advance for which the Borrower has selected a fixed premium prepayment/refinancing privilege that includes a 5-year No-Call Period, may not be a date that will occur before the applicable First Call Date; and

(2) the particular amount of funds that the Borrower elects to be applied by FFB toward a prepayment of the outstanding principal amount of such Advance.

(d) To be effective, a Prepayment Election Notice must be approved by RUS in writing, and such Prepayment Election Notice, together with written notification of RUS's approval thereof, must be received by FFB on or before the fifth Business Day before the date specified therein as the Intended Prepayment Date for the respective Advance or Portion.

(e) The Borrower shall pay to FFB a price for the prepayment of any Advance, any Portion of any Advance, or this Bond in its entirety (such price being the "Prepayment Price" for such Advance or Portion or this Bond, as the case may be) determined as follows:

(1) in the event that the Borrower elects to prepay the entire outstanding principal amount of any Advance,

then the Borrower shall pay to FFB a Prepayment Price for such Advance equal to the sum of:

(A) the entire outstanding principal amount of such Advance on the Intended Prepayment Date;

(B) all unpaid interest (and Late Charges, if any) accrued on such Advance through the Intended Prepayment Date; and

(C) the amount of the premium or discount credit (if any) that is required under the particular prepayment/refinancing privilege that applies to such Advance as provided in article 11 of the Bond Purchase Agreement;

(2) in the event that the Borrower elects to prepay a Portion of any Advance, then the Borrower shall pay to FFB a Prepayment Price for such Portion that would equal such Portion's pro rata share of the Prepayment Price that would be required for a prepayment of the entire outstanding principal amount of such Advance (determined in accordance with the principles of clause (1) of this subparagraph (e)); and

(3) in the event that the Borrower elects to prepay this Bond in its entirety, then the Borrower shall pay to FFB an amount equal to the sum of the Prepayment Prices for all outstanding Advances (determined in accordance with the principles of clause (1) of this subparagraph (e)).

(f) Payment of the Prepayment Price for any Advance, any Portion of any Advance, or this Bond in its entirety shall be due to FFB before 3:00 p.m. (Washington, DC, time) on the Intended Prepayment Date for such Advance or Portion or this Bond, as the case may be.

(g) Each prepayment of a Portion shall, as to the principal amount of such Portion, be subject to a minimum amount equal to \$100,000.00 of principal.

(h) The Borrower may make more than one Prepayment Election with respect to an Advance, each such Prepayment Election being made with respect to a different Portion of such Advance, until such time as the entire principal amount of such Advance is repaid in full.

17. Refinancings.

(a) The Borrower may elect to refinance the outstanding principal amount of any Advance (but not any Portion) in the manner, at the price, and subject to the limitations specified in this paragraph 17 (each such election being a "Refinancing Election").

(b) Except under the circumstances described in subparagraph (d) of this paragraph 17, the Borrower shall deliver to FFB (with a copy to RUS) written notification of each Refinancing Election, in the form of notification attached to this Bond as Annex 3-A (each such notification

being a "Refinancing Election Notice"), making reference to the Advance Identifier that FFB assigned to the respective Advance (as provided in the Bond Purchase Agreement) and specifying, among other things, the following:

(1) the particular date on which the Borrower intends to refinance the respective Advance (such date being the "Intended Refinancing Date" for the respective Advance), which date:

(A) must be a Payment Date; and

(B) for any Advance for which the Borrower has selected a prepayment/refinancing privilege that includes a 5-year No-Call Period, may not be a date that will occur before the applicable First Call Date;

(2) the amount of the outstanding principal of the respective Advance that the Borrower elects to refinance (which may not be a Portion); and

(3) the Maturity Date that the Borrower selects to be in effect for such principal amount after such refinancing, which date may be:

(A) the Maturity Date that is in effect for such Advance immediately before such refinancing; or

(B) a new Maturity Date that the Borrower selects in connection with such Refinancing Election, provided that such new Maturity Date meets the criteria for Maturity Dates prescribed in section 7.3.1(a)(5) of the Bond Purchase Agreement (provided, however, that for purposes of selecting a new Maturity Date in connection with a Refinancing Election, each of the references to the "Requested Advance Date" for the respective Advance in section 7.3.1(a)(5)(D) of the Bond Purchase Agreement shall be deemed to be a reference to the "respective Refinancing Effective Date").

(c) To be effective, a Refinancing Election Notice must be received by FFB on or before the fifth Business Day before the date specified therein as the Intended Refinancing Date.

(d) In the event that either of the circumstances described in clause (1) or (2) of the next sentence shall have occurred, then a Refinancing Election Notice (in the form of notice attached to this Bond as Annex 3-B), to be effective, must first be delivered to RUS for approval and be approved by RUS in writing, and such Refinancing Election Notice, together with written notification of RUS's approval thereof, must be received by FFB on or before the fifth Business Day before the date specified therein to be the Intended Refinancing Date. RUS approval of a Refinancing Election Notice will be required under either of the following circumstances:

(1) (A) payment of any amount owing under this Bond is not made by the Borrower when and as due; (B) payment is made by RUS in accordance with the guarantee set forth at the end of this Bond; and (C) RUS delivers notice to both the Borrower and FFB advising each of them that each Refinancing Election Notice delivered by the Borrower after the date of such notice shall require the approval of RUS; or

(2) FFB at any time delivers written notice to both the Borrower and RUS advising each of them that each Refinancing Election Notice delivered by the Borrower after the date of such notice shall require the approval of RUS.

(e) The Borrower shall pay to FFB a price for the refinancing of any Advance (such price being the "Refinancing Price" for such Advance) equal to the sum of:

(1) all unpaid interest (and Late Charges, if any) accrued on such Advance through the Intended Refinancing Date; and

(2) the amount of the premium (if any) that is required under the particular prepayment/refinancing privilege that applies to such Advance as provided in article 11 of the Bond Purchase Agreement.

In the event that (A) the prepayment/refinancing privilege that applies to the particular Advance being refinanced is the privilege described in section 11.2 of the Bond Purchase Agreement, and (B) the Market Value Premium (or Discount) that is to be included in the Refinancing Price for such Advance is a discount on such Advance, then such discount shall be applied by FFB in the manner requested by the Borrower in a written notice delivered by the Borrower to FFB and approved by RUS in writing.

(f) Payment of the Refinancing Price for any Advance shall be due to FFB before 3:00 p.m. (Washington, DC, time) on the Intended Refinancing Date for such Advance.

(g) In the event that a Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB on or before the fifth Business Day before the Intended Refinancing Date specified therein, then the refinancing of the respective Advance shall become effective on such Intended Refinancing Date (in such event, the Intended Refinancing Date being the "Refinancing Effective Date"). In the event that a Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB after the fifth Business Day before the Intended Refinancing Date specified therein, then the refinancing of the

respective Advance shall become effective on the fifth Business Day to occur after the day on which such Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB (in such event, the fifth Business Day to occur after the day on which such Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB being the "Refinancing Effective Date"), provided that the Borrower shall have paid to FFB, in addition to the Refinancing Price required under subparagraph (e) of this paragraph 17, the interest accrued from the Intended Refinancing Date through such Refinancing Effective Date.

(h) In the event that the Borrower makes a Refinancing Election with respect to any Advance, the basic interest rate for such Advance, from and after the respective Refinancing Effective Date, shall be the particular rate that is established by FFB, as of such Refinancing Effective Date, in accordance with the principles of paragraph 6(c) of this Bond.

(i) In the event that the Borrower makes a Refinancing Election with respect to any Advance, then the fee for such Advance, from and after the respective Refinancing Effective Date, shall be the particular fee that is assessed by FFB, as of such Refinancing Effective Date, with the new Advance Period being the period from the Refinancing Effective Date through the new Maturity Date, in accordance with the principles of paragraphs 9(b) and (c) of this Bond.

(j) In the event that (1) the Borrower makes a Refinancing Election with respect to any Advance, and (2) the Borrower selects as the Maturity Date for such refinanced Advance either (A) the Maturity Date that is in effect for such Advance immediately before such refinancing, and such Maturity Date will occur before the fifth anniversary of the respective Refinancing Effective Date, or (B) a new Maturity Date that will occur before the fifth anniversary of the respective Refinancing

Effective Date, then the prepayment/refinancing privilege described in section 11.2 of the Bond Purchase Agreement shall apply automatically to such Advance.

(k) In the event that (1) the Borrower makes a Refinancing Election with respect to any Advance, and (2) the Borrower selects as the Maturity Date for such refinanced Advance either (A) the Maturity Date that is in effect for such Advance immediately before such refinancing, and such Maturity Date will occur on or after the fifth anniversary of the respective Refinancing Effective Date, or (B) a new Maturity Date that will occur on or after the fifth anniversary of the respective Refinancing Effective Date, then the Borrower must elect a prepayment/refinancing privilege for such refinanced Advance from between the options described in sections 11.2 and 11.3 of the Bond Purchase Agreement (provided, however, that each of the references to the "Requested Advance Date for such Advance" in section 11.3 of the Bond Purchase Agreement

shall be deemed to be a reference to the "respective Refinancing Effective Date"). The Refinancing Election Notice delivered by the Borrower in connection with each such Refinancing Election must also specify the particular prepayment/refinancing privilege that the Borrower elects for the respective refinanced Advance. In the event that the Borrower elects for any such refinanced Advance a prepayment/refinancing privilege described in section 11.3 of the Bond Purchase Agreement, then the interest rate for such refinanced Advance, from and after the respective Refinancing Effective Date, shall include a price (expressed in terms of a basis point increment to the applicable basic interest rate) for the particular prepayment/refinancing privilege that the Borrower elects, which increment shall be established by FFB, as of such Refinancing Effective Date, in accordance with the principles of paragraph 6(d) of this Bond.

(1) In the event that the Borrower makes a Refinancing Election with respect to any Advance, then the outstanding principal amount of such Advance, after the respective Refinancing Effective Date, shall be due and payable in accordance with this subparagraph (1).

(1) With respect to each Advance to which either the "equal principal installments" method or the "graduated principal installments" method for the repayment of principal applies, the amount of the quarterly principal installments that will be due after the respective Refinancing Effective Date shall be equal to the amount of the quarterly installments of equal principal or graduated principal, as the case may be, that were due in accordance with the principal repayment schedule that applied to such Advance immediately before the respective Refinancing Effective Date.

(2) With respect to each Advance to which the "level debt service" method for the repayment of principal

applies, the amount of the level quarterly payments consisting of a principal installment and accrued interest that will be due after the respective Refinancing Effective Date shall be newly computed so that the amount of each such quarterly payment consisting of a principal installment and accrued interest (taking into account the new interest rate that applies to such Advance from and after such Refinancing Effective Date) shall be substantially equal to the amount of every other quarterly payment consisting of a principal installment and accrued interest, and shall be sufficient, when added to all other such newly-computed level quarterly payments consisting of a principal installment and accrued interest, to repay the outstanding principal amount of such refinanced Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such refinanced Advance that will occur before the Final Maturity Date).

(3) The quarterly installments of equal principal or graduated principal, or the newly-computed level quarterly payments consisting of a principal installment and accrued interest, as the case may be, shall be due beginning on the first Payment Date to occur after the respective Refinancing Effective Date, and shall be due on each Payment Date to occur thereafter up through and including the earlier to occur of (A) the new Maturity Date that the Borrower selected for such refinanced Advance, on which date the entire unpaid principal amount of such refinanced Advance shall also be payable, subject to Maturity Extensions (as provided in paragraph 15 of this Note) if the new Maturity Date is an Interim Maturity Date, or (B) the date on which the entire principal amount of such refinanced Advance, and all unpaid interest (and Late Charges, if any) accrued thereon, are paid.

(m) The Borrower may make more than one Refinancing Election with respect to any Advance.

18. Rescission of Prepayment Elections and Refinancing Elections; Late Charges for Late Payments.

(a) The Borrower may rescind any Prepayment Election made in accordance with paragraph 16 of this Bond or any Refinancing Election made in accordance with paragraph 17 of this Bond, but only in accordance with this paragraph 18.

(b) The Borrower shall deliver to both FFB and RUS written notification of each rescission of a Prepayment Election or a Refinancing Election (each such notification being an "Election Rescission Notice") specifying the particular Advance for which the Borrower wishes to rescind such Prepayment Election or Refinancing Election, as the case may be, which specification must make reference to both:

(1) the particular Advance Identifier that FFB assigned to such Advance (as provided in the Bond Purchase Agreement); and

(2) the RUS account number for such Advance.

The Election Rescission Notice may be delivered by facsimile transmission to FFB at (202) 622-0707 and to RUS at (202) 720-1401, or at such other facsimile number or numbers as either FFB or RUS may from time to time communicate to the Borrower.

(c) To be effective, an Election Rescission Notice must be received by both FFB and RUS not later than 3:30 p.m. (Washington, DC, time) on the second Business Day before the Intended Prepayment Date or the Intended Refinancing Date, as the case may be.

(d) In the event that the Borrower (1) makes a Prepayment Election in accordance with paragraph 16 of this Bond or a Refinancing Election in accordance with paragraph 17 of this Bond; (2) does not rescind such Prepayment Election or Refinancing Election, as the case may be, in accordance with this paragraph 18; and (3) does not, before 3:00 p.m. (Washington, DC, time) on the Intended Prepayment Date or Intended Refinancing Date, as the case may be, pay to FFB the Prepayment Price described in paragraph 16(e) of this Bond or Refinancing Price described in paragraph 17(e) of this Bond, as the case may be, then a Late Charge shall accrue on any such unpaid amount from the Intended Prepayment Date or Intended Refinancing Date, as the case may be, to the date on which payment is made, computed in accordance with the principles of paragraph 11 of this Bond.

19. Amendments to Bond.

To the extent not inconsistent with applicable law, this Bond, for so long as FFB or its agent is the holder thereof, shall be subject to modification by such amendments, extensions, and renewals as may be agreed upon from time to time by FFB and the Borrower, with the approval of RUS.

20. Certain Waivers.

The Borrower hereby waives any requirement for presentment, protest, or other demand or notice with respect to this Bond.

21. Bond Effective Until Paid.

This Bond shall continue in full force and effect until all principal outstanding hereunder, all interest accrued hereunder, all premiums (if any) payable under paragraphs 16 and 17 of this Bond, all Late Charges (if any) payable under paragraphs 11 and

18 of this Bond, and all fees (if any) payable under paragraph 9 of this Bond have been paid in full.

22. RUS Guarantee of Bond.

Upon execution of the guarantee set forth at the end of this Bond (the "RUS Guarantee"), the payment by the Borrower of all amounts due and payable under this Bond, when and as due, shall be guaranteed by the United States of America, acting through RUS, pursuant to the Rural Electrification Act of 1936, as amended (codified at 7 U.S.C. § 901 et seq.). In consideration of the RUS Guarantee, the Borrower promises to RUS to make all payments due under this Bond when and as due.

23. Pledge Agreement.

This Bond is one of several Bonds referred to in the Pledge Agreement, wherein the Borrower made provision for the pledge and grant of a security interest in, under certain circumstances described therein, certain property of the Borrower, described therein, to secure the payment of and performance of certain obligations owed to RUS, as set forth in the Pledge Agreement.

24. Guarantee Payments; Reimbursement.

If RUS makes any payment, pursuant to the RUS Guarantee, of any amount due and payable under this Bond, when and as due, each and every such payment so made shall be deemed to be a payment hereunder; provided, however, that no payment by RUS pursuant to the RUS Guarantee shall be considered a payment for purposes of determining the existence of a failure by the Borrower to perform its obligation to RUS to make all payments under this Bond when and as due. RUS shall have any rights by way of subrogation, agreement or otherwise which arise as a result of such payment pursuant to the RUS Guarantee.

25. Default and Enforcement.

In case of a default by the Borrower under this Bond or the occurrence of an event of default under the Bond Guarantee Agreement, then, in consideration of the obligation of RUS under the RUS Guarantee, in that event, to make payments to FFB as provided in this Bond, RUS, in its own name, shall have all rights, powers, privileges, and remedies of the holder of this Bond, in accordance with the terms of this Bond, the Bond Guarantee Agreement, and the Pledge Agreement, including, without limitation, the right to enforce or collect all or any part of the obligation of the Borrower under this Bond or arising as a result of the RUS Guarantee, to file proofs of claim or any other document in any bankruptcy, insolvency, or other judicial proceeding, and to vote such proofs of claim.

26. Acceleration.

The entire unpaid principal amount of this Bond, and all interest thereon, may be declared, and upon such declaration shall become, due and payable to RUS, under the circumstances described, and in the manner and with the effect provided, in the Bond Guarantee Agreement.

IN WITNESS WHEREOF, the Borrower has caused this Bond to be signed in its corporate name and its corporate seal to be hereunder affixed and attested by its officers thereunto duly authorized, all as of the day and year first above written.

**NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION**
(the "Borrower")

BY:

Signature: /s/ SHELDON C. PETERSEN

Print Name: Sheldon C. Petersen

Title: Governor and
Chief Executive Officer

(SEAL)

ATTEST:

Signature: /s/ ROBERTA B. ARONSON

Print Name: Roberta B. Aronson

Title: Assistant Secretary-Treasurer

ANNEX 1-A
TO
FUTURE ADVANCE BOND

FORM
OF
MATURITY EXTENSION ELECTION NOTICE

MATURITY EXTENSION ELECTION NOTICE

PART 1 OF THIS FORM HAS BEEN COMPLETED BY RUS. THE BORROWER SHOULD COMPLETE PART 2 OF THIS FORM ONLY FOR THOSE PARTICULAR ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WITH RESPECT TO WHICH THE BORROWER ELECTS TO HAVE THE MATURITY EXTENDED TO A NEW MATURITY DATE OTHER THAN THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of Portfolio Analysis and Risk Assessment
Telephone: (202) 205-86634

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO FFB AT THE FOLLOWING ADDRESS:

Director of Lending
Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, NW
Washington, DC 20220

Telephone: (202) 622-2470
Facsimile: (202) 622-0707

DELIVER A COPY OF THIS FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1568, Room 0226-S
1400 Independence Avenue, SW
Washington, DC 20250

Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst

Telephone: (202) 205-8663
Facsimile: (844) 749-0736

THE BORROWER SHOULD NOT COMPLETE THIS FORM OR DELIVER IT TO FFB IF THE BORROWER DESIRES TO HAVE THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

IF THE BORROWER DOES NOT RETURN THIS FORM TO FFB, THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WILL BE EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

MATURITY EXTENSION ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier:

RUS Bond Number:

Part 1 (To be completed by RUS):

Each of the advances of funds ("Advances") identified in this Part 1 will mature on _____ (the "Maturity Date").

FFB ADVANCE IDENTIFIER	RUS ACCOUNT NUMBER	ORIGINAL ADVANCE DATE	ORIGINAL ADVANCE AMOUNT	OUTSTANDING PRINCIPAL AMOUNT
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____

Part 2:

Notice is hereby given to FFB (and RUS) of the Borrower's election that the maturity of each of the Advances identified in this Part 2 be extended as follows:

FFB ADVANCE IDENTIFIER ¹	OPTIONAL PRINCIPAL AMOUNT ²	AMOUNT OF PRINCIPAL TO BE EXTENDED ³	NEW MATURITY DATE ⁴	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE ⁵	5-YEAR NO-CALL PERIOD ⁶	PREMIUM OPTION ⁷
_____	\$	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹Complete 1 line in Part 2 for each Advance identified in Part 1 with respect to which the Borrower elects to have the maturity extended to a new Maturity Date other than the next Payment Date. Insert the FFB Advance Identifier that FFB assigned to the respective Advance for each Advance identified in Part 1 with respect to which the Borrower elects to have the maturity so extended.

²The Borrower has the option of making a payment of principal on the Maturity Date without any premium being charged. For each Advance, insert the amount of any such optional principal payment that will be paid on the Maturity Date.

³For each Advance, insert the amount of principal for which the maturity is to be extended. That amount must equal the difference between the outstanding principal amount for the respective Advance, as specified in Part 1, and the optional principal payment (if any) for such Advance inserted by the Borrower in Part 2.

⁴For each Advance, insert the particular calendar date that the Borrower selects to be the new Maturity Date to be in effect for the respective Advance after the Maturity Extension, which new Maturity Date must meet all the criteria for Maturity Dates specified in section 7.3.1(a)(5) of the Bond Purchase Agreement referred to in the Bond.

⁵Select 1 of the following 2 types of prepayment/refinancing privilege for an Advance only if the new Maturity Date selected for such Advance will occur on or after the fifth anniversary of the effective date of this Maturity Extension. The 2 types of prepayment/refinancing privilege are: the market value premium (or discount) privilege ("M") and a fixed premium privilege ("F"). Insert in the box the letter-symbol for the particular type of prepayment/refinancing privilege elected.

⁶Select 1 of the following 2 no-call period options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 2 no-call period options are: yes ("Y"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege include a 5-year period during which the Advance will not be eligible for prepayment or refinancing, and no ("N"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege not include any such a 5-year no-call period. Insert in the box the letter-symbol for the particular no-call period option elected.

⁷Select 1 of the following 3 premium options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 3 premium options are: a 10% premium declining over 10 years ("X"), a 5% premium declining over 5 years ("V"), and par (no premium) ("P"). Insert in the box the letter-symbol for the particular premium option selected.

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Maturity Extension Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE
CORPORATION
(the "Borrower")

By: _____

Name: _____

Title: _____

Date: _____

ANNEX 1-B
TO
FUTURE ADVANCE BOND

FORM
OF
MATURITY EXTENSION ELECTION NOTICE
(RUS APPROVAL REQUIRED)

**MATURITY EXTENSION ELECTION NOTICE
(RUS APPROVAL REQUIRED)**

PART 1 OF THIS FORM HAS BEEN COMPLETED BY RUS. THE BORROWER SHOULD COMPLETE PART 2 OF THIS FORM ONLY FOR THOSE PARTICULAR ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WITH RESPECT TO WHICH THE BORROWER ELECTS TO HAVE THE MATURITY EXTENDED TO A NEW MATURITY DATE OTHER THAN THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

*Office of Portfolio Analysis and Risk Assessment
Telephone: (202) 205-8663*

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

*Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1568, Room 0226-S
1400 Independence Avenue, SW
Washington, DC 20250*

*Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst*

*Telephone: (202) 205-8663
Facsimile: (844) 749-0736*

THE BORROWER SHOULD NOT COMPLETE THIS FORM OR DELIVER IT TO RUS IF THE BORROWER DESIRES TO HAVE THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

IF THE BORROWER DOES NOT RETURN THIS FORM TO RUS, THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WILL BE EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

MATURITY EXTENSION ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier:

RUS Bond Number:

Part 1 (To be completed by RUS):

Each of the advances of funds ("Advances") identified in this Part 1 will mature on _____ (the "Maturity Date").

FFB ADVANCE IDENTIFIER	RUS ACCOUNT NUMBER	ORIGINAL ADVANCE DATE	ORIGINAL ADVANCE AMOUNT	OUTSTANDING PRINCIPAL AMOUNT
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____

Part 2:

Notice is hereby given to FFB (and RUS) of the Borrower's election that the maturity of each of the Advances identified in this Part 2 be extended as follows:

FFB ADVANCE IDENTIFIER ¹	OPTIONAL PRINCIPAL AMOUNT ²	AMOUNT OF PRINCIPAL TO BE EXTENDED ³	NEW MATURITY DATE ⁴	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE ⁵	5-YEAR NO-CALL PERIOD ⁶	PREMIUM OPTION ⁷
_____	\$ _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$ _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$ _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$ _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹Complete 1 line in Part 2 for each Advance identified in Part 1 with respect to which the Borrower elects to have the maturity extended to a new Maturity Date other than the next Payment Date. Insert the FFB Advance Identifier that FFB assigned to the respective Advance for each Advance identified in Part 1 with respect to which the Borrower elects to have the maturity so extended.

²The Borrower has the option of making a payment of principal on the Maturity Date without any premium being charged. For each Advance, insert the amount of any such optional principal payment that will be paid on the Maturity Date.

³For each Advance, insert the amount of principal for which the maturity is to be extended. That amount must equal the difference between the outstanding principal amount for the respective Advance, as specified in Part 1, and the optional principal payment (if any) for such Advance inserted by the Borrower in Part 2.

⁴For each Advance, insert the particular calendar date that the Borrower selects to be the new Maturity Date to be in effect for the respective Advance after the Maturity Extension, which new Maturity Date must meet all the criteria for Maturity Dates specified in section 7.3.1(a)(5) of the Bond Purchase Agreement referred to in the Bond.

⁵Elect 1 of the following 2 types of prepayment/refinancing privilege for an Advance only if the new Maturity Date selected for such Advance will occur on or after the fifth anniversary of the effective date of this Maturity Extension. The 2 types of prepayment/refinancing privilege are: the market value premium (or discount) privilege ("M") and a fixed premium privilege ("F"). Insert in the box the letter-symbol for the particular type of prepayment/refinancing privilege elected.

⁶Elect 1 of the following 2 no-call period options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 2 no-call period options are: yes ("Y"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege include a 5-year period during which the Advance will not be eligible for prepayment or refinancing, and no ("N"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege not include any such a 5-year no-call period. Insert in the box the letter-symbol for the particular no-call period option elected.

⁷Select 1 of the following 3 premium options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 3 premium options are: a 10% premium declining over 10 years ("X"), a 5% premium declining over 5 years ("V"), and par (no premium) ("P"). Insert in the box the letter-symbol for the particular premium option selected.

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Maturity Extension Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
(the "Borrower")

By: _____

Name: _____

Title: _____

Date: _____

NOTICE OF RUS APPROVAL OF MATURITY EXTENSION ELECTION NOTICE

Notice is hereby given to FFB that the preceding Maturity Extension Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: _____

Name: _____

Title: _____

Date: _____

ANNEX 2-A
TO
FUTURE ADVANCE BOND

FORM
OF
PREPAYMENT ELECTION NOTICE
SPECIFIED PRINCIPAL AMOUNT(S)
(RUS APPROVAL REQUIRED)

**PREPAYMENT ELECTION NOTICE
SPECIFIED PRINCIPAL AMOUNT(S)
(RUS APPROVAL REQUIRED)**

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

*Office of Portfolio Analysis and Risk Assessment
Telephone: (202) 205-8663*

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

*Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1568, Room 0226-S
1400 Independence Avenue, SW
Washington, DC 20250*

*Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst*

*Telephone: (202) 205-8663
Facsimile: (844) 749-0736*

**PREPAYMENT ELECTION NOTICE
SPECIFIED PRINCIPAL AMOUNT(S)**

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier: _____¹

¹Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to prepay all or a portion of the outstanding principal amount of the advances of funds ("Advances") identified in this Part 1:

FFB ADVANCE IDENTIFIER²	RUS ACCOUNT NUMBER³	ORIGINAL ADVANCE DATE⁴	ORIGINAL ADVANCE AMOUNT⁵	OUTSTANDING PRINCIPAL AMOUNT⁶
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____

Part 2:

The Borrower intends to prepay all or a portion of the outstanding principal amount of each of the Advances identified in Part 1 on the following date (such date being the "Intended Prepayment Date"):

_____ ⁷

²Complete 1 line in Part 1 for each Advance that the Borrower intends to prepay in whole or in part. For each Advance, insert the FFB Advance Identifier for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

³For each Advance, insert the RUS Account Number for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

⁴For each Advance, insert the date on which FFB made the respective Advance to the Borrower.

⁵For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.

⁶Insert the outstanding principal amount of each Advance specified in Part 1 as of the day before the date on which the Borrower intends to make a prepayment on the respective Advances.

⁷Insert the particular calendar date that the Borrower selects to be the date on which the Borrower intends to prepay the Advances specified in Part 1, which date must meet the criteria for Intended Prepayment Date prescribed in paragraph 16(b)(1) of the Bond.

Part 3:

For each of the Advances identified in Part 1, the respective amount of principal that the Borrower intends to prepay on the Intended Prepayment Date is as follows:

FFB ADVANCE IDENTIFIER⁸	AMOUNT OF PRINCIPAL TO BE PREPAID⁹
_____	_____
_____	\$ _____
_____	\$ _____
_____	\$ _____

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Prepayment Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE
FINANCE CORPORATION
(the "Borrower")

By: _____

Name: _____

Title: _____

Date: _____

—

⁸Complete 1 line in Part 3 for each Advance identified in Part 1.

⁹For each Advance, insert the amount of principal that will be prepaid on the Intended Prepayment Date.

**NOTICE OF RUS APPROVAL OF
PREPAYMENT ELECTION NOTICE**

Notice is hereby given to FFB that the preceding Prepayment Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: _____

Name: _____

Title: _____

Date: _____

—

ANNEX 2-B
TO
FUTURE ADVANCE BOND

FORM
OF
PREPAYMENT ELECTION NOTICE
FIXED SUM TO BE APPLIED
(RUS APPROVAL REQUIRED)

**PREPAYMENT ELECTION NOTICE
FIXED SUM TO BE APPLIED
(RUS APPROVAL REQUIRED)**

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

*Office of Portfolio Management and Risk Assessment
Telephone: (202) 205-8663*

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

*Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1568, Room 0226-S
1400 Independence Avenue, SW
Washington, DC 20250*

*Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst*

*Telephone: (202) 205-8663
Facsimile: (844) 749-0736*

**PREPAYMENT ELECTION NOTICE
FIXED SUM TO BE APPLIED**

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier: _____¹

¹Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to prepay all or a portion of the outstanding principal amount of the advances of funds ("Advances") identified in this Part 1:

FFB ADVANCE IDENTIFIER²	RUS ACCOUNT NUMBER³	ORIGINAL ADVANCE DATE⁴	ORIGINAL ADVANCE AMOUNT⁵	OUTSTANDING PRINCIPAL AMOUNT⁶
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____

Part 2:

The Borrower intends to prepay all or a portion of the outstanding principal amount of the Advances identified in Part 1 on the following date (such date being the "Intended Prepayment Date"):

_____ ⁷

²Complete 1 line in Part 1 for each Advance that the Borrower intends to prepay in whole or in part. For each Advance, insert the FFB Advance Identifier for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

³For each Advance, insert the RUS Account Number for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

⁴For each Advance, insert the date on which FFB made the respective Advance to the Borrower.

⁵For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.

⁶Insert the outstanding principal amount of each Advance specified in Part 1 as of the day before the date on which the Borrower intends to make a prepayment on the respective Advances.

⁷Insert the particular calendar date that the Borrower selects to be the date on which the Borrower intends to prepay the Advances specified in Part 1, which date must meet the criteria for Intended Prepayment Date prescribed in paragraph 16(b)(1) of the Bond.

Part 3:

The Borrower elects to have the following amount of funds applied by FFB toward a prepayment of the outstanding principal amount of the Advances identified in Part 1, in the order in which they appear in Part 1:

_____ 8

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Prepayment Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE
FINANCE CORPORATION
(the "Borrower")

By: _____

Name: _____

Title: _____

Date: _____

⁸Insert the particular amount of funds that the Borrower elects to be applied by FFB toward a prepayment of the outstanding principal amount of the Advances identified in Part 1, in the order in which they appear in Part 1.

**NOTICE OF RUS APPROVAL OF
PREPAYMENT ELECTION NOTICE**

Notice is hereby given to FFB that the preceding Prepayment Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: _____

Name: _____

Title: _____

Date: _____

ANNEX 3-A
TO
FUTURE ADVANCE BOND

FORM
OF
REFINANCING ELECTION NOTICE

REFINANCING ELECTION NOTICE

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

*Office of Portfolio Management and Risk Assessment
Telephone: (202) 205-8663*

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO FFB AT THE FOLLOWING ADDRESS:

*Director of Lending
Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, NW
Washington, DC 20220*

*Telephone: (202) 622-2470
Facsimile: (202) 622-0707*

DELIVER A COPY OF THIS FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

*Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1568, Room 0226-S
1400 Independence Avenue, SW
Washington, DC 20250*

*Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst*

*Telephone: (202) 205-8663
Facsimile: (844) 749-0736*

REFINANCING ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Corporation

FFB Bond Identifier: _____¹

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to refinance the outstanding principal amount of each of the advances of funds ("Advances") identified in this Part 1:

FFB ADVANCE IDENTIFIER²	RUS ACCOUNT NUMBER³	ORIGINAL ADVANCE DATE⁴	ORIGINAL ADVANCE AMOUNT⁵	OUTSTANDING PRINCIPAL AMOUNT⁶
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____

Part 2:

The Borrower intends to refinance the outstanding principal amount of each of the Advances identified in Part 1 on the following date (such date being the "Intended Refinancing Date"):

_____⁷

¹Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

²Complete 1 line in Part 1 for each Advance that the Borrower intends to refinance. For each Advance, insert the FFB Advance Identifier for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

³For each Advance, insert the RUS Account Number for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

⁴For each Advance, insert the date on which FFB made the respective Advance to the Borrower.

⁵For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.

⁶For each Advance, insert the outstanding principal amount of the respective Advance as of the day before the intended refinancing.

⁷Insert the particular calendar date that the Borrower selects to be the date on which the Borrower intends to refinance the Advances specified in Part 1, which date must meet the criteria for Intended Refinancing Date prescribed in paragraph 17(b)(1) of the Bond.

Part 3:

Notice is hereby given to FFB (and RUS) of the Borrower's election that each of the Advances identified in Part 1 is to be refinanced as follows:

FFB ADVANCE IDENTIFIER ⁸	AMOUNT OF PRINCIPAL TO BE REFINANCED ⁹	NEW MATURITY DATE ¹⁰	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE ¹¹	5-YEAR NO-CALL PERIOD ¹²	PREMIUM OPTION ¹³
	\$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	\$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	\$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	\$		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

⁸Complete 1 line in Part 3 for each Advance identified in Part 1 as being an Advance the Borrower elects to refinance. Insert the FFB Advance Identifier that FFB assigned to the respective Advance.

⁹For each Advance, insert the amount of principal that is to be refinanced. This will be the same amount as the outstanding principal amount of the respective Advance inserted in Part 1.

¹⁰For each Advance, insert the particular calendar date that the Borrower selects to be the new Maturity Date to be in effect for the respective Advance after the refinancing, which new Maturity Date must meet all the criteria for Maturity Dates specified in section 7.3.1(a)(5) of the Bond Purchase Agreement referred to in the Bond.

¹¹Elect 1 of the following 2 types of prepayment/refinancing privilege for an Advance only if the new Maturity Date selected for such Advance will occur on or after the fifth anniversary of the effective date of this Maturity Extension. The 2 types of prepayment/refinancing privilege are: the market value premium (or discount) privilege ("M") and a fixed premium privilege ("F"). Insert in the box the letter-symbol for the particular type of prepayment/refinancing privilege elected.

¹²Elect 1 of the following 2 no-call period options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 2 no-call period options are: yes ("Y"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege include a 5-year period during which the Advance will not be eligible for prepayment or refinancing, and no ("N"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege not include any such a 5-year no-call period. Insert in the box the letter-symbol for the particular no-call period option elected.

¹³Select 1 of the following 3 premium options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 3 premium options are: a 10% premium declining over 10 years ("X"), a 5% premium declining over 5 years ("V"), and par (no premium) ("P"). Insert in the box the letter-symbol for the particular premium option selected.

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Refinancing Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE
CORPORATION
(the "Borrower")

By: _____

Name: _____

Title: _____

Date: _____

ANNEX 3-B
TO
FUTURE ADVANCE BOND

FORM
OF
REFINANCING ELECTION NOTICE
(RUS APPROVAL REQUIRED)

**REFINANCING ELECTION NOTICE
(RUS APPROVAL REQUIRED)**

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

*Office of Portfolio Management and Risk Assessment
Telephone: (202) 205-8663*

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

*Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1568, Room 0226-S
1400 Independence Avenue, SW
Washington, DC 20250*

*Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst*

*Telephone: (202) 205-8663
Facsimile: (844) 749-0736*

REFINANCING ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Corporation

FFB Bond Identifier: _____¹

¹Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to refinance the outstanding principal amount of each of the advances of funds ("Advances") identified in this Part 1:

FFB ADVANCE IDENTIFIER²	RUS ACCOUNT NUMBER³	ORIGINAL ADVANCE DATE⁴	ORIGINAL ADVANCE AMOUNT⁵	OUTSTANDING PRINCIPAL AMOUNT⁶
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____
_____	_____	_____	\$ _____	\$ _____

Part 2:

The Borrower intends to refinance the outstanding principal amount of each of the Advances identified in Part 1 on the following date (such date being the "Intended Refinancing Date"):

_____ ⁷

²Complete 1 line in Part 1 for each Advance that the Borrower intends to refinance. For each Advance, insert the FFB Advance Identifier for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

³For each Advance, insert the RUS Account Number for the respective Advance as specified in the most recent billing notice delivered by RUS to the Borrower.

⁴For each Advance, insert the date on which FFB made the respective Advance to the Borrower.

⁵For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.

⁶For each Advance, insert the outstanding principal amount of the respective Advance as of the day before the intended refinancing.

⁷Insert the particular calendar date that the Borrower selects to be the date on which the Borrower intends to refinance the Advances specified in Part 1, which date must meet the criteria for Intended Refinancing Date prescribed in paragraph 17(b)(1) of the Bond.

Part 3:

Notice is hereby given to FFB (and RUS) of the Borrower's election that each of the Advances identified in Part 1 is to be refinanced as follows:

FFB ADVANCE IDENTIFIER ⁸	AMOUNT OF PRINCIPAL TO BE REFINANCED ⁹	NEW MATURITY DATE ¹⁰	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE ¹¹	5-YEAR NO-CALL PERIOD ¹²	PREMIUM OPTION ¹³
_____	\$ _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$ _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$ _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	\$ _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

⁸Complete 1 line in Part 3 for each Advance identified in Part 1 as being an Advance the Borrower elects to refinance. Insert the FFB Advance Identifier that FFB assigned to the respective Advance.

⁹For each Advance, insert the amount of principal that is to be refinanced. This will be the same amount as the outstanding principal amount of the respective Advance inserted in Part 1.

¹⁰For each Advance, insert the particular calendar date that the Borrower selects to be the new Maturity Date" to be in effect for the respective Advance after the refinancing, which new Maturity Date must meet all the criteria for Maturity Dates specified in section 7.3.1(a)(5) of the Bond Purchase Agreement referred to in the Bond.

¹¹Elect 1 of the following 2 types of prepayment/refinancing privilege for an Advance only if the new Maturity Date selected for such Advance will occur on or after the fifth anniversary of the effective date of this Maturity Extension. The 2 types of prepayment/refinancing privilege are: the market value premium (or discount) privilege ("M") and a fixed premium privilege ("F"). Insert in the box the letter-symbol for the particular type of prepayment/refinancing privilege elected.

¹²Elect 1 of the following 2 no-call period options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 2 no-call period options are: yes ("Y"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege include a 5-year period during which the Advance will not be eligible for prepayment or refinancing, and no ("N"), if the Borrower elects to have the fixed premium prepayment/refinancing privilege not include any such a 5-year no-call period. Insert in the box the letter-symbol for the particular no-call period option elected.

¹³Select 1 of the following 3 premium options for an Advance only if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 3 premium options are: a 10% premium declining over 10 years ("X"), a 5% premium declining over 5 years ("V"), and par (no premium) ("P"). Insert in the box the letter-symbol for the particular premium option selected.

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Refinancing Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
(the "Borrower")

By: _____

Name: _____

Title: _____

Date: _____

**NOTICE OF RUS APPROVAL OF
REFINANCING ELECTION NOTICE**

Notice is hereby given to FFB that the preceding Refinancing Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: _____

Name: _____

Title: _____

Date: _____

**THE UNITED STATES OF AMERICA,
acting through the Rural Utilities Service,**

**NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION**

and

**U.S. BANK NATIONAL ASSOCIATION,
as Collateral Agent**

FIFTH AMENDED, RESTATED AND CONSOLIDATED PLEDGE AGREEMENT

**Dated as of
November 15, 2018**

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Schedule I – Form of Certificate of Pledged Collateral
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FIFTH AMENDED, RESTATED AND CONSOLIDATED PLEDGE AGREEMENT, dated as of November 15, 2018, among NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, a District of Columbia cooperative association and its successors and assigns (hereinafter called the “Borrower”), having its principal executive office and mailing address at 20701 Cooperative Way, Dulles, Virginia 20166, the UNITED STATES OF AMERICA, acting through the Rural Utilities Service, a Rural Development agency of the United States Department of Agriculture and its successors and assigns (“RUS”), and U.S. BANK NATIONAL ASSOCIATION, a national association and its successors and assigns (hereinafter called the “Collateral Agent”), having its corporate office at 100 Wall Street, Suite 1600, New York, NY 10005-3701.

RECITALS OF THE BORROWER

WHEREAS, the Borrower has previously issued the following bonds to the Federal Financing Bank (“FFB”) to evidence loans therefrom in the aggregate principal amount of up to \$6,548,286,000: (a) that certain Series A Future Advance Bond dated as of June 14, 2005, (b) that certain Series B Future Advance Bond dated as of April 28, 2006, (c) that certain Series C Future Advance Bond dated as of September 19, 2008, (d) that certain Series D Future Advance Bond dated as of November 10, 2010, (e) that certain Series E Future Advance Bond dated as of December 1, 2011, (f) that certain Series F Future Advance Bond dated as of December 13, 2012, (g) that certain Series G Future Advance Bond dated as of November 21, 2013, (h) that certain Series H Future Advance Bond dated as of November 18, 2014, (i) that certain Series K Future Advance Bond dated as of March 29, 2016, (j) that certain Series L Future Advance Bond dated as of December 1, 2016, and (k) that certain Series M Future Advance Bond dated as of November 9, 2017 (collectively, the “Original Bonds”);

WHEREAS, concurrently with the execution of this Pledge Agreement, the Borrower has issued a bond to FFB to evidence a loan therefrom in the aggregate principal amount of up to \$750,000,000.00 (hereinafter called the “Series N Bond”) and may from time to time issue additional bonds to FFB (the “New Bonds”); (the Original Bonds, the Series N Bond and the New Bonds are collectively referred to as the “Bonds”);

WHEREAS, the Original Bonds were previously guaranteed by RUS pursuant to the Fourth Amended, Restated and Consolidated Bond Guarantee Agreement, dated as of November 9, 2017, by and between the Borrower and RUS, as in effect immediately prior to the date hereof (the “Prior Bond Guarantee Agreement”);

WHEREAS, in connection with the issuance of the Series N Bond, the Borrower and FFB have entered into the Fifth Amended, Restated and Consolidated Bond Guarantee Agreement, dated as of November 15, 2018 (the “Consolidated Bond Guarantee Agreement”), which amends, restates, and consolidates the Prior Bond Guarantee Agreement, and which now secures the Original Bonds;

WHEREAS, the Original Bonds were secured by the Fourth Amended, Restated and Consolidated Pledge Agreement, dated as of November 9, 2017, by and among the Borrower, RUS and the Collateral Agent, as in effect immediately prior to the date hereof (the “Prior Pledge Agreement”);

WHEREAS, the Borrower is required pursuant to the terms of the Consolidated Bond Guarantee Agreement to pledge certain property to the Collateral Agent for the benefit of RUS to ratably secure the Borrower’s obligations under the bonds from time to time issued to FFB; and

WHEREAS, in furtherance of the foregoing, the Borrower, RUS and the Collateral Agent have agreed to amend the Prior Pledge Agreement, continue the liens created by the Prior Pledge Agreement, and set forth the terms by which the Borrower will agree to pledge the Pledged Collateral to the Collateral Agent for the benefit of RUS;

NOW, THEREFORE, THIS PLEDGE AGREEMENT WITNESSETH that, to secure the performance of the certain Obligations contained in the Consolidated Bond Guarantee Agreement, the Prior Pledge Agreement, the Reimbursement Notes and herein, the Borrower assigns and pledges to the Collateral Agent, its successors and assigns, for the benefit of RUS, and grants to the Collateral Agent, its successors and assigns, for the benefit of RUS, a security interest in the following (collectively referred to as the “Pledged Collateral”) in each case with effect immediately upon execution of this Pledge Agreement and delivery of a Certificate of Pledged Collateral to the Collateral Agent: (a)(i) the Pledged Securities and the certificates representing the Pledged Securities; (ii) subject to Section 3.08, all payments of principal or interest, cash, instruments and other property from time to time received, receivable or otherwise distributed in respect of, in exchange for, and all other Proceeds received in respect of, the Pledged Securities pledged hereunder; (iii) subject to Section 3.08, all rights and privileges of the Borrower with respect to the Pledged Securities pledged hereunder; (iv) all Proceeds of any of the foregoing above; and (b) any property, including cash and Permitted Investments, that may, on the date hereof or from time to time hereafter, be subject to the Lien hereof by the Borrower by delivery, assignment or pledge thereof to the Collateral Agent hereunder and the Collateral Agent is authorized to receive the same as additional security hereunder (subject to any reservations, limitations or conditions agreed to in writing by the Borrower and RUS respecting the scope or priority of such security or the use and disposition of such property or the Proceeds thereof).

TO HAVE AND TO HOLD the Pledged Collateral, together with all right, title, interest, powers, privileges and preferences pertaining or incidental thereto, unto the Collateral

Agent, its successors and assigns, for the benefit of RUS, forever; subject, however, to the terms, covenants and conditions hereinafter set forth.

ARTICLE I

Definitions and Other Provisions of General Application

SECTION 1.01. Definitions. For all purposes of this Pledge Agreement, except as otherwise expressly provided or unless the context otherwise requires:

- (i) the terms defined in this Article have the meanings assigned to them in this Article, and include the plural as well as the singular;
- (ii) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with generally accepted accounting principles;
- (iii) all reference in this instrument to designated “Articles”, “Sections” and other subdivisions are to the designated Articles, Sections and other subdivisions of this instrument; and
- (iv) the words “herein”, “hereof” and “hereunder” and other words of similar import refer to this Pledge Agreement as a whole and not to any particular Article, Section or other subdivision.

“Allowable Amount” on any date, means:

- (a) with respect to cash, 100% thereof;
- (b) with respect to Eligible Securities, the aggregate principal amount of such Eligible Securities theretofore advanced thereon which remains unpaid on such date; and
- (c) with respect to Permitted Investments, the cost to the Borrower thereof (exclusive of accrued interest or brokerage commissions) except that with respect to any Permitted Investments which are traded on any national securities exchange or over-the-counter market, Allowable Amount on any date shall mean the fair market value thereof (as determined by the Borrower).

“Bonds” has the meaning set forth in the recitals hereto.

“Borrower” means the Person named as the “Borrower” in the first paragraph of this instrument.

“Borrower Notice” and “Borrower Order” mean, respectively, a written notice or order signed in the name of the Borrower by either its Governor, Chief Financial Officer and by any Vice President of the Borrower, and delivered to the Collateral Agent and RUS.

“Business Day” shall have the meaning given to such term in the Consolidated Bond Guarantee Agreement.

“Certificate of Pledged Collateral” means (i) the Certificate of Pledged Collateral delivered to the Collateral Agent and RUS as of Closing Date and (ii) each certificate delivered from and after the date hereof to the Collateral Agent and RUS substantially in the form of Schedule I attached hereto.

“Class B Member” means any Class B Member of the Borrower as described in the Borrower’s Bylaws as of the date hereof.

“Closing Date” shall mean November 15, 2018.

“Collateral Agent” means the Person named as the “Collateral Agent” in the first paragraph of this instrument.

“Consolidated Bond Guarantee Agreement” has the meaning set forth in the recitals hereto.

“Eligible Member” means a member or associate of the Borrower, the Rural Telephone Finance Cooperative or the National Cooperative Services Corporation, as defined in the bylaws of each entity.

“Eligible Security” means a note or bond of any Person payable or registered to, or to the order of, the Borrower, the Rural Telephone Finance Cooperative or the National Cooperative Services Corporation, and in respect of which (i) no default has occurred in the payment of principal or interest in accordance with the terms of such note or bond that is continuing beyond the contractual grace period (if any) provided in such note or bond for such payment; (ii) no “event of default” as defined in such note or bond (or in any instrument creating a security interest in favor of the Borrower, the Rural Telephone Finance Cooperative or the National Cooperative Services Corporation in respect of such note or bond), shall exist that has resulted in the exercise of any right or remedy described in such note or bond (or in any such instrument); (iii) such note or bond is not classified by the Borrower as non-performing or impaired under generally accepted accounting principles in the United States; (iv) such note or bond is free and clear of all liens other than the Lien created by this Pledge Agreement; (v) such note or bond is not a Restructured CFC Loan; (vi) such note or bond is not Unsecured Debt; and (vii) the Total Exposure Amount does not exceed the Maximum Debtor Principal Amount; provided, however, if the Total Exposure Amount does exceed the Maximum Debtor Principal Amount, such note or bond may be pledged in whole, however, the Allowable Amount of such Eligible Security shall only include the principal amount which does not exceed the Maximum Debtor Principal Amount.

“Event of Default” has the meaning set forth in Section 5.01.

“Lien” means any lien, pledge, charge, mortgage, encumbrance, debenture, hypothecation or other similar security interest attaching to any part of the Pledged Collateral.

“Lien of this Pledge Agreement” or “Lien hereof” means the Lien created by these presents.

“Maximum Debtor Principal Amount” means 5% of the total aggregate amount of Pledged Securities held by the Collateral Agent, or such higher amount permitted by RUS and communicated to Borrower in writing.

“New Bonds” has the meaning set forth in the recitals hereto.

“Obligations” means the due and punctual performance of the obligations of the Borrower to make payment under Sections 4.1, 10.3, and 10.4 of the Consolidated Bond Guarantee Agreement and, without duplication, under the Reimbursement Note.

“Original Bonds” has the meaning set forth in the recitals hereto.

“Officers’ Certificate” means a certificate signed by either the Governor or the Chief Financial Officer of the Borrower, and by any Vice President of the Borrower, and delivered to RUS and/or the Collateral Agent, as applicable.

“Permitted Investment” has the meaning given to that term in Section 4.01.

“Person” means any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

“Pledge Agreement” means this Pledge Agreement, as originally executed and as it may from time to time be supplemented, restated or amended entered into pursuant to the applicable provisions hereof.

“Pledged Collateral” has the meaning set forth in the Granting Clause. “Pledged Securities” has the meaning set forth in Section 3.01.

“Prior Pledge Agreement” has the meaning set forth in the recitals hereto.

“Proceeds” has the meaning specified in Section 9-102 of the Uniform Commercial Code.

“Reimbursement Notes” has the meaning given to that term in the Consolidated Bond Guarantee Agreement.

“Restructured CFC Loan” means any note or bond of an obligor payable to the Borrower that is classified as a ‘troubled debt restructuring’ under generally accepted accounting principles.

“RUS” means the Person named as “RUS” in the first paragraph of this instrument.

“RUS Notice” and “RUS Order” mean, respectively, a written notice or order signed by the Secretary and delivered to the Collateral Agent and the Borrower.

“RUS Notice of Default” has the meaning given to that term in Section 5.02.

“Secretary” shall mean the Secretary of Agriculture acting through the Administrator of RUS.

“Total Exposure Amount” on any date, means with respect to Eligible Securities, the aggregate principal amount of all notes or bonds of an Eligible Member pledged hereunder.

“Uniform Commercial Code” means the Uniform Commercial Code as from time to time in effect in the District of Columbia.

“United States” means the United States of America, its territories, possessions and other areas subject to its jurisdiction.

“Unsecured Debt” means a note or bond that is not secured by collateral of the debtor pledged to the Borrower in an amount greater than or equal to the outstanding amount of debt owed by the debtor to the Borrower.

“Vice President” means any vice president of the Borrower, whether or not designated by a number or a word or words added before or after the title “vice president”.

ARTICLE II

Application of this Pledge Agreement

SECTION 2.01. Application of the Lien of this Pledge Agreement. Notwithstanding any other provision of this Pledge Agreement, and in accordance with the Granting Clause hereof, the Lien hereof shall automatically and without further act, attach and apply to the Pledged Securities.

SECTION 2.02 Delivery of Certificates of Pledged Collateral

(a) On each of the following: (i) the Closing Date, (ii) within 15 Business Days of the end of each of the Borrower’s fiscal quarters (August 31, November 30, February 28 and May 31), and (iii) each time money is advanced under a Bond, the Borrower shall deliver, and from time to time the Borrower may deliver, a Certificate of Pledged Collateral to the Collateral Agent and RUS, showing that the aggregate principal amount of Pledged Collateral specified in Schedule A thereto that have been delivered to the Collateral Agent as of the last day of the most recent month

ended more than 10 Business Days before the date thereof shall at least equal the aggregate principal amount of the Bonds outstanding, or to be outstanding after any such advance, at the date thereof. At the time of delivery of a Certificate of Pledged Collateral, the Borrower shall deliver to the Collateral Agent all Pledged Collateral specified in such certificate that are not already deposited with the Collateral Agent accompanied by the appropriate instruments of transfer executed in blank and in a form satisfactory to the Collateral Agent and by such other instruments and documents as the Collateral Agent may reasonably request. The Borrower acknowledges and agrees that it is pledging the Pledged Collateral to RUS to reimburse RUS for all payments made, and expenses incurred, by RUS under the Reimbursement Notes, including any and all principal, interest and fees accruing thereunder, and any additional fees incurred by RUS in connection with RUS exercising its rights and remedies under the Consolidated Bond Guarantee Agreement and this Pledge Agreement upon the occurrence of an Event of Default (as defined in Section 10.1 of the Consolidated Bond Guarantee Agreement). All Pledged Collateral deposited with the Collateral Agent that were previously Pledged Collateral, but that is no longer specified in the Certificate of Pledged Collateral most recently delivered, shall, at the Borrower's expense and pursuant to a Borrower Order, be returned by the Collateral Agent to the Borrower.

(b) Each time that the Borrower requests an advance under a Bond, the Borrower is required to submit to RUS Schedule A to the Certificate of Pledged Collateral no more than ninety (90) days prior to the date of the requested advance. RUS shall have, in its sole discretion, the right to reject any Pledged Collateral listed on Schedule A to the Certificate of Pledged Collateral by providing written notice of such rejection to the Borrower within fourteen (14) Business Days of RUS's receipt of such Schedule. Schedule A to the Certificate of Pledged Collateral will be deemed to have been approved by RUS in the event that RUS does not reject any Pledged Collateral listed thereon by written notice within fourteen (14) Business Days of its receipt of such Schedule.

(c) In the event that RUS rejects any portion of the Pledged Collateral listed on Schedule A to the Certificate of Pledged Collateral pursuant to Section 2.02 (b) above, the Borrower shall have thirty (30) days to replace, substitute or withdraw the Pledged Collateral and replace the Pledged Collateral with Pledged Collateral to be approved or deemed approved by RUS pursuant to Section 2.02(b) above. Notwithstanding the foregoing, Borrower will make all reasonable attempts to replace any Pledged Collateral rejected by RUS prior to an advance. RUS shall not be required to process an advance request until it is reasonably satisfied that Borrower has made or will make attempts to replace any such rejected Pledged Collateral.

SECTION 2.03. Maintenance of Pledged Collateral.

(a) The Collateral Agent shall hold and segregate the Pledged Collateral in a separate account.

(b) The Borrower shall cause the aggregate principal amount of Pledged Collateral at all times to be not less than 100% of the aggregate principal amount of the Bonds outstanding.

(c) The Borrower shall cause the aggregate principal amount of the Pledged Collateral of Class B Members at all times to be not more than 30% of the total aggregate principal amount of the Pledged Collateral.

(d) The Borrower shall not create, or permit to exist, any Lien that is secured by, or in any way attaches to, the Pledged Collateral, without the prior written consent of RUS.

SECTION 2.04. UCC Filings. The Borrower shall prepare and file in the proper Uniform Commercial Code filing office in the District of Columbia (i) on or prior to the Closing Date, a financing statement recording the Collateral Agent's interest in the Pledged Collateral; and (ii) from time to time thereafter, continuation statements or such other filings as are necessary to maintain the perfection of the Lien hereof on the Pledged Collateral.

ARTICLE III

Provisions as to Pledged Collateral

SECTION 3.01. Pledged Securities. The "Pledged Securities" shall mean (i) the Eligible Securities listed on Schedule A and Schedule B of the Certificate of Pledged Collateral delivered on the Closing Date and (ii) the Eligible Securities listed on Schedule A and Schedule B of any Certificate of Pledged Collateral delivered subsequent to the execution of this Pledge Agreement.

SECTION 3.02. Holding of Pledged Securities. Unless and until an Event of Default shall occur, the Collateral Agent, on behalf of RUS, shall hold the Pledged Securities in the name of the Borrower (or its nominee), endorsed or assigned in blank or in favor of the Collateral Agent. Upon the occurrence of an Event of Default, the Collateral Agent, on behalf of RUS, shall have the right (in its sole and absolute discretion), to the extent a register is maintained therefor, to register the Pledged Securities in the Collateral Agent's own name as pledgee, or in the name of the Collateral Agent's nominee (as pledgee or as sub-agent) or to continue to hold the Pledged Securities in the name of the Borrower, endorsed or assigned in blank or in favor of the Collateral Agent. Upon cessation of such Event of Default, the Collateral Agent shall take such action as is necessary to again cause the Pledged Securities to be registered in the name of the Borrower (or its nominee).

SECTION 3.03. Withdrawal and Substitution of Pledged Collateral.

(a) Any part of the Pledged Collateral may be withdrawn by the Borrower or substituted for cash or other Eligible Securities or Permitted Investments by the Borrower and shall be delivered to the Borrower by the Collateral Agent upon Borrower Order at any time and from time to time, together with any other documents or instruments of transfer or assignment necessary to reassign to the Borrower said Pledged Collateral and the interest of the Borrower, provided the aggregate Allowable Amount of Pledged Collateral remaining after such withdrawal or substitution shall at least equal the aggregate principal amount of the Bonds outstanding after such withdrawal or substitution, as shown by the Certificate of Pledged Collateral furnished to the Collateral Agent pursuant to Subsection (b)(i) of this Section.

(b) Prior to any such withdrawal or substitution, the Collateral Agent shall be furnished with the following instruments:

(i) a Certificate of Pledged Collateral, dated not more than 30 days prior to such withdrawal or substitution, showing that immediately after such withdrawal or substitution the requirements of Subsection (a) of this Section will be satisfied; and

(ii) an Officers' Certificate certifying that no Event of Default has occurred which has not been remedied.

Upon any such withdrawal or substitution, the Borrower shall deliver any cash or Eligible Securities or Permitted Investments to be substituted and the Collateral Agent shall execute any instruments of transfer or assignment specified in a Borrower Order as necessary to vest in the Borrower any part of the Pledged Collateral withdrawn.

In case an Event of Default shall have occurred and be continuing, the Borrower shall not withdraw or substitute any part of the Pledged Collateral, provided that any Pledged Collateral may be withdrawn (a) as provided for in Section 3.04; or (b) upon the deposit with the Collateral Agent of an amount of cash at least equal to the Allowable Amount (at the time of such withdrawal) of the Pledged Securities so withdrawn and the delivery to the Collateral Agent of the instruments referred to in Subsection (b)(i) of this Section and a Borrower Order.

SECTION 3.04. Reassignment of Pledged Securities upon Payment. Upon receipt of:

(i) an Officers' Certificate stating that all payments of principal, premium (if any) and interest have been made upon any Pledged Securities held by the Collateral Agent other than payment of an amount (if any) specified in said certificate required fully to discharge all obligations on said Pledged Securities; and

(ii) cash in the amount (if any) so specified fully to discharge said Pledged Securities,

the Collateral Agent shall deliver to the Borrower upon Borrower Order said Pledged Securities, together with any other documents or instruments of transfer or assignment necessary to reassign to the Borrower said Pledged Securities and the interest of the Borrower specified in such Borrower Order.

SECTION 3.05. Addition of Pledged Collateral. At any time, the Borrower may pledge additional Eligible Securities, cash or Permitted Investments under this Pledge Agreement by delivering such Pledged Collateral to the Collateral Agent, accompanied by a Certificate of Pledged Collateral specifying such additional collateral and dated not more than 30 days prior thereto, provided that, in the case of additional Permitted Investments, no such Permitted Investments shall be subject to any reservations, limitations or conditions referred to in the Granting Clause hereof.

SECTION 3.06. Accompanying Documentation. Where Eligible Securities are delivered to the Collateral Agent under Section 3.03 or Section 3.05, such securities shall be accompanied by the appropriate instruments of transfer executed in blank and in a form satisfactory to the Collateral Agent and by such other instruments and documents as the Collateral Agent may reasonably request. All other property delivered to the Collateral Agent under Section 3.03 or Section 3.05 and comprising part of the Pledged Collateral shall be accompanied by proper instruments of assignment duly executed by the Borrower and such other instruments or documents as the Collateral Agent may reasonably request.

SECTION 3.07. Renewal; Extension; Substitution. Unless and until an Event of Default shall have occurred and be continuing, the Borrower may at any time renew or extend, subject to the Lien of this Pledge Agreement, any Pledged Security upon any terms or may accept in place of and in substitution for any such Pledged Security, another Eligible Security or Securities of the same issuer or of any successor thereto for at least the same unpaid principal amount, all as evidenced by a Borrower Order delivered to the Collateral Agent; provided, however, that in case of any substitution, Eligible Securities substituted as aforesaid shall be subject to the Lien of this Pledge Agreement as part of the Pledged Collateral and be held in the same manner as those for which they shall be substituted, and in the case of each substituted Eligible Security the Borrower shall provide an Officers' Certificate certifying to the Collateral Agent that such substituted security satisfies the requirements of this Section. So long as no Event of Default shall have occurred and be continuing, the Collateral Agent, upon Borrower Order stating that no Event of Default shall have occurred and be continuing, shall execute any consent to any such renewal, extension or substitution as shall be specified in such Borrower Order.

SECTION 3.08. Voting Rights; Interest and Principal

(a) Unless and until an Event of Default has occurred and is continuing, and RUS delivers to the Collateral Agent an RUS Notice of Default suspending the Borrower's rights under this clause:

(i) The Borrower shall be entitled to exercise any and all voting and/or other consensual rights and powers inuring to an owner of Pledged Securities or any part thereof provided that such rights and powers shall not be exercised in any manner inconsistent with the terms of the Consolidated Bond Guarantee Agreement or this Pledge Agreement.

(ii) The Collateral Agent shall execute and deliver to the Borrower, or cause to be executed and delivered to the Borrower, all such proxies, powers of attorney and other instruments as the Borrower may reasonably request for the purpose of enabling the Borrower to exercise the voting and/or consensual rights and powers it is entitled to exercise pursuant to subparagraph (i) above.

(iii) The Borrower shall be entitled to receive and retain any and all interest, principal and other distributions paid on or distributed in respect of the Pledged Securities; provided that any non-cash interest, principal or other distributions that would constitute Pledged Securities if pledged hereunder, and received in exchange for Pledged Securities or any part thereof pledged hereunder, or in redemption thereof, or as a result of any merger, consolidation, acquisition or other exchange of assets to which such issuer of

Pledged Securities may be a party or otherwise, shall be and become part of the Pledged Collateral, and, if received by the Borrower, shall not be commingled by the Borrower with any of its other funds or property but shall be held separate and apart therefrom, shall be held in trust for the benefit of the Collateral Agent and shall be forthwith delivered to the Collateral Agent in the same form as so received (with any necessary endorsement).

(b) If an Event of Default shall have occurred and be continuing, then, to the extent such rights are suspended by the applicable RUS Notice of Default, all rights of the Borrower to interest, principal or other distributions that the Borrower is authorized to receive pursuant to paragraph (a)(iii) of this Section 3.08 shall cease, and all such suspended rights shall thereupon become vested in the Collateral Agent, which shall have the sole and exclusive right and authority to receive and retain such interest, principal or other distributions. All interest, principal or other distributions received by the Borrower contrary to the provisions of this Section 3.08 shall be held in trust for the benefit of the Collateral Agent, shall be segregated from other property or funds of the Borrower and shall be forthwith delivered to the Collateral Agent in the same form as so received (with any necessary endorsement). Any and all money and other property paid over to or received by the Collateral Agent pursuant to the provisions of this paragraph (b) shall be retained by the Collateral Agent in an account to be established by the Collateral Agent upon receipt of such money or other property and shall be applied in accordance with the provisions of Section 5.03. After all Events of Default have ceased, the Collateral Agent shall promptly repay to the Borrower (without interest) all interest, principal or other distributions that the Borrower would otherwise be permitted to retain pursuant to the terms of paragraph (a)(iii) of this Section 3.08 and that remain in such account.

(c) If an Event of Default shall have occurred and be continuing, then, to the extent such rights are suspended by the applicable RUS Notice of Default, all rights of the Borrower to exercise the voting and consensual rights and powers it is entitled to exercise pursuant to paragraph (a)(i) of this Section 3.08, and the obligations of the Collateral Agent under paragraph (a)(ii) of this Section 3.08, shall cease, and all such rights shall thereupon become vested in the Collateral Agent, which shall have the sole and exclusive right and authority to exercise such voting and consensual rights and powers; provided that the Collateral Agent shall have the right from time to time during the existence of such Event of Default to permit the Borrower to exercise such rights and powers.

SECTION 3.09. Protection of Title; Payment of Taxes; Liens, etc. The Borrower will:

(i) duly and promptly pay and discharge, or cause to be paid and discharged, before they become delinquent, all taxes, assessments, governmental and other charges lawfully levied, assessed or imposed upon or against any of the Pledged Collateral, including the income or profits therefrom and the interests of the Collateral Agent in such Pledged Collateral;

(ii) duly observe and conform to all valid requirements of any governmental authority imposed upon the Borrower relative to any of the Pledged Collateral, and all covenants, terms and conditions under or upon which any part thereof is held;

(iii) cause to be paid and discharged all lawful claims (including, without limitation, income taxes) which, if unpaid, might become a lien or charge upon Pledged Collateral; and

(iv) do all things and take all actions necessary to keep the Lien of this Pledge Agreement a first and prior lien upon the Pledged Collateral and protect its title to the Pledged Collateral against loss by reason of any foreclosure or other proceeding to enforce any lien prior to or *pari passu* with the Lien of this Pledge Agreement.

Nothing contained in this Section shall require the payment of any such tax, assessment, claim, lien or charge or the compliance with any such requirement so long as the validity, application or amount thereof shall be contested in good faith; provided, however, that the Borrower shall have set aside on its books such reserves (segregated to the extent required by generally accepted accounting principles) as shall be deemed adequate with respect thereto as determined by the Board of Directors of the Borrower (or a committee thereof).

SECTION 3.10. Maintenance of Pledged Collateral. The Borrower shall cause the aggregate principal amount of Pledged Collateral held by the Collateral Agent at all times to be not less than 100% of the aggregate principal amount of the Bonds outstanding.

SECTION 3.11. Representations, Warranties and Covenants. The Borrower represents, warrants and covenants to the Collateral Agent, for the benefit of RUS, the following with respect to the Pledged Collateral and the Lien thereon:

(a) except for the Lien hereof and any Lien consented to in writing by RUS, the Borrower or the Rural Telephone Finance Cooperative or the National Cooperative Services Corporation (i) is and will continue to be the direct owner, beneficially and of record, of the Pledged Securities from time to time pledged hereunder, (ii) holds and will continue to hold the same free and clear of all Liens, other than Liens created by this Pledge Agreement, (iii) will make no assignment, pledge, hypothecation or transfer of, or create or permit to exist any security interest in or other Lien on, the Pledged Collateral, other than Liens created by this Pledge Agreement and (iv) will defend its title or interest thereto or therein against any and all Liens (other than the Lien created by this Pledge Agreement), however arising, of all Persons whomsoever;

(b) except for restrictions and limitations imposed by the Consolidated Bond Guarantee Agreement or securities laws generally, the Pledged Securities are and will continue to be freely transferable and assignable, and none of the Pledged Securities are or will be subject to any restriction of any nature that might prohibit, impair, delay or otherwise affect the pledge of such Pledged Securities hereunder, the sale or disposition thereof pursuant hereto or the exercise by the Collateral Agent of rights and remedies hereunder;

(c) the Borrower has the power and authority to pledge the Pledged Collateral pledged by it hereunder in the manner hereby done or contemplated;

(d) no consent or approval of any governmental authority, any securities exchange or any other Person (with the exception RUS) was or is necessary to the validity of the pledge effected hereby (other than such as have been obtained and are in full force and effect); and

(e) by virtue of the execution and delivery by the Borrower of this Pledge Agreement, when any Pledged Securities are delivered to the Collateral Agent in accordance with this Pledge Agreement, the Collateral Agent will obtain a legal and valid Lien upon and security interest in such Pledged Securities as security for the payment and performance of the Obligations.

SECTION 3.12. Further Assurances. The Borrower will execute and deliver, or cause to be executed and delivered, all such additional instruments and do, or cause to be done, all such additional acts as (a) may be necessary or proper, consistent with the Granting Clause hereof, to carry out the purposes of this Pledge Agreement and to make subject to the Lien hereof any property intended so to be subject or (b) may be necessary or proper to transfer to any successor the estate, powers, instruments and funds held hereunder and to confirm the Lien of this Pledge Agreement. The Borrower shall maintain billing information on the Pledged Collateral in a manner sufficient to enable RUS to service the loans evidenced by the Pledged Securities upon the occurrence of an Event of Default, as contemplated by Section 5.02(c) hereof. The Borrower will also cause to be filed, registered or recorded any instruments of conveyance, transfer, assignment or further assurance in all offices in which such filing, registering or recording is necessary to the validity thereof or to give notice thereof.

SECTION 3.13. Delivery of Additional Information Relating to Pledged Collateral. On each of the following: (i) within 15 Business Days of the end of each of the Borrower's fiscal quarters (August 31, November 30, February 28 and May 31), (ii) each time the Borrower deposits Pledged Collateral with the Collateral Agent pursuant to Section 2.02 hereof, and (iii) each time the Borrower withdraws or substitutes Pledged Collateral pursuant to Section 3.03 hereof, the Borrower shall provide the Secretary with information regarding payment obligations on the individual Pledged Collateral notes, including loan maturity dates, amortization methods, outstanding balances, loan types (distribution or power supply), billing cycles, and any other information customarily provided to secured parties, including debtor names and addresses in the Borrower's records as of the date the information is provided, as reasonably requested by RUS, pertaining to the individual Pledged Collateral notes required to adequately service the Pledged Collateral notes upon the occurrence of an Event of Default. This information shall be used solely for the purpose of RUS exercising its rights and remedies under this Agreement upon the occurrence of an Event of Default and shall not be shared or distributed.

SECTION 3.14. Internal Audit Site Visits to Collateral Agent's Offices. The Borrower agrees, upon the consent of the Collateral Agent's office housing the Pledged Collateral, to allow RUS to observe the Borrower's internal audit site visits to the Collateral Agent's office in order to discuss and review physical security and processes relating to Pledged Collateral handling and inventory of the Pledged Collateral.

ARTICLE IV

Application of Moneys Included in Pledged Collateral

SECTION 4.01. Investment of Moneys by Collateral Agent. Any moneys held by the Collateral Agent as part of the Pledged Collateral shall, upon Borrower Order and as stated therein, be invested or reinvested by the Collateral Agent until required to be paid out by the Collateral

Agent as provided in this Pledge Agreement, in any one or more of the following (herein called "Permitted Investments"):

(i) obligations of or guaranteed by the United States of America or any agency thereof for which the full faith and credit of the United States of America or such agency shall be pledged;

(ii) obligations of any state or municipality, or subdivision or agency of either thereof, which are rated AA (or equivalent) or better by at least two nationally recognized statistical rating organizations or having a comparable rating in the event of any future change in the rating system of such agencies;

(iii) certificates of deposit issued by, or time deposits of, any bank or trust company (including the Collateral Agent) organized under the laws of the United States of America or any State thereof having capital and surplus of not less than \$500,000,000 (determined from its most recent report of condition, if it publishes such reports at least annually pursuant to law or the requirements of Federal or State examining or supervisory authority); and

(iv) commercial paper of bank holding companies or of other issuers (excluding the Borrower) generally rated in the highest category by at least two nationally recognized statistical rating organizations and maturing not more than one year after the purchase thereof.

Unless and until an Event of Default shall have occurred and be continuing, any interest received by the Collateral Agent on any such investments which shall exceed the amount of accrued interest, if any, paid by the Collateral Agent on the purchase thereof, and any profit which may be realized from any sale, redemption or maturity of such investments, shall be paid to the Borrower. Such investments shall be held by the Collateral Agent as a part of the Pledged Collateral, but upon Borrower Order the Collateral Agent shall sell all or any designated part of the same, and the proceeds of such sale shall be held by the Collateral Agent subject to the same provisions hereof as the cash used by it to purchase the investments so sold. In case the net proceeds realized upon any sale, redemption or maturity shall amount to less than the purchase price paid by the Collateral Agent for the purchase of the investments so sold, the Collateral Agent shall notify the Borrower in writing thereof, and the Borrower shall pay to the Collateral Agent the amount of the difference between such purchase price and the amount so realized, and the amount so paid shall be held by the Collateral Agent in like manner and subject to the same conditions as the proceeds realized upon such sale. The Borrower will reimburse the Collateral Agent for any brokerage commissions or other

expenses incurred by the Collateral Agent in connection with the purchase or sale of such investments. The Collateral Agent may aggregate such costs and expenses of and such receipts from such investments on a monthly basis (or such other periodic basis as the Borrower and the Collateral Agent may agree in writing from time to time) so as to net each against the other during such period and pay to the Borrower amounts due to it or notify the Borrower of amounts due from it on a net basis for such period.

SECTION 4.02. Collateral Agent To Retain Moneys during Event of Default. If an Event of Default shall have occurred and be continuing, moneys held by the Collateral Agent as a part of the Pledged Collateral shall not be paid over to the Borrower upon Borrower Order except pursuant to Section 5.03.

ARTICLE V

Remedies

SECTION 5.01. Events of Default. “Event of Default”, wherever used herein, means any “Event of Default” as defined in Sections 10.1(a) and 10.1(c) of the Consolidated Bond Guarantee Agreement, provided that, for the purposes of this Pledge Agreement:

(a) the Collateral Agent shall not be required to recognize that an Event of Default exists before such time as the Collateral Agent receives an RUS Notice or Borrower Notice stating that an Event of Default exists and specifying the particulars of such default in reasonable detail; and

(b) the Collateral Agent shall not be required to recognize that an Event of Default has ceased until (i) such time as the Collateral Agent receives an RUS Notice stipulating that such event has ceased to exist; or (ii) 30 days after receipt by the Collateral Agent of a Borrower Notice stipulating that such event has ceased to exist, provided that the Collateral Agent does not receive an RUS Notice within such timeframe disputing the cessation of such Event of Default, and further provided that no additional RUS Notice of Default shall have been received in respect of any other subsisting Event(s) of Default. Upon receipt of any Borrower Notice under subparagraph (ii) of this Subsection, the Collateral Agent shall provide a copy of such Borrower Notice to RUS.

SECTION 5.02. Remedies Upon Default. If an Event of Default shall have occurred and be continuing, RUS may issue a notice (an “RUS Notice of Default”), which may be combined with the notice provided under Section 5.01(b), suspending the rights of the Borrower under Section 3.08 in part without suspending all such rights (as specified by RUS in its sole and absolute discretion) without waiving or otherwise affecting RUS’ rights to give additional RUS Notices of Default from time to time suspending other rights under Section 3.08 so long as an Event of Default has occurred and is continuing. Subject to paragraph (b) of this Section 5.02, upon cessation of an Event of Default, all rights of the Borrower suspended under the applicable RUS Notice of Default shall revert in the Borrower.

(a) Upon the occurrence of an Event of Default, the Collateral Agent shall, for the benefit and at the direction of RUS, have the right to exercise any and all rights afforded to a

secured party under the Uniform Commercial Code or other applicable law. Without limiting the generality of the foregoing, the Borrower agrees that the Collateral Agent shall have the right, but only if so instructed by an RUS Order and subject to the requirements of applicable law and the Collateral Agent's right (in its sole and absolute discretion) to receive indemnification or other reasonable assurances that its costs and expenses in connection therewith will be paid, to sell or otherwise dispose of all or any part of the Pledged Collateral at a public or private sale or at any broker's board or on any securities exchange, for cash, upon

credit or for future delivery as the Collateral Agent shall deem appropriate. The Collateral Agent shall be authorized at any such sale of securities (if it deems it advisable to do so) to restrict the prospective bidders or purchasers to Persons who will represent and agree that they are purchasing the Pledged Collateral for their own account for investment and not with a view to the distribution or sale thereof, and upon consummation of any such sale the Collateral Agent shall have the right to assign, transfer and deliver to the purchaser or purchasers thereof the Pledged Collateral so sold. Each such purchaser at any sale of Pledged Collateral shall hold the property sold absolutely, free from any claim or right on the part of the Borrower, and the Borrower hereby waives (to the extent permitted by law) all rights of redemption, stay and appraisal which the Borrower now has or may at any time in the future have under any rule of law or statute now existing or hereafter enacted.

(b) The Collateral Agent shall give the Borrower 10 days' written notice (which the Borrower agrees is reasonable notice within the meaning of Section 9-611 of the Uniform Commercial Code or its equivalent in other jurisdictions) of the Collateral Agent's intention to make any sale of Pledged Collateral. Such notice, in the case of a public sale, shall state the time and place for such sale and, in the case of a sale at a broker's board or on a securities exchange, shall state the board or exchange at which such sale is to be made and the day on which the Collateral, or portion thereof, will first be offered for sale at such board or exchange. Any such public sale shall be held at such time or times within ordinary business hours and at such place or places as the Collateral Agent may fix and state in the notice (if any) of such sale. At any such sale, the Pledged Collateral, or portion thereof, to be sold may be sold in one lot as an entirety or in separate parcels, as the Collateral Agent may (in its sole and absolute discretion) determine. The Collateral Agent shall not be obligated to make any sale of any Pledged Collateral if it shall determine not to do so, regardless of the fact that notice of sale of such Pledged Collateral shall have been given. The Collateral Agent may, without notice or publication, adjourn any public or private sale or cause the same to be adjourned from time to time by announcement at the time and place fixed for sale, and such sale may, without further notice, be made at the time and place to which the same was so adjourned. In case any sale of all or any part of the Pledged Collateral is made on credit or for future delivery, the Pledged Collateral so sold may be retained by the Collateral Agent until the sale price is paid by the purchaser or purchasers thereof, but the Collateral Agent shall not incur any liability in case any such purchaser or purchasers shall fail to take up and pay for the Pledged Collateral so sold and, in case of any such failure, such Pledged Collateral may be sold again upon like notice. At any public (or, to the extent permitted by law, private) sale made pursuant to this Pledge Agreement, RUS may bid for or purchase, free (to the extent permitted by law) from any right of redemption, stay, valuation or appraisal on the part of the Borrower (all said rights being also hereby waived and released to the extent permitted by law), the Pledged Collateral or any part thereof offered for sale and may make payment on account thereof by using any claim then due and payable to RUS from the Borrower as a credit

against the purchase price, and RUS may, upon compliance with the terms of sale, hold, retain and dispose of such property without further accountability to Pledged Collateral therefor. For purposes hereof, a written agreement to purchase the Pledged Collateral or any portion thereof shall be treated as a sale thereof; the Collateral Agent shall be free to carry out such sale pursuant to such agreement and the Borrower shall not be entitled to the return of the Pledged Collateral or any portion thereof subject thereto, notwithstanding the fact that after the Collateral Agent shall have entered into such an agreement all Events of Default shall have been remedied and the Obligations paid in

full. As an alternative to exercising the power of sale herein conferred upon it, the Collateral Agent may proceed by a suit or suits at law or in equity to foreclose this Pledge Agreement and to sell the Collateral or any portion thereof pursuant to a judgment or decree of a court or courts having competent jurisdiction or pursuant to a proceeding by a court-appointed receiver. Any sale pursuant to the provisions of this Section 5.02 shall be deemed to conform to the commercially reasonable standards as provided in Section 9-610(b) of the Uniform Commercial Code or its equivalent in other jurisdictions.

(c) Upon the occurrence of an Event of Default, the Borrower shall immediately provide billing information to RUS and to the Collateral Agent sufficient to enable RUS to service the loans evidenced by the Pledged Securities.

SECTION 5.03. Application of Proceeds. The Collateral Agent shall apply the proceeds of any collection or sale of Pledged Collateral, including any Pledged Collateral consisting of cash, as follows:

FIRST, to the payment of all reasonable costs and expenses incurred by the Collateral Agent in connection with or reasonably related or reasonably incidental to such collection or sale or otherwise in connection with or related or incidental to this Pledge Agreement or any of the Obligations, including all court costs and the reasonable fees and expenses of its agents and legal counsel, the repayment of all advances made by the Collateral Agent (in its sole discretion) hereunder on behalf of the Borrower and any other reasonable costs or expenses incurred in connection with the exercise of any right or remedy hereunder;

SECOND, to the payment to RUS in full of the Obligations; such payment to be for an amount certified in a RUS Notice delivered to the Collateral Agent as being the amount due and owing to RUS under the Obligations; and

THIRD, to the Borrower, its successors or assigns, or as a court of competent jurisdiction may otherwise direct.

Upon any sale of the Pledged Collateral by the Collateral Agent (including pursuant to a power of sale granted by statute or under a judicial proceeding), the receipt of the Collateral Agent or of the officer making the sale shall be a sufficient discharge to the purchaser or purchasers of the Pledged Collateral so sold and such purchaser or purchasers shall not be obligated to see to the application of

any part of the purchase money paid over to the Collateral Agent or such officer or be answerable in any way for the misapplication thereof.

SECTION 5.04. Securities Act. In view of the position of the Borrower in relation to the Pledged Collateral, or because of other current or future circumstances, a question may arise under the Securities Act of 1933, as now or hereafter in effect, or any similar statute hereafter enacted analogous in purpose or effect (such Act and any such similar statute as from time to time in effect being called the “Federal Securities Laws”) with respect to any disposition of the Pledged Collateral permitted hereunder. The Borrower understands that compliance with the Federal

Securities Laws might very strictly limit the course of conduct of the Collateral Agent if the Collateral Agent were to attempt to dispose of all or any part of the Pledged Collateral, and might also limit the extent to which or the manner in which any subsequent transferee of any Pledged Collateral could dispose of the same. Similarly, there may be other legal restrictions or limitations affecting the Collateral Agent in any attempt to dispose of all or part of the Pledged Collateral under applicable Blue Sky or other state securities laws or similar laws analogous in purpose or effect. The Borrower recognizes that in light of such restrictions and limitations the Collateral Agent may, with respect to any sale of the Pledged Collateral, limit the purchasers to those who will agree, among other things, to acquire such Pledged Collateral for their own account, for investment, and not with a view to the distribution or resale thereof. The Borrower acknowledges and agrees that in light of such restrictions and limitations, the Collateral Agent, in its sole and absolute discretion (a) may proceed to make such a sale whether or not a registration statement for the purpose of registering such Pledged Collateral or part thereof shall have been filed under the Federal Securities Laws and (b) may approach and negotiate with a single potential purchaser to effect such sale. The Borrower acknowledges and agrees that any such sale might result in prices and other terms less favorable to the seller than if such sale were a public sale without such restrictions. In the event of any such sale, the Collateral Agent shall incur no responsibility or liability for selling all or any part of the Pledged Collateral at a price that the Collateral Agent, in its sole and absolute discretion, may in good faith deem reasonable under the circumstances, notwithstanding the possibility that a substantially higher price might have been realized if the sale were deferred until after registration as aforesaid or if more than a single purchaser were approached. The provisions of this Section 5.04 will apply notwithstanding the existence of a public or private market upon which the quotations or sales prices may exceed substantially the price at which the Collateral Agent sells.

ARTICLE VI

The Collateral Agent

SECTION 6.01. Certain Duties and Responsibilities.

- (a) At all times under this Pledge Agreement:
 - (i) the Collateral Agent undertakes to perform such duties and only such duties as are specifically set forth in this Pledge Agreement, and no implied covenants or obligations shall be read into this Pledge Agreement against the Collateral Agent; and

(ii) in the absence of bad faith on its part, the Collateral Agent may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Collateral Agent and substantially conforming to the requirements of this Pledge Agreement; but in the case of any such certificates or opinions which by any provision hereof are specifically required to be furnished to the Collateral Agent the Collateral Agent shall be under a duty to examine the same to determine whether or not they substantially conform to the requirements of this Pledge Agreement.

(b) No provision of this Pledge Agreement shall be construed to relieve the Collateral Agent from liability for its own grossly negligent action, its own grossly negligent failure to act, or its own willful misconduct, except that:

(i) this Subsection shall not be construed to limit the effect of Subsection (a) of this Section;

(ii) the Collateral Agent shall not be liable for any error of judgment made in good faith, unless it shall be proved that the Collateral Agent was grossly negligent in ascertaining the pertinent facts; and

(iii) no provision of this Pledge Agreement shall require the Collateral Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

(c) Whether or not therein expressly so provided, every provision of this Pledge Agreement relating to the conduct or affecting the liability of or affording protection to the Collateral Agent shall be subject to the provisions of this Section.

SECTION 6.02. Certain Rights of Collateral Agent. Except as otherwise provided in Section 6.01:

(a) the Collateral Agent may rely and shall be protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(b) any request or direction of the Borrower mentioned herein shall be sufficiently evidenced by a Borrower Notice or Borrower Order;

(c) any request or direction of RUS mentioned herein shall be sufficiently evidenced by an RUS Notice or RUS Order;

(d) whenever in the administration of this Pledge Agreement the Collateral Agent shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Collateral Agent (unless other evidence be herein specifically prescribed) may, in the absence of bad faith on its part, rely upon an Officers' Certificate in the case of the Borrower, and a certificate signed by the Secretary in the case of RUS;

(e) the Collateral Agent may consult with counsel and the advice of such counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;

(f) the Collateral Agent shall be under no obligation to exercise any of the rights or powers vested in it by this Pledge Agreement at the request or direction of either the Borrower

or RUS pursuant to this Pledge Agreement, unless such party shall have offered to the Collateral Agent reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction;

(g) the Collateral Agent shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture or other paper or document, or to recompute, verify, reclassify or recalculate any information contained therein, but the Collateral Agent, in its sole and absolute discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Collateral Agent shall determine to make such further inquiry or investigation, it shall be entitled to examine the books, records and premises of the Borrower, personally or by agent or attorney;

(h) the Collateral Agent may execute any of the powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Collateral Agent shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder;

(i) unless explicitly stated herein to the contrary, the Collateral Agent shall have no duty to inquire as to the performance of any Borrower's covenants herein. In addition, the Collateral Agent shall not be deemed to have knowledge of an Event of Default, unless the Collateral Agent has received an RUS Notice in accordance with Section 5.01(a), and shall not be deemed to have knowledge of the cessation of the same until such time as it receives a Borrower Notice in accordance with Section 5.01(b); and

(j) unless explicitly stated herein to the contrary, the Collateral Agent shall have no obligation to take any action with respect to any Event of Default until it has received an RUS Notice in accordance with Section 5.01(a), and the Collateral Agent shall have no liability for any action or inaction taken, suffered or omitted in respect of any such event by it prior to such time as the applicable RUS Notice is delivered. Similarly, the Collateral Agent shall have no obligation to take any action with respect to the cessation of an Event of Default until it has received a Borrower Notice applicable to such event in accordance with Section 5.01(b), and the Collateral Agent shall have no liability for any action or inaction taken, suffered or omitted in respect of any such event by it prior to such time as the applicable Borrower Notice is delivered.

SECTION 6.03. Money Held by Collateral Agent. Money held by the Collateral Agent hereunder need not be segregated from other funds except to the extent required by law. The Collateral Agent shall have no liability to pay interest on or (except as expressly provided herein) invest any such moneys.

SECTION 6.04. Compensation and Reimbursement.

- (a) The Borrower agrees:
- (i) to pay to the Collateral Agent from time to time reasonable compensation for all services rendered by it hereunder;
 - (ii) except as otherwise expressly provided herein, to reimburse the Collateral Agent upon its request for all reasonable expenses, out-of-pocket costs, disbursements and advances incurred or made by the Collateral Agent in accordance with any provision of this Pledge Agreement (including the reasonable compensation and the expenses and disbursements of its agents and counsel), except to the extent any such expense, disbursement or advance may be attributable to its gross negligence or bad faith; and
 - (iii) to indemnify the Collateral Agent for, and to defend and hold it harmless against, any loss, liability or expense incurred without gross negligence or bad faith on its part, arising out of or in connection with the acceptance or administration of this Pledge Agreement or the performance of its duties hereunder, including the costs and expenses of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder, except to the extent such loss, liability or expense may be attributable to its gross negligence or bad faith; provided, however, that the Borrower shall have no liability under this clause for any settlement of any litigation or other dispute effected without the prior written consent of the Borrower (such consent not to be unreasonably withheld).
- (b) Any such amounts payable as provided hereunder shall be additional Obligations secured by the Lien hereof. The provisions of this Section 6.04 shall remain operative and in full force and effect regardless of the termination of this Pledge Agreement or the Consolidated Bond Guarantee Agreement, the consummation of the transactions contemplated hereby, the repayment of any of the Obligations, the invalidity or unenforceability of any term or provision of this Pledge Agreement or the Consolidated Bond Guarantee Agreement, or any investigation made by or on behalf of the Collateral Agent or RUS. All amounts due under this Section 6.04 shall be payable on written demand therefor.

SECTION 6.05. Corporate Collateral Agent Required; Eligibility. There shall at all times be a Collateral Agent hereunder which shall be a corporation or association organized and doing business under the laws of the United States of America or of any State, authorized under such laws to exercise corporate trust powers, having a combined capital and surplus of at least \$50,000,000, subject to supervision or examination by Federal or State authority. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of the aforesaid supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such corporation shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. Neither the Borrower nor any Person directly or indirectly controlling, controlled by or under common control with the Borrower shall serve as Collateral Agent hereunder. If at any time the Collateral Agent shall cease to be eligible in accordance with the provisions of this Section, it shall resign immediately in the manner and with the effect hereinafter specified in this Article.

SECTION 6.06. Resignation and Removal; Appointment of Successor.

(a) No resignation or removal of the Collateral Agent and no appointment of a successor Collateral Agent pursuant to this Article shall become effective until the acceptance of appointment by the successor Collateral Agent under Section 6.07.

(b) The Collateral Agent may resign at any time by giving written notice thereof to the Borrower. If an instrument of acceptance by a successor Collateral Agent shall not have been delivered to the Collateral Agent within 30 days after the giving of such notice of resignation, the resigning Collateral Agent may petition any court of competent jurisdiction for the appointment of a successor Collateral Agent.

(c) If at any time:

(i) except if an Event of Default has occurred and is continuing, the Borrower, in its sole and absolute discretion, elects to remove the Collateral Agent; or

(ii) the Collateral Agent shall cease to be eligible under Section 6.05 or shall become incapable of acting or shall be adjudged a bankrupt or insolvent or a receiver of the Collateral Agent or of its property shall be appointed or any public officer shall take charge or control of the Collateral Agent or of its property or affairs for the purpose of rehabilitation, conservation or liquidation,

then, in any such case, the Borrower may remove the Collateral Agent by delivery of a Borrower Order to that effect.

(d) If the Collateral Agent shall resign, be removed or become incapable of acting, or if a vacancy shall occur in the office of Collateral Agent for any cause, the Borrower shall promptly appoint a successor Collateral Agent by delivering a Borrower Notice to the retiring Collateral Agent, the successor Collateral Agent and RUS to such effect.

SECTION 6.07. Acceptance of Appointment by Successor. Every successor Collateral Agent appointed hereunder shall execute, acknowledge and deliver to the Borrower, RUS and to the retiring Collateral Agent an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Collateral Agent shall become effective and such successor Collateral Agent, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Collateral Agent; but, on request of the Borrower, RUS or the successor Collateral Agent, such retiring Collateral Agent shall, upon payment of its charges, execute and deliver an instrument transferring to such successor Collateral Agent all the rights, powers and trusts of the retiring Collateral Agent, and shall duly assign, transfer and deliver to such successor Collateral Agent all property and money held by such retiring Collateral Agent hereunder, subject nevertheless to its Lien, if any, provided for in Section 6.04. Upon request of any such successor Collateral Agent, the Borrower shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor Collateral Agent all such rights, powers and trusts.

No successor Collateral Agent shall accept its appointment unless at the time of such acceptance such successor Collateral Agent shall be eligible under Section 6.05 hereof.

SECTION 6.08. Merger, Conversion, Consolidation or Succession to Business. Any corporation into which the Collateral Agent may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Collateral Agent shall be a party, or any corporation succeeding to all or substantially all of the corporate trust business of the Collateral Agent, shall be the successor of the Collateral Agent hereunder, provided such corporation shall be eligible under Section 6.05 hereof without the execution or filing of any paper or any further act on the part of any of the parties hereto.

ARTICLE VII

Miscellaneous

SECTION 7.01. Notices.

(a) All notices and other communications hereunder to be made to any party shall be in writing and shall be addressed as specified in Schedule II attached hereto as appropriate. The address, telephone number, or facsimile number for any party may be changed at any time and from time to time upon written notice given by such changing party to the other parties hereto. A properly addressed notice or other communication to the Borrower shall be deemed to have been delivered at the time it is sent by facsimile (fax) transmission. A properly addressed notice or other communication to the Collateral Agent shall be deemed to have been delivered at the time it is sent by facsimile (fax) transmission. A properly addressed notice or other communication to RUS shall be deemed to have been delivered at the time it is sent by facsimile (fax) transmission, provided that the original of such faxed notice or other communication shall have been received by RUS within five Business Days.

(b) All Borrower Notices and Borrower Orders delivered to the Collateral Agent shall be contemporaneously copied to RUS by the Borrower, and all RUS Notices and RUS Orders delivered to the Collateral Agent shall be contemporaneously copied by RUS to the Borrower, and all Collateral Agent notices delivered to either the Borrower or RUS shall be contemporaneously copied to the other such party by the Collateral Agent.

SECTION 7.02. Waivers; Amendment.

(a) No failure or delay by a party in exercising any right or power hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such a right or power, preclude any other or further exercise thereof or the exercise of any other right or power. The rights and remedies of each party hereunder are cumulative and are not exclusive of any rights or remedies that such party would otherwise have. No waiver of any provision of this Pledge Agreement or consent to any departure by any party therefrom shall in any event be effective unless the same shall be permitted by paragraph (b) of this Section 7.02, and then such waiver or consent shall be effective only in the specific instance and for the purpose for which given. No notice or demand on any party in any case shall entitle any party to any other or further notice or demand in similar or other circumstances.

(b) Neither this Pledge Agreement nor any provision hereof may be waived, amended or modified except pursuant to an agreement or agreements in writing entered into by the Borrower, the Collateral Agent and RUS.

SECTION 7.03. Successors and Assigns. Whenever in this Pledge Agreement any of the parties hereto is referred to, such reference shall be deemed to include the successors and assigns of such party; and all covenants, promises and agreements by or on behalf of the Borrower, the Collateral Agent or RUS that are contained in this Pledge Agreement shall bind and inure to the benefit of their respective successors and assigns.

SECTION 7.04. Counterparts; Effectiveness. This Pledge Agreement may be executed in counterparts, each of which shall constitute an original but all of which when taken together shall constitute a single contract. Delivery of an executed signature page to this Pledge Agreement by facsimile transmission shall be as effective as delivery of a manually signed counterpart of this Pledge Agreement.

SECTION 7.05. Severability. Any provision of this Pledge Agreement held to be invalid, illegal or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such invalidity, illegality or unenforceability without affecting the validity, legality and enforceability of the remaining provisions hereof; and the invalidity of a particular provision in a particular jurisdiction shall not invalidate such provision in any other jurisdiction. The parties shall endeavor in good-faith negotiations to replace the invalid, illegal or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal or unenforceable provisions.

SECTION 7.06. GOVERNING LAW. THIS PLEDGE AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE UNITED STATES OF AMERICA, TO THE EXTENT APPLICABLE, AND OTHERWISE THE LAWS OF THE STATE OF NEW YORK.

SECTION 7.07. WAIVER OF JURY TRIAL. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS PLEDGE AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS PLEDGE AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 7.07.

SECTION 7.08. Headings. Article and Section headings and the Table of Contents used herein are for convenience of reference only, are not part of this Pledge Agreement and are not to affect the construction of, or to be taken into consideration in interpreting, this Pledge Agreement.

SECTION 7.09. Security Interest Absolute. All rights of the Collateral Agent and/or RUS hereunder, the grant of a security interest in the Pledged Collateral and all obligations of the Borrower hereunder shall be absolute and unconditional irrespective of (a) any lack of validity or enforceability of the Consolidated Bond Guarantee Agreement, any agreement with respect to any of the Obligations or any other agreement or instrument relating to any of the foregoing, (b) any change in the time, manner or place of payment of, or in any other term of, all or any of the Obligations, or any other amendment or waiver of or any consent to any departure from the Consolidated Bond Guarantee Agreement or any other agreement or instrument, (c) any exchange, release or non-perfection of any Lien on other collateral, or any release or amendment or waiver of or consent under or departure from any guarantee, securing or guaranteeing all or any of the Obligations, or (d) any other circumstance that might otherwise constitute a defense available to, or a discharge of, the Borrower in respect of the Obligations or this Pledge Agreement.

SECTION 7.10. Termination or Release.

(a) This Pledge Agreement shall terminate on the date when the Collateral Agent receives an RUS Notice to the effect that all of the Obligations have been indefeasibly paid in full and the Federal Financing Bank has no further commitment to lend under the Bonds, and at such time the Lien hereof shall be released.

(b) Upon any withdrawal, substitution or other disposal by the Borrower of any Pledged Collateral that is permitted by the terms of this Pledge Agreement, or upon the effectiveness of any written consent to the release of the security interest granted hereby in any Pledged Collateral, the Lien hereof securing such Pledged Collateral shall be automatically released.

(c) In connection with any termination or release pursuant to paragraph (a) or (b) the Collateral Agent shall deliver to the Borrower the Pledged Collateral and shall execute and deliver to the Borrower, at the Borrower's expense, all documents that the Borrower shall reasonably request to evidence such termination or release. Any execution and delivery of documents pursuant to this Section 7.10 shall be without recourse to or warranty by the Collateral Agent.

SECTION 7.11. Collateral Agent Appointed Attorney-in-Fact. The Borrower hereby appoints the Collateral Agent the attorney-in-fact of the Borrower for the purpose of, upon the occurrence and during the continuance of an Event of Default, carrying out the provisions of this Pledge Agreement with respect to the Pledged Collateral and taking any action and executing any instrument that the Collateral Agent may deem necessary or advisable to accomplish the purposes hereof, which appointment is irrevocable and coupled with an interest but is subject nevertheless to the terms and conditions of this Pledge Agreement. Without limiting the generality of the foregoing, the Collateral Agent shall have the right, upon the occurrence and during the continuance of an Event of Default, with full power of substitution either in the Collateral Agent's name or in the name of the Borrower (a) to receive, endorse, assign and/or deliver any and all notes, acceptances, checks, drafts, money orders or other evidences of payment relating to the Pledged Collateral or any part thereof; (b) to demand, collect, receive payment of, give receipt for and give discharges and releases of all or any of the Pledged Collateral; (c) to commence and prosecute any and all suits, actions or proceedings at law or in equity in any court of competent jurisdiction to collect or otherwise realize on all or any of

the Pledged Collateral or to enforce any rights in respect of any Pledged Collateral; (d) to settle, compromise, compound, adjust or defend any actions, suits or proceedings relating to all or any of the Pledged Collateral; (e) to notify, or to require the Borrower to notify, obligors under Pledged Securities to make payment directly to the

Collateral Agent; and (f) to use, sell, assign, transfer, pledge, make any agreement with respect to or otherwise deal with all or any of the Pledged Collateral, and to do all other acts and things necessary to carry out the purposes of this Pledge Agreement, as fully and completely as though the Collateral Agent were the absolute owner of the Pledged Collateral for all purposes; provided that nothing herein contained shall be construed as requiring or obligating the Collateral Agent to make any commitment or to make any inquiry as to the nature or sufficiency of any payment received by the Collateral Agent, or to present or file any claim or notice, or to take any action with respect to the Pledged Collateral or any part thereof or the moneys due or to become due in respect thereof or any property covered thereby. The Collateral Agent and RUS shall be accountable only for amounts actually received as a result of the exercise of the powers granted to them herein, and neither they nor their officers, directors, employees or agents shall be responsible to the Borrower for any act or failure to act hereunder, except for their own gross negligence or willful misconduct.

Pledge Agreement

IN WITNESS WHEREOF, the parties hereto have caused this Pledge Agreement to be duly executed, all as of the day and year first above written.

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION,

by

/s/ SHELDON C. PETERSEN

Name: Sheldon C. Petersen
Title: Governor and
Chief Executive Officer

UNITED STATES OF AMERICA, acting
through the Acting Administrator of the
Rural Utilities Service,

by

/s/ CHRISTOPHER A. MCLEAN

Name: Christopher A. McLean
Title: Acting Administrator of the
Rural Utilities Service

U.S. BANK NATIONAL ASSOCIATION

by

/s/ K. WENDY KUMAR

Name: K. Wendy Kumar
Title: Vice President

SCHEDULE I
TO
FIFTH AMENDED, RESTATED AND
CONSOLIDATED PLEDGE AGREEMENT

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION

FIFTH AMENDED, RESTATED AND CONSOLIDATED PLEDGE AGREEMENT DATED
AS OF NOVEMBER 15, 2018

CERTIFICATE OF PLEDGED COLLATERAL FILED WITH
U.S. BANK NATIONAL ASSOCIATION, Collateral Agent

_____, Governor (or Chief Financial Officer) and
_____, Vice-President, respectively, of National Rural Utilities Cooperative
Finance Corporation (the "Borrower"), hereby certify to RUS and the Collateral Agent under the
above-mentioned Amended, Restated and Consolidated Pledge Agreement as amended to the date
hereof (herein called the "Pledge Agreement") as follows:

1. The Allowable Amount of Pledged Collateral shown in item 9 in the most recent Certificate of Pledged Collateral dated _____ delivered to the Collateral Agent is\$
2. The increase (or decrease) in the Allowable Amount of such Pledged Collateral and the Allowable Amount of any Eligible Securities substituted for other Pledged Securities pursuant to Section 3.07 of the Pledge Agreement, remaining on deposit with the Collateral Agent, as shown on Schedule A hereto, is..\$
3. The Allowable Amount, as at the date of such most recent Certificate of Pledged Collateral, of Pledged Collateral which has, since such date, ceased to be Eligible Securities (including Pledged Securities fully paid) is\$
4. The present Allowable Amount of Pledged Collateral certified to the Collateral Agent in the most recent Certificate of Pledged Collateral (item 1 plus (or minus, if decrease) item 2, minus item 3) is\$
5. The Allowable Amount of Pledged Collateral certified hereby, including the Pledged Collateral deposited herewith, which were not certified in the most recent Certificate of Pledged Collateral, all as shown on Schedule B hereto, is\$

SCHEDULE I
TO
FIFTH AMENDED, RESTATED AND
CONSOLIDATED PLEDGE AGREEMENT

6. The cumulative amount excluded from the Allowable Amount of Pledged Collateral on Schedule B based on the Maximum Debtor Principal Amount is\$
7. The Allowable Amount of Pledged Collateral held by the Collateral Agent on the date hereof and included in this Certificate before any withdrawals (item 4 plus (item 5-item 6)) is\$
8. The Allowable Amount of Pledged Collateral the withdrawal of which is hereby requested, if any, as shown on Schedule C hereto (the Pledged Collateral made the basis of such withdrawal being designated on Schedule A and/or Schedule B hereto) is\$
9. The Allowable Amount of Pledged Collateral held by the Collateral Agent on the date hereof and included in this Certificate after any withdrawals (item 7 minus item 8) is.\$
10. The aggregate principal amount of the Bonds outstanding at the date hereof is\$
11. The aggregate amount, if any, of the Advance to be made on the basis of this Certificate is.....\$
12. The sum of the amounts in items 10 and 11 is.....\$
13. The aggregate amount by which such Allowable Amount of Pledged Securities exceeds the aggregate principal amount of the Bonds outstanding (item 9 minus item 12) is.....\$
14. The Allowable Amount of Pledged Collateral held by the Collateral Agent on the date hereof and included in this Certificate after any withdrawals does not contain any note that has been classified as non-performing, restructured or impaired by the Borrower.

SCHEDULE I
TO
FIFTH AMENDED, RESTATED AND
CONSOLIDATED PLEDGE AGREEMENT

All terms which are defined in the Pledge Agreement are used herein as so defined.

Dated:

OF NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION

SCHEDULE I
TO
FIFTH AMENDED, RESTATED AND
CONSOLIDATED PLEDGE AGREEMENT

**PLEDGED COLLATERAL HELD BY THE COLLATERAL AGENT
SCHEDULE A TO OFFICERS' CERTIFICATE
DATED**

Pledged Collateral	Name of Issuer	Allowable Amount included in Certificate last Previously filed (Item 1)	Increase (Decrease) in such Allowable Amount (Items 2 and 3)	Current Allowable Amount (Item 4)
Cash.....				
Permitted Investments (Here List).....				
Pledged Securities (Here List Securities)..				

SCHEDULE I
TO
FIFTH AMENDED, RESTATED AND
CONSOLIDATED PLEDGE AGREEMENT

**PLEDGED COLLATERAL BEING SUBMITTED TO THE COLLATERAL AGENT
SCHEDULE B TO OFFICERS' CERTIFICATE
DATED _____**

<u>Pledged Collateral</u>	<u>Name of Issuer</u>	<u>Allowable Amount (Item 5)</u>
Cash.....		
Permitted Investments (Here List).....		
Pledged Securities (Here List Securities)..		

SCHEDULE II
TO
FIFTH AMENDED, RESTATED AND
CONSOLIDATED PLEDGE AGREEMENT

**PLEDGED COLLATERAL BEING DEPOSITED
SCHEDULE C TO OFFICERS' CERTIFICATE
DATED _____**

<u>Pledged Collateral</u>	<u>Name of Issuer</u>	<u>Allowable Amount (Item 8)</u>
Cash.....		
Permitted Investments (Here List).....		
Pledged Securities (Here List Securities)..		

SCHEDULE II
TO
FIFTH AMENDED, RESTATED AND
CONSOLIDATED PLEDGE AGREEMENT

Addresses for Notices

1. The addresses referred to in Section 7.01 hereof, for purposes of delivering communications and notices, are as follows:

If to RUS:

Rural Utilities Service
United States Department of Agriculture
1400 Independence Avenue, SW
Washington, DC 20250
Fax: 202-720-1725
Attention of: The Administrator
Subject: Guaranteed Underwriter Program

and

Ms. Amy McWilliams
Management Analyst
Rural Utilities Service
United States Department of Agriculture
1400 Independence Avenue, SW
Stop 1568, Room 0226-S
Washington, DC 20250
Amy.McWilliams@wdc.usda.gov
Fax: 844-749-0736

If to the Borrower:

National Rural Utilities Cooperative Finance Corporation
20701 Cooperative Way
Dulles, VA 20166
Telephone: 703-467-7402
Fax: 703-467-5178
Attention of: J. Andrew Don, Chief Financial Officer

With a copy to:

National Rural Utilities Cooperative Finance Corporation
20701 Cooperative Way

SCHEDULE II
TO
FIFTH AMENDED, RESTATED AND
CONSOLIDATED PLEDGE AGREEMENT

Dulles, VA 20166
Telephone: 703-467-1872
Fax: 703-467-5651
Attention of Roberta B. Aronson, Esq., General Counsel

If to the Collateral Agent:

U.S. Bank National Association
100 Wall Street
Suite 1600
New York, NY 10005-3701
Telephone: 212-951-8561
Fax: 212-509-3384
Attention of: K. Wendy Kumar, Vice President

FIFTH AMENDED, RESTATED, AND CONSOLIDATED BOND
GUARANTEE AGREEMENT

dated as of November 15, 2018

between

UNITED STATES OF AMERICA
acting through the
Rural Utilities Service
as Guarantor,

and

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION,
as the Borrower.

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FIFTH AMENDED, RESTATED AND CONSOLIDATED
BOND GUARANTEE AGREEMENT dated as of November 15,
2018, between the UNITED STATES OF AMERICA (the
“Government”), acting through the Rural Utilities Service, a Rural
Development agency of the United States Department of Agriculture,
and its successors and assigns (“RUS”); and NATIONAL RURAL
UTILITIES COOPERATIVE FINANCE CORPORATION, a
cooperative association existing under the laws of the District of
Columbia (the “Borrower”).RECITALS

1. The Federal Financing Bank, a body corporate and instrumentality of the Government under the general supervision of the Secretary of the Treasury, and its permitted successors and assigns (“FFB”), has previously made loans to the Borrower in the aggregate principal amount of up to \$6,548,286,000 upon the terms and subject to the conditions set forth in the following Bond Purchase Agreements by and among the Borrower, FFB and RUS, each as in effect as of the date hereof: (a) that certain Series A Bond Purchase Agreement dated as of June 14, 2005, (b) that certain Series B Bond Purchase Agreement dated as of April 28, 2006, (c) that certain Series C Bond Purchase Agreement dated as of September 19, 2008, (d) that certain Series D Bond Purchase Agreement dated as of November 10, 2010, (e) that certain Series E Bond Purchase Agreement dated as of December 1, 2011 (f) that certain Series F Bond Purchase Agreement dated as of December 13, 2012, (g) that certain Series G Bond Purchase Agreement dated as of November 21, 2013, (h) that certain Series H Bond Purchase Agreement dated as of November 18, 2014, (i) that certain Series K Bond Purchase Agreement dated as of March 29, 2016, (j) that certain Series L Bond Purchase Agreement dated as of December 1, 2016, and (k) that certain Series M Bond Purchase Agreement dated as of November 9, 2017 (collectively, the “Original Bond Purchase Agreements”), and upon the terms and subject to the conditions set forth in the following Future Advance Bonds, each as in effect as of the date hereof: (a) that certain Series A Future Advance Bond dated as of June 14, 2005, (b) that certain Series B Future Advance Bond dated as of April 28, 2006, (c) that certain Series C Future Advance Bond dated as of September 19, 2008, (d) that certain Series D Future Advance Bond dated as of November 10, 2010, (e) that certain Series E Future Advance Bond dated as of December 1, 2011, (f) that certain Series F Future Advance Bond dated as of December 13, 2012, (g) that certain Series G Future Advance Bond dated as of November 21, 2013, (h) that certain Series H Future Advance Bond dated as of November 18, 2014, (i) that certain Series K Future Advance Bond dated as of March 29, 2016, (j) that certain Series L Future Advance Bond dated as of December 1, 2016, and (k) that certain Series M Future Advance Bond dated as of November 9, 2017 (collectively, the “Original Bonds”).

2. RUS previously determined that the Borrower was eligible to receive guarantees under Section 313A of the Rural Electrification Act of 1936, as amended (the “RE Act”) and the regulations promulgated thereunder (as set forth in Section 1720 of

Part 7 of the Code of Federal Regulations (the "Regulations") and entered into that certain Fourth Amended, Restated, and Consolidated Bond Guarantee Agreement dated as of November 9, 2017, by and between the Borrower and RUS (the "Prior Bond Guarantee Agreement").

3. On May 11, 2018, the Borrower applied to RUS (the "Application"), in accordance with the RE Act and the Regulations, for RUS to guarantee a twelfth loan from FFB to the Borrower, the proceeds of which would be used by the Borrower to fund new Eligible Loans (as defined herein) or to refinance existing debt instruments of the Borrower used to fund Eligible Loans.

4. RUS has determined that the Borrower is eligible for guarantees under Section 313A of the RE Act.

5. FFB is willing to make a loan to the Borrower in the aggregate principal amount of up to \$750,000,000 upon the terms and subject to the conditions set forth in the Series N Bond Purchase Agreement among FFB, the Borrower and the Government dated as of the date hereof, as the same may be amended, supplemented, consolidated or restated from time to time in accordance with the terms thereof (the "Series N Bond Purchase Agreement"; together, with the Original Bond Purchase Agreements, the "Bond Purchase Agreements"), and upon the terms and subject to the conditions set forth in the Series N Future Advance Bond issued by the Borrower to FFB and dated as of the date hereof (the "Series N Bond"; together with the Original Bonds, the "Bonds").

6. The Borrower and RUS have agreed to (i) amend and restate the Prior Bond Guarantee Agreement, (ii) set forth the terms by which RUS will issue its guarantee of the Series N Bond, and (iii) set forth the terms by which RUS will issue additional guarantees, as contemplated by Section 313A of the RE Act, upon the terms and subject to the conditions hereinafter provided.

NOW, THEREFORE, in consideration of the mutual agreements herein contained, RUS and the Borrower agree as follows:

ARTICLE I

DEFINITIONS

SECTION 1.1. Definitions. As used in this Agreement, the following terms shall have the following meanings:

"91-day Treasury-Bill Rate" shall mean, for any date, the rate equal to the weighted average per annum discount rate (expressed as a bond equivalent yield and applied on a daily basis) for direct obligations of the United States with a maturity of thirteen weeks ("91-day Treasury-Bills") sold at the applicable 91-day Treasury-Bill auction on or most recently prior to such date, as published on the website

<http://www.treasurydirect.gov/RI/OFBills> or otherwise as reported by the U.S. Department of the Treasury. In the event that the results of the auctions of 91-day Treasury Bills cease to be published or reported as provided above, or that no 91-day Treasury Bill auction is held in a particular week, then the 91-day Treasury-Bill Rate in effect as a result of the last such publication or report will remain in effect until such time, if any, as the results of auctions of 91-day Treasury-Bills will again be so published or reported or such auction is held, as the case may be. “Administrator” shall mean the Administrator of RUS.

“Advance” shall have the meaning given to that term in the Bond.

“Agreement” shall mean this Fifth Amended, Restated and Consolidated Bond Guarantee Agreement, as the same may be amended, supplemented, consolidated or restated from time to time.

“Application” shall have the meaning given to that term in the recitals hereto.

“Bond” shall have the meaning given to that term in the recitals hereto.

“Bond Fee” shall mean the fee applicable to each Advance as calculated in accordance with paragraph 9(b) of the Bond.

“Bond Purchase Agreements” shall have the meaning given to that term in the recitals hereto.

“Bond Documents” shall mean the Bonds, the Bond Purchase Agreements, the Guarantees, this Agreement, the Pledge Agreement and the Reimbursement Notes.

“Borrower” shall have the meaning given to that term in the Preamble.

“Borrower Notice” shall have the meaning given to that term in the Pledge Agreement.

“Business Day” shall mean any day other than a Saturday, a Sunday, a legal public holiday under 5 U.S.C. §6103 for the purpose of statutes relating to pay and leave of employees or any other day declared to be a legal holiday for the purpose of statutes relating to pay and leave of employees by Federal statute or Federal Executive Order.

“Certificate of Pledged Collateral” shall have the meaning given to that term in the Pledge Agreement.

“Closing Date” shall mean November 15, 2018.

“Collateral Trust Bonds” shall mean bonds of the Borrower issued pursuant to (i) the Indenture dated as of February 15, 1994, and as amended as of September 16, 1994, between the Borrower and U.S. Bank National Association, as

successor trustee, as amended and supplemented from time to time, providing for the issuance in series of certain collateral trust bonds of the Borrower and (ii) the Indenture dated as of October 25, 2007, between the Borrower and U.S. Bank National Association, as trustee, as amended and supplemented from time to time, providing for the issuance in series of certain collateral trust bonds of the Borrower.

“Consolidated Subsidiary” means at any date any Subsidiary and any other entity the accounts of which would be combined or consolidated with those of the Borrower in its combined or consolidated financial statements if such statements were prepared as of such date.

“Eligible Loan” shall mean all or part of any Loan that the Borrower has made for any electrification or telephone purpose eligible under the RE Act, to the extent the Loan is not used directly or indirectly to fund projects for the generation of electricity.

“Event of Default” shall have the meaning given to that term in Section 10.1.

“FFB” shall have the meaning given to that term in the recitals hereto.

“Financial Statements”, in respect of a Fiscal Year, shall mean the consolidated financial statements (including footnotes) of the Borrower for that Fiscal Year as audited by independent certified public accountants appointed by the Borrower.

“Fiscal Year” shall mean the fiscal year of the Borrower, as such may be changed from time to time, which at the date hereof commences on June 1 of each calendar year and ends on May 31 of the following calendar year.

“Government” shall have the meaning given to that term in the Preamble.

“Guarantee” shall mean a guarantee executed by the Secretary, in the form attached to a Bond.

“Guarantee Fee” shall have the meaning given to that term in Section 4.1.

“Guaranteed Bond” shall mean a Bond with the executed Guarantee attached thereto.

“Indebtedness” with respect to any Person shall mean without duplication:

(a) all indebtedness which would appear as indebtedness on a balance sheet of such Person prepared in accordance with generally accepted accounting principles (i) for money borrowed, (ii) which is evidenced by securities sold for money or (iii) which constitutes purchase money indebtedness;

(b) all indebtedness of others guaranteed by such Person (not including endorsements for collection or deposit in the ordinary course of business);

(c) all indebtedness secured by any mortgage, lien, pledge, charge or encumbrance upon property owned by such Person, even though such Person has not assumed or become liable for the payment of such indebtedness; and

(d) all indebtedness of such Person created or arising under any conditional sale or other title retention agreement (including any lease in the nature of a title retention agreement) with respect to property acquired by such Person (even though

the rights and remedies of the seller or lender under such agreement in the event of default are limited to repossession of such property), but only if such property is included as an asset on the balance sheet of such Person,

provided that, in computing the “Indebtedness” of such Person, there shall be excluded any particular indebtedness if, upon or prior to the maturity thereof, there shall have been deposited with the proper depository in trust money (or evidences of such indebtedness) in the amount necessary to pay, redeem or satisfy such indebtedness; and provided further that no provision of this definition shall be construed to include as “Indebtedness” of the Borrower or its Consolidated Subsidiaries any indebtedness by virtue of any agreement by the Borrower or its Consolidated Subsidiaries to advance or supply funds to Members or Consolidated Subsidiary members.

“Investment Grade Rating” shall mean, in respect of any ratable instrument, a rating for that instrument in one of the four highest rating categories (within which there may be subcategories or gradations which are to be ignored for the purposes of this definition) of a Rating Agency. At the date hereof, this would require the following: (i) a BBB- rating or higher from Standard & Poor’s, a division of The McGraw-Hill Companies, Inc.; (ii) a Baa3 rating or higher from Moody’s Investors Service, Inc.; or (iii) a BBB- rating or higher from Fitch, Inc.

“Loan” shall mean a loan that the Borrower has or will have outstanding to any of its Members or associates.

“Member” shall mean any Person who is member or patron of the Borrower, as the case may be.

“Original Bonds” shall have the meaning given to that term in the recitals hereto.

“Original Bond Purchase Agreements” shall have the meaning given to that term in the recitals hereto.

“Person” means an individual, a corporation, a partnership, an association, a trust or any other entity or organization, including a government or political subdivision or an agency or instrumentality thereof.

“Pledge Agreement” shall mean the Fifth Amended, Restated and Consolidated Pledge Agreement dated as of November 15, 2018, entered into by the Borrower, RUS and U.S. Bank National Association, an executed copy of which is attached as Annex C hereto, and an executed original of which has previously been

delivered to each of the parties thereto, as the same may be amended, supplemented, or restated from time to time in accordance with the terms thereof and hereof.

“Pledged Collateral” shall have the meaning given to that term in the Pledge Agreement.

“Prior Bond Guarantee Agreement” shall have the meaning given to that term in the recitals hereto.

“Program” shall mean the guarantee program for bonds and notes issued for electrification or telephone purposes authorized by Section 313A of the RE Act and 7 C.F.R. Part 1720.

“Rating Agency” shall mean (i) Standard & Poor’s, a division of The McGraw-Hill Companies, Inc., Moody’s Investors Service, Inc., or Fitch, Inc.; and (ii) their respective successor rating agencies.

“RE Act” shall have the meaning given to that term in the recitals hereto.

“Regulations” shall have the meaning given to that term in the recitals hereto.

“Reimbursement Note” shall mean a note issued by the Borrower to RUS, in the form of Annex D attached hereto, as the same may be amended, supplemented, or restated from time to time in accordance with the terms thereof and hereof.

“Requested Advance Date” shall have the meaning given to that term in the Bonds.

“RUS” shall have the meaning given to that term in the Preamble.

“Secretary” shall mean the Secretary of Agriculture acting through the Administrator.

“Senior Secured Credit Rating” means a credit rating of the Borrower by a Rating Agency in the category of “Senior Secured”, as set forth in an annual credit opinion or letter for the Borrower.

“Series N Bond” shall have the meaning given to that term in the recitals hereto.

“Series N Guarantee” shall mean the Guarantee executed by the Secretary and attached to the Series N Bond.

“Series N Bond Purchase Agreement” shall have the meaning given to that term in the recitals hereto.

“Subrogation Claim” shall have the meaning given to that term in Section 9.3(a).

“Subsidiary” of any Person means (i) any corporation more than 50% of whose stock of any class or classes having by the terms thereof ordinary voting power to elect a majority of the directors of such corporation (irrespective of whether or not at the time stock of any class or classes of such corporation shall have or might have voting power by reason of the happening of any contingency) is at the time owned by such Person

directly or indirectly through its Subsidiaries; and (ii) any other Person in which such Person directly or indirectly through Subsidiaries has more than a 50% voting and equity interest; provided that no Person shall be deemed a Subsidiary whose only assets are (A) loans guaranteed, in whole or in part, as to principal and interest by the Government through RUS pursuant to a guarantee; and (B) investments incidental thereto.

“Termination Date” shall mean the date upon which this Agreement terminates in accordance with Section 11.9.

SECTION 1.2. Principles of Construction. Unless the context shall otherwise indicate, the terms defined in Section 1.1 hereof include the plural as well as the singular and the singular as well as the plural. The words “hereafter”, “herein”, “hereof”, “hereto” and “hereunder”, and words of similar import, refer to this Agreement as a whole. The descriptive headings of the various articles and sections of this Agreement were formulated and inserted for convenience only and shall not be deemed to affect the meaning or construction of the provisions hereof.

ARTICLE II

THE GUARANTEES

SECTION 2.1. Guarantee of Original Bonds. Prior to the execution of this Agreement, the Secretary executed Guarantees for each of the Original Bonds pursuant to Section 313A of the RE Act. Such Guarantees are obligations supported by the full faith and credit of the Government and are incontestable except for fraud or misrepresentation of which FFB had actual knowledge at the time it extended the loan represented by the Guaranteed Bonds. The Guarantees remain in full force and effect and are subject to the provisions set forth in this Agreement.

SECTION 2.2. Execution of Series N Guarantee. Upon presentation to RUS of the Series N Bond, and upon satisfaction of the conditions set forth in Section 3.1 of this Agreement, and subject to Section 2.3, the Secretary shall execute, pursuant to the RE Act, the Series N Guarantee.

SECTION 2.3. Coverage of the Series N Guarantee. The Series N Guarantee shall be an obligation supported by the full faith and credit of the Government and incontestable except for fraud or misrepresentation of which FFB had actual knowledge at the time it extended the loan represented by the Series N Guaranteed Bond.

SECTION 2.4. Payment on the Guarantees. RUS guarantees the full repayment of the principal, interest, late payment charges, Bond Fees and discount or prepayment premiums, if any, when and as due on the Guaranteed Bonds in accordance with the terms of the Guarantees, provided, however, that any payment by RUS under each Guarantee does not relieve the Borrower of any of its obligations or liabilities under or in respect of this Agreement or any of the Bond Documents.

SECTION 2.5. Issuance of Additional Guarantees. RUS may from time to time issue additional guarantees of loans of the Borrower pursuant to the RE Act. Such guarantees shall become subject to this Agreement by the execution of a supplement by RUS and the Borrower substantially in the form attached hereto as Annex A.

ARTICLE III

CONDITIONS PRECEDENT

SECTION 3.1. Conditions Precedent to Issuance of a Guarantee. RUS shall be under no obligation to execute and deliver a Guarantee unless and until the following conditions have been satisfied or waived in writing:

(a) Bond Documents. RUS shall have received originals of: (i) the Bond to which the Guarantee relates (with an unexecuted Guarantee attached thereto) duly executed on behalf of the Borrower, identical in all respects to the form of Bond attached to the Bond Purchase Agreement except to the extent that RUS may have approved changes therein, (ii) a Bond Purchase Agreement duly executed on behalf of the Borrower and FFB, identical in all respects to the form of Bond Purchase Agreement in Annex B attached hereto except to the extent that RUS may have approved changes therein, and (iii) a Reimbursement Note duly executed on behalf of the Borrower, identical in all respects to the form of Reimbursement Note in Annex D attached hereto except to the extent that RUS may have approved changes therein.

(b) Amount of RE Act Loans. The Borrower shall have provided RUS a certification by its Governor and its Chief Financial Officer (or other senior management acceptable to the Secretary) certifying that as of the Closing Date the outstanding principal amount of Loans made for electrification and telephone purposes eligible under the RE Act is equal to or greater than the amount of the Borrower's Guaranteed Bonds under the Program, including the Bond.

(c) Opinion of Counsel. Counsel to the Borrower shall have furnished an opinion substantially as to each of the matters listed in Annex E attached hereto.

(d) No material adverse change. The Borrower shall have certified to the Secretary (in the manner specified in paragraph (g) of this Section 3.1), and the

Secretary shall be satisfied, that no material adverse change shall have occurred in the financial condition of the Borrower between the date of the Application and the date of execution of the Guarantee.

(e) Investment Grade Rating of Bond. The Borrower shall have provided evidence of an Investment Grade Rating from a Rating Agency for the Bond, without regard to the Guarantee.

(f) Senior Secured Credit Rating. The Borrower shall have provided evidence satisfactory to the Secretary of its Senior Secured Credit Rating.

(g) Certification of Senior Management. The Borrower shall have provided RUS a certification by its Governor and its Chief Financial Officer (or other senior management acceptable to the Secretary), substantially in the form attached of Annex F attached hereto, of the following: (i) that the Borrower is a lending institution organized as a private, not-for-profit, cooperative association with the appropriate expertise, experience and qualifications to make loans for electrification or telephone purposes; (ii) the matter to be certified under paragraph (d) of this Section 3.1; and (iii) acknowledgment of the Borrower's commitment to comply with the reporting requirements specified in Article VI.

(h) UCC Filing. The Borrower shall have provided RUS with evidence that the Borrower has filed the financing statement required pursuant to Section 2.05(i) of the Pledge Agreement.

SECTION 3.2. Conditions Precedent to each Advance. The following conditions shall be fulfilled to the satisfaction of RUS or waived in writing by RUS prior to the drawdown of each Advance under a Guaranteed Bond:

(a) Existing Loans.

(i) The Borrower shall have certified to the Secretary (in the manner specified in paragraph (d) of this Section 3.2): (A) the total aggregate principal amount of outstanding Eligible Loans as of the Requested Advance Date; (B) the total aggregate principal amount of outstanding Loans as of the Requested Advance Date; and (C) the percentage the amount in subparagraph (A) comprises of the amount in subparagraph (B).

(ii) For Advances made under the Series N Bond, advances made under the Original Bonds, or advances under any new Bonds executed by the Borrower subsequent to the Closing Date, the Borrower shall have certified as to the portion of Eligible Loans that is comprised of (A) refinanced RUS debt; (B) debt of Members for whom both RUS and the Borrower have outstanding loans; and (C) debt of Members for whom both RUS and the Borrower have outstanding concurrent loans pursuant to Section 307 of the RE Act, and that the amount of Eligible Loans in (A), (B) and (C) of this subparagraph exceeds the amount of Bonds outstanding as of the date thereof.

(b) Use of Proceeds. The Borrower shall have certified to the Secretary (in the manner specified in paragraph (d) of this Section 3.2) that the Advance will be applied: (A) to fund new Eligible Loans under the RE Act; and/or (B) to refinance existing debt instruments of the Borrower, in the case of each such debt instrument up to the percentage certified by the Borrower in accordance with Section 3.2(a)(i)(C) hereof.

(c) No material adverse change. The Borrower shall have certified to the Secretary (in the manner specified in paragraph (d) of this Section 3.2), and the Secretary shall be satisfied, that no material adverse change shall have occurred in the financial condition of the Borrower between the Closing Date and the applicable Requested Advance Date.

(d) Certification of Senior Management. The Borrower shall have provided RUS a certification by its Governor and its Chief Financial Officer (or other senior management acceptable to the Secretary), substantially in the form attached as Annex G attached hereto, of the matters to be certified under paragraphs (a), (b) and (c) of this Section 3.2.

(e) Certificate of Pledged Collateral. The Borrower shall have provided RUS a copy of a Certificate of Pledged Collateral in accordance with the terms of the Pledge Agreement.

ARTICLE IV

GUARANTEE FEE

SECTION 4.1. Guarantee Fee. The Borrower shall pay a guarantee fee (the “Guarantee Fee”), to the RUS for deposit into the Rural Economic Development Subaccount maintained under Section 313(b)(2)(A) of the RE Act.

SECTION 4.2. Amount of Guarantee Fee; Dates of Payment. (a) The Guarantee Fee will be in the amount of 30 basis points (0.30 percent) of the unpaid principal amount of the Bonds, payable as provided in paragraph (b) of this Section 4.2.

(b) The Guarantee Fee will be payable, in advance, on each January 15 and July 15 in the amount of 15 basis points (0.15 percent) of the outstanding principal amount of the Bonds on that date. In addition, on the date of each Advance under a Bond, the Borrower will pay to RUS the Guarantee Fee on the principal amount of such advance in the amount of (i) 30 basis points (0.30 percent) of the principal amount of such advance multiplied by (ii) the ratio of (x) the actual amount of days from the date of such advance until the next January 15 or July 15, whichever comes first, to (y) 365 (except in calendar years including February 29, when the number shall be 366).

(c) Payments of the Guarantee Fee are non-refundable as of the date and in the amount required to be paid hereunder, without regard to any reduction in the principal amount of the Bonds after that date.

ARTICLE V

SERVICING OF THE GUARANTEED BONDS

SECTION 5.1. Servicing. The Secretary, or other agent of the Secretary on his or her behalf, shall have the right to service the Guaranteed Bonds, and periodically inspect the books and accounts of the Borrower to ascertain compliance with the provisions of the RE Act with respect to the guarantees under Section 313A thereof and the Bond Documents. The Secretary, or agent thereof, shall endeavor to give the Borrower at least five Business Days' notice of any intention to inspect the Borrower's books and accounts. Such inspection shall be made only during regular office hours of the Borrower or at any time the Borrower and Secretary, or agent thereof, find mutually convenient.

ARTICLE VI

REPORTING REQUIREMENTS

SECTION 6.1. Annual Reporting Requirements. Until the Termination Date, the Borrower shall provide the Secretary with the following items within 90 days of the end of each Fiscal Year, in each case, in form and substance satisfactory to the Secretary:

- (a) the Financial Statements for such Fiscal Year;
- (b) a Certificate of Pledged Collateral as of the end of such Fiscal Year;
- (c) a letter substantially in the form of Annex H attached hereto, by KPMG LLP or by such other reputable, independent certified public accountants engaged by the Borrower, who in the judgment of the Secretary have the requisite skills, knowledge, reputation and experience to provide such letter, such letter to be based upon Schedule A to the applicable certificate delivered under paragraph (b) of this Section 6.1;
- (d) a receipt from the Collateral Agent (as defined in the Pledge Agreement), or such other evidence as is satisfactory to the Secretary, as to the Pledged Collateral held by the Collateral Agent at the end of such Fiscal Year, such Pledged Collateral to agree with Schedule A to the applicable certificate delivered under paragraph (b) of this Section 6.1;

- (e) a projection of the Borrower's balance sheet, income statement and statement of cash flows over the ensuing five years, pro forma assuming the full principal amount of the Bond is advanced;
- (f) the most recent credit assessment of the Borrower issued by a Rating Agency;
- (g) the most recent Senior Secured Credit Rating issued by a Rating Agency; and
- (h) such other information as is reasonably requested by the Secretary.

SECTION 6.2. Default Notices. If an action, occurrence or event shall happen that is, or with notice and the passage of time would become, an Event of Default, the Borrower shall deliver a Borrower Notice of such action, occurrence or event to RUS before 4:00 p.m. District of Columbia time on the Business Day following the date the Borrower becomes aware of such action, occurrence or event, and, if such Event of Default should occur, shall submit to RUS, as soon as possible thereafter, a report setting forth its views as to the reasons for the Event of Default, the anticipated duration of the Event of Default and what corrective actions the Borrower is taking to cure such Event of Default.

ARTICLE VII

LIMITATIONS ON AMENDMENTS TO THE GUARANTEED BONDS

SECTION 7.1. Limitations on Amendments to the Guaranteed Bonds. No amendment or supplement to, and no modification or rescission of, the Guaranteed Bonds shall be effective unless approved in writing by RUS, nor shall any waiver of any rights of RUS under the Guaranteed Bonds be effective against RUS unless such waiver has been approved in writing by RUS. No amendment or supplement to, and no modification of, any of the other Bond Documents, which materially adversely affects RUS, shall be effective unless approved in writing by RUS, nor shall any waiver of any rights of RUS under any of the Bond Documents be effective against RUS unless such waiver has been approved in writing by RUS.

ARTICLE VIII

REPRESENTATIONS OF THE PARTIES

SECTION 8.1. Representation of RUS. RUS represents that the Guarantees endorsed on the original of the Guaranteed Bonds constitute legal, valid and binding obligations supported by the full faith and credit of the Government,

incontestable except for fraud or misrepresentation of which FFB had actual knowledge at the time it extended the loan represented by the Guaranteed Bonds.

SECTION 8.2. Representations of the Borrower. The Borrower hereby represents to RUS that on the date hereof, the Closing Date, and each Requested Advance Date:

(a) the Borrower has been duly organized and is validly existing and in good standing as a cooperative association under the laws of the District of Columbia;

(b) the Borrower has the corporate power and authority to execute and deliver this Agreement and each of the other Bond Documents to which the Borrower is a party, to consummate the transactions contemplated hereby and thereby and to perform its obligations hereunder and thereunder;

(c) the Borrower has taken all necessary corporate action to authorize the execution and delivery of this Agreement and each of the other Bond Documents to which the Borrower is a party, the consummation by the Borrower of the transactions contemplated hereby and thereby and the performance by the Borrower of its obligations hereunder and thereunder;

(d) this Agreement and each of the other Bond Documents to which the Borrower is a party have been duly authorized, executed and delivered by the Borrower and constitute the legal, valid and binding obligations of the Borrower, enforceable against the Borrower in accordance with their respective terms, subject to: (i) applicable bankruptcy, reorganization, insolvency, moratorium and other laws of general applicability relating to or affecting creditors' rights generally; and (ii) the application of general principles of equity regardless of whether such enforceability is considered in a proceeding in equity or at law;

(e) no approval, consent, authorization, order, waiver, exemption, variance, registration, filing, notification, qualification, license, permit or other action is now, or under existing law in the future will be, required to be obtained, given, made or taken, as the case may be, with, from or by any regulatory body, administrative agency or governmental authority having jurisdiction over the Borrower to authorize the execution and delivery by the Borrower of this Agreement or any of the other Bond Documents to which the Borrower is a party, or the consummation by the Borrower of the transactions contemplated hereby or thereby or the performance by the Borrower of its obligations hereunder or thereunder;

(f) neither the execution or delivery by the Borrower of this Agreement or any of the other Bond Documents to which the Borrower is a party nor the consummation by the Borrower of any of the transactions contemplated hereby or thereby nor the performance by the Borrower of its obligations hereunder or thereunder, including, without limitation, the pledge of the Pledged Securities (as

such term is defined in the Pledge Agreement) to RUS if required, conflicts with or will conflict with, violates or will violate, results in or will result in a breach of, constitutes or will constitute a default under, or results in or will result in the imposition of any lien or encumbrance pursuant to any term or provision of the articles of incorporation or the bylaws of the Borrower or any provision of any existing law or any rule or regulation currently applicable to the Borrower or any judgment, order or decree of any court or any regulatory body, administrative agency or governmental authority having jurisdiction over the Borrower or the terms of any mortgage, indenture, contract or other agreement to which the Borrower is a party or by which the Borrower or any of its properties is bound;

(g) there is no action, suit, proceeding or investigation before or by any court or any regulatory body, administrative agency or governmental authority presently pending or, to the knowledge of the Borrower, threatened with respect to the Borrower, this Agreement or any of the other Bond Documents to which the Borrower is a party challenging the validity or enforceability of this Agreement or any of the other Bond Documents to which the Borrower is a party or seeking to restrain, enjoin or otherwise prevent the consummation by the Borrower of the transactions contemplated by this Agreement or any of the other Bond Documents to which the Borrower is a party or which, if adversely determined, would have a material adverse effect on the Borrower's financial condition or its ability to perform its obligations under this Agreement or any of the other Bond Documents to which the Borrower is a party;

(h) the Borrower is a lending institution organized as a member-owned, not-for-profit, cooperative association with the appropriate expertise, experience and qualifications to make loans for electrification or telephone purposes;

(i) the total principal amount of the Guaranteed Bonds under the Program does not exceed the total principal amount of outstanding Loans, made for electrification and telephone purposes eligible under the RE Act, as of the Closing Date; and

(j) no material adverse change has occurred in the financial condition of the Borrower between the date of the Application and the date this representation is given.

ARTICLE IX

AGREEMENTS OF THE BORROWER

SECTION 9.1. Patronage Refunds. The Borrower shall not make cash patronage refunds in excess of five percent of its total patronage capital, as disclosed in its most recent Financial Statements, during any portion of a Fiscal Year in which the Borrower has a Senior Secured Credit Rating (without regard to the Guarantee or any other third party credit support) that is not equal to at least two of the following ratings:

(i) “A-” or higher from Standard & Poor’s, a division of The McGraw-Hill Companies, Inc.; (ii) “A3” or higher from Moody’s Investors Service, Inc.; (iii) “A-” or higher from Fitch, Inc.; and (iv) an equivalent rating from a successor rating agency to any of those Rating Agencies. While the Borrower is subject to such restriction, equity securities issued as part of a patronage refund shall not be redeemed in cash, and, if the Borrower shall have outstanding any common stock or preferred stock, the Borrower shall not issue any dividends on any such stock.

SECTION 9.2. Security and Collateral. (%3) The Pledged Securities (as such term is defined in the Pledge Agreement) shall be pledged immediately upon the execution of the Pledge Agreement and delivery of the Certificate of Pledged Collateral in accordance with the terms and conditions of the Pledge Agreement to secure the payment obligations of the Borrower under this Agreement and under the Reimbursement Notes.

(a) Until the Termination Date, the Borrower shall cause the Pledged Collateral (as such term is defined in the Pledge Agreement) to be at all times not less than 100% of the aggregate principal amount of the Guaranteed Bonds and any other guaranteed bonds issued by the Borrower under the Program and, except as provided for in paragraph (a) of this Section 9.2 or otherwise permitted by the Pledge Agreement, shall not create, or permit to exist, any pledge, lien, charge, mortgage, encumbrance, debenture, hypothecation or other similar security instrument that secures, or in any way attaches to, such Pledged Collateral without the prior written consent of RUS.

SECTION 9.3. Subrogation. (%3) The Borrower agrees that RUS shall be subrogated to the rights of FFB to the extent of any and all payments made by RUS under each Guarantee (herein called the “Subrogation Claim”). The Borrower agrees to pay directly to RUS all amounts due on the Guaranteed Bonds as to which RUS is so subrogated, together with interest thereon (to the extent permitted by applicable law) at a rate determined by the following paragraph, and such payments shall satisfy the obligations of the Borrower hereunder with respect to such amounts paid by RUS.

(a) The Subrogation Claim of RUS shall bear interest from the date of payment by RUS under the Guarantees until the date such claim is satisfied. Interest shall accrue at an annual rate of the greater of 1.5 times the 91-day Treasury-Bill Rate or 200 basis points (2.00%) above the interest rate on the Guaranteed Bonds.

SECTION 9.4. Use of Proceeds. (%3) The Borrower shall only apply the proceeds of the Guaranteed Bonds to finance new Eligible Loans or, subject to paragraph (b), to refinance existing debt instruments of the Borrower.

(b) The Borrower may only apply the proceeds of each Advance to refinance any of the Borrower’s indebtedness up to the percentage certified by the Borrower under Section 3.2(a)(iii) hereof of the amount of such indebtedness being refinanced.

(c) Upon RUS's request, the Borrower shall provide RUS with documentation verifying that the Borrower has used the proceeds of the Guaranteed Bonds in the manner prescribed in Sections 9.4(a) or 9.4(b) hereof.

SECTION 9.5. Compliance with Covenants in Other Agreements. The Borrower and each of its Subsidiaries will observe and perform within any applicable grace period all covenants and agreements (as the same may be from time to time amended or waived) contained in any agreement or instrument relating to any Indebtedness of the Borrower or any of its Subsidiaries, aggregating for the Borrower and its Subsidiaries in excess of \$50,000,000, if the effect of the failure to observe or perform such covenant or agreement is to accelerate, or to permit the holder of such Indebtedness or any other Person to accelerate, the maturity of such Indebtedness.

SECTION 9.6. Ratings. For the term of the Bonds, the Borrower shall request, and do all things reasonably within its power to obtain (including paying all fees incidental thereto), Senior Secured Credit Ratings from at least two Rating Agencies on at least an annual basis. The Borrower agrees to provide the Secretary with all published updates on the Borrower's credit ratings, including all published agency reports relating to the Borrower.

SECTION 9.7. Acknowledgement of Borrower. The Borrower acknowledges and agrees that failure by the Borrower to receive any repayment under a Loan, does not affect the Borrower's obligations to make payments under this Agreement or any other Bond Document.

SECTION 9.8. Financial Expert. The Borrower will cause a financial expert (within the meaning of Section 407 of the Sarbanes-Oxley Act of 2002) to serve on the audit committee of its board of directors until the Termination Date; and shall not allow the financial expert position on the audit committee to remain vacant for more than 90 consecutive days.

SECTION 9.9. Compliance with Federal Laws and Regulations. The Borrower shall comply with all applicable Federal laws and regulations.

SECTION 9.10. RUS Site Visits to the Borrower's Headquarters. The Borrower agrees, upon three Business Days' notice, to allow RUS to conduct site visits to the Borrower's corporate headquarters to assess (i) CFC's processes for pledging Pledged Collateral under the Pledge Agreement and (ii) the Borrower's other related financial operations.

SECTION 9.11. Annual Meeting Between CFC and RUS. CFC agrees to meet with RUS on an annual basis, within 30 days of the filing of its Form 10-K with the Securities and Exchange Commission ("SEC"), to discuss its financial condition for the most recent fiscal year, which will include an analysis of (i) how CFC is preparing for and proposes to meet its long-term debt obligations, and (ii) CFC's interest rate risk management strategy, including its positions in derivatives and its risk sensitivity.

SECTION 9.12. Provision of Collateral Trust Bond Indentures. The Borrower agrees to provide RUS with copies of CFC's existing indentures for its Collateral Trust Bonds. In addition, within ten (10) Business Days of the Borrower signing additional indentures for its Collateral Trust Bonds, the Borrower shall provide RUS with copies of those additional indentures and any amendments or supplements thereto.

SECTION 9.13. Notification of Restructured, Non-Performing, or Impaired Electric or Telecommunications Loans. Within ten (10) Business Days of the filing of Borrower's quarterly report on Form 10-Q or annual report on Form 10-K with the SEC, the Borrower shall provide RUS with a list of the restructured, non-performing, or impaired electric or telecommunications loans disclosed in such Form 10-Q or Form 10-K, as applicable. RUS agrees that the information provided pursuant to this section shall be used solely for the purpose of evaluating the Pledged Collateral and shall not be shared or distributed.

ARTICLE X

EVENTS OF DEFAULT

SECTION 10.1. Events of Default. Each of the following actions, occurrences or events shall, but only (except in the case of subsections (a), (c) and (e) below) if the Borrower does not cure such action, occurrence or event within 30 days of notice from RUS requesting that it be cured, constitute an "Event of Default" under the terms of this Agreement:

- (a) A failure by the Borrower to make a payment of principal, interest or a Bond Fee when due on a Guaranteed Bond;
- (b) The issuance of a Guaranteed Bond in violation of the terms and conditions of this Agreement or any of the other Bond Documents;
- (c) A failure by the Borrower to make payment of the Guarantee Fee required by Article IV when due;
- (d) A misrepresentation by the Borrower to the Secretary in any material respect in connection with this Agreement, the Guaranteed Bonds or the information reported pursuant to Article VI;
- (e) A failure by the Borrower to comply with the covenant contained in Section 9.5 hereof; or
- (f) A failure by the Borrower to comply with any other material covenant or provision contained in this Agreement or any of the other Bond Documents, except that the failure of the Borrower to comply with Section 9.8 hereof shall not constitute such an Event of Default.

SECTION 10.2. Compulsory Redemption. If an Event of Default occurs, the Secretary may demand that the Borrower redeem the Guaranteed Bonds in accordance with its terms.

SECTION 10.3. Acceleration by RUS's Purchase of the Bonds. If an Event of Default occurs, and RUS purchases from FFB each Bond in its entirety in the manner provided in Section 13.5 of each Bond Purchase Agreement, then the entire purchase price shall be included in the Principal Amount of the Reimbursement Notes as defined therein and shall be immediately due and payable to RUS. Payment to RUS of all amounts due under the Reimbursement Notes after such an acceleration shall satisfy in full all obligations of the Borrower under the Bonds and Reimbursement Notes and all

corresponding obligations under the other Bond Documents, including any obligations to reimburse RUS for any payments thereafter made by RUS under the RUS Guarantees.

SECTION 10.4. Effect of Payments by RUS Pursuant to the RUS Guarantees. No payment by RUS pursuant to the RUS Guarantees shall (i) be considered a payment for purposes of determining the existence of a failure of the Borrower to perform its obligations to RUS under the Bond Documents, or (ii) relieve the Borrower of its obligations to reimburse RUS for payments made by RUS pursuant to the RUS Guarantees. Payment by the Borrower to RUS of amounts due under the Reimbursement Notes shall satisfy *pro tanto* the corresponding obligations of the Borrower under the Bonds.

SECTION 10.5. Remedies Not Exclusive. Upon the occurrence of an Event of Default, the Secretary shall be entitled to take such other action as is provided for by law, in this Agreement, or in any of the other Bond Documents, including injunctive or other equitable relief.

ARTICLE XI

MISCELLANEOUS

SECTION 11.1. GOVERNING LAW. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE UNITED STATES OF AMERICA, TO THE EXTENT APPLICABLE, AND OTHERWISE THE LAWS OF THE DISTRICT OF COLUMBIA.

SECTION 11.2. WAIVER OF JURY TRIAL. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF

LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTY HERETO HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 11.2.

SECTION 11.3. Method of Payment. All payments to be made by the Borrower to RUS hereunder, shall be made in the manner notified to the Borrower by RUS from time to time in accordance with Section 11.4.

SECTION 11.4. Notices. All notices and other communications hereunder to be made to any party shall be in writing and shall be addressed as specified in Schedule I attached hereto as appropriate. The address, telephone number, or facsimile number for any party may be changed at any time and from time to time upon written notice given by such changing party to the other parties hereto. A properly addressed notice or other communication to the Borrower shall be deemed to have been delivered at the time it is sent by facsimile (fax) transmission. A properly addressed notice or other communication to RUS shall be deemed to have been delivered at the time it is sent by facsimile (fax) transmission, provided that the original of such faxed notice or other communication shall have been received by RUS within five Business Days.

SECTION 11.5. Benefit of Agreement. This Agreement shall become effective when it shall have been executed by RUS and the Borrower, and thereafter shall be binding upon and inure to the respective benefit of the parties and their permitted successors and assigns.

SECTION 11.6. Entire Agreement. This Agreement, including Schedule I hereto and Annexes A to H hereto, and the other Bond Documents, constitutes the entire agreement between the parties hereto concerning the matters contained herein and supersedes all prior oral and written agreements and understandings between the parties.

SECTION 11.7. Amendments and Waivers. (%3) No failure or delay of RUS or the Borrower in exercising any power or right hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such a right or power, preclude any other or further exercise thereof or the exercise of any other right or power. No waiver of any provision of this Agreement or consent to any departure by the Borrower therefrom shall in any event be effective unless the same shall be authorized as provided in paragraph (b) of this Section 11.7, and then such waiver or consent shall be effective only in the specific instance and for the purpose for which given. No notice or demand on the Borrower in any case shall entitle the Borrower to any other or further notice or demand in similar or other circumstances.

(b) No provision of this Agreement may be amended or modified except pursuant to an agreement in writing entered into by RUS and the Borrower. No provision of this Agreement may be waived except in writing by the party or parties receiving the benefit of and under such provision.

SECTION 11.8. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be an original, but all of which together shall constitute one and the same instrument.

SECTION 11.9. Termination of Agreement. This Agreement shall terminate upon the indefeasible payment in full of all amounts payable hereunder, under the Reimbursement Notes and under the Guaranteed Bonds.

SECTION 11.10. Survival. The representations and warranties of each of the parties hereto contained in this Agreement and contained in each of the other Bond Documents to which such party hereto is a party thereto, and the parties' obligations under any and all thereof, shall survive and shall continue in effect following the execution and delivery of this Agreement, any disposition of the Guaranteed Bonds and the expiration or other termination of any of the other Bond Documents, but, in the case of each Bond Document, shall not survive the expiration or the earlier termination of such Bond Document, except to the extent expressly set forth in such Bond Document.

SECTION 11.11. Severability. If any term or provision of this Agreement or any Bond Document or the application thereof to any circumstance shall, in any jurisdiction and to any extent, be invalid or unenforceable, such term or such provision shall be ineffective as to such jurisdiction to the extent of such invalidity or unenforceability without invalidating or rendering unenforceable any remaining terms or provisions of such Bond Document or the application of such term or provision to circumstances other than those as to which it is held invalid or unenforceable.

[SIGNATURES APPEAR ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, each party hereto has caused this Agreement to be executed by an authorized officer as of the day and year first above written.

UNITED STATES OF AMERICA, acting
through the Acting Administrator of the
Rural Utilities Service

By: /s/ CHRISTOPHER A. MCLEAN

Name: Christopher A. McLean

Title: Acting Administrator
Rural Utilities Service

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE
CORPORATION, as the Borrower

By: /s/ SHELDON C. PETERSEN

Name: Sheldon C. Petersen

Title: Governor and
Chief Executive Officer

SCHEDULE I
TO
AMENDED, RESTATED AND CONSOLIDATED BOND GUARANTEE
AGREEMENT

Addresses for Notices

1. The addresses referred to in Section 11.4 hereof, for purposes of delivering communications and notices, are as follows:

If to RUS:

Rural Utilities Service
United States Department of Agriculture
1400 Independence Avenue, SW
Washington, DC 20250
Fax: 202-720-1725
Attention of: The Administrator
Subject: Guaranteed Underwriter Program

and

Ms. Amy McWilliams
Management Analyst
Rural Utilities Service
United States Department of Agriculture
1400 Independence Avenue, SW
Stop 1568, Room 0226-S
Washington, DC 20250
Email: Amy.McWilliams@wdc.usda.gov
Fax: 844-749-0736

If to the Borrower:

National Rural Utilities Cooperative Finance Corporation
20701 Cooperative Way
Dulles, VA 20166
Telephone: 703-467-7402
Fax: 703-467-5178
Attention of: J. Andrew Don, Chief Financial Officer

With a copy to:

National Rural Utilities Cooperative Finance Corporation
20701 Cooperative Way
Dulles, VA 20166
Telephone: 703-467-1872

Fifth Amended, Restated and Consolidated Bond Guarantee Agreement

Fax: 703-467-5651

Attention of: Roberta B. Aronson, Esq., General Counsel

ANNEX A

Form of Supplement to Fifth Amended, Restated and Consolidated Bond Guarantee
Agreement

Fifth Amended, Restated and Consolidated Bond Guarantee Agreement

SUPPLEMENT TO FIFTH AMENDED, RESTATED AND CONSOLIDATED BOND GUARANTEE AGREEMENT dated as of [] (the “Supplement”) by and between the UNITED STATES OF AMERICA (the “Government”), acting through the Rural Utilities Service, a Rural Development agency of the United States Department of Agriculture, and its successors and assigns (“RUS”); and NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, a cooperative association existing under the laws of the District of Columbia (the “Borrower”).

RECITALS

1, The Borrower and RUS are parties to that certain Fifth Amended, Restated and Consolidated Bond Guarantee Agreement, dated as of November 15, 2018, pursuant to which RUS has agreed to issue guarantees of certain Bonds, as contemplated by Section 313A of the RE Act, upon the terms and subject to the conditions provided therein (the “Original Agreement”). Capitalized terms that are not defined herein shall have the meanings assigned to them in the Original Agreement.

2. On [date of Application], the Borrower applied to RUS, in accordance with Section 313A of the Act and the Regulations, for RUS to guarantee a [Application number] loan from FFB to the Borrower, the proceeds of which would be used by the Borrower to fund new Eligible Loans or to refinance existing debt instruments of the Borrower used to fund Eligible Loans.

3, FFB is willing to make a loan to the Borrower in the aggregate principal amount of up to \$[] upon the terms and subject to the conditions set forth in that certain Series [] Bond Purchase Agreement, dated as of [], by and among FFB, the Borrower and RUS, as the same may be amended, supplemented, consolidated or restated from time to time in accordance with the terms thereof (the “Series [] Bond Purchase Agreement”), and upon the terms and subject to the conditions set forth in the Series [] Future Advance Bond issued by the Borrower to FFB and dated as of the date hereof (the “Series [] Bond”).

4. RUS has determined that the Borrower is eligible for guarantees under Section 313A of the RE Act and is willing to issue its guarantee of the Series [] Bond (the “Section [] Guarantee”) upon the terms and subject to the conditions set forth in the Original Agreement.

NOW, THEREFORE, in consideration of the mutual agreements herein contained, RUS and the Borrower agree as follows:

SECTION 1. Recitals. The foregoing recitals are incorporated into the Original Agreement by reference.

SECTION 2. Definitions.

A. The following definitions will be added to Section 1.1 of the Original Agreement:

Fifth Amended, Restated and Consolidated Bond Guarantee Agreement

“Series [] Bond” shall have the meaning given to that term in the recitals hereto.

“Series [] Bond Purchase Agreement” shall have the meaning given to that term in the recitals hereto.

“Series [] Guarantee” shall have the meaning given to that term in the recitals hereto.

B. The following definitions shall be amended as indicated below:

“Bonds” shall mean the Original Bonds and the Series [] Bond dated as of [_____].

“Bond Purchase Agreement” shall mean the Original Bond Purchase Agreements, the Series N Bond Purchase Agreement, and the Series [] Bond Purchase Agreement dated as of [_____].

SECTION 3. Conditions Precedent to the Issuance of the Series [] Guarantee. The obligation of RUS to enter into this Supplement and to issue the guarantee of the Series [] Bond pursuant to the terms hereof is subject to the satisfaction of the conditions precedent listed in Section 3.1 of the Original Agreement unless and until such conditions have been satisfied or waived in writing.

SECTION 4. Prior Representation of RUS. The representation made by RUS in Section 8.1 of the Original Agreement is true and correct as of the date hereof.

SECTION 5. Prior Representations of the Borrower. All representations made by the Borrower in Section 8.2 of the Original Agreement are true and correct as of the date hereof.

SECTION 6. Incorporation; Inconsistency with Original Agreement. Except as otherwise amended or modified herein, the terms, conditions and provisions of the Original Agreement are incorporated herein by reference as if set forth in full herein and remain in full force and effect. In the event of any conflict or inconsistency between the terms of this Supplement and the Original Agreement, the terms of this Supplement shall control. Nothing in this Supplement shall, however, eliminate or modify any special condition, special affirmative covenant or special negative covenant, if any, specified in the Original Agreement.

SECTION 7. GOVERNING LAW. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE UNITED STATES OF AMERICA, TO THE EXTENT APPLICABLE, AND OTHERWISE THE LAWS OF THE DISTRICT OF COLUMBIA.

Fifth Amended, Restated and Consolidated Bond Guarantee Agreement

IN WITNESS WHEREOF, each party hereto has caused this Agreement to be executed by an authorized officer as of the day and year first above written.

UNITED STATES OF AMERICA, acting
through the Acting Administrator of the Rural
Utilities Service

By: _____
Title: Administrator
Rural Utilities Service

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE
CORPORATION, as the Borrower

By: _____

Name: _____

Title: _____

ANNEX B

Form of Bond Purchase Agreement

ANNEX C

Pledge Agreement

Dated as of November 15, 2018

ANNEX D

Form of Reimbursement Note

ANNEX E

Opinion of Counsel to the Borrower

(1) The Borrower has been duly incorporated and is validly existing as a not-for-profit cooperative association in good standing under the laws of the District of Columbia with corporate power and authority to execute and perform its obligations under the Bond Documents.

(2) The Bond Documents have been duly authorized, executed and delivered by the Borrower, and such documents constitute the legal, valid and binding agreements of the Borrower, enforceable against the Borrower in accordance with their respective terms subject to (a) applicable bankruptcy, reorganization, insolvency, moratorium and other laws of general applicability relating to or affecting creditors' rights generally, and (b) the application of general principles of equity regardless of whether such enforceability is considered in a proceeding in equity or at law.

(3) Neither the execution nor the delivery by the Borrower of any of the Bond Documents nor the consummation by the Borrower of any of the transactions contemplated therein, including, without limitation, the pledge of the Pledged Securities (as such term is defined in the Pledge Agreement) to RUS if required, nor the fulfillment by the Borrower of the terms of any of the Bond Documents will conflict with or violate, result in a breach of or constitute a default under any term or provision of the Articles of Incorporation or By-laws of the Borrower or any law or any regulation or any order known to Counsel currently applicable to the Borrower of any court, regulatory body, administrative agency or governmental body having jurisdiction over the Borrower or the terms of any indenture, deed of trust, note, note agreement or instrument to which the Borrower is a party or by which the Borrower or any of its properties is bound.

(4) No approval, authorization, consent, order, registration, filing, qualification, license or permit of or with any state or Federal court or governmental agency or body including, without limitation, RUS, having jurisdiction over the Borrower is required for any consummation by the Borrower of the transactions contemplated by the Bond Documents except such as have been obtained from RUS; provided, however, no opinion is expressed as to the applicability of any Federal or state securities law to any sale, transfer or other disposition of the Guaranteed Bond after the date hereof.

(5) The Fifth Amended, Restated and Consolidated Pledge Agreement creates a valid security interest in the Borrower's collateral described therein. Such security interest has been validly perfected by the filing of a financing statement under Article 9 of the Uniform Commercial Code as in effect in the District of Columbia (the "District of Columbia UCC"). No filings, recordings or similar actions, other than the filing of the financing statement, are necessary under the laws of the District of Columbia in order to establish or continue perfection of such security interest except for the filing of any continuation statements required under Article 9 of the District of Columbia UCC.

(6) There is no pending or, to the best of Counsel's knowledge, threatened action, suit or proceeding before any court or governmental agency, authority or body or any arbitrator with respect to the Borrower, or any of the Bond Documents, or which, if adversely determined, would have a material adverse effect on the Borrower's financial condition or its ability to perform its obligations under any of the Bond Documents, except as previously disclosed.

ANNEX F

Officers' Closing Certificate

TO: The United States of America acting through the Rural Utilities Service.

We, [], Governor and Chief Executive Officer, and [], Senior Vice President and Chief Financial Officer, of National Rural Utilities Cooperative Finance Corporation (the "Borrower"), pursuant to the Fifth Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 15, 2018, between the Borrower and the United States of America acting through the Rural Utilities Service (the "Bond Guarantee Agreement"), hereby certify on behalf of the Borrower that as at the date hereof:

- (1) the Borrower is a lending institution organized as a member-owned, not-for-profit, cooperative association with the appropriate expertise, experience and qualifications to make loans for electrification or telephone purposes;
- (2) no material adverse change has occurred in the financial condition of the Borrower between the date of the Application and the date hereof;
- (3) we acknowledge the commitment of the Borrower to submit to the Secretary the documents required under Article VI of the Bond Guarantee Agreement in accordance with the terms thereof; and
- (4) all of the representations contained in Section 8.2 of the Bond Guarantee Agreement remain true and correct in all respects.

Capitalized terms used in this certificate shall have the meanings given to those terms in the Bond Guarantee Agreement.

DATED as of this 15th day of November 2018.

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE
COOPERATION

Governor and
Chief Executive Officer

Senior Vice President and
Chief Financial Officer

ANNEX G

Officers' Advance Certificate

TO: The United States of America acting through the Rural Utilities Service.

We, [], Governor and Chief Executive Officer, and [], Senior Vice President and Chief Financial Officer, of National Rural Utilities Cooperative Finance Corporation (the "Borrower"), pursuant to the Fifth Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 15, 2018, between the Borrower and the United States of America acting through Rural Utilities Service (the "Bond Guarantee Agreement"), hereby certify on behalf of the Borrower that:

(1) (i) as at the last day of the most recent month ended more than 10 business days before the date hereof, the total aggregate principal amount of outstanding Eligible Loans is: \$ _____ ;

(ii) as at the last day of the most recent month ended more than 10 business days before the date hereof, the total aggregate principal amount of outstanding Loans is: \$ _____ ;

(iii) the percentage the amount under (i) comprises of the amount under (ii) is: _____ %;

(2) (i) Of the total aggregate principal amount of outstanding Eligible Loans under (1) (i), the amount associated with refinancing RUS Debt is: \$ _____ ;

(ii) Of the total aggregate principal amount of outstanding Eligible Loans under (1) (i), the amount associated with debt of Members for whom both RUS and the Borrower have outstanding loans is: \$ _____ ;

(iii) Of the total aggregate principal amount of outstanding Eligible Loans under (1) (i), the amount associated with debt of Members for whom both RUS and the Borrower have outstanding concurrent loans pursuant to Section 307 of the RE Act is: \$ _____ ; and

(iv) The sum of the amount of Eligible Loans in (2)(i), (2)(ii), and (2)(iii) of \$ _____ exceeds the amount of Bonds outstanding of \$ _____ as of this date.

(3) the Advance will be applied to: (i) fund new Eligible Loans under the RE Act; or (ii) to refinance existing debt instruments of the Borrower, in the case of each such debt instrument up to the percentage set forth in clause (1)(iii) above;

(4) as at the date hereof, no material adverse change has occurred in the financial condition of the Borrower between the Closing Date and the applicable Requested Advance Date; and

(5) as at the date hereof, all of the representations contained in Section 8.2 of the Bond Guarantee Agreement remain true and correct in all respects.

Capitalized terms used in this certificate shall have the meanings given to those terms in the Bond Guarantee Agreement.

DATED as of this ___ day of _____, 20__.

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE
CORPORATION

Governor and
Chief Executive Officer

Senior Vice President and
Chief Financial Officer

ANNEX H

Auditors' Letter

To the Board of Directors of
National Rural Utilities Cooperative Finance Corporation
Dulles, Virginia

We have performed the procedures enumerated below, which were agreed to by National Rural Utilities Cooperative Finance Corporation (the "Company") and the Rural Utilities Service (the "RUS"), solely to assist in evaluating the Company's compliance with Section 6.1(b) of the Fifth Amended, Restated and Consolidated Bond Guarantee Agreement between the Company and the United States of America, acting through the RUS, dated November 15, 2018 (the "Bond Guarantee Agreement"), as of [last day of preceding fiscal year]. The Company's management is responsible for the Company's compliance with those requirements. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of those parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

The procedures that we performed and our findings are as follows:

1. We obtained the attached schedule of the total aggregate unpaid principal amount of the securities identified by the Company as comprising the Pledged Securities, as defined in the Bond Guarantee Agreement, as of [last day of preceding fiscal year] from Company management and compared the total aggregate unpaid principal amount shown on such schedule (\$ ____) to the Company's underlying accounting records as of the same date and found them to be in agreement.
2. We obtained the attached schedule of the total aggregate amount of all amounts outstanding under the Guaranteed Bonds, as defined in the Bond Guarantee Agreement, as of [last day of preceding fiscal year] from Company management and compared the amount shown on such schedule (\$ ____) to the Company's underlying accounting records as of the same date and found them to be in agreement.

We were not engaged to, and did not, conduct an examination, the objective of which would be the expression of an opinion on compliance. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the Company and the RUS and is not intended to be and should not be used by anyone other than these specified parties.

July , 20

Yours truly,

KPMG LLP

National Rural Utilities Cooperative Finance Corporation
Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
(18 U.S.C. Section 1350)

I, Sheldon C. Petersen, certify that:

1. I have reviewed this report on Form 10-Q of National Rural Utilities Cooperative Finance Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the Audit Committee of the registrant's board of directors:
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: January 11, 2019

By: /s/ SHELDON C. PETERSEN

Sheldon C. Petersen

Chief Executive Officer

A signed original of this written statement required by Section 302 has been provided to National Rural Utilities Cooperative Finance Corporation and will be retained by National Rural Utilities Cooperative Finance Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

National Rural Utilities Cooperative Finance Corporation
Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
(18 U.S.C. Section 1350)

I, J. Andrew Don, certify that:

1. I have reviewed this report on Form 10-Q of National Rural Utilities Cooperative Finance Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the Audit Committee of the registrant's board of directors:
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: January 11, 2019

By: /s/ J. ANDREW DON

J. Andrew Don

Chief Financial Officer

A signed original of this written statement required by Section 302 has been provided to National Rural Utilities Cooperative Finance Corporation and will be retained by National Rural Utilities Cooperative Finance Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

**National Rural Utilities Cooperative Finance Corporation
Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(18 U.S.C. Section 1350)**

Pursuant to the requirements of Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Sections 1350(a) and (b)), I, the Chief Executive Officer of National Rural Utilities Cooperative Finance Corporation (“CFC”), hereby certify to the best of my knowledge as follows:

1. CFC’s Quarterly Report on Form 10-Q for the quarterly period ended November 30, 2018 filed with the Securities and Exchange Commission (the “Report”) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of CFC.

Date: January 11, 2019

By: /s/ SHELDON C. PETERSEN

Sheldon C. Petersen
Chief Executive Officer

A signed original of this written statement required by Section 906 has been provided to National Rural Utilities Cooperative Finance Corporation and will be retained by National Rural Utilities Cooperative Finance Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

**National Rural Utilities Cooperative Finance Corporation
Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(18 U.S.C. Section 1350)**

Pursuant to the requirements of Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Sections 1350(a) and (b)), I, the Chief Financial Officer of National Rural Utilities Cooperative Finance Corporation (“CFC”), hereby certify to the best of my knowledge as follows:

1. CFC’s Quarterly Report on Form 10-Q for the quarterly period ended November 30, 2018 filed with the Securities and Exchange Commission (the “Report”) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of CFC.

Date: January 11, 2019

By: /s/ J. ANDREW DON
J. Andrew Don
Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to National Rural Utilities Cooperative Finance Corporation and will be retained by National Rural Utilities Cooperative Finance Corporation and furnished to the Securities and Exchange Commission or its staff upon request.