# UNITED STATES <br> SECURITIES AND EXCHANGE COMMISSION 

Washington, D.C. 20549

FORM 10-Q

囚 QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended November 30, 2020
OR
TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from $\qquad$ to $\qquad$
Commission File Number: 1-7102

# NATIONAL RURAL UTILITIES <br> COOPERATIVE FINANCE CORPORATION <br> (Exact name of registrant as specified in its charter) 

District of Columbia<br>(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
Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class<br>7.35\% Collateral Trust Bonds, due 2026<br>$5.50 \%$ Subordinated Notes, due 2064

Trading Symbol(s)<br>NRUC 26

Name of Each Exchange on Which Registered
New York Stock Exchange
New York Stock Exchange
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 $\begin{aligned} & \text { ® } \\ & \square\end{aligned}$
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 $\boxtimes \quad$ No $\square$
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 $\square \quad$ Accelerated filer $\square \quad$ Non-accelerated filer $\boxtimes \quad$ Smaller reporting company $\square \quad$ Emerging growth company $\square$
If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transaction period for complying with any new or revised financial accounting standards provided pursuant to Section13(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 区

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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 for the quarterly period ended November 30, 2020 ("this Report") contains certain statements that are considered "forward-looking statements" as defined in and within the meaning of the safe-harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements do not represent historical facts or statements of current conditions. Instead, forward-looking statements represent management's current beliefs and expectations, based on certain assumptions and estimates made by, and information available to, management at the time the statements are made, regarding our future plans, strategies, operations, financial results or other events and developments, many of which, by their nature, are inherently uncertain and outside our control. Forward-looking statements are generally identified by the 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 adequacy of the allowance for credit 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 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. Therefore, you should not place undue reliance on any forward-looking statement and should consider the risks and uncertainties that could cause our current expectations to vary from our forward-looking statements, including, but 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 impact of legal or governmental proceedings involving us or our members, the occurrence and effect of natural disasters or public health emergencies, such as the emergence in 2019 and continued spread of a novel coronavirus that causes coronavirus disease 2019 ("COVID-19") and the factors identified under "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended May 31, 2020 ("2020 Form 10-K"), as well as any risk factors identified under "Part II-Item 1A. Risk Factors" in this Report. Forward-looking statements speak only as of the date they are made, and, except as required by law, we undertake no obligation to update any forward-looking statement to reflect the impact of events, circumstances or changes in expectations that arise after the date any forward-looking 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 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 under Section 501(c)(4) of the Internal Revenue Code. As a memberowned 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 and its consolidated entities have not held any foreclosed assets since the fiscal year ended May 31, 2017 ("fiscal year 2017"). See "Item 1. Business-Overview" in our 2020 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, except where indicated otherwise.

We conduct our operations through three business segments, which are based on each of the legal entities included in our consolidated financial statements: CFC, NCSC and RTFC. CFC's business operations account for the substantial majority of our loans and revenue. Loans to members totaled $\$ 27,063$ million as of November 30, 2020, of which $96 \%$ was attributable to CFC. We generated total revenue, which consists of net interest income and fee and other income, of $\$ 212$ million for the six months ended November 30, 2020, compared with $\$ 171$ million for the six months ended November 30, 2019 ("same prior year-to-date period"). Our adjusted total revenue was $\$ 155$ million for the six months ended November 30, 2020, compared with $\$ 146$ million for the same prior year-to-date period. We provide information on the financial performance of our business segments in "Note 14 -Business Segments."

Management monitors a variety of key indicators to evaluate our business performance. 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. 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 key measures used by management to evaluate performance, including, among others, net interest income, net interest yield, debt-to-equity ratio and the related non-GAAP adjusted measures, loan activity and credit quality metrics. Our MD\&A is provided as a supplement to, and should be read in conjunction with the unaudited consolidated financial statements and related notes in this Report, our audited consolidated financial statements and related notes in our 2020 Form 10-K and additional information contained in our 2020 Form 10-K, including the risk factors identified under "Part I-Item 1A. Risk Factors," as well as additional information contained elsewhere 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, 2020 and 2019, and as of November 30, 2020 and May 31, 2020. In addition to financial measures determined in accordance with GAAP, management also evaluates performance based on certain non-GAAP measures, which we refer to as "adjusted" 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 ("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-toequity 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 expense; (ii) adjusting net income, total liabilities and total equity to exclude the non-cash impact of the accounting for derivative financial instruments; (iii) adjusting total liabilities 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 for purposes of: (i) budgeting and forecasting; (ii) comparing period-to-period operating results, analyzing changes in results and identifying potential trends; (iii) making compensation decisions; and (iv) informing the establishment of short- and long-term strategic goals. In addition, certain of the financial covenants in our committed bank revolving line of credit agreements and debt indentures are based on these non-GAAP adjusted measures. We provide a reconciliation of our non-GAAP adjusted measures to the most comparable GAAP measures in the section "Non-GAAP Financial Measures."

Table 1: Summary of Selected Financial Data ${ }^{(1)}$

| (Dollars in thousands) | Three Months Ended November 30, |  |  | Change | Six Months Ended November 30, |  | Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  | 2019 |  | 2020 | 2019 |  |
| Statement of operations |  |  |  |  |  |  |  |
| Interest income | \$ 276,499 | \$ | 287,037 | (4)\% | \$ 556,083 | \$ 577,052 | (4)\% |
| Interest expense | $(174,422)$ |  | $(207,871)$ | (16) | $(354,398)$ | $(421,142)$ | (16) |
| Net interest income | 102,077 |  | 79,166 | 29 | 201,685 | 155,910 | 29 |
| Fee and other income | 6,332 |  | 3,842 | 65 | 9,848 | 14,783 | (33) |
| Total revenue | 108,409 |  | 83,008 | 31 | 211,533 | 170,693 | 24 |
| Benefit (provision) for credit losses.. | $(1,638)$ |  | 1,045 | ** | $(1,964)$ | 1,015 | ** |
| Derivative gains (losses) ${ }^{(2)} \ldots \ldots \ldots \ldots . . .$. | 81,287 |  | 183,450 | (56) | 141,563 | $(212,275)$ | ** |
| Investment securities gains (losses).. | $(1,361)$ |  | (114) | 1,094 | 3,298 | 1,506 | 119 |
| Operating expenses ${ }^{(3)}$.................... | $(24,136)$ |  | $(24,769)$ | (3) | $(46,799)$ | $(50,098)$ | (7) |
| Other non-interest income (expense) ${ }^{(1)}$ | $(1,778)$ |  | (929) | 91 | $(2,110)$ | 6,250 | ** |
| Income (loss) before income taxes... | 160,783 |  | 241,691 | (33) | 305,521 | $(82,909)$ | ** |
| Income tax benefit (provision) | (262) |  | (91) | 188 | (413) | 430 | ** |
| Net income (loss) | \$ 160,521 | \$ | 241,600 | (34) | \$ 305,108 | \$ (82,479) | ** |
| Adjusted operational financial measures |  |  |  |  |  |  |  |
| Adjusted interest expense ${ }^{(4)}$ | \$ (204,222) | \$ | $(222,021)$ | (8) | \$ (411, 170 ) | \$ (446, 335 ) | (8) |
| Adjusted net interest income ${ }^{(4)}$ | 72,277 |  | 65,016 | 11 | 144,913 | 130,717 | 11 |
| Adjusted total revenue ${ }^{(4)}$. | 78,609 |  | 68,858 | 14 | 154,761 | 145,500 | 6 |
| Adjusted net income ${ }^{(4)}$. | 49,434 |  | 44,000 | 12 | 106,773 | 104,603 | 2 |
| Selected ratios |  |  |  |  |  |  |  |
| Fixed-charge coverage ratio/TIER ${ }^{(5)}$. | 1.92 |  | 2.16 | (24) bps | 1.86 | 0.80 | 106 bps |
| Adjusted TIER ${ }^{(4)}$ | 1.24 |  | 1.20 | 4 | 1.26 | 1.23 | 3 |
| Net interest yield ${ }^{(6)}$. | 1.48 \% |  | 1.17 \% | 31 | 1.45 \% | 1.16 \% | 29 |
| Adjusted net interest yield ${ }^{(4)(7)}$.......... | 1.05 |  | 0.96 | 9 | 1.04 | 0.97 | 7 |
| Net charge-off rate ${ }^{(8)}$. | 0.00 |  | 0.00 | - | 0.00 | 0.00 | - |


|  | November 30, 2020 | May 31, 2020 | Change |
| :---: | :---: | :---: | :---: |
| Balance sheet |  |  |  |
| Assets: |  |  |  |
| Cash, cash equivalents and restricted cash. | 177,191 | \$ 680,019 | (74)\% |
| Investment securities | 584,086 | 370,135 | 58 |
| Loans to members ${ }^{(9)}$. | 27,062,969 | 26,702,380 | 1 |
| Allowance for credit losses ${ }^{(10)}$ | $(58,989)$ | $(53,125)$ | 11 |
| Loans to members, net | 27,003,980 | 26,649,255 | 1 |
| Total assets | 28,176,102 | 28,157,605 | - |
| Liabilities and equity: |  |  |  |
| Short-term borrowings | 4,687,968 | 3,961,985 | 18 |
| Long-term debt | 19,070,919 | 19,712,024 | (3) |
| Subordinated deferrable debt | 986,217 | 986,119 |  |
| Members' subordinated certificates | 1,272,374 | 1,339,618 | (5) |
| Total debt outstanding | 26,017,478 | 25,999,746 |  |
| Total liabilities | 27,284,383 | 27,508,783 | (1) |
| Total equity | 891,719 | 648,822 | 37 |
| Guarantees ${ }^{(11)}$ | 676,858 | 820,786 | (18) |
| Selected ratios period end |  |  |  |
| Allowance coverage ratio ${ }^{(10)(12)}$ | 0.22 \% | 0.20 \% | 2 bps |
| Debt-to-equity ratio ${ }^{(13)}$ | 30.60 | 42.40 | (28)\% |
| Adjusted debt-to-equity ratio ${ }^{(4)}$ | 5.90 | 5.85 | 1 |
| ** Calculation of percentage change is not meaningful. <br> ${ }^{(1)}$ Certain reclassifications have been made to prior periods to conform to the current period presentation. |  |  |  |
| ${ }^{(2)}$ Consists of net periodic contractual interest amounts on our interest rate swaps, which we refer to as derivatives cash settlements interest (expense) income, and derivative forward value gains (losses) on derivatives not designated for hedge accounting. Derivative forward value gains (losses) represent changes in fair value during the period, excluding net periodic contractual interest amounts, related to derivatives not designated for hedge accounting and amounts reclassified into income related to the cumulative transition adjustment amount recorded in accumulated other comprehensive income as of June 1,2001 , the adoption date of the derivative accounting guidance requiring derivatives to be reported at fair value on the balance shee |  |  |  |
| ${ }^{(4)}$ See "Non-GAAP Financial Measures" for details on the calculation of these non-GAAP adjusted measures and the reconciliation to the most comparab GAAP measures. |  |  |  |
| ${ }^{(5)}$ 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. |  |  |  |
| ${ }^{(7)}$ Calculated based on annualized adjusted net interest income for the period divided by average interest-earning assets for the period. |  |  |  |
| ${ }^{(9)}$ Consists of the outstanding principal balance of member loans plus unamortized deferred loan origination costs, which totaled $\$ 12$ million and $\$ 11$ million as of November 30, 2020 and May 31, 2020, respectively. |  |  |  |
| Credit Losses on Financial Instruments, which replaces the incurred loss methodology previously used for estimating our allowance for credit losses with an expected loss methodology referred to as the current expected credit loss ("CECL") model. At adoption, we recorded an increase in our allowance for credit losses of $\$ 4$ million and a corresponding decrease in retained earnings through a cumulative-effect adjustment. |  |  |  |
| ${ }^{(11)}$ 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. <br> ${ }^{(12)}$ Calculated based on the allowance for credit losses at period end divided by total outstanding loans at period end. <br> ${ }^{(13)}$ 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 profit; therefore, the rates we charge our member-borrowers reflect our funding costs plus a spread to cover our operating expenses, a provision for credit 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 6.00 -to-1 or below.

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 sheets; however, the financial assets and liabilities for which we use derivatives to economically hedge are carried at amortized cost. Changes in interest rates and the shape of the swap curve 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. Because our derivative portfolio consists of a higher proportion of pay-fixed swaps than receive-fixed swaps, we generally record derivative losses 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 non-GAAP adjusted 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. Certain of the financial covenants in our committed bank revolving line of credit agreements and debt indentures 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 $\$ 161$ million and a TIER of 1.92 for the three months ended November 30, 2020 ("current quarter"). In comparison, we reported net income of $\$ 242$ million and a TIER of 2.16 for the three months ended November 30, 2019 ("same prior-year quarter"). We reported net income of $\$ 305$ million and a TIER of 1.86 for the six months ended November 30, 2020, compared with a net loss of $\$ 82$ million and a TIER of 0.80 for the same prior year-todate period. The significant variance between our reported results for the current-year periods and the same prior-year periods was attributable to mark-to-market changes in the fair value of our derivative instruments. Our debt-to-equity ratio decreased to 30.60 as of November 30, 2020, from 42.40 as of May 31, 2020, primarily due to an increase in equity from our reported net income of $\$ 305$ million, which was partially offset by a decrease in equity from the retirement of patronage capital of $\$ 60$ million authorized by the CFC Board of Directors in July 2020 and paid to members in September 2020.

We experienced a decrease of $\$ 81$ million in our reported net income of $\$ 161$ million for the current quarter from our reported net income of $\$ 242$ million for the same prior-year quarter, which was primarily driven by a reduction in derivative gains of $\$ 102$ million. We recorded derivative gains of $\$ 81$ million for the current quarter, compared with derivative gains of $\$ 183$ million for the same prior-year quarter. The derivative gains in each period resulted from an increase in the net fair value of our swap portfolio, which consists predominately of pay-fixed swaps, due to increases in medium- and longer-term swap interest rates. The increases in medium- and longer-term swap interest rates, however, were more pronounced during the same prior-year quarter, resulting in higher derivative gains. The decrease in derivative gains was partially offset by an increase in net interest income of $\$ 23$ million, or $29 \%$, to $\$ 102$ million for the current quarter, attributable to the combined impact of an increase in the net interest yield of 31 basis points, or $26 \%$, to $1.48 \%$ and an increase in our average interestearning assets of $\$ 575$ million, or $2 \%$. The increase in the net interest yield was largely due to a reduction in our average cost of borrowings of 58 basis points to $2.70 \%$, partially offset by a decrease in the average yield on interest-earning assets of 25 basis points to $4.01 \%$.

We experienced a variance of $\$ 387$ million between our reported net income of $\$ 305$ million for the six months ended November 30, 2020, and our reported net loss of $\$ 82$ million for the same prior year-to-date period, driven by a favorable shift in derivative fair value changes of $\$ 354$ million between periods. We recorded derivative gains of $\$ 142$ million for the six months ended November 30, 2020, due to a net increase in the net fair value of our swap portfolio resulting from an increase in long-term swap interest rates. In contrast, we recorded derivative losses of $\$ 212$ million during the same prior year-to-date period due to a decrease in the net fair value of our pay-fixed swaps attributable to declines in interest rates across the swap curve. In addition, net interest income increased $\$ 46$ million, or $29 \%$, to $\$ 202$ million for the six months ended November 30, 2020, attributable to an increase in the net interest yield of 29 basis points, or $25 \%$, to $1.45 \%$ and an increase in average interest-earning assets of $\$ 762$ million, or $3 \%$. The increase in the net interest yield reflected the impact of a reduction in our average cost of borrowings of 60 basis points to $2.72 \%$, which was partially offset by a decrease in the average yield on interest-earning assets of 28 basis point to $4.00 \%$.

A decrease in the average cost of our short-term borrowings of 183 basis points to $0.33 \%$ for the current quarter and 197 basis points to $0.39 \%$ for the six months ended November 30, 2020 was the primary factor driving the reduction in our overall average cost of borrowings during each period. The respective reductions in our average short-term borrowing cost, as well as the declines in the average yield on our interest-earning assets, reflect in part the impact of the overall lower interest rate environment. Since November 30, 2019, the end of the same prior-year quarter, the benchmark federal funds rate has decreased 150 basis points as a result of the decision by the Federal Open Market Committee ("FOMC") of the Federal Reserve in March 2020 to lower the federal funds rate to a near-zero target range of $0 \%$ to $0.25 \%$ as part of a series of measures implemented to ease the economic impact of the COVID-19 pandemic. The target federal funds rate range has remained unchanged since that time. Over the last 12 months, the 3-month London Interbank Offered Rate ("LIBOR") decreased by 168 basis points to $0.23 \%$ as of November 30, 2020. While medium- and longer-term interest rates also fell during this 12 -month period, the decreases were not as pronounced as the reduction in short-term interest rates.

Other factors affecting the variance between our reported results for the six months ended November 30, 2020 and the same prior year-to-date period include the absence of a gain of $\$ 8$ million recorded in connection with the sale of land in the prior year-to-date period, a decrease in fee income of $\$ 5$ million due to a reduction in prepayment fees, and an unfavorable shift in the provision for credit losses of $\$ 3$ million to an expense from a benefit amount recorded in the same prior year-to-date period, partially offset by a decrease in other general and administrative expenses of $\$ 5$ million largely due to reduced travel and in-person meeting costs and the cancellation of certain events because of the COVID-19 pandemic.

## Adjusted Non-GAAP Results

Adjusted net income totaled $\$ 49$ million and adjusted TIER was 1.24 for the current quarter, compared with adjusted net income of $\$ 44$ million and adjusted TIER of 1.20 for the same prior-year quarter. Adjusted net income totaled $\$ 107$ million and adjusted TIER was 1.26 for the six months ended November 30, 2020, compared with adjusted net income of $\$ 105$ million and adjusted TIER of 1.23 for the same prior year-to-date period. Our adjusted debt-to-equity ratio increased to 5.90 as of November 30, 2020, from 5.85 as of May 31, 2020, primarily attributable to a reduction in adjusted equity due to the maturity and redemption of subordinated certificates and the authorized patronage capital retirement amount, partially offset by adjusted net income for the current quarter. Our adjusted debt-to-equity ratio of 5.90 as of November 30, 2020, remained below our targeted threshold of 6.00-to-1.

We experienced an increase in adjusted net income of $\$ 5$ million in the current quarter from the same prior-year quarter, largely attributable to an increase in adjusted net interest income of $\$ 7$ million, or $11 \%$, to $\$ 72$ million for the current quarter. The increase in adjusted net interest income was driven by an increase in the adjusted net interest yield of 9 basis points, or $9 \%$, to $1.05 \%$ and an increase in average interest-earning assets of $\$ 575$ million, or $2 \%$. The increase in our adjusted net interest yield reflected the favorable impact of a reduction in our adjusted average cost of borrowings of 34 basis points to $3.16 \%$, which was partially offset by a decrease in the average yield on interest-earning assets of 25 basis points to $4.01 \%$. As noted above, the lower interest rate environment had a favorable impact on our adjusted average cost of borrowings and contributed to the decrease in the average yield on interest-earnings assets.

We experienced an increase in adjusted net income of $\$ 2$ million for the six months ended November 30, 2020 from the same prior year-to-date period, due in part to an increase in adjusted net interest income of $\$ 14$ million, or $11 \%$, to $\$ 145$ million. The increase in adjusted net interest income was driven by an increase in the adjusted net interest yield of 7 basis points, or $7 \%$, to $1.04 \%$ and an increase in average interest-earning assets of $\$ 762$ million, or $3 \%$. The increase in our
adjusted net interest yield reflected the favorable impact of a reduction in our adjusted average cost of borrowings of 36 basis points to $3.16 \%$, which was partially offset by a decrease in the average yield on interest-earning assets of 28 basis points to $4.00 \%$, both of which were attributable to the lower interest rate environment.

A decrease in other general and administrative expenses of $\$ 5$ million, largely due to reduced travel and in-person meeting and event costs because of the COVID-19 pandemic, also contributed to the increase in adjusted net income of $\$ 2$ million for the six months ended November 30, 2020. The combined favorable impact of the increase in adjusted net interest income and reduction in other general and administrative expense of $\$ 19$ million was partially offset by the absence of a gain of $\$ 8$ million recorded in connection with our sale of land in the same prior year-to-date period, a decrease in fee income of $\$ 5$ million due to a reduction in prepayment fees, and an unfavorable shift in the provision for credit losses of $\$ 3$ million from a benefit recorded in the same prior year-to-date period.

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

## Lending Activity

Loans to members totaled $\$ 27,063$ million as of November 30, 2020, an increase of $\$ 361$ million, or $1 \%$, from May 31, 2020. The increase was driven primarily by an increase in long-term loans of $\$ 492$ million, partially offset by a decrease in line of credit loans of $\$ 132$ million. We experienced increases in CFC distribution loans, NCSC loans and RTFC loans of $\$ 453$ million, $\$ 7$ million and $\$ 46$ million, respectively, and decreases in CFC power supply loans and CFC statewide and associate loans of $\$ 135$ million and $\$ 11$ million, respectively. Subsequent to the quarter end, during the month of December 31, 2020, our outstanding loans to members increased by an additional $\$ 476$ million, driven by increases in longterm and line of credit loans of $\$ 274$ million and $\$ 202$ million, respectively.

Long-term loan advances totaled $\$ 1,271$ million during the six months ended November 30, 2020, of which approximately $85 \%$ was provided to members for capital expenditures and $5 \%$ was provided for the refinancing of loans made by other lenders. In comparison, long-term loan advances totaled $\$ 1,387$ million during the same prior year-to-date period, of which approximately $69 \%$ was provided to members for capital expenditures and $25 \%$ was provided for the refinancing of loans made by other lenders. CFC had long-term fixed-rate loans totaling $\$ 204$ million that were scheduled to reprice during the six months ended November 30, 2020. Of this total, $\$ 198$ million repriced to a new long-term fixed rate, $\$ 5$ million repriced to a long-term variable rate and $\$ 1$ million was repaid in full. In comparison, CFC had long-term fixed-rate loans totaling $\$ 234$ million that were scheduled to reprice during the same prior year-to-date period, of which $\$ 224$ million repriced to a new long-term fixed rate, $\$ 7$ million repriced to a long-term variable rate $\$ 3$ million was repaid in full.

## Credit Quality

We believe the overall credit quality of our loan portfolio remained high as of November 30, 2020, as evidenced by our continued strong credit performance metrics. We had no delinquent loans as of either November 30, 2020 or May 31, 2020, and we have not experienced any loan defaults or charge-offs since fiscal year 2017. During the fourth quarter of the fiscal year ended May 31, 2020 ("fiscal year 2020"), we classified one loan to a CFC power supply borrower, with an outstanding balance of $\$ 168$ million as of May 31, 2020, as nonperforming, placed the loan on nonaccrual status and established an asset-specific allowance for credit losses of $\$ 34$ million as of May 31, 2020. Payments received from the borrower on this loan resulted in a reduction in the outstanding balance to $\$ 153$ million as of November 30, 2020. The asset-specific allowance for credit losses for this nonperforming loan, which remains on nonaccrual status, was $\$ 32$ million as of November 30, 2020. We had no other loans classified as nonperforming or on nonaccrual status as of November 30, 2020 or May 31, 2020.

Loans outstanding to electric utility organizations represented approximately $98 \%$ and $99 \%$ of total loans outstanding as of November 30, 2020 and May 31, 2020, respectively. We historically have had limited defaults and losses on loans in our electric utility loan portfolio largely because of the essential nature of the service provided by electric utility cooperatives as well as other factors, such as limited rate regulation and competition, which we discuss further in the section "Credit RiskLoan Portfolio Credit Risk." 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, $94 \%$ were secured as of both November 30, 2020 and May 31, 2020.

The allowance for credit losses for our loan portfolio increased to $\$ 59$ million as of November 30, 2020, from $\$ 53$ million as of May 31, 2020, and the allowance coverage ratio increased to $0.22 \%$ from $0.20 \%$. The increase in the allowance for credit losses was primarily attributable to the impact of our June 1, 2020 adoption of the current expected credit loss ("CECL") accounting standard, which replaces the incurred loss methodology for estimating credit losses with an expected loss methodology. The incurred loss model delayed the recognition of credit losses until it was probable that a loss had occurred, while the CECL model requires the immediate recognition of expected credit losses over the contractual term for financial instruments that fall within the scope of CECL at the date of origination or purchase of the financial instrument. The CECL model, which is applicable to the measurement of credit losses on financial assets measured at amortized cost and certain off-balance sheet credit exposures, affects our estimates of the allowance for credit losses for our loan portfolio and the reserve for our off-balance sheet credit exposures related to unadvanced loan commitments and financial guarantees. The adoption of CECL resulted in an increase in our allowance for credit losses for our loan portfolio of $\$ 4$ million and a corresponding decrease to retained earnings of $\$ 4$ million, recorded through a cumulative-effect adjustment. The impact on the reserve for credit losses for our off-balance sheet credit exposures related to unadvanced loan commitments and financial guarantees was not material. While CECL had no impact on our earnings at adoption on June 1, 2020, subsequent estimates of lifetime expected credit losses for newly recognized loans, unadvanced loan commitments and financial guarantees, as well as changes during the period in our estimate of lifetime expected credit losses for existing financial instruments subject to CECL, are now recognized in earnings.

We discuss our methodology for estimating the allowance for credit losses under the CECL model in "Note 1—Summary of Significant Accounting Policies" of this Report. We also provide information on the allowance for credit losses below in the section "Credit Risk—Allowance for Credit Losses" and in "Note 5—Allowance for Credit Losses."

## 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 was $\$ 26,017$ million as of November 30, 2020, an increase of $\$ 17$ million from May 31, 2020. In the fourth quarter of fiscal year 2020 we increased our cash position to $\$ 671$ million, as a precaution in case there were disruptions in the capital markets due to Covid-19 that would impact our ability to fund operations in fiscal year 2021. During the first six months of fiscal year 2021 there have not been disruptions in our ability to access the capital markets or in our issuance of debt to our members. As a result we have been able to use the $\$ 671$ million of cash that was on hand as of May 31, 2020 to fund the majority of our operations through November 30, 2020, at which date our cash balance had been reduced to $\$ 167$ million. Debt activity during this period consisted of net increases in outstanding dealer commercial paper of $\$ 715$ million and member commercial paper, select notes and daily liquidity fund notes of $\$ 104$ million, which together totaled $\$ 819$ million. This increase was partially offset by net decreases in collateral trust bonds of $\$ 351$ million, Federal Agricultural Mortgage Corporation ("Farmer Mac") notes payable of $\$ 161$ million, medium-term notes of $\$ 151$ million, borrowings under the United States Department of Agriculture ("USDA") Guaranteed Underwriter Program ("Guaranteed Underwriter Program") of $\$ 71$ million and members' subordinated certificates of $\$ 68$ million, which together totaled $\$ 802$ million. Outstanding dealer commercial paper, which totaled $\$ 715$ million as of November 30, 2020, was below our targeted maximum threshold of $\$ 1,250$ million.

On October 8, 2020, we issued $\$ 400$ million aggregate principal amount of $1.35 \%$ sustainability collateral trust bonds due March 15, 2031. On November 19, 2020, we closed on a $\$ 375$ million committed loan facility ("Series R") from the Federal Financing Bank under the Guaranteed Underwriter Program. Pursuant to this facility, we may borrow any time before July 15,2025 . Each advance is subject to quarterly amortization and a final maturity not longer than 30 years from the date of the advance.

## Liquidity

As of November 30, 2020, our sources of liquidity readily available for access totaled $\$ 7,317$ million, consisting of (i) $\$ 167$ million in cash and cash equivalents; (ii) investments in debt securities with a fair value of $\$ 552$ million, subject to changes in market value; (iii) up to $\$ 2,722$ million available for access under committed bank revolving line of credit agreements; (iv) up to $\$ 1,275$ million available under committed loan facilities under the Guaranteed Underwriter Program; and (v) up to $\$ 2,601$ million available under a revolving note purchase agreement with Farmer Mac, subject to market conditions.

Long-term debt scheduled to mature over the next 12 months totaled $\$ 1,742$ million as of November 30, 2020, consisting of fixed-rate debt of $\$ 697$ million with a weighted average cost of $2.69 \%$, variable-rate debt of $\$ 810$ million and scheduled amortization on borrowings under the Guaranteed Underwriter Program and notes payable to Farmer Mac of $\$ 235$ million. Our available liquidity of $\$ 7,317$ million as of November 30 , 2020, was $\$ 5,575$ million in excess of, or 3.2 times, our longterm debt obligations of $\$ 1,742$ million over the next 12 months. We currently believe that our available liquidity along with our ability to access the capital markets as a well-known seasoned issuer of debt and to issue debt to our members and in private placements will be more than sufficient to meet the borrowing needs of our members and to cover the payment of long-term debt maturing over the 12 months subsequent to November 30, 2020.

Our members historically have maintained a relatively stable level of short-term investments in CFC in the form of commercial paper, select notes, daily liquidity fund notes and medium-term notes. We believe we can continue to roll over outstanding member short-term debt, which totaled $\$ 3,848$ million as of November 30, 2020, 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 as a cost-effective means of satisfying our short-term 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.

We provide additional information on our primary sources and uses of liquidity and our liquidity profile below in the section "Liquidity Risk."

## COVID-19

The COVID-19 pandemic continues to have an ongoing disruptive impact on the United States ("U.S."). The continuing duration and severity of the pandemic and its long-term economic impact remain uncertain. CFC is headquartered in the Commonwealth of Virginia and is following workplace guidelines established by the Commonwealth and the U.S. Center for Disease Control and Prevention. We are currently staffing our office at no more than $25 \%$ occupancy, with other personnel working remotely, and we have limited travel and in-person meetings. To date, our business resiliency plans and technology systems have effectively supported both remote and on-site operations. Based on current conditions, our expectation is that we will maintain current remote working levels for the foreseeable future assuming there are no changes to governmental and public health directives.

We believe that the pandemic has not had any significant negative effect on our liquidity, and that our portfolio credit quality remains strong. In the first six months of fiscal year 2021, we have remained able to access the capital markets, private funding programs and our members for the capital required to repay maturing debt, and we have made long-term loan advances of $\$ 1.3$ billion to our members to fund their operations. In comparison, we made $\$ 1.4$ billion of long-term loan advances in first six months of the prior year, prior to the impacts of COVID-19. We believe that we currently have sufficient liquidity to meet member loan demand and repay maturing debt over the next 12 months.

Our electric utility cooperative borrowers operate in a sector identified by the U.S. government as one of the 16 critical infrastructure sectors because the services provided to residential customers and commercial customers in other industry sectors are considered essential and vital in supporting and maintaining the overall functioning of the U.S. economy. Historically, the utility sector in which our electric utility borrowers operate has been resilient to economic downturns. While our electric cooperative members continue to be subject to certain state-mandated suspensions on utility shut-offs due to nonpayment, we have not experienced any delinquencies in scheduled loan payments or received requests for payment deferrals or covenant relief from our borrowers due to the pandemic. We are in contact with our member borrowers on a continuous basis and, to date, we believe that the pandemic has not had a significant negative impact on their overall financial performance.

## Outlook for the Next 12 Months

We believe we have been able to navigate the challenges of the COVID-19 pandemic to date. As noted above, we currently believe that we have sufficient cash flow and liquidity to cover our existing debt obligations and meet the borrowing needs of our members. Although we believe the overall credit quality of our loan portfolio remains high, we continue to actively monitor conditions and developments, including key credit metrics of our borrowers, to facilitate the timely identification of loans with potential credit weaknesses and assess any notable shifts in the credit quality of our loan portfolio as well as any impact on our financial position. Assuming no material adverse changes in the credit quality of our borrowers, we expect that our financial performance for the fiscal year ended May 31, 2021 ("fiscal year 2021") will be comparable to or slightly better than our financial performance for fiscal year 2020, absent the impact of (i) the non-cash impairment charge of \$31 million recorded in the fourth quarter of fiscal year 2020 resulting from the abandonment of an internal-use software project; (ii) the loan impairment charge of $\$ 34$ million recorded in the fourth quarter of fiscal year 2020 due to the establishment of an asset-specific allowance for the outstanding loan to the CFC power supply borrower noted above; and (iii) changes in the fair value of our derivatives and investment securities that are driven by changes in market interest rates and prices, which we are unable to predict.

See "Item 1A. Risk Factors" in our 2020 Form 10-K for a discussion of the potential adverse impact of COVID-19 on our business, results of operations, financial condition and liquidity.

## 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 reported amount of assets, liabilities, income and expenses in our 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 2020 Form 10-K. Pursuant to our June 1, 2020 adoption of the CECL accounting standard, we have provided updates to certain of our significant accounting policies, including the allowance for credit losses, in "Note 1—Summary of Significant Accounting Policies" of this Report.

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 credit losses and fair value. Below we have updated our critical accounting policy for the allowance for credit losses under the CECL model, which involves additional areas involving significant management judgment.

Prior to the adoption of CECL on June 1, 2020, we maintained an allowance based on an estimate of probable incurred losses inherent in our loan portfolio as of each balance sheet date. Under CECL, we are required to maintain an allowance based on a current estimate of credit losses that are expected to occur over the remaining contractual life of the loans in our portfolio. The methods utilized to estimate the allowance for credit losses, key assumptions and quantitative and qualitative information considered by management in determining the appropriate allowance for credit losses is discussed in "Note 1Summary of Significant Accounting Policies" of this Report. The determination of allowance for credit losses entails significant judgment on various risk factors, including our historical loss data, third-party default data and the assessment of a borrower's capacity to meet its financial obligations. While our estimate of lifetime credit losses is sensitive to each of these inputs, the most notable input that affects the sensitivity of the allowance is the internal risk ratings assigned to each borrower.

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. Management has discussed significant judgments and assumptions in applying our critical accounting policies with the Audit Committee of the CFC Board of Directors. We provide information on the significant judgments and assumptions in measuring fair value under "MD\&A-Critical Accounting Policies and Estimates" in our 2020 Form 10-K. See "Item 1A. Risk Factors" in our 2020 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

## Recent Accounting Changes

See "Note 1—Summary of Significant Accounting Policies" for information on accounting standards adopted during the current fiscal year, 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 consolidated results of operations between the three months ended November 30, 2020 and 2019 and between the six months ended November 30, 2020 and 2019. Following this section, we provide a comparative analysis of our consolidated balance sheets as of November 30, 2020 and May 31, 2020. 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 of 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, 2020 and 2019, 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 expense 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, |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  |  |  | 2019 |  |  |  |
| Assets: | Average Balance | Interest <br> Income/ <br> Expense |  | Average Yield/ Cost | Average Balance | Interest <br> Income/ <br> Expense |  | Average Yield/ Cost |
| Long-term fixed-rate loans ${ }^{(1)}$ | \$ 24,824,439 | \$ | 262,200 | 4.24 \% | \$ 23,837,295 | \$ | 260,714 | 4.40 \% |
| Long-term variable-rate loans | 639,626 |  | 3,596 | 2.25 | 929,958 |  | 8,131 | 3.52 |
| Line of credit loans | 1,300,811 |  | 6,994 | 2.16 | 1,528,905 |  | 12,678 | 3.34 |
| Troubled debt restructuring ("TDR") loans.. | 10,300 |  | 196 | 7.63 | 11,179 |  | 212 | 7.63 |
| Nonperforming loans. | 158,488 |  | - | - | - |  | - | - |
| Other, net ${ }^{(2)}$. | - |  | (344) | - | - |  | (287) | - |
| Total loans. | 26,933,664 |  | 272,642 | 4.06 | 26,307,337 |  | 281,448 | 4.30 |
| Cash, time deposits and investment securities. | 744,049 |  | 3,857 | 2.08 | 795,676 |  | 5,589 | 2.83 |
| Total interest-earning assets. | \$ 27,677,713 | \$ | 276,499 | 4.01 \% | \$ 27,103,013 | \$ | 287,037 | 4.26 \% |
| Other assets, less allowance for credit losses | 569,289 |  |  |  | 552,945 |  |  |  |
| Total assets. | \$ 28,247,002 |  |  |  | \$ 27,655,958 |  |  |  |
| Liabilities: |  |  |  |  |  |  |  |  |
| Short-term borrowings | \$ 4,127,033 | \$ | 3,403 | 0.33 \% | \$ 4,108,239 | \$ | 22,112 | 2.16 \% |
| Medium-term notes | 3,597,232 |  | 29,127 | 3.25 | 3,485,891 |  | 31,440 | 3.63 |
| Collateral trust bonds | 6,792,567 |  | 61,623 | 3.64 | 7,232,411 |  | 64,523 | 3.59 |
| Guaranteed Underwriter Program notes payable | 6,207,538 |  | 41,168 | 2.66 | 5,375,091 |  | 39,786 | 2.98 |
| Farmer Mac notes payable | 2,928,966 |  | 12,606 | 1.73 | 2,962,126 |  | 22,654 | 3.08 |
| Other notes payable | 11,726 |  | 55 | 1.88 | 21,519 |  | 230 | 4.30 |
| Subordinated deferrable debt | 986,184 |  | 12,893 | 5.24 | 985,996 |  | 12,884 | 5.26 |
| Subordinated certificates | 1,255,549 |  | 13,547 | 4.33 | 1,355,773 |  | 14,242 | 4.22 |
| Total interest-bearing liabilities | \$ 25,906,795 | \$ | 174,422 | 2.70 \% | \$ 25,527,046 | \$ | 207,871 | 3.28 \% |
| Other liabilities | 1,538,818 |  |  |  | 1,116,838 |  |  |  |
| Total liabilities | 27,445,613 |  |  |  | 26,643,884 |  |  |  |
| Total equity | 801,389 |  |  |  | 1,012,074 |  |  |  |
| Total liabilities and equity | \$ 28,247,002 |  |  |  | \$ 27,655,958 |  |  |  |
| Net interest spread ${ }^{(3)}$ |  |  |  | 1.31 \% |  |  |  | 0.98 \% |
| Impact of non-interest bearing funding ${ }^{(4)}$. |  |  |  | 0.17 |  |  |  | 0.19 |
| Net interest income/net interest yield ${ }^{(5)} \ldots \ldots \ldots \ldots \ldots \ldots$ |  | \$ | 102,077 | 1.48 \% |  | \$ | 79,166 | 1.17 \% |
| Adjusted net interest income/adjusted net interest yield: |  |  |  |  |  |  |  |  |
| Interest income |  | \$ | 276,499 | 4.01 \% |  | \$ | 287,037 | 4.26 \% |
| Interest expense. |  |  | 174,422 | 2.70 |  |  | 207,871 | 3.28 |
| Add: Net periodic derivative cash settlements interest expense ${ }^{(6)}$ |  |  | 29,800 | 1.32 |  |  | 14,150 | 0.54 |
| Adjusted interest expense/adjusted average $\operatorname{cost}^{(7)}$.. |  | \$ | 204,222 | 3.16 \% |  | \$ | 222,021 | 3.50 \% |
| Adjusted net interest spread ${ }^{(5)}$. |  |  |  | 0.85 \% |  |  |  | 0.76 \% |
| Impact of non-interest bearing funding ${ }^{(4)}$. |  |  |  | 0.20 |  |  |  | 0.20 |
| Adjusted net interest income/adjusted net interest yield ${ }^{(8)}$ |  | \$ | 72,277 | 1.05\% |  | \$ | $\underline{65,016}$ | $\underline{0.96 \%}$ |


| (Dollars in thousands) | Six Months Ended November 30, |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  |  |  | 2019 |  |  |  |
| Assets: | Average Balance | Interest Income/ Expense |  | Average Yield/ Cost | Average Balance | Interest Income/ Expense |  | Average Yield/ Cost |
| Long-term fixed-rate loans ${ }^{(1)}$. | \$ 24,715,209 | \$ | 525,384 | 4.24 \% | \$ 23,596,704 | \$ | 519,192 | 4.40 \% |
| Long-term variable-rate loans | 662,952 |  | 7,996 | 2.41 | 961,704 |  | 17,887 | 3.72 |
| Line of credit loans. | 1,359,061 |  | 15,236 | 2.24 | 1,620,994 |  | 28,711 | 3.54 |
| Troubled debt restructuring ("TDR") loans ............ | 10,542 |  | 403 | 7.62 | 11,484 |  | 418 | 7.28 |
| Nonperforming loans | 161,640 |  | - | - | - |  | - | - |
| Other, net ${ }^{(2)}$. | - |  | (679) | - | - |  | (571) | - |
| Total loans | 26,909,404 |  | 548,340 | 4.06 | 26,190,886 |  | 565,637 | 4.32 |
| Cash, time deposits and investment securities........ | 825,622 |  | 7,743 | 1.87 | 782,146 |  | 11,415 | 2.92 |
| Total interest-earning assets............................ | \$ 27,735,026 | \$ | 556,083 | 4.00 \% | \$ 26,973,032 | \$ | 577,052 | 4.28 \% |
| Other assets, less allowance for credit losses | 522,401 |  |  |  | 579,465 |  |  |  |
| Total assets | \$ 28,257,427 |  |  |  | \$ 27,552,497 |  |  |  |
| Liabilities: |  |  |  |  |  |  |  |  |
| Short-term borrowings | \$ 3,995,244 | \$ | 7,744 | 0.39 \% | \$ 3,809,089 | \$ | 44,934 | 2.36 \% |
| Medium-term notes | 3,641,273 |  | 59,014 | 3.23 | 3,529,164 |  | 63,516 | 3.60 |
| Collateral trust bonds | 6,821,832 |  | 124,216 | 3.63 | 7,309,165 |  | 129,904 | 3.55 |
| Guaranteed Underwriter Program notes payable | 6,225,272 |  | 83,581 | 2.68 | 5,386,771 |  | 80,219 | 2.98 |
| Farmer Mac notes payable | 2,991,046 |  | 26,539 | 1.77 | 2,997,053 |  | 47,728 | 3.18 |
| Other notes payable | 11,675 |  | 142 | 2.43 | 22,027 |  | 484 | 4.39 |
| Subordinated deferrable debt | 986,160 |  | 25,783 | 5.21 | 986,005 |  | 25,766 | 5.23 |
| Subordinated certificates | 1,281,857 |  | 27,379 | 4.26 | 1,355,960 |  | 28,591 | 4.22 |
| Total interest-bearing liabilities | \$ 25,954,359 | \$ | 354,398 | 2.72 \% | \$ 25,395,234 | \$ | 421,142 | 3.32 \% |
| Other liabilities | 1,565,495 |  |  |  | 1,064,284 |  |  |  |
| Total liabilities | 27,519,854 |  |  |  | 26,459,518 |  |  |  |
| Total equity | 737,573 |  |  |  | 1,092,979 |  |  |  |
| Total liabilities and equity. | \$28,257,427 |  |  |  | \$ 27,552,497 |  |  |  |
| Net interest spread ${ }^{(3)}$ |  |  |  | 1.28 \% |  |  |  | 0.96 \% |
| Impact of non-interest bearing funding ${ }^{(4)}$. |  |  |  | 0.17 |  |  |  | 0.20 |
| Net interest income/net interest yield ${ }^{(5)}$. |  | \$ | 201,685 | 1.45\% |  | \$ | 155,910 | 1.16\% |
| Adjusted net interest income/adjusted net interest yield: |  |  |  |  |  |  |  |  |
| Interest income |  | \$ | 556,083 | 4.00 \% |  | \$ | 577,052 | 4.28 \% |
| Interest expense |  |  | 354,398 | 2.72 |  |  | 421,142 | 3.32 |
| Add: Net periodic derivative cash settlements interest expense ${ }^{(6)}$ |  |  | 56,772 | 1.24 |  |  | 25,193 | 0.47 |
| Adjusted interest expense/adjusted average cost ${ }^{(7)}$.. |  | \$ | 411,170 | 3.16 \% |  | \$ | 446,335 | 3.52 \% |
|  |  |  |  | 0.84 \% |  |  |  | 0.76 \% |
| Impact of non-interest bearing funding ${ }^{(4)}$. |  |  |  | 0.20 |  |  |  | 0.21 |
| Adjusted net interest income/adjusted net interest yield ${ }^{(8)}$ |  | \$ | 144,913 | 1.04\% |  | \$ | 130,717 | 0.97\% |

[^0]${ }^{(3)}$ 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.
${ }^{(4)}$ Includes other liabilities and equity.
${ }^{(5)}$ Net interest yield is calculated based on annualized net interest income for the period divided by total average interest-earning assets for the period.
${ }^{(6)}$ Represents the impact of net periodic contractual interest amounts on our interest rate swaps 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 the annualized net periodic swap settlement interest amount 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 $\$ 9,049$ million and $\$ 10,599$ million for the three months ended November 30,2020 and 2019 , respectively. The average outstanding notional amount of interest rate swaps was $\$ 9,138$ million and $\$ 10,676$ million for the six months ended November 30, 2020 and 2019, respectively.
${ }^{(7)}$ Adjusted interest expense consists of interest expense plus net periodic derivative cash settlements interest expense during the period. Net periodic derivative cash settlement interest amounts are reported on our consolidated statements of operations 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.
${ }^{(8)}$ 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, |  |  |  |  |  | Six Months Ended November 30, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 versus 2019 |  |  |  |  |  | 2020 versus 2019 |  |  |  |  |  |
|  | Total <br> Variance |  | Variance Due To: ${ }^{(1)}$ |  |  |  | Total <br> Variance |  | Variance due to: ${ }^{(1)}$ |  |  |  |
|  |  |  |  | Volume |  | Rate |  |  |  | olume |  | Rate |
| Interest income: |  |  |  |  |  |  |  |  |  |  |  |  |
| Long-term fixed-rate loans | \$ | 1,486 | \$ | 11,540 | \$ | $(10,054)$ | \$ | 6,192 | \$ | 26,100 | \$ | $(19,908)$ |
| Long-term variable-rate loans. |  | $(4,535)$ |  | $(2,523)$ |  | $(2,012)$ |  | $(9,891)$ |  | $(5,523)$ |  | $(4,368)$ |
| Line of credit loans |  | $(5,684)$ |  | $(1,862)$ |  | $(3,822)$ |  | $(13,475)$ |  | $(4,573)$ |  | $(8,902)$ |
| TDR loans |  | (16) |  | (16) |  | - |  | (15) |  | (33) |  | 18 |
| Other, net |  | (57) |  | - |  | (57) |  | (108) |  | - |  | (108) |
| Total loans |  | $(8,806)$ |  | 7,139 |  | $(15,945)$ |  | $(17,297)$ |  | 15,971 |  | $(33,268)$ |
| Cash, time deposits and investment securities |  | $(1,732)$ |  | (348) |  | $(1,384)$ |  | $(3,672)$ |  | 668 |  | $(4,340)$ |
| Total interest income |  | $\underline{(10,538)}$ |  | 6,791 |  | $\underline{(17,329)}$ |  | $\underline{(20,969)}$ |  | 16,639 |  | $\underline{(37,608)}$ |
| Interest expense: |  |  |  |  |  |  |  |  |  |  |  |  |
| Short-term borrowings |  | $(18,709)$ |  | 162 |  | $(18,871)$ |  | $(37,190)$ |  | 2,325 |  | $(39,515)$ |
| Medium-term notes |  | $(2,313)$ |  | 1,093 |  | $(3,406)$ |  | $(4,502)$ |  | 2,197 |  | $(6,699)$ |
| Collateral trust bonds |  | $(2,900)$ |  | $(3,758)$ |  | 858 |  | $(5,688)$ |  | $(8,329)$ |  | 2,641 |
| Guaranteed Underwriter Program notes payable |  | 1,382 |  | 6,288 |  | $(4,906)$ |  | 3,362 |  | 12,741 |  | $(9,379)$ |
| Farmer Mac notes payable |  | $(10,048)$ |  | (192) |  | $(9,856)$ |  | $(21,189)$ |  | 35 |  | $(21,224)$ |
| Other notes payable |  | (175) |  | (104) |  | (71) |  | (342) |  | (227) |  | (115) |
| Subordinated deferrable debt |  | 9 |  | 38 |  | (29) |  | 17 |  | 75 |  | (58) |
| Subordinated certificates |  | (695) |  | $(1,017)$ |  | 322 |  | $(1,212)$ |  | $(1,488)$ |  | 276 |
| Total interest expense |  | $(33,449)$ |  | 2,510 |  | $(35,959)$ |  | $(66,744)$ |  | 7,329 |  | $(74,073)$ |
| Net interest income | \$ | 22,911 | \$ | 4,281 | \$ | 18,630 | \$ | 45,775 | \$ | 9,310 | \$ | 36,465 |
| Adjusted net interest income: |  |  |  |  |  |  |  |  |  |  |  |  |
| Interest income | \$ | $(10,538)$ | \$ | 6,791 | \$ | $(17,329)$ | \$ | $(20,969)$ | \$ | 16,639 | \$ | $(37,608)$ |
| Interest expense |  | $(33,449)$ |  | 2,510 |  | $(35,959)$ |  | $(66,744)$ |  | 7,329 |  | $(74,073)$ |
| Net periodic derivative cash settlements interest expense ${ }^{(2)}$ |  | 15,650 |  | $(2,036)$ |  | 17,686 |  | 31,579 |  | $(3,571)$ |  | 35,150 |
| Adjusted interest expense ${ }^{(3)}$ |  | $(17,799)$ |  | 474 |  | $(18,273)$ |  | $(35,165)$ |  | 3,758 |  | $(38,923)$ |
| Adjusted net interest income | \$ | 7,261 | \$ | 6,317 | \$ | 944 | \$ | 14,196 | \$ | 12,881 | \$ | 1,315 |

[^1]
## Reported Net Interest Income

Reported net interest income of $\$ 102$ million for the current quarter increased $\$ 23$ million, or $29 \%$, from the same prior-year quarter, driven by the combined impact of an increase in the net interest yield of 31 basis points, or $26 \%$, to $1.48 \%$ and an increase in average interest-earning assets of $\$ 575$ million, or $2 \%$.

- Net Interest Yield: The increase in the net interest yield of 31 basis points, or $26 \%$, was largely due to a reduction in our average cost of borrowings of 58 basis points to $2.70 \%$, partially offset by a decrease in the average yield on interestearning assets of 25 basis points to $4.01 \%$. The reduction in our average cost of borrowings was primarily driven by a decrease in the average cost of our short-term and variable-rate borrowings due to the decrease in short-term interest rates as the FOMC lowered the benchmark federal funds rate by 150 basis points in March 2020 to a near-zero target range of $0 \%$ to $0.25 \%$ as part of a series of measures implemented to ease the economic impact of the COVID-19 pandemic. The target federal funds rate range has remained unchanged since that time. While medium- and longer-term interest rates also fell during this 12 -month period, the decreases were not as pronounced as the reduction in short-term interest rates. As a result, we experienced a decrease in our average short-term borrowings cost of 183 basis points to $0.33 \%$ for the current quarter. The decrease in the average yield on interest-earning assets reflected the combined impact of a reduction in the average yield on our long-term fixed-rate loan portfolio, as the maturity and pay-off of loan advances at higher rates were replaced with new loan advances at lower rates due to the lower interest rate environment, and a reduction in the average yield on our long-term variable-rate and line of credit loan portfolios due to the decline in short-term interest rates over the last 12 months.
- Average Interest-Earning Assets: The increase in average interest-earning assets of $2 \%$ was primarily driven by growth in average total loans of $\$ 626$ million, or $2 \%$, largely attributable to an increase in average long-term fixed-rate loans of $\$ 987$ million, or $4 \%$. The lower interest rate environment has presented an opportunity for members to obtain advances to fund capital investments and refinance with us loans made by other lenders at a reduced fixed rate of interest.

Reported net interest income of \$202 million for the six months ended November 30, 2020 increased $\$ 46$ million, or $29 \%$, from the same prior year-to-date period, driven by an increase in the net interest yield of 29 basis points, or $25 \%$, to $1.45 \%$ and an increase in average interest-earning assets of $3 \%$.

- Net Interest Yield: The increase in the net interest yield of 29 basis points, or $25 \%$, was largely due to a reduction in our average cost of borrowings of 60 basis points to $2.72 \%$, partially offset by a decrease in the average yield on interestearning assets of 28 basis points to $4.00 \%$. A decrease in the average cost of our short-term borrowings of 197 basis points to $0.39 \%$ for the six months ended November 30, 2020 was the primary factor driving the reduction in our overall average cost of borrowings during the period, as indicated in the rate/volume analysis presented above in Table 3. The reduction in our average borrowing cost, as well as the decline in the average yield on our interest-earning assets, reflects in part the impact of the overall lower interest rate environment. The pay-off of higher fixed-rate loan advances were replaced with lower fixed-rate loan advances, contributing to the decline in the average yield on our long-term fixed-rate loan portfolio. We also experienced a reduction in the average yield on our long-term variable-rate and line of credit loan portfolios due to the decline in short-term interest rates over the last 12 months.
- Average Interest-Earning Assets: The increase in average interest-earning assets of $3 \%$ was primarily driven by growth in average total loans of $\$ 719$ million, or $3 \%$, largely attributable to an increase in average long-term fixed-rate loans of $\$ 1,119$ million, or $5 \%$, as the lower interest rate environment presented an opportunity for members to obtain advances to fund capital investments and refinance with us loans made by other lenders at a reduced fixed rate of interest.


## Adjusted Net Interest Income

Adjusted net interest income of $\$ 72$ million for the current quarter increased $\$ 7$ million, or $11 \%$, from the same prior-year quarter, driven by an increase in the adjusted net interest yield of 9 basis points, or $9 \%$, to $1.05 \%$, and the increase in average interest-earning assets of $\$ 575$ million, or $2 \%$.

- Adjusted Net Interest Yield: The increase in the adjusted net interest yield of 9 basis points, or $9 \%$, reflected the favorable impact of a reduction in our adjusted average cost of borrowings of 34 basis points to $3.16 \%$, which was partially offset
by the decrease in the average yield on interest-earning assets of 25 basis points to $4.01 \%$. As noted above, the lower interest rate environment had a favorable impact on our adjusted average cost of borrowings and contributed to the decrease in the average yield on interest-earnings assets.
- Average Interest-Earning Assets: The increase in average interest-earning assets of $2 \%$ was primarily driven by the growth in average total loans of $\$ 626$ million, or $2 \%$.

Adjusted net interest income of $\$ 145$ million for the six months ended November 30, 2020 increased $\$ 14$ million, or $11 \%$, from the same prior year-to-date period, driven by an increase in the adjusted net interest yield of 7 basis points, or $7 \%$, to $1.04 \%$, and the increase in average interest-earning assets of $\$ 762$ million, or $3 \%$.

- Adjusted Net Interest Yield: The increase in the adjusted net interest yield of 7 basis points, or $7 \%$, reflected the favorable impact of a reduction in our adjusted average cost of borrowings of 36 basis points to $3.16 \%$, which was partially offset by the decrease in the average yield on interest-earning assets of 28 basis points to $4.00 \%$, both of which were attributable to the lower interest rate environment. The decrease in the average cost of our short-term borrowings was the primary driver of the overall reduction in our average cost of borrowing as indicated in the net interest yield and rate/ volume analysis presented above in Table 2 and Table 3, respectively.
- Average Interest-Earning Assets: The increase in average interest-earning assets of $3 \%$ was primarily driven by the growth in average total loans of $\$ 719$ million, or $3 \%$.

We include the net periodic derivative interest settlement amounts on our interest rate swaps in the calculation of our adjusted average cost of borrowings, which, as a result, also impacts the calculation of adjusted net interest income and adjusted net interest yield. We recorded net periodic derivative cash settlements interest expense of $\$ 30$ million for the current quarter, an increase of $\$ 16$ million from the $\$ 14$ million recorded for the same prior-year quarter. We recorded net periodic derivative cash settlements interest expense of $\$ 57$ million for the six months ended November 30, 2020, an increase of $\$ 32$ million from the $\$ 25$ million recorded for the same prior year-to-date period. Because our derivative portfolio consists of a higher proportion of pay-fixed swaps than receive-fixed swaps, we generally record derivative losses when interest rates decline and derivative gains when interest rates rise. The floating-rate payments on our interest rate swaps are typically based on the 3-month LIBOR, which decreased 168 basis points over the last 12 months to $0.23 \%$ as of November 30, 2020. The decrease in the 3-month LIBOR drove the increase in the net periodic derivative cash settlements interest expense recorded in the current-year periods.

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 Credit Losses

We recorded a provision for credit losses of $\$ 2$ million for both the three and six months ended November 30, 2020, based on the CECL model for estimating our allowance for credit losses. In comparison, we recorded a benefit for credit losses of $\$ 1$ million for both the three and six months ended November 30, 2019, based on the incurred model for estimating our allowance for credit losses.

Under CECL, we are required to maintain an allowance based on a current estimate of credit losses that are expected to occur over the remaining contractual term of the loans in our portfolio. Prior to the adoption of CECL on June 1, 2020, we maintained an allowance based on an estimate of probable incurred losses inherent in our loan portfolio as of each balance sheet date.

As discussed above in "Executive Summary-Credit Quality," the adoption of CECL resulted in an increase in our allowance for credit losses for our loan portfolio of $\$ 4$ million and a corresponding decrease to retained earnings of $\$ 4$ million recorded through a cumulative-effect adjustment. While CECL had no impact on our earnings at adoption on June 1, 2020, subsequent estimates of lifetime expected credit losses for newly recognized loans, unadvanced loan commitments and financial guarantees, as well as changes during the period in our estimate of lifetime expected credit losses for existing financial instruments subject to CECL, are now recognized in earnings.

The allowance for credit losses for our loan portfolio increased to $\$ 59$ million as of November 30, 2020, from $\$ 53$ million as of May 31, 2020, and the allowance coverage ratio increased to $0.22 \%$ from $0.20 \%$. The increase in the allowance for credit losses was primarily attributable to the $\$ 4$ million recorded upon the adoption of CECL on June 1, 2020.

We discuss our methodology for estimating the allowance for credit losses under the CECL model in "Note 1—Summary of Significant Accounting Policies" of this Report. We also provide information on the allowance for credit losses below in the section "Credit Risk—Allowance for Credit Losses" and in "Note 5—Allowance for Credit Losses."

## 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 gains and losses on equity and debt investment securities. In the fourth quarter of fiscal year 2020, we transferred all of the debt securities in our held-to-maturity investment portfolio to trading. As a result, we discontinued the reporting of our debt securities at amortized cost and began reporting these securities at fair value and recognizing the related unrealized gains and losses in earnings.

Table 4 presents the components of non-interest income for the three and six months ended November 30, 2020 and 2019.
Table 4: Non-Interest Income

| (Dollars in thousands) | Three Months Ended November 30, |  |  |  | Six Months Ended November 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  | 2019 |  | 2020 |  | 2019 |  |
| Non-interest income: |  |  |  |  |  |  |  |  |
| Fee and other income | \$ | 6,332 | \$ | 3,842 | \$ | 9,848 | \$ | 14,783 |
| Derivative gains (losses) |  | 81,287 |  | 183,450 |  | 141,563 |  | $(212,275)$ |
| Investment securities gains (losses) |  | $(1,361)$ |  | (114) |  | 3,298 |  | 1,506 |
| Total non-interest income (loss) | \$ | 86,258 | \$ | 187,178 | \$ | 154,709 | \$ | $(195,986)$ |

The significant variance between non-interest income for the current-year periods and the same prior-year periods was attributable to the mark-to-market changes in the fair value of our derivative instruments. The decrease in fee and other income of $\$ 5$ million during the six months ended November 30,2020 was primarily due to a reduction in prepayment fees.

## 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 all our derivatives, for hedge accounting. Accordingly, changes in the fair value of interest rate swaps are reported in our consolidated statements of operations 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, 2020 or May 31, 2020.

We currently use two types of interest rate swap agreements: (i) we pay a fixed rate of interest and receive a variable rate of interest ("pay-fixed swaps"); and (ii) we pay a variable rate of interest and receive a fixed rate of interest ("receive-fixed swaps"). The interest amounts are based on a specified notional balance, which is used for calculation purposes only. The benchmark variable rate for the substantial majority of the floating rate payments under our swap agreements is 3-month LIBOR. As interest rates decline, pay-fixed swaps generally decrease in value and result in the recognition of derivative losses, as the amount of interest we pay remains fixed, while the amount of interest we receive declines. In contrast, as interest rates rise, pay-fixed swaps generally increase in value and result in the recognition of derivative gains, as the amount of interest we pay remains fixed, but the amount we receive increases. With a receive-fixed swap, the opposite results occur as interest rates decline or rise. Our derivative portfolio consists of a higher proportion of pay-fixed swaps than receive-fixed
swaps; therefore, we generally record derivative losses when interest rates decline and derivative gains when 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, inversion or steepening-will also impact the fair value of our derivatives.

Table 5 presents the components of net derivative gains (losses) recorded in our consolidated statements of operations for the three and six months ended November 30, 2020 and 2019. Derivative cash settlements interest expense represents the net periodic contractual interest amount for our interest-rate swaps during the reporting period. Derivative forward value gains (losses) represent the change in fair value of our interest rate swaps during the applicable reporting period due to changes in expected future interest rates over the remaining life of our derivative contracts.

Table 5: Derivative Gains (Losses)

| (Dollars in thousands) | Three Months Ended November 30, |  |  |  | Six Months Ended November 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  | 2019 |  | 2020 |  | 2019 |  |
| Derivative gains (losses) attributable to: |  |  |  |  |  |  |  |  |
| Derivative cash settlements interest expense | \$ | $(29,800)$ | \$ | $(14,150)$ | \$ | $(56,772)$ | \$ | $(25,193)$ |
| Derivative forward value gains (losses) |  | 111,087 |  | 197,600 |  | 198,335 |  | $(187,082)$ |
| Derivative gains (losses) | \$ | 81,287 | \$ | 183,450 | \$ | 141,563 | \$ | $(212,275)$ |

We recorded derivative gains of $\$ 81$ million for the current quarter, compared with derivative gains of $\$ 183$ million for the same prior-year quarter. The derivative gains in each period resulted from an increase in the fair value of our swap portfolio, which consists predominately of pay-fixed swaps, due to increases in medium- and longer-term swap interest rates. The increases in medium- and longer-term swap interest rates, however, were more pronounced during the same prior-year quarter, as depicted below in the "Comparative Swap Curves" chart, resulting in higher derivative gains relative to the current quarter.

The derivative gains of $\$ 142$ million recorded during the six months ended November 30, 2020, were attributable to an increase in the fair value of our swap portfolio resulting from an increase in long-term swap interest rates as depicted by the November 30, 2020 and May 31, 2020 comparative swap curves presented in the chart below. In contrast, the derivative losses of $\$ 212$ million during the same prior year-to-date period were attributable to a decrease in the fair value of our payfixed swaps due to declines in interest rates across the swap curve, as depicted by the November 30, 2019 and May 31, 2019 comparative swap curves presented in the chart below.

## Derivative Cash Settlements

As indicated in Table 5 above, we recorded net periodic derivative cash settlements interest expense of $\$ 30$ million for the current quarter, an increase of $\$ 16$ million from the $\$ 14$ million recorded for the same prior-year quarter. We recorded net periodic derivative cash settlements interest expense of $\$ 57$ million for the six months ended November 30, 2020, an increase of $\$ 32$ million from the $\$ 25$ million recorded for the same prior year-to-date period. The floating-rate payments on our interest rate swaps are typically based on the 3-month LIBOR, which decreased 168 basis points over the last 12 months to $0.23 \%$ as of November 30, 2020. The decrease in the 3-month LIBOR drove the increase in the net periodic derivative cash settlements interest expense recorded in the current-year periods.

As discussed above, our derivative portfolio consists of a higher proportion of pay-fixed swaps than receive-fixed swaps, with pay-fixed swaps accounting for approximately $73 \%$ and $71 \%$ of the outstanding notional amount of our derivative portfolio as of November 30, 2020 and May 31, 2020, respectively. Table 6 displays, by interest rate swap agreement type, the average outstanding notional amount and the weighted-average interest rate paid and received for the net periodic derivative cash settlements interest expense during each respective period.

Table 6: Derivatives—Average Notional Amounts and Interest Rates

| (Dollars in thousands) | Three Months Ended November 30, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  |  | 2019 |  |  |  |
|  | Average <br> Notional <br> Balance | WeightedAverage Rate Paid | WeightedAverage Rate Received |  | Average <br> Notional <br> Balance | WeightedAverage Rate Paid | WeightedAverage Rate Received |
| Pay-fixed swaps | \$ 6,516,242 | 2.78 \% | 0.25 \% | \$ | 7,299,322 | 2.84 \% | 2.08 \% |
| Receive-fixed swaps | 2,533,066 | 0.98 | 2.77 |  | 3,300,099 | 2.77 | 2.59 |
| Total. | \$ 9,049,308 | 2.28 \% | 0.96 \% |  | 10,599,421 | 2.82 \% | 2.24 \% |


| (Dollars in thousands) | Six Months Ended November 30, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  |  | 2019 |  |  |
|  | Average <br> Notional <br> Balance | WeightedAverage Rate Paid | WeightedAverage Rate Received | Average <br> Notional <br> Balance | WeightedAverage Rate Paid | WeightedAverage Rate Received |
| Pay-fixed swaps | \$ 6,547,594 | 2.78 \% | 0.31 \% | \$ 7,326,509 | 2.84 \% | 2.24 \% |
| Receive-fixed swaps | 2,590,257 | 1.10 | 2.77 | 3,349,820 | 2.93 | 2.57 |
| Total. | \$ 9,137,851 | 2.30 \% | 1.01 \% | \$10,676,329 | 2.87 \% | 2.34 \% |

The average remaining maturity of our pay-fixed and receive-fixed swaps was 19 years and four years, respectively, as of November 30, 2020. In comparison, the average remaining maturity of our pay-fixed and receive-fixed swaps was 18 years and four years, respectively, as of November 30, 2019.

See "Note 9—Derivative Instruments and Hedging Activities" for additional information on our derivative instruments.
Comparative Swap Curves
The chart below provides comparative swap curves as of November 30, 2020, August 31, 2020, May 31, 2020, November 30, 2019 and May 31, 2019.


Benchmark rates obtained from Bloomberg.

## Non-Interest Expense

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

Table 7 presents the components of non-interest expense recorded in our consolidated statements of operations for the three and six months ended November 30, 2020 and 2019.

Table 7: Non-Interest Expense

| (Dollars in thousands) | Three Months Ended November 30, |  |  |  | Six Months Ended November 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  | 2019 |  | 2020 |  | 2019 |  |
| Non-interest expense: |  |  |  |  |  |  |  |  |
| Salaries and employee benefits | \$ | $(14,011)$ | \$ | $(12,728)$ | \$ | $(27,144)$ | \$ | $(25,670)$ |
| Other general and administrative expenses |  | $(10,125)$ |  | $(12,041)$ |  | $(19,655)$ |  | $(24,428)$ |
| Losses on early extinguishment of debt |  | $(1,455)$ |  | (614) |  | $(1,455)$ |  | (614) |
| Other non-interest income (expense) |  | (323) |  | (315) |  | (655) |  | 6,864 |
| Total non-interest expense | \$ | $(25,914)$ | \$ | $(25,698)$ | \$ | $(48,909)$ | \$ | $(43,848)$ |

Non-interest expense of \$26 million for the current quarter was relatively unchanged from the same prior-year quarter, with the increase in salaries and employee benefits offset by a decrease in other general and administrative expenses. Non-interest expense of $\$ 49$ million for the six months ended November 30 , 2020 increased $\$ 5$ million, or $12 \%$, from the same prior year-to-date period, primarily due to the absence of a gain of $\$ 8$ million recorded in connection with our sale of land in the same prior year-to-date period, which was partially offset by a reduction in other general and administrative expenses of \$5
million largely due to reduced travel and in-person meeting costs and the cancellation of certain events because of the COVID-19 pandemic.

## 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 $\$ 1$ million for both the three and six months ended November 30, 2020. In comparison, we recorded net income attributable to noncontrolling interests of less than $\$ 1$ million for the three months ended November 30, 2019 and a net loss of $\$ 2$ million for the six months ended November 30, 2019.

## CONSOLIDATED BALANCE SHEET ANALYSIS

Total assets of $\$ 28,176$ million as of November 30, 2020 increased $\$ 18$ million from May 31, 2020, primarily due to growth in our loan portfolio. Total liabilities of $\$ 27,284$ million as of November 30, 2020 decreased by $\$ 225$ million, or $1 \%$, from May 31, 2020. Total equity increased $\$ 243$ million to $\$ 892$ million as of November 30, 2020, attributable to our reported net income of $\$ 305$ million as of November 30, 2020, which was partially offset by the retirement of patronage capital of $\$ 60$ million authorized by the CFC Board of Directors in July 2020 and paid to members in September 2020, and a decrease to retained earnings of $\$ 4$ million from the cumulative-effect adjustment recorded at adoption of the CECL accounting standard on June 1, 2020.

Below is a discussion of changes in the major components of our assets and liabilities during the six months ended November 30, 2020. 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 market risk exposure in accordance with our risk appetite.

## Loan Portfolio

We segregate our loan portfolio into portfolio segments based on the borrower member class, which consists of CFC distribution, CFC power supply, CFC statewide and associate, NCSC and RTFC. We offer both long-term and line of credit loans to our borrowers. Under our long-term loan facilities, a borrower may select a fixed interest rate or a variable interest rate at the time of each loan advance. Line of credit loans are revolving loan facilities and generally have a variable interest rate.

## Loans Outstanding

Table 8 summarizes loans to members, by member class and by loan type, as of November 30, 2020 and May 31, 2020. As indicated in Table 8, loans to CFC distribution and power supply borrowers accounted for $96 \%$ of total loans to members as of both November 30, 2020 and May 31, 2020, and long-term fixed-rate loans accounted for $93 \%$ and $92 \%$ of loans to members as of November 30, 2020 and May 31, 2020, respectively.

Table 8: Loans Outstanding by Member Class and Loan Type

| (Dollars in millions) | November 30, 2020 |  |  | May 31, 2020 |  |  | Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amount |  | \% of Total | Amount |  | \% of Total |  |  |
| Loans by member class: |  |  |  |  |  |  |  |  |
| CFC: |  |  |  |  |  |  |  |  |
| Distribution | \$ | 21,223 | 79 \% | \$ | 20,770 | 78 \% | \$ | 453 |
| Power supply |  | 4,597 | 17 |  | 4,732 | 18 |  | (135) |
| Statewide and associate |  | 95 | - |  | 106 | - |  | (11) |
| CFC total |  | 25,915 | 96 |  | 25,608 | 96 |  | 307 |
| NCSC |  | 705 | 2 |  | 698 | 3 |  | 7 |
| RTFC |  | 431 | 2 |  | 385 | 1 |  | 46 |
| Total loans outstanding ${ }^{(1)}$ |  | 27,051 | 100 |  | 26,691 | 100 |  | 360 |
| Deferred loan origination costs. |  | 12 | - |  | 11 | - |  | 1 |
| Loans to members. | \$ | 27,063 | $100 \%$ | \$ | 26,702 | 100 \% | \$ | 361 |
| Loans by type: |  |  |  |  |  |  |  |  |
| Long-term loans: |  |  |  |  |  |  |  |  |
| Fixed-rate | \$ | 24,981 | 93 \% | \$ | 24,472 | 92 \% | \$ | 509 |
| Variable-rate |  | 639 | 2 |  | 656 | 2 |  | (17) |
| Total long-term loans. |  | 25,620 | 95 |  | 25,128 | 94 |  | 492 |
| Line of credit loans. |  | 1,431 | 5 |  | 1,563 | 6 |  | (132) |
| Total loans outstanding ${ }^{(1)}$ |  | 27,051 | 100 |  | 26,691 | 100 |  | 360 |
| Deferred loan origination costs |  | 12 | - |  | 11 | - |  | 1 |
| Loans to members | \$ | 27,063 | $\underline{100 \%}$ | \$ | 26,702 | 100 \% | \$ | 361 |

${ }^{(1)}$ Represents the unpaid principal balance, net of charge-offs and recoveries, of loans as of the end of each period.
Loans to members totaled $\$ 27,063$ million as of November 30, 2020, an increase of $\$ 361$ million, or $1 \%$, from May 31, 2020. The increase was driven primarily by an increase in long-term loans of $\$ 492$ million, partially offset by a decrease in line of credit loans of $\$ 132$ million. We experienced increases in CFC distribution loans, NCSC loans and RTFC loans of $\$ 453$ million, $\$ 7$ million and $\$ 46$ million, respectively and decreases in CFC power supply loans and CFC statewide and associate loans of $\$ 135$ million and $\$ 11$ million, respectively.

Long-term loan advances totaled $\$ 1,271$ million during the six months ended November 30, 2020, of which approximately $85 \%$ was provided to members for capital expenditures and $5 \%$ was provided for the refinancing of loans made by other lenders. In comparison, long-term loan advances totaled $\$ 1,387$ million during the same prior year-to-date period, of which approximately $69 \%$ was provided to members for capital expenditures and $25 \%$ was provided for the refinancing of loans made by other lenders.

We provide additional information about our loan product types in "Item 1. Business-Loan Programs" and "Note 4 Loans" in our 2020 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 summary of the options selected by borrowers for CFC's long-term fixed-rate loans that repriced, in accordance with our standard loan repricing provisions, during the six months ended November 30, 2020 and fiscal year 2020. At the repricing date, the borrower has the option of (i) selecting CFC's current long-term fixed rate for a term ranging from one year to the full remaining term of the loan; (ii) selecting CFC's current long-term variable rate; or (iii) repaying the loan in full.

Table 9: Historical Retention Rate and Repricing Selection ${ }^{(1)}$

| (Dollars in thousands) | Six Months Ended <br> November 30, 2020 |  |  | Fiscal Year Ended May 31, 2020 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amount |  | \% of Total | Amount |  | \% of Total |
| Loans retained: |  |  |  |  |  |  |
| Long-term fixed rate selected | \$ | 198,024 | 97 \% | S | 441,165 | 95 \% |
| Long-term variable rate selected |  | 4,761 | 2 |  | 11,446 | 3 |
| Total loans retained by CFC |  | 202,785 | 99 |  | 452,611 | 98 |
| Loans repaid |  | 1,508 | 1 |  | 10,350 | 2 |
| Total | \$ | 204,293 | $100 \%$ | \$ | 462,961 | $100 \%$ |

[^2]As displayed in Table 9, of the loans that repriced during the six months ended November 30, 2020 and fiscal year 2020, the substantial majority of borrowers selected a new long-term fixed or variable rate. The average retention rate, which is calculated based on the election made by the borrower at the repricing date, was $96 \%$ for CFC loans that repriced during the three fiscal year period ended May 31, 2020.

## 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, 2020 and May 31, 2020. Table 10 also displays the composition of our debt based on several additional selected attributes.

Table 10: Total Debt Outstanding

| (Dollars in thousands) |  | ovember 30, 2020 |  | May 31, 2020 | Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Debt product type: |  |  |  |  |  |  |
| Commercial paper: |  |  |  |  |  |  |
| Members, at par | \$ | 1,283,132 | \$ | 1,318,566 | \$ | $(35,434)$ |
| Dealer, net of discounts |  | 714,984 |  | - |  | 714,984 |
| Total commercial paper |  | 1,998,116 |  | 1,318,566 |  | 679,550 |
| Select notes to members |  | 1,750,514 |  | 1,597,959 |  | 152,555 |
| Daily liquidity fund notes to members. |  | 495,124 |  | 508,618 |  | $(13,494)$ |
| Medium-term notes: |  |  |  |  |  |  |
| Members, at par |  | 608,096 |  | 658,959 |  | $(50,863)$ |
| Dealer, net of discounts |  | 2,968,567 |  | 3,068,793 |  | $(100,226)$ |
| Total medium-term notes |  | 3,576,663 |  | 3,727,752 |  | $(151,089)$ |
| Collateral trust bonds |  | 6,837,349 |  | 7,188,553 |  | $(351,204)$ |
| Guaranteed Underwriter Program notes payable |  | 6,190,391 |  | 6,261,312 |  | $(70,921)$ |
| Farmer Mac notes payable |  | 2,898,957 |  | 3,059,637 |  | $(160,680)$ |
| Other notes payable |  | 11,773 |  | 11,612 |  | 161 |
| Subordinated deferrable debt |  | 986,217 |  | 986,119 |  | 98 |
| Members' subordinated certificates: |  |  |  |  |  |  |
| Membership subordinated certificates |  | 628,589 |  | 630,483 |  | $(1,894)$ |
| Loan and guarantee subordinated certificates |  | 405,115 |  | 482,965 |  | $(77,850)$ |
| Member capital securities |  | 238,670 |  | 226,170 |  | 12,500 |
| Total members' subordinated certificates |  | 1,272,374 |  | 1,339,618 |  | $(67,244)$ |
| Total debt outstanding. | \$ | 26,017,478 | \$ | 25,999,746 | \$ | 17,732 |
| Security type: |  |  |  |  |  |  |
| Secured debt |  | 61 \% |  | 64 \% |  |  |
| Unsecured debt |  | 39 |  | 36 |  |  |
| Total. |  | 100 \% |  | 100 \% |  |  |
| Funding source: |  |  |  |  |  |  |
| Members |  | $21 \%$ |  | 21 \% |  |  |
| Private placement: |  |  |  |  |  |  |
| Guaranteed Underwriter Program notes payable |  | 24 |  | 24 |  |  |
| Farmer Mac notes payable |  | 11 |  | 12 |  |  |
| Total private placement |  | 35 |  | 36 |  |  |
| Capital markets |  | 44 |  | 43 |  |  |
| Total. |  | 100 \% |  | 100 \% |  |  |
| Interest rate type: |  |  |  |  |  |  |
| Fixed-rate debt |  | 74 \% |  | 75 \% |  |  |
| Variable-rate debt |  | 26 |  | 25 |  |  |
| Total. |  | 100 \% |  | 100 \% |  |  |
| Interest rate type, including the impact of swaps: |  |  |  |  |  |  |
| Fixed-rate debt ${ }^{(1)}$ |  | 90 \% |  | 90 \% |  |  |
| Variable-rate debt ${ }^{(2)}$ |  | 10 |  | 10 |  |  |
| Total |  | 100 \% |  | 100 \% |  |  |
| Maturity classification: ${ }^{(3)}$ |  |  |  |  |  |  |
| Short-term borrowings. |  | 18 \% |  | 15 \% |  |  |
| Long-term and subordinated debt ${ }^{(4)}$. |  | 82 |  | 85 |  |  |
| Total. |  | $100 \%$ |  | 100 \% |  |  |

${ }^{(1)}$ 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 our consolidated balance sheets. Maturity classification is based on the original contractual maturity as of the date of issuance of the debt.

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 was $\$ 26,017$ million as of November 30, 2020, an increase of $\$ 17$ million from May 31, 2020. In the fourth quarter of fiscal year 2020 we increased our cash position to $\$ 671$ million, as a precaution in case there were disruptions in the capital markets due to Covid-19 that would impact our ability to fund operations in fiscal year 2021. During the first six months of fiscal year 2021 there have not been disruptions in our ability to access the capital markets or in our issuance of debt to our members. As a result we have been able to use the $\$ 671$ million of cash that was on hand as of May 31, 2020 to fund the majority of our operations through November 30, 2020, at which date our cash balance had been reduced to $\$ 167$ million. Debt activity during this period consisted of net increases in outstanding dealer commercial paper of $\$ 715$ million and member commercial paper, select notes and daily liquidity fund notes of $\$ 104$ million, which together totaled $\$ 819$ million. This increase was partially offset by net decreases in collateral trust bonds of $\$ 351$ million, Farmer Mac notes payable of $\$ 161$ million, medium-term notes of $\$ 151$ million, borrowings under the Guaranteed Underwriter Program of $\$ 71$ million and members' subordinated certificates of $\$ 68$ million, which together totaled $\$ 802$ million. Outstanding dealer commercial paper, which totaled $\$ 715$ million as of November 30, 2020, was below our targeted maximum threshold of $\$ 1,250$ million.

The decrease in collateral trust bonds was attributable to the redemption in June 2020 of $\$ 400$ million outstanding principal amount of our $2.35 \%$ collateral trust bonds due June 15, 2020 and in October 2020 of $\$ 350$ million outstanding principal amount of our $2.30 \%$ collateral trust bonds due November 1, 2020. These decreases were offset by the issuance on October 8, 2020 of $\$ 400$ million aggregate principal amount of $1.35 \%$ sustainability collateral trust bonds due March 15 , 2031.

On November 19, 2020, we closed on a $\$ 375$ million committed loan facility ("Series R") from the Federal Financing Bank under the Guaranteed Underwriter Program. Pursuant to this facility, we may borrow any time before July 15, 2025. Each advance is subject to quarterly amortization and a final maturity not longer than 30 years from the date of the advance.

## Member Investments

Debt securities issued to our members represent an important, stable source of funding. Table 11 displays outstanding member debt, by product type, as of November 30, 2020 and May 31, 2020.

Table 11: Member Investments

| (Dollars in thousands) | November 30, 2020 |  |  | May 31, 2020 |  |  | Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amount |  | \% of Total ${ }^{(1)}$ | Amount |  | \% of Total ${ }^{(1)}$ |  |  |
| Member investments: |  |  |  |  |  |  |  |  |
| Commercial paper |  | 1,283,132 | 64 \% | \$ | 1,318,566 | 100 \% | \$ | $(35,434)$ |
| Select notes |  | 1,750,514 | 100 |  | 1,597,959 | 100 |  | 152,555 |
| Daily liquidity fund notes.. |  | 495,124 | 100 |  | 508,618 | 100 |  | $(13,494)$ |
| Medium-term notes |  | 608,096 | 17 |  | 658,959 | 18 |  | $(50,863)$ |
| Members' subordinated certificates |  | 1,272,374 | 100 |  | 1,339,618 | 100 |  | $(67,244)$ |
| Total member investments | S | 5,409,240 |  | \$ | 5,423,720 |  | \$ | $\underline{(14,480)}$ |
| Percentage of total debt outstanding |  | 21 \% |  |  | $21 \%$ |  |  |  |

${ }^{(1)}$ 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 totaled $\$ 5,409$ million and accounted for $21 \%$ of total debt outstanding as of November 30, 2020, compared with $\$ 5,424$ million, or $21 \%$ of total debt outstanding as of May 31, 2020. Over the last twelve quarters, debt issued to members has averaged $\$ 4,857$ million as of each quarter end.

## 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 $\$ 4,688$ million and accounted for $18 \%$ of total debt outstanding as of November 30, 2020, compared with $\$ 3,962$ million, or $15 \%$, of total debt outstanding as of May 31, 2020. See "Liquidity Risk" below and for "Note 6-Short-Term Borrowings" for information on the composition of our shortterm 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 together totaled $\$ 21,329$ million and accounted for $82 \%$ of total debt outstanding as of November 30, 2020, compared with $\$ 22,038$ million, or $85 \%$ of total debt outstanding as of May 31,2020 . 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 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, as discussed below, we typically maintain pledged collateral in excess of the required percentage. 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, 2020 and May 31, 2020 for the debt agreements noted above that require us to pledge collateral.

Table 12: Collateral Pledged

| Debt Agreement | Requirement Coverage Ratios |  | Actual Coverage Ratios ${ }^{(1)}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Minimum } \\ \text { Debt } \\ \text { Indentures } \end{gathered}$ | Maximum Committed Bank Revolving Line of Credit Agreements |  |  |
|  |  |  | November 30, 2020 | May 31, 2020 |
| Collateral trust bonds 1994 indenture | 100 \% | 150 \% | 128 \% | 114 \% |
| Collateral trust bonds 2007 indenture. | 100 | 150 | 115 | 113 |
| Guaranteed Underwriter Program notes payable. | 100 | 150 | 118 | 120 |
| Farmer Mac notes payable | 100 | 150 | 110 | 121 |
| Clean Renewable Energy Bonds Series 2009A | 100 | 150 | 104 | 120 |

${ }^{(1)}$ Calculated based on the amount of collateral pledged divided by the face amount of outstanding secured debt.
Of our total debt outstanding of $\$ 26,017$ million as of November $30,2020, \$ 15,933$ million, or $61 \%$, was secured by pledged loans totaling $\$ 18,695$ million. In comparison, of our total debt outstanding of $\$ 26,000$ million as of May 31, 2020, $\$ 16,515$ million, or $64 \%$, was secured by pledged loans totaling $\$ 19,643$ million. Total debt outstanding is presented on our consolidated balance sheets net of unamortized discounts and issuance costs; however, our collateral pledging requirements are based on the face amount of secured outstanding debt, which excludes 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, 2020 and May 31, 2020.

Table 13: Unencumbered Loans


[^3]As displayed above in Table 13, we had excess loans pledged as collateral totaling $\$ 2,497$ million and $\$ 2,858$ million as of November 30, 2020 and May 31, 2020, 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." Also refer to "Note 5-Short-Term Borrowings," "Note 7-Long-Term Debt," "Note 8-Subordinated Deferrable Debt" and "Note 9 -Members' Subordinated Certificates" in our 2020 Form 10-K for a more detailed description of each of our debt product types. See "Note 4-Loans-Pledging of Loans" in this Report for additional information related to pledged collateral.

## Equity

Table 14 presents the components of total CFC equity and total equity as of November 30, 2020 and May 31, 2020.
Table 14: Equity

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  | Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Equity components: |  |  |  |  |  |  |
| Membership fees and educational fund: |  |  |  |  |  |  |
| Membership fees | \$ | 968 | \$ | 969 | \$ | (1) |
| Educational fund |  | 1,583 |  | 2,224 |  | (641) |
| Total membership fees and educational fund |  | 2,551 |  | 3,193 |  | (642) |
| Patronage capital allocated |  | 834,209 |  | 894,066 |  | $(59,857)$ |
| Members' capital reserve |  | 807,320 |  | 807,320 |  | - |
| Total allocated equity |  | 1,644,080 |  | 1,704,579 |  | $(60,499)$ |
| Unallocated net income (loss): |  |  |  |  |  |  |
| Prior fiscal year-end cumulative derivative forward value losses ${ }^{(1)}$. |  | $(1,079,739)$ |  | $(348,965)$ |  | $(730,774)$ |
| Year-to-date derivative forward value gains (losses) ${ }^{(1)}$ |  | 197,132 |  | $(730,774)$ |  | 927,906 |
| Period-end cumulative derivative forward value losses ${ }^{(1)}$. |  | $(882,607)$ |  | $(1,079,739)$ |  | 197,132 |
| Other unallocated net income |  | 106,591 |  | 3,191 |  | 103,400 |
| Unallocated net loss. |  | $(776,016)$ |  | $(1,076,548)$ |  | 300,532 |
| CFC retained equity |  | 868,064 |  | 628,031 |  | 240,033 |
| Accumulated other comprehensive loss |  | $(1,746)$ |  | $(1,910)$ |  | 164 |
| Total CFC equity |  | 866,318 |  | 626,121 |  | 240,197 |
| Noncontrolling interests |  | 25,401 |  | 22,701 |  | 2,700 |
| Total equity | \$ | 891,719 | \$ | 648,822 | \$ | 242,897 |

${ }^{(1)}$ 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. We present the consolidated total derivative forward value gains (losses) in Table 36 in the "Non-GAAP Financial Measures" section below. Also, see "Note 14-Business Segments" for the statements of operations for CFC.

Total equity increased $\$ 243$ million to $\$ 892$ million as of November 30, 2020, attributable to our reported net income of $\$ 305$ million for the six months ended November 30, 2020, which was partially offset by the retirement of patronage capital of $\$ 60$ million authorized by the CFC Board of Directors in July 2020 and paid to members in September 2020, and a decrease to retained earnings of $\$ 4$ million from the cumulative-effect adjustment recorded at adoption of the CECL accounting standard on June 1, 2020.

In July 2020, the CFC Board of Directors authorized the allocation of fiscal year 2020 adjusted net income as follows: $\$ 96$ million to members in the form of patronage capital; $\$ 48$ 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 non-GAAP adjusted net income, which excludes the impact of derivative forward value gains (losses). We provide a reconciliation of our adjusted net income to our reported net income and an explanation of the adjustments below in "NonGAAP Financial Measures."

In July 2020, the CFC Board of Directors also authorized the retirement of patronage capital totaling $\$ 60$ million, consisting of $\$ 48$ million, which represented $50 \%$ of the patronage capital allocation for fiscal year 2020, and $\$ 12$ million, which represented the portion of the allocation from fiscal year 1994 net earnings that has been held for 25 years pursuant to the CFC Board of Directors policy. This amount was returned to members in cash in September 2020. The remaining portion of the amount allocated for fiscal year 2020 will be retained by CFC for 25 years under current 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 41 of the last 42 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 2020 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 consolidated balance sheets, or may be recorded on our 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, 2020 and May 31, 2020.

Table 15: Guarantees Outstanding

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  | Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Guarantee type: |  |  |  |  |  |  |
| Long-term tax-exempt bonds ${ }^{(1)}$ | \$ | 166,175 | \$ | 263,875 | \$ | $(97,700)$ |
| Letters of credit ${ }^{(2)}$ |  | 366,552 |  | 413,839 |  | $(47,287)$ |
| Other guarantees |  | 144,131 |  | 143,072 |  | 1,059 |
| Total | \$ | 676,858 | \$ | 820,786 | \$ | $(143,928)$ |
| Company: |  |  |  |  |  |  |
| CFC ${ }^{(3)}$ | \$ | 663,905 | \$ | 810,787 | \$ | $(146,882)$ |
| NCSC |  | 12,953 |  | 9,999 |  | 2,954 |
| Total | \$ | 676,858 | \$ | 820,786 | \$ | $(143,928)$ |

${ }^{(1)}$ 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.
${ }^{(3)}$ Includes CFC guarantees to NCSC and RTFC members totaling \$3 million as of both November 30, 2020 and May 31, 2020.
Of the total notional amount of our outstanding guarantee obligations of $\$ 677$ million and $\$ 821$ million as of November 30, 2020 and May 31,2020 , respectively, $44 \%$ and $48 \%$, 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 $\$ 166$ million as of November 30, 2020, we also were the liquidity provider on $\$ 146$ 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, 2020 or fiscal year 2020.

We had outstanding letters of credit for the benefit of our members totaling $\$ 367$ million as of November 30, 2020. 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, 2020, under which we may be required to issue letters of credit to third parties for the benefit of our members up to an additional $\$ 63$ million as of November 30, 2020. All of these master letter of credit facilities 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 of the outstanding notional amount of guarantee obligations of $\$ 677$ million as of November 30, 2020, in each fiscal year during the five-year period ended May 31, 2025, and thereafter.

Table 16: Maturities of Guarantee Obligations

| (Dollars in thousands) | Outstanding Notional Amount |  | Maturities of Guarantee Obligations |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2021 |  | 2022 |  | 2023 |  | 2024 |  | 2025 |  | Thereafter |
| Guarantees | \$ | 676,858 | \$ | 76,720 | \$ | 136,616 | \$ | 157,228 | \$ | 35,065 | \$ | 86,965 |  | 184,264 |

We recorded a guarantee liability of $\$ 11$ million as of both November 30, 2020 and May 31, 2020, 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 typically 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, 2020 and May 31, 2020.

Table 17: Unadvanced Loan Commitments

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  |  | Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amount | \% of Total |  | Amount | \% of Total |  |
| Line of credit commitments: |  |  |  |  |  |  |
| Conditional ${ }^{(1)}$ | \$ 5,202,623 | 38 \% | \$ | 5,072,921 | 38 \% | \$129,702 |
| Unconditional ${ }^{(2)}$ | 3,293,664 | 23 |  | 2,857,029 | 21 | 436,635 |
| Total line of credit unadvanced commitments. | 8,496,287 | 61 |  | 7,929,950 | 59 | 566,337 |
| Total long-term loan unadvanced commitments ${ }^{(1)}$.. | 5,530,685 | 39 |  | 5,458,676 | 41 | 72,009 |
| Total unadvanced loan commitments | \$ 14,026,972 | 100 \% |  | 13,388,626 | 100 \% | \$638,346 |

[^4]${ }^{(2)}$ Represents amount related to facilities that are not subject to material adverse change clauses.
Table 18 presents the maturities, by loan type, of our total unadvanced loan commitments of $\$ 14,027$ million as of November 30, 2020, in each fiscal year during the five-year period ending May 31, 2025, and thereafter.

Table 18: Unadvanced Loan Commitments Maturities of Notional Amount

| (Dollars in thousands) | Available Balance | Notional Maturities of Unadvanced Loan Commitments by Fiscal Year |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2021 | 2022 | 2023 | 2024 | 2025 |  | hereafter |
| Line of credit loans..... | \$ 8,496,287 | \$ | 296,977 | \$4,083,654 | \$1,537,725 | \$1,198,500 | \$1,110,540 | \$ | 268,891 |
| Long-term loans | 5,530,685 |  | 178,500 | 1,201,541 | 857,275 | 1,624,659 | 1,026,988 |  | 641,722 |
| Total. | \$14,026,972 | \$ | 475,477 | \$5,285,195 | \$2,395,000 | \$2,823,159 | \$2,137,528 | \$ | 910,613 |

Unadvanced line of credit commitments and unadvanced long-term loan commitments accounted for $61 \%$ and $39 \%$, respectively, of total unadvanced loan commitments as of November 30, 2020. 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 if a material adverse change exists. Our unadvanced long-term loan commitments generally 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 $\$ 5,531$ 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 $\$ 14,027$ million as of November 30, 2020 is not necessarily representative of our future funding 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 $\$ 10,733$ million and $\$ 10,532$ million as of November 30, 2020 and May 31, 2020, respectively, and accounted for $77 \%$ and $79 \%$, respectively, of the combined total of unadvanced line of credit and long-term loan commitments as of each respective date. 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 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 $\$ 3,294$ million and $\$ 2,857$ million as of November 30, 2020 and May 31, 2020, 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 $91 \%$ of unconditional line of credit commitments as of November 30, 2020. The remaining $9 \%$ represented unconditional committed line of credit loans, for which any new advance would be made at rates determined by us.

Table 19 presents the maturities of our unadvanced committed lines of credit not subject to a material adverse clause of $\$ 3,294$ million as of November 30, 2020, in each fiscal year during the five-year period ending May 31, 2025, and thereafter.

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

|  |  | Notional Maturities of Unconditional Committed Lines of Credit by Fiscal Year |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Dollars in thousands) | Balance |  | 2021 |  | 2022 | 2023 |  | 2024 |  | 2025 |  | Thereafter |
| Committed lines of credit. | \$ 3,293,664 | \$ | 70,370 | \$ | 158,768 | \$ 1,225,069 | \$ | 791,085 | \$ | 948,372 |  | 100,000 |

See "MD\&A-Off-Balance Sheet Arrangements" in our 2020 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, including natural disasters or public health emergencies, such as the current COVID-19 pandemic. 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 costbased financial products to our rural electric members while maintaining the sound financial results required for investmentgrade 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 2020 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 framework and activities undertaken to manage credit risk in our 2020 Form 10-K under "Item 7. MD\&A—Credit Risk—Credit Risk Management."

## Loan Portfolio Credit Risk

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. Loans outstanding to electric utility organizations of $\$ 26,620$ million and $\$ 26,306$ million as of November 30, 2020 and May 31, 2020, respectively, accounted for $98 \%$ and $99 \%$ of total loans outstanding as of each respective date. The remaining loans outstanding in our portfolio were to RTFC members, affiliates and associates in the telecommunications industry.

Because we lend primarily to our rural electric utility cooperative members, we have had a loan portfolio subject to singleindustry and single-obligor concentration risks since our inception in 1969. We historically, however, have experienced limited defaults and losses in our electric utility loan portfolio due to several factors. First, the majority of our electric cooperative borrowers 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. Second, electric cooperatives face limited competition, as they tend to operate in exclusive territories not serviced by public investor-owned utilities. Third, 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. Fourth, electric cooperatives 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. Finally, we generally lend to our members on a senior secured basis, which reduces the risk of loss in the event of a borrower default.

Below we provide information on the credit risk profile of our loan portfolio, including security provisions, credit concentration, credit quality indicators and our allowance for credit 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, 2020 and May 31, 2020. Of our total loans outstanding, $94 \%$ were secured as of both November 30, 2020 and May 31, 2020.

Table 20: Loan Portfolio Security Profile

| (Dollars in thousands) | November 30, 2020 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Secured |  | \% of Total | Unsecured |  | \% of Total | Total |  |
| Loan type: |  |  |  |  |  |  |  |  |
| Long-term loans: |  |  |  |  |  |  |  |  |
| Long-term fixed-rate loans. | \$ | 24,720,033 | $99 \%$ | \$ | 260,683 | $1 \%$ | \$ | 24,980,716 |
| Long-term variable-rate loans. |  | 635,766 | 99 |  | 3,378 | 1 |  | 639,144 |
| Total long-term loans |  | 25,355,799 | 99 |  | 264,061 | 1 |  | 25,619,860 |
| Line of credit loans |  | 200,540 | 14 |  | 1,230,763 | 86 |  | 1,431,303 |
| Total loans outstanding ${ }^{(1)}$ | \$ | 25,556,339 | 94 | \$ | 1,494,824 | 6 | \$ | 27,051,163 |
| Company: |  |  |  |  |  |  |  |  |
| CFC | \$ | 24,484,975 | $94 \%$ | \$ | 1,429,809 | $6 \%$ | \$ | 25,914,784 |
| NCSC |  | 671,525 | 95 |  | 33,193 | 5 |  | 704,718 |
| RTFC |  | 399,839 | 93 |  | 31,822 | 7 |  | 431,661 |
| Total loans outstanding ${ }^{(1)}$ | \$ | 25,556,339 | 94 | \$ | 1,494,824 | 6 | \$ | 27,051,163 |
|  |  |  |  |  | May 31, 2020 |  |  |  |
| (Dollars in thousands) |  | Secured | \% of Total |  | Unsecured | \% of Total |  | Total |
| Loan type: |  |  |  |  |  |  |  |  |
| Long-term loans: |  |  |  |  |  |  |  |  |
| Long-term fixed-rate loans. | \$ | 24,137,145 | 99 \% | \$ | 334,858 | $1 \%$ | \$ | 24,472,003 |
| Long-term variable-rate loans. |  | 650,192 | 99 |  | 5,512 | 1 |  | 655,704 |
| Total long-term loans |  | 24,787,337 | 99 |  | 340,370 | 1 |  | 25,127,707 |
| Line of credit loans |  | 191,268 | 12 |  | 1,371,879 | 88 |  | 1,563,147 |
| Total loans outstanding ${ }^{(1)}$ | \$ | 24,978,605 | 94 | \$ | 1,712,249 | 6 | \$ | 26,690,854 |
| Company: |  |  |  |  |  |  |  |  |
| CFC | \$ | 23,977,438 | 94 \% | \$ | 1,630,219 | 6 \% | \$ | 25,607,657 |
| NCSC |  | 638,488 | 91 |  | 59,374 | 9 |  | 697,862 |
| RTFC |  | 362,679 | 94 |  | 22,656 | 6 |  | 385,335 |
| Total loans outstanding ${ }^{(1)}$ | \$ | 24,978,605 | 94 | \$ | $\underline{\text { 1,712,249 }}$ | 6 | \$ | 26,690,854 |

[^5]
## 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 discussed above under "Credit Risk-Loan Portfolio Credit Risk," loans outstanding to electric utility organizations represented approximately $98 \%$ and $99 \%$ of our total outstanding loan portfolio as of November 30, 2020 and May 31, 2020, respectively.

## Geographic Concentration

Although our organizational structure and mission results in single-industry concentration, we serve a geographically diverse group of electric and telecommunications borrowers throughout the United States. The number of borrowers with
outstanding loans totaled 894 and 889 as of November 30, 2020 and May 31, 2020, respectively, located in 49 states. Texas accounted for the largest number of borrowers in any one state as of each respective date. In addition, Texas accounted for approximately $15 \%$ and $16 \%$ of total loans outstanding as of November 30, 2020 and May 31, 2020, respectively, representing the largest concentration of loans outstanding to borrowers in any one state.

## Single-Obligor Concentration

Table 21 displays the outstanding loan exposure for our 20 largest borrowers, by company, as of November 30, 2020 and May 31, 2020. The 20 largest borrowers consisted of 12 distribution systems and eight power supply systems as of November 30, 2020. In comparison, the 20 largest borrowers consisted of 11 distribution systems and nine power supply systems as of May 31, 2020. The largest total exposure to a single borrower or controlled group represented less than $2 \%$ of total loans outstanding as of both November 30, 2020 and May 31, 2020.

Table 21: Loan Exposure to 20 Largest Borrowers

| (Dollars in thousands) | November 30, 2020 |  |  | May 31, 2020 |  |  | Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Amount | \% of Total |  | Amount | \% of Total |  |  |
| By company: |  |  |  |  |  |  |  |  |
| CFC | \$ | 5,600,647 | 20 \% | \$ | 5,661,540 | 21 \% | \$ | $(60,893)$ |
| NCSC |  | 207,516 | 1 |  | 215,595 | 1 |  | $(8,079)$ |
| Total loan exposure to 20 largest borrowers. |  | 5,808,163 | 21 |  | 5,877,135 | 22 |  | $(68,972)$ |
| Less: Loans covered under Farmer Mac standby purchase commitment |  | $(280,973)$ | (1) |  | $(313,644)$ | (1) |  | 32,671 |
| Net loan exposure to 20 largest borrowers.. | \$ | 5,527,190 | 20 \% | \$ | 5,563,491 | 21 \% | \$ | $\underline{(36,301)}$ |

As part of our strategy in managing credit exposure to large borrowers, we entered into a long-term standby purchase commitment agreement with Farmer Mac during fiscal year 2016. Under this agreement, we may designate certain longterm 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 $\$ 535$ million and $\$ 569$ million as of November 30, 2020 and May 31, 2020, respectively. Loan exposure to our 20 largest borrowers covered under the Farmer Mac agreement totaled $\$ 281$ million and $\$ 314$ million as of November 30, 2020 and May 31, 2020, respectively. 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 $\$ 143$ million and $\$ 147$ million as of November 30, 2020 and May 31, 2020, respectively.

## Credit Quality Indicators

Assessing the overall credit quality of our loan portfolio and measuring our credit risk is an ongoing process that involves tracking payment status, troubled debt restructurings, nonperforming loans, charge-offs, 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. Payment status trends and internal risk ratings are indicators, among others, of the probability of borrower default and overall credit quality of our loan portfolio.

Despite the economic disruption caused by the COVID-19 pandemic, we believe the overall credit quality of our loan portfolio remained high as of November 30, 2020, as evidenced by our continued strong credit performance metrics. We had no delinquent loans as of either November 30, 2020 or May 31, 2020, and we have not experienced any loan defaults or charge-offs since fiscal year 2017. We had one loan to a CFC power supply borrower that we classified as nonperforming and placed on nonaccrual status in the fourth quarter of fiscal year 2020. The outstanding balance of this nonperforming loan, which remains on nonaccrual status, was $\$ 153$ million and $\$ 168$ million as of November 30, 2020 and May 31, 2020, respectively. We had no other loans classified as nonperforming or on nonaccrual status as of November 30, 2020 or May 31, 2020. We provide additional information on this loan below under "Nonperforming Loans" and "Allowance for Credit Losses."

## 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 classified as nonperforming and placed on nonaccrual status, although in many cases such loans were already classified as nonperforming prior to modification. 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.

We did not have any loan modifications that were required to be accounted for as TDRs during the six months ended November 30, 2020, nor have we had any TDR loan modifications since fiscal year 2016. Table 22 presents the outstanding amount of modified loans accounted for as TDRs in prior periods and the performance status as of November 30, 2020 and May 31, 2020. The outstanding TDR loans for CFC and RTFC each relate to the modification of a loan for one borrower that, at the time of the modification, was experiencing financial difficulty.

Table 22: Troubled Debt Restructured Loans

|  | November 30, 2020 |  |  |  | May 31, 2020 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Dollars in thousands) | Number of Borrowers | $\underset{\text { Amount }{ }^{(1)}{ }^{\text {Outstang }}}{ }$ |  | $\begin{gathered} \text { \% of Total } \\ \text { Loans } \\ \text { Outstanding } \\ \hline \end{gathered}$ | Number of Borrowers | $\begin{aligned} & \text { Outstanding } \\ & \text { Amount }^{1)^{10}} \end{aligned}$ |  | $\begin{gathered} \text { \% of Total } \\ \text { Loans } \\ \text { Outstanding } \end{gathered}$ |
| TDR loans: |  |  |  |  |  |  |  |  |
| CFC | 1 | \$ | 5,379 | 0.02 \% | 1 | \$ | 5,755 | 0.02 \% |
| RTFC | 1 |  | 4,842 | 0.02 | 1 |  | 5,092 | 0.02 |
| Total TDR loans. | 2 | \$ | 10,221 | 0.04 \% | 2 | \$ | 10,847 | 0.04 \% |
| Performance status of TDR loans: |  |  |  |  |  |  |  |  |
| Performing TDR loans............... | 2 | \$ | 10,221 | 0.04 \% | 2 |  | 10,847 | 0.04 \% |
| Total TDR loans. | 2 | \$ | 10,221 | 0.04 \% | 2 | \$ | 10,847 | 0.04 \% |

${ }^{(1)}$ Represents the unpaid principal balance net of charge-offs and recoveries as of the end of each period.

We did not have any TDR loans classified as nonperforming as of either November 30, 2020 or May 31, 2020. 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 evaluated on an individual basis in estimating lifetime expected credit losses under the CECL model.

## 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. During the fourth quarter of fiscal year 2020, we classified one loan to a CFC power supply borrower, with an outstanding balance of $\$ 168$ million as of May 31, 2020, as nonperforming, placed the loan on nonaccrual status and established an asset-specific allowance for credit losses of $\$ 34$ million as of May 31, 2020. Under the terms of the loan, which matures in December 2026, the amount the borrower is required to pay in 2024 and 2025 may vary as the payments are contingent on the borrower's financial performance in those years. Based on our review and assessment of the borrower's most recent forecast and underlying assumptions provided to us in May 2020, we no longer believe that the future expected cash payments from the borrower through the maturity of the loan in December 2026 will be sufficient to repay the outstanding loan balance. We received payments from the borrower on this loan during the six months ended November 30, 2020, which reduced the outstanding balance to $\$ 153$ million as of November 30, 2020. The asset-specific allowance for credit losses for this loan was $\$ 32$ million as of November 30, 2020. Although the borrower is not in default and was current with respect to required payments on the loan as of November 30, 2020, we continue to report the loan as
nonperforming. We had no other loans classified as nonperforming or on nonaccrual status as of November 30, 2020 or May 31, 2020.

## Net Charge-Offs

We had no loan defaults, charge-offs or recoveries during the six months ended November 30, 2020 and 2019. We experienced our last charge-off, which was attributable to a borrower in our RTFC telecommunications loan portfolio, in fiscal year 2017. We now have experienced an extended period of seven consecutive fiscal years for which we have had no charge-offs in our electric utility loan portfolio, which accounted for $98 \%$ and $99 \%$ of total loans outstanding as of November 30, 2020 and May 31, 2020, respectively.

In its 51-year history, CFC has experienced only 16 defaults, of which 10 resulted in no loss and six resulted in 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 Risk—Loan Portfolio Credit Risk."

In comparison, since RTFC's inception in 1987, we have experienced 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.

## Borrower Risk Ratings

As part of our management of credit risk, we maintain a credit risk rating framework under which we employ a consistent process for assessing the credit quality of our loan portfolio. We evaluate each borrower and loan facility in our loan portfolio and assign internal borrower and loan facility risk ratings based on consideration of a number of quantitative and qualitative factors. Each risk rating is reassessed annually following the receipt of the borrower's audited financial statements; however, interim risk-rating adjustments may occur as a result of updated information affecting a borrower's ability to fulfill its obligations or other significant developments and trends. We categorize loans in our portfolio based on our internally assigned borrower risk ratings, which are intended to assess the general credit worthiness of the borrower and probability of default. Our borrower risk ratings align with the U.S. federal banking regulatory agencies credit risk definitions of pass and criticized categories, with the criticized category further segmented among special mention, substandard and doubtful. Pass ratings reflect relatively low probability of default, while criticized ratings have a higher probability of default.

Criticized loans totaled $\$ 432$ million and $\$ 371$ million as of November 30, 2020 and May 31, 2020, respectively, representing approximately $2 \%$ and $1 \%$ of total loans outstanding, respectively. Criticized loans in the substandard category decreased to $\$ 5$ million as of November 30, 2020, from $\$ 170$ million as of May 31, 2020. Loans outstanding to one electric distribution cooperative borrower and its subsidiary totaling $\$ 165$ million accounted for the substantial majority of the $\$ 170$ million in the substandard category as of May 31, 2020. Based on updated financial performance information from the borrower, we reassessed and upgraded the risk rating for the borrower from substandard as of May 31, 2020 to special mention as of November 30, 2020. Criticized loans in the doubtful category totaled $\$ 153$ million and $\$ 168$ million as of November 30, 2020 and May 31, 2020, respectively. The amount in the doubtful category as of each date is attributable to the loan to the CFC power supply borrower that we classified as nonperforming and placed on nonaccrual status in the fourth quarter of fiscal year 2020, discussed above under "Nonperforming Loans."

We use our internal risk ratings to measure the credit risk of each borrower and loan facility, identify or confirm problem or potential problem loans in a timely manner, differentiate risk within each of our portfolio segments, assess the overall credit quality of our loan portfolio and manage overall risk levels. Our internally assigned borrower risk ratings, which we map to equivalent credit ratings by external credit rating agencies, serve as the primary credit quality indicator for our loan
portfolio. Because our internal borrower risk ratings provide important information on the probability of default, they are a key input in estimating our allowance for credit losses.

We provide additional information on our borrower risk rating classifications in "Note 1—Summary of Significant Accounting" and "Note 4-Loans."

## Allowance for Credit Losses

As discussed above, we adopted the CECL accounting standard on June 1, 2020, which resulted in an increase in our allowance for credit losses for our loan portfolio of $\$ 4$ million and a corresponding decrease to retained earnings of $\$ 4$ million recorded through a cumulative-effect adjustment. The impact on the reserve for credit losses for our off-balance sheet credit exposures related to unadvanced loan commitments and financial guarantees was not material. Under CECL, we are required to maintain an allowance based on a current estimate of credit losses that are expected to occur over the remaining contractual term of the loans in our portfolio. Prior to the adoption of CECL on June 1, 2020, we maintained an allowance based on an estimate of probable incurred losses inherent in our loan portfolio as of each balance sheet date.

Table 23 summarizes changes in the allowance for credit losses for the three and six months ended November 30, 2020 and 2019, and presents the allowance components and allowance coverage ratios as of November 30, 2020 and May 31, 2020. The changes in the allowance and the allowance components prior to our adoption of CECL on June 1, 2020 are based on the incurred loss model for estimating the allowance for credit losses. The allowance components, which consist of a collective allowance and an asset-specific allowance, are based on the evaluation method used to measure our loans for credit losses. Loans that share similar risk characteristics are evaluated on a collective basis in measuring credit losses, while loans that do not share similar risk characteristics with other loans in our portfolio are evaluated on an individual basis.

Table 23: Allowance for Credit Losses

| (Dollars in thousands) |  | Months En | d | nber 30, |  | Months End | d | nber 30, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  | 2019 |  | 2020 |  | 2019 |  |
| Beginning balance | \$ | 57,351 | \$ | 17,565 | \$ | 53,125 | \$ | 17,535 |
| Cumulative-effect adjustment from adoption of CECL accounting standard |  | - |  | - |  | 3,900 |  | - |
| Beginning balance, adjusted |  | 57,351 |  | 17,565 |  | 57,025 |  | 17,535 |
| Provision (benefit) for credit losses |  | 1,638 |  | $(1,045)$ |  | 1,964 |  | $(1,015)$ |
| Ending balance | \$ | 58,989 | \$ | 16,520 | \$ | 58,989 | \$ | 16,520 |
|  |  |  |  |  | November 30, 2020 |  | May 31, 2020 |  |
| Allowance for credit losses by company: |  |  |  |  |  |  |  |  |
| CFC |  |  |  |  | \$ | 54,409 | \$ | 47,438 |
| NCSC |  |  |  |  |  | 1,341 |  | 806 |
| RTFC |  |  |  |  |  | 3,239 |  | 4,881 |
| Total allowance for credit losses |  |  |  |  | \$ | 58,989 | \$ | 53,125 |
| Allowance components: |  |  |  |  |  |  |  |  |
| Collective allowance |  |  |  |  | \$ | 26,269 | \$ | 18,292 |
| Asset-specific allowance |  |  |  |  |  | 32,720 |  | 34,833 |
| Total allowance for credit losses. |  |  |  |  | \$ | 58,989 | \$ | 53,125 |
| Loans outstanding: |  |  |  |  |  |  |  |  |
| Collectively evaluated loans. |  |  |  |  |  | 887,465 | \$ | 512,298 |
| Individually evaluated loans. |  |  |  |  |  | 163,698 |  | 178,556 |
| Total loans outstanding ${ }^{(1)}$. |  |  |  |  |  | 051,163 | \$ | 690,854 |
| Allowance coverage ratios: |  |  |  |  |  |  |  |  |
| Collective allowance coverage ratio ${ }^{(2)}$. |  |  |  |  |  | 0.10 \% |  | 0.07 \% |
| Asset-specific allowance coverage ratio ${ }^{(3)}$. |  |  |  |  |  | 19.99 \% |  | 19.51 \% |
| Total allowance coverage ratio ${ }^{(4)}$. |  |  |  |  |  | 0.22 \% |  | 0.20 \% |
| Percentage of TDR loans ${ }^{(5)}$ |  |  |  |  |  | $577.14 \%$ |  | 489.77 \% |
| Percentage of nonperforming loans ${ }^{(6)}$. |  |  |  |  |  | 38.44 \% |  | 31.68 \% |
| Percentage of nonaccrual loans ${ }^{(7)}$. |  |  |  |  |  | 38.44 \% |  | 31.68 \% |

[^6]The allowance for credit losses for our loan portfolio increased to $\$ 59$ million as of November 30, 2020, from $\$ 53$ million as of May 31, 2020, and the allowance coverage ratio increased to $0.22 \%$ from $0.20 \%$, primarily due to the increase in the allowance of $\$ 4$ million recorded at adoption of CECL on June 1, 2020.

We discuss our methodology for estimating the allowance for credit losses under CECL in "Note 1-Summary of Significant Accounting Policies." See "Note 4—Loans" and "Note 5—Allowance for Credit Losses" for additional information.

## 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 active derivative counterparties had credit ratings ranging from Aa2 to Baa2 by Moody's Investors Service ("Moody's") and from AA- to A- by S\&P Global Inc. ("S\&P") as of November 30, 2020. Our largest counterparty exposure, based on the outstanding notional amount, represented approximately $26 \%$ and $25 \%$ of the total outstanding notional amount of derivatives as of November 30, 2020 and May 31, 2020, 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, S\&P, and Fitch Ratings Inc. ("Fitch") were A2, A and A, respectively, as of November 30, 2020. Moody's, S\&P and Fitch had our ratings on stable outlook as of November 30, 2020. Table 24 displays the notional amounts of our derivative contracts with rating triggers as of November 30, 2020, 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 $\mathrm{A} 3 / \mathrm{A}-$, below $\mathrm{Baa} 1 / \mathrm{BBB}+$, to or below $\mathrm{Baa} 2 / \mathrm{BBB}$, or to or below $\mathrm{Ba} 2 / \mathrm{BB}+$ 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 <br> From CFC |  | $\begin{aligned} & \text { Receivable Due } \\ & \text { to CFC } \end{aligned}$ |  | Net Payable |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Impact of rating downgrade trigger: | \$ |  | \$ |  | \$ | - | \$ | \$ (9,926) |
| Falls below A3/A- ${ }^{(1)}$. |  | 43,175 |  | $(9,926)$ |  |  |  |  |
| Falls below Baa1/BBB+ |  | 5,855,400 |  | $(584,329)$ |  | - |  | $(584,329)$ |
| Falls to or below Baa2/BBB ${ }^{(2)}$. |  | 412,750 |  | $(28,467)$ |  | - |  | $(28,467)$ |
| Total. | \$ | 6,311,325 | \$ | $(622,722)$ | \$ | - | \$ | (622,722) |

${ }^{(1)}$ 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.

Table 24 does not include an interest rate swap agreement with one counterparty that is 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. The outstanding notional amount of interest rate swaps with this counterparty totaled $\$ 215$ million as of November 30, 2020, and the swaps were in an unrealized loss position of $\$ 49$ million as of November 30, 2020.

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 $\$ 656$ million as of November 30,2020 , compared with $\$ 798$ million as of May $31,2020$. There were no counterparties that fell below the rating trigger levels in our interest swap contracts as of November 30, 2020. 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 prior to maturity because our interest rate swaps are critical to our matched funding strategy to mitigate interest rate risk.

See "Item 1A. Risk Factors" in our 2020 Form 10-K and "Item 1A. Risk Factors" in this Report for additional information about credit risks related to our business.

## LIQUIDITY RISK

We define liquidity as the ability to convert assets into cash quickly and efficiently, maintain access to readily available funding and to roll-over or issue new debt under 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, debt securities held in our investment portfolio, 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 information on our liquidity risk-management framework and activities undertaken to manage liquidity risk under "Item 7. MD\&A—Liquidity Risk—Liquidity Risk Management" in our 2020 Form 10-K.

## 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 nearterm liquidity needs. Table 25 presents the sources of available liquidity as of November 30, 2020 and May 31, 2020.

Table 25: Available Liquidity

| (Dollars in millions) | November 30, 2020 |  |  |  |  | May 31, 2020 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Accessed |  | Available |  | Total |  | Accessed |  | Available |  |
| Liquidity sources: |  |  |  |  |  |  |  |  |  |  |  |
| Cash and cash equivalents | \$ 167 | \$ | - | \$ | 167 |  | 671 | \$ | - | \$ | 671 |
| Debt securities investment portfolio ${ }^{(1)}$ | 552 |  | - |  | 552 |  | 309 |  | - |  | 309 |
| Committed bank revolving line of credit agreements-unsecured ${ }^{(2)}$ | 2,725 |  | 3 |  | 2,722 |  | 2,725 |  | 3 |  | 2,722 |
| Guaranteed Underwriter Program committed facilities-secured ${ }^{(3)}$ | 8,173 |  | 6,898 |  | 1,275 |  | 7,798 |  | 6,898 |  | 900 |
| Farmer Mac revolving note purchase agreement dated March 24, 2011, as amended-secured ${ }^{(4)}$ | 5,500 |  | 2,899 |  | 2,601 |  | 5,500 |  | 3,060 |  | 2,440 |
| Total available liquidity | \$ 17,117 | \$ | 9,800 | \$ | 7,317 |  | 7,003 | \$ | 9,961 | \$ | 7,042 |

[^7]
## 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 $\$ 2,725$ million of commitments under committed bank revolving line of credit agreements as of November 30, 2020. 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.

Table 26 presents the total commitment amount under our committed bank revolving line of credit agreements, outstanding letters of credit and the amount available for access as of November 30, 2020. We did not have any outstanding borrowings under our bank revolving line of credit agreements as of November 30, 2020.

Table 26: Committed Bank Revolving Line of Credit Agreements

| (Dollars in millions) | November 30, 2020 |  |  |  |  |  | Maturity | $\begin{gathered} \text { Annual } \\ \text { Facility Fee }^{(1)} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | TotalCommitment |  | Letters of Credit Outstanding |  | Available Amount |  |  |  |
| 3-year agreement | \$ | 1,315 | \$ | - | \$ | 1,315 | November 28, 2022 | 7.5 bps |
| 5-year agreement |  | 1,410 |  | 3 |  | 1,407 | November 28, 2023 | 10 bps |
| Total. | \$ | 2,725 | \$ | 3 | \$ | 2,722 |  |  |

${ }^{(1)}$ 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 supporting the USDA Rural Economic Development Loan and Grant program. The borrowings under this program are guaranteed by RUS.

On November 19, 2020, we closed on a $\$ 375$ million committed loan facility ("Series R") from the Federal Financing Bank under the Guaranteed Underwriter Program. Pursuant to this facility, we may borrow any time before July 15, 2025. Each advance is subject to quarterly amortization and a final maturity not longer than 30 years from the date of the advance. This new commitment increases total funding available to CFC under committed loan facilities from the FFB to $\$ 1,275$ million. Of this amount, $\$ 400$ million is available for advance through July $15,2023, \$ 500$ million is available for advance through July 15,2024 and $\$ 375$ million is available for advance through July 15, 2025. The preceding description is a summary and is qualified in its entirety by reference to the agreements themselves, which are filed as exhibits to this Report.

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 Agreement-Secured

As indicated in Table 25, we have a revolving note purchase agreement with Farmer Mac, dated March 24, 2011, as amended, under which we can borrow up to $\$ 5,500$ million from Farmer Mac at any time, subject to market conditions, through January 11, 2022. This date automatically extends 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. Pursuant to the terms of the Farmer Mac revolving note purchase agreement, we can 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. Under this agreement, we had outstanding secured notes payable totaling $\$ 2,899$ million and $\$ 3,060$ million as of November 30, 2020 and May 31, 2020, respectively. The amount available for borrowing under this agreement was $\$ 2,601$ million as of November 30, 2020.

We are required to pledge eligible electric distribution system or electric power supply system loans as collateral in an amount at least equal to the total principal amount of notes outstanding under this agreement. 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 shortterm 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. Short-term borrowings increased $\$ 726$ million to $\$ 4,688$ million as of November 30, 2020, driven by higher member investments and issuances of dealer commercial paper.

Table 27 displays the composition, by funding source, of our short-term borrowings as of November 30, 2020 and May 31, 2020. Member borrowings accounted for $82 \%$ of total short-term borrowings as of November 30, 2020, compared with $94 \%$ of total short-term borrowings as of May 31, 2020.

Table 27: Short-Term Borrowings-Funding Sources

| (Dollars in thousands) | November 30, 2020 |  |  | May 31, 2020 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amount Outstanding |  | \% of Total Short-Term Borrowings | Amount Outstanding |  | \% of Total Short-Term Borrowings |
| Funding source: |  |  |  |  |  |  |
| Members | \$ | 3,847,984 | 82 \% | \$ | 3,711,985 | 94 \% |
| Private placement-Farmer Mac notes payable |  | 125,000 | 3 |  | 250,000 | 6 |
| Capital markets |  | 714,984 | 15 |  | - | - |
| Total. | \$ | 4,687,968 | 100 \% | \$ | 3,961,985 | 100 \% |

Table 28 displays the composition, by product type, of short-term borrowings as of November 30, 2020 and May 31, 2020.
Table 28: Short-Term Borrowings

|  |  | November 30, 2020 |  |  | May 31, 2020 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Our short-term borrowings of $\$ 4,688$ million accounted for $18 \%$ of total debt outstanding as of November 30, 2020, compared with $\$ 3,962$ million and $15 \%$ of total debt outstanding as of May 31,2020 . 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 totaled $\$ 715$ million as of November 30, 2020, which was below our target threshold. We had no outstanding dealer commercial paper as of May 31, 2020.

## 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." Under our effective shelf registration statements filed with the SEC, we may offer and issue the following debt securities:

- an unlimited amount of collateral trust bonds until October 2023;
- an unlimited amount of senior and subordinated debt securities, including medium-term notes, member capital securities and subordinated deferrable debt, until October 2023; and
- daily liquidity fund notes up to $\$ 20,000$ million in the aggregate-with a $\$ 3,000$ million limit on the aggregate principal amount outstanding at any time-until March 2022.

As discussed in "Consolidated Balance Sheet Analysis-Debt," long-term and subordinated debt of $\$ 21,329$ million and $\$ 22,038$ million as of November 30, 2020 and May 31, 2020, respectively, accounted for $82 \%$ and $85 \%$ of total debt outstanding as of each respective date. Table 29 summarizes long-term and subordinated debt issuances and repayments during the six months ended November 30, 2020.

Table 29: Long-Term and Subordinated Debt Issuances and Repayments

| (Dollars in thousands) | Six Months Ended November 30, 2020 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Issuances |  | Repayments ${ }^{(1)}$ |  | Change |  |
| Long-term and subordinated debt activity: |  |  |  |  |  |  |
| Collateral trust bonds | \$ | 400,000 | \$ | 755,000 | \$ | $(355,000)$ |
| Guaranteed Underwriter Program notes payable |  | - |  | 70,921 |  | $(70,921)$ |
| Farmer Mac notes payable |  | - |  | 35,680 |  | $(35,680)$ |
| Medium-term notes sold to members |  | 26,717 |  | 109,952 |  | $(83,235)$ |
| Medium-term notes sold to dealers |  | - |  | 104,166 |  | $(104,166)$ |
| Members' subordinated certificates |  | 13,448 |  | 66,101 |  | $(52,653)$ |
| Total | \$ | 440,165 | \$ | 1,141,820 | \$ | $(701,655)$ |

${ }^{(1)}$ Repayments include principal maturities, scheduled amortization payments, repurchases and redemptions.

Table 30 summarizes the scheduled amortization and maturities of the principal amount of long-term debt, subordinated deferrable debt and members' subordinated certificates outstanding as of November 30, 2020, in each fiscal year during the five-year period ending May 31, 2025, and thereafter.

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

| (Dollars in thousands) | $\underset{\text { Amortization }}{ }{ }^{\text {Sch }}$ |  | \% of Total |
| :---: | :---: | :---: | :---: |
| Fiscal year ending May 31: |  |  |  |
| 2021 | \$ | 967,770 | $4 \%$ |
| 2022 |  | 2,570,699 | 12 |
| 2023 |  | 1,262,402 | 6 |
| 2024 |  | 1,148,881 | 5 |
| 2025 |  | 837,900 | 4 |
| Thereafter |  | 14,835,026 | 69 |
| Total | \$ | 21,622,678 | $100 \%$ |

${ }^{(1)}$ Member loan subordinated certificates totaling $\$ 206$ 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."

## Debt Securities Investment Portfolio

We have an investment portfolio of debt securities, which are classified as trading, that serves as an additional source of liquidity. Our debt securities investment portfolio increased $\$ 243$ million to $\$ 552$ million as of November 30, 2020, from $\$ 309$ million as of May 31, 2020, largely due to the purchase of additional securities during the six months ended November 30, 2020. During the fourth quarter of fiscal year 2020, we executed a plan for the orderly liquidation of a portion of our debt securities from our investment portfolio due to volatility in the financial markets in mid-March 2020 and the potential for future disruptions caused by the COVID-19 pandemic. As volatility across financial markets stabilized during the first quarter of our fiscal year 2021, we gradually purchased additional securities to restore our investment portfolio's size to a level more comparable with the level prior to the liquidation.

Our debt securities investment portfolio is unencumbered and structured so that the securities generally 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. 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 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 from debt and investment activity, by quarter, over the next six quarters through the quarter ending May 31, 2022. 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) longterm loan scheduled amortization payments represent the scheduled long-term loan payments for loans outstanding as of November 30, 2020, 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 from Debt and Investment Activity ${ }^{(1)}$

|  | Projected Sources of Liquidity |  |  |  |  |  |  | Projected Uses of Liquidity |  |  |  |  |  |  |  | $\begin{gathered} \text { Other } \\ \text { Sources/ } \\ \text { (Uses) of } \\ \text { Liquidity }{ }^{(6)} \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Dollars in millions) | $\begin{gathered} \text { Long- } \\ \text { Term } \\ \text { Debt } \\ \text { Issuance } \\ \hline \end{gathered}$ | Anticipated Long-Term Loan <br> Repayments ${ }^{(2)}$ |  | $\begin{gathered} \text { Other } \\ \text { Long-Term } \\ \text { Repayments }^{(3)} \end{gathered}$ |  | Total <br> Projected <br> Sources of <br> Liquidity |  | $\begin{gathered} \text { Long-Term } \\ \text { Debt } \\ \text { Maturities }{ }^{(4)} \\ \hline \end{gathered}$ |  | $\begin{gathered} \text { Long- } \\ \text { Term } \\ \text { Loan } \\ \text { Advances } \\ \hline \end{gathered}$ |  | Other Loan <br> Advances ${ }^{(5)}$ |  | Total Projected Uses of Liquidity |  |  |  |
| 3Q FY2021... | \$ 755 | \$ | 328 | \$ | - | \$ | 1,083 | \$ | 454 | \$ | 712 | \$ | 75 | \$ | 1,241 | \$ | 104 |
| 4Q FY2021... | 535 |  | 329 |  | - |  | 864 |  | 707 |  | 345 |  | - |  | 1,052 |  | 124 |
| 1Q FY2022... | 483 |  | 342 |  | - |  | 825 |  | 548 |  | 495 |  | - |  | 1,043 |  | 179 |
| 2Q FY2022... | 311 |  | 340 |  | - |  | 651 |  | 352 |  | 331 |  | - |  | 683 |  | (29) |
| 3Q FY2022... | 1,703 |  | 325 |  | - |  | 2,028 |  | 1,234 |  | 537 |  | - |  | 1,771 |  | (280) |
| 4Q FY2022... | 455 |  | 337 |  | - |  | 792 |  | 547 |  | 531 |  | - |  | 1,078 |  | 223 |
| Total............ | \$4,242 | \$ | 2,001 | \$ | - | \$ | 6,243 | \$ | 3,842 | \$ | 2,951 | \$ | 75 | \$ | 6,868 | \$ | 321 |

${ }^{(1)}$ The dates presented represent the end of each quarterly period through the quarter ended May 31, 2022.
${ }^{(2)}$ Anticipated long-term loan repayments include scheduled long-term loan amortizations, anticipated cash repayments at repricing date and loan 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.
${ }^{(5)}$ Other loan advances include anticipated short-term loan advances.
${ }^{(6)}$ Includes net increase or decrease to dealer commercial paper, member commercial paper and select notes, and purchases and maturity of investments.

As displayed in Table 31, we currently project long-term advances of $\$ 1,883$ million over the next 12 months, which we anticipate will exceed anticipated loan repayments over the same period of $\$ 1,339$ million by approximately $\$ 544$ 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. During the current quarter, Moody's, S\&P and Fitch affirmed our ratings and outlook. Table 32 displays our credit ratings as of November 30, 2020, which are unchanged from May 31, 2020, and as of the date of the filing of this Report.

Table 32: Credit Ratings

|  | November 30, 2020 |  |  |
| :---: | :---: | :---: | :---: |
|  | 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 30.60 as of November 30, 2020, from 42.40 as of May 31,2020 , primarily due to the an increase in equity from our reported net income of $\$ 305$ million, which was partially offset by a decrease in equity as a result of the retirement of patronage capital of $\$ 60$ million authorized by the CFC Board of Directors in July 2020 and paid to members in September 2020, and the decrease to retained earnings of $\$ 4$ million from the cumulative-effect adjustment recorded at adoption of the CECL accounting standard on June 1, 2020.

Our adjusted debt-to-equity ratio increased to 5.90 as of November 30, 2020, from 5.85 as of May 31 , 2020, primarily attributable to a reduction in adjusted equity due to the maturity of subordinated certificates and the authorized patronage capital retirement amount, partially offset by adjusted net income for the current period. 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 "NonGAAP 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 believe 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, 2020.

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 2020 Form 10-K under "Item 7. MD\&A—Market Risk—Market Risk Management."

## Future of LIBOR

In 2017, the United Kingdom's Financial Conduct Authority ("FCA"), which regulates the LIBOR index, announced that the FCA intends to stop requesting banks to submit the rates required to calculate LIBOR after the 2021 calendar year. Management has formed a cross-functional LIBOR working group to identify CFC's exposure, assess the potential risks related to the transition from LIBOR to a new index, and develop a strategic transition plan. The LIBOR working group has performed an initial assessment of all of CFC's LIBOR dependent contracts and financial instruments and the systems, models and processes that may be impacted. The LIBOR working group is closely monitoring and assessing developments with respect to the phasing out of LIBOR and providing regular reports to our Chief Financial Officer and the CFC Board of Directors. The Alternative Reference Rate Committee ("ARRC"), a group of diverse private-market participants assembled by the Federal Reserve Board and the Federal Reserve Bank of New York, has recommended that companies should include hardwired fallback language for originations after September 30, 2020 and should stop originating LIBOR based loans by June 30, 2021. CFC is in the process of ensuring that all of its LIBOR based loans have hardwired fallback language and we plan to stop originating new LIBOR based loans prior to June 30, 2021.

We discuss the risks related to the uncertainty as to the nature of potential changes and other reforms associated with the transition away from and expected replacement of LIBOR as a benchmark interest rate in in our 2020 Form 10-K under "Item 1A. Risk Factors."

## 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 generally 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

As part of our asset-liability management, we perform a monthly interest rate gap analysis that provides a comparison between the timing of cash flows, by year, for fixed-rate assets scheduled for amortization and repricing and for fixed-rate liabilities and members' equity maturing. This gap analysis is a useful tool in measuring, monitoring and mitigating the interest rate risk inherent in the funding of fixed-rate assets with variable-rate debt and also helpful in assessing liquidity risk.

Table 33 displays the scheduled amortization and repricing of fixed-rate assets and outstanding fixed-rate liabilities and equity as of November 30, 2020. 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 $7 \%$ and $8 \%$ of our total loan portfolio as of November 30, 2020 and May 31, 2020, respectively. 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 because it is used to match fund our variable-rate loans. 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)
${ }^{(1)}$ Includes long-term fixed-rate debt and the net impact of our interest rate swaps.
${ }^{(2)}$ The maturity presented for debt is based on the call date.
${ }^{(3)}$ Represents the amount of subordinated deferrable debt and subordinated certificates allocated to fund fixed-rate assets.
${ }^{(4)}$ Represents the portion of members' equity and allowance for credit losses allocated to fund fixed-rate assets. See Table 38: Members' Equity below under "Non-GAAP Financial Measures" for a reconciliation of total CFC equity to members' equity.
${ }^{(5)}$ Calculated based on the amount of assets scheduled for amortization and repricing less total liabilities and members' equity funding those assets.
${ }^{(6)}$ Adjusted total assets represents total assets reported in our consolidated balance sheets less derivative assets.
When the amount of the cash flows related to fixed-rate assets scheduled for amortization and repricing exceeds the amount of cash flows related to the fixed-rate debt and equity funding those assets, we refer to the difference, or gap, as "warehousing." When the amount of the cash flows related to fixed-rate assets scheduled for amortization and repricing is less than the amount of the cash flows related to the fixed-rate debt and equity funding those assets, we refer to the gap as "prefunding." The amount of the gap is an indication of our interest rate and liquidity risk exposure. Our goal is to maintain an unmatched position related to the cash flows for fixed-rate financial assets within a targeted range of adjusted total assets.

Because the substantial majority of our financial assets are fixed-rate, amortizing loans and these loans are primarily funded with bullet debt and equity, our interest rate gap analysis typically reflects a warehouse position. When we are in a warehouse position, we utilize some short-term borrowings to fund the scheduled amortization and repricing of our financial
assets. However, we limit the extent to which we fund our long-term, fixed-rate loans with short-term, variable-rate debt because it exposes us to higher interest rate and liquidity risk. As indicated above in Table 33, we were in a warehouse position of $\$ 614$ million as of November 30, 2020.

## NON-GAAP FINANCIAL MEASURES

As discussed above in the section "Summary of Selected Financial Data," 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 our non-GAAP measures under "Item 7. MD\&A—Non-GAAP Measures" in our 2020 Form 10-K. Below we provide a reconciliation of our adjusted measures presented in this Report to the most comparable GAAP measures.

## Adjusted Operational Financial Measures

Table 34 provides a reconciliation of adjusted interest expense, adjusted net interest income, adjusted total revenue and adjusted net income to the comparable GAAP measures for the three and six months ended November 30, 2020 and 2019. These adjusted measures are used in the calculation of our adjusted net interest yield and adjusted TIER.

Table 34: Adjusted Financial Measures-Income Statement

| (Dollars in thousands) |  | e Months En | ded | vember 30, |  | Months End | d | mber 30, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  | 2019 |  | 2020 |  | 2019 |  |
| Adjusted interest expense: |  |  |  |  |  |  |  |  |
| Interest expense | \$ | $(174,422)$ | \$ | $(207,871)$ | \$ | $(354,398)$ | \$ | $(421,142)$ |
| Include: Derivative cash settlements interest expense ${ }^{(1)}$ |  | $(29,800)$ |  | $(14,150)$ |  | $(56,772)$ |  | $(25,193)$ |
| Adjusted interest expense. | \$ | (204,222) | \$ | $(222,021)$ | \$ | $(411,170)$ | \$ | $(446,335)$ |
| Adjusted net interest income: |  |  |  |  |  |  |  |  |
| Net interest income | \$ | 102,077 | \$ | 79,166 | \$ | 201,685 | \$ | 155,910 |
| Include: Derivative cash settlements interest expense ${ }^{(1)}$ |  | $(29,800)$ |  | $(14,150)$ |  | $(56,772)$ |  | $(25,193)$ |
| Adjusted net interest income | \$ | 72,277 | \$ | 65,016 | \$ | 144,913 | \$ | 130,717 |
| Adjusted total revenue: |  |  |  |  |  |  |  |  |
| Total revenue | \$ | 108,409 | \$ | 83,008 | \$ | 211,533 | \$ | 170,693 |
| Include: Derivative cash settlements interest expense ${ }^{(1)}$ |  | $(29,800)$ |  | $(14,150)$ |  | $(56,772)$ |  | $(25,193)$ |
| Adjusted total revenue | \$ | 78,609 | \$ | 68,858 | \$ | 154,761 | \$ | 145,500 |
| Adjusted net income: |  |  |  |  |  |  |  |  |
| Net income (loss) | \$ | 160,521 | \$ | 241,600 | \$ | 305,108 | \$ | $(82,479)$ |
| Exclude: Derivative forward value gains (losses) ${ }^{(2)}$ |  | 111,087 |  | 197,600 |  | 198,335 |  | $(187,082)$ |
| Adjusted net income | \$ | 49,434 | \$ | 44,000 | \$ | 106,773 | \$ | 104,603 |

[^8]We primarily fund our loan portfolio through the issuance of debt. However, we use derivatives as economic hedges as part of our strategy to manage the interest rate risk associated with funding our loan portfolio. We therefore consider the interest expense incurred on our derivatives to be part of funding cost in addition to the interest expense on our debt. As such, we add derivative cash settlements interest expense to our reported interest expense to derive our adjusted interest expense and
adjusted net interest income. We exclude the unrealized derivative forward value gains and losses from our adjusted total revenue and adjusted net income.

## TIER and Adjusted TIER

Table 35 displays the calculation of our TIER and adjusted TIER for the three and six months ended November 30, 2020 and 2019.

Table 35: TIER and Adjusted TIER

|  | Three Months Ended November 30, |  | Six Months Ended November 30, |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2020 | 2019 | 2020 | 2019 |
| TIER ${ }^{(1)}$ | 1.92 | 2.16 | 1.86 | 0.80 |
| Adjusted TIER ${ }^{(2)}$ | 1.24 | 1.20 | 1.26 | 1.23 |

${ }^{(1)}$ TIER is calculated based on our net income (loss) plus interest expense for the period divided by interest expense for the period.
${ }^{(2)}$ Adjusted TIER is calculated based on adjusted net income (loss) 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 our total liabilities and total equity and the adjusted amounts used in the calculation of our adjusted debt-to-equity ratio as of November 30, 2020 and May 31, 2020. As indicated in Table 36, 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, 2020 |  | May 31, 2020 |  |
| :---: | :---: | :---: | :---: | :---: |
| Total liabilities | \$ | 27,284,383 | \$ | 27,508,783 |
| Exclude: |  |  |  |  |
| Derivative liabilities |  | 1,040,528 |  | 1,258,459 |
| Debt used to fund loans guaranteed by RUS |  | 142,996 |  | 146,764 |
| Subordinated deferrable debt |  | 986,217 |  | 986,119 |
| Subordinated certificates |  | 1,272,374 |  | 1,339,618 |
| Adjusted total liabilities | \$ | 23,842,268 | \$ | $\underline{23,777,823}$ |
| Total equity | \$ | 891,719 | \$ | 648,822 |
| Exclude: |  |  |  |  |
| Prior fiscal year-end cumulative derivative forward value losses ${ }^{(1)}$. |  | (1,088,982) |  | $(354,704)$ |
| Year-to-date derivative forward value gains (losses) ${ }^{(1)}$. |  | 198,335 |  | $(734,278)$ |
| Period-end cumulative derivative forward value losses ${ }^{(1)}$. |  | $(890,647)$ |  | $(1,088,982)$ |
| Accumulated other comprehensive income attributable to derivatives ${ }^{(2)}$. |  | 1,918 |  | 2,130 |
| Subtotal |  | $(888,729)$ |  | $(1,086,852)$ |
| Include: |  |  |  |  |
| Subordinated deferrable debt |  | 986,217 |  | 986,119 |
| Subordinated certificates |  | 1,272,374 |  | 1,339,618 |
| Subtotal |  | 2,258,591 |  | 2,325,737 |
| Adjusted total equity | \$ | 4,039,039 | \$ | 4,061,411 |

[^9]Table 37 displays the calculations of our debt-to-equity and adjusted debt-to-equity ratios as of November 30, 2020 and May 31, 2020.

Table 37: Debt-to-Equity Ratio and Adjusted Debt-to-Equity Ratio

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  |
| :---: | :---: | :---: | :---: | :---: |
| Debt-to equity ratio: |  |  |  |  |
| Total liabilities. | \$ | 27,284,383 | \$ | 27,508,783 |
| Total equity |  | 891,719 |  | 648,822 |
| Debt-to-equity ratio ${ }^{(1)}$ |  | 30.60 |  | 42.40 |
| Adjusted debt-to-equity ratio: |  |  |  |  |
| Adjusted total liabilities ${ }^{(2)}$. | \$ | 23,842,268 | \$ | 23,777,823 |
| Adjusted total equity ${ }^{(2)}$ |  | 4,039,039 |  | 4,061,411 |
| Adjusted debt-to-equity ratio ${ }^{(3)}$ |  | 5.90 |  | 5.85 |

${ }^{(1)}$ Calculated based on total liabilities at period end of the period divided by total equity at period end.
${ }^{(2)}$ See Table 36 above for details on the calculation of these non-GAAP adjusted measures and the reconciliation to the most comparable GAAP measures.
${ }^{(3)}$ Calculated based on adjusted total liabilities at period end divided by adjusted total equity at period end.

## Members' Equity

Members' equity represents equity attributable to CFC members. Table 38 provides a reconciliation of members' equity to total CFC equity as of November 30, 2020 and May 31, 2020.

Table 38: Members' Equity

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  |
| :---: | :---: | :---: | :---: | :---: |
| Members' equity: | \$ | 866,318 | \$ | 626,121 |
| Total CFC equity |  |  |  |  |
| Exclude: |  |  |  |  |
| Accumulated other comprehensive loss |  | $(1,746)$ |  | $(1,910)$ |
| Period-end cumulative derivative forward value losses attributable to $\mathrm{CFC}^{(1)}$. |  | $(882,607)$ |  | $(1,079,739)$ |
| Subtotal |  | $(884,353)$ |  | $(1,081,649)$ |
| Members' equity | \$ | 1,750,671 | \$ | 1,707,770 |

[^10]
## Item 1. Financial Statements

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## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)

| (Dollars in thousands) |  | e Months En | ded | vember 30, |  | Months End | d | mber 30, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  | 2019 |  | 2020 |  | 2019 |  |
| Interest income | \$ | 276,499 | \$ | 287,037 | \$ | 556,083 | \$ | 577,052 |
| Interest expense |  | $(174,422)$ |  | $(207,871)$ |  | $(354,398)$ |  | $(421,142)$ |
| Net interest income |  | 102,077 |  | 79,166 |  | 201,685 |  | 155,910 |
| Benefit (provision) for credit losses |  | $(1,638)$ |  | 1,045 |  | $(1,964)$ |  | 1,015 |
| Net interest income after benefit (provision) for credit losses |  | 100,439 |  | 80,211 |  | 199,721 |  | 156,925 |
| Non-interest income: |  |  |  |  |  |  |  |  |
| Fee and other income |  | 6,332 |  | 3,842 |  | 9,848 |  | 14,783 |
| Derivative gains (losses) |  | 81,287 |  | 183,450 |  | 141,563 |  | $(212,275)$ |
| Investment securities gains (losses) |  | $(1,361)$ |  | (114) |  | 3,298 |  | 1,506 |
| Total non-interest income |  | 86,258 |  | 187,178 |  | 154,709 |  | (195,986) |
| Non-interest expense: |  |  |  |  |  |  |  |  |
| Salaries and employee benefits |  | $(14,011)$ |  | $(12,728)$ |  | $(27,144)$ |  | $(25,670)$ |
| Other general and administrative expenses.. |  | $(10,125)$ |  | $(12,041)$ |  | $(19,655)$ |  | $(24,428)$ |
| Losses on early extinguishment of debt |  | $(1,455)$ |  | (614) |  | $(1,455)$ |  | (614) |
| Other non-interest expense |  | (323) |  | (315) |  | (655) |  | 6,864 |
| Total non-interest expense. |  | $(25,914)$ |  | $(25,698)$ |  | $(48,909)$ |  | $(43,848)$ |
| Income (loss) before income taxes |  | 160,783 |  | 241,691 |  | 305,521 |  | $(82,909)$ |
| Income tax benefit (expense) |  | (262) |  | (91) |  | (413) |  | 430 |
| Net income (loss) |  | 160,521 |  | 241,600 |  | 305,108 |  | $(82,479)$ |
| Less: Net (income) loss attributable to noncontrolling interests |  | (505) |  | (8) |  | (676) |  | 1,649 |
| Net income (loss) attributable to CFC. | \$ | 160,016 | \$ | 241,592 | \$ | 304,432 | \$ | $(80,830)$ |

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

| (Dollars in thousands) |  | Months En | ded | ember 30, |  | Months End | d | nber 30, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  | 2019 |  | 2020 |  | 2019 |  |
| Net income (loss) | \$ | 160,521 | \$ | 241,600 | \$ | 305,108 | \$ | $(82,479)$ |
| Other comprehensive income (loss): |  |  |  |  |  |  |  |  |
| Reclassification of derivative gains to earnings. |  | (107) |  | (114) |  | (212) |  | (226) |
| Defined benefit plan adjustments |  | 188 |  | 146 |  | 376 |  | 291 |
| Other comprehensive income |  | 81 |  | 32 |  | 164 |  | 65 |
| Total comprehensive income (loss)...................... |  | 160,602 |  | 241,632 |  | 305,272 |  | $(82,414)$ |
| Less: Total comprehensive (income) loss attributable to noncontrolling interests |  | (505) |  | (8) |  | (676) |  | 1,649 |
| Total comprehensive income (loss) attributable to CFC | \$ | 160,097 | \$ | 241,624 | \$ | 304,596 | \$ | $(80,765)$ |

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

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  |
| :---: | :---: | :---: | :---: | :---: |
| Assets: |  |  |  |  |
| Cash and cash equivalents | \$ | 167,155 | \$ | 671,372 |
| Restricted cash ${ }^{(1)}$ |  | 10,036 |  | 8,647 |
| Total cash, cash equivalents and restricted cash |  | 177,191 |  | 680,019 |
| Investment securities: |  |  |  |  |
| Equity securities, at fair value |  | 32,391 |  | 60,735 |
| Debt securities trading, at fair value. |  | 551,695 |  | 309,400 |
| Total investment securities |  | 584,086 |  | 370,135 |
| Loans to members |  | 27,062,969 |  | 26,702,380 |
| Less: Allowance for credit losses |  | $(58,989)$ |  | $(53,125)$ |
| Loans to members, net |  | 27,003,980 |  | 26,649,255 |
| Accrued interest receivable |  | 105,145 |  | 117,138 |
| Other receivables |  | 39,334 |  | 41,099 |
| Fixed assets, net |  | 88,577 |  | 89,137 |
| Derivative assets |  | 153,388 |  | 173,195 |
| Other assets |  | 24,401 |  | 37,627 |
| Total assets. | \$ | 28,176,102 | \$ | 28,157,605 |
| Liabilities: |  |  |  |  |
| Accrued interest payable | \$ | 123,766 | \$ | 139,619 |
| Debt outstanding: |  |  |  |  |
| Short-term borrowings |  | 4,687,968 |  | 3,961,985 |
| Long-term debt |  | 19,070,919 |  | 19,712,024 |
| Subordinated deferrable debt |  | 986,217 |  | 986,119 |
| Members' subordinated certificates: |  |  |  |  |
| Membership subordinated certificates |  | 628,589 |  | 630,483 |
| Loan and guarantee subordinated certificates |  | 405,115 |  | 482,965 |
| Member capital securities |  | 238,670 |  | 226,170 |
| Total members' subordinated certificates. |  | 1,272,374 |  | 1,339,618 |
| Total debt outstanding |  | 26,017,478 |  | 25,999,746 |
| Deferred income |  | 55,478 |  | 59,303 |
| Derivative liabilities |  | 1,040,528 |  | 1,258,459 |
| Other liabilities |  | 47,133 |  | 51,656 |
| Total liabilities. |  | 27,284,383 |  | 27,508,783 |

## Equity:

CFC equity:

| Retained equity | $\begin{array}{r} 868,064 \\ (1,746) \\ \hline \end{array}$ |  | $\begin{array}{r} 628,031 \\ (1,910) \\ \hline \end{array}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Accumulated other comprehensive loss. |  |  |  |  |
| Total CFC equity |  | 866,318 |  | 626,121 |
| Noncontrolling interests |  | 25,401 |  | 22,701 |
| Total equity |  | 891,719 |  | 648,822 |
| Total liabilities and equity |  | 28,176,102 | \$ | 28,157,605 |

[^11]
## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY <br> (UNAUDITED)

| (Dollars in thousands) | Three Months Ended November 30, 2020 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Membership Fees and Educational Fund |  | Patronage Capital Allocated | $\begin{aligned} & \text { Members' } \\ & \text { Capital } \\ & \text { Reserve } \end{aligned}$ |  | $\qquad$ |  | CFC <br> Retained Equity |  | Accumulated Other Comprehensive Income (Loss) |  | Total CFC Equity |  | Noncontrolling Interests |  | Total Equity |  |
| Balance as of August 31, 2020 | \$ | 2,939 | \$ 834,209 | \$ | 807,320 | \$ | $(936,032)$ | \$ | 708,436 | \$ | $(1,827)$ | \$ | 706,609 | \$ | 24,895 | \$ | 731,504 |
| Net income |  | - | - |  | - |  | 160,016 |  | 160,016 |  | - |  | 160,016 |  | 505 |  | 160,521 |
| Other comprehensive income |  | - | - |  | - |  | - |  | - |  | 81 |  | 81 |  | - |  | 81 |
| Patronage capital retirement |  | - | - |  | - |  | - |  | - |  | - |  |  |  | - |  | - |
| Other |  | (388) | - |  | - |  | - |  | (388) |  | - |  | (388) |  | 1 |  | (387) |
| Balance as of November $30,2020$ | \$ | 2,551 | \$ 834,209 | \$ | 807,320 | \$ | $(776,016)$ | \$ | 868,064 | \$ | (1,746) | \$ | 866,318 | \$ | 25,401 | \$ | 891,719 |

Six Months Ended November 30, 2020


The accompanying Notes to Consolidated Financial Statements (Unaudited) are an integral part of these statements.

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

| (Dollars in thousands) | Six Months Ended November 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  | 2019 |  |
| Cash flows from operating activities: |  |  |  |  |
| Net income (loss) | \$ | 305,108 | \$ | $(82,479)$ |
| Adjustments to reconcile net income to net cash provided by operating activities: |  |  |  |  |
| Amortization of deferred loan fees |  | $(4,804)$ |  | $(4,704)$ |
| Amortization of debt issuance costs and deferred charges |  | 6,191 |  | 4,677 |
| Amortization of discount on long-term debt |  | 5,838 |  | 5,304 |
| Amortization of issuance costs for bank revolving lines of credit |  | 2,223 |  | 3,034 |
| Depreciation and amortization |  | 3,637 |  | 4,755 |
| Provision (benefit) for credit losses |  | 1,964 |  | $(1,015)$ |
| Loss on early extinguishment of debt |  | 1,455 |  | 614 |
| Gain on sale of land |  | - |  | $(7,713)$ |
| Unrealized gains on equity and debt securities |  | $(2,985)$ |  | $(1,506)$ |
| Derivative forward value (gains) losses. |  | $(198,335)$ |  | 187,082 |
| Changes in operating assets and liabilities: |  |  |  |  |
| Accrued interest receivable |  | 11,993 |  | 2,655 |
| Accrued interest payable |  | $(15,853)$ |  | $(10,122)$ |
| Deferred income |  | 980 |  | 1,013 |
| Other |  | $(7,600)$ |  | $(4,041)$ |
| Net cash provided by operating activities |  | 109,812 |  | 97,554 |
| Cash flows from investing activities: |  |  |  |  |
| Advances on loans, net |  | $(360,309)$ |  | $(521,215)$ |
| Investment in fixed assets, net |  | $(2,682)$ |  | $(6,217)$ |
| Proceeds from sale of land |  | - |  | 21,268 |
| Purchase of trading securities |  | $(306,215)$ |  | - |
| Proceeds from sales and maturities of trading securities |  | 65,562 |  | - |
| Proceeds from redemption of equity securities |  | 30,000 |  | 25,000 |
| Purchases of held-to-maturity debt securities |  | - |  | $(51,386)$ |
| Proceeds from maturities of held-to-maturity debt securities |  | - |  | 43,250 |
| Net cash used in investing activities |  | $(573,644)$ |  | $(489,300)$ |
| Cash flows from financing activities: |  |  |  |  |
| Proceeds from short-term borrowings, net |  | 870,478 |  | 1,129,496 |
| Proceeds from short-term borrowings with original maturity $>90$ days |  | 1,532,452 |  | 1,266,609 |
| Repayments of short-term borrowings with original maturity $>90$ days |  | $(1,676,947)$ |  | $(1,214,807)$ |
| Payments for issuance costs for revolving bank lines of credit |  | - |  | (976) |
| Proceeds from issuance of long-term debt, net of discount and issuance costs |  | 422,683 |  | 160,595 |
| Payments for retirement of long-term debt |  | $(1,075,719)$ |  | $(946,828)$ |
| Payments made for early extinguishment of debt |  | $(1,455)$ |  | (614) |
| Payments for issuance costs for subordinated deferrable debt |  | - |  | (84) |
| Proceeds from issuance of members' subordinated certificates |  | 13,448 |  | 1,427 |
| Payments for retirement of members' subordinated certificates |  | $(66,101)$ |  | $(3,504)$ |
| Payments for retirement of patronage capital |  | $(57,835)$ |  | $(61,102)$ |
| Repayments for membership fees, net |  | - |  | 1 |
| Net cash provided by (used in) financing activities |  | $(38,996)$ |  | 330,213 |
| Net decrease in cash, cash equivalents and restricted cash |  | $(502,828)$ |  | $(61,533)$ |
|  |  | 680,019 |  | 186,204 |
| Ending cash, cash equivalents and restricted cash. | \$ | 177,191 | \$ | 124,671 |
| Supplemental disclosure of cash flow information: |  |  |  |  |
| Cash paid for interest. | \$ | 353,057 | \$ | 415,069 |
| Cash paid for income taxes ............ |  | 69 |  | 18 |

[^12]
# NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO 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, electric 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.

## Principles of Consolidation and Basis of Presentation

The accompanying unaudited interim consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). These 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. National Cooperative Services Corporation ("NCSC") and Rural Telephone Finance Cooperative ("RTFC") are VIEs that 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. CFC has not had entities that held foreclosed assets since fiscal year 2017. All intercompany balances and transactions have been eliminated.

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 credit 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 in the interim financial statements are not necessarily indicative of results that may be expected for the full fiscal year. Certain reclassifications have been made to prior periods to conform to the current presentation. Unless stated otherwise, references to "we," "our" or "us" relate to CFC and its consolidated entities.

## Risks and Uncertainties

The novel strain of coronavirus that causes coronavirus disease 2019 ("COVID-19") continues to spread and adversely impact the economy of the United States ("U.S."). While several U.S. industry sectors have been severely affected by the COVID-19 pandemic, we believe that we have thus far been able to navigate the challenges of the pandemic. Although we continue to closely monitor developments, we cannot predict the future impact of COVID-19 on our operational and financial performance. This impact will depend on several factors, including, among others, the extent to which the manufacturing and distribution of recently developed COVID-19 vaccines are successful in mitigating the severity and duration of the virus over time, potential further economic deterioration and additional, or extended, federal, state and local government orders and regulations that might be imposed, additional federal stimulus efforts, and the specific ways the pandemic uniquely impacts our members, all of which continue to involve uncertainties.

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

## New Accounting Standards Adopted in Fiscal Year 2021

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

On June 1, 2020, we adopted Accounting Standards Update ("ASU") 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement, which removes, adds and modifies certain disclosure requirements on fair value measurements. The adoption of this guidance, which resulted only in certain changes to the fair value measurement disclosures presented in "Note 12-Fair Value Measurement" did not otherwise affect our consolidated financial statements.

## Financial Instruments-Credit Losses: Measurement of Credit Losses on Financial Instruments

On June 1, 2020, we adopted ASU 2016-13, Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, which replaces the incurred loss methodology for estimating credit losses with an expected loss methodology that is referred to as the current expected credit loss ("CECL") model. The incurred loss model delayed the recognition of credit losses until it was probable that a loss had occurred, while the CECL model requires the immediate recognition of expected credit losses over the contractual term, adjusted as appropriate for estimated prepayments, for financial instruments that fall within the scope of CECL at the date of origination or purchase of the financial instrument. The CECL model, which is applicable to the measurement of credit losses on financial assets measured at amortized cost and certain off-balance sheet credit exposures, affects our estimates of the allowance for credit losses for our loan portfolio and our off-balance sheet credit exposures related to unadvanced loan commitments and financial guarantees. In measuring lifetime expected credit losses, management is required to take into consideration relevant information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectibility of the reported amount of the financial instrument.

The adoption of CECL resulted in an increase in our allowance for credit losses for our loan portfolio of $\$ 4$ million and a corresponding decrease to retained earnings of $\$ 4$ million recorded as a cumulative-effect adjustment. The impact on the allowance for credit losses for our off-balance sheet credit exposures related to unadvanced loan commitments and financial guarantees was not material. The increase in the allowance for credit losses for our loan portfolio was attributable to the transition to measuring the allowance based on expected credit losses over the remaining contractual term of loans in our portfolio as required under the CECL model, whereas the allowance under the incurred model did not consider the remaining contractual term of our loans. The transition adjustment was primarily driven by an increase in the allowances for CFC distribution and CFC power supply loans, which have a longer remaining contractual term than the estimated loss emergence period of five years we used in estimating probable losses in our loan portfolio under the incurred loss model.

While CECL had no impact on our earnings at adoption on June 1, 2020, subsequent estimates of lifetime expected credit losses for newly recognized loans, unadvanced loan commitments and financial guarantees, as well as changes during the period in our estimate of lifetime expected credit losses for existing financial instruments subject to CECL, are now recognized in earnings. In connection with our adoption of CECL, we have provided an update to certain of our significant accounting policies below under "Updates to Significant Accounting Policies." We present the expanded credit quality disclosures required under CECL for financial instruments measured at amortized cost in "Note 4-Loans" and "Note 5Allowance for Credit Losses." Amounts in periods prior to our adoption of CECL on June 1, 2020, continue to be reported in accordance with previously applicable GAAP.

# NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED) 

## New Accounting Standards Issued But Not Yet Adopted

## Reference Rate Reform

On March 12, 2020, the Financial Accounting Standards Board ("FASB") issued ASU 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting, which provides temporary optional expedients and exceptions for applying GAAP on contracts, hedging relationships and other transactions subject to modification due to the expected discontinuance of the London Interbank Offered Rate ("LIBOR") and other reference rate reform changes to ease the potential accounting and financial burdens related to the expected transition in market reference rates. This guidance permits entities to elect not to apply certain modification accounting requirements to contracts affected by reference rate transition, if certain criteria are met. An entity that makes this election would not be required to remeasure modified contracts at the modification date or reassess a previous accounting determination. The guidance was effective upon issuance on March 12, 2020, and can generally be applied through December 31, 2022. We expect to apply certain of the practical expedients and are in the process of evaluating the timing and application of those elections. Based on our current assessment, we do not believe that the application of this guidance will have a material impact on our consolidated financial statements.

## Updates to Significant Accounting Policies

Pursuant to our June 1, 2020 adoption of the CECL accounting standard, we have provided an update to the significant accounting policies presented below.

## Loans to Members

We originate loans to members and classify loans that management has the intent and ability to hold for the foreseeable future or until maturity or payoff as held for investment. Loans classified as held for investment are reported based on the unpaid principal balance, net of principal charge-offs, and deferred loan origination costs.

As permitted by CECL, we elected to continue reporting accrued interest on loans separately on our consolidated balance sheets as a component of the line item accrued interest receivable rather than as a component of loans to member. Accrued interest receivable amounts generally represent six months or less of accrued interest on loans outstanding. Because our policy is to write off past due accrued interest receivable in a timely manner, we elected not to measure an allowance for credit losses for accrued interest receivable on loans outstanding, which totaled $\$ 90$ million and $\$ 96$ million as of November 30, 2020 and May 31, 2020, respectively. We also elected to exclude accrued interest receivable from the credit quality disclosures required under CECL.

## Interest Income

Interest income on performing loans is accrued and recognized as interest income based on the contractual rate of interest. Loan origination costs and nonrefundable loan fees that meet the definition of loan origination fees are deferred and generally recognized in interest income as yield adjustments over the period to maturity of the loan using the effective interest method.

## Troubled Debt Restructurings

A loan modification is considered a troubled debt restructuring ("TDR") if the borrower is experiencing financial difficulties and a concession is granted to the borrower that we would not otherwise consider. Under CECL, we are required to estimate an allowance for lifetime expected credit losses for TDR loans. As discussed below under "Allowance for Credit LossesLoan Portfolio- Asset-specific allowance," TDR loans are evaluated on an individual basis in estimating expected credit losses. Credit losses for anticipated TDRs are accounted for similarly to TDRs and are identified when there is a reasonable

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

expectation that a TDR will be executed with the borrower and when we expect the modification to affect the timing or amount of payments and/or the payment term.

We generally classify TDR loans as nonperforming and place the loan on nonaccrual status, although in many cases such loans were already classified as nonperforming prior to modification. 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.

## Nonperforming Loans

We classify loans as nonperforming when contractual principal or interest is 90 days past due or when we believe the collection of principal and interest in full is not reasonably assured. When 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 current period interest income. Interest income on nonaccrual loans is subsequently recognized only upon the receipt of cash payments. However, if we believe the ultimate collectibility of the loan principal is in doubt, cash received is applied against the principal balance of the loan. Nonaccrual loans generally are returned to accrual status when principal and interest becomes and remains current for a specified period and repayment of the remaining contractual principal and interest is reasonably assured.

## Charge-Offs

We charge off loans or a portion of a loan when we determine that the loan is uncollectible. The charge-off of uncollectible principal amounts result in a reduction to the allowance for credit losses for our loan portfolio. Recoveries of previously charged off principal amounts result in an increase to the allowance.

## Allowance for Credit Losses—Loan Portfolio

We maintain an allowance for credit losses for our loan portfolio that represents management's current estimate of expected credit losses over the remaining contractual term, adjusted as appropriate for estimated prepayments, of loans in our loan portfolio as of each balance sheet date. The allowance for our loan portfolio is reported on our consolidated balance sheet as a valuation account that is deducted from loans to members to present the net amount we expect to collect over the life of our loans. We are required to immediately recognize an allowance for expected credit losses upon origination of a loan. Adjustments to the allowance each period for changes in our estimate of lifetime expected credit losses for existing loans, or for newly originated loans, are recognized in earnings through the provision for credit losses presented on our consolidated statements of operations.

We estimate our allowance for lifetime expected credit losses for our loan portfolio using a using a probability of default/ loss given default methodology. Our allowance for credit losses consists of a collective allowance and an asset-specific allowance. The collective allowance is established for loans in our portfolio that share similar risk characteristics and are therefore evaluated on a collective, or pool, basis in measuring expected credit losses. The asset-specific allowance is established for loans in our portfolio that do not share similar risk characteristics with other loans in our portfolio and are therefore evaluated on an individual basis in measuring expected credit losses. Expected credit losses are estimated based on historical experience, current conditions and forecasts, if applicable, that affect the collectibility of the reported amount.

Since inception in 1969, CFC has experienced limited defaults and losses as the utility sector generally tends to be less sensitive to changes in the economy than other sectors largely due to the essential nature of the service provided. The losses we have incurred were not tied to economic factors, but rather to distinct operating issues related to each borrower. Given that our loss experience has not correlated to specific underlying macroeconomic variables, such as U.S. unemployment rates or gross domestic product ("GDP") growth, we have not made adjustments to our historical loss rates for any

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

forecasted period. We consider the need, however, to adjust our historical loss information for differences in the specific characteristics of our existing loan portfolio based on an evaluation of relative qualitative factors, such as differences in the composition of our loan portfolio, our underwriting standards, problem loan trends, the quality of our credit review function, the regulatory environment and other pertinent external factors.

## Collective Allowance

We employ a quantitative methodology and a qualitative framework to measure the collective component of our allowance for expected credit losses. The first element in our quantitative methodology involves the segmentation of our loan into loan pools that share similar risk characteristics. We divide our portfolio into segments that reflect the member borrower type, which is based on the utility sector of the borrower because the key operational, infrastructure, regulatory, environmental, customer and financial risks of each sector are similar in nature. Our primary member borrower types consist of CFC electric distribution, CFC electric power supply, CFC statewide and associate, NCSC and RTFC telecommunications. Our portfolio segments align with the sectors generally seen in the utilities industry. We further stratify each portfolio into loan pools based on our internal borrower risk ratings, as our borrower risk ratings provide important information on the collectibility of each of our loan portfolio segments. We then apply loss factors, consisting of the probability of default and loss given default, to the scheduled loan-level amortization amounts over the life of the loans for each of our loan pools. Below we discuss the source and basis for the key inputs, which include borrower risk ratings and the loss factors, in measuring expected credit losses for our loan portfolio.

- Borrower Risk Ratings: We evaluate each borrower and loan facility in our loan portfolio and assign internal borrower and loan facility risk ratings based on consideration of a number of quantitative and qualitative factors. Each risk rating is reassessed annually following the receipt of the borrower's audited financial statements; however, interim risk-rating adjustments may occur as a result of updated information affecting a borrower's ability to fulfill its obligations or other significant developments and trends. Our internally assigned borrower risk ratings are intended to assess the general credit worthiness of the borrower and probability of default. We use our internal borrower risk ratings, which we map to the equivalent credit ratings by external rating agencies, to differentiate risk within each of our portfolio segments and loan pools. We provide additional information on our borrower risk ratings below in "Note 4-Loans."
- Probability of Default: The probability of default, or default rate, represents the likelihood that a borrower will default over a particular time horizon. Because of our limited default history, we utilize third-party default data for the utility sector as a proxy to estimate default rates for each of our loan pools. The third-party default data provides historical default rates, based on credit ratings and remaining maturities of outstanding bonds, for the utility sector. Based on the mapping and alignment of our internal borrower risk ratings to equivalent credit ratings provided in the third-party utility default table, we apply the corresponding cumulative default rates to the scheduled amortization amounts over the remaining term of the loans in each of our loan pools.
- Loss Given Default: The loss given default, or loss severity, represents the estimated loss, net of recoveries, on a loan that would be realized in the event of a borrower default. While we utilize third-party default data, we utilize our lifetime historical loss experience to estimate loss given default, or the recovery rate, for each of our loan portfolio segments. We believe our internal historical loss severity rates provide a more reliable estimate than third-party loss severity data due to the organizational structure and operating environment of rural utility cooperatives, our lending practice of generally requiring a senior security position on the assets and revenues of borrowers for long-term loans, the investment our member borrowers have in CFC and therefore the collaborative approach we generally take in working with members in the event that a default occurs.

In addition to the quantitative methodology used in our collective measurement of expected credit losses, management performs a qualitative evaluation and analyses of relevant factors, such as changes in risk-management practices, current and past underwriting standards, specific industry issues and trends and other subjective factors. Based on our assessment, we

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

did not make a qualitative adjustment to the collective allowance for credit losses measured under our quantitative methodology as of November 30, 2020 or at adoption of CECL on June 1, 2020.

## Asset-Specific Allowance

We generally consider nonperforming loans as well as loans that have been or are anticipated to be modified under a troubled debt restructuring for individual evaluation given the risk characteristics of such loans. Factors we consider in measuring the extent of expected credit loss include the payment status, the collateral value, the borrower's financial condition, guarantor support, the probability of collecting scheduled principal and interest payments when due, anticipated modifications of payment structure or term for troubled borrowers, and recoveries if they can be reasonably estimated. We measure the expected credit loss as the difference between the amortized cost basis in the loan and the present value of the expected future cash flows from the borrower which is generally discounted at the loan's effective interest rate, or the fair value of the collateral, if the loan is collateral dependent.

## Reserve for Credit Losses-Off-Balance Sheet Credit Exposures

We also maintain a reserve for credit losses for our off-balance sheet credit exposures related to unadvanced loan commitments and financial guarantees. Because our business processes and credit risks associated with our off-balance sheet credit exposures are essentially the same as for our loans, we utilize similar processes to measure expected credit losses over the contractual period of our exposure to credit risk arising from these obligations. We include the reserve for expected credit losses for our off-balance sheet credit exposures as a component of other liabilities on our consolidated balance sheets.

## NOTE 2-INTEREST INCOME AND INTEREST EXPENSE

The following table presents the components of interest income, by interest-earning asset type, and interest expense, by debt product type, presented on our consolidated statements of operations for the three and six months ended November 30, 2020 and 2019.

## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

Table 2.1: Interest Income and Interest Expense

| (Dollars in thousands) | Three Months Ended November 30, |  |  |  | Six Months Ended November 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  | 2019 |  | 2020 |  | 2019 |  |
| Interest income: |  |  |  |  |  |  |  |  |
| Long-term fixed-rate loans ${ }^{(1)}$ | \$ | 262,200 | \$ | 260,714 | \$ | 525,384 | \$ | 519,192 |
| Long-term variable-rate loans |  | 3,596 |  | 8,131 |  | 7,996 |  | 17,887 |
| Line of credit loans |  | 6,994 |  | 12,678 |  | 15,236 |  | 28,711 |
| Troubled debt restructuring ("TDR") loans..... |  | 196 |  | 212 |  | 403 |  | 418 |
| Other, net ${ }^{(2)}$ |  | (344) |  | (287) |  | (679) |  | (571) |
| Total loans |  | 272,642 |  | 281,448 |  | 548,340 |  | 565,637 |
| Cash, time deposits and investment securities.... |  | 3,857 |  | 5,589 |  | 7,743 |  | 11,415 |
| Total interest income |  | 276,499 |  | 287,037 |  | 556,083 |  | 577,052 |
| Interest expense: ${ }^{(3)(4)}$ |  |  |  |  |  |  |  |  |
| Short-term borrowings. |  | 3,403 |  | 22,112 |  | 7,744 |  | 44,934 |
| Medium-term notes |  | 29,127 |  | 31,440 |  | 59,014 |  | 63,516 |
| Collateral trust bonds |  | 61,623 |  | 64,523 |  | 124,216 |  | 129,904 |
| Guaranteed Underwriter Program notes payable... |  | 41,168 |  | 39,786 |  | 83,581 |  | 80,219 |
| Farmer Mac notes payable |  | 12,606 |  | 22,654 |  | 26,539 |  | 47,728 |
| Other notes payable |  | 55 |  | 230 |  | 142 |  | 484 |
| Subordinated deferrable debt |  | 12,893 |  | 12,884 |  | 25,783 |  | 25,766 |
| Subordinated certificates |  | 13,547 |  | 14,242 |  | 27,379 |  | 28,591 |
| Total interest expense. |  | 174,422 |  | 207,871 |  | 354,398 |  | 421,142 |
| Net interest income | \$ | 102,077 | \$ | 79,166 | \$ | 201,685 | \$ | 155,910 |

${ }^{(1)}$ Includes loan conversion fees, which are generally deferred and recognized in interest income over the period to maturity using the effective interest method.
${ }^{(2)}$ Consists of late payment fees, commitment fees and net amortization of deferred loan fees and loan origination costs.
${ }^{(3)}$ Includes amortization of debt discounts and debt issuance costs, which are generally deferred and recognized as interest expense over the period to maturity using the effective interest method. Issuance costs related to dealer commercial paper, however, are recognized in interest expense immediately as incurred.
${ }^{(4)}$ Includes fees related to funding arrangements, such as up-front fees paid to banks participating in our committed bank revolving line of credit agreements. Based on the nature of the fees, the amount is either recognized immediately as incurred or deferred and recognized in interest expense ratably over the term of the arrangement.

Deferred income reported on our consolidated balance sheets of $\$ 55$ million and $\$ 59$ million as of November 30, 2020 and May 31, 2020, respectively, consists primarily of deferred loan conversion fees, which totaled $\$ 49$ million and $\$ 53$ million as of each respective date. Deferred loan conversion fees are recognized in interest income over the remaining period to maturity of loans using the effective interest method.

## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

## NOTE 3-INVESTMENT SECURITIES

We maintain a portfolio of debt and equity securities that is intended to serve as a supplemental source of liquidity. We generally record purchases and sales of securities on the trade date. Our current equity security holdings have readily determinable fair values. Therefore, we report these securities at fair value with changes in fair value recognized in earnings as a component of non-interest income in our consolidated statements of operations. In the fourth quarter of fiscal year 2020, we transferred our debt securities from held-to-maturity to trading. As a result, our debt securities were classified as trading as of both November 30, 2020 and May 31, 2020. Debt securities classified as trading are reported at fair value with changes in fair value recognized in earnings as a component of non-interest income on our consolidated statements of operations.

## Equity Securities

The following table presents the composition of our equity security holdings and the fair value as of November 30, 2020 and May 31, 2020.

Table 3.1: Investments in Equity Securities, at Fair Value

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  |
| :---: | :---: | :---: | :---: | :---: |
| Equity securities, at fair value: | \$ |  |  |  |
| Farmer Mac-Series A non-cumulative preferred stock |  | - | \$ | 30,240 |
| Farmer Mac-Series C non-cumulative preferred stock. | 27,655 |  |  | 25,400 |
| Farmer Mac-Class A common stock | 4,736 |  |  | 5,095 |
| Total equity securities, at fair value | \$ | 32,391 | \$ | 60,735 |

On September 19, 2020, Farmer Mac redeemed all of the outstanding shares of its $5.875 \%$ Series A non-cumulative preferred stock at a redemption price of $\$ 25.00$ per share, plus any declared and unpaid dividends through and including the redemption date. We held 1.2 million shares of Farmer Mac's Series A non-cumulative preferred stock at an amortized cost of $\$ 25$ per share as of the redemption date, which was equal to the per share redemption price.

We recognized net unrealized gains on our equity securities of less than $\$ 1$ million and $\$ 2$ million for the three and six months ended November 30, 2020, respectively. We recognized net unrealized losses on our investments in equity securities of less than $\$ 1$ million during the three months ended November 30, 2019 and net unrealized gains of $\$ 2$ million during the six months ended November 30, 2019.

## Debt Securities

The following table presents the composition of our investments in debt securities and the fair value as of November 30, 2020 and May 31, 2020.

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

Table 3.2: Investments in Debt Securities, at Fair Value

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  |
| :---: | :---: | :---: | :---: | :---: |
| Debt securities, at fair value: |  |  |  |  |
| Certificates of deposit | \$ | 3,001 | \$ | 5,585 |
| Commercial paper |  | 13,984 |  | - |
| Corporate debt securities |  | 474,082 |  | 253,153 |
| Commercial mortgage-backed securities ("MBS"): |  |  |  |  |
| Agency |  | 7,548 |  | 7,655 |
| Non-agency |  | 1,324 |  | 3,207 |
| Total commercial MBS |  | 8,872 |  | 10,862 |
| U.S. state and municipality debt securities |  | 8,730 |  | 8,296 |
| Other asset-backed securities ${ }^{(1)}$ |  | 43,026 |  | 31,504 |
| Total debt securities, at fair value | \$ | 551,695 | \$ | 309,400 |

[^13]We had sales of debt investment securities of $\$ 3$ million and $\$ 6$ million during the three and six months ended November 30, 2020, respectively, and recorded realized gains related to the sale of these securities of less than $\$ 1$ million during each period. We recognized net unrealized losses on our debt securities of $\$ 2$ million during the three months ended November 30, 2020 and net unrealized gains $\$ 1$ million for the six months ended November 30, 2020.

## NOTE 4-LOANS

We segregate our loan portfolio into portfolio segments based on the borrower member class, which consists of CFC distribution, CFC power supply, CFC statewide and associate, NCSC and RTFC. We offer both long-term and line of credit loans to our borrowers. Under our long-term loan facilities, a borrower may select a fixed interest rate or a variable interest rate at the time of each loan advance. Line of credit loans are revolving loan facilities and generally have a variable interest rate.

## Loans to Members

Loans to members consists of total loans outstanding, which reflects the unpaid principal balance, net of charge-offs and recoveries, of loans and deferred loan origination costs. The following table presents loans to members and unadvanced loan commitments, by member class and by loan type, as of November 30, 2020 and May 31, 2020.

## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

Table 4.1: Loans to Members by Member Class and Loan Type

|  | November 30, 2020 |  |  |  | May 31, 2020 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Dollars in thousands) | $\underset{\text { Outstanding }}{\text { Loans }}$ |  | $\underset{\substack{\text { Unadvanced } \\ \text { Commitments }{ }^{(1)}}}{ }$ |  | LoansOutstanding |  | $\underset{{ }_{\text {Unadvanced }}{ }_{(1)}}{\text { Commitments }{ }^{(1)}}$ |  |
| Member class: |  |  |  |  |  |  |  |  |
| CFC: |  |  |  |  |  |  |  |  |
| Distribution | \$ | 21,223,064 | \$ | 9,127,111 | \$ | 20,769,653 | \$ | 8,992,457 |
| Power supply |  | 4,596,662 |  | 3,843,290 |  | 4,731,506 |  | 3,409,227 |
| Statewide and associate |  | 95,058 |  | 166,102 |  | 106,498 |  | 153,626 |
| Total CFC |  | 25,914,784 |  | 13,136,503 |  | 25,607,657 |  | 12,555,310 |
| NCSC |  | 704,718 |  | 595,002 |  | 697,862 |  | 551,674 |
| RTFC |  | 431,661 |  | 295,467 |  | 385,335 |  | 281,642 |
| Total loans outstanding ${ }^{(2)}$ |  | 27,051,163 |  | 14,026,972 |  | 26,690,854 |  | 13,388,626 |
| Deferred loan origination costs. |  | 11,806 |  | - |  | 11,526 |  | - |
| Loans to members | \$ | 27,062,969 | \$ | 14,026,972 | \$ | 26,702,380 | \$ | 13,388,626 |

Loan type:
Long-term loans:

| Fixed rate |  |  | 24,980,716 | \$ | - | \$ | 24,472,003 | \$ | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable rate |  |  | 639,144 |  | 5,530,685 |  | 655,704 |  | 5,458,676 |
| Total long-term loans |  |  | 25,619,860 |  | 5,530,685 |  | 25,127,707 |  | 5,458,676 |
| Lines of credit |  |  | 1,431,303 |  | 8,496,287 |  | 1,563,147 |  | 7,929,950 |
| Total loans outstanding ${ }^{(2)}$ |  |  | 27,051,163 |  | 14,026,972 |  | 26,690,854 |  | 13,388,626 |
| Deferred loan origination costs |  |  | 11,806 |  | - |  | 11,526 |  | - |
| Loans to members |  | \$ | 27,062,969 | \$ | 14,026,972 | \$ | 26,702,380 | \$ | 13,388,626 |

[^14]
## Unadvanced Loan Commitments

Unadvanced loan commitments represent approved and executed loan contracts for which funds have not been advanced to borrowers. The following table displays, by loan type, the available balance under unadvanced loan commitments as of November 30, 2020, and the related maturities in each fiscal year during the five fiscal-year period ended May 31, 2025, and thereafter.

## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

Table 4.2: Unadvanced Loan Commitments

| (Dollars in thousands) | Available Balance | Notional Maturities of Unadvanced Loan Commitments |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2021 | 2022 | 2023 | 2024 | 2025 |  | hereafter |
| Line of credit loans | \$ 8,496,287 | \$ | 296,977 | \$ 4,083,654 | \$ 1,537,725 | \$ 1,198,500 | \$ 1,110,540 | \$ | 268,891 |
| Long-term loans | 5,530,685 |  | 178,500 | 1,201,541 | 857,275 | 1,624,659 | 1,026,988 |  | 641,722 |
| Total. | \$14,026,972 | \$ | 475,477 | \$ 5,285,195 | \$2,395,000 | \$2,823,159 | \$ 2,137,528 | \$ | 910,613 |

Unadvanced line of credit commitments accounted for $61 \%$ of total unadvanced loan commitments as of November 30, 2020, while unadvanced long-term loan commitments accounted for $39 \%$ 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 draw funds prior to the expiration of the commitment. We expect that the majority of the long-term unadvanced loan commitments of $\$ 5,531$ 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 $\$ 14,027$ million as of November 30, 2020 is not necessarily representative of our future funding requirements.

## Unadvanced Loan Commitments-Conditional

The substantial 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 $\$ 10,733$ million and $\$ 10,532$ million as of November 30, 2020 and May 31, 2020, 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 $\$ 3,294$ million and $\$ 2,857$ million as of November 30, 2020 and May 31, 2020 , 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 table below displays the amount available for advance under unconditional committed lines of credit as of November 30, 2020, and the maturities in each fiscal year during the five-year period ended May 31, 2025, and thereafter.

Table 4.3: Unconditional Committed Lines of Credit-Available Balance


## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

## Loan Sales

We transfer, from time to time, whole loans and participating interests to third parties. We sold CFC loans, at par for cash, totaling $\$ 96$ million and $\$ 60$ million during the six months ended November 30, 2020 and 2019, respectively. We recorded immaterial losses upon the sale of these loans attributable to the unamortized deferred loan origination costs associated with the transferred loans.

## Pledged 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 loans outstanding pledged as collateral to secure our collateral trust bonds, notes payable under the United States Department of Agriculture ("USDA") Guaranteed Underwriter Program ("Guaranteed Underwriter Program"), notes payable under the revolving note purchase agreement with Farmer Mac and Clean Renewable Energy Bonds, and the corresponding debt outstanding as of November 30, 2020 and May 31, 2020. See "Note 6—Short-Term Borrowings" and "Note 7-Long-Term Debt" for information on our borrowings.

Table 4.4: Pledged Loans

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  |
| :---: | :---: | :---: | :---: | :---: |
| Collateral trust bonds: |  |  |  |  |
| 2007 indenture: |  |  |  |  |
| Distribution system mortgage notes pledged | \$ | 8,024,140 | \$ | 8,244,202 |
| RUS-guaranteed loans qualifying as permitted investments |  | 125,062 |  | 128,361 |
| Total pledged collateral. | \$ | 8,149,202 | \$ | 8,372,563 |
| Collateral trust bonds outstanding |  | 7,072,711 |  | 7,422,711 |
| 1994 indenture: |  |  |  |  |
| Distribution system mortgage notes pledged | \$ | 38,252 | \$ | 39,785 |
| Collateral trust bonds outstanding |  | 30,000 |  | 35,000 |
| Guaranteed Underwriter Program: |  |  |  |  |
| Distribution and power supply system mortgage notes pledged | \$ | 7,306,568 | \$ | 7,535,931 |
| Notes payable outstanding |  | 6,190,391 |  | 6,261,312 |
| Farmer Mac: |  |  |  |  |
| Distribution and power supply system mortgage notes pledged | \$ | 3,194,401 | \$ | 3,687,418 |
| Notes payable outstanding |  | 2,898,957 |  | 3,059,637 |
| Clean Renewable Energy Bonds Series 2009A: |  |  |  |  |
| Distribution and power supply system mortgage notes pledged | \$ | 6,297 | \$ | 7,269 |
| Cash |  | 1,103 |  | 395 |
| Total pledged collateral | \$ | 7,400 | \$ | 7,664 |
| Notes payable outstanding |  | 6,068 |  | 6,068 |

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## 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 systems, power supply systems and related facilities. Because we lend primarily to our rural electric utility cooperative members, we have had a loan portfolio subject to single-industry and single-obligor concentration risks since our inception in 1969. Loans outstanding to electric utility organizations of $\$ 26,620$ million and $\$ 26,306$ million as of November 30, 2020 and May 31, 2020 , respectively, accounted for $98 \%$ and $99 \%$, respectively, of total loans outstanding as of each respective date. The remaining loans outstanding in our portfolio were to RTFC members, affiliates and associates in the telecommunications industry.

## Geographic Concentration

Although our organizational structure and mission results in single-industry concentration, we serve a geographically diverse group of electric and telecommunications borrowers throughout the United States. The number of borrowers with outstanding loans totaled 894 and 889 as of November 30, 2020 and May 31, 2020, respectively, located in 49 states. Texas accounted for the largest number of borrowers in any one state as of each respective date. In addition, Texas accounted for approximately $15 \%$ and $16 \%$ of total loans outstanding as of November 30, 2020 and May 31, 2020, respectively, representing the largest concentration of loans outstanding to borrowers in any one state.

## Single-Obligor Concentration

The outstanding loan exposure for our 20 largest borrowers totaled $\$ 5,808$ million and $\$ 5,877$ million as of November 30, 2020 and May 31, 2020, respectively, representing $21 \%$ and $22 \%$ of total loans outstanding as of each respective date. The 20 largest borrowers consisted of 12 distribution systems and eight power supply systems as of November 30, 2020. In comparison, the 20 largest borrowers consisted of 11 distribution systems and nine power supply systems as of May 31, 2020. The largest total outstanding exposure to a single borrower or controlled group represented less than $2 \%$ of total loans outstanding as of both November 30, 2020 and May 31, 2020.

As part of our strategy in managing credit exposure to large borrowers, we entered into a long-term standby purchase commitment agreement with Farmer Mac during fiscal year 2016. Under this agreement, we may designate certain longterm 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. We are required to pay Farmer Mac a monthly fee based on the unpaid principal balance of loans covered under the purchase commitment. The aggregate unpaid principal balance of designated and Farmer Mac approved loans was $\$ 535$ million and $\$ 569$ million as of November 30, 2020 and May 31, 2020, respectively. Loan exposure to our 20 largest borrowers covered under the Farmer Mac agreement totaled $\$ 281$ million and $\$ 314$ million as of November 30, 2020 and May 31, 2020, respectively. We had no loan defaults and therefore no loans had been put to Farmer Mac for purchase, pursuant to this agreement, as of November 30, 2020. Our credit exposure is also mitigated by long-term loans guaranteed by the Rural Utilities Service ("RUS") of the USDA. Guaranteed RUS loans totaled $\$ 143$ million and $\$ 147$ million as of November 30, 2020 and May 31, 2020, respectively.

## Credit Quality Indicators

Assessing the overall credit quality of our loan portfolio and measuring our credit risk is an ongoing process that involves tracking payment status, troubled debt restructurings, nonperforming loans, charge-offs, 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

## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

an individual risk assessment based on quantitative and qualitative factors. Payment status trends and internal risk ratings are indicators, among others, of the probability of borrower default and overall credit quality of our loan portfolio.

## Payment Status of Loans

Loans are considered delinquent when contractual principal or interest amounts become past due 30 days or more following the scheduled payment due date. Loans are placed on nonaccrual status when payment of principal or interest is 90 days or more past due or management determines that the full collection of principal and interest is doubtful. The following table presents the payment status, by member class, of loans outstanding as of November 30, 2020 and May 31, 2020.

Table 4.5: Payment Status of Loans Outstanding

| (Dollars in thousands) | November 30, 2020 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\text { Current } \quad \begin{gathered} \text { 30-89 Days } \\ \text { Past Due } \end{gathered}$ |  |  | $\begin{gathered} 90 \text { Days or } \\ \text { More } \\ \text { Past Due } \end{gathered}$ |  | $\begin{gathered} \text { Total } \\ \text { Past Due } \end{gathered}$ |  | Total Loans Outstanding | $\underset{\text { Loans }{ }^{\text {(1) }}}{ }$ |  |
| CFC: |  |  |  |  |  |  |  |  |  |  |
| Distribution | \$ 21,223,064 | \$ | - | \$ | - | \$ | - | \$ 21,223,064 | \$ | 1 - |
| Power supply. | 4,596,662 |  | - |  | - |  | - | 4,596,662 |  | 153,477 |
| Statewide and associate. | 95,058 |  | - |  | - |  | - | 95,058 |  | - |
| CFC total | 25,914,784 |  | - |  | - |  | - | 25,914,784 |  | 153,477 |
| NCSC | 704,718 |  | - |  | - |  | - | 704,718 |  | - |
| RTFC | 431,661 |  | - |  | - |  | - | 431,661 |  | - |
| Total loans outstanding | \$ 27,051,163 | \$ | - | \$ | - | \$ | - | \$ 27,051,163 |  | 153,477 |
| Percentage of total loans... | 100.00 \% |  | - \% |  | -\% |  | - \% | 100.00 \% |  | 0.57 \% |


| (Dollars in thousands) | May 31, 2020 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current | $\begin{aligned} & \text { 30-89 Days } \\ & \text { Past Due } \end{aligned}$ |  | $\begin{gathered} \text { 90 Days or } \\ \text { More } \\ \text { Past Due }{ }^{(1)} \end{gathered}$ |  | Total Past Du |  | Total Loans Outstanding | $\underset{\text { Loans }{ }^{(1)}}{\substack{\text { Nonaccual }}}$ |
| CFC: |  |  |  |  |  |  |  |  |  |
| Distribution | \$ 20,769,653 | \$ | - | \$ | - | \$ | - | \$ 20,769,653 | \$ |
| Power supply | 4,731,506 |  | - |  | - |  | - | 4,731,506 | 167,708 |
| Statewide and associate | 106,498 |  | - |  | - |  | - | 106,498 | - |
| CFC total | 25,607,657 |  | - |  | - |  | - | 25,607,657 | 167,708 |
| NCSC | 697,862 |  | - |  | - |  | - | 697,862 | - |
| RTFC | 385,335 |  | - |  | - |  | - | 385,335 | - |
| Total loans outstanding | \$ 26,690,854 | \$ | - | \$ | - | \$ | - | \$ 26,690,854 | \$ 167,708 |
| Percentage of total loans... | 100.00 \% |  | - \% |  | - \% |  | - \% | 100.00 \% | 0.63 \% |

[^15]We had no delinquent loans as of November 30, 2020 or May 31, 2020, and we have not experienced any loan defaults or charge-offs since fiscal year 2017. However, we have one loan to a CFC power supply borrower with an outstanding balance of $\$ 153$ million and $\$ 168$ million as of November 30, 2020 and May 31, 2020, respectively, that we classified as nonperforming and placed on nonaccrual status in the fourth quarter of fiscal year 2020. No interest income was recognized

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on nonaccrual loans during the six months ended November 30, 2020 and 2019. We provide additional information on this loan below under "Nonperforming Loans."

## Troubled Debt Restructurings

We did not had any loan modifications that were required to be accounted for as a TDR during the six months ended November 30, 2020, nor have we had any TDR loan modifications since fiscal year 2016. The following table presents the outstanding balance of modified loans accounted for as TDRs in prior periods and the performance status, by member class, of these loans as of November 30, 2020 and May 31, 2020.

Table 4.6: Trouble Debt Restructurings

| (Dollars in thousands) | November 30, 2020 |  |  |  | May 31, 2020 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of Borrowers | OutstandingAmount ${ }^{(1)}{ }^{(1)}$ |  | $\begin{gathered} \text { \% of Total } \\ \text { Loans } \\ \text { Outstanding } \end{gathered}$ | Number of Borrowers | $\begin{gathered} \text { Outstanding } \\ \text { Amount }{ }^{(1)} \end{gathered}$ |  | $\begin{gathered} \hline \text { \% of Total } \\ \text { Loans } \\ \text { Outstanding } \end{gathered}$ |
| TDR loans: |  |  |  |  |  |  |  |  |
| CFC-Distribution | 1 | \$ | 5,379 | 0.02 \% | 1 | \$ | 5,755 | 0.02 \% |
| RTFC | 1 |  | 4,842 | 0.02 | 1 |  | 5,092 | 0.02 |
| Total TDR loans | 2 | \$ | 10,221 | 0.04 \% | 2 | \$ | 10,847 | 0.04 \% |
| Performance status of TDR loans:... |  |  |  |  |  |  |  |  |
| Performing TDR loans................ | 2 | \$ | 10,221 | 0.04 \% | 2 | \$ | 10,847 | 0.04 \% |
| Total TDR loans | 2 | \$ | 10,221 | 0.04 \% | 2 | \$ | 10,847 | 0.04 \% |

${ }^{(1)}$ Represents the unpaid principal balance net of charge-offs and recoveries as of the end of each period.

The outstanding TDR loans for CFC and RTFC each relate to the modification of a loan for one borrower that, at the time of the modification, was experiencing financial difficulty. There were no unadvanced commitments related to these loans as of November 30, 2020 and May 31, 2020. We did not have any TDR loans classified as nonperforming as of November 30, 2020 or May 31, 2020.

## 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. During the fourth quarter of fiscal year 2020, we classified one loan to a CFC power supply borrower with an outstanding balance of $\$ 168$ million as of May 31,2020 , as nonperforming, placed the loan on nonaccrual status and established an asset-specific allowance for credit losses of $\$ 34$ million as of as of May 31,2020 . Under the terms of the loan, which matures in December 2026, the amount the borrower is required to pay in 2024 and 2025 may vary as the payments are contingent on the borrower's financial performance in those years. Based on our review and assessment of the borrower's most recent forecast and underlying assumptions provided to us in May 2020, we no longer believe that the future expected cash payments from the borrower through the maturity of the loan in December 2026 will be sufficient to repay the outstanding loan balance. We received payments from the borrower on this loan during the six months ended November 30, 2020, which reduced the outstanding balance to $\$ 153$ million as of November 30, 2020. The asset-specific allowance for credit losses for this loan was $\$ 32$ million as of November 30, 2020. Although the borrower is not in default and was current with respect to required payments on the loan as of November 30, 2020, we continue to report the loan as nonperforming and it remains on nonaccrual status. This loan also was categorized as doubtful as of November 30, 2020 and May 31, 2020. We had no other loans classified as nonperforming or on nonaccrual status as of November 30, 2020 or May 31, 2020.

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## Net Charge-Offs

We had no loan defaults, charge-offs or recoveries during the three and six months ended November 30, 2020 and 2019. We experienced our last charge-off, which was attributable to a borrower in our RTFC telecommunications loan portfolio, in fiscal year 2017.

## Borrower Risk Ratings

As part of our management of credit risk, we maintain a credit risk rating framework under which we employ a consistent process for assessing the credit quality of our loan portfolio. We evaluate each borrower and loan facility in our loan portfolio and assign internal borrower and loan facility risk ratings based on consideration of a number of quantitative and qualitative factors. Each risk rating is reassessed annually following the receipt of the borrower's audited financial statements; however, interim risk-rating adjustments may occur as a result of updated information affecting a borrower's ability to fulfill its obligations or other significant developments and trends. We categorize loans in our portfolio based on our internally assigned borrower risk ratings, which are intended to assess the general credit worthiness of the borrower and probability of default. Our borrower risk ratings align with the U.S. federal banking regulatory agencies credit risk definitions of pass and criticized categories, with the criticized category further segmented among 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 the borrower risk rating categories.

- 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.
- 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.

We use our internal risk ratings to measure the credit risk of each borrower and loan facility, identify or confirm problem or potential problem loans in a timely manner, differentiate risk within each of our portfolio segments, assess the overall credit quality of our loan portfolio and manage overall risk levels. Our internally assigned borrower risk ratings, which we map to equivalent credit ratings by external credit rating agencies, serve as the primary credit quality indicator for our loan portfolio. Because our internal borrower risk ratings provide important information on the probability of default, they are a key input in estimating our allowance for credit losses.

The following table provides a breakdown of our total loans outstanding, by borrower risk rating category and member type, as of November 30, 2020 and May 31, 2020. If a parent company provides a guarantee of full repayment of loans of a subsidiary borrower, we include the loans outstanding in the borrower risk rating category of the guarantor parent company rather than the risk rating category of the subsidiary borrower for purposes of estimating the allowance for credit losses. The borrower risk rating categories of loans outstanding presented below correspond to the borrower risk rating categories used in estimating the allowance for credit losses.

In connection with our adoption of CECL, we present term loans outstanding as of November 30, 2020, by fiscal year of origination for each year during the five-year annual reporting period beginning in fiscal year 2017, and in aggregate prior to fiscal year 2017. The origination period represents the date CFC advances funds to a borrower, rather than the execution date of a loan facility for a borrower. Revolving loans are presented separately due to the nature of revolving loans. The substantial majority of loans in our portfolio represent fixed-rate advances under secured long-term facilities with terms up to 35 years, and as indicated in the table below, $\$ 16,336$ million, or $60 \%$, of total loans outstanding of $\$ 27,051$ million as of

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November 30, 2020 represent term-loan advances made to borrowers prior to fiscal year 2017. Our long-term loans, which represent $95 \%$ of total loans outstanding, have an average remaining maturity of 18 years as of November 30, 2020.

As discussed above, 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. As such, since our inception in 1969 we have had an extended repeat lending and repayment history with substantially all of member borrowers through our various loan programs. Our secured long-term loan commitment facilities typically provide a five-year draw period under which a borrower may draw funds prior to the expiration of the commitment. Because our electric utility cooperative borrowers must make substantial annual capital investments to maintain operations and ensure delivery of the essential service provided by electric utilities, they require a continuous inflow of funds to finance infrastructure upgrades and new asset purchases. Due to the funding needs of electric utility cooperatives, a CFC borrower generally has multiple loans outstanding under advances drawn in different years. While the number of borrowers with loans outstanding was 894 borrowers as of November 30, 2020, the number of loans outstanding was 16,511 as of November 30, 2020, resulting in an average of 18 loans outstanding per borrower. Our borrowers, however, are subject to cross-default under the terms of our loan agreements. Therefore, if a borrower defaults on one loan, the borrower is considered in default on all outstanding loans. Due to these factors, we historically have not observed a correlation between the year of origination of our loans and default risk. Instead, default risk is more closely correlated to the risk rating of our borrowers.

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Table 4.7: Loans Outstanding by Borrower Risk Ratings and Origination Year

| (Dollars in thousands) | November 30, 2020 |  |  |  |  |  |  |  | $\begin{gathered} \text { May 31, } \\ 2020 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Term Loans by Fiscal Year of Origination |  |  |  |  |  | Revolving Loans | Total |  |
|  | $\begin{gathered} \hline \text { YTD Q2 } \\ 2021 \end{gathered}$ | 2020 | 2019 | 2018 | 2017 | Prior |  |  |  |
| Pass |  |  |  |  |  |  |  |  |  |
| CFC: |  |  |  |  |  |  |  |  |  |
| Distribution ........... | \$ 794,560 | \$1,965,438 | \$1,251,552 | \$1,521,610 | \$1,547,511 | \$12,950,957 | \$ 990,604 | \$21,022,232 | \$20,643,737 |
| Power supply.......... | 374,860 | 206,977 | 444,717 | 254,510 | 256,850 | 2,648,503 | 210,043 | 4,396,460 | 4,516,595 |
| Statewide and associate | 75 | 23,707 | 3,882 | - | 662 | 26,638 | 23,996 | 78,960 | 90,274 |
| CFC total.............. | 1,169,495 | 2,196,122 | 1,700,151 | 1,776,120 | 1,805,023 | 15,626,098 | 1,224,643 | 25,497,652 | 25,250,606 |
| NCSC | 16,130 | 246,108 | 4,529 | 58,556 | 15,215 | 264,014 | 100,166 | 704,718 | 697,862 |
| RTFC................... | 71,315 | 72,275 | 13,155 | 29,866 | 65,631 | 138,250 | 26,382 | 416,874 | 371,507 |
| Total pass.............. | \$1,256,940 | \$2,514,505 | \$1,717,835 | \$1,864,542 | \$1,885,869 | \$16,028,362 | \$1,351,191 | \$26,619,244 | \$26,319,975 |
| Special mention |  |  |  |  |  |  |  |  |  |
| CFC: |  |  |  |  |  |  |  |  |  |
| Distribution | \$ - | \$ | \$ 5,243 | \$ 958 | \$ 4,669 | \$ 111,700 | \$ 78,262 | \$ 200,832 | \$ 7,743 |
| Power supply........... | - | - | - | 2,351 | 8,244 | 36,130 | - | 46,725 | - |
| Statewide and associate | - | - | 5,000 | 4,000 | 5,907 | 1,191 | - | 16,098 | 16,224 |
| CFC total | - | - | 10,243 | 7,309 | 18,820 | 149,021 | 78,262 | 263,655 | 23,967 |
| RTFC | - | - | 1,535 | 3,207 | 3,353 | - | 1,850 | 9,945 | 8,736 |
| Total special mention | \$ - | \$ - | \$ 11,778 | \$ 10,516 | \$ 22,173 | \$ 149,021 | \$ 80,112 | \$ 273,600 | \$ 32,703 |
| Substandard |  |  |  |  |  |  |  |  |  |
| CFC: |  |  |  |  |  |  |  |  |  |
| Distribution ............ | \$ | \$ | \$ | \$ | \$ | \$ - | \$ | \$ | \$ 118,173 |
| Power supply........... | - | - | - | - | - | - | - | - | 47,203 |
| CFC total | - | - | - | - | - | - | - | - | 165,376 |
| RTFC. | - | - | - | - | - | 4,842 | - | 4,842 | 5,092 |
| Total substandard. | \$ - | \$ - | \$ | \$ - | \$ - | \$ 4,842 | \$ | \$ 4,842 | \$ 170,468 |
| Doubtful |  |  |  |  |  |  |  |  |  |
| CFC: |  |  |  |  |  |  |  |  |  |
| Power supply.......... | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 153,477 | \$ - | \$ 153,477 | \$ 167,708 |
| CFC total | - | - | - | - | - | 153,477 | - | 153,477 | 167,708 |
| Total doubtful.......... | \$ - | \$ - | \$ - | \$ | \$ - | \$ 153,477 | \$ - | \$ 153,477 | \$ 167,708 |
| Total loans outstanding | \$1,256,940 | \$2,514,505 | \$1,729,613 | \$1,875,058 | \$1,908,042 | \$16,335,702 | \$1,431,303 | \$27,051,163 | $\underline{\$ 26,690,854}$ |

Loans to one electric distribution cooperative borrower and its subsidiary totaling $\$ 165$ million as of May 31,2020 accounted for the substantial majority of the substandard loan category amount of the $\$ 170$ million as of May $31,2020$. Several years ago the electric distribution cooperative borrower established a subsidiary to deploy retail broadband service in underserved rural communities, which led to financial difficulties. The borrower and its subsidiary, however, continued to be current with regard to all principal and interest payments due. Based on updated financial performance information from the borrower, we reassessed and upgraded the risk rating for the borrower from substandard as of May 31, 2020 to special mention as of November 30, 2020. The loans outstanding to this borrower of $\$ 164$ million as of November 30, 2020 are

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secured under our typical collateral requirements for long-term loan advances as of November 30, 2020. We currently expect to collect all principal and interest amounts due from the borrower and its subsidiary.

The doubtful loan category amounts of $\$ 153$ million and $\$ 168$ million as of November 30, 2020 and May 31, 2020, are attributable to the outstanding loan to the CFC power supply borrower discussed above under "Nonperforming Loans."

## NOTE 5-ALLOWANCE FOR CREDIT LOSSES

Upon adoption of CECL on June 1, 2020, we recorded an increase in our allowance for credit losses for our loan portfolio of $\$ 4$ million. The impact on the reserve for expected credit losses for our off-balance credit exposures related to unadvanced loan commitments and financial guarantees was not material. Additional information on our adoption of CECL is provided in "Note 1—Summary of Significant Accounting Policies."

## Allowance for Credit Losses-Loan Portfolio

The following tables summarize changes in the allowance for credit losses for our loan portfolio and present the allowance components for the three and six months ended November 30, 2020 and 2019. The changes in the allowance and the allowance components prior to our adoption of CECL on June 1, 2020 are based on the incurred loss model. The allowance components, which consist of a collective allowance and an asset-specific allowance, are based on the evaluation method used to measure our loans for credit losses. Loans that share similar risk characteristics are evaluated on a collective basis in measuring credit losses, while loans that do not share similar risk characteristics with other loans in our portfolio are evaluated on an individual basis.

Table 5.1: Changes in Allowance for Credit Losses

| (Dollars in thousands) | Three Months Ended November 30, 2020 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CFC |  | NCSC |  | RTFC |  | Total |  |
| Balance as of August 31, 2020 | \$ | 52,730 | \$ | 829 | \$ | 3,792 | \$ | 57,351 |
| Provision (benefit) for credit losses. |  | 1,679 |  | 512 |  | (553) |  | 1,638 |
| Balance as of November 30, 2020 | \$ | 54,409 | \$ | 1,341 | \$ | 3,239 | \$ | 58,989 |


| (Dollars in thousands) | Three Months Ended November 30, 2019 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CFC |  | NCSC |  | RTFC |  | Total |  |
| Balance as of August 31, 2019 | \$ | 12,962 | \$ | 2,077 | \$ | 2,526 | \$ | 17,565 |
| Provision (benefit) for credit losses |  | 114 |  | $(1,267)$ |  | 108 |  | $(1,045)$ |
| Balance as of November 30, 2019. | \$ | 13,076 | \$ | 810 | \$ | 2,634 | \$ | 16,520 |

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| (Dollars in thousands) | Six Months Ended November 30, 2020 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CFC |  | NCSC |  | RTFC |  | Total |  |
| Balance as of May 31, 2020 | \$ | 47,438 | \$ | 806 | \$ | 4,881 | \$ | 53,125 |
| Cumulative-effect adjustment from adoption of CECL accounting standard |  | 5,645 |  | (15) |  | $(1,730)$ |  | 3,900 |
| Balance as of June 1, 2020 |  | 53,083 |  | 791 |  | 3,151 |  | 57,025 |
| Provision for credit losses |  | 1,326 |  | 550 |  | 88 |  | 1,964 |
| Balance as of November 30, 2020 | \$ | 54,409 | \$ | 1,341 | \$ | 3,239 | \$ | 58,989 |


| (Dollars in thousands) | Six Months Ended November 30, 2019 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CFC |  | NCSC |  | RTFC |  | Total |  |
| Balance as of May 31, 2019 | \$ | 13,120 | \$ | 2,007 | \$ | 2,408 | \$ | 17,535 |
| Provision (benefit) for credit losses. |  | (44) |  | $(1,197)$ |  | 226 |  | $(1,015)$ |
| Balance as of November 30, 2019. | \$ | 13,076 | \$ | 810 | \$ | 2,634 | \$ | 16,520 |

Table 5.2: Allowance for Credit Losses Components

| (Dollars in thousands) | November 30, 2020 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CFC |  | NCSC |  | RTFC |  | Total |  |
| Allowance components: |  |  |  |  |  |  |  |  |
| Collective allowance |  | 22,178 | \$ | 1,341 | \$ | 2,750 | \$ | 26,269 |
| Asset-specific allowance |  | 32,231 |  | - |  | 489 |  | 32,720 |
| Total allowance for credit losses. |  | 54,409 | \$ | 1,341 | \$ | 3,239 | \$ | 58,989 |
| Loans outstanding: ${ }^{(1)}$ |  |  |  |  |  |  |  |  |
| Collectively evaluated loans |  | 25,755,928 | \$ | 704,718 | \$ | 426,819 | \$ | 26,887,465 |
| Individually evaluated loans. |  | 158,856 |  | - |  | 4,842 |  | 163,698 |
| Total loans outstanding. |  | 25,914,784 | \$ | 704,718 | \$ | 431,661 | \$ | 27,051,163 |

Allowance ratios:

| Collective allowance coverage ratio ${ }^{(2)} \ldots \ldots \ldots \ldots$ | $\mathbf{0 . 0 9} \%$ | $\mathbf{0 . 1 9} \%$ | $\mathbf{0 . 6 4} \%$ | $\mathbf{0 . 1 0} \%$ |
| :--- | :---: | :---: | :---: | :---: |
| Asset-specific allowance coverage ratio ${ }^{(3)} \ldots \ldots \ldots \ldots$ | $\mathbf{2 0 . 2 9}$ | - | $\mathbf{1 0 . 1 0}$ | $\mathbf{1 9 . 9 9}$ |
| Total allowance coverage ratio ${ }^{(4)} \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots .$. | $\mathbf{0 . 2 1}$ | $\mathbf{0 . 1 9}$ | $\mathbf{0 . 7 5}$ | $\mathbf{0 . 2 2}$ |

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| (Dollars in thousands) |  | May 31, 2020 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | CFC |  | NCSC |  | RTFC |  | Total |  |
| Allowance components: |  |  |  |  |  |  |  |  |  |
| Collective allowance |  |  | 13,584 | \$ | 806 | \$ | 3,902 | \$ | 18,292 |
| Asset-specific allowance |  |  | 33,854 |  | - |  | 979 |  | 34,833 |
| Total allowance for credit losses |  |  | 47,438 | \$ | 806 | \$ | 4,881 | \$ | 53,125 |
| Loans outstanding: ${ }^{(1)}$ |  |  |  |  |  |  |  |  |  |
| Collectively evaluated loans. |  |  | 25,434,193 | \$ | 697,862 | \$ | 380,243 | \$ | 26,512,298 |
| Individually evaluated loans |  |  | 173,464 |  | - |  | 5,092 |  | 178,556 |
| Total loans outstanding |  |  | 25,607,657 | \$ | 697,862 | \$ | 385,335 | \$ | 26,690,854 |
| Allowance coverage ratios: |  |  |  |  |  |  |  |  |  |
| Collective allowance coverage ratio ${ }^{(2)}$ |  |  | 0.05 \% |  | 0.12 \% |  | 1.03 \% |  | 0.07 \% |
| Asset-specific allowance coverage ratio ${ }^{(3)}$ |  |  | 19.52 |  | - |  | 19.23 |  | 19.51 |
| Total allowance coverage ratio ${ }^{(4)}$ |  |  | 0.19 |  | 0.12 |  | 1.27 |  | 0.20 |

[^16]As discussed above in "Note 4-Loans," we had one loan to a CFC power supply borrower with an outstanding balance of $\$ 153$ million and $\$ 168$ million as of November 30, 2020 or May 31, 2020, respectively, classified as nonperforming and on nonaccrual status as of each respective date. We evaluated this loan on an individual basis in determining the asset-specific allowance of $\$ 32$ million and $\$ 34$ million as of November 30, 2020 and May 31, 2020, respectively.

## Individually Impaired Loans Under Incurred Loss Methodology

Prior to our adoption of CECL on June 1, 2020, we assessed loan impairment on a collective basis unless we considered a loan to be impaired. We assessed loan impairment on an individual basis when, based on current information, it was probable that we would not receive all principal and interest amounts due in accordance with the contractual terms of the original loan agreement. In connection with our adoption of CECL, we no longer provide information on impaired loans. The following table provides information on loans previously classified as individually impaired under the incurred loss model for determining the allowance for credit losses.

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Table 5.3: Individually Impaired Loans-Incurred Loss Model

| (Dollars in thousands) | May 31, 2020 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Recorded Invested |  | Related Allowance |  | With Specific Allowance |  | With No Specific Allowance |  |
| Individually impaired loans: |  |  |  |  |  |  |  |  |
| CFC | \$ | 173,463 | \$ | 33,854 | \$ | 167,708 | \$ | 5,755 |
| RTFC |  | 5,092 |  | 979 |  | 5,092 |  | - |
| Total | \$ | 178,555 | \$ | 34,833 | \$ | 172,800 | \$ | 5,755 |

Table 5.4: Average Recorded Investment and Interest Income Recognized on Individually Impaired Loans-Incurred Loss Model

| (Dollars in thousands) | Three Months Ended November 30, 2019 |  |  |  | Six Months Ended November 30, 2019 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Recorded Investment |  | Interest Income Recognized |  | Average Recorded Investment |  | Interest Income Recognized |  |
| Individually impaired loans: |  |  |  |  |  |  |  |  |
| CFC | \$ | 5,755 | \$ | 144 | \$ | 5,999 | \$ | 281 |
| RTFC |  | 5,424 |  | 68 |  | 5,485 |  | 137 |
| Total. | \$ | 11,179 | \$ | 212 | \$ | 11,484 | \$ | 418 |

## Reserve for Credit Losses-Unadvanced Loan Commitments

In addition to the allowance for credit losses for our loan portfolio, we maintain an allowance for credit losses for unadvanced loan commitments, which we refer to as our reserve for credit losses because this amount is reported as a component of other liabilities on our consolidated balance sheets. Upon adoption of CECL on June 1, 2020, we began measuring the reserve for credit losses for unadvanced loan commitments based on expected credit losses over the contractual period of our exposure to credit risk arising from our obligation to extend credit, unless that obligation is unconditionally cancellable by us. The reserve for credit losses related to our off-balance sheet exposure for unadvanced loan commitments was less than $\$ 1$ million as of both November 30, 2020 and May 31, 2020.

## 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 $\$ 4,688$ million and accounted for $18 \%$ of total debt outstanding as of November 30, 2020, compared with $\$ 3,962$ million and $15 \%$ of total debt outstanding as of May 31, 2020. The following table provides comparative information on our short-term borrowings as of November 30, 2020 and May 31, 2020.

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Table 6.1: Short-Term Borrowings Sources

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  |
| :---: | :---: | :---: | :---: | :---: |
| Short-term borrowings: |  |  |  |  |
| Commercial paper: |  |  |  |  |
| Commercial paper sold through dealers, net of discounts | \$ | 714,984 | \$ | - |
| Commercial paper sold directly to members, at par. |  | 1,283,132 |  | 1,318,566 |
| Total commercial paper |  | 1,998,116 |  | 1,318,566 |
| Select notes to members |  | 1,750,514 |  | 1,597,959 |
| Daily liquidity fund notes |  | 495,124 |  | 508,618 |
| Medium-term notes sold to members |  | 319,214 |  | 286,842 |
| Farmer Mac notes payable ${ }^{(1)}$ |  | 125,000 |  | 250,000 |
| Total short-term borrowings. | \$ | 4,687,968 | \$ | 3,961,985 |

${ }^{(1)}$ Advanced under the revolving purchase agreement with Farmer Mac dated March 24, 2011. See "Note 7—Long-Term Debt" for additional information on this revolving note purchase agreement.

## Committed Bank Revolving Line of Credit Agreements

The total commitment amount under our committed bank revolving line of credit agreements was $\$ 2,725$ million as of both November 30, 2020 and May 31, 2020. These agreements allow us to request up to $\$ 300$ million of letters of credit, which, if requested, results in a reduction in the total amount available for our use. The following table presents the amount available for access under our bank revolving line of credit agreements as of November 30, 2020 and May 31, 2020.

Table 6.2: Committed Bank Revolving Line of Credit Agreements Available Amounts

| (Dollars in millions) | November 30, 2020 |  |  |  |  |  | May 31, 2020 |  |  |  |  |  | Maturity | $\begin{aligned} & \text { Annual } \\ & \text { Facility }^{\text {Fee }^{11}} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total Commitment |  | $\begin{gathered} \text { Letters of } \\ \text { Credit } \\ \text { Outstanding } \end{gathered}$ |  | Available Amount |  | $\begin{gathered} \text { Total } \\ \text { Commitment } \\ \hline \end{gathered}$ |  | Letters of Credit Outstanding |  | Available Amount |  |  |  |
| 3-year agreement | \$ | 1,315 | \$ | - | \$ | 1,315 | \$ | 1,315 | \$ | - | \$ | 1,315 | November 28, 2022 | 7.5 bps |
| 5-year agreement |  | 1,410 |  | 3 |  | 1,407 |  | 1,410 |  | 3 |  | 1,407 | November 28, 2023 | 10 bps |
| Total | \$ | 2,725 | \$ | 3 | \$ | 2,722 | \$ | 2,725 | \$ | 3 | \$ | 2,722 |  |  |

${ }^{(1)}$ 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.

As indicated in the table above, we had no borrowings outstanding under our committed bank revolving line of credit agreements as of November 30, 2020 or May 31, 2020. We were in compliance with all covenants and conditions under the agreements as of each respective date.

## NOTE 7-LONG-TERM DEBT

The following table displays, by debt product type, long-term debt outstanding as of November 30, 2020 and May 31, 2020. Long-term debt outstanding totaled $\$ 19,071$ million and accounted for $73 \%$ of total debt outstanding as of November 30, 2020, compared with $\$ 19,712$ million and $76 \%$ of total debt outstanding as of May 31, 2020.

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Table 7.1: Long-Term Debt by Debt Product Type

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  |
| :---: | :---: | :---: | :---: | :---: |
| Secured long-term debt: |  |  |  |  |
| Collateral trust bonds | \$ | 7,102,711 | \$ | 7,457,711 |
| Unamortized discount |  | $(231,975)$ |  | $(236,461)$ |
| Debt issuance costs |  | $(33,387)$ |  | $(32,697)$ |
| Total collateral trust bonds |  | 6,837,349 |  | 7,188,553 |
| Guaranteed Underwriter Program notes payable |  | 6,190,391 |  | 6,261,312 |
| Farmer Mac notes payable |  | 2,773,957 |  | 2,809,637 |
| Other secured notes payable |  | 6,068 |  | 6,068 |
| Debt issuance costs |  | (31) |  | (117) |
| Total other secured notes payable |  | 6,037 |  | 5,951 |
| Total secured notes payable |  | 8,970,385 |  | 9,076,900 |
| Total secured long-term debt |  | 15,807,734 |  | 16,265,453 |
| Unsecured long-term debt: |  |  |  |  |
| Medium-term notes sold through dealers |  | 2,982,567 |  | 3,086,733 |
| Medium-term notes sold to members |  | 288,882 |  | 372,117 |
| Subtotal medium-term notes |  | 3,271,449 |  | 3,458,850 |
| Unamortized discount |  | (709) |  | (997) |
| Debt issuance costs |  | $(13,291)$ |  | $(16,943)$ |
| Total unsecured medium-term notes |  | 3,257,449 |  | 3,440,910 |
| Unsecured notes payable |  | 5,794 |  | 5,794 |
| Unamortized discount |  | (51) |  | (107) |
| Debt issuance costs |  | (7) |  | (26) |
| Total unsecured notes payable |  | 5,736 |  | 5,661 |
| Total unsecured long-term debt |  | 3,263,185 |  | 3,446,571 |
| Total long-term debt | \$ | 19,070,919 | \$ | 19,712,024 |

## Secured Debt

Secured debt of $\$ 15,808$ million and $\$ 16,265$ million as November 30, 2020 and May 31, 2020, respectively, represented $83 \%$ of total long-term debt outstanding as of each respective date. The decrease in long-term secured debt of $\$ 458$ million during the six months ended November 30, 2020 was primarily attributable to a reduction in collateral trust bonds, notes payable under the Guaranteed Underwriter Program and notes payable under the Farmer Mac revolving note purchase agreement. We are required to pledge eligible mortgage notes in an amount at least equal to the outstanding balance of our secured debt. We believe we were in compliance with all covenants and conditions under our debt indentures as of November 30, 2020 and May 31, 2020. See "Note 4-Loans" for information on pledged collateral under our secured debt agreements.

## Collateral Trust Bonds

Collateral trust bonds outstanding decreased $\$ 351$ million to $\$ 6,837$ million as of November 30, 2020. In June 2020, we redeemed all $\$ 400$ million outstanding principal amount of our $2.35 \%$ collateral trust bonds due June 15, 2020. In

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October 2020, we redeemed all $\$ 350$ million outstanding principal amount of our $2.30 \%$ collateral trust bonds, due November 1, 2020. On October 8, 2020, we issued $\$ 400$ million aggregate principal amount of $1.35 \%$ sustainability collateral trust bonds due March 15, 2031.

## Guaranteed Underwriter Program Notes Payable

Notes payable outstanding under the Guaranteed Underwriter Program decreased $\$ 71$ million to $\$ 6,190$ million as of November 30, 2020. On November 19, 2020, we closed on a $\$ 375$ million committed loan facility ("Series R") from the Federal Financing Bank under the Guaranteed Underwriter Program. Pursuant to this facility, we may borrow any time before July 15, 2025. Each advance is subject to quarterly amortization and a final maturity not longer than 30 years from the date of the advance. We had up to $\$ 1,275$ million available for access under the Guaranteed Underwriter Program as of November 30, 2020.

## Farmer Mac Notes Payable

We have a revolving note purchase agreement with Farmer Mac, dated March 24, 2011, as amended, under which we can borrow up to $\$ 5,500$ million from Farmer Mac at any time, subject to market conditions, through January 11, 2022. The amount outstanding under this agreement included $\$ 125$ million of short-term borrowings and $\$ 2,774$ million of long-term debt as of November 30, 2020. The amount available for borrowing totaled $\$ 2,601$ million as of November 30, 2020.

See "Note 7—Long-Term Debt" in our 2020 Form 10-K for additional information on our various long-term debt product types.

## NOTE 8-SUBORDINATED DEFERRABLE DEBT

Subordinated deferrable debt represents long-term debt that is subordinated to all debt other than subordinated certificates held by our members. The following table presents, by issuance, subordinated deferrable debt outstanding as of November 30, 2020 and May 31, 2020.

Table 8.1: Subordinated Deferrable Debt Outstanding

| (Dollars in thousands) | Outstanding Amount |  |  |  | Maturity and Call Dates |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | November 30, 2020 |  | May 31, 2020 |  | Term in Years | Maturity | Call Date |
| Issuances of subordinated notes: |  |  |  |  |  |  |  |
| 4.75\% issuance 2013 | \$ | 400,000 | \$ | 400,000 | 30 | 2043 | April 30, 2023 |
| 5.25\% issuance 2016 |  | 350,000 |  | 350,000 | 30 | 2046 | April 20, 2026 |
| 5.50\% issuance 2019 |  | 250,000 |  | 250,000 | 45 | 2064 | May 15, 2024 |
| Total aggregate principal amount |  | 1,000,000 |  | 1,000,000 |  |  |  |
| Debt issuance costs. |  | $(13,783)$ |  | $(13,881)$ |  |  |  |
| Total subordinated deferrable debt | \$ | $\mathbf{9 8 6 , 2 1 7}$ | \$ | 986,119 |  |  |  |

See "Note 8—Subordinated Deferrable Debt" in our 2020 Form 10-K for additional information on the terms and conditions of our subordinated deferrable debt outstanding.

## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

## NOTE 9-DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

We are an end user of derivative financial instruments and do not engage in derivative trading. 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. 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 future debt issuance or debt that is scheduled to reprice in the future.

## Accounting for Derivatives

In accordance with the accounting standards for derivatives and hedging activities, all derivative instruments are recorded at fair value on our consolidated balance sheets and classified as either derivative assets or derivative liabilities. Derivatives in a gain position are reported as derivative assets, while derivatives in a loss position are reported as derivative liabilities. 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. Our derivatives transactions are not collateralized and do not include collateralization agreements with counterparties. Accrued interest related to derivative transactions is reported on our consolidated balance sheets as a component of either accrued interest receivable 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 expense and derivative forward value amounts, are recognized in our consolidated statements of operations 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 recognized in the same line item on our consolidated statements of operations as the earnings effect of the related hedged item. Changes in the fair value of derivatives designated as qualifying cash flow hedges are recorded as a component of accumulated other comprehensive income ("AOCI"). Those amounts are reclassified into earnings in the same period during which the forecasted transaction impacts earnings and presented in the same line item on our consolidated statements of operations as the earnings effect of the related hedged item.

We generally do not designate our interest rate swaps for hedge accounting. Therefore, changes in the fair value of our interest rate swaps are reported on our consolidated statements of operations under derivative gains (losses). If we enter into a Treasury Lock, we typically designate the Treasury Lock as a cash flow hedge. We did not have any derivatives designated as accounting hedges as of November 30, 2020 or May 31, 2020.

## Outstanding Notional Amount of Derivatives Not Designated as Accounting Hedges

The notional amount is used only as the basis on which interest payments are determined and is not the amount exchanged, nor recorded on our consolidated balance sheets. 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, 2020 and May 31, 2020. The substantial majority of our interest rate swaps use an index based on LIBOR for either the pay or receive leg of the swap agreement.

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

Table 9.1: Derivative Notional Amount and Weighted Average Rates

| (Dollars in thousands) | November 30, 2020 |  |  |  | May 31, 2020 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Notional Amount | WeightedAverage Rate Paid | WeightedAverage Rate Received |  | Notional Amount | WeightedAverage Rate Paid | WeightedAverage Rate Received |
| Pay-fixed swaps |  | \$ 6,487,447 | 2.78 \% | 0.24 \% | \$ | 6,604,808 | 2.78 \% | 0.88 \% |
| Receive-fixed swaps |  | 2,399,000 | 0.97 | 2.80 |  | 2,699,000 | 1.54 | 2.75 |
| Total interest rate swaps |  | 8,886,447 | 2.29 | 0.93 |  | 9,303,808 | 2.42 | 1.42 |
| Forward pay-fixed swaps |  | 120,000 |  |  |  | 3,000 |  |  |
| Total. |  | \$ 9,006,447 |  |  |  | \$ 9,306,808 |  |  |

## Impact of Derivatives on Consolidated Balance Sheets

The following table displays the fair value of the derivative assets and derivative liabilities, by derivatives type, recorded on our consolidated balance sheets and the related outstanding notional amount as of November 30, 2020 and May 31, 2020.

Table 9.2: Derivative Assets and Liabilities at Fair Value

| (Dollars in thousands) | November 30, 2020 |  |  |  | May 31, 2020 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fair Value |  | Notional Amount ${ }^{(1)}$ |  | Fair Value |  | Notional Amount ${ }^{(1)}$ |  |
| Derivative assets: |  |  |  |  |  |  |  |  |
| Interest rate swaps | \$ | 153,388 | \$ | 2,544,263 | \$ | 173,195 | \$ | 2,699,000 |
| Derivative liabilities: |  |  |  |  |  |  |  |  |
| Interest rate swaps | \$ | 1,040,528 | \$ | 6,462,184 | \$ | 1,258,459 | \$ | 6,607,808 |

${ }^{(1)}$ The notional amount includes $\$ 120$ million and $\$ 3$ million notional amount of forward starting swaps, as shown above in Table 9.1: Derivative Notional Amount and Weighted Average Rates, with an effective start date of December 1, 2020 and June 5, 2020, outstanding as of November 30, 2020 and May 31, 2020, respectively. The fair value of these swaps as of November 30, 2020 and May 31, 2020 is included in the above table and in our consolidated financial statements.

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 consolidated balance sheets as of November 30, 2020 and May 31, 2020, and provides information on the impact of netting provisions and collateral pledged, if any.

## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

Table 9.3: Derivative Gross and Net Amounts


## Impact of Derivatives on Consolidated Statements of Operations

The primary factors affecting the fair value of our derivatives and the derivative gains (losses) recorded in our consolidated statements of operations include changes in interest rates, the shape of the swap curve and the composition of our derivative portfolio. We generally record derivative losses when interest rates decline and derivative gains when interest rates rise, as our derivative portfolio consists of a higher proportion of pay-fixed swaps than receive-fixed swaps.

The following table presents the components of the derivative gains (losses) reported in our consolidated statements of operations for the three and six months ended November 30, 2020 and 2019. Derivative cash settlements interest expense represents the net periodic contractual interest amount for our interest-rate swaps during 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. We classify the derivative cash settlement amounts for the net periodic contractual interest expense on our interest rate swaps as an operating activity in our consolidated statements of cash flows.

Table 9.4: Derivative Gains (Losses)

| (Dollars in thousands) | Three Months Ended November 30, |  |  |  | ber 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  | 2019 |  | 2020 |  | 2019 |  |
| Derivative gains (losses) attributable to: |  |  |  |  |  |  |  |  |
| Derivative cash settlements interest expense. | \$ | $(29,800)$ | \$ | $(14,150)$ | \$ | $(56,772)$ | \$ | $(25,193)$ |
| Derivative forward value gains (losses) |  | 111,087 |  | 197,600 |  | 198,335 |  | $(187,082)$ |
| Derivative gains (losses) | \$ | 81,287 | \$ | 183,450 | \$ | 141,563 | \$ | $(212,275)$ |

## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

## 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, S\&P and Fitch were A2, A and A, respectively, as of November 30, 2020. Moody's, S\&P and Fitch had our ratings on stable outlook as of November 30, 2020. The following table displays the notional amounts of our derivative contracts with rating triggers as of November 30, 2020, 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 $\mathrm{A} 3 / \mathrm{A}-$, below $\mathrm{Baa} 1 / \mathrm{BBB}+$, to or below $\mathrm{Baa} 2 / \mathrm{BBB}$, or to or below $\mathrm{Ba} 2 / \mathrm{BB}+$ by Moody's or S\&P, respectively. In calculating the payment amounts that would be required upon termination of the derivative contracts, we assume that amounts for each counterparty would be netted in accordance with the provisions of the master netting agreements with the 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.

Table 9.5: Derivative Credit Rating Trigger Exposure

| (Dollars in thousands) | Notional <br> Amount |  | Payable Due from CFC |  | Receivable <br> Due to CFC |  | Net Payable |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Impact of rating downgrade trigger: |  |  |  |  |  |  |  |  |
| Falls below A3/A- ${ }^{(1)}$. | \$ | 43,175 | \$ | $(9,926)$ | \$ | - | \$ | $(9,926)$ |
| Falls below Baa1/BBB+. |  | 5,855,400 |  | $(584,329)$ |  | - |  | $(584,329)$ |
| Falls to or below Baa2/BBB ${ }^{(2)}$. |  | 412,750 |  | $(28,467)$ |  | - |  | $(28,467)$ |
| Total | \$ | 6,311,325 | \$ | (622,722) | \$ | - | \$ | (622,722) |

${ }^{(1)}$ 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 interest rate swaps with one counterparty that are 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. The outstanding notional amount of these swaps, which is not included in the above table, totaled $\$ 215$ million as of November 30, 2020. These swaps were in an unrealized loss position of $\$ 49$ million as of November 30, 2020.

Our largest counterparty exposure, based on the outstanding notional amount, accounted for approximately $26 \%$ and $25 \%$ of the total outstanding notional amount of derivatives as of November 30, 2020 and May 31, 2020, respectively. 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 $\$ 656$ million as of November 30, 2020.

# NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED) 

## NOTE 10-EQUITY

Total equity increased $\$ 243$ million to $\$ 892$ million as of November 30, 2020, attributable to the combined impact of our reported net income of $\$ 305$ million for the six months ended November 30, 2020, which was partially offset by the retirement of patronage capital of $\$ 60$ million authorized by the CFC Board of Directors in July 2020 and paid to members in September 2020, and the decrease to retained earnings of $\$ 4$ million from the cumulative-effect adjustment recorded at adoption of the CECL accounting standard on June 1, 2020.

## Allocation of Earnings and Retirement of Patronage Capital

In July 2020, the CFC Board of Directors authorized the allocation of fiscal year 2020 net earnings as follows: $\$ 96$ million to members in the form of patronage capital, $\$ 48$ 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 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 2020, the CFC Board of Directors authorized the retirement of allocated net earnings totaling $\$ 60$ million, consisting of $\$ 48$ million, which represented $50 \%$ of the patronage capital allocation for fiscal year 2020, and $\$ 12$ million, which represented the portion of the allocation from fiscal year 1995 net earnings that has been held for 25 years pursuant to the CFC Board of Directors policy. The authorized patronage capital retirement amount of $\$ 60$ million was returned to members in cash in September 2020. The remaining portion of the amount allocated for fiscal year 2020 will be retained by CFC for 25 years under current guidelines adopted by the CFC Board of Directors in June 2009.

## Accumulated Other Comprehensive Income (Loss)

The following table presents, by component, changes in AOCI for the three and six months ended November 30, 2020 and 2019 and the balance of each component as of the end of each respective period.

Table 10.1: Changes in Accumulated Other Comprehensive Income (Loss)

| (Dollars in thousands) | Three Months Ended November 30, |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  |  |  |  |  | Derivatives Unrealized Gains ${ }^{(1)}$ |  | 2019 |  | Total |  |
|  | Derivatives Unrealized Gains ${ }^{(1)}$ |  | Defined <br> Benefit Plans <br> Unrealized <br> Losses ${ }^{(2)}$ |  | Total |  |  |  |  | fined fit Plans ealized sses ${ }^{2}$ |  |  |
| Beginning balance.................... | \$ | 2,025 | \$ | $(3,852)$ | \$ | $(1,827)$ | \$ | 2,459 | \$ | $(2,573)$ | \$ | (114) |
| (Gains) losses reclassified to earnings. |  | (107) |  | 188 |  | 81 |  | (114) |  | 146 |  | 32 |
| Ending balance | \$ | 1,918 | \$ | $(3,664)$ | \$ | (1,746) | \$ | 2,345 | \$ | $(2,427)$ | \$ | (82) |

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

| (Dollars in thousands) | Six Months Ended November 30, |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2020 |  |  |  | Total |  | 2019 |  |  |  |  |  |
|  | Derivatives Unrealized Gains ${ }^{(1)}$ |  | Defined <br> Benefit Plans <br> Unrealized <br> Losses ${ }^{(2)}$ |  |  |  | Derivatives Unrealized Gains ${ }^{(1)}$ |  | Defined <br> Benefit Plans <br> Unrealized <br> Losses |  | Total |  |
| Beginning balance | \$ | 2,130 | \$ | $(4,040)$ | \$ | $(1,910)$ | \$ | 2,571 | \$ | $(2,718)$ | \$ | (147) |
| (Gains) losses reclassified to earnings |  | (212) |  | 376 |  | 164 |  | (226) |  | 291 |  | 65 |
| Ending balance | \$ | 1,918 | \$ | $(3,664)$ | \$ | (1,746) | \$ | 2,345 | \$ | $(2,427)$ | \$ | (82) |

${ }^{(1)}$ Reclassified to earnings as a component of the derivative gains (losses) line item presented on our consolidated statements of operations.
${ }^{(2)}$ Reclassified to earnings as component of the other non-interest expense line item presented on our consolidated statements of operations.

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

## NOTE 11-GUARANTEES

The following table displays the notional amount of our outstanding guarantee obligations, by guarantee type and by member class, as of November 30, 2020 and May 31, 2020.

Table 11.1: Guarantees Outstanding by Type and Member Class

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  |
| :---: | :---: | :---: | :---: | :---: |
| Guarantee type: |  |  |  |  |
| Long-term tax-exempt bonds ${ }^{(1)}$. | \$ | 166,175 | \$ | 263,875 |
| Letters of credit ${ }^{(2)}$ |  | 366,552 |  | 413,839 |
| Other guarantees |  | 144,131 |  | 143,072 |
| Total | \$ | 676,858 | \$ | 820,786 |

Member class:
CFC:

| Distribution. | \$ | 265,084 | \$ | 266,301 |
| :---: | :---: | :---: | :---: | :---: |
| Power supply |  | 392,702 |  | 538,532 |
| Statewide and associate ${ }^{(3)}$. |  | 6,119 |  | 5,954 |
| CFC total |  | 663,905 |  | 810,787 |
| NCSC |  | 12,953 |  | 9,999 |
| Total. | \$ | 676,858 | \$ | 820,786 |

[^17]Long-term tax-exempt bonds of \$166 million and \$264 million as of November 30, 2020 and May 31, 2020, respectively, included $\$ 146$ million and $\$ 244$ 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

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

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 taxexempt, 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 $\$ 20$ million as of November 30, 2020 are fixed-rate. The maximum potential exposure for these bonds, including the outstanding principal of $\$ 20$ million and related interest through maturity, totaled $\$ 34$ million as of November 30, 2020. The maturities for long-term tax-exempt bonds and the related guarantees extend through calendar year 2040.

Of the outstanding letters of credit of $\$ 367$ million and $\$ 414$ million as of November 30, 2020 and May 31, 2020, respectively, $\$ 107$ million and $\$ 106$ 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, 2020. The maturities for the outstanding letters of credit as of November 30, 2020 extend through calendar year 2040.

In addition to the letters of credit listed in the table above, under master letter of credit facilities in place as of November 30, 2020, we may be required to issue up to an additional $\$ 63$ million in letters of credit to third parties for the benefit of our 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, 2020. 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 $\$ 144$ million and $\$ 143$ million as of November 30, 2020 and May 31, 2020, respectively, of which $\$ 25$ million was secured as of both November 30, 2020 and May 31, 2020. 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 $\$ 379$ million and $\$ 426$ million and represented $56 \%$ and $52 \%$ of total guarantees as of November 30, 2020 and May 31, 2020, respectively.

In addition to the guarantees described above, we were also the liquidity provider for $\$ 146$ million of variable-rate taxexempt bonds as of November 30, 2020, 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, 2020 or the prior fiscal year.

## Guarantee Liability

We recorded a total guarantee liability for noncontingent and contingent exposures related to guarantees and liquidity obligations of $\$ 11$ million as of both November 30, 2020 and May 31, 2020. The noncontingent guarantee liability, which pertains to our obligation to stand ready to perform over the term of our guarantees and liquidity obligations we have entered into or modified since January 1, 2003, was $\$ 10$ million as of both November 30, 2020 and May 31, 2020. The contingent guarantee liability, which is based on management's estimate of exposure to losses within our guarantee portfolio, was $\$ 1$ million as of both November 30, 2020 and May 31, 2020.

## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

## NOTE 12-FAIR VALUE MEASUREMENT

Fair value, also referred to as an exit price, is defined as the price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. The fair value accounting guidance provides a three-level fair value hierarchy for classifying financial instruments. This hierarchy is based on the markets in which the assets or liabilities trade and whether the inputs to the valuation techniques used to measure fair value are observable or unobservable. The fair value measurement of a financial asset or liability is assigned a level based on the lowest level of any input that is significant to the fair value measurement in its entirety. The levels, in priority order based on the extent to which observable inputs are available to measure fair value, are Level 1, Level 2 and Level 3. The accounting guidance for fair value measurements requires that we maximize the use of observable inputs and minimize the use of unobservable inputs in determining fair value.

The following table presents the carrying value and estimated fair value of all of our financial instruments, including those carried at amortized cost, as of November 30, 2020 and May 31, 2020. The table also displays the classification level within the fair value hierarchy based on the degree of observability of the inputs used in the valuation technique for estimating fair value.

Table 12.1: Fair Value of Financial Instruments

| (Dollars in thousands) | November 30, 2020 |  |  | Fair Value Measurement Level |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Carrying Value | Fair Value |  | Level 1 |  | Level 2 |  | Level 3 |  |
| Assets: |  |  |  |  |  |  |  |  |  |
| Cash and cash equivalents | 167,155 | \$ | 167,155 | \$ | 167,155 | \$ | - | \$ | - |
| Restricted cash. | 10,036 |  | 10,036 |  | 10,036 |  | - |  | - |
| Equity securities, at fair value | 32,391 |  | 32,391 |  | 32,391 |  | - |  | - |
| Debt securities trading, at fair value | 551,695 |  | 551,695 |  | - |  | 551,695 |  |  |
| Deferred compensation investments | 6,474 |  | 6,474 |  | 6,474 |  | - |  | - |
| Loans to members, net | 27,003,980 |  | 30,309,240 |  | - |  | - |  | 30,309,240 |
| Accrued interest receivable | 105,145 |  | 105,145 |  | - |  | 105,145 |  | - |
| Derivative assets | 153,388 |  | 153,388 |  | - |  | 153,388 |  | - |
| Total financial assets | 28,030,264 |  | 31,335,524 | \$ | 216,056 | \$ | 810,228 |  | 30,309,240 |
| Liabilities: |  |  |  |  |  |  |  |  |  |
| Short-term borrowings | 4,687,968 | \$ | 4,688,182 | \$ | - | \$ | 4,563,182 | \$ | 125,000 |
| Long-term debt | 19,070,919 |  | 21,383,031 |  | - |  | 11,675,384 |  | 9,707,647 |
| Accrued interest payable | 123,766 |  | 123,766 |  | - |  | 123,766 |  | - |
| Guarantee liability | 10,909 |  | 11,883 |  | - |  | - |  | 11,883 |
| Derivative liabilities | 1,040,528 |  | 1,040,528 |  | - |  | 1,040,528 |  | - |
| Subordinated deferrable debt | 986,217 |  | 1,083,016 |  | 277,700 |  | 805,316 |  | - |
| Members' subordinated certificates | 1,272,374 |  | 1,272,374 |  | - |  | - |  | 1,272,374 |
| Total financial liabilities | 27,192,681 |  | 29,602,780 | \$ | 277,700 | \$ | 18,208,176 |  | 11,116,904 |

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| (Dollars in thousands) | May 31, 2020 |  |  | Fair Value Measurement Level |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Carrying Value | Fair Value |  | Level 1 |  | Level 2 |  | Level 3 |  |
| Assets: |  |  |  |  |  |  |  |  |  |
| Cash and cash equivalents | 671,372 | \$ | \$ 671,372 | \$ | 671,372 | \$ | - | \$ | - |
| Restricted cash | 8,647 |  | 8,647 |  | 8,647 |  | - |  | - |
| Equity securities, at fair value | 60,735 |  | 60,735 |  | 60,735 |  | - |  | - |
| Debt securities trading, at fair value. | 309,400 |  | 309,400 |  | - |  | 309,400 |  | - |
| Deferred compensation investments. | 5,496 |  | 5,496 |  | 5,496 |  | - |  | - |
| Loans to members, net | 26,649,255 |  | 29,252,065 |  | - |  | - |  | 29,252,065 |
| Accrued interest receivable | 117,138 |  | 117,138 |  | - |  | 117,138 |  | - |
| Debt service reserve funds | 14,591 |  | 14,591 |  | 14,591 |  | - |  | - |
| Derivative assets | 173,195 |  | 173,195 |  | - |  | 173,195 |  | - |
| Total financial assets. | \$ 28,009,829 |  | \$ 30,612,639 | \$ | 760,841 | \$ | 599,733 |  | 29,252,065 |
| Liabilities: |  |  |  |  |  |  |  |  |  |
| Short-term borrowings | \$ 3,961,985 |  | \$ 3,963,164 | \$ | - | \$ | 3,713,164 | \$ | 250,000 |
| Long-term debt | 19,712,024 |  | 21,826,337 |  | - |  | 11,981,580 |  | 9,844,757 |
| Accrued interest payable | 139,619 |  | 139,619 |  | - |  | 139,619 |  | - |
| Guarantee liability | 10,937 |  | 11,948 |  | - |  | - |  | 11,948 |
| Derivative liabilities | 1,258,459 |  | 1,258,459 |  | - |  | 1,258,459 |  | - |
| Subordinated deferrable debt | 986,119 |  | 1,030,108 |  | - |  | 1,030,108 |  | - |
| Members' subordinated certificates.. | 1,339,618 |  | 1,339,618 |  | - |  | - |  | 1,339,618 |
| Total financial liabilities | \$ 27,408,761 |  | \$ 29,569,253 | \$ | - |  | 18,122,930 |  | 11,446,323 |

For additional information regarding fair value measurements, the fair value hierarchy and a description of the methodologies we use to estimate fair value, see "Note 14 -Fair Value Measurement" to the Consolidated Financial Statements in our 2020 Form 10-K.

## 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, 2020 and 2019.

## Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following table presents the carrying value and fair value of financial instruments reported in our consolidated financial statements at fair value on a recurring basis as of November 30, 2020 and May 31, 2020, and the classification of the valuation technique within the fair value hierarchy.

## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

Table 12.2: Assets and Liabilities Measured at Fair Value on a Recurring Basis

| (Dollars in thousands) | November 30, 2020 |  |  |  |  |  | May 31, 2020 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Level 1 |  | Level 2 |  | Total |  | Level 1 |  | Level 2 | Total |
| Assets: |  |  |  |  |  |  |  |  |  |  |
| Equity securities, at fair value | \$ | 32,391 | \$ | - | \$ | 32,391 | \$ | 60,735 | \$ | \$ 60,735 |
| Debt securities trading, at fair value .... |  | - |  | 551,695 |  | 551,695 |  | - | 309,400 | 309,400 |
| Deferred compensation investments.... |  | 6,474 |  | - |  | 6,474 |  | 5,496 | - | 5,496 |
| Derivative assets ............................. |  | - |  | 153,388 |  | 153,388 |  | - | 173,195 | 173,195 |
| Liabilities: |  |  |  |  |  |  |  |  |  |  |
| Derivative liabilities .......................... |  | - |  | 1,040,528 |  | 1,040,528 |  | - | 1,258,459 | 1,258,459 |

## Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

We may be required, from time to time, to measure certain assets at fair value on a nonrecurring basis on our consolidated balance sheets. These assets are not measured at fair value on an ongoing basis but are subject to fair value adjustments in certain circumstances, such as in the application of lower of cost or fair value accounting or when we evaluate assets for impairment. We did not have any assets measured at fair value on a nonrecurring basis during the three and six months ended November 30, 2020 and 2019.

## NOTE 13-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 with each company, 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 consolidated financial statements, after intercompany eliminations, as of November 30, 2020 and May 31, 2020.

## 13.1: Consolidated Assets and Liabilities of Variable Interest Entities

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  |
| :---: | :---: | :---: | :---: | :---: |
| Assets: |  |  |  |  |
| Loans outstanding | \$ | 1,136,379 | \$ | 1,083,197 |
| Other assets |  | 10,159 |  | 11,352 |
| Total assets | \$ | 1,146,538 | \$ | 1,094,549 |
| Liabilities: |  |  |  |  |
| Total liabilities | \$ | 37,352 | \$ | 38,803 |

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

The following table provides information on CFC's credit commitments to NCSC and RTFC and potential exposure to loss under these commitments as of November 30, 2020 and May 31, 2020.

## 13.2: CFC Exposure Under Credit Commitments to NCSC and RTFC

| (Dollars in thousands) | November 30, 2020 |  | May 31, 2020 |  |
| :---: | :---: | :---: | :---: | :---: |
| CFC credit commitments to NCSC and RTFC: |  |  |  |  |
| Total CFC credit commitments | \$ | 5,500,000 | \$ | 5,500,000 |
| Outstanding commitments: |  |  |  |  |
| Borrowings payable to $\mathrm{CFC}^{(1)}$. |  | 1,112,226 |  | 1,062,103 |
| Credit enhancements: |  |  |  |  |
| CFC third-party guarantees |  | 12,953 |  | 9,999 |
| Other credit enhancements |  | 10,552 |  | 11,755 |
| Total credit enhancements ${ }^{(2)}$ |  | 23,505 |  | 21,754 |
| Total outstanding commitments |  | 1,135,731 |  | 1,083,857 |
| CFC credit commitments available ${ }^{(3)}$ | \$ | 4,364,269 | \$ | 4,416,143 |

${ }^{(1)}$ Borrowings payable to CFC are eliminated in consolidation.
${ }^{(2)}$ Excludes interest due on these instruments.
${ }^{(3)}$ Represents total CFC credit commitments less outstanding commitments as of each period end.

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 $\$ 24$ million as of November 30, 2020. The maturities for obligations guaranteed by CFC extend through 2031.

## NOTE 14—BUSINESS SEGMENTS

Our activities are conducted through three operating segments, which are based on each of the legal entities included in our consolidated financial statements: CFC, NCSC and RTFC. We report segment information for CFC separately, while we aggregate NCSC and RTFC and report combined segment information for these entities. The following table presents our reportable business segment results for the three and six months ended November 30, 2020 and 2019, assets attributable to each segment as of November 30, 2020 and 2019 and a reconciliation to amounts reported in our consolidated financial statements.

## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

Table 14.1: Business Segment Information

| (Dollars in thousands) | Three Months Ended November 30, 2020 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CFC |  | $\begin{aligned} & \text { NCSC and } \\ & \text { RTFC } \end{aligned}$ |  | Elimination |  | Consolidated Total |  |
| Statement of operations: |  |  |  |  |  |  |  |  |
| Interest income | \$ | 274,473 | \$ | 11,008 | \$ | $(8,982)$ | \$ | 276,499 |
| Interest expense |  | $(174,422)$ |  | $(8,982)$ |  | 8,982 |  | $(174,422)$ |
| Net interest income |  | 100,051 |  | 2,026 |  | - |  | 102,077 |
| Provision for credit losses |  | $(1,638)$ |  | - |  | - |  | $(1,638)$ |
| Net interest income after provision for credit losses. |  | 98,413 |  | 2,026 |  | - |  | 100,439 |
| Non-interest income: |  |  |  |  |  |  |  |  |
| Fee and other income |  | 7,513 |  | 727 |  | $(1,908)$ |  | 6,332 |
| Derivative gains: |  |  |  |  |  |  |  |  |
| Derivative cash settlements interest expense |  | $(29,370)$ |  | (430) |  | - |  | $(29,800)$ |
| Derivative forward value gains |  | 110,349 |  | 738 |  | - |  | 111,087 |
| Derivative gains |  | 80,979 |  | 308 |  | - |  | 81,287 |
| Investment securities losses |  | $(1,361)$ |  | - |  | - |  | $(1,361)$ |
| Total non-interest income |  | 87,131 |  | 1,035 |  | $(1,908)$ |  | 86,258 |
| Non-interest expense: |  |  |  |  |  |  |  |  |
| General and administrative expenses. |  | $(23,750)$ |  | $(1,978)$ |  | 1,592 |  | $(24,136)$ |
| Losses on early extinguishment of debt |  | $(1,455)$ |  | - |  | - |  | $(1,455)$ |
| Other non-interest expense |  | (323) |  | (316) |  | 316 |  | (323) |
| Total non-interest expense |  | $(25,528)$ |  | (2,294) |  | 1,908 |  | $(25,914)$ |
| Income before income taxes |  | 160,016 |  | 767 |  | - |  | 160,783 |
| Income tax provision |  | - |  | (262) |  | - |  | (262) |
| Net income | \$ | 160,016 | \$ | 505 | \$ | - | \$ | 160,521 |

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

| (Dollars in thousands) | Three Months Ended November 30, 2019 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CFC |  | $\begin{aligned} & \text { NCSC and } \\ & \text { RTFC } \end{aligned}$ |  | Elimination |  | Consolidated Total |  |
| Statement of operations: |  |  |  |  |  |  |  |  |
| Interest income | \$ | 285,036 | \$ | 11,719 | \$ | $(9,718)$ | \$ | 287,037 |
| Interest expense |  | $(207,759)$ |  | $(9,830)$ |  | 9,718 |  | $(207,871)$ |
| Net interest income |  | 77,277 |  | 1,889 |  | - |  | 79,166 |
| Benefit for credit losses |  | 1,045 |  | - |  | - |  | 1,045 |
| Net interest income after benefit for credit losses. |  | 78,322 |  | 1,889 |  | - |  | 80,211 |
| Non-interest income: |  |  |  |  |  |  |  |  |
| Fee and other income |  | 5,181 |  | 587 |  | $(1,926)$ |  | 3,842 |
| Derivative gains: |  |  |  |  |  |  |  |  |
| Derivative cash settlements interest expense.. |  | $(13,874)$ |  | (276) |  | - |  | $(14,150)$ |
| Derivative forward value gains |  | 196,387 |  | 1,213 |  | - |  | 197,600 |
| Derivative gains |  | 182,513 |  | 937 |  | - |  | 183,450 |
| Investment securities losses |  | (114) |  | - |  | - |  | (114) |
| Total non-interest income |  | 187,580 |  | 1,524 |  | $(1,926)$ |  | 187,178 |
| Non-interest expense: |  |  |  |  |  |  |  |  |
| General and administrative expenses. |  | $(23,994)$ |  | $(2,420)$ |  | 1,645 |  | $(24,769)$ |
| Losses on early extinguishment of debt |  | - |  | (614) |  | - |  | (614) |
| Other non-interest expense. |  | (316) |  | (280) |  | 281 |  | (315) |
| Total non-interest expense |  | $(24,310)$ |  | $(3,314)$ |  | 1,926 |  | $(25,698)$ |
| Income before income taxes. |  | 241,592 |  | 99 |  | - |  | 241,691 |
| Income tax provision |  | - |  | (91) |  | - |  | (91) |
| Net income. | \$ | 241,592 | \$ | 8 | \$ | - | \$ | 241,600 |

## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

| (Dollars in thousands) | Six Months Ended November 30, 2020 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CFC |  | $\underset{\text { RTFC }}{\text { NCSC and }}$ |  | Elimination |  | Consolidated Total |  |
| Statement of operations: |  |  |  |  |  |  |  |  |
| Interest income | \$ | 552,069 | \$ | 22,016 | \$ | $(18,002)$ | \$ | 556,083 |
| Interest expense |  | $(354,398)$ |  | $(18,002)$ |  | 18,002 |  | $(354,398)$ |
| Net interest income |  | 197,671 |  | 4,014 |  | - |  | 201,685 |
| Provision for credit losses |  | $(1,964)$ |  | - |  | - |  | $(1,964)$ |
| Net interest income after provision for credit losses |  | 195,707 |  | 4,014 |  | - |  | 199,721 |
| Non-interest income: |  |  |  |  |  |  |  |  |
| Fee and other income |  | 12,288 |  | 1,277 |  | $(3,717)$ |  | 9,848 |
| Derivative gains: |  |  |  |  |  |  |  |  |
| Derivative cash settlements interest expense |  | $(55,933)$ |  | (839) |  | - |  | $(56,772)$ |
| Derivative forward value gains |  | 197,132 |  | 1,203 |  | - |  | 198,335 |
| Derivative gains |  | 141,199 |  | 364 |  | - |  | 141,563 |
| Investment securities gains |  | 3,298 |  | - |  | - |  | 3,298 |
| Total non-interest income |  | 156,785 |  | 1,641 |  | (3,717) |  | 154,709 |
| Non-interest expense: |  |  |  |  |  |  |  |  |
| General and administrative expenses. |  | $(45,950)$ |  | $(4,035)$ |  | 3,186 |  | $(46,799)$ |
| Losses on early extinguishment of debt |  | $(1,455)$ |  | - |  | - |  | $(1,455)$ |
| Other non-interest expense |  | (655) |  | (531) |  | 531 |  | (655) |
| Total non-interest expense. |  | $(48,060)$ |  | $(4,566)$ |  | 3,717 |  | $(48,909)$ |
| Income before income taxes |  | 304,432 |  | 1,089 |  | - |  | 305,521 |
| Income tax provision |  | - |  | (413) |  | - |  | (413) |
| Net income. | \$ | 304,432 | \$ | 676 | \$ | - | \$ | 305,108 |

## Assets:

| Total loans outstanding | \$ 27,027,010 | \$ | 1,136,379 | \$ (1,112,226) | \$ 27,051,163 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Deferred loan origination costs | 11,806 |  | - | - | 11,806 |
| Loans to members | 27,038,816 |  | 1,136,379 | (1,112,226) | 27,062,969 |
| Less: Allowance for credit losses | $(58,989)$ |  | - | - | $(58,989)$ |
| Loans to members, net | 26,979,827 |  | 1,136,379 | (1,112,226) | 27,003,980 |
| Other assets | 1,161,963 |  | 102,692 | $(92,533)$ | 1,172,122 |
| Total assets. | \$ 28,141,790 | \$ | 1,239,071 | \$ (1,204,759) | \$ 28,176,102 |

## NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS <br> (UNAUDITED)

| (Dollars in thousands) | Six Months Ended November 30, 2019 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CFC |  | $\begin{aligned} & \hline \text { NCSC and } \\ & \text { RTFC } \end{aligned}$ |  | Elimination |  | Consolidated Total |  |
| Statement of operations: |  |  |  |  |  |  |  |  |
| Interest income | \$ | 573,000 | \$ | 24,066 | \$ | $(20,014)$ | \$ | 577,052 |
| Interest expense |  | $(420,894)$ |  | $(20,262)$ |  | 20,014 |  | $(421,142)$ |
| Net interest income |  | 152,106 |  | 3,804 |  | - |  | 155,910 |
| Benefit for credit losses |  | 1,015 |  | - |  | - |  | 1,015 |
| Net interest income after benefit for credit losses. |  | 153,121 |  | 3,804 |  | - |  | 156,925 |
| Non-interest income: |  |  |  |  |  |  |  |  |
| Fee and other income |  | 17,463 |  | 8,408 |  | $(11,088)$ |  | 14,783 |
| Derivative losses: |  |  |  |  |  |  |  |  |
| Derivative cash settlements interest expense.. |  | $(24,675)$ |  | (518) |  | - |  | $(25,193)$ |
| Derivative forward value losses |  | $(186,375)$ |  | (707) |  | - |  | $(187,082)$ |
| Derivative losses |  | $(211,050)$ |  | $(1,225)$ |  | - |  | (212,275) |
| Investment securities gains |  | 1,506 |  | - |  | - |  | 1,506 |
| Total non-interest income |  | $(192,081)$ |  | 7,183 |  | $(11,088)$ |  | $(195,986)$ |
| Non-interest expense: |  |  |  |  |  |  |  |  |
| General and administrative expenses. |  | $(48,733)$ |  | $(4,655)$ |  | 3,290 |  | $(50,098)$ |
| Losses on early extinguishment of debt |  | - |  | (614) |  | - |  | (614) |
| Other non-interest income (expense) |  | 6,863 |  | $(7,797)$ |  | 7,798 |  | 6,864 |
| Total non-interest expense. |  | $(41,870)$ |  | $(13,066)$ |  | 11,088 |  | $(43,848)$ |
| Losses before income taxes |  | $(80,830)$ |  | $(2,079)$ |  | - |  | $(82,909)$ |
| Income tax benefit |  | - |  | 430 |  | - |  | 430 |
| Net losses. | \$ | $(80,830)$ | \$ | $\underline{(1,649)}$ | \$ | - | \$ | $(82,479)$ |

## Assets:

| Total loans outstanding | \$ 26,406,139 | \$ | 1,058,603 | \$ (1,037,863) | \$ 26,426,879 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Deferred loan origination costs | 11,302 |  | - |  | 11,302 |
| Loans to members | 26,417,441 |  | 1,058,603 | $(1,037,863)$ | 26,438,181 |
| Less: Allowance for credit losses. | $(16,520)$ |  | - | - - | $(16,520)$ |
| Loans to members, net | 26,400,921 |  | 1,058,603 | $(1,037,863)$ | 26,421,661 |
| Other assets | 1,132,171 |  | 106,301 | $(93,532)$ | 1,144,940 |
| Total assets. | \$ 27,533,092 | \$ | 1,164,904 | \$ (1,131,395) | \$ 27,566,601 |

## 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, 2020 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

Our financial condition, results of operations and liquidity are subject to various risks and uncertainties, some of which are inherent in the financial services industry and others of which are more specific to our own business. We identify and discuss the most significant risk factors of which we are currently aware that could have a material adverse impact on our business, results of operations, financial condition or liquidity in the section "Part I—Item 1A. Risk Factors" in our 2020 Form 10-K, as filed with the SEC on August 5, 2020. We are not aware of any material changes in the risk factors identified in our 2020 Form 10-K. However, other risks and uncertainties, including those not currently known to us, could also negatively impact our business, results of operations, financial condition and liquidity. Therefore, the risk factors identified and discussed in our 2020 Form 10-K should not be considered a complete discussion of all the risks and uncertainties we may face. For information on how we manage our key risks, see "Item 7. MD\&A—Risk Management" in our 2020 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* | - Series R Bond Purchase Agreement between the Registrant, Federal Financing Bank and Rural Utilities Service dated as of November 19, 2020 for up to $\$ 375,000,000$. |
| 10.2* | - Series R Future Advance Bond from the Registrant to the Federal Financing Bank dated as of November 19, 2020 for up to $\$ 375,000,000$ maturing on July 15, 2025. |
| 10.3* | - Seventh Amended, Restated and Consolidated Pledge Agreement dated as of November 19, 2020 between the Registrant, the Rural Utilities Service and U.S. Bank National Association. |
| 10.4* | - Seventh Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 19, 2020 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 |
| 31.2* |  |
| $32.1 \dagger$ |  |
| $32.2 \dagger$ | - Certification of the Chief Financial Officer required by Section 906 of the Sarbanes-Oxley Act of 2002. |
| 101.INS | - Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document. |
| 101.SCH* | - Inline XBRL Taxonomy Extension Schema Document |
| 101.CAL* | - Inline XBRL Taxonomy Calculation Linkbase Document |
| 101.LAB* | - Inline XBRL Taxonomy Label Linkbase Document |
| 101.PRE* | - Inline XBRL Taxonomy Presentation Linkbase Document |
| 101.DEF* | - Inline XBRL Taxonomy Definition Linkbase Document |
| 104 | - Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101) |

[^18]
## 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 12, 2021
By: /s/ J. ANDREW DON
J. Andrew Don

Senior Vice President and Chief Financial Officer

By: /s/ ROBERT E. GEIER
Robert E. Geier
Controller and Principal Accounting Officer

# SERIES R BOND PURCHASE AGREEMENT 

by and among

# FEDERAL FINANCING BANK, <br> NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, and <br> ADMINISTRATOR of the RURAL UTILITIES SERVICE 

made as of

November 19, 2020

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SERIES R BOND PURCHASE AGREEMENT made as of November 19, 2020, 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 R 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 R Bond Purchase Agreement; and

WHEREAS, the Borrower is authorized to enter into this Series R 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 Seventh Amended, Restated and Consolidated Bond Guarantee Agreement
dated as of November 19, 2020, 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 $\underline{\mathrm{C}}$ 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 \$375,000,000.00.
"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 Seventh Amended, Restated and Consolidated Pledge Agreement dated as of November 19, 2020, 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 R 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 <br> 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 thirtieth 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 redetermined 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 FixedPremium 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 the Assistant Administrator, Electric Program
Rural Utilities Service
U.S. Department of Agriculture

Mail Stop 1560, Room 4121-S
1400 Independence Avenue, SW
Washington, DC 20250
Attention: Amy McWilliams, Program Advisor
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

# UNITED STATES OF AMERICA, acting Through the ADMINISTRATOR of the RURAL UTILITIES SERVICE <br> ("RUS") 

By: /s/ CURTIS M. ANDERSON
Name: Curtis M. Anderson for Chad Rupe, Administrator

## EXHIBIT A

## TO

BOND PURCHASE AGREEMENT

FORM
OF

ADVANCE REQUEST

## ADVANCE REQUEST (RUS APPROVAL REQUIRED)

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*************************************************************************
*****
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

\section*{ADVANCE REQUEST}

\section*{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
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
\$
2
2. Requested Advance Date: \(\qquad\)

\footnotetext{
Insert 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.
\({ }^{3}\) Insert 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 Purchase Agreement referred to in the Bond.
}
3. Wire Instructions:

\section*{A. CORRESPONDENT BANK (if any) FOR PAYEE'S BANK:}

Name of financial institution

Address of financial institution

ABA number of financial institution

\section*{B. PAYEE'S BANK AND ACCOUNT:}

Name of financial institution

Address of financial institution \(\qquad\)

ABA number of financial institution \(\qquad\)

Account name \(\qquad\)

Account number

Taxpayer ID number \(\qquad\)
4. Maturity Date: \(\qquad\) 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

\footnotetext{
\(\overline{4}\) 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:

\section*{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:
\(\square\)
"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: \(\square\)
" 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

\footnotetext{
\({ }^{5}\) Insert 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.
\({ }^{6}\) Insert in the box "Y" if the Borrower elects to have the Fixed Premium Prepayment/Refinancing Privilege include a 5year 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.
}

\title{
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 \(\square\)
10 years
"V" for 5\% premium declining over 5 years
"P" for par (no premium)

\footnotetext{
\({ }^{7}\) Insert 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: \(\qquad\)
Name: \(\qquad\)
Title: \(\qquad\)

Date: \(\qquad\)

\title{
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.

\section*{FOR ACCOUNTING USE ONLY:}

RUS Budget
Account
Number
\(\qquad\)
ADMINISTRATOR of the RURAL UTILITIES SERVICE, acting through his or her duly authorized designee

By: \(\qquad\)

Name: \(\qquad\)
Title: \(\qquad\)

Date: \(\qquad\)

EXHIBIT B

TO

BOND PURCHASE AGREEMENT

FORM
OF

BOND

Bond
Date
November 19, 2020


Final Maturity Date (ब5)

July 15, 2055

\section*{FUTURE ADVANCE BOND \\ SERIES R}

\section*{1. Promise to Pay.}

\section*{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").

\section*{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 R 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 ("ㅈNUS") (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 Seventh Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 19, 2020, 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 Seventh

Amended, Restated and Consolidated Pledge Agreement dated as of November 19, 2020, 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").

\section*{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."

\section*{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."

\section*{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.

\section*{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.

\section*{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.

\section*{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.

\section*{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. § \(661 \mathrm{~d}(\mathrm{c})\) ).

\section*{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.

\section*{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 redetermined 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.

\section*{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.

\section*{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.

\section*{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.

\section*{15. Maturity Extensions.}
(a) With respect to each Advance (1) for which the Borrower has selected a Maturity Date that will occur before the thirtieth anniversary of the Requested Advance Date specified in the respective Advance Request, or (2) for which a Maturity Date that will occur before the thirtieth 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 thirtieth anniversary of the Requested Advance Date specified in the original Advance Request (if such thirtieth anniversary date is a Payment Date) or the Payment Date immediately preceding such thirtieth anniversary date (if such thirtieth 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 thirtieth anniversary of the Requested Advance Date specified in the original Advance Request (if such thirtieth anniversary date is a Payment Date) or upon the Payment Date immediately preceding such thirtieth anniversary date (if such thirtieth anniversary date is not a Payment Date), no further Maturity Extensions may occur.

\section*{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.

\section*{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.

\section*{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.

\section*{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.

\section*{20. Certain Waivers.}

The Borrower hereby waives any requirement for presentment, protest, or other demand or notice with respect to this Bond.

\section*{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.

\section*{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.

\section*{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.

\section*{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.

\section*{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.

\section*{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.

\section*{NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION}
(the "Borrower")
BY:

Signature: \(\qquad\)

Print Name: Sheldon C. Petersen

Title: Governor and Chief Executive Officer

\section*{ATTEST:}

Signature: \(\qquad\)
(SEAL)
Print Name: Roberta B. Aronson

Title: Assistant Secretary-Treasurer

\section*{ANNEX 1-A \\ TO}

\section*{FUTURE ADVANCE BOND}

FORM
OF

\section*{MATURITY EXTENSION ELECTION NOTICE}

\section*{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 PA YMENT 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, \(S W\)
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.

\section*{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:

\section*{Part 1 (To be completed by RUS):}

Each of the advances of funds ("Advances") identified in this Part 1 will mature on \(\qquad\) (the "Maturity Date").


\section*{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:


\footnotetext{
\({ }^{1}\) Complete 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.
\({ }^{2}\) The 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.
\({ }^{3}\) For 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.
\({ }^{4}\) For 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.
\({ }^{5}\) Elect 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.
\({ }^{6}\) Elect 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.
}
\({ }^{7}\) Select 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.

\title{
NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION \\ (the "Borrower")
}

By:
Name: \(\qquad\)

Title: \(\qquad\)

Date: \(\qquad\)

\section*{ANNEX 1-B}

TO
FUTURE ADVANCE BOND

\section*{FORM}

OF

\section*{MATURITY EXTENSION ELECTION NOTICE}
(RUS APPROVAL REQUIRED)

\title{
MATURITY EXTENSION ELECTION NOTICE (RUS APPROVAL REQUIRED)
}

\section*{\(* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *\)}

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:

\author{
Office of Portfolio Management and Risk Assessment \\ Rural Utilities Service \\ U.S. Department of Agriculture \\ Mail Stop 1568, Room 0226-S \\ 1400 Independence Avenue, \(S W\) \\ 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.

\section*{MATURITY EXTENTION ELECTION NOTICE (RUS APPROVAL REQ'D) - page 1}

\section*{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:

\section*{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").


\section*{MATURITY EXTENTION ELECTION NOTICE (RUS APPROVAL REQ'D) - page 2}

\section*{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:
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \begin{tabular}{l}
FFB \\
ADVANCE IDENTIFIER \({ }^{1}\)
\end{tabular} & OPTIONAL PRINCIPA L AMOUNT \({ }^{2}\) & \[
\begin{gathered}
\text { Aivivuiv i } \\
\text { OF } \\
\text { PRINCIPAL } \\
\text { TO BE } \\
\text { EXTENDED }^{\mathbf{3}}
\end{gathered}
\] & \[
\begin{gathered}
\text { NEW } \\
\text { MATURIT } \\
\text { YDATE }^{4}
\end{gathered}
\] &  & \[
\begin{gathered}
\text { 5-YEAR } \\
\text { NO-CALL } \\
\text { PERIOD }^{6}
\end{gathered}
\] & PREMIUM OPTION \({ }^{7}\) \\
\hline & \$ & & & & & \\
\hline & \$ & & & &  &  \\
\hline & \$ & & & & &  \\
\hline & \$ & & & & &  \\
\hline & & & & & & \\
\hline \[
\begin{aligned}
& { }^{1} \text { Complett } \\
& \text { extended to a new } \\
& \text { Advance for each Ad }
\end{aligned}
\] & 1 line in Part 2 for urity Date other th ance identified in P & ach Advance identifi the next Payment 1 with respect to & \begin{tabular}{l}
in Part 1 with re \\
. Insert the FFB ch the Borrower
\end{tabular} & ect to which the Borrow dvance Identifier that ects to have the maturi & elects to have \(B\) assigned to th o extended. & maturity espective \\
\hline \begin{tabular}{l}
\({ }^{2}\) The Borr \\
Advance, insert the a
\end{tabular} & er has the option unt of any such o & making a payment ional principal payn & principal on the that will be p & aturity Date without a on the Maturity Date. & remium being & ged. For each \\
\hline \({ }^{3}\) For each between the outstand Advance inserted by & \begin{tabular}{l}
dvance, insert the \\
g principal amount \\
e Borrower in Part
\end{tabular} & mount of principal or the respective \(A\) & which the matur nce, as specified & is to be extended. That Part 1, and the optional & mount must equa rincipal paymen & the difference if any) for such \\
\hline \begin{tabular}{l}
\({ }^{4}\) For each \\
respective Advance
\end{tabular} & dvance, insert the \(r\) the Maturity Ex & ticular calendar da sion, which new M & hat the Borrow rity Date must & lects to be the new \(M\) all the criteria for M & rity Date" to be rity Dates specific & \begin{tabular}{l}
effect for the \\
in section
\end{tabular} \\
\hline
\end{tabular}
7.3.1(a)(5) of the Bond Purchase Agreement referred to in the Bond.
\({ }^{5}\) Elect 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.
\({ }^{6}\) Elect 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.
\({ }^{7}\) Select 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.

\section*{MATURITY EXTENTION ELECTION NOTICE (RUS APPROVAL REQ'D) - page 3}

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: \(\qquad\)
Name: \(\qquad\)
Title: \(\qquad\)
Date: \(\qquad\)

\section*{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: \(\qquad\)

Title: \(\qquad\)

Date: \(\qquad\)

MATURITY EXTENTION ELECTION NOTICE (RUS APPROVAL REQ'D) - page 4

\section*{ANNEX 2-A}

TO

FUTURE ADVANCE BOND

FORM
OF

\section*{PREPAYMENT ELECTION NOTICE} SPECIFIED PRINCIPAL AMOUNT(S)
(RUS APPROVAL REQUIRED)

\title{
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

\section*{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:
\[
1
\]

\footnotetext{
\({ }^{1}\) Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).
}

\section*{PREPAYMENT ELECTION NOTICE - SP PRN (RUS APPROVAL REQ'D) - page 1}

\section*{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:


\section*{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"):

\footnotetext{
\({ }^{2}\) Complete 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.
\({ }^{3}\) For 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.
\({ }^{4}\) For each Advance, insert the date on which FFB made the respective Advance to the Borrower.
\({ }^{5}\) For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.
\({ }^{6}\) Insert 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.
\({ }^{7}\) Insert 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.
}

\section*{PREPAYMENT ELECTION NOTICE - SP PRN (RUS APPROVAL REQ'D) - page 2}

\section*{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
IDENTIFIER \({ }^{8}\)
\(\qquad\)
\(\qquad\)


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: \(\qquad\)

Name: \(\qquad\)
Title: \(\qquad\)

Date: \(\qquad\)

\footnotetext{
\({ }^{8}\) Complete 1 line in Part 3 for each Advance identified in Part 1.
}
\({ }^{9}\) For each Advance, insert the amount of principal that will be prepaid on the Intended Prepayment Date.

PREPAYMENT ELECTION NOTICE - SP PRN (RUS APPROVAL REQ'D) - page 3

\section*{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.

\author{
ADMINISTRATOR of the \\ RURAL UTILITIES SERVICE, acting through his or her duly authorized designee
}

By: \(\qquad\)
Name: \(\qquad\)
Title: \(\qquad\)

Date: \(\qquad\)

PREPAYMENT ELECTION NOTICE - SP PRN (RUS APPROVAL REQ'D) - page 4

\title{
ANNEX 2-B \\ TO \\ FUTURE ADVANCE BOND
}

\section*{FORM}

OF

\section*{PREPAYMENT ELECTION NOTICE}

FIXED SUM TO BE APPLIED
(RUS APPROVAL REQUIRED)

\title{
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, \(S W\)
Washington, DC 20250

Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst
Telephone: (202) 205-8663
Facsimile: (844) 749-0736

\section*{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:

\footnotetext{
\({ }^{1}\) Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).
}

PREPAYMENT ELECTION NOTICE - FX SUM (RUS APPROVAL REQ'D) - page 1

\section*{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:


\section*{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

\footnotetext{
\({ }^{2}\) Complete 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.
\({ }^{3}\) For 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.
\({ }^{4}\) For each Advance, insert the date on which FFB made the respective Advance to the Borrower.
\({ }^{5}\) For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.
\({ }^{6}\) Insert 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.
\({ }^{7}\) Insert 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.
}

\section*{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:

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: \(\qquad\)

Name: \(\qquad\)
Title: \(\qquad\)

Date: \(\qquad\)

\footnotetext{
\({ }^{8}\) Insert 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.
}

\title{
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.

\author{
ADMINISTRATOR of the RURAL UTILITIES SERVICE, acting through his or her duly authorized designee
}

By: \(\qquad\)

Name: \(\qquad\)

Title: \(\qquad\)

Date: \(\qquad\)

\section*{ANNEX 3-A}

TO

\section*{FUTURE ADVANCE BOND}

FORM

OF

\section*{REFINANCING ELECTION NOTICE}

\section*{REFINANCING ELECTION NOTICE}
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****************************************************************************
DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER.

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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

\section*{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

\section*{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:


\section*{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"):

\footnotetext{
\({ }^{1}\) Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).
\({ }^{2}\) Complete 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.
\({ }^{3}\) For 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.
\({ }^{4}\) For each Advance, insert the date on which FFB made the respective Advance to the Borrower.
\({ }^{5}\) For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.
\({ }^{6}\) For each Advance, insert the outstanding principal amount of the respective Advance as of the day before the intended refinancing.
\({ }^{7}\) Insert 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.
}

\section*{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:
\begin{tabular}{|c|c|c|c|c|c|}
\hline \[
\begin{gathered}
\text { FFB } \\
\text { ADVANCE } \\
\text { IDENTIFIER }^{8}
\end{gathered}
\] & AMOUNT OF PRINCIPAL TO BE REFINANCED \({ }^{9}\) & \[
\begin{gathered}
\text { NEW } \\
\text { MATURITY } \\
\text { DATE }^{10} \\
\hline
\end{gathered}
\] & \begin{tabular}{l}
TYPE OF \\
PREPAYMENT \\
REFINANCING PRIVILEGE \({ }^{11}\)
\end{tabular} & \[
\begin{aligned}
& \text { 5-YEAR } \\
& \text { NO-CAL } \\
& \text { PERIOD }^{12}
\end{aligned}
\] & PREMIUM OPTION \({ }^{13}\) \\
\hline & \$ & &  &  & \\
\hline & \$ & & &  & \[
7
\] \\
\hline & \$ & & & &  \\
\hline & \$ & & &  &  \\
\hline
\end{tabular}

\footnotetext{
\({ }^{8}\) Complete 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.
\({ }^{9}\) For 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.
\({ }^{10}\) For 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.
\({ }^{11}\) Elect 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.
\({ }^{12}\) Elect 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.

13
Select 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")
\(B y\) : \(\qquad\)
Name: \(\qquad\)
Title: \(\qquad\)
Date: \(\qquad\)

\section*{ANNEX 3-B}

TO

\section*{FUTURE ADVANCE BOND}

\section*{FORM}

OF

\section*{REFINANCING ELECTION NOTICE} (RUS APPROVAL REQUIRED)

\section*{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, \(S W\)
Washington, DC 20250

Reference: Section 313A Loan Guarantee Underwriter Program Attention: Amy McWilliams, Management Analyst

Telephone: (202) 205-8663
Facsimile: (844) 749-0736

\section*{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"):

\section*{National Rural Utilities Cooperative Corporation}

FFB Bond Identifier:
1
\({ }^{1}\) Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).
REFINANCING ELECTION NOTICE (RUS APPROVAL REQ'D) - page 1

\section*{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:


\section*{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"):
\[
7
\]

\footnotetext{
\({ }^{2}\) Complete 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.
\({ }^{3}\) For 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.
\({ }^{4}\) For each Advance, insert the date on which FFB made the respective Advance to the Borrower.
\({ }^{5}\) For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.
\({ }^{6}\) For each Advance, insert the outstanding principal amount of the respective Advance as of the day before the intended refinancing.
\({ }^{7}\) Insert 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.
}

\section*{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:
\begin{tabular}{|c|c|c|c|c|c|}
\hline \[
\begin{gathered}
\text { FFB } \\
\text { ADVANCE } \\
\text { IDENTIFIER }^{8}
\end{gathered}
\] & AMOUNT OF PRINCIPAL TO BE REFINANCED \({ }^{9}\) & \[
\begin{gathered}
\text { NEW } \\
\text { MATURITY } \\
\text { DATE }^{10}
\end{gathered}
\] & TYPE OF PREPAYMENT REFINANCING PRIVILEGE \({ }^{11}\) & \[
\begin{aligned}
& \text { 5-YEAR } \\
& \text { NO-CALL } \\
& \text { PERIOD }{ }^{12} \\
& \hline
\end{aligned}
\] & PREMIUM OPTION \({ }^{13}\) \\
\hline & \$ & &  &  & \\
\hline & \$ & & &  &  \\
\hline & \$ & & &  &  \\
\hline & \$ & & &  &  \\
\hline
\end{tabular}
\({ }^{8}\) Complete 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.
\({ }^{9}\) For 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.
\({ }^{10}\) For 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.
\({ }^{11}\) Elect 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.
\({ }^{12}\) Elect 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.
\({ }^{13}\) Select 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: \(\qquad\)

Name: \(\qquad\)
Title: \(\qquad\)

Date: \(\qquad\)

\section*{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: \(\qquad\)
Name: \(\qquad\)

Title: \(\qquad\)

Date: \(\qquad\)

\section*{EXHIBIT C}

TO

BOND PURCHASE AGREEMENT

FORM OF

\title{
CERTIFICATE SPECIFYING AUTHORIZED BORROWER OFFICIALS
}

\author{
Federal Financing Bank \\ Main Treasury Building \\ 1500 Pennsylvania Avenue, NW \\ Washington, DC 20220
}

Reference is made to the Series R Bond Purchase Agreement dated as of November 19, 2020 (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:

\section*{Name}

Sheldon C. Petersen

Title
Governor and
Chief Executive Officer

Senior Vice President and Chief
Financial Officer

Senior Vice President, General
Counsel and Assistant SecretaryTreasurer

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 19, 2020

\section*{EXHIBIT D}

TO

BOND PURCHASE AGREEMENT

FORM

OF
CERTIFICATE SPECIFYING AUTHORIZED RUS OFFICIALS

\section*{CERTIFICATE SPECIFYING}

AUTHORIZED RUS OFFICIALS

\author{
Federal Financing Bank \\ Main Treasury Building \\ 1500 Pennsylvania Avenue, NW \\ Washington, DC 20220
}

Reference is made to the Series R Bond Purchase Agreement dated as of November 19, 2020 (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:
\begin{tabular}{|c|c|}
\hline Curtis M. Anderson & Chief of Staff \(\quad\) Rural
Utilities Service \\
\hline Christopher A. McLean & Assistant Administrator Electric Program \\
\hline James F. Elliott & \begin{tabular}{l}
Director of Operations \\
Electric Program \\
Rural Utilities Service
\end{tabular} \\
\hline
\end{tabular}
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:
\begin{tabular}{lll}
\multicolumn{1}{c}{ Name } & \multicolumn{1}{c}{ Title } & Telephone Number \\
Curtis M. Anderson & \begin{tabular}{l} 
Chief of Staff \\
Utilities Service
\end{tabular} & Rural
\end{tabular}

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: \(\qquad\)

Name: Curtis M. Anderson
Title: Chief of Staff for Chad Rupe, Administrator

Date: November 19, 2020

\section*{EXHIBIT E}

\section*{TO}

\section*{BOND PURCHASE AGREEMENT}

\section*{FORM}

OF

OPINION OF BORROWER'S COUNSEL
re:
BORROWER'S INSTRUMENTS

November 19, 2020
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

\section*{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 \(\$ 375,000,000.00\), provided for in the Series R Bond Purchase Agreement ("Bond Purchase Agreement"), dated as of November 19, 2020 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 19, 2020, in the maximum principal amount of \(\$ 375,000,000.00\) ("Guaranteed Bond"), said Guaranteed Bond payable to FFB, (c) the Seventh Amended, Restated and Consolidated Bond Guarantee Agreement, dated as of November 19, 2020, made by and between RUS and Borrower, ("Guarantee Agreement"), (d) the Seventh Amended, Restated and Consolidated Pledge Agreement, dated as of November 19, 2020, made by and among Borrower, RUS and U.S. Bank National Association ("Pledge Agreement"), and (e) the Series R Reimbursement Note, dated as of November 19, 2020, 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) 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.

Administrator-RUS
Federal Financing Bank
November 19, 2020
Page 3

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

\section*{EXHIBIT F}

TO

BOND PURCHASE AGREEMENT

FORM

OF
OPINION OF RUS'S COUNSEL
re:

RUS GUARANTEE

November 19, 2020

\author{
MEMORANDUM FOR: CHAD RUPE ADMINISTRATOR RURAL UTILITIES SERVICE \\ FROM: Stephen Alexander Vaden General Counsel \\ SUBJECT: Section 313A Legal Opinion
}

This is in response to your letter of November 19, 2020, written in your capacity as 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 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 19, 2020, 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. §§ 901-950cc-2 (the "Rural Electrification Act of 1936"), as amended;
2. The Further Consolidated Appropriations Act, 2020, Pub. L. No. 116-94, Division B, 133 Stat. 2534, 2633 (the "Appropriations Act");
3. The Department of Agriculture Reorganization Act of 1994 (7 U.S.C. § 6941), as amended by Section 12407 of the Agriculture Improvement Act of 2018, Pub. L. 115-334.
4. Delegations of authority from the Secretary of Agriculture (the "Secretary") to the Under Secretary for Rural Development pursuant to the delegations in 7 C.F.R. § 2.17 (2020), and redelegations from the Under Secretary for Rural Development to the Administrator, Rural Utilities Service, pursuant to the delegations in 7 C.F.R. § 2.47 (2020);
5. The executed Bond of the Borrower in the maximum principal amount of three hundred seventy-five million dollars ( \(\$ 375,000,000\) ), having a final maturity date of July 15 , 2055, and payable to FFB and any successor or assign of FFB;
6. The Guarantee endorsed by the Administrator of RUS, which is attached to the Bond; and
7. The Commitment Letter, dated September 16, 2020, from Chad Rupe, 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 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.

\section*{EXHIBIT G}

TO

BOND PURCHASE AGREEMENT

FORM

OF

\author{
Federal Financing Bank
}

Main Treasury Building
1500 Pennsylvania Avenue, NW
Washington, DC 20220

Reference is made to:
(a) the Series R Bond Purchase Agreement dated as of November 19, 2020 (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 R Bond dated as of November 19, 2020 (the "Bond"), issued by the Borrower payable to FFB in the maximum principal amount of \(\$ 375,000,000.00\); and
(c) the RUS Guarantee dated as of November 19, 2020 (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 Chief of Staff for the 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 Chief of Staff for 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.

> UNITED STATES OF AMERICA, acting through the ADMINISTRATOR of the RURAL UTILITIES SERVICE,

By:
Name: Curtis M. Anderson for Chad Rupe, Administrator

Date: November 19, 2020

\section*{EXHIBIT H}

\section*{TO}

BOND PURCHASE AGREEMENT

\section*{FORM}

OF

\section*{RUS GUARANTEE}

\section*{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 R Bond dated
November 19, 2020, issued by National Rural Utilities Cooperative Finance Corporation (the "Borrower") payable to FFB in the maximum principal amount of \(\$ 375,000,000\), 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 R Bond Purchase Agreement dated as of November 19, 2020, among FFB, the Borrower, and RUS.

UNITED STATES OF AMERICA, acting
Through the Administrator of the
RURAL UTILITIES SERVICE

By:
Name: Curtis M. Anderson
For Chad Rupe, Administrator of the Rural Utilities Service

Date: November 19, 2020
\begin{tabular}{|c|c|}
\hline Bond Date & November 19, 2020 \\
\hline Place of Issue & Washington, DC \\
\hline Last Day for an Advance (©3) & July 15, 2025 \\
\hline \begin{tabular}{l}
Maximum \\
Principal \\
Amount (\$4)
\end{tabular} & \$375,000,000.00 \\
\hline Final Maturity Date ( \(\mathbb{4}\) ) & July 15, 2055 \\
\hline
\end{tabular}

\section*{FUTURE ADVANCE BOND SERIES R}

\section*{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").

\section*{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 R 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 ("ㄴUS") (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 Seventh Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 19, 2020, 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 Seventh Amended, Restated and Consolidated Pledge Agreement dated as of November 19, 2020, 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").

\section*{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."

\section*{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."

\section*{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.

\section*{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.

\section*{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.

\section*{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.

\section*{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 \(6(\mathrm{~b})\) 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. § \(661 \mathrm{~d}(\mathrm{c})\) ).

\section*{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.

\section*{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 366day year).
(3) The Late Charge shall accrue at a rate (the "Late Charge Rate") equal to one and onehalf 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 redetermined 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.

\section*{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.

\section*{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.

\section*{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.

\section*{15. Maturity Extensions.}
(a) With respect to each Advance (1) for which the Borrower has selected a Maturity Date that will occur before the thirtieth anniversary of the Requested Advance Date specified in the respective Advance Request, or (2) for which a Maturity Date that will occur before the thirtieth 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 thirtieth anniversary of the Requested Advance Date specified in the original Advance Request (if such thirtieth anniversary date is a Payment Date) or the Payment Date immediately preceding such thirtieth anniversary date (if such thirtieth 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 \(6(\mathrm{~d})\) of this Bond.
(g) The maturity of each Advance may be extended more than once as provided in this paragraph 15, but upon the thirtieth anniversary of the Requested Advance Date specified in the original Advance Request (if such thirtieth anniversary date is a Payment Date) or upon the Payment Date immediately preceding such thirtieth anniversary date (if such thirtieth anniversary date is not a Payment Date), no further Maturity Extensions may occur.

\section*{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.

\section*{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 newlycomputed 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.

\section*{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.

\section*{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.

\section*{20. Certain Waivers.}

The Borrower hereby waives any requirement for presentment, protest, or other demand or notice with respect to this Bond.

\section*{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.

\section*{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.

\section*{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.

\section*{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.

\section*{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.

\section*{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.

\title{
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)

\section*{ATTEST:}

Signature: /s/ ROBERTA B. ARONSON

Print Name: Roberta B. Aronson
Title: Assistant Secretary-Treasurer

\section*{ANNEX 1-A \\ TO}

FUTURE ADVANCE BOND

FORM

OF

\section*{MATURITY EXTENSION ELECTION NOTICE}

\section*{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 }2022
Telephone: (202) 622-2470
Facsimile: (202) 622-0707

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DELIVER A COPY OF THIS FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:
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Office of Portfolio Management and Risk Assessment
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1568, Room 0226-S
1 4 0 0 ~ I n d e p e n d e n c e ~ A v e n u e , ~ S W ~
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.

\section*{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:

\section*{Part 1 (To be completed by RUS):}

Each of the advances of funds ("Advances") identified in this Part 1 will mature on \(\qquad\) (the "Maturity Date").


MATURITY EXTENSION ELECTION NOTICE - page 2

\section*{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:


\footnotetext{
\({ }^{1}\) Complete 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.
\({ }^{2}\) The 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.
\({ }^{3}\) For 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.
\({ }^{4}\) For 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.
\({ }^{5}\) Elect 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 (" \(\mathrm{M}^{\prime}\) ) and a fixed premium privilege (" F "). Insert in the box the letter-symbol for the particular type of prepayment/refinancing privilege elected.
\({ }^{6}\) Elect 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.
\({ }^{7}\) Select 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: \(\qquad\)
Title: \(\qquad\)
Date: \(\qquad\)

ANNEX 1-B

TO

FUTURE ADVANCE BOND

FORM

OF

MATURITY EXTENSION ELECTION NOTICE (RUS APPROVAL REQUIRED)

\section*{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:

\author{
Office of Portfolio Management and Risk Assessment \\ Rural Utilities Service \\ U.S. Department of Agriculture \\ Mail Stop 1568, Room 0226-S \\ 1400 Independence Avenue, \(S W\) \\ 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.

\section*{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:

\section*{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").


\section*{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:


\footnotetext{
\({ }^{1}\) Complete 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.
\({ }^{2}\) The 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.
\({ }^{3}\) For 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.
\({ }^{4}\) For 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.
\({ }^{5}\) Elect 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.
\({ }^{6}\) Elect 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.
\({ }^{7}\) Select 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.

\section*{NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION \\ (the "Borrower")}

By: \(\qquad\)
Name: \(\qquad\)

Title: \(\qquad\)
Date: \(\qquad\)

\section*{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: \(\qquad\)

Title: \(\qquad\)

Date: \(\qquad\)
MATURITY EXTENSION ELECTION NOTICE (RUS APPROVAL REQ'D) - page 4

\section*{ANNEX 2-A}

TO

\section*{FUTURE ADVANCE BOND}

\section*{FORM}

OF
PREPAYMENT ELECTION NOTICE

SPECIFIED PRINCIPAL AMOUNT(S)
(RUS APPROVAL REQUIRED)

\title{
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

\section*{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
\({ }^{1}\) Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).
PREPAYMENT ELECTION NOTICE SP PRN (RUS APPROVAL REQ'D) - page 1

\section*{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:


\section*{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"):

\footnotetext{
\({ }^{2}\) Complete 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.
\({ }^{3}\) For 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.
\({ }^{4}\) For each Advance, insert the date on which FFB made the respective Advance to the Borrower.
\({ }^{5}\) For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.
\({ }^{6}\) Insert 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.
\({ }^{7}\) Insert 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.
}

PREPAYMENT ELECTION NOTICE SP PRN (RUS APPROVAL REQ'D) - page 2

\section*{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:


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: \(\qquad\)
Name: \(\qquad\)
Title: \(\qquad\)

Date: \(\qquad\)

\footnotetext{
\({ }^{8}\) Complete 1 line in Part 3 for each Advance identified in Part 1.
\({ }^{9}\) For each Advance, insert the amount of principal that will be prepaid on the Intended Prepayment Date.
}

\section*{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.

\author{
ADMINISTRATOR of the RURAL UTILITIES SERVICE, acting through his or her duly authorized designee
}

By: \(\qquad\)

Name: \(\qquad\)

Title: \(\qquad\)
Date: \(\qquad\)

\section*{ANNEX 2-B}

TO

FUTURE ADVANCE BOND

FORM

OF

\section*{PREPAYMENT ELECTION NOTICE}

FIXED SUM TO BE APPLIED
(RUS APPROVAL REQUIRED)

\title{
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

\section*{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:

\footnotetext{
\({ }^{1}\) Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).
}

PREPAYMENT ELECTION NOTICE - FX SUM (RUS APPROVAL REQ'D) - page 1

\section*{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:


\section*{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"):
\({ }^{2}\) Complete 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.
\({ }^{3}\) For 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.
\({ }^{4}\) For each Advance, insert the date on which FFB made the respective Advance to the Borrower.
\({ }^{5}\) For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.
\({ }^{6}\) Insert 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.
\({ }^{7}\) Insert 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.

PREPAYMENT ELECTION NOTICE - FX SUM (RUS APPROVAL REQ'D) - page 2

\section*{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:

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: \(\qquad\)

Name: \(\qquad\)
Title: \(\qquad\)
Date: \(\qquad\)

\footnotetext{
\({ }^{8}\) Insert 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.
}

\section*{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.

\author{
ADMINISTRATOR of the RURAL UTILITIES SERVICE, acting through his or her duly authorized designee
}

By: \(\qquad\)

Name: \(\qquad\)

Title: \(\qquad\)
Date: \(\qquad\)

\section*{ANNEX 3-A}

TO

FUTURE ADVANCE BOND

FORM

OF

\section*{REFINANCING ELECTION NOTICE}

\section*{REFINANCING ELECTION NOTICE}

\section*{}

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, \(S W\)
Washington, DC 20250
Reference: Section 313A Loan Guarantee Underwriter Program
Attention: Amy McWilliams, Management Analyst
Telephone: (202) 205-8663
Facsimile: (844) 749-0736

\section*{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

\section*{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:


\section*{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"):

\footnotetext{
\({ }^{1}\) Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).
\({ }^{2}\) Complete 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.
\({ }^{3}\) For 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.
\({ }^{4}\) For each Advance, insert the date on which FFB made the respective Advance to the Borrower.
\({ }^{5}\) For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.
\({ }^{6}\) For each Advance, insert the outstanding principal amount of the respective Advance as of the day before the intended refinancing.
\({ }^{7}\) Insert 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.
}

\section*{Part 3:}

\section*{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:}
\begin{tabular}{|c|c|c|c|c|c|}
\hline \[
\begin{gathered}
\text { FFB } \\
\text { ADVANCE } \\
\text { IDENTIFIER }^{8}
\end{gathered}
\] & AMOUNT OF PRINCIPAL TO BE REFINANCED \({ }^{9}\) & \[
\begin{gathered}
\text { NEW } \\
\text { MATURITY } \\
\text { DATE }^{10}
\end{gathered}
\] & \begin{tabular}{l}
TYPE OF \\
PREPAYMENT \\
REFINANCING PRIVILEGE \({ }^{11}\)
\end{tabular} & \[
\begin{aligned}
& \text { 5-YEAR } \\
& \text { NO-CAL } \\
& \text { PERIOD }
\end{aligned}
\] & \[
\begin{aligned}
& \text { PREMIUM } \\
& \text { OPTION }^{13}
\end{aligned}
\] \\
\hline & \$ & & & & \\
\hline & \$ & & & & \\
\hline & \$ & & & & \\
\hline & \$ & & & & \\
\hline
\end{tabular}

\footnotetext{
\({ }^{8}\) Complete 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.
\({ }^{9}\) For 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.
\({ }^{10}\) For 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.
\({ }^{11}\) Elect 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.
\({ }^{12}\) Elect 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.
\({ }^{13}\) Select 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.

\section*{NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION \\ (the "Borrower")}

By: \(\qquad\)

Name: \(\qquad\)
Title: \(\qquad\)

Date: \(\qquad\)

\section*{ANNEX 3-B}

TO

FUTURE ADVANCE BOND

\section*{FORM}

OF

\section*{REFINANCING ELECTION NOTICE}
(RUS APPROVAL REQUIRED)

\section*{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:

\author{
Office of Portfolio Management and Risk Assessment \\ Rural Utilities Service \\ U.S. Department of Agriculture \\ Mail Stop 1568, Room 0226-S \\ 1400 Independence Avenue, \(S W\) \\ Washington, DC 20250 \\ Reference: Section 313A Loan Guarantee Underwriter Program \\ Attention: Amy McWilliams, Management Analyst \\ Telephone: (202) 205-8663 \\ Facsimile: (844) 749-0736
}

\section*{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: \(\qquad\) 1

\footnotetext{
\({ }^{1}\) Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).
}

REFINANCING ELECTION NOTICE (RUS APPROVAL REQ'D) - page 1

\section*{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:


\section*{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

\footnotetext{
\({ }^{2}\) Complete 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.
\({ }^{3}\) For 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.
\({ }^{4}\) For each Advance, insert the date on which FFB made the respective Advance to the Borrower.
\({ }^{5}\) For each Advance, insert the original principal amount of the respective Advance that FFB made to the Borrower.
\({ }^{6}\) For each Advance, insert the outstanding principal amount of the respective Advance as of the day before the intended refinancing.
\({ }^{7}\) Insert 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.
}

\section*{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:


\footnotetext{
\({ }^{8}\) Complete 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.
\({ }^{9}\) For 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.
\({ }^{10}\) For 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.
\({ }^{11}\) Elect 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.
\({ }^{12}\) Elect 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.
\({ }^{13}\) Select 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: \(\qquad\)
Name: \(\qquad\)

Title: \(\qquad\)

Date: \(\qquad\)

\section*{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: \(\qquad\)

Name: \(\qquad\)
Title: \(\qquad\)

Date: \(\qquad\)

THE UNITED STATES OF AMERICA, acting through the Rural Utilities Service,

\title{
NATIONAL RURAL UTILITIES \\ COOPERATIVE FINANCE CORPORATION
}
and
U.S. BANK NATIONAL ASSOCIATION, as Collateral Agent

SEVENTH AMENDED, RESTATED AND CONSOLIDATED PLEDGE AGREEMENT

Dated as of
November 19, 2020

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SEVENTH AMENDED, RESTATED AND CONSOLIDATED
PLEDGE AGREEMENT, dated as of November 19, 2020, 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.

\section*{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 \$7,798,286,000: (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, (k) that certain Series M Future Advance Bond dated as of November 9, 2017, (1) that certain Series N Future Advance Bond dated as of November 15, 2018, and (m) that certain Series P Future Advance Bond dated as of February 13, 2020 (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 \(\$ 375,000,000.00\) (hereinafter called the "Series R Bond") and may from time to time issue additional bonds to FFB (the "New Bonds"); (the Original Bonds, the Series R Bond and the New Bonds are collectively referred to as the "Bonds");

WHEREAS, the Original Bonds were previously guaranteed by RUS pursuant to the Sixth Amended, Restated and Consolidated Bond Guarantee Agreement, dated as of

February 13, 2020, 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 R Bond, the Borrower and FFB have entered into the Seventh Amended, Restated and Consolidated Bond Guarantee Agreement, dated as of November 19, 2020 (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 Sixth Amended, Restated and Consolidated Pledge Agreement, dated as of February 13, 2020, 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

\section*{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:
(1) with respect to cash, \(100 \%\) thereof;
(2) with respect to Eligible Securities, the aggregate principal amount of such Eligible Securities theretofore advanced thereon which remains unpaid on such date; and
(3) 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 19, 2020.
"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.
"Criticized Loan" means any loan payable to CFC that has a borrower risk rating that has been categorized as "Special Mention," "Substandard," or "Doubtful" in CFC's most recent consolidated financial statements.
"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 a Criticized Loan;
(vii) such note or bond is not Unsecured Debt; and (viii) 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

\section*{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.
(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.
(d) Each time that the Borrower requests an advance under the Series R Bond, the Borrower shall provide at the time of the requested advance, written evidence satisfactory to RUS that the aggregate principal amount outstanding under the Pledged Securities as of the advance request date exceeds the aggregate amount of scheduled future principal payments on the Bonds (including the requested advance of the Series R Bond); provided, however, that RUS, in its sole discretion, may reject an advance request in the event that a material adverse change has occurred in the financial condition of the Borrower or in the value of the Pledged Securities between the Closing Date and the applicable requested advance date.

\section*{SECTION 2.03. Maintenance of Pledged Collateral.}
(1) The Collateral Agent shall hold and segregate the Pledged Collateral in a separate account.
(2) 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.
(3) 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.
(4) 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

\section*{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*{SECTION 3.03 Withdrawal and Substitution of Pledged Collateral.}
(1) 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.
(2) Prior to any such withdrawal or substitution, the Collateral Agent shall be furnished with the following instruments:
(a) 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
(b) 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,
(c)
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
(d) 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. 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 3.11. 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 3.12. Delivery of Additional Information Relating to Pledged Collateral.
(a) 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.
(b) Within five (5) Business Days of the Borrower's filing with the SEC of its quarterly report on Form 10-Q or its annual report on Form 10-K, the Borrower shall provide RUS with a list of all of its Criticized Loans.

SECTION 3.13. 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.

\section*{ARTICLE IV}

\section*{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

\section*{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 revest 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.

\section*{ARTICLE VI}

\section*{The Collateral Agent}

\section*{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*{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*{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.

\section*{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 nonperfection 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*{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.

\section*{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.

\section*{NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION,}

\author{
by
}
/s/ SHELDON C. PETERSEN

Name: Sheldon C. Petersen
Title: Governor and
Chief Executive Officer

UNITED STATES OF AMERICA, acting
through the Administrator of the Rural Utilities Service, by /s/ CURTIS M. ANDERSON

Name: Curtis M. Anderson
For Chad Rupe, Administrator
U.S. BANK NATIONAL ASSOCIATION
by
/s/ K. WENDY KUMAR

Name: K. Wendy Kumar
Title: Vice President

\section*{NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION}

\title{
SEVENTH AMENDED, RESTATED AND CONSOLIDATED PLEDGE AGREEMENT DATED AS OF NOVEMBER 19, 2020
}

\author{
CERTIFICATE OF PLEDGED COLLATERAL FILED WITH \\ U.S. BANK NATIONAL ASSOCIATION, Collateral Agent
}
\(\qquad\) , Governor (or Chief Financial Officer) and
\(\qquad\) , 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
\(\qquad\) delivered to the Collateral Agent is \(\qquad\) . \$
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 \(\qquad\) .
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 .
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. \(\qquad\) . \(\$\)
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 is unsecured or that has been classified as nonperforming, restructured, criticized, or impaired by the Borrower.

All terms which are defined in the Pledge Agreement are used herein as so defined.

Dated:

OF NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION

\section*{PLEDGED COLLATERAL HELD BY THE COLLATERAL AGENT SCHEDULE A TO OFFICERS' CERTIFICATE DATED}
\begin{tabular}{cccc} 
& & Increase & \\
& Allowable & (Decrease) & \\
& Amount & in such & \\
& included in & Allowable & \\
& Certificate last & Amount & Current \\
& Pledged Collateral \\
& Name of Issuer & Previously filed & (Items 2 and \\
(Item 1) & Amount (Item & A) & 4) \\
\hline
\end{tabular}

Cash. \(\qquad\)

Permitted Investments
(Here List). \(\qquad\)

Pledged Securities
(Here List Securities)..

\title{
PLEDGED COLLATERAL BEING SUBMITTED TO THE COLLATERAL AGENT SCHEDULE B TO OFFICERS' CERTIFICATE DATED
}

\author{
Pledged Collateral \\ Cash \\ \(\qquad\) \\ Permitted Investments \\ (Here List). \\ Pledged Securities \\ (Here List Securities)..
} Name of Issuer

\title{
Allowable Amount
}
(Item 5)

\title{
PLEDGED COLLATERAL BEING DEPOSITED SCHEDULE C TO OFFICERS' CERTIFICATE DATED
}
\begin{tabular}{|c|c|c|}
\hline Pledged Collateral & Name of Issuer & Allowable Amount (Item 8) \\
\hline Cash............................. & & \\
\hline Permitted Investments (Here List). \(\qquad\) & & \\
\hline Pledged Securities (Here List Securities).. & & \\
\hline
\end{tabular}

\section*{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
Telephone: 202-720-9540
Attention of: The Administrator
Subject: Section 313A Guarantees for Bonds and Notes Issued for Utility Infrastructure Purposes
and

Rural Utilities Service
United States Department of Agriculture
1400 Independence Avenue, SW
Stop 1560, Room 4121-S
Washington, DC 20250
Email: Amy.McWilliams@wdc.usda.gov
Fax: 844-749-0736
Attention of: Amy McWilliams, Program Advisor

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
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

\title{
SEVENTH AMENDED, RESTATED, AND CONSOLIDATED BOND GUARANTEE AGREEMENT
}

\author{
dated as of November 19, 2020 \\ 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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\title{
SEVENTH AMENDED, RESTATED AND CONSOLIDATED BOND GUARANTEE AGREEMENT dated as of November 19, 2020, 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").
}

\section*{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 \(\$ 7,798,286,000\) 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, (k) that certain Series M Bond Purchase Agreement dated as of November 9, 2017, (1) that certain Series N Bond Purchase Agreement dated November 15, 2018, and (m) that certain Series P Bond Purchase Agreement dated as of February 13, 2020 (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, (k) that certain Series M Future Advance Bond dated as of November 9, 2017, (1) that certain Series N Future Advance Bond dated as of November 15, 2018, and (m) that certain Series P Future Advance Bond dated as of February 13, 2020 (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 Sixth Amended, Restated, and Consolidated Bond Guarantee Agreement dated as of February 13, 2020, by and between the Borrower and RUS (the "Prior Bond Guarantee Agreement").
3. On July 13, 2020, the Borrower applied to RUS (the "Application"), in accordance with the RE Act and the Regulations, for RUS to guarantee a thirteenth 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 \(\$ 375,000,000\) upon the terms and subject to the conditions set forth in the Series R 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 R 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 R Future Advance Bond issued by the Borrower to FFB and dated as of the date hereof (the "Series R 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 R 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:

\section*{ARTICLE I}

\section*{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 (" \(\underline{91 \text {-day Treasury-Bills") sold at the applicable 91-day Treasury-Bill auction }}\) 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 Seventh 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. \(\S 6103\) 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 19, 2020.
"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 Utility Infrastructure purposes, or to refinance bonds or notes issued for those purposes, to a borrower that has at any time received, or is eligible to receive, a loan under the RE Act.
"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 depositary 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 Seventh Amended, Restated and Consolidated Pledge Agreement dated as of November 19, 2020, 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 Utility Infrastructure 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.
"SEC" shall mean the United States Securities and Exchange Commission.
"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 R Bond" shall have the meaning given to that term in the recitals hereto.
"Series R Guarantee" shall mean the Guarantee executed by the Secretary and attached to the Series R Bond.
"Series R 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.
"Utility Infrastructure" shall mean any utility infrastructure, including electrification, telephone, or broadband infrastructure.

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.

\section*{ARTICLE II}

\section*{THE GUARANTEES}

SECTION 2.1. Guarantees of the 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 the Series R Guarantee. Upon presentation to RUS of the Series R 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 R Guarantee.

SECTION 2.3. Coverage of the Series P Guarantee. The Series R 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 R 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.

\section*{ARTICLE III}

\section*{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 Utility Infrastructure 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 Utility Infrastructure 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 R 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.

\section*{ARTICLE IV}

\section*{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.

\section*{ARTICLE V}

\section*{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.

\section*{ARTICLE VI}

\section*{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. Quarterly Reporting of Leveraging Data. Within five (5) Business Days of the Borrower's filing with the SEC of its quarterly report on Form 10-Q or its annual report on Form 10-K, the Borrower shall provide the Secretary with the cumulative change in the Borrower's outstanding loans since the filing of the Borrower's last Form 10-Q or Form 10-K, as applicable.

SECTION 6.3. 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.

\section*{ARTICLE VII}

\section*{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.

\section*{ARTICLE VIII}

\section*{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 Utility Infrastructure 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 Utility Infrastructure 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.

\section*{ARTICLE IX}

\section*{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. (a) 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.
(b) 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. (a) 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.
(b) 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. (a) 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 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.

\section*{ARTICLE X}

\section*{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 tonto 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.

\section*{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. (a) 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 Administrator of the Rural Utilities Service

By:_/s/ CURTIS M. ANDERSON
Name: Curtis M. Anderson
For Chad Rupe, Administrator

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE
CORPORATION, as the Borrower
By:/s/ SHELDON C. PETERSEN
Name: Sheldon C. Petersen
Title: Governor and
Chief Executive Officer

\section*{SCHEDULE I}

TO

\section*{AMENDED, RESTATED AND CONSOLIDATED BOND GUARANTEE AGREEMENT}

\author{
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
Telephone: 202-720-9540
Attention of: The Administrator
Subject: Guaranteed Underwriter Program
and
Rural Utilities Service
United States Department of Agriculture
1400 Independence Avenue, SW
Stop 1560, Room 4121-S
Washington, DC 20250
Email: Amy.McWilliams@usda.gov
Telephone: 202-205-8663
Fax: 844-749-0736
Attention of: Amy McWilliams, Program Advisor
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

Fax: 703-467-5651
Attention of: Roberta B. Aronson, Esq., General Counsel

ANNEX A

Form of Supplement to Seventh Amended, Restated and Consolidated Bond Guarantee Agreement

SUPPLEMENT TO SEVENTH AMENDED, RESTATED AND CONSOLIDATED BOND GUARANTEE AGREEMENT dated as of [ \(\qquad\) ] (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").

\section*{RECITALS}

1, The Borrower and RUS are parties to that certain Seventh Amended, Restated and Consolidated Bond Guarantee Agreement, dated as of November 19, 2020, 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 \(\$[\quad]\) 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, THEREORE, 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:
"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
\(\qquad\)
"Bond Purchase Agreement" shall mean the Original Bond Purchase Agreements, the Series R Bond Purchase Agreement, and the Series [ _ ] Bond Purchase Agreement dated as of [ \(\qquad\) ].

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.

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: \(\qquad\)
Title: Administrator
Rural Utilities Service

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE
CORPORATION, as the Borrower
By: \(\qquad\)
Name: \(\qquad\)
Title: \(\qquad\)

\section*{ANNEX B}

Form of Bond Purchase Agreement

\section*{ANNEX C}

\section*{Pledge Agreement}

Dated as of November 19, 2020

\section*{ANNEX D}

Form of Reimbursement Note

\section*{ANNEX E}

\section*{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) 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.

\begin{abstract}
ANNEX F

\section*{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 Seventh Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 19, 2020, 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 Utility Infrastructure 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.
\end{abstract}

DATED as of this 19th day of November 2020.
NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE
COOPERATION

Governor and
Chief Executive Officer

Senior Vice President and
Chief Financial Officer

\section*{ANNEX G}

\section*{Officers' Advance Certificate}

TO: The United States of America acting through the Rural Utilities Service.
We, [ ], [Governor and Chief Executive Officer or Senior Vice President and Chief Financial Officer], and [ ], Senior Vice President, of National Rural Utilities Cooperative Finance Corporation (the "Borrower"), pursuant to the Seventh Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 19, 2020, 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: \(\quad \%\);
(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: \(\$ \quad\); and
(iv) The sum of the amount of Eligible Loans in (2)(i), (2)(ii), and
(2)(iii) of \$ \(\qquad\) exceeds the amount of Bonds outstanding of \$ \(\qquad\) 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 \(\qquad\) day of \(\qquad\) , 20 \(\qquad\)

\title{
NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
}

\section*{Governor and} Chief Executive Officer

\author{
Senior Vice President and Chief Financial Officer
}

\section*{ANNEX H}

\author{
Auditors' Letter
}

\author{
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 Seventh Amended, Restated and Consolidated Bond Guarantee Agreement between the Company and the United States of America, acting through the RUS, dated November 19, 2020 (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 ( \(\$\) 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 (\$ \(\qquad\) ) 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

\title{
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 12, 2021

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.

\title{
National Rural Utilities Cooperative Finance Corporation Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350)
}

\section*{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 12, 2021
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.

Exhibit 32.1

\title{
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, 2020 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 12, 2021
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.

\title{
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, 2020 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 12, 2021
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.```


[^0]:    ${ }^{(1)}$ 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.
    ${ }^{(2)}$ Consists of late payment fees and net amortization of deferred loan fees and loan origination costs.

[^1]:    ${ }^{(1)}$ 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 the net periodic derivative cash settlements interest amount, the variance due to average volume represents the change in the net periodic derivative cash settlements interest amount resulting from the change in the average notional amount of derivative contracts outstanding. The variance due to average rate represents the change in the net periodic derivative cash settlements amount 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.

[^2]:    ${ }^{(1)}$ Does not include NCSC and RTFC loans.

[^3]:    ${ }^{(1)}$ Represents the unpaid principal balance of loans as of the end of each period. Excludes unamortized deferred loan origination costs of $\$ 12$ million and $\$ 11$ million as of November 30, 2020 and May 31, 2020, respectively.
    ${ }^{(2)}$ 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.

[^4]:    ${ }^{(1)}$ Represents amount related to facilities that are subject to material adverse change clauses.

[^5]:    ${ }^{(1)}$ Represents the unpaid principal balance, net of charge-offs and recoveries, of loans as of the end of each period. Excludes unamortized deferred loan origination costs of $\$ 12$ million and $\$ 11$ million as of November 30, 2020 and May 31, 2020, respectively.

[^6]:    ${ }^{(1)}$ Represents the unpaid principal balance, net of charge-offs and recoveries, of loans as of each period end. Excludes unamortized deferred loan origination costs of $\$ 12$ million and $\$ 11$ million as of November 30, 2020 and May 31, 2020, respectively.
    ${ }^{(2)}$ Calculated based on the collective allowance component at period end divided by collectively evaluated loans outstanding at period end.
    ${ }^{(3)}$ Calculated based on the asset-specific allowance component at period end divided by individually evaluated loans outstanding at period end.
    ${ }^{(4)}$ Calculated based on the total allowance for credit losses at period end divided by total loans outstanding at period end.
    ${ }^{(5)}$ Calculated based on the total allowance for credit losses at period end divided by TDR loans outstanding at period end.
    ${ }^{(6)}$ Calculated based on the total allowance for credit losses at period end divided by loans outstanding classified as nonperforming at period end.
    ${ }^{(7)}$ Calculated based on the total allowance for credit losses at period end divided by loans outstanding on nonaccrual status at period end.

[^7]:    ${ }^{(1)}$ Our portfolio of equity securities consists primarily of preferred stock securities that are not as readily redeemable; therefore, we have excluded our portfolio of equity securities from our sources of available liquidity.
    ${ }^{(2)}$ The committed bank revolving line of credit agreements consist of a three-year and a five-year revolving line of credit agreement. The accessed amount of $\$ 3$ million as of both November 30, 2020 and May 31, 2020, relates to letters of credit issued pursuant to the five-year revolving line of credit agreement.
    ${ }^{(3)}$ The committed facilities under the Guaranteed Underwriter Program are not revolving.
    ${ }^{(4)}$ Availability subject to market conditions.

[^8]:    ${ }^{(1)}$ Represents the net periodic contractual interest amount for our interest-rate swaps for the reporting period.
    ${ }^{(2)}$ Represents 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.

[^9]:    ${ }^{(1)}$ Represents consolidated total derivative forward value gains (losses).
    ${ }^{(2)}$ Represents the AOCI amount related to derivatives. See "Note 10-Equity" for the additional components of AOCI.

[^10]:    ${ }^{(1)}$ Represents period-end cumulative derivative forward value 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. We report the separate results of operations for CFC in "Note $14-$ Business Segments." The period-end cumulative derivative forward value losses total amounts as of November 30, 2020 and May 31, 2020 are presented above in Table 36.

[^11]:    ${ }^{(1)}$ Restricted cash consists primarily of member funds held in escrow for certain specifically designed cooperative programs.

[^12]:    The accompanying Notes to Consolidated Financial Statements (Unaudited) are an integral part of these statements.

[^13]:    ${ }^{(1)}$ Consists primarily of securities backed by auto lease loans, equipment-backed loans, auto loans and credit card loans.

[^14]:    ${ }^{(1)}$ The interest rate on unadvanced loan commitments is not set until an advance is made; therefore, all unadvanced long-term loan commitments are reported as variable rate. However, the borrower may select either a fixed or a variable rate when an advance is drawn under a loan commitment.
    ${ }^{(2)}$ Represents the unpaid principal balance, net of charge-offs and recoveries, of loans as of the end of each period.

[^15]:    ${ }^{(1)}$ Consists of one loan to a CFC power supply borrower that was classified as nonperforming in the fourth quarter of fiscal year 2020.

[^16]:    ${ }^{(1)}$ Represents the unpaid principal amount of loans as of the end of each period. Excludes unamortized deferred loan origination costs of $\$ 12$ million and $\$ 11$ million as of November 30, 2020 and May 31, 2020, respectively.
    ${ }^{(2)}$ Calculated based on the collective allowance component at period end divided by collectively evaluated loans outstanding at period end.
    ${ }^{(3)}$ Calculated based on the asset-specific allowance component at period end divided by individually evaluated loans outstanding at period end.
    ${ }^{(4)}$ Calculated based on the total allowance for credit losses at period end divided by total loans outstanding at period end.

[^17]:    ${ }^{(1)}$ 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.
    ${ }^{(3)}$ Includes CFC guarantees to NCSC and RTFC members totaling $\$ 3$ million as of both November 30, 2020 and May 31, 2020.

[^18]:    * Filed herewith this Report.
    $\dagger$ 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.

