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

FORM 10-Q

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

For the quarterly period ended November 30, 2021

or

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

For the transition period from ______ to ______

Commission File Number: 1-7102

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

District of Columbia	**52-0891669**
(State or other jurisdiction of incorporation or organization)	(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	Trading Symbol(s)	Name of Each Exchange on Which Registered
7.35% Collateral Trust Bonds, due 2026	NRUC 26	New York Stock Exchange
5.50% Subordinated Notes, due 2064	NRUC	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 ☒ No ☐

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

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

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended 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 ☒

The Registrant is a tax-exempt cooperative and therefore does not issue capital stock.

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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, 2021 ("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, legislative changes that could affect our tax status and other matters, 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, nonperformance of counterparties to our derivative agreements, economic conditions and regulatory or technological changes within the rural electric industry, the costs and impact of legal or governmental proceedings involving us or our members, general economic conditions, governmental monetary and fiscal policies, the occurrence and effect of natural disasters, including severe weather events or public health emergencies, such as the emergence and spread since 2019 of a novel coronavirus that causes coronavirus disease 2019 ("COVID-19") and the factors listed and described under "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended May 31, 2021 ("2021 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

Our financial statements include the consolidated accounts of National Rural Utilities Cooperative Finance Corporation ("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. CFC and its consolidated entities have not held any foreclosed assets since the fiscal year ended May 31, 2017. Our principal operations are currently organized for management reporting purposes into three business segments, which are based on the accounts of each of the legal entities included in our consolidated financial statements: CFC, NCSC and RTFC.

CFC is a member-owned, nonprofit finance cooperative association with a principal purpose of providing financing to its members to supplement the loan programs of the Rural Utilities Service ("RUS") of the United States Department of Agriculture ("USDA"). CFC extends loans to its rural electric members for construction, acquisitions, system and facility repairs and maintenance, enhancements and ongoing operations to support the goal of electric distribution and generation and transmission ("power supply") systems of providing reliable, affordable power to the customers they service. CFC also provides its members with credit enhancements in the form of letters of credit and guarantees of debt obligations. As a Section 501(c)(4) tax-exempt, member-owned cooperative, CFC's objective is not to maximize profit, but rather to offer members cost-based financial products and services. Because CFC is a tax-exempt cooperative, we cannot issue equity securities as a source of funding. CFC's primary funding sources consist of a combination of public and private issuances of debt securities, member investments and retained equity. NCSC is a member-owned taxable cooperative that is permitted to 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 member-owned cooperative association. RTFC's principal purpose is to provide financing to its rural telecommunications members and their affiliates. See "Item 1. Business" in our 2021 Form 10-K for additional information on the business structure, principal purpose, members and core 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.

The CFC business segment has historically accounted for the substantial majority of our consolidated loans and total revenue. Consolidated loans to members totaled $28,947 million as of November 30, 2021, of which 96% was attributable to CFC. We generated consolidated total revenue, which consists of consolidated net interest income and consolidated fee and other income, of $227 million for the six months ended November 30, 2021 ("current year-to-date period"), of which approximately 99% was attributable to CFC. In comparison, we generated consolidated total revenue of $212 million for the six months ended November 30, 2020 ("same prior year-to-date period"). We provide additional financial information on our business segments in "Note 14—Business Segments."

The following MD&A is intended to enhance the understanding of our consolidated financial statements by providing material information that we believe is relevant in evaluating our results of operations, financial condition and liquidity and the potential impact of material known events or uncertainties that, based on management's assessment, are reasonably likely to cause the financial information included in this Report not to be necessarily indicative of our future financial performance. Management monitors a variety of key indicators and metrics to evaluate our business performance. We discuss these key measures and factors influencing changes from period to period. Our MD&A is provided as a supplement to, and should be read in conjunction with, the unaudited consolidated financial statements included in this Report, our audited consolidated financial statements and related notes for the fiscal year ended May 31, 2021 ("fiscal year 2021") included in our 2021 Form 10-K and additional information, including the risk factors discussed under "Item 1A. Risk Factors," contained in our 2021 Form 10-K, as well as additional information contained elsewhere in this Report.

SUMMARY OF SELECTED FINANCIAL DATA

In addition to financial measures determined in conformity with generally accepted accounting principles in the United States ("U.S. GAAP"), management also evaluates performance based on certain non-GAAP measures and metrics, 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 U.S. GAAP measures are net income, net interest income, interest expense, net interest yield, TIER and debt-to-equity ratio, respectively. The primary adjustments we make to calculate these non-GAAP measures consist of (i) adjusting interest expense and net interest income to include the impact of net periodic derivative cash settlements expense amounts; (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 measures determined under U.S. 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) establishing short- and long-term performance goals; (ii) budgeting and forecasting; (iii) comparing period-to-period operating results, analyzing changes in results and identifying potential trends; and (iv) making compensation decisions. In addition, certain of the financial covenants in our committed bank revolving line of credit agreements and debt indentures are based on non-GAAP adjusted measures, as the forward fair value gains and losses related to our interest rate swaps that are excluded from our non-GAAP measures do not affect our cash flows, liquidity or ability to service our debt. We provide a reconciliation of our non-GAAP adjusted measures to the most comparable U.S. GAAP measures in the section "Non-GAAP Financial Measures."

Table 1 provides a summary of selected financial data and key metrics used by management in evaluating performance for the three and six months ended November 30, 2021 and 2020, and as of November 30, 2021 and May 31, 2021.

Table 1: Summary of Selected Financial Data[1]

(Dollars in thousands)	Three Months Ended November 30, 2021	Three Months Ended November 30, 2020	Change	Six Months Ended November 30, 2021	Six Months Ended November 30, 2020	Change
Statement of operations						
Net interest income:						
Interest income	**$ 283,152**	$ 276,499	2 %	**$ 566,420**	$ 556,083	2 %
Interest expense	**(173,596)**	(174,422)	—	**(348,373)**	(354,398)	(2)
Net interest income	**109,556**	102,077	7	**218,047**	201,685	8
Fee and other income	**4,831**	6,332	(24)	**8,772**	9,848	(11)
Total revenue	**114,387**	108,409	6	**226,819**	211,533	7
Benefit (provision) for credit losses	**3,400**	(1,638)	**	**(603)**	(1,964)	(69)
Derivative gains (losses):						
Derivative cash settlements interest expense[2]	**(25,952)**	(29,800)	(13)	**(53,515)**	(56,772)	(6)
Derivative forward value gains (losses)[3]	**72,038**	111,087	(35)	**(72,562)**	198,335	**
Derivative gains (losses)	**46,086**	81,287	(43)	**(126,077)**	141,563	**
Other non-interest income	**(4,344)**	(1,361)	219	**(6,569)**	3,298	**
Operating expenses[4]	**(23,095)**	(24,136)	(4)	**(47,305)**	(46,799)	1
Other non-interest expense	**(431)**	(1,778)	(76)	**(687)**	(2,110)	(67)
Income before income taxes	**136,003**	160,783	(15)	**45,578**	305,521	(85)
Income tax provision	**(274)**	(262)	5	**(181)**	(413)	(56)
Net income	**$ 135,729**	$ 160,521	(15)	**$ 45,397**	$ 305,108	(85)
Adjusted statement of operations measures						
Interest income	**$ 283,152**	$ 276,499	2 %	**$ 566,420**	$ 556,083	2 %
Interest expense	**(173,596)**	(174,422)	—	**(348,373)**	(354,398)	(2)
Include: Derivative cash settlements interest expense[2]	**(25,952)**	(29,800)	(13)	**(53,515)**	(56,772)	(6)
Adjusted interest expense[5]	**(199,548)**	(204,222)	(2)	**(401,888)**	(411,170)	(2)
Adjusted net interest income[5]	**$ 83,604**	$ 72,277	16	**$ 164,532**	$ 144,913	14
Net income	**$ 135,729**	$ 160,521	(15)	**$ 45,397**	$ 305,108	(85)
Exclude: Derivative forward value gains (losses)[3]	**72,038**	111,087	12	**(72,562)**	198,335	**
Adjusted net income[5]	**$ 63,691**	$ 49,434	29	**$ 117,959**	$ 106,773	10
Profitability ratios						
Times interest earned ratio ("TIER")[6]	**1.78**	1.92	(7)	**1.13**	1.86	(39)
Adjusted TIER[5]	**1.32**	1.24	6	**1.29**	1.26	2
Net interest yield[7]	**1.49%**	1.48%	1 bps	**1.48%**	1.45%	3 bps
Adjusted net interest yield[5][8]	**1.13**	1.05	8	**1.11**	1.04	7
Credit quality ratios						
Net charge-off rate[9]	**0.00%**	0.00%	—	**0.00%**	0.00%	—

	November 30, 2021	May 31, 2021	Change
Balance sheet			
Assets:			
Cash, cash equivalents and restricted cash	**$ 183,752**	$ 303,361	(39) %
Investment securities	**626,120**	611,277	2
Loans to members[10]	**28,946,870**	28,426,961	2
Allowance for credit losses	**(86,135)**	(85,532)	1
Loans to members, net	**28,860,735**	28,341,429	2
Total assets	**30,015,579**	29,638,363	1
Liabilities and equity:			
Short-term borrowings	**4,746,935**	4,582,096	4
Long-term debt	**20,804,379**	20,603,123	1
Subordinated deferrable debt	**986,415**	986,315	—
Members' subordinated certificates	**1,252,349**	1,254,660	—
Total debt outstanding	**27,790,078**	27,426,194	1
Total liabilities	**28,624,594**	28,238,484	1
Total equity	**1,390,985**	1,399,879	(1)
Adjusted balance sheet measures			
Adjusted total liabilities[5]	**$ 25,635,552**	$ 25,273,384	1 %
Adjusted total equity[5]	**4,167,824**	4,106,172	2
Members' equity[5]	**1,896,684**	1,836,135	3
Debt ratios			
Debt-to-equity ratio[11]	**20.58**	20.17	2
Adjusted debt-to-equity ratio[5]	**6.15**	6.15	—
Liquidity coverage ratio[12]	**0.98**	0.99	(1)
Credit quality ratios			
Nonperforming loans ratio[13]	**0.76%**	0.84%	(8) bps
Criticized loans ratio[14]	**3.08**	3.12	(4)
Allowance coverage ratio[15]	**0.30**	0.30	—

**Calculation of percentage change is not meaningful.

(1)Certain reclassifications may have been made for 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.

(3)Consists of derivative forward value gains (losses), which represent changes in fair value during the period, excluding net periodic contractual interest settlement amounts, attributable to derivatives not designated for hedge accounting.

(4)Consists of the total non-interest expense components (i) salaries and employee benefits and (ii) other general and administrative expenses, each of which is presented separately on the consolidated statements of operations.

(5)See "Item 7. MD&A—Non-GAAP Financial Measures" in our 2021 Form 10-K for a description of each of our non-GAAP measures. See the section "Non-GAAP Financial Measures" for a reconciliation of the non-GAAP measures presented in this Report to the most comparable U.S. GAAP measure.

(6)Calculated based on net income (loss) plus interest expense for the period divided by interest expense for the period.

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

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

(9)Calculated based on annualized net charge-offs (recoveries) for the period divided by average total loans outstanding for the period.

(10)Consists of the unpaid principal balance of member loans plus unamortized deferred loan origination costs of $12 million as of both November 30, 2021 and May 31, 2021.

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

(12)Calculated based on available liquidity at period end, which totaled $7,063 million and $7,090 million as of November 30, 2021 and May 31, 2021, respectively, divided by the amount of maturing debt obligations over the next 12 months at period end, which totaled $7,210 million and $7,180 million, as of each respective date.

(13)Calculated based on total nonperforming loans at period end divided by total loans outstanding at period end.

(14)Calculated based on loans outstanding at period end to borrowers with a risk rating that falls within the criticized risk rating category, which consists of special mention, substandard and doubtful, divided by total loans outstanding at period end.

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

EXECUTIVE SUMMARY

As a member-owned, nonprofit finance cooperative, our primary objective is to provide our rural electric utility members with access to affordable, flexible financing products while also maintaining a sound, stable financial position and adequate liquidity to meet our financial obligations and maintain ongoing investment-grade credit ratings. Because maximizing profit is not our primary objective, the interest rates on lending products offered to our member borrowers reflect our funding costs plus a spread to cover operating expenses and estimated credit losses and generate sufficient earnings to cover interest owed on our debt obligations and achieve certain financial target goals. Our financial goals focus on earning an annual minimum adjusted TIER of 1.10 and maintaining 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 U.S. GAAP results due to changes in market conditions and differences in the way our financial assets and liabilities are accounted for under U.S. 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 U.S. 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, the majority of which are longer dated, than receive-fixed swaps, the majority of which are shorter dated, 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. Therefore, as discussed above under "Summary of Selected Financial Data," management uses our non-GAAP adjusted measures to evaluate financial performance. Our adjusted financial results include the realized net periodic contractual interest expense amounts on our interest rate swaps but exclude the unrealized forward fair value gains and losses.

Financial Performance

Reported Results

We reported net income of $136 million and TIER of 1.78 for the three months ended November 30, 2021 ("current quarter"), compared with net income of $161 million and TIER of 1.92 for the three months ended November 30, 2020 ("same prior-year quarter"). We reported net income of $45 million and TIER of 1.13 for the current year-to-date period, compared with net income of $305 million and TIER of 1.86 for the same prior year-to-date 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 increased to 20.58 as of November 30, 2021, from 20.17 as of May 31, 2021, largely due to an increase in debt outstanding to fund growth in our loan portfolio coupled with a decrease in equity attributable to the CFC Board of Directors' authorized patronage capital retirement in July 2021 of $58 million, which was partially offset by our reported net income of $45 million for the current year-to-date period.

The decrease in our reported net income of $25 million to $136 million for the current quarter from $161 million for the same prior-year quarter was driven by a reduction in derivative gains of $35 million, which was partially offset by an increase in net interest income of $7 million and a favorable shift in our provision for credit losses of $5 million. We recorded derivative gains of $46 million for the current quarter, primarily attributable to increases in medium-to-longer term swap rates. In comparison, we recorded derivative gains of $81 million for the same prior-year quarter, attributable to increases in medium- and longer-term swap rates. As noted above, the substantial majority of our swap portfolio consists of longer-dated, pay-fixed swaps. Therefore, increases and decreases in medium- and longer-term swap rates generally have a more pronounced corresponding impact on the change in the net fair value of our swap portfolio.

The increase in net interest income of $7 million, or 7%, to $110 million for the current quarter was attributable to an increase in average interest-earning assets of $1,882 million, or 7%, coupled with an increase in the net interest yield of 1 basis point, or 1%, to 1.49%. The increase in average interest-earning assets was primarily driven by growth in average total loans. The increase in the net interest yield reflected the combined impact of a reduction in our average cost of borrowings of 18 basis points to 2.52%, which was partially offset by a decrease in the average yield on our interest-earning assets of 17 basis point to 3.84%. The decreases in our average cost of borrowings and average yield on interest-earning assets were driven by the continued low interest rate environment. We recorded a benefit for credit losses of $3 million for the current quarter, compared with a provision for credit losses of $2 million for the same prior-year quarter. The current-quarter benefit stemmed from the elimination of an asset-specific allowance of $3 million attributable to nonperforming loans totaling $9 million as a result of our receipt of full payment of all amounts due on these loans during the current quarter. The provision for credit losses of $2 million recorded in the same prior-year quarter was primarily attributable to loan growth during the period.

The decrease in our reported net income of $260 million to $45 million for the current year-to-date period from $305 million for the same prior year-to-date period was primarily driven by an unfavorable shift in the change in the net fair value of our swap portfolio between periods of $268 million, which was partially offset by an increase in net interest income of $16 million. We recorded derivative losses of $126 million for the current year-to-date period, primarily attributable to decreases in longer-term swap rates during the period. In contrast, we recorded derivative gains of $142 million for the same prior year-to-date period, attributable to increases in longer-term swap rates during the period.

The increase in net interest income of $16 million, or 8%, to $218 million for the current year-to-date period was attributable to an increase in average interest-earning assets of $1,719 million, or 6%, and an increase in the net interest yield of 3 basis points, or 2%, to 1.48%. The increase in average interest-earning assets was primarily driven by growth in average total loans. The increase in the net interest yield was largely due to a reduction in our average cost of borrowings of 20 basis points to 2.52%, which was partially offset by a decrease in the average yield on our interest-earning assets of 16 basis points to 3.84%. As noted above, the continued low interest rate environment drove the decreases in the average cost of borrowings and average yield on interest-earning assets. We recorded a provision for credit losses of less than $1 million for the current year-to-date period and a provision for credit losses of $2 million for the same prior year-to-date period. The provision of less than $1 million for the current year-to-date period reflected the offsetting impact of an increase in the collective allowance of $4 million and a decrease in the asset-specific allowance of $3 million. The increase in the collective allowance was driven by an increase in the default rates utilized in measuring our collective allowance for credit losses, shifts in borrower risk rating grades and an increase in loans outstanding. The decrease in the asset-specific allowance resulted from the elimination of the asset-specific allowance of $3 million attributable to the nonperforming loans of $9 million, which, as noted above, were paid in full during the current quarter. The provision for credit losses of $2 million recorded in the same prior year-to-date period was primarily attributable to an increase in loans outstanding during the period.

Adjusted Non-GAAP Results

Adjusted net income totaled $64 million and adjusted TIER was 1.32 for the current quarter, compared with adjusted net income of $49 million and adjusted TIER of 1.24 for the same prior-year quarter. Adjusted net income totaled $118 million and adjusted TIER was 1.29 for the current year-to-date period, compared with adjusted net income of $107 million and adjusted TIER of 1.26 for the same prior year-to-date period. While our goal is to maintain an adjusted debt-to-equity ratio of approximately 6.00-to-1, the adjusted debt-to-equity ratio of 6.15 as of both November 30, 2021 and May 31, 2021 was above our targeted goal due to increased borrowings to fund growth in our loan portfolio.

The increase in our adjusted net income of $15 million to $64 million for the current quarter from $49 million for the same prior-year quarter was driven by an increase in adjusted net interest income of $11 million and a favorable shift in our provision for credit losses of $5 million. The increase in adjusted net interest income of $11 million, or 16%, to $84 million for the current quarter reflected the combined impact of an increase in average interest-earning assets of $1,882 million, or 7%, primarily due to growth in average loans outstanding, and an increase in the adjusted net interest yield of 8 basis points, or 8%, to 1.13%. The increase in our adjusted net interest yield reflected the favorable impact of a reduction in our adjusted average cost of borrowings of 27 basis points to 2.89%, which was partially offset by a decrease in the average yield on interest-earning assets of 17 basis points to 3.84%, both of which stemmed from the continued low interest rate environment. As noted above in the discussion of our reported results, we recorded a benefit for credit losses of $3 million for the current quarter due to the elimination of the asset-specific allowance of $3 million attributable to nonperforming loans that were paid in full during the current quarter. In comparison, we recorded a provision for credit losses of $2 million for the same prior-year quarter primarily due to loan growth during the period.

The increase in our adjusted net income of $11 million to $118 million for the current year-to-date period from $107 million for the same prior year-to-date period was primarily driven by the combined impact of an increase in our adjusted net interest income of $20 million and a decrease in the provision for credit losses of $1 million, which was partially offset by an unfavorable shift in the gains and losses recorded on our investment securities of $10 million. The increase in adjusted net interest income of $20 million, or 14%, to $165 million for the current year-to-date period was attributable to an increase in our average interest-earning assets of $1,719 million, or 6%, primarily due to growth in average loans outstanding, and an increase in the adjusted net interest yield of 7 basis points, or 7%, to 1.11%. The increase in our adjusted net interest yield reflected the favorable impact of a reduction in our adjusted average cost of borrowings of 25 basis points to 2.91%, which was partially offset by a decrease in the average yield on interest-earning assets of 16 basis points to 3.84% as the continued low interest rate environment contributed to reductions in our average cost of borrowing and average yield on interest-earning assets.

As noted above in the discussion of our reported results, we recorded a provision for credit losses of less than $1 million for the current year-to-date period resulting from an increase in the collective allowance of $4 million, which was largely offset by the elimination of the asset-specific allowance of $3 million attributable to nonperforming loans that were paid in full during the current quarter. In comparison, we recorded a provision for credit losses of $2 million for the same prior year-to-date period, primarily attributable to loan growth during the period. The unfavorable shift in the gains and losses recorded on our investment securities of $10 million reflected the recognition of unrealized net losses on our investment securities of $7 million for the current year-to-date period, compared with unrealized net gains of $3 million for the same prior year-to-date period. We expect period-to-period market fluctuations in the fair value of our investment securities, and we report these unrealized market fluctuations together with realized gains and losses from the sale of investment securities as a component of non-interest income on our consolidated statements of operations.

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

Lending Activity

Loans to members totaled $28,947 million as of November 30, 2021, an increase of $520 million, or 2%, from May 31, 2021, reflecting a net increase in long-term loans of $530 million, partially offset by a net decrease in line of credit loans of $10 million. We experienced increases in CFC distribution loans, NCSC loans and RTFC loans of $531 million, $14 million and $11 million, respectively, and decreases in CFC power supply loans, and CFC statewide and associate loans and of $32 million and $4 million, respectively.

Long-term loan advances totaled $1,506 million during the six months ended November 30, 2021, of which approximately 69% was provided to members for capital expenditures and approximately 29% was provided to members for operating expenses and also to refinance advances that were drawn under line of credit facilities to meet elevated power cost obligations incurred during the February 2021 polar vortex. In comparison, long-term loan advances totaled $1,271 million during the same prior year-to-date period, of which approximately 85% was provided to members for capital expenditures and 5% was provided for the refinancing of loans made by other lenders. Of the $1,506 million total long-term loans advanced during the current year-to-date period, $1,199 million were fixed-rate loan advances with a weighted average fixed-rate term of 22 years.

The continued low interest rate environment over the last several years presented an opportunity for our members to obtain new long-term loan advances at a lower fixed to maturity interest rate or lock in a lower fixed interest rate to maturity at the repricing date on existing outstanding long-term loan advances. Because many of our members have locked in at or near historic low interest rates on outstanding loan advances for extended terms, the amount of long-term fixed-rate loans that repriced during each fiscal year over the last five fiscal years has gradually decreased, from $1,078 million in fiscal year 2016 to $397 million in fiscal year 2021. Long-term fixed-rate loans scheduled to reprice over the next 12 months totaled $343 million as of November 30, 2021, and long-term fixed-rate loans scheduled to reprice over the next six months and the subsequent four fiscal years through the fiscal year ended May 31, 2026 totaled $1,390 million as of November 30, 2021, representing an average of $309 million per fiscal year.

Credit Quality

We believe the overall credit quality of our loan portfolio remained strong as of November 30, 2021. Historically, we 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 Risk—Loan Portfolio Credit Risk." In addition, we generally lend to members on a senior secured basis, which reduces the risk of loss in the event of a borrower default. Loans outstanding to electric utility organizations of $28,503 million and $27,995 million as of November 30, 2021 and May 31, 2021, respectively, represented approximately 99% of total loans outstanding as of each date. Of our total loans outstanding, 94% and 93% were secured as of November 30, 2021 and May 31, 2021, respectively.

We had loans to two borrowers totaling $219 million classified as nonperforming as of November 30, 2021. In comparison, we had loans to four borrowers totaling $237 million classified as nonperforming as of May 31, 2021. Nonperforming loans represented 0.76% and 0.84% of total loans outstanding as of November 30, 2021 and May 31, 2021, respectively. Loans outstanding to Brazos Electric Power Cooperative, Inc. ("Brazos"), a CFC Texas-based electric power supply borrower that filed bankruptcy in March 2021 due to its exposure to elevated wholesale electric power costs during the February 2021 polar vortex, accounted for $86 million and $85 million of our total nonperforming loans as of November 30, 2021 and May 31, 2021, respectively. Brazos is not permitted to make scheduled loan payments without approval of the bankruptcy court. As a result, we have not received payments from Brazos since March 2021, and its loans outstanding were delinquent as of each respective date. Prior to Brazos' bankruptcy filing in March 2021, we had not experienced any defaults or charge-offs in our electric utility and telecommunications loan portfolios since fiscal years 2013 and 2017, respectively. The reduction in nonperforming loans of $18 million during the current year-to-date period was due in part to our receipt during the current quarter of full payment of all amounts due on nonperforming loans to two RTFC borrowers totaling $9 million. In addition, we have continued to receive payments on the remaining outstanding nonperforming loan to a CFC electric power supply borrower, including a payment of $9 million during the current year-to-date period, which reduced the balance of this loan to $134 million as of November 30, 2021, from $143 million as of May 31, 2021.

Our allowance for credit losses of $86 million and allowance coverage ratio of 0.30% as of November 30, 2021 were unchanged from May 31, 2021, reflecting the offsetting impact of an increase in the collective allowance of $4 million and a decrease in the asset-specific allowance of $3 million. The increase in the collective allowance was driven by an increase in the default rates utilized in measuring our collective allowance for credit losses, shifts in borrower risk rating grades and an increase in loans outstanding. The decrease in the asset-specific allowance stemmed from the elimination of an asset-specific allowance of $3 million attributable to nonperforming loans that were paid in full during the current quarter.

We provide additional information on the credit quality of our loan portfolio and the allowance for credit losses below in the section "Credit Risk—Allowance for Credit Losses" and in "Note 4—Loans" and "Note 5—Allowance for Credit Losses" in this Report.

Financing Activity

We issue debt primarily to fund growth in our loan portfolio. As such, our debt outstanding generally increases and decreases in response to member loan demand. Total debt outstanding increased $364 million, or 1% to $27,790 million as of November 30, 2021, due to borrowings to fund the increase in loans to members. Outstanding dealer commercial paper of $1,040 million as of November 30, 2021 was below our targeted maximum threshold of $1,250 million.

On September 13, 2021, Fitch Ratings ("Fitch") affirmed CFC's credit ratings and stable outlook. In the prior fiscal quarter, S&P Global Ratings ("S&P") revised its outlook on CFC to stable from negative, stating that the outlook revision mainly reflected its view that the risk of CFC experiencing substantial further losses stemming from the February 2021 polar vortex had diminished. On November 9, 2021, S&P issued a credit ratings report review of CFC in which S&P affirmed CFC's credit ratings and stable outlook. On December 13, 2021, S&P affirmed CFC's credit ratings and stable outlook under its revised criteria and updated methodology for rating financial institutions published on December 9, 2021. On December 16, 2021, Moody's Investors Service ("Moody's") affirmed CFC's credit ratings and stable outlook. Our overall issuer credit rating by Moody's, S&P and Fitch was A1, A- and A+, respectively, as of November 30, 2021. We present our credit ratings for each debt product type, which remain unchanged as of the date of this Report, in the section "Liquidity Risk—Credit

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

Liquidity

Our primary sources of funds include member loan principal repayments, securities held in our investment portfolio, committed bank revolving lines of credit, committed loan facilities under the USDA Guaranteed Underwriter Program ("Guaranteed Underwriter Program"), revolving note purchase agreements with the Federal Agricultural Mortgage Corporation ("Farmer Mac") and proceeds from debt issuances to our members and in the public capital markets. Although as a non-bank financial institution we are not subject to regulatory liquidity requirements, we monitor our liquidity and funding positions on an ongoing basis and assess our ability to meet our scheduled debt obligations and other cash flow requirements based on point-in-time metrics as well as forward-looking projections. Our liquidity and funding assessment takes into consideration amounts available under existing liquidity sources, the expected rollover of member short-term investments and scheduled loan principal repayment amounts, as well as our continued ability to access the private placement and public capital markets.

As of November 30, 2021, our available liquidity totaled $7,063 million, consisting of: (i) cash and cash equivalents of $173 million; (ii) investments in debt securities with an aggregate fair value of $589 million, which is subject to change based on market fluctuations; (iii) up to $2,597 million available under committed bank revolving line of credit agreements; (iv) up to $1,325 million available under committed loan facilities under the Guaranteed Underwriter Program; and (v) up to $2,379 million available under a Farmer Mac revolving note purchase agreement, subject to market conditions. In addition to our existing available liquidity of $7,063 million as of November 30, 2021, we expect to receive $1,464 million from scheduled long-term loan principal payments over the next 12 months.

Debt scheduled to mature over the next 12 months totaled $7,210 million as of November 30, 2021, consisting of short-term borrowings of $4,747 million and long-term and subordinated debt of $2,463 million. The short-term borrowings scheduled maturity amount of $4,747 million consists of member investments of $3,458 million, dealer commercial paper of $1,040 million and borrowings under a securities repurchase transaction of $249 million. The long-term and subordinated debt obligations over the next 12 months of $2,463 million consist of debt maturities and scheduled debt payment amounts to various sources.

Although our available liquidity of $7,063 million as of November 30, 2021, was $147 million below our total debt obligations over the next 12 months of $7,210 million, we believe we can continue to roll over our member short-term investments of $3,458 million as of November 30, 2021, based on our expectation that our members will continue to reinvest their excess cash in short-term investment products offered by CFC. Our members historically have maintained a relatively stable level of short-term investments in CFC in the form of daily liquidity fund notes, commercial paper, select notes and medium-term notes. Member short-term investments in CFC have averaged $3,407 million over the last 12 fiscal quarter-end reporting periods. In addition, as noted above, we expect to receive $1,464 million from scheduled long-term loan principal payments over the next 12 months.

Our available liquidity of $7,063 million as of November 30, 2021, was $3,311 million in excess of, or 1.9 times, our total debt obligations, excluding member short-term investments, over the next 12 months of $3,752 million. Our available liquidity of $7,063 million as of November 30, 2021 combined with scheduled long-term loan principal payments over the next 12 months of $1,464 million together total $8,527 million, which was $4,775 million in excess of, or 2.3 times, our total debt obligations, excluding member short-term investments, over the next 12 months of $3,752 million.

We expect to continue accessing the dealer commercial paper market as a cost-effective means of satisfying our incremental short-term liquidity needs. Although the intra-period amount of dealer commercial paper outstanding may fluctuate based on our liquidity requirements, our intent is to manage our short-term wholesale funding risk by maintaining dealer commercial paper outstanding at an amount near or below $1,250 million for the foreseeable future. Maintaining our committed bank revolving line of credit agreements and continuing to be in compliance with the covenants of these agreements serve to mitigate our rollover risk, as we can draw on these facilities, if necessary, to repay dealer or member commercial paper that cannot be refinanced with similar debt. In addition, under master repurchase agreements we have with two counterparties, we can obtain short-term funding in secured borrowing transactions by selling investment-grade corporate debt securities from our investment securities portfolio subject to an obligation to repurchase the same or similar securities at an agreed-upon price and date.

The issuance of long-term debt, which represents the most significant component of our funding, allows us to reduce our reliance on short-term borrowings, as well as effectively manage our refinancing and interest rate risk. We expect to continue to issue debt in the private placement and public capital markets to meet our funding needs and believe that we have sufficient sources of liquidity to meet our debt obligations and support our operations over the next 12 months and for the foreseeable future.

We provide additional information on our liquidity profile and our primary sources and uses of funds, including projected amounts, by quarter, over each of the next six fiscal quarters through the quarter ending May 31, 2023, in the "Liquidity Risk" section of this Report.

COVID-19 Update

Although the COVD-19 pandemic continues to persist, we believe that the pandemic has not adversely affected our primary objective of providing our members with the credit products they need to fund their operations and that we have been able to successfully navigate the challenges of the COVID-19 pandemic to date. We also believe that the overall credit quality of our loan portfolio has not been adversely affected by market, economic and other disruptions caused by the pandemic. Our electric utility cooperative borrowers operate in a sector identified by the United States ("U.S.") government as one of the 16 critical infrastructure sectors because the nature of the services provided in these 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. We have not experienced any delinquencies in scheduled loan payments or received requests for payment deferrals from our borrowers due to the pandemic.

CFC has been able to maintain business continuity throughout the pandemic and has experienced no pandemic-related employee furloughs or layoffs. We have remote-work options available for most employees while also providing in-person collaboration at CFC headquarters, as we believe this working model allows CFC to provide the highest quality of service and deliver more effectively on our member-focused mission. We currently have an indoor mask requirement for all employees working in person at our CFC headquarters, located in Loudoun County, Virginia, regardless of vaccination status, to protect the safety and health of our employees. On November 5, 2021, the U.S. Occupational Safety and Health Administration ("OSHA") enacted an emergency temporary standard on vaccination and testing that would require all unvaccinated CFC employees in the workplace to undergo weekly COVID-19 testing beginning January 5, 2022. On January 13, 2022, the U.S. Supreme Court blocked these regulations from going into effect. We continue to monitor and update our practices in response to changes in the COVID-19 workplace safety and health standards established by OSHA and Virginia as they relate to Loudoun County and guidance provided by the Centers for Disease Control and Prevention ("CDC").

Although most of the initial restrictions imposed at the onset of the pandemic in the U.S. have been relaxed or lifted as a result of the distribution of vaccines, there has been a resurgence of COVID-19 cases fueled by the recently identified, highly transmissible Omicron variant and the continued spread of the Delta variant. Many states throughout the U.S. are currently experiencing record-breaking levels of COVID-19 cases due to the accelerated spread of these variants, which has led some state and local governments to reinstitute measures and restrictions to slow the transmission and mitigate public health risks in certain jurisdictions. Such actions could possibly disrupt the business, activities and operations of CFC, as well as the business and operations of our members, the extent to which are highly uncertain and depend on future developments, which include, among others, the severity and duration of the current COVID-19 resurgence and its impact on the overall economy and other industry sectors; vaccination rates; the longer-term efficacy of vaccinations; and the potential emergence of new, more transmissible or severe variants.

As part of our credit risk management process, we maintain ongoing communications with our members, closely monitor developments and review key credit metrics to facilitate the timely identification and active management of loans to borrowers with potential credit weaknesses and assess any notable shifts in the credit quality of our loan portfolio due to the pandemic or to other factors. To date, we believe that the pandemic has not had a significant negative impact on the overall financial performance of our members.

We provide additional information on actions taken in response to the pandemic to protect the safety and health of our employees under “Item 1. Business—Human Capital” and “Item 7. MD&A—Executive Summary” in our 2021 Form 10-K.

Outlook

As indicated in the “Liquidity Risk—Projected Near-Term Sources and Uses of Funds” section, we currently anticipate net long-term loan growth over the next 12 months of $879 million. We believe that our current projected loan growth, coupled with our current estimated cost of funding this loan growth, will result in an increase in our reported net interest income and adjusted net interest income over the next 12 months relative to the prior 12-month period ended November 30, 2021. Although we expect an increase in our reported net interest income over the next 12 months, we believe that our reported net interest yield will remain flat based on an anticipated increase in the average cost of borrowings required to fund our projected loan growth over the next 12 months. However, we believe that we will experience an increase in our adjusted net interest yield based on our assumption that short-term interest rates will increase over the next 12 months, which we anticipate will reduce our derivative net periodic cash settlements expense and thereby reduce our adjusted average cost of borrowings.

We expect that our adjusted debt-to-equity ratio, which excludes the impact of derivative forward value gains and losses, will remain elevated above our target threshold of 6.00-to-1 in the near term due to a projected increase in total debt outstanding to fund the anticipated growth in our loan portfolio. As discussed above, we are subject to earnings volatility, often significant, because we do not apply hedge accounting to our interest rate swaps and therefore the periodic unrealized fluctuations in the fair value of our interest rate swaps are recorded in our earnings. We exclude the impact of derivative forward fair value gains and losses, which are driven by changes in expected interest rates over the life of the swaps, from certain of our non-GAAP adjusted measures. We are unable to provide directional guidance to the most directly comparable forward-looking GAAP measures because we are unable to predict with a reasonable degree of certainty the exact timing and impact of derivative forward value gains and losses. The majority of our swaps are long-term, with an average remaining life of approximately 14 years as of November 30, 2021. As such, the periodic unrealized forward gains and losses will be largely based on future changes in expected long-term interest rates, which we cannot accurately predict. As indicated by the volatility in our reported earnings, we often experience significant shifts in the unrealized derivative forward value gains and losses recorded each period. Therefore, the unavailable information could have a significant impact on our actual future debt-to-equity ratio, the most directly comparable GAAP measure. We provide a reconciliation of our adjusted debt-to-equity ratio to our reported debt-to-equity ratio as of November 30, 2021 and May 31, 2021 in the section “Non-GAAP Financial Measures,” which illustrates the potential impact that unrealized derivative forward value gains and losses could have on our future reported debt-to-equity ratios.

We continue to believe that our exposure to the significant adverse financial impact on some electric utilities from the surge in wholesale power costs in Texas during the February 2021 polar vortex was primarily limited to our outstanding loans to two CFC electric power supply borrowers, Brazos and Rayburn Country Electric Cooperative, Inc. (“Rayburn”), and that the overall credit quality of our loan portfolio remained strong as of November 30, 2021. Loans outstanding to Brazos and Rayburn of $86 million and $371 million, respectively, together totaled $457 million as of November 30, 2021, of which $180 million was secured and $277 million was unsecured. In June 2021, Texas enacted securitization legislation that offers a financing program for qualifying electric cooperatives exposed to elevated power costs during the February 2021 polar vortex. Brazos and Rayburn both qualify for the Texas-enacted financing program. Rayburn has initiated the securitization financing process to raise funds for eligible costs incurred during the February 2021 polar vortex, as specified in the legislation, and has stated that it intends to use the proceeds to pay down its related outstanding obligation to the Electric Reliability Council of Texas (“ERCOT”). There are many factors, which we are unable to predict, that may impact the completion and outcome of the securitization transaction and the ultimate collectibility of Rayburn’s loans outstanding. Rayburn, however, was current on all of its debt obligations to us as of the date of this Report.

See “Item 1A. Risk Factors” in our 2021 Form 10-K for a discussion of the potential adverse impact of natural disasters, including weather-related events such as the February 2021 polar vortex, and widespread health emergencies, such as 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 U.S. 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 in "Note 1—Summary of Significant Accounting Policies" in our 2021 Form 10-K.

Certain accounting policies are considered 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. The determination of the allowance for expected credit losses over the remaining expected life of the loans in our loan portfolio involves a significant degree of management judgment and level of estimation uncertainty. As such, we have identified our accounting policy governing the estimation of the allowance for credit losses as a critical accounting policy. We describe our allowance methodology and process for estimating the allowance for credit losses under "Note 1—Summary of Significant Accounting Policies—Allowance for Credit Losses–Loan Portfolio—Current Methodology" in our 2021 Form 10-K.

We identify the key inputs used in determining the allowance for credit losses, discuss the assumptions that require the most significant management judgment and contribute to the estimation uncertainty and disclose the sensitivity of our allowance to hypothetical changes in the assumptions underlying the calculation of our reported allowance for credit losses of $86 million as of May 31, 2021 under "Item 7. MD&A—Critical Accounting Policies and Estimates" in our 2021 Form 10-K. We regularly evaluate the key inputs and assumptions used in determining the allowance for credit losses and update them, as necessary, to better reflect present conditions, including current trends in credit performance and borrower risk profile, portfolio concentration risk, changes in risk-management practices, changes in the regulatory environment and other factors relevant to our loan portfolio segments. We did not change our allowance methodology or the nature of the underlying key inputs and assumptions used in measuring our allowance for credit losses during the current quarter.

Our allowance for credit losses of $86 million and allowance coverage ratio of 0.30% as of November 30, 2021 were unchanged from May 31, 2021, reflecting the offsetting impact of an increase in the collective allowance of $4 million and a decrease in the asset-specific allowance of $3 million. Management has discussed the significant judgments, key inputs and assumptions in applying our critical accounting policy governing the measurement of the allowance for credit losses with the Audit Committee of the CFC Board of Directors.

We discuss the risks and uncertainties related to management's judgments and estimates in applying accounting policies that have been identified as a critical accounting policy under "Item 1A. Risk Factors—Regulatory and Compliance Risks" in our 2021 Form 10-K. We provide additional information on the allowance for credit losses under "Credit Risk—Allowance for Credit Losses" section and in "Note 5—Allowance for Credit Losses" in this Report.

RECENT ACCOUNTING CHANGES AND OTHER DEVELOPMENTS

Recent Accounting Changes

We provide information on recently adopted accounting standards and the adoption impact on CFC's consolidated financial statements and recently issued accounting standards not yet required to be adopted and the expected adoption impact in "Note 1—Summary of Significant Accounting Policies." 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 discuss the impact in the applicable section(s) of this MD&A.

CONSOLIDATED RESULTS OF OPERATIONS

This section provides a comparative discussion of our consolidated results of operations between the three months ended November 30, 2021 and November 30, 2020 and between the six months ended November 30, 2021 and November 30, 2020. Following this section, we provide a discussion and analysis of material changes between amounts reported on our consolidated balance sheet as of November 30, 2021 and amounts reported as of May 31, 2021. You should read these sections together with our "Executive Summary—Outlook" where we discuss trends and other factors that we expect will affect our future results of operations.

Net Interest Income

Net interest income, which is our largest source of revenue, represents the difference between the interest income earned on our interest-earning assets 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, 2021 and 2020, 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 U.S. GAAP measures under "Non-GAAP Financial Measures."

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

	Three Months Ended November 30,					
	2021			2020		
(Dollars in thousands)	Average Balance	Interest Income/ Expense	Average Yield/Cost	Average Balance	Interest Income/ Expense	Average Yield/Cost
Assets:						
Long-term fixed-rate loans[1]	**$25,676,752**	**$ 263,569**	**4.12%**	$24,824,439	$ 262,200	4.24%
Long-term variable-rate loans	**782,452**	**4,334**	**2.22**	639,626	3,596	2.25
Line of credit loans	**2,124,507**	**11,640**	**2.20**	1,300,811	6,994	2.16
Troubled debt restructuring ("TDR") loans	**9,533**	**182**	**7.66**	10,300	196	7.63
Nonperforming loans	**227,857**	**—**	**—**	158,488	—	—
Other, net[2]	**—**	**(357)**	**—**	—	(344)	—
Total loans	**28,821,101**	**279,368**	**3.89**	26,933,664	272,642	4.06
Cash, time deposits and investment securities	**738,204**	**3,784**	**2.06**	744,049	3,857	2.08
Total interest-earning assets	**$29,559,305**	**$ 283,152**	**3.84%**	$27,677,713	$ 276,499	4.01%
Other assets, less allowance for credit losses[3]	**393,926**			569,289		
Total assets[3]	**$29,953,231**			$28,247,002		
Liabilities:						
Commercial paper	**$ 2,274,073**	**$ 1,809**	**0.32%**	$ 1,789,252	$ 1,799	0.40%
Other short-term borrowings	**2,178,515**	**1,267**	**0.23**	2,337,781	1,604	0.28
Total short-term borrowings	**4,452,588**	**3,076**	**0.28**	4,127,033	3,403	0.33
Medium-term notes	**4,504,988**	**26,115**	**2.33**	3,597,232	29,127	3.25
Collateral trust bonds	**7,125,605**	**62,688**	**3.53**	6,792,567	61,623	3.64
Guaranteed Underwriter Program notes payable	**6,162,377**	**42,470**	**2.76**	6,207,538	41,168	2.66
Farmer Mac notes payable	**3,189,139**	**12,775**	**1.61**	2,928,966	12,606	1.73
Other notes payable	**8,253**	**48**	**2.33**	11,726	55	1.88
Subordinated deferrable debt	**986,382**	**12,890**	**5.24**	986,184	12,893	5.24
Subordinated certificates	**1,253,323**	**13,534**	**4.33**	1,255,549	13,547	4.33
Total interest-bearing liabilities	**$27,682,655**	**$ 173,596**	**2.52%**	$25,906,795	$ 174,422	2.70%
Other liabilities[3]	**950,203**			1,538,818		
Total liabilities[3]	**28,632,858**			27,445,613		
Total equity[3]	**1,320,373**			801,389		
Total liabilities and equity[3]	**$29,953,231**			$28,247,002		
Net interest spread[4]			**1.32%**			1.31%
Impact of non-interest bearing funding[5]			**0.17**			0.17
Net interest income/net interest yield[6]		**$ 109,556**	**1.49%**		$ 102,077	1.48%
Adjusted net interest income/adjusted net interest yield:						
Interest income		**$ 283,152**	**3.84%**		$ 276,499	4.01%
Interest expense		**173,596**	**2.52**		174,422	2.70
Add: Net periodic derivative cash settlements interest expense[7]		**25,952**	**1.22**		29,800	1.32
Adjusted interest expense/adjusted average cost[8]		**$ 199,548**	**2.89%**		$ 204,222	3.16%
Adjusted net interest spread[6]			**0.95**			0.85
Impact of non-interest bearing funding[5]			**0.18**			0.20
Adjusted net interest income/adjusted net interest yield[9]		**$ 83,604**	**1.13%**		$ 72,277	1.05%

(Dollars in thousands)	Six Months Ended November 30, 2021 Average Balance	Interest Income/ Expense	Average Yield/Cost	2020 Average Balance	Interest Income/ Expense	Average Yield/Cost
Assets:						
Long-term fixed-rate loans[1]	**$25,561,046**	**$ 526,654**	**4.11%**	$24,715,209	$ 525,384	4.24%
Long-term variable-rate loans	**773,048**	**8,612**	**2.22**	662,952	7,996	2.41
Line of credit loans	**2,133,233**	**23,261**	**2.17**	1,359,061	15,236	2.24
TDR loans	**9,730**	**374**	**7.67**	10,542	403	7.62
Nonperforming loans	**230,765**	**—**	**—**	161,640	—	—
Other, net[2]	**—**	**(714)**	**—**	—	(679)	—
Total loans	**28,707,822**	**558,187**	**3.88**	26,909,404	548,340	4.06
Cash, time deposits and investment securities	**746,389**	**8,233**	**2.20**	825,622	7,743	1.87
Total interest-earning assets	**$29,454,211**	**$ 566,420**	**3.84%**	$27,735,026	$ 556,083	4.00%
Other assets, less allowance for credit losses[3]	**469,698**			522,401		
Total assets[3]	**$29,923,909**			$28,257,427		
Liabilities:						
Commercial paper	**$ 2,399,544**	**$ 3,957**	**0.33%**	$ 1,770,082	$ 3,861	0.44%
Other short-term borrowings	**2,072,422**	**2,512**	**0.24**	2,225,162	3,883	0.35
Total short-term borrowings	**4,471,966**	**6,469**	**0.29**	3,995,244	$ 7,744	0.39
Medium-term notes	**4,409,663**	**51,887**	**2.35**	3,641,273	59,014	3.23
Collateral trust bonds	**7,159,683**	**125,830**	**3.51**	6,821,832	124,216	3.63
Guaranteed Underwriter Program notes payable	**6,205,812**	**86,040**	**2.77**	6,225,272	83,581	2.68
Farmer Mac notes payable	**3,071,120**	**25,116**	**1.63**	2,991,046	26,539	1.77
Other notes payable	**8,247**	**96**	**2.32**	11,675	142	2.43
Subordinated deferrable debt	**986,357**	**25,772**	**5.21**	986,160	25,783	5.21
Subordinated certificates	**1,253,649**	**27,163**	**4.32**	1,281,857	27,379	4.26
Total interest-bearing liabilities	**$27,566,497**	**$ 348,373**	**2.52%**	$25,954,359	$ 354,398	2.72%
Other liabilities[3]	**1,021,369**			1,565,495		
Total liabilities[3]	**28,587,866**			27,519,854		
Total equity[3]	**1,336,043**			737,573		
Total liabilities and equity[3]	**$29,923,909**			$28,257,427		
Net interest spread[4]			**1.32%**			1.28%
Impact of non-interest bearing funding[5]			**0.16**			0.17
Net interest income/net interest yield[6]		**$ 218,047**	**1.48%**		$ 201,685	1.45%
Adjusted net interest income/adjusted net interest yield:						
Interest income		**$ 566,420**	**3.84%**		$ 556,083	4.00%
Interest expense		**348,373**	**2.52**		354,398	2.72
Add: Net periodic derivative cash settlements interest expense[7]		**53,515**	**1.23**		56,772	1.24
Adjusted interest expense/adjusted average cost[8]		**$ 401,888**	**2.91%**		$ 411,170	3.16%
Adjusted net interest spread[6]			**0.93**			0.84
Impact of non-interest bearing funding[5]			**0.18**			0.20
Adjusted net interest income/adjusted net interest yield[9]		**$ 164,532**	**1.11%**		$ 144,913	1.04%

(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.

(3) The average balance represents average monthly balances, which is calculated based on the month-end balance as of the beginning of the reporting period and the balances as of the end of each month included in the specified reporting period.

[4]Net interest spread represents the difference between the average yield on total average interest-earning assets and the average cost of total average interest-bearing liabilities. Adjusted net interest spread represents the difference between the average yield on total average interest-earning assets and the adjusted average cost of total average interest-bearing liabilities.

[5]Includes other liabilities and equity.

[6]Net interest yield is calculated based on annualized net interest income for the period divided by total average interest-earning assets for the period.

[7]Represents the impact of net 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 $8,566 million and $9,049 million for the three months ended November 30, 2021 and 2020, respectively. The average outstanding notional amount of interest rate swaps was $8,654 million and $9,138 million for the six months ended November 30, 2021 and 2020, respectively.

[8]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.

[9]Adjusted net interest yield is calculated based on annualized adjusted net interest income for the period divided by total average interest-earning assets for the period.

Table 3 displays the change in net interest income between periods and the extent to which the variance for each category of interest-earning assets and interest-bearing liabilities is attributable to: (i) changes in volume, which represents the change in the average balances of our interest-earning assets and interest-bearing liabilities or volume and (ii) changes in the rate, which represents the change in the average interest rates of these assets and liabilities. The table also presents the change in adjusted net interest income between periods.

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

	Three Months Ended November 30,			Six Months Ended November 30,		
	2021 versus 2020			2021 versus 2020		
	Total	Variance Due To:[1]		Total	Variance Due To:[1]	
(Dollars in thousands)	Variance	Volume	Rate	Variance	Volume	Rate
Interest income:						
Long-term fixed-rate loans	$ 1,369	$ 9,002	$ (7,633)	$ 1,270	$ 17,980	$ (16,710)
Long-term variable-rate loans	738	803	(65)	616	1,328	(712)
Line of credit loans	4,646	4,429	217	8,025	8,679	(654)
TDR loans	(14)	(15)	1	(29)	(31)	2
Other, net	(13)	—	(13)	(35)	—	(35)
Total loans	6,726	14,219	(7,493)	9,847	27,956	(18,109)
Cash, time deposits and investment securities	(73)	(30)	(43)	490	(743)	1,233
Total interest income	6,653	14,189	(7,536)	10,337	27,213	(16,876)
Interest expense:						
Commercial paper	10	487	(477)	96	1,373	(1,277)
Other short-term borrowings	(337)	(109)	(228)	(1,371)	(267)	(1,104)
Total short-term borrowings	(327)	378	(705)	(1,275)	1,106	(2,381)
Medium-term notes	(3,012)	7,350	(10,362)	(7,127)	12,453	(19,580)
Collateral trust bonds	1,065	3,021	(1,956)	1,614	6,152	(4,538)
Guaranteed Underwriter Program notes payable	1,302	(300)	1,602	2,459	(261)	2,720
Farmer Mac notes payable	169	1,120	(951)	(1,423)	710	(2,133)
Other notes payable	(7)	(16)	9	(46)	(42)	(4)
Subordinated deferrable debt	(3)	3	(6)	(11)	5	(16)
Subordinated certificates	(13)	(24)	11	(216)	(602)	386
Total interest expense	(826)	11,532	(12,358)	(6,025)	19,521	(25,546)
Net interest income	$ 7,479	$ 2,657	$ 4,822	$ 16,362	$ 7,692	$ 8,670
Adjusted net interest income:						
Interest income	$ 6,653	$ 14,189	$ (7,536)	$ 10,337	$ 27,213	$ (16,876)
Interest expense	(826)	11,532	(12,358)	(6,025)	19,521	(25,546)
Net periodic derivative cash settlements interest expense[2]	(3,848)	(1,590)	(2,258)	(3,257)	(3,003)	(254)
Adjusted interest expense[3]	(4,674)	9,942	(14,616)	(9,282)	16,518	(25,800)
Adjusted net interest income	$ 11,327	$ 4,247	$ 7,080	$ 19,619	$ 10,695	$ 8,924

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[1] The changes for each category of interest income and interest expense represent changes in either average balances (volume) or average rates for both interest-earning assets and interest-bearing liabilities. We allocate the amount attributable to the combined impact of volume and rate to the rate variance.

[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 expense 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.

Reported Net Interest Income

Reported net interest income of $110 million for the current quarter increased $7 million or 7%, from the same prior-year quarter, driven by an increase in average interest-earning assets of $1,882 million, or 7 percent, and an increase in the net interest yield of 1 basis point, or 1%, to 1.49%.

- *Average Interest-Earning Assets*: The increase in average interest-earning assets of 7% was attributable to growth in average total loans of $1,887 million, or 7%, driven by an increase in average long-term fixed-rate loans of $852 million and an increase in average line of credit loans of $824 million. The continued low interest rate environment presented an opportunity for members to obtain long-term loan advances to fund capital investments at a low fixed rate of interest. The increase in average line of credit loans was mainly attributable to loan advances to one distribution member that experienced an adverse financial impact from restoration costs incurred to repair damage caused by two successive hurricanes and loan advances to several CFC Texas-based power supply borrowers that were subject to elevated power costs during the February 2021 polar vortex.

- *Net Interest Yield:* The increase in the net interest yield of 1 basis point, or 1%, was primarily attributable to a reduction in our average cost of borrowings of 18 basis points to 2.52%, which was partially offset by a decrease in the average yield on interest-earning assets of 17 basis points to 3.84%. The decreases in our average cost of borrowings and average yield on interest-earning assets were driven by the continued low interest rate environment. As a result, we experienced significant reductions in the cost of our short-term and variable-rate funding and in the average yield on our loans, as higher interest rate loans that matured or repriced were replaced by new loans with lower interest rates.

Reported net interest income of $218 million for the six months ended November 30, 2021 increased $16 million, or 8%, from the same prior year-to-date period, driven by an increase in average interest-earning assets of $1,719 million, or 6%, and an increase in the net interest yield of 3 basis points, or 2%, to 1.48%.

- *Average Interest-Earning Assets*: The increase in average interest-earning assets of 6% was attributable to growth in average total loans of $1,798 million, or 7%, driven by an increase in average long-term fixed-rate loans of $846 million and an increase in average line of credit loans of $774 million, as the continued low interest rate environment presented an opportunity for members to obtain long-term loan advances to fund capital investments at a low fixed rate of interest. The increase in average line of credit loans for the current-year-to date period was also attributable to loan advances to the distribution member that experienced an adverse financial impact from damage caused by two successive hurricanes and loan advances to CFC Texas-based power supply borrowers adversely affected by the elevated power costs during the February 2021 polar vortex.

- *Net Interest Yield:* The increase in the net interest yield of 3 basis points, or 2%, was primarily attributable to a reduction in our average cost of borrowings of 20 basis points to 2.52%, which was partially offset by a decrease in the average yield on interest-earning assets of 16 basis points to 3.84%. The decreases in our average cost of borrowings and average yield on interest-earning assets were driven by the continued low interest rate environment.

Adjusted Net Interest Income

Adjusted net interest income of $84 million for the current quarter increased $11 million, or 16%, from the same prior-year quarter, driven by the combined impact of an increase in average interest-earning assets of $1,882 million, or 7%, and an increase in the adjusted net interest yield of 8 basis points, or 8%, to 1.13%.

- *Average Interest-Earning Assets*: The increase in average interest-earning assets of 7% during the current quarter was primarily driven by the growth in average total loans of $1,887 million, or 7%, attributable to the increase in average long-term fixed-rate and line of credit loans discussed above.

- *Adjusted Net Interest Yield*: The increase in the adjusted net interest yield of 8 basis points, or 8%, reflected the favorable impact of a reduction in our adjusted average cost of borrowings of 27 basis points to 2.89%, which was partially offset by a decrease in the average yield on interest-earning assets of 17 basis points to 3.84%, both of which were attributable to the continued low interest rate environment.

Adjusted net interest income of $165 million for the six months ended November 30, 2021 increase $20 million, or 14%, from the same prior year-to-date period, driven by the combined impact of an increase in average interest-earning assets of $1,719 million, or 6%, and an increase in the adjusted net interest yield of 7 basis points, or 7%, to 1.11%.

- *Average Interest-Earning Assets:* The increase in average interest-earning assets of 6% during the current year-to-date period was primarily driven by the growth in average total loans of $1,798 million, or 7%, attributable to the increase in average long-term fixed-rate and line of credit loans noted above.

- *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 25 basis points to 2.91%, which was partially offset by a decrease in the average yield on interest-earning assets of 16 basis points to 3.84%, both of which were attributable to the continued low interest rate environment.

We include the net periodic derivative cash settlements interest expense 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 $26 million for the current quarter, compared with $30 million for the same prior-year quarter. We recorded net periodic derivative cash settlements interest expense of $54 million for the current year-to-date period, compared with $57 million for the same prior year-to-date period.

The floating-rate payments on our interest rate swaps are typically based on the 3-month London Interbank Offered Rate ("LIBOR") rate. Because our derivative portfolio consists of a higher proportion of pay-fixed swaps than receive-fixed swaps, the net periodic derivative cash settlements interest expense amounts generally change based on changes in the floating interest amount received each period. When the 3-month LIBOR rate increases during the period, the received floating interest amounts on our pay-fixed swaps increase and, conversely, when the 3-month LIBOR swap rate decreases, the received floating interest amounts on our pay-fixed swaps decrease. The 3-month LIBOR rate increased during the current quarter and current year-to-date period, resulting in an increase in received floating interest amounts and contributing to lower net periodic derivative cash settlements interest expense amounts in the current quarter and year-to date period. In contrast, the 3-month LIBOR rate decreased during the same prior-year periods, resulting in a reduction in received floating interest amounts and contributing to higher net periodic derivative cash settlements interest expense amounts in the same prior-year quarter and 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 U.S. GAAP measures.

Provision for Credit Losses

Our provision for credit losses each period is driven by changes in our measurement of lifetime expected credit losses for our loan portfolio recorded in the allowance for credit losses. Our allowance for credit losses and allowance coverage ratio was $86 million and 0.30%, respectively, as of both November 30, 2021 and May 31, 2021.

We recorded a benefit for credit losses of $3 million for the current quarter, compared with a provision for credit losses of $2 million for the same prior-year quarter. The current-quarter benefit stemmed from the elimination of an asset-specific allowance of $3 million attributable to nonperforming loans totaling $9 million as a result of our receipt of full payment of all amounts due on these loans during the current quarter. The provision for credit losses of $2 million recorded in the same prior-year quarter was primarily attributable to loan growth during the period.

We recorded a provision for credit losses of less than $1 million for the current year-to-date period and a provision for credit losses of $2 million for the same prior year-to-date period. The provision of less than $1 million for the current year-to-date period reflected the offsetting impact of an increase in the collective allowance of $4 million and a decrease in the asset-specific allowance of $3 million. The increase in the collective allowance was driven by an increase in the default rates utilized in measuring our collective allowance for credit losses, shifts in borrower risk rating grades and an increase in loans outstanding, while the decrease in the asset-specific allowance stemmed from the elimination of the asset-specific allowance attributable to the nonperforming loans of $9 million that were paid in full during the current quarter. The provision for credit losses of $2 million recorded in the same prior year-to-date period was primarily attributable to an increase in loans outstanding during the period.

We discuss our methodology for estimating the allowance for credit losses in "Note 1—Summary of Significant Accounting Policies—Allowance for Credit Losses—Current Methodology" in our 2021 Form 10-K and provide additional information on our allowance for credit losses under "Credit Risk—Allowance for Credit Losses" and "Note 5—Allowance for Credit Losses" in this Report.

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.

Table 4 presents the components of non-interest income for the three and six months ended November 30, 2021 and 2020.

Table 4: Non-Interest Income

	Three Months Ended November 30,		Six Months Ended November 30,	
(Dollars in thousands)	**2021**	**2020**	**2021**	**2020**
Non-interest income components:				
Fee and other income	**$ 4,831**	$ 6,332	**$ 8,772**	$ 9,848
Derivative gains (losses)	**46,086**	81,287	**(126,077)**	141,563
Investment securities gains (losses)	**(4,344)**	(1,361)	**(6,569)**	3,298
Total non-interest income	**$ 46,573**	$ 86,258	**$ (123,874)**	$ 154,709

The significant variance in non-interest income between the current-year periods and the same prior-year periods was primarily attributable to changes in the derivative gains (losses) recognized in our consolidated statements of operations. Non-interest income for the current year-to-date period reflects an unfavorable shift in investment securities gains (losses) of $10 million, as we recorded unrealized net losses on our investment securities of $7 million for the current year-to-date period, compared with unrealized net gains of $3 million for the same prior year-to-date period. We expect period-to-period market fluctuations in the fair value of our investment securities, which we report together with realized gains and losses from the sale of investment securities on our consolidated statements of operations.

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, if we execute a treasury lock, we typically designate the treasury lock as a cash flow hedge.

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.

On July 20, 2021, we executed two treasury lock agreements with an aggregate notional amount of $250 million to lock in the underlying U.S. Treasury interest rate component of interest rate payments on anticipated debt issuances and repricings. The treasury locks, which were scheduled to mature on October 29, 2021, were designated and qualified as cash flow hedges. In October 2021, we borrowed $250 million under our Farmer Mac revolving purchase note agreement and terminated the treasury locks. Prior to this anticipated borrowing and the termination of the treasury locks, we recorded changes in the fair value of the treasury locks in AOCI. At termination, the treasury locks were in a gain position of $5 million, of which $4 million is being accreted from AOCI to interest expense over the term of the related Farmer Mac borrowings and the remainder was recognized in earnings. We did not have any derivatives designated as accounting hedges as of November 30, 2021 or May 31, 2021.

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, 2021 and 2020. 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)

	Three Months Ended November 30,		Six Months Ended November 30,	
(Dollars in thousands)	**2021**	**2020**	**2021**	**2020**
Derivative gains (losses) attributable to:				
Derivative cash settlements interest expense	**$ (25,952)**	$ (29,800)	**$ (53,515)**	$ (56,772)
Derivative forward value gains (losses)	**72,038**	111,087	**(72,562)**	198,335
Derivative gains (losses)	**$ 46,086**	$ 81,287	**$ (126,077)**	$ 141,563

We recorded derivative gains of $46 million for the current quarter, primarily attributable to increases in medium-to-longer term swap rates during the period, namely the two- to 10-year swap rates. In comparison, we recorded derivative gains of $81 million for the same prior-year quarter, attributable to increases in medium- and longer-term swap rates during the period, namely the five- to 30-year swap rates. As noted above, the substantial majority of our swap portfolio consists of longer-dated, pay-fixed swaps. Therefore, increases and decreases in medium- and longer-term swap rates generally have a more pronounced corresponding impact on the change in the net fair value of our swap portfolio.

We recorded derivative losses of $126 million for the current year-to-date period, primarily attributable to decreases in longer-term swap rates during the period, namely the 10- to 30-year swap rates. In contrast, we recorded derivative gains of $142 million for the same prior year-to-date period, attributable to increases in longer-term swap rates during the period, namely the 10- to 30-year swap rates.

We present comparative swap curves, which depict the relationship between swap rates at varying maturities, for our reported periods in Table 7 below.

Derivative Cash Settlements

As indicated in Table 5 above and discussed above under "Consolidated Results of Operations—Net Interest Income—Adjusted Net Interest Income," we recorded net periodic derivative cash settlements interest expense of $26 million for the current quarter, compared with $30 million for the same prior-year quarter and net periodic derivative cash settlements interest expense of $54 million for the current year-to-date period, compared with $57 million for the same prior year-to-date period. The 3-month LIBOR rate increased during the current quarter and current year-to-date period, resulting in an increase in received floating interest amounts and contributing to lower net periodic derivative cash settlements interest expense amounts in the current quarter and year-to date period. In contrast, the 3-month LIBOR rate decreased during the same prior-year periods, resulting in a reduction in received floating interest amounts and contributing to higher net periodic derivative cash settlements interest expense amounts in the same prior-year quarter and year-to-date period.

Table 6 displays, by interest rate swap agreement type, the average notional amount and the weighted-average interest rate paid and received for the net periodic derivative cash settlements interest expense during each respective period. 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 72% and 73% of the outstanding notional amount of our derivative portfolio as of November 30, 2021 and May 31, 2021, respectively.

Table 6: Derivatives—Average Notional Amounts and Interest Rates

	Three Months Ended November 30,					
	2021			2020		
	Average Notional	Weighted-Average Rate		Average Notional	Weighted-Average Rate	
(Dollars in thousands)	Amount	Paid	Received	Amount	Paid	Received
Interest rate swap type:						
Pay-fixed swaps	**$ 6,167,411**	**2.61%**	**0.15%**	$ 6,516,242	2.78%	0.25%
Receive-fixed swaps	**2,399,000**	**0.87**	**2.80**	2,533,066	0.98	2.77
Total	**$ 8,566,411**	**2.12%**	**0.90%**	$ 9,049,308	2.28%	0.96%

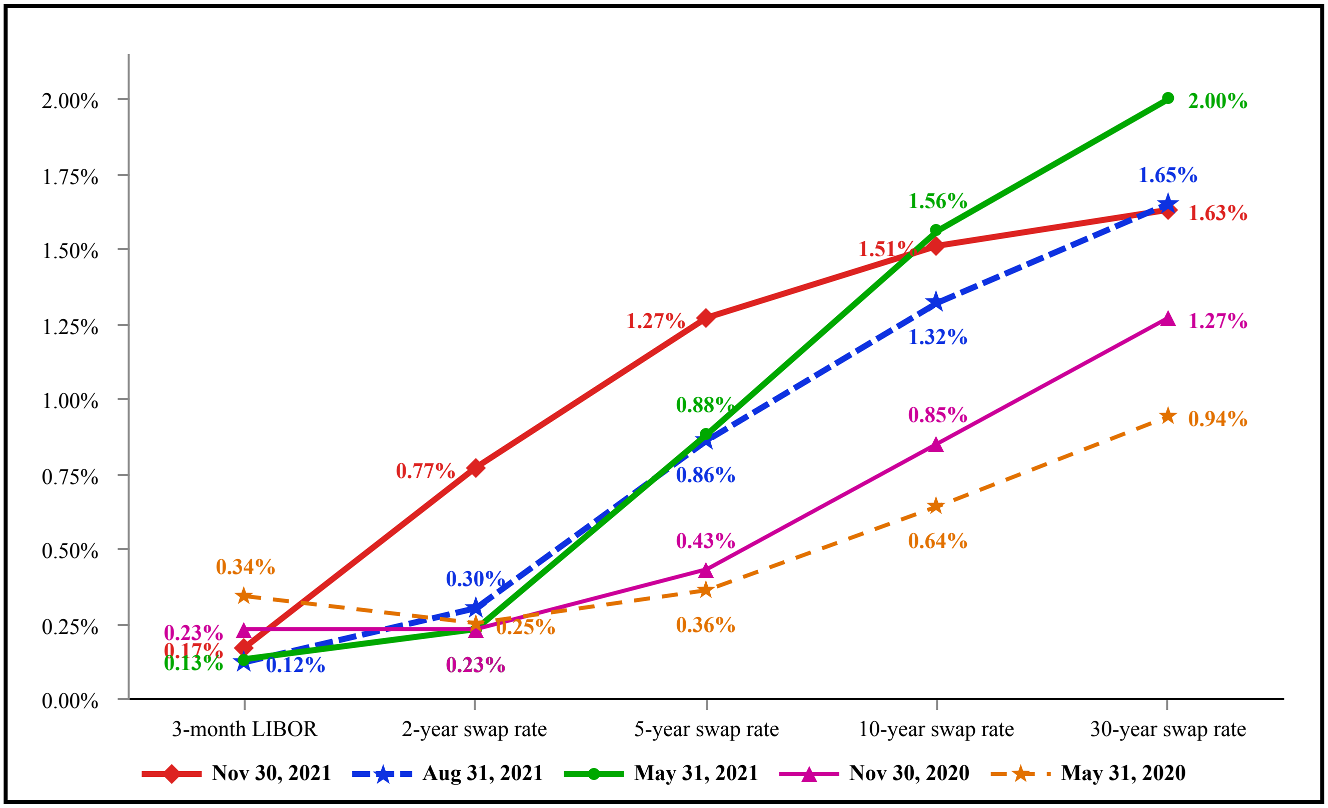
	Six Months Ended November 30,					
	2021			2020		
	Average Notional	Weighted-Average Rate		Average Notional	Weighted-Average Rate	
(Dollars in thousands)	Amount	Paid	Received	Amount	Paid	Received
Interest rate swap type:						
Pay-fixed swaps	**$ 6,255,473**	**2.62%**	**0.15%**	$ 6,547,594	2.78%	0.31%
Receive-fixed swaps	**2,399,000**	**0.88**	**2.80**	2,590,257	1.10	2.77
Total	**$ 8,654,473**	**2.14%**	**0.89%**	$ 9,137,851	2.30%	1.01%

The average remaining maturity of our pay-fixed and receive-fixed swaps was 19 years and three years, respectively, as of November 30, 2021. In comparison, the average remaining maturity of our pay-fixed and receive-fixed swaps was 19 years and four years, respectively, as of November 30, 2020.

Comparative Swap Curves

Table 7 below provides comparative swap curves as of November 30, 2021, August 31, 2021, May 31, 2021, November 30, 2020 and May 31, 2020.

Table 7: Comparative Swap Curves



Benchmark rates obtained from Bloomberg.

See "Note 9—Derivative Instruments and Hedging Activities" for additional information on our derivative instruments. Also refer to "Note 14—Fair Value Measurement" to the Consolidated Financial Statements in our 2021 Form 10-K for information on how we measure the fair value of our derivative instruments.

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 8 presents the components of non-interest expense recorded in our consolidated statements of operations for the three and six months ended November 30, 2021 and 2020.

Table 8: Non-Interest Expense

(Dollars in thousands)	Three Months Ended November 30, 2021	Three Months Ended November 30, 2020	Six Months Ended November 30, 2021	Six Months Ended November 30, 2020
Non-interest expense components:				
Salaries and employee benefits	**$ (12,380)**	$ (14,011)	**$ (25,690)**	$ (27,144)
Other general and administrative expenses	**(10,715)**	(10,125)	**(21,615)**	(19,655)
Operating expenses	**(23,095)**	(24,136)	**(47,305)**	(46,799)
Losses on early extinguishment of debt	**(118)**	(1,455)	**(118)**	(1,455)
Other non-interest expense	**(313)**	(323)	**(569)**	(655)
Total non-interest expense	**$ (23,526)**	$ (25,914)	**$ (47,992)**	$ (48,909)

Non-interest expense of $24 million for the current quarter decreased $2 million, or 9%, from the same prior-year quarter, primarily attributable to a decrease in salaries and employee benefits and lower losses on the early extinguishment of debt.

Non-interest expense of $48 million for the current year-to-date period decreased $1 million, or 2%, from the same prior year-to-date period, primarily attributable to a decrease in salaries and employee benefits and lower losses on the early extinguishment of debt, which was partially offset by an increase in other general and administrative expenses as we resumed business travel and in-person corporate meetings and events that were cancelled during the same prior year-to-date period due to the 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 the current quarter and net income of less than $1 million for the same prior-year quarter. We recorded net income attributable to noncontrolling interests of less than $1 million for the current year-to-date period and $1 million for the same prior year-to-date period.

CONSOLIDATED BALANCE SHEET ANALYSIS

Total assets increased $377 million, or 1%, to $30,016 million as of November 30, 2021, primarily due to growth in our loan portfolio. Similarly, we experienced an increase in total liabilities of $386 million, or 1%, to $28,625 million as of November 30, 2021, largely due to the issuances of debt to fund the growth in our loan portfolio. Total equity decreased $9 million to $1,391 million as of November 30, 2021, attributable to the CFC Board of Directors' authorized patronage capital retirement in July 2021 of $58 million, which was partially offset by our reported net income of $45 million for the current year-to-date period.

Below is a discussion of changes in the major components of our assets and liabilities during the current quarter. 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 our liquidity requirements and market risk exposure in accordance with our risk appetite framework.

Loan Portfolio

We segregate our loan portfolio into 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. We describe and provide additional information on our member classes under "Item 1. Business—Members" and information about our loan programs and loan product types under "Item 1. Business—Loan and Guarantee Programs" in our 2021 Form 10-K.

Loans Outstanding

Loans to members totaled $28,947 million and $28,427 million as of November 30, 2021 and May 31, 2021, respectively. Loans to CFC distribution and power supply borrowers accounted for 96% of total loans to members as of both November 30, 2021 and May 31, 2021. The increase in loans to members of $520 million, or 2%, from May 31, 2021, was attributable to a net increase in long-term loans of $530 million, partially offset by a decrease in line of credit loans of $10 million. We experienced increases in CFC distribution loans, NCSC loans and RTFC loans of $531 million, $14 million and $11 million, respectively, and decreases in CFC power supply loans, and CFC statewide and associate loans of $32 million and $4 million, respectively.

Long-term loan advances totaled $1,506 million during the six months ended November 30, 2021, of which approximately 69% was provided to members for capital expenditures and approximately 29% was provided to members for operating expenses and also to refinance advances that were drawn under line of credit facilities to meet elevated power cost obligations incurred during the February 2021 polar vortex. In comparison, long-term loan advances totaled $1,271 million during the same prior year-to-date period, of which approximately 85% was provided to members for capital expenditures and 5% was provided for the refinancing of loans made by other lenders. Of the $1,506 million total long-term loans advanced during the current year-to-date period, $1,199 million were fixed-rate loan advances with a weighted average fixed-rate term of 22 years.

We provide information on the credit performance and risk profile of our loan portfolio below under the section "Credit Risk—Loan Portfolio Credit Risk." Also refer to "Note 4—Loans" for addition information on our loans to members.

Loans—Retention Rate

Long-term fixed-rate loans accounted for 90% as of both November 30, 2021 and May 31, 2021 of our loans to members of $28,947 million and $28,427 million, respectively. Borrowers that select a fixed rate on a loan advance under a long-term loan facility have the option of choosing a term on the advance between one year and the final maturity date of the loan. At the expiration of a selected fixed-rate term, or the repricing date, borrowers have the option of: (i) selecting CFC's current long-term fixed rate for a term ranging from one year up 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 displays the retention rate of CFC's long-term fixed-rate loans that repriced, in accordance with our standard loan repricing provisions, during the six months ended November 30, 2021 and in fiscal year 2021, and the repricing option selected by borrowers for loans retained by CFC.

Table 9: Loans—Retention Rate and Repricing Selection(1)

(Dollars in thousands)	Six Months Ended November 30, 2021 Amount	Six Months Ended November 30, 2021 % of Total	Fiscal Year Ended May 31, 2021 Amount	Fiscal Year Ended May 31, 2021 % of Total
Borrower option selected at repricing:				
Loans retained:				
Long-term fixed rate selected	**$ 202,393**	**96%**	$ 383,939	97%
Long-term variable rate selected	**4,026**	**2**	9,564	2
Total loans retained by CFC	**206,419**	**98**	393,503	99
Loans repaid	**4,389**	**2**	3,508	1
Total	**$ 210,808**	**100%**	$ 397,011	100%

(1)Reflects repricing for CFC long-term fixed-rate loans only. Excludes NCSC and RTFC long-term fixed-rate loans.

As displayed in Table 9, of the loans that repriced during the current year-to-date period and during fiscal year 2021, the substantial majority of borrowers selected a new long-term fixed or variable rate. The average annual retention rate, calculated based on the election made by the borrower at the repricing date, was 96% for CFC loans that repriced during each of the three fiscal years ended May 31, 2021.

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, including our members, affiliates and the capital markets, 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, 2021 and May 31, 2021. Table 10 also displays the composition of our debt based on several additional selected attributes.

Table 10: Total Debt Outstanding

(Dollars in thousands)	November 30, 2021	May 31, 2021	Change
Debt product type:			
Commercial paper:			
Members, at par	**$ 1,094,767**	$ 1,124,607	$ (29,840)
Dealer, net of discounts	**1,039,967**	894,977	144,990
Total commercial paper	**2,134,734**	2,019,584	115,150
Select notes to members	**1,553,763**	1,539,150	14,613
Daily liquidity fund notes to members	**410,491**	460,556	(50,065)
Securities sold under repurchase agreements	**249,291**	200,115	49,176
Medium-term notes:			
Members, at par	**601,366**	595,037	6,329
Dealer, net of discounts	**4,385,831**	3,923,385	462,446
Total medium-term notes	**4,987,197**	4,518,422	468,775
Collateral trust bonds	**6,795,490**	7,191,944	(396,454)
Guaranteed Underwriter Program notes payable	**6,290,600**	6,269,303	21,297
Farmer Mac notes payable	**3,121,485**	2,977,909	143,576
Other notes payable	**8,263**	8,236	27
Subordinated deferrable debt	**986,415**	986,315	100
Members' subordinated certificates:			
Membership subordinated certificates	**628,599**	628,594	5
Loan and guarantee subordinated certificates	**384,580**	386,896	(2,316)
Member capital securities	**239,170**	239,170	—
Total members' subordinated certificates	**1,252,349**	1,254,660	(2,311)
Total debt outstanding	**$ 27,790,078**	$ 27,426,194	$ 363,884
Security type:			
Secured debt	**59%**	61%	
Unsecured debt	**41**	39	
Total	**100%**	100%	
Funding source:			
Members	**18%**	18%	
Private placement:			
Guaranteed Underwriter Program notes payable	**23**	23	
Farmer Mac notes payable	**11**	11	
Total private placement	**34**	34	
Capital markets	**48**	48	
Total	**100%**	100%	
Interest rate type:			
Fixed-rate debt	**78%**	77%	
Variable-rate debt	**22**	23	
Total	**100%**	100%	
Interest rate type, including the impact of swaps:			
Fixed-rate debt[(1)]	**92%**	93%	
Variable-rate debt[(2)]	**8**	7	
Total	**100%**	100%	
Maturity classification:[(3)]			
Short-term borrowings	**17%**	17%	
Long-term and subordinated debt[(4)]	**83**	83	
Total	**100%**	100%	

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[(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 debt outstanding generally increases and decreases in response to member loan demand. Total debt outstanding increased $364 million, or 1% to $27,790 million as of November 30, 2021, due to borrowings to fund the increase in loans to members. Outstanding dealer commercial paper of $1,040 million as of November 30, 2021 was below our targeted maximum threshold of $1,250 million.

Below is a summary of significant financing activities during the current year-to-date period:

- On June 7, 2021, we amended the three-year and five-year committed bank revolving line of credit agreements to extend the maturity dates to November 28, 2024 and November 28, 2025, respectively, and to terminate certain bank commitments totaling $70 million under the three-year agreement and $55 million under the five-year agreement. The terminations reduced the total commitment amount under the three-year facility to $1,245 million and the five-year facility to $1,355 million, resulting in an aggregate commitment amount under the two facilities of $2,600 million.

- On October 18, 2021, we issued $400 million aggregate principal amount of dealer medium-term notes at a fixed rate of 1.000%, due on October 18, 2024, and $350 million aggregate principal amount of dealer medium-term notes at a variable rate based on the Secured Overnight Financing Rate ("SOFR") plus 0.33%, due on October 18, 2024.

- In October 2021 and November 2021, we borrowed $250 million and $200 million, respectively, under the Farmer Mac revolving note purchase agreement.

- In November 2021, we borrowed $200 million under the Guaranteed Underwriter Program.

- On November 4, 2021, we closed on a $550 million committed loan facility ("Series S") under the Guaranteed Underwriter Program. Pursuant to this facility, we may borrow any time before July 15, 2026. Each advance is subject to quarterly amortization and a final maturity not longer than 30 years from the date of the advance.

- On November 15, 2021, we early redeemed all $400 million of our 3.05% Collateral Trust Bonds due February 15, 2022.

Member Investments

Debt securities issued to our members represent an important, stable source of funding. Table 11 displays member debt outstanding, by product type, as of November 30, 2021 and May 31, 2021.

Table 11: Member Investments

	November 30, 2021		May 31, 2021		
(Dollars in thousands)	**Amount**	**% of Total (1)**	**Amount**	**% of Total (1)**	**Change**
Member investment product type:					
Commercial paper	**$ 1,094,767**	**51%**	$ 1,124,607	56%	$ (29,840)
Select notes	**1,553,763**	**100**	1,539,150	100	14,613
Daily liquidity fund notes	**410,491**	**100**	460,556	100	(50,065)
Medium-term notes	**601,366**	**12**	595,037	13	6,329
Members' subordinated certificates	**1,252,349**	**100**	1,254,660	100	(2,311)
Total member investments	**$ 4,912,736**		$ 4,974,010		$ (61,274)
Percentage of total debt outstanding	**18%**		18%		

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

Member investments accounted for 18% of total debt outstanding as of both November 30, 2021 and May 31, 2021. Over the last twelve fiscal quarters, our member investments have averaged $5,043 million, calculated based on outstanding member investments as of the end of each fiscal quarter during the period.

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 increased to $4,747 million as of November 30, 2021, from $4,582 million as of May 31, 2021, primarily due to an increase in outstanding dealer commercial paper. Short-term borrowings accounted for 17% of total debt outstanding as of each respective date.

See "Liquidity Risk" below and "Note 6—Short-Term Borrowings" for information on the composition of our short-term borrowings.

Long-Term and Subordinated Debt

Long-term debt, defined as debt with an original contractual maturity term of greater than one year, primarily consists of medium-term notes, collateral trust bonds, notes payable under the Guaranteed Underwriter Program and notes payable under the Farmer Mac revolving note purchase agreement. Subordinated debt consists of subordinated deferrable debt and members' subordinated certificates. Long-term and subordinated debt of $23,043 million and $22,844 million as of November 30, 2021 and May 31, 2021, respectively, accounted for 83% of total debt outstanding as of each respective date.

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."

Equity

Table 12 presents the components of total CFC equity and total equity as of November 30, 2021 and May 31, 2021.

Table 12: Equity

(Dollars in thousands)	November 30, 2021	May 31, 2021
Equity components:		
Membership fees and educational fund:		
Membership fees	**$ 968**	$ 968
Educational fund	**1,697**	2,157
Total membership fees and educational fund	**2,665**	3,125
Patronage capital allocated	**866,405**	923,970
Members' capital reserve	**909,749**	909,749
Total allocated equity	**1,778,819**	1,836,844
Unallocated net income (loss):		
Prior fiscal year-end cumulative derivative forward value losses[(1)]	**(461,162)**	(1,079,739)
Year-to-date derivative forward value gains (losses) [(1)]	**(73,370)**	618,577
Period-end cumulative derivative forward value losses[(1)]	**(534,532)**	(461,162)
Other unallocated net income (loss)	**117,865**	(709)
Unallocated net loss	**(416,667)**	(461,871)
CFC retained equity	**1,362,152**	1,374,973
Accumulated other comprehensive income (loss)	**3,906**	(25)
Total CFC equity	**1,366,058**	1,374,948
Noncontrolling interests	**24,927**	24,931
Total equity	**$ 1,390,985**	$ 1,399,879

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[(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 29 in the "Non-GAAP Financial Measures" section below. Also, see "Note 14—Business Segments" for the statements of operations for CFC.

The decrease in total equity of $9 million to $1,391 million as of November 30, 2021 was attributable to the CFC Board of Directors' authorized patronage capital retirement in July 2021 of $58 million, which was partially offset by our reported net income of $45 million for the current year-to-date period.

Allocation and Retirement of Patronage Capital

We are subject to District of Columbia regulations governing cooperatives, under which CFC is required to make annual allocations of net earnings, if any, in accordance with the provisions of the District of Columbia cooperative regulations. We describe the allocation requirements under "Item 7. MD&A—Consolidated Balance Sheet Analysis—Equity—Allocation and Retirement of Patronage Capital" in our 2021 Form 10-K.

In May 2021, the CFC Board of Directors authorized the allocation of $1 million of net earnings for fiscal year 2021 to the cooperative educational fund. In July 2021, the CFC Board of Directors authorized the allocation of fiscal year 2021 adjusted net income as follows: $90 million to members in the form of patronage capital and $102 million to the members' capital reserve. 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 "Non-GAAP Financial Measures."

In July 2021, the CFC Board of Directors also authorized the retirement of patronage capital totaling $58 million, of which $45 million represented 50% of the patronage capital allocation for fiscal year 2021, and $13 million represented the portion of the allocation from fiscal year 1996 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 2021. The remaining portion of the patronage capital allocation for fiscal year 2021 will be retained by CFC for 25 years pursuant to the guidelines adopted by the CFC Board of Directors in June 2009.

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 cybersecurity risk, compliance risk, fiduciary risk, reputational risk and litigation risk.

Effective risk management is critical to our overall operations and to achieving our primary objective of providing cost-based financial products to our rural electric members while maintaining the sound financial results required for investment-grade credit ratings on our rated debt instruments. Accordingly, we have a risk-management framework that is intended to govern the principal risks we face in conducting our business and the aggregate amount of risk we are willing to accept, referred to as risk appetite and risk guidelines, in the context of CFC's mission and strategic objectives and initiatives. We provide a discussion of our risk management framework in our 2021 Form 10-K under "Item 7. MD&A—Risk Management" and describe how we manage these risks under each respective MD&A section in our 2021 Form 10-K.

CREDIT RISK

Our loan portfolio, which represents the largest component of assets on our balance sheet, accounts for the substantial majority of our credit risk exposure. We also engage in certain non-lending activities that may give rise to counterparty credit risk, such as entering into derivative transactions to manage interest rate risk and purchasing investment securities.

Loan Portfolio Credit Risk

Our primary credit exposure is loans to rural electric cooperatives, which 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. Loans outstanding to electric utility organizations totaled $28,503 million and $27,995 million as of November 30, 2021 and May 31, 2021, respectively, representing 99% of our total loans outstanding as of each respective date. The remaining loans outstanding in our loan portfolio were to RTFC members, affiliates and associates in the telecommunications industry sector. The substantial majority of loans to our borrowers are long-term fixed-rate loans with terms of up to 35 years. Long-term fixed-rate loans accounted for 90% of total loans outstanding as of both November 30, 2021 and May 31, 2021.

Because we lend primarily to our rural electric utility cooperative members, we have had a loan portfolio inherently subject to single-industry and single-obligor credit concentration risk 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 core 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. Table 13 presents, by loan type and by company, secured and unsecured loans in our loan portfolio as of November 30, 2021 and May 31, 2021. Of our total loans outstanding, 94% and 93% were secured as of November 30, 2021 and May 31, 2021, respectively.

Table 13: Loan Portfolio Security Profile

	November 30, 2021				
(Dollars in thousands)	Secured	% of Total	Unsecured	% of Total	Total
Member class:					
CFC:					
Distribution	$ 21,387,928	95%	$ 1,170,149	5%	$ 22,558,077
Power supply	4,470,901	87	651,505	13	5,122,406
Statewide and associate	88,705	87	12,686	13	101,391
Total CFC	25,947,534	93	1,834,340	7	$ 27,781,874
NCSC	696,582	97	24,717	3	721,299
RTFC	413,869	96	17,772	4	431,641
Total loans outstanding[1]	$ 27,057,985	94	$ 1,876,829	6	$ 28,934,814
Loan type:					
Long-term loans:					
Fixed rate	$ 25,807,158	99%	$ 205,983	1%	$ 26,013,141
Variable rate	687,566	100	2,611	—	690,177
Total long-term loans	26,494,724	99	208,594	1	26,703,318
Line of credit loans	563,261	25	1,668,235	75	2,231,496
Total loans outstanding[1]	$ 27,057,985	94	$ 1,876,829	6	$ 28,934,814

(Dollars in thousands)	May 31, 2021				
	Secured	% of Total	Unsecured	% of Total	Total
Member class:					
CFC:					
Distribution	$ 20,702,657	94%	$ 1,324,766	6%	$ 22,027,423
Power supply	4,458,311	86	696,001	14	5,154,312
Statewide and associate	88,004	83	18,117	17	106,121
Total CFC	$ 25,248,972	93	2,038,884	7	27,287,856
NCSC	662,782	94	44,086	6	706,868
RTFC	399,717	95	20,666	5	420,383
Total loans outstanding[1]	$ 26,311,471	93	$ 2,103,636	7	$ 28,415,107
Loan type:					
Long-term loans:					
Fixed rate	$ 25,278,805	99%	$ 235,961	1%	$ 25,514,766
Variable rate	655,675	100	2,904	—	658,579
Total long-term loans	25,934,480	99	238,865	1	26,173,345
Line of credit loans	376,991	17	1,864,771	83	2,241,762
Total loans outstanding[1]	$ 26,311,471	93	$ 2,103,636	7	$ 28,415,107

[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 as of both November 30, 2021 and May 31, 2021.

Credit Concentration

Concentrations of credit may exist when a lender has large credit exposures to single borrowers, large credit exposures to borrowers in the same industry sector or engaged in similar activities or large credit exposures to borrowers in a geographic region that would cause the borrowers to be similarly impacted by economic or other conditions in the region. As discussed above under "Credit Risk—Loan Portfolio Credit Risk," because we lend primarily to our rural electric utility cooperative members, our loan portfolio is inherently subject to single-industry and single-obligor credit concentration risk, and loans outstanding to electric utility organizations represented approximately 99% of our total loans outstanding of $28,503 million as of November 30, 2021 and $27,995 million as of May 31, 2021.

Single-Obligor Concentration

Table 14 displays the outstanding loan exposure for our 20 largest borrowers, by member class, as of November 30, 2021 and May 31, 2021. Our 20 largest borrowers consisted of 11 distribution systems and nine power supply systems as of November 30, 2021. In comparison, our 20 largest borrowers consisted of 10 distribution systems and 10 power supply systems as of May 31, 2021. The largest total exposure to a single borrower or controlled group represented less than 2% of total loans outstanding as of both November 30, 2021 and May 31, 2021.

Table 14: Loan Exposure to 20 Largest Borrowers

(Dollars in thousands)	November 30, 2021 Amount	November 30, 2021 % of Total	May 31, 2021 Amount	May 31, 2021 % of Total
Member class:				
CFC:				
Distribution	**$ 3,576,715**	**12%**	$ 3,312,571	12%
Power supply	**2,358,399**	**8**	2,665,771	9
Total CFC	**5,935,114**	**20**	5,978,342	21
NCSC	**199,221**	**1**	203,392	1
Total loan exposure to 20 largest borrowers	**6,134,335**	**21**	6,181,734	22
Less: Loans covered under Farmer Mac standby purchase commitment	**(254,547)**	**(1)**	(308,580)	(1)
Net loan exposure to 20 largest borrowers	**$ 5,879,788**	**20%**	$ 5,873,154	21%

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 long-term loans to be covered under the commitment, subject to approval by Farmer Mac, and in the event any such loan later goes into payment default for at least 90 days, upon request by us, Farmer Mac must purchase such loan at par value. The aggregate unpaid principal balance of designated and Farmer Mac approved loans was $486 million and $512 million as of November 30, 2021 and May 31, 2021, respectively. Loan exposure to our 20 largest borrowers covered under the Farmer Mac agreement totaled $255 million and $309 million as of November 30, 2021 and May 31, 2021, respectively, which reduced our exposure to the 20 largest borrowers to 20% and 21% as of each respective date. 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, which totaled $135 million and $139 million as of November 30, 2021 and May 31, 2021, 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 U.S. The consolidated number of borrowers with loans outstanding totaled 892 as of both November 30, 2021 and May 31, 2021 located in 49 states. Of the 892 borrowers with loans outstanding as of November 30, 2021, 50 were electric power supply borrowers. In comparison, of the 892 borrowers with loans outstanding as of May 31, 2021, 49 were electric power supply borrowers. Electric power supply borrowers generally require significantly more capital than electric distribution and telecommunications borrowers.

Texas, which had 68 and 67 borrowers with loans outstanding as of November 30, 2021 and May 31, 2021, respectively, accounted for the largest number of borrowers with loans outstanding in any one state as of each respective date, as well as the largest concentration of loan exposure in any one state. Loans outstanding to Texas-based electric utility organizations totaled $4,975 million and $4,878 million as of November 30, 2021 and May 31, 2021, respectively, and accounted for approximately 17% of total loans outstanding as of each respective date. Of the loans outstanding to Texas-based electric utility organizations, $167 million and $172 million as of November 30, 2021 and May 31, 2021, respectively, were covered by the Farmer Mac standby repurchase agreement, which reduced our credit risk exposure to Texas-based borrowers to 16% of total loans outstanding as of each respective date. Of the 50 electric power supply borrowers with loans outstanding as of November 30, 2021, eight were located in Texas.

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. We continue to believe that our exposure to the significant adverse financial impact on some electric utilities from the surge in wholesale power costs in Texas during the February 2021 polar vortex was primarily limited to our outstanding loans to Brazos and Rayburn and that the overall credit quality of our loan portfolio remained strong as of November 30, 2021.

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.

We have not had any loan modifications that were required to be accounted for as TDRs since fiscal year 2016. We had TDR loans outstanding to two borrowers, a CFC electric distribution borrower and a RTFC telecommunications borrower, which together totaled $9 million and $10 million as of November 30, 2021 and May 31, 2021, respectively. Since the modification date, the loans have been performing in accordance with the terms of their respective restructured loan agreement for an extended period of time and were classified as performing and on accrual status as of November 30, 2021 and May 31, 2021. We did not have any TDR loans classified as nonperforming as of November 30, 2021 or May 31, 2021. 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, we evaluate TDR loans on an individual basis in measuring expected credit losses for these loans.

We provide additional information on TDR loans under "Note 4—Loans—Credit Quality Indicators—Troubled Debt Restructurings."

Nonperforming Loans

In addition to TDR loans that may be classified as nonperforming, we also may have nonperforming loans that have not been modified as a TDR. We classify such loans as nonperforming at the earlier of the date when we determine: (i) interest or principal payments on the loan is past due 90 days or more; (ii) as a result of court proceedings, the collection of interest or principal payments based on the original contractual terms is not expected; or (iii) the full and timely collection of interest or principal is otherwise uncertain. Once a loan is classified as nonperforming, we generally place the loan on nonaccrual status. Interest accrued but not collected at the date a loan is placed on nonaccrual status is reversed against earnings.

We had loans to two borrowers totaling $219 million classified as nonperforming as of November 30, 2021. In comparison, we had loans to four borrowers totaling $237 million classified as nonperforming as of May 31, 2021. Nonperforming loans represented 0.76% and 0.84% of total loans outstanding as of November 30, 2021 and May 31, 2021, respectively. Loans outstanding to Brazos accounted for $86 million and $85 million of our total nonperforming loans as of November 30, 2021 and May 31, 2021, respectively. Brazos is not permitted to make scheduled loan payments without approval of the bankruptcy court. As a result, we have not received payments from Brazos since March 2021, and its loans outstanding were delinquent as of each respective date. The reduction in nonperforming loans of $18 million during the current year-to-date period was due in part to our receipt during the current quarter of full payment of all amounts due on nonperforming loans to two RTFC borrowers totaling $9 million. In addition, we have continued to receive payments on the remaining outstanding nonperforming loan to a CFC electric power supply borrower, including a payment of $9 million during the current year-to-date period, which reduced the balance of this loan to $134 million as of November 30, 2021, from $143 million as of May 31, 2021.

We provide additional information on nonperforming loans in "Note 4—Loans—Credit Quality Indicators—Nonperforming Loans."

Net Charge-Offs

We had no loan charge-offs during the current or same prior year-to-date period. Prior to Brazos' bankruptcy filing in March 2021, we had not experienced any defaults or charge-offs in our electric utility and telecommunications loan portfolios since fiscal years 2013 and 2017, respectively.

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. We categorize loans in our portfolio based on our internally assigned borrower risk ratings, which are intended to assess the general creditworthiness 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. Our internally assigned borrower risk ratings 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 determining our allowance for credit losses.

Criticized loans totaled $890 million and $886 million as of November 30, 2021 and May 31, 2021, respectively, and represented approximately 3% of total loans outstanding as of each respective date. Criticized loans include loans outstanding to Brazos of $86 million and $85 million as of November 30, 2021 and May 31, 2021, respectively, which were classified as doubtful as of each respective date, and loans outstanding to Rayburn of $371 million and $379 million as of November 30, 2021 and May 31, 2021, respectively. Each of the borrowers with loans outstanding in the criticized category, with the exception of Brazos, was current with regard to all principal and interest amounts due as of November 30, 2021 and May 31, 2021. As noted above under "Nonperforming Loans" Brazos is not permitted to make scheduled loan payments without approval of the bankruptcy court.

In June 2021, Texas enacted securitization legislation that offers a financing program for qualifying electric cooperatives exposed to elevated power costs during the February 2021 polar vortex. Brazos and Rayburn both qualify for the Texas-enacted financing program. Rayburn has initiated the securitization financing process to raise funds for eligible costs incurred during the February 2021 polar vortex, as specified in the legislation, and has stated that it intends to use the proceeds to pay down its related outstanding obligation to ERCOT. There are many factors, which we are unable to predict, that may impact the completion and outcome of the securitization and the ultimate collectibility of Rayburn's loans outstanding. Rayburn, however, was current on all of its debt obligations to us as of the date of this Report.

We provide additional information on our borrower risk rating framework in our 2021 Form 10-K under "Item 7. MD&A Credit Risk—Loan Portfolio Credit Risk—Credit Quality Indicators." See "Note 4—Loans" in this Report for detail, by member class, on loans outstanding in each borrower risk rating category.

Allowance for Credit Losses

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. 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.

Table 15 presents, by member class, loans outstanding and the related allowance for credit losses and allowance coverage ratio as of November 30, 2021 and May 31, 2021 and the allowance components as of each date.

Table 15: Allowance for Credit Losses by Borrower Member Class and Evaluation Methodology

(Dollars in thousands)	November 30, 2021 Loans Outstanding[1]	November 30, 2021 Allowance for Credit Losses	November 30, 2021 Allowance Coverage Ratio[2]	May 31, 2021 Loans Outstanding[1]	May 31, 2021 Allowance for Credit Losses	May 31, 2021 Allowance Coverage Ratio[2]
Member class:						
CFC:						
Distribution	**$ 22,558,077**	**$ 16,032**	**0.07%**	$ 22,027,423	$ 13,426	0.06%
Power supply	**5,122,406**	**65,467**	**1.28**	5,154,312	64,646	1.25
Statewide and associate	**101,391**	**1,424**	**1.40**	106,121	1,391	1.31
Total CFC	**27,781,874**	**82,923**	**0.30**	27,287,856	79,463	0.29
NCSC	**721,299**	**1,594**	**0.22**	706,868	1,374	0.19
RTFC	**431,641**	**1,618**	**0.37**	420,383	4,695	1.12
Total	**$ 28,934,814**	**$ 86,135**	**0.30**	$ 28,415,107	$ 85,532	0.30
Allowance components:						
Collective allowance	**$ 28,705,936**	**$ 46,074**	**0.16%**	$ 28,167,639	$ 42,442	0.15%
Asset-specific allowance	**228,878**	**40,061**	**17.50**	247,468	43,090	17.41
Total allowance for credit losses	**$ 28,934,814**	**$ 86,135**	**0.30**	$ 28,415,107	$ 85,532	0.30
Allowance coverage ratios:						
Nonperforming and nonaccrual loans[3]	**$ 219,444**		**39.25%**	$ 237,497		36.01%

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(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 as of both November 30, 2021 and May 31, 2021.

(2) Calculated based on the allowance for credit losses attributable to each member class and allowance components at period end divided by the related loans outstanding at period end.

(3) Calculated based on the total allowance for credit losses at period end divided by loans outstanding classified as nonperforming and on nonaccrual status at period end.

Our allowance for credit losses of $86 million and allowance coverage ratio of 0.30% as of November 30, 2021 were unchanged from May 31, 2021, reflecting the offsetting impact of an increase in the collective allowance of $4 million and a decrease in the asset-specific allowance of $3 million. The increase in the collective allowance was driven by an increase in the default rates utilized in measuring our collective allowance for credit losses, shifts in borrower risk rating grades and an increase in loans outstanding. The decrease in the asset-specific allowance stemmed from the elimination of an asset-specific allowance of $3 million attributable to nonperforming loans totaling $9 million as a result of our receipt of full payment of all amounts due on these loans during the current quarter.

We discuss our methodology for estimating the allowance for credit losses under the CECL model in "Note 1—Summary of Significant Accounting Policies—Allowance for Credit Losses" and provide information on the management judgment and uncertainties involved in our determining the allowance for credit losses in "MD&A—Critical Accounting Policies and Estimates—Allowance for Credit Losses" in our 2021 Form 10-K. We provide additional information on our loans and allowance for credit losses under "Note 4—Loans" and "Note 5—Allowance for Credit Losses" of this Report.

Counterparty Credit Risk

In addition to credit exposure from our borrowers, we enter into other types of financial transactions in the ordinary course of business that expose us to counterparty credit risk, primarily related to transactions involving our cash and cash equivalents, securities held in our investment securities portfolio and derivatives. We mitigate our risk by only entering into these transactions with counterparties with investment-grade ratings, establishing operational guidelines and counterparty exposure limits and monitoring our counterparty credit risk position. We evaluate our counterparties based on certain quantitative and qualitative factors and periodically assign internal risk rating grades to our counterparties.

Cash and Investments Securities Counterparty Credit Exposure

Our cash and cash equivalents and investment securities totaled $173 million and $626 million, respectively, as of November 30, 2021. The primary credit exposure associated with investments held in our other investments portfolio is that issuers will not repay principal and interest in accordance with the contractual terms. Our cash and cash equivalents with financial institutions generally have an original maturity of less than one year and pursuant to our investment policy guidelines, all fixed-income debt securities, at the time of purchase, must be rated at least investment grade and on stable outlook based on external credit ratings from at least two of the leading global credit rating agencies, when available, or the corresponding equivalent, when not available. We therefore believe that the risk of default by these counterparties is low.

We provide additional information on the holdings in our investment securities portfolio below under "Liquidity Risk—Investment Securities Portfolio" and in "Note 3—Investment Securities."

Derivative Counterparty Credit Exposure

Our derivative counterparty credit exposure relates principally to interest-rate swap contracts. We generally engage in over-the-counter ("OTC") derivative transactions, which expose us to individual counterparty credit risk because these transactions are executed and settled directly between us and each counterparty. We are exposed to the risk that an individual derivative counterparty will default on payments due to us, which we may not be able to collect or which may require us to seek a replacement derivative from a different counterparty. This replacement may be at a higher cost, or we may be unable to find a suitable replacement.

We manage our derivative counterparty credit exposure by executing derivative transactions with financial institutions that have investment-grade credit ratings and maintaining enforceable master netting arrangements with these counterparties, which allow us to net derivative assets and liabilities with the same counterparty. We had 12 active derivative counterparties with credit ratings ranging from Aa2 to Baa2 by Moody's and from AA- to A- by S&P as of November 30, 2021 and May 31, 2021. The total outstanding notional amount of derivatives with these counterparties was $8,517 million and $8,979 million as of November 30, 2021 and May 31, 2021, respectively. The highest single derivative counterparty concentration, by outstanding notional amount, accounted for approximately 24% of the total outstanding notional amount of our derivatives as of both November 30, 2021 and May 31, 2021.

While our derivative 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, we report the fair value of our derivatives on a gross basis by individual contract as either a derivative asset or derivative liability on our consolidated balance sheets. However, we estimate our exposure to credit loss on our derivatives by calculating the replacement cost to settle at current market prices, as defined in our derivative agreements, all outstanding derivatives in a net gain position at the counterparty level where a right of legal offset exists. As indicated in "Note 9—Derivative Instruments and Hedging Activities—Impact of Derivatives on Consolidated Balance Sheets," our outstanding derivatives, at the individual counterparty level, were in a net loss position of $536 million and $464 million as of November 30, 2021 and May 31, 2021, respectively. As such, we did not have exposure to credit loss on our outstanding derivatives as of either respective date.

We provide addition detail on our derivative agreements, including a discussion of derivative contracts with credit rating triggers and settlement amounts that would be required in the event of a ratings trigger, in "Note 9—Derivative Instruments and Hedging Activities."

See "Item 1A. Risk Factors" in our 2021 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 available funding and 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 in a cost-effective manner. We provide additional information on our liquidity risk-management framework under "Item 7. MD&A—Liquidity Risk—Liquidity Risk Management" in our 2021 Form 10-K.

Our primary sources of funds include member loan principal repayments, securities held in our investment portfolio, committed bank revolving lines of credit, committed loan facilities under Guaranteed Underwriter Program, revolving note purchase agreements with Farmer Mac and proceeds from debt issuances to members, and in the capital markets. Our primary uses of funds include loan advances to members, principal and interest payments on borrowings, periodic interest settlement payments related to our derivative contracts and operating expenses.

Although as a non-bank financial institution we are not subject to regulatory liquidity requirements, we monitor our liquidity and funding positions on an ongoing basis and assess our ability to meet our scheduled debt obligations and other cash flow requirements based on point-in-time metrics as well as forward-looking projections. Our liquidity and funding assessment takes into consideration amounts available under existing liquidity sources, the expected rollover of member short-term investments and scheduled loan principal repayment amounts, as well as our continued ability to access the private placement and capital markets.

Available Liquidity

As part of our strategy in managing liquidity risk and meeting our liquidity objectives, we seek to maintain various committed sources of funding that are available to meet our near-term liquidity needs. Table 16 presents a comparison between our available liquidity, which consists of cash and cash equivalents, our debt securities investment portfolio and amounts under committed credit facilities, as of November 30, 2021 and May 31, 2021.

Table 16: Available Liquidity

	November 30, 2021			May 31, 2021		
(Dollars in millions)	Total	Accessed	Available	Total	Accessed	Available
Liquidity sources:						
Cash and investment debt securities:						
Cash and cash equivalents	**$ 173**	**$ —**	**$ 173**	$ 295	$ —	$ 295
Debt securities investment portfolio[1]	**589**	**—**	**589**	576	—	576
Total cash and investment debt securities	**762**	**—**	**762**	871	—	871
Committed credit facilities:						
Committed bank revolving line of credit agreements—unsecured[2]	**2,600**	**3**	**2,597**	2,725	3	2,722
Guaranteed Underwriter Program committed facilities—secured[3]	**8,723**	**7,398**	**1,325**	8,173	7,198	975
Farmer Mac revolving note purchase agreement, dated March 24, 2011, as amended—secured[4]	**5,500**	**3,121**	**2,379**	5,500	2,978	2,522
Total committed credit facilities	**16,823**	**10,522**	**6,301**	16,398	10,179	6,219
Total available liquidity	**$ 17,585**	**$ 10,522**	**$ 7,063**	$ 17,269	$ 10,179	$ 7,090

(1) Represents the aggregate fair value of our portfolio of debt securities as of period end. Our portfolio of equity securities consists primarily of preferred stock securities that are not as readily redeemable; therefore, we exclude our portfolio of equity securities from our available liquidity. We had investment-grade corporate debt securities with an aggregate fair value of $265 million and $211 million as of November 30, 2021 and May 31, 2021, respectively, that we transferred and pledged as collateral in short-term repurchase transactions.

(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, 2021 and May 31, 2021, 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.

Investment Securities Portfolio

We have an investment portfolio of debt securities classified as trading and equity securities, both of which are reported on our consolidated balance sheets at fair value. The aggregate fair value of the securities in our investment portfolio was $626 million as of November 30, 2021, consisting of debt securities with a fair value of $589 million and equity securities with a fair value of $37 million. In comparison, the aggregate fair value of the securities in our investment portfolio was $611 million as of May 31, 2021, consisting of debt securities with a fair value of $576 million and equity securities with a fair value of $35 million.

Our debt securities investment portfolio is intended to serve as an additional source of liquidity. Under master repurchase agreements that we have with two counterparties, we can obtain short-term funding by selling investment-grade corporate debt securities from our investment portfolio subject to an obligation to repurchase the same or similar securities at an agreed-upon price and date. Because we retain effective control over the transferred securities, transactions under these repurchase agreements are accounted for as collateralized financing agreements (*i.e.,* secured borrowings) and not as a sale and subsequent repurchase of securities. The obligation to repurchase the securities is reflected as a component of our short-term borrowings on our consolidated balance sheets. The aggregate fair value of debt securities underlying repurchase transactions is parenthetically disclosed on our consolidated balance sheets. On November 23, 2021, we executed a $249 million securities repurchase transaction. On December 6, 2021, we repurchased the underlying debt securities, which had an aggregate fair value of $265 million as of November 30, 2021, as parenthetically disclosed on our consolidated balance sheet as of this date.

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

Borrowing Capacity Under Committed Credit Facilities

The aggregate borrowing capacity under our committed bank revolving line of credit agreements, committed loan facilities under the Guaranteed Underwriter Program and revolving note purchase agreement with Farmer Mac totaled $16,823 million and $16,398 million as of November 30, 2021 and May 31, 2021, respectively, and the aggregate amount available for access totaled $6,301 million and $6,219 million as of each respective date. The following is a discussion of our borrowing capacity and key terms and conditions under each of these committed credit facilities.

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. On June 7, 2021, we amended the three-year and five-year committed bank revolving line of credit agreements to extend the maturity dates to November 28, 2024 and November 28, 2025, respectively, and to terminate certain bank commitments totaling $70 million under the three-year agreement and $55 million under the five-year agreement. As a result, the total commitment amount under the three-year facility and the five-year facility is $1,245 million and $1,355 million, respectively, resulting in a combined total commitment amount under the two facilities of $2,600 million. 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 17 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, 2021.

Table 17: Committed Bank Revolving Line of Credit Agreements

	November 30, 2021				
(Dollars in millions)	Total Commitment	Letters of Credit Outstanding	Amount Available for Access	Maturity	Annual Facility Fee [1]
Bank revolving line of credit term:					
3-year agreement	$ **1,245**	$ —	$ **1,245**	November 28, 2024	7.5 bps
5-year agreement	**1,355**	3	**1,352**	November 28, 2025	10.0 bps
Total	$ **2,600**	$ 3	$ **2,597**		

[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.

We did not have any outstanding borrowings under our committed bank revolving line of credit agreements as of November 30, 2021; however, we had letters of credit outstanding of $3 million under the five-year committed bank revolving agreement as of this date.

Although 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, 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.

Guaranteed Underwriter Program Committed Facilities—Secured

Under the Guaranteed Underwriter Program, we can borrow from the Federal Financing Bank and use the proceeds to extend new loans to our members and refinance existing member debt. As part of the program, we pay fees, based on our outstanding borrowings, that are intended to help fund the USDA Rural Economic Development Loan and Grant program and thereby support additional investment in rural economic development projects. The borrowings under this program are guaranteed by RUS. Each advance is subject to quarterly amortization and a final maturity not longer than 30 years from the date of the advance.

On November 4, 2021, we closed on a committed loan facility for additional funding of $550 million ("Series S") from the Federal Financing Bank under the Guaranteed Underwriter Program. Pursuant to this facility, we may borrow any time before July 15, 2026. Each advance is subject to quarterly amortization and a final maturity not longer than 30 years from the date of the advance. The closing of this facility increased our total committed borrowing amount under the Guaranteed Underwriter Program to $8,723 million as of November 30, 2021, from $8,173 million as of May 31, 2021.

As displayed in Table 16, we had accessed $7,398 million under the Guaranteed Underwriter Program and up to $1,325 million was available for borrowing as of November 30, 2021. Of the $1,325 million available borrowing amount, $400 million is available for advance through July 15, 2024, $375 million is available for advance through July 15, 2025 and $550 million is available for advance through July 15, 2026. We are required to pledge eligible distribution system loans or power supply system loans as collateral in an amount at least equal to our total outstanding borrowings under the Guaranteed Underwriter Program committed loan facilities, which totaled $6,291 million as of November 30, 2021.

Farmer Mac Revolving Note Purchase Agreement—Secured

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 June 30, 2026, with successive automatic one-year renewals without notice by either party. Beginning June 30, 2025, the revolving note purchase agreement is subject to termination of the draw period by Farmer Mac upon 425 days' prior written notice.

Under this agreement, we had outstanding secured notes payable totaling $3,121 million and $2,978 million as of November 30, 2021 and May 31, 2021, respectively. We borrowed $450 million in long-term notes payable under this note purchase agreement with Farmer Mac during the current year-to-date period. As displayed in Table 16, the amount available for borrowing under this agreement was $2,379 million as of November 30, 2021. 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.

We provide additional information on pledged collateral below under "Pledged Collateral" in this section and in "Note 3—Investment Securities" and "Note 4—Loans."

Short-Term Borrowings

Our short-term borrowings, which we rely on to meet our daily, near-term funding needs, consist of commercial paper, which we offer to members and dealers, select notes and daily liquidity fund notes offered to members, medium-term notes offered to members and dealers and funds from repurchase secured borrowing transactions.

Short-term borrowing increased $165 million to $4,747 million as of November 30, 2021, from $4,582 million as of May 31, 2021, and accounted for 17% of total debt outstanding as of each respective period. The increase in short-term borrowings was primarily driven by an increase in outstanding dealer commercial paper.

Member investments have historically been our primary source of short-term borrowings. Table 18 displays the composition, by funding source, of our short-term borrowings as of November 30, 2021 and May 31, 2021. As indicated in Table 18, members' investments represented 73% and 76% of our outstanding short-term borrowings as of November 30, 2021 and May 31, 2021, respectively.

Table 18: Short-Term Borrowings—Funding Sources

	November 30, 2021		May 31, 2021	
(Dollars in thousands)	Amount Outstanding	% of Total Short-Term Borrowings	Amount Outstanding	% of Total Short-Term Borrowings
Funding source:				
Members	**$ 3,457,677**	**73 %**	$ 3,487,004	76 %
Capital markets	**1,289,258**	**27**	1,095,092	24
Total	**$ 4,746,935**	**100 %**	$ 4,582,096	100 %

Our intent is to manage our short-term wholesale funding risk by maintaining dealer commercial paper outstanding at an amount near or below $1,250 million for the foreseeable future, although the intra-period amount of dealer commercial paper outstanding may fluctuate based on our liquidity requirements. Dealer commercial paper outstanding of $1,040 million as of November 30, 2021 and $895 million as of May 31, 2021 was below our targeted maximum threshold of $1,250 million. We had borrowings under securities repurchase transactions of $249 million and $200 million as of November 30, 2021 and May 31, 2021, respectively.

See "Note 6—Short-Term Borrowing" for additional information on our short-term borrowings.

Long-Term and Subordinated Debt

Long-term and subordinated debt, which represents the most significant source of our funding, totaled $23,043 million and $22,844 million as of November 30, 2021 and May 31, 2021, respectively, and accounted for 83% of total debt outstanding as of each respective date.

The issuance of long-term debt allows us to reduce our reliance on short-term borrowings and effectively manage our refinancing and interest rate risk, due in part to the multi-year contractual maturity structure of long-term 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 U.S. Securities and Exchange Commission ("SEC"), we may offer and issue the following debt securities:

- an unlimited amount of collateral trust bonds and 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. We intend to renew the daily liquidity fund registration statement prior to its expiration in March 2022.

Although we register member capital securities and the daily liquidity fund notes with the SEC, these securities are not available for sale to the general public. Medium-term notes are available for sale to both the general public and members. Notwithstanding the foregoing, we have contractual limitations with respect to the amount of senior indebtedness we may incur.

Long-Term Debt and Subordinated Debt—Issuances and Repayments

Table 19 summarizes long-term and subordinated debt issuances and repayments during the six months ended November 30, 2021.

Table 19: Long-Term and Subordinated Debt Issuances and Repayments

	Six Months Ended November 30, 2021		
(Dollars in thousands)	**Issuances**	**Repayments[1]**	**Change**
Debt product type:			
Collateral trust bonds	$ —	$ 405,000	$ (405,000)
Guaranteed Underwriter Program notes payable	200,000	178,703	21,297
Farmer Mac notes payable	450,000	306,424	143,576
Medium-term notes sold to members	25,244	54,880	(29,636)
Medium-term notes sold to dealers	787,057	324,193	462,864
Members' subordinated certificates	177	2,488	(2,311)
Total	$ 1,462,478	$ 1,271,688	$ 190,790

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

Long-Term and Subordinated Debt—Principal Maturity and Amortization

Table 20 summarizes scheduled principal maturity and amortization of our long-term debt, subordinated deferrable debt and members' subordinated certificates outstanding of as of November 30, 2021, in each fiscal year during the five-year period ending May 31, 2026, and thereafter.

Table 20: Long-Term and Subordinated Debt—Scheduled Principal Maturities and Amortization[1]

(Dollars in thousands)	**Scheduled Amortization[2]**	**% of Total**
Fiscal year ending May 31:		
2022	$ 1,437,736	6 %
2023	1,891,072	8
2024	1,673,168	7
2025	1,612,815	7
2026	2,507,568	11
Thereafter	14,207,334	61
Total	$ 23,329,693	100 %

(1) Amounts presented are based on the face amount of debt outstanding as of November 30, 2021, and therefore does not include related debt issuance costs and discounts.

(2) Member loan subordinated certificates totaling $188 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" and in "Note 7—Long-Term Debt" and "Note 8—Subordinated Deferrable Debt."

Pledged Collateral

Under our secured borrowing agreements we are required to pledge loans, investment debt securities or other collateral and maintain certain pledged collateral ratios. Of our total debt outstanding of $27,790 million as of November 30, 2021, $16,461 million, or 59%, was secured by pledged loans totaling $18,897 million and pledged investment debt securities with an aggregate fair value of $265 million. In comparison, of our total debt outstanding of $27,426 million as of May 31, 2021, $16,644 million, or 61%, was secured by pledged loans totaling $19,153 million and pledged investment debt securities with an aggregate fair value of $211 million. Following is additional information on the collateral pledging requirements for our secured borrowing agreements.

Secured Borrowing Agreements—Pledged Loan Requirements

We are required to pledge loans or other collateral in transactions under our collateral trust bond indentures, bond agreements under the Guaranteed Underwriter Program and note purchase agreements with Farmer Mac. Total debt outstanding is presented on our consolidated balance sheets net of unamortized discounts and issuance costs. 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, the Guaranteed Underwriter Program or the Farmer Mac note purchase agreements.

Table 21 displays the collateral coverage ratios pursuant to these secured borrowing agreements as of November 30, 2021 and May 31, 2021.

Table 21: Collateral Pledged

	Requirement Coverage Ratios		Actual Coverage Ratios[1]	
	Minimum Debt Indentures	Maximum Committed Bank Revolving Line of Credit Agreements	November 30, 2021	May 31, 2021
Secured borrowing agreement type:				
Collateral trust bonds 1994 indenture	**100%**	**150%**	**129%**	116%
Collateral trust bonds 2007 indenture	**100**	**150**	**118**	115
Guaranteed Underwriter Program notes payable	**100**	**150**	**112**	114
Farmer Mac notes payable	**100**	**150**	**113**	116
Clean Renewable Energy Bonds Series 2009A	**100**	**150**	**102**	120

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

Table 22 displays the unpaid principal balance of loans pledged for secured debt, the excess collateral pledged and unencumbered loans as of November 30, 2021 and May 31, 2021.

Table 22: Unencumbered Loans

(Dollars in thousands)	November 30, 2021	May 31, 2021
Total loans outstanding[1]	**$ 28,934,814**	$ 28,415,107
Less: Loans required pledged under secured debt agreements[2]	**(16,464,208)**	(16,704,335)
Loans pledged in excess of required amount[2][3]	**(2,432,735)**	(2,448,424)
Total pledged loans	**(18,896,943)**	(19,152,759)
Unencumbered loans	**$ 10,037,871**	$ 9,262,348
Unencumbered loans as a percentage of total loans outstanding	**35%**	33%

(1) Represents the unpaid principal balance of loans as of the end of each period. Excludes unamortized deferred loan origination costs of $12 million as of both November 30, 2021 and May 31, 2021.
(2) Reflects unpaid principal balance of pledged loans.
(3) Excludes cash collateral pledged to secure debt. If there is an event of default under most of our indentures, we can only withdraw the excess collateral if we substitute cash or permitted investments of equal value.

As displayed above in Table 22, we had excess loans pledged as collateral totaling $2,433 million and $2,448 million as of November 30, 2021 and May 31, 2021, 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" and additional information on pledged loans in "Note 4—Loans" in this Report. For additional detail on each of our debt product types, 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 2021 Form 10-K.

Secured Borrowing Agreements—Pledged Investment Securities

As discussed above in this section, we have master repurchase agreements with two counterparties whereby we may sell investment-grade corporate debt securities from our investment securities portfolio subject to an obligation to repurchase the same or similar securities at an agreed-upon price and date. We had short-term borrowings under repurchase transactions of $249 million and $200 million as of November 30, 2021 and May 31, 2021, respectively. The debt securities underlying these transactions had an aggregate fair value of $265 million and $211 million as of each respective date, and we repurchased the securities on December 6, 2021 and June 2, 2021, respectively.

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 unadvanced loan commitments intended to meet the financial needs of our members and guarantees of member obligations, which may affect our liquidity and funding requirements based on the likelihood that borrowers will advance funds under the loan commitments or we will be required to perform under the guarantee obligations. We provide information on our unadvanced loan commitments in "Note 4—Loans" and information on our guarantee obligations in "Note 11—Guarantees."

Projected Near-Term Sources and Uses of Funds

Table 23 below displays a projection of our primary sources and uses of funds, by quarter, over each of the next four fiscal quarters through the quarter ending May 31, 2023. Our projection is based on the following, which includes several assumptions: (i) the estimated issuance of long-term debt, including collateral trust bonds and private placement of term debt, is based on our market-risk management goal of minimizing the mismatch between the cash flows from our financial assets and our financial liabilities; (ii) amounts available under our committed bank revolving lines of credit are intended to serve as a backup source of liquidity; (iii) long-term loan scheduled amortization repayment amounts represent scheduled loan principal payments for long-term loans outstanding as of November 30, 2021, plus estimated prepayment amounts on long-term loans; (iv) amounts reported in Table 23 as "other loan repayments" and "other loan advances" are primarily attributable to expected repayments and advances under lines of credit; (v) long-term and subordinated debt maturities consist of both scheduled principal maturity and amortization amounts and projected principal maturity and amortization amounts on term debt outstanding in each period presented; and (vi) long-term loan advances are based on our current projection of member demand for loans.

Table 23: Projected Sources and Uses of Funds[1]

(Dollars in millions)	Projected Sources of Funds				Projected Uses of Funds				
	Long-Term Debt Issuance	Anticipated Long-Term Loan Repayments[2]	Other Loan Repayments[3]	Total Projected Sources of Funds	Long-Term and Subordinated Debt Maturities[4]	Long-Term Loan Advances	Other Loan Advances[5]	Total Projected Uses of Funds	Other Sources/ (Uses) of Funds[6]
3Q FY2022	$ 1,182	$ 379	$ 85	$ 1,646	$ 1,018	$ 740	$ 100	$ 1,858	$ (35)
4Q FY2022	590	353	—	943	604	496	12	1,112	105
1Q FY2023	308	375	—	683	508	562	—	1,070	381
2Q FY2023	602	357	—	959	732	545	—	1,277	252
3Q FY2023	1,317	362	—	1,679	939	550	—	1,489	(245)
4Q FY2023	49	356	—	405	152	544	—	696	216
Total	$ 4,048	$ 2,182	$ 85	$ 6,315	$ 3,953	$ 3,437	$ 112	$ 7,502	$ 674

[1] The dates presented represent the end of each quarterly period through the quarter ended May 31, 2023.

[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 23, we currently project long-term advances of $2,343 million over the next 12 months, which we anticipate will exceed anticipated long-term loan repayments over the same period of $1,464 million, resulting in net loan growth of approximately $879 million over the next 12 months.

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.

On September 13, 2021, Fitch affirmed CFC's credit ratings and stable outlook. In the prior fiscal quarter, S&P revised its outlook on CFC to stable from negative, stating that the outlook revision mainly reflected its view that the risk of CFC experiencing substantial further losses stemming from the February 2021 polar vortex had diminished. On November 9, 2021, S&P issued a credit ratings report review of CFC in which S&P affirmed CFC's credit ratings and stable outlook. On December 13, 2021, S&P affirmed CFC's credit ratings and stable outlook under its revised criteria and updated methodology for rating financial institutions published on December 9, 2021. On December 16, 2021, Moody's affirmed CFC's credit ratings and stable outlook.

Table 24 displays our credit ratings as of November 30, 2021, which remain unchanged as of the date of this Report.

Table 24: Credit Ratings

	November 30, 2021		
	Moody's	**S&P**	**Fitch**
CFC debt product type:			
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-2**	**F1**
Outlook	**Stable**	**Stable**	**Stable**

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(1) Based on our senior unsecured debt rating.
(2) Applies to our collateral trust bonds.
(3) Applies to our medium-term notes.

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 increased to 20.58 as of November 30, 2021, from 20.17 as of May 31, 2021, largely due to an increase in debt outstanding to fund growth in our loan portfolio coupled with a decrease in equity attributable to the CFC Board of Directors' authorized patronage capital retirement in July 2021 of $58 million, which was partially offset by our reported net income of $45 million for the current year-to-date period.

While our goal is to maintain an adjusted debt-to-equity ratio of approximately 6.00-to-1, the adjusted debt-to-equity ratio of 6.15 as of both November 30, 2021 and May 31, 2021 was above our targeted goal due to increased borrowings to fund growth in our loan portfolio.

Debt Covenants

As part of our short-term and long-term borrowing arrangements, we are subject to various financial and operational covenants. If we fail to maintain specified financial ratios, such failure could constitute a default by CFC of certain debt covenants under our committed bank revolving line of credit agreements and senior debt indentures. We were in compliance with all covenants and conditions under our committed bank revolving line of credit agreements and senior debt indentures as of November 30, 2021.

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 U.S. GAAP measures below in "Non-GAAP Financial Measures." See "Item 7. MD&A—Non-GAAP Measures" in our 2021 Form 10-K for a discussion of each of our non-GAAP measures and an explanation of the adjustments to derive these measures.

MARKET RISK

Interest rate risk represents our primary source of market risk, as movements in interest rates can have a significant impact on the earnings and safety and soundness of a financial institution. We are exposed to interest rate risk primarily from the differences in the timing between the maturities or repricing of our loans and the liabilities funding our loans. We seek to generate stable adjusted net interest income on a sustained and long-term basis by minimizing the mismatch between the cash flows from our financial assets and our financial liabilities. We use derivatives as a tool in matching the duration and repricing characteristics of our interest-rate sensitive assets and liabilities. We provide additional information on our management of interest rate risk in our 2021 Form 10-K under "Item 7. MD&A—Market Risk—Interest Rate Risk Management."

Below we discuss how we measure interest rate risk. We also provide a status update on actions taken to identify, assess, monitor and mitigate risks associated with the expected discontinuance or unavailability of LIBOR and facilitate an orderly transition from LIBOR as a benchmark interest reference rate to an alternative benchmark rate.

Measurement of Interest Rate Risk

Our Asset Liability Management ("ALM") framework includes the use of analytic tools and capabilities, which allow us to provide a comprehensive profile of our interest rate risk exposure. We routinely measure and assess our interest rate risk exposure using various methodologies through the use of ALM models that enable us to more accurately measure and monitor our interest rate risk exposure under multiple interest rate scenarios using several different techniques, including, among others, the sensitivity of our net interest income and adjusted net interest income to changes in interest rates and duration gap analysis. Below we present two measures we use to assess our interest rate risk exposure: (i) the interest rate sensitivity of our projected net interest income and adjusted net interest income; and (ii) duration gap.

Interest Rate Sensitivity Analysis

We regularly evaluate the sensitivity of our interest-earning assets and the interest-bearing liabilities funding those assets and our net interest income and adjusted net interest income projections under multiple interest rate scenarios. Each month we update our ALM models to reflect our existing balance sheet position and incorporate different assumptions about forecasted changes in our current balance sheet position over the next 12 months. Based on the forecasted balance sheet changes, we generate various projections of net interest income and adjusted net interest income over the next 12 months. Management reviews and assesses these projections and underlying assumptions to identify a baseline scenario of projected net interest income and adjusted net interest income over the 12 months, which reflects what management considers, at the time, as the most likely scenario.

Table 25 presents the estimated percentage impact that a hypothetical instantaneous parallel shift of plus or minus 100 basis points in the interest rate yield curve as of each of the reported dates would have on our baseline 12-month projected net interest income and adjusted net interest income as of these dates. As discussed under "Summary of Selected Financial Data," we derive adjusted net interest income by adjusting our reported interest expense and net interest income to include the impact of net periodic derivative cash settlements expense amounts. Because short-term interest rates were near zero as of both November 30, 2021 and May 31, 2021, we assumed an interest rate floor rate of 0% if the hypothetical instantaneous interest rate shift of minus 100 basis points resulted in a negative interest rate.

Table 25: Interest Rate Sensitivity Analysis

	November 30, 2021		May 31, 2021	
Estimated Impact[1]	+ 100 Basis Points	– 100 Basis Points[2]	+ 100 Basis Points	– 100 Basis Points[2]
Net interest income	**(8.07)%**	**(0.85)%**	(6.13)%	(3.34)%
Derivative cash settlements interest expense	**7.62%**	**(5.01)%**	8.12%	(3.01)%
Adjusted net interest income[3]	**(0.45)%**	**(5.86)%**	1.99%	(6.35)%

[1]The actual impact on our reported and adjusted net interest income may differ significantly from the sensitivity analysis presented.

[2]Floored at a zero percent interest rate.

[3]We include net periodic derivative cash settlement interest expense amounts as a component of interest expense in deriving adjusted net interest income. See the section "Non-GAAP Financial Measures" for a reconciliation of the non-GAAP measures presented in this Report to the most comparable U.S. GAAP measure.

The above interest rate sensitivity analyses take into consideration existing interest rate-sensitive assets and liabilities as of the reported balance sheet date and forecasted changes to the balance sheet over the next 12 months under management's baseline projection. Loans with a fixed interest rate to maturity and loans on nonaccrual status have no impact on the sensitivity measures. As discussed in the "Executive Summary—Outlook" section, we currently anticipate net long-term loan growth over the next 12 months of $879 million, and we believe that our current projected loan growth, coupled with our current estimated cost of funding this loan growth, will result in a slight increase in our net interest income and adjusted net interest income over the next 12 months.

The changes in the sensitivity measures between November 30, 2021 and May 31, 2021 are primarily attributable to changes in the timing, size, and composition of our forecasted balance sheet, as well as changes in current interest rates and forecasted interest rates.

Duration Gap

The duration gap, which represents the difference between the estimated duration of our interest-earning assets and the estimated duration of our interest-bearing liabilities, summarizes the extent to which the cash-flows for assets and liabilities are matched over time. A positive duration gap indicates that the duration of our interest-earning assets is greater than the duration of our debt and derivatives used in managing the differences in timing between the maturities or repricing of our loans and the debt funding our loans, and therefore an increased exposure to rising interest rates over the long term. Conversely, a negative duration gap indicates that the duration of our interest-earning assets is less than the duration of our debt and derivatives and therefore an increased exposure to declining interest rates over the long term. While the duration gap provides a relatively concise and simple measure of the interest rate risk inherent in our consolidated balance sheet as of the reported date, it does not incorporate projected changes in our consolidated balance sheet.

The duration gap widened to plus 4.32 months as of November 30, 2021, from plus 1.69 months as of May 31, 2021. The widening of the duration gap was primarily attributable to an increase in our long-term fixed-rate loans of $498 million during the current year-to-date period and the funding of our loan growth, in part, by shorter duration borrowings.

Limitations of Interest Rate Risk Measures

While we believe that the interest income sensitivities and duration gap measures provided are useful tools in assessing our interest rate risk exposure, there are inherent limitations in any methodology used to estimate the exposure to changes in market interest rates. These measures should be understood as estimates rather than as precise measurements. The interest rate sensitivity analyses only contemplate certain hypothetical movements in interest rates and are performed at a particular point in time based on the existing balance sheet and, in some cases, expected future business growth and funding mix assumptions. The strategic actions that management may take to manage our balance sheet may differ significantly from our projections, which could cause our actual interest income to differ substantially from the above sensitivity analysis. Moreover, as discussed above, we use various other methodologies to measure and monitor our interest rate risk under multiple interest rate scenarios, which, together, provide a comprehensive profile of our interest rate risk.

LIBOR Transition

In July 2017, the United Kingdom's Financial Conduct Authority ("FCA"), which regulates the LIBOR index, announced that it intended to stop compelling banks to submit the rates required to calculate LIBOR after December 31, 2021. Following this announcement, the Federal Reserve Board and the Federal Reserve Bank of New York established the Alternative Reference Rates Committee ("ARRC") which is comprised of private-market participants and ex-officio members representing banking and financial sector regulators. The ARRC has recommended SOFR as the alternative reference rate.

In November 2020, the Board of Governors of the Federal Reserve System, the Office of the Comptroller of the Currency and the Federal Deposit Insurance Corporation issued a joint statement encouraging financial institutions to cease entering into new contracts that use U.S. dollar-denominated ("USD") LIBOR as a reference rate as soon as practicable and in any event by December 31, 2021, in order to facilitate an orderly, safe and sound LIBOR transition. The joint statement indicated that new contracts entered into before December 31, 2021 should either utilize a reference rate other than LIBOR or have robust fallback language that includes a clearly defined alternative reference rate after LIBOR's discontinuation.

In March 2021, the FCA and the Intercontinental Exchange ("ICE") Benchmark Administration, the administrator for LIBOR, concurrently confirmed the intention to stop requiring banks to submit the rates required to calculate LIBOR after December 31, 2021 for one-week and two-month LIBOR and June 30, 2023 for all remaining LIBOR tenors. Pursuant to the announcement, one-week and two-month LIBOR will cease to be published or lose representativeness immediately after December 31, 2021, and all remaining USD LIBOR tenors will cease to be published or lose representativeness immediately after June 30, 2023.

We established 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 been closely monitoring and assessing developments with respect to the LIBOR transition and providing regular reports to our Chief Financial Officer and the CFC Board of Directors. We have identified all of CFC's LIBOR-based contracts and financial instruments and evaluated the impact of the LIBOR transition on our existing systems, models and processes.

Table 26 summarizes our outstanding LIBOR-indexed financial instruments as of November 30, 2021 that have a contractual maturity date after June 30, 2023. These financial instruments are included in amounts reported on our consolidated balance sheets.

Table 26: LIBOR-Indexed Financial Instruments

(Dollars in millions)	November 30, 2021
Loans to members, performing	**$ 381**
Investment securities	**55**
Debt	**1,699**

In addition to the financial instruments presented in Table 26, we have outstanding LIBOR-indexed interest rate swaps and unadvanced loan commitments that have a contractual maturity date after June 30, 2023. The aggregate notional amount of these interest rate swaps was $7,338 million as of November 30, 2021, which represented 86% of the total notional amount of our outstanding interest rate swaps of $8,517 million as of November 30, 2021. The aggregate amount of the unadvanced loan commitments was $2,630 million as of November 30, 2021, which represented 18% of the total unadvanced loan commitments of $14,678 million as of November 30, 2021.

We ceased originating new LIBOR-based loans effective December 31, 2021. We have confirmed CFC's adherence to the International Swaps and Derivatives Association, Inc. 2020 LIBOR Fallbacks Protocol for our derivative instruments. We are also closely monitoring the development of alternative credit-sensitive rates in addition to SOFR such as the Bloomberg Short Term Bank Yield index.

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 under "Item 1A. Risk Factors" in our 2021 Form 10-K.

NON-GAAP FINANCIAL MEASURES

As discussed above in the section "Summary of Selected Financial Data," in addition to financial measures determined in accordance with U.S. GAAP, management evaluates performance based on certain non-GAAP measures, which we refer to as "adjusted" measures. Below we provide a reconciliation of our adjusted measures presented in this Report to the most comparable U.S. GAAP measures. See "Item 7. MD&A—Non-GAAP Measures" in our 2021 Form 10-K for a discussion of each of our non-GAAP measures and an explanation of the adjustments to derive these measures.

Net Income and Adjusted Net Income

Table 27 provides a reconciliation of adjusted interest expense, adjusted net interest income, adjusted total revenue and adjusted net income to the comparable U.S. GAAP measures for the three and six months ended November 30, 2021 and 2020. These adjusted measures are used in the calculation of our adjusted net interest yield and adjusted TIER.

Table 27: Adjusted Net Income

(Dollars in thousands)	Three Months Ended November 30, 2021	Three Months Ended November 30, 2020	Six Months Ended November 30, 2021	Six Months Ended November 30, 2020
Adjusted net interest income:				
Interest income	**$ 283,152**	$ 276,499	**$ 566,420**	$ 556,083
Interest expense	**(173,596)**	(174,422)	**(348,373)**	(354,398)
Include: Derivative cash settlements interest expense[1]	**(25,952)**	(29,800)	**(53,515)**	(56,772)
Adjusted interest expense	**(199,548)**	(204,222)	**(401,888)**	(411,170)
Adjusted net interest income	**$ 83,604**	$ 72,277	**$ 164,532**	$ 144,913
Adjusted total revenue:				
Net interest income	**$ 109,556**	$ 102,077	**$ 218,047**	$ 201,685
Fee and other income	**4,831**	6,332	**8,772**	9,848
Total revenue	**114,387**	108,409	**226,819**	211,533
Include: Derivative cash settlements interest expense[1]	**(25,952)**	(29,800)	**(53,515)**	(56,772)
Adjusted total revenue	**$ 88,435**	$ 78,609	**$ 173,304**	$ 154,761
Adjusted net income:				
Net income	**$ 135,729**	$ 160,521	**$ 45,397**	$ 305,108
Exclude: Derivative forward value gains (losses)[2]	**72,038**	111,087	**(72,562)**	198,335
Adjusted net income	**$ 63,691**	$ 49,434	**$ 117,959**	$ 106,773

[1] Represents the net periodic contractual interest expense amount on our interest-rate swaps during 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.

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 our funding cost in addition to the interest expense on our debt. As such, we add net periodic derivative cash settlements interest expense amounts to our reported interest expense to derive our adjusted interest expense and adjusted net interest income. We exclude unrealized derivative forward value gains and losses from our adjusted total revenue and adjusted net income.

TIER and Adjusted TIER

Table 28 displays the calculation of our TIER and adjusted TIER for the three and six months ended November 30, 2021 and 2020.

Table 28: TIER and Adjusted TIER

	Three Months Ended November 30,		Six Months Ended November 30,	
	2021	2020	2021	2020
TIER [(1)]	**1.78**	1.92	**1.13**	1.86
Adjusted TIER [(2)]	**1.32**	1.24	**1.29**	1.26

[(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.

Liabilities and Equity and Adjusted Liabilities and Equity

Table 29 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, 2021 and May 31, 2021. As indicated in Table 29, subordinated debt is treated in the same manner as equity in calculating our adjusted-debt-to-equity ratio.

Table 29: Adjusted Liabilities and Equity

(Dollars in thousands)	November 30, 2021	May 31, 2021
Adjusted total liabilities:		
Total liabilities	**$ 28,624,594**	$ 28,238,484
Exclude:		
Derivative liabilities	**615,097**	584,989
Debt used to fund loans guaranteed by RUS	**135,181**	139,136
Subordinated deferrable debt	**986,415**	986,315
Subordinated certificates	**1,252,349**	1,254,660
Adjusted total liabilities	**$ 25,635,552**	$ 25,273,384
Adjusted total equity:		
Total equity	**$ 1,390,985**	$ 1,399,879
Exclude:		
Prior fiscal year-end cumulative derivative forward value losses[(1)]	**(467,036)**	(1,088,982)
Year-to-date derivative forward value gains (losses)[(1)]	**(72,562)**	621,946
Period-end cumulative derivative forward value losses[(1)]	**(539,598)**	(467,036)
AOCI attributable to derivatives[(2)]	**1,523**	1,718
Subtotal	**(538,075)**	(465,318)
Include:		
Subordinated deferrable debt	**986,415**	986,315
Subordinated certificates	**1,252,349**	1,254,660
Subtotal	**2,238,764**	2,240,975
Adjusted total equity	**$ 4,167,824**	$ 4,106,172

[(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.

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

Table 30 displays the calculations of our debt-to-equity and adjusted debt-to-equity ratios as of November 30, 2021 and May 31, 2021.

Table 30: Debt-to-Equity Ratio and Adjusted Debt-to-Equity Ratio

(Dollars in thousands)	November 30, 2021	May 31, 2021
Debt-to equity ratio:		
Total liabilities	**$ 28,624,594**	$ 28,238,484
Total equity	**1,390,985**	1,399,879
Debt-to-equity ratio [1]	**20.58**	20.17
Adjusted debt-to-equity ratio:		
Adjusted total liabilities[2]	**$ 25,635,552**	$ 25,273,384
Adjusted total equity[2]	**4,167,824**	4,106,172
Adjusted debt-to-equity ratio[3]	**6.15**	6.15

[1] Calculated based on total liabilities at period end divided by total equity at period end.

[2] See Table 29 above for details on the calculation of these non-GAAP adjusted measures and the reconciliation to the most comparable U.S. GAAP measures.

[3] Calculated based on adjusted total liabilities at period end divided by adjusted total equity at period end.

Total CFC Equity and Members' Equity

Members' equity excludes the noncash impact of derivative forward value gains (losses) and foreign currency adjustments recorded in net income and amounts recorded in accumulated other comprehensive income. Because these amounts generally have not been realized, they are not available to members and are excluded by the CFC Board of Directors in determining the annual allocation of adjusted net income to patronage capital, to the members' capital reserve and to other member funds. Table 31 provides a reconciliation of members' equity to total CFC equity as of November 30, 2021 and May 31, 2021. We present the components of accumulated other comprehensive income in "Note 10—Equity."

Table 31: Members' Equity

(Dollars in thousands)	November 30, 2021	May 31, 2021
Members' equity:		
Total CFC equity	**$ 1,366,058**	$ 1,374,948
Exclude:		
Accumulated other comprehensive income (loss)	**3,906**	(25)
Period-end cumulative derivative forward value losses attributable to CFC[1]	**(534,532)**	(461,162)
Subtotal	**(530,626)**	(461,187)
Members' equity	**$ 1,896,684**	$ 1,836,135

[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 total loss amounts as of November 30, 2021 and May 31, 2021 are presented above in Table 29.

Item 1. Financial Statements

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

	Three Months Ended November 30,		Six Months Ended November 30,	
(Dollars in thousands)	**2021**	**2020**	**2021**	**2020**
Interest income	**$ 283,152**	$ 276,499	**$ 566,420**	$ 556,083
Interest expense	**(173,596)**	(174,422)	**(348,373)**	(354,398)
Net interest income	**109,556**	102,077	**218,047**	201,685
Benefit (provision) for credit losses	**3,400**	(1,638)	**(603)**	(1,964)
Net interest income after benefit (provision) for credit losses	**112,956**	100,439	**217,444**	199,721
Non-interest income:				
Fee and other income	**4,831**	6,332	**8,772**	9,848
Derivative gains (losses)	**46,086**	81,287	**(126,077)**	141,563
Investment securities gains (losses)	**(4,344)**	(1,361)	**(6,569)**	3,298
Total non-interest income	**46,573**	86,258	**(123,874)**	154,709
Non-interest expense:				
Salaries and employee benefits	**(12,380)**	(14,011)	**(25,690)**	(27,144)
Other general and administrative expenses	**(10,715)**	(10,125)	**(21,615)**	(19,655)
Losses on early extinguishment of debt	**(118)**	(1,455)	**(118)**	(1,455)
Other non-interest expense	**(313)**	(323)	**(569)**	(655)
Total non-interest expense	**(23,526)**	(25,914)	**(47,992)**	(48,909)
Income before income taxes	**136,003**	160,783	**45,578**	305,521
Income tax provision	**(274)**	(262)	**(181)**	(413)
Net income	**135,729**	160,521	**45,397**	305,108
Less: Net income attributable to noncontrolling interests	**(631)**	(505)	**(193)**	(676)
Net income attributable to CFC	**$ 135,098**	$ 160,016	**$ 45,204**	$ 304,432

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

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

(Dollars in thousands)	Three Months Ended November 30, 2021	Three Months Ended November 30, 2020	Six Months Ended November 30, 2021	Six Months Ended November 30, 2020
Net income	**$ 135,729**	$ 160,521	**$ 45,397**	$ 305,108
Other comprehensive income (loss):				
Changes in unrealized gains on derivative hedges	**3,612**	—	**4,028**	—
Reclassification to earnings of realized gains on derivatives	**(143)**	(107)	**(240)**	(212)
Defined benefit plan adjustments	**72**	188	**143**	376
Other comprehensive income	**3,541**	81	**3,931**	164
Total comprehensive income	**139,270**	160,602	**49,328**	305,272
Less: Total comprehensive income attributable to noncontrolling interests	**(631)**	(505)	**(193)**	(676)
Total comprehensive income attributable to CFC	**$ 138,639**	$ 160,097	**$ 49,135**	$ 304,596

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

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

(Dollars in thousands)	November 30, 2021	May 31, 2021
Assets:		
Cash and cash equivalents	**$ 172,742**	$ 295,063
Restricted cash	**11,010**	8,298
Total cash, cash equivalents and restricted cash	**183,752**	303,361
Investment securities:		
Debt securities trading, at fair value ($264,932 and $210,894 pledged as collateral as of November 30, 2021 and May 31, 2021, respectively)	**588,615**	576,175
Equity securities, at fair value	**37,505**	35,102
Total investment securities, at fair value	**626,120**	611,277
Loans to members	**28,946,870**	28,426,961
Less: Allowance for credit losses	**(86,135)**	(85,532)
Loans to members, net	**28,860,735**	28,341,429
Accrued interest receivable	**108,381**	107,856
Other receivables	**34,489**	37,197
Fixed assets, net	**96,967**	91,882
Derivative assets	**78,610**	121,259
Other assets	**26,525**	24,102
Total assets	**$ 30,015,579**	$ 29,638,363
Liabilities:		
Accrued interest payable	**$ 120,439**	$ 123,672
Debt outstanding:		
Short-term borrowings	**4,746,935**	4,582,096
Long-term debt	**20,804,379**	20,603,123
Subordinated deferrable debt	**986,415**	986,315
Members' subordinated certificates:		
Membership subordinated certificates	**628,599**	628,594
Loan and guarantee subordinated certificates	**384,580**	386,896
Member capital securities	**239,170**	239,170
Total members' subordinated certificates	**1,252,349**	1,254,660
Total debt outstanding	**27,790,078**	27,426,194
Patronage capital retirement payable	**2,415**	—
Deferred income	**47,146**	51,198
Derivative liabilities	**615,097**	584,989
Other liabilities	**49,419**	52,431
Total liabilities	**28,624,594**	28,238,484
Equity:		
CFC equity:		
Retained equity	**1,362,152**	1,374,973
Accumulated other comprehensive income (loss)	**3,906**	(25)
Total CFC equity	**1,366,058**	1,374,948
Noncontrolling interests	**24,927**	24,931
Total equity	**1,390,985**	1,399,879
Total liabilities and equity	**$ 30,015,579**	$ 29,638,363

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

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

	Three Months Ended November 30, 2021								
(Dollars in thousands)	Membership Fees and Educational Fund	Patronage Capital Allocated	Members' Capital Reserve	Unallocated Net Income (Loss)	CFC Retained Equity	Accumulated Other Comprehensive Income (Loss)	Total CFC Equity	Non-controlling Interests	Total Equity
Balance as of August 31, 2021	$ 2,756	$ 866,405	$ 909,749	$ (551,765)	$1,227,145	$ 365	$1,227,510	$ 26,710	$ 1,254,220
Net income	—	—	—	135,098	135,098	—	135,098	631	135,729
Other comprehensive income	—	—	—	—	—	3,541	3,541	—	3,541
Patronage capital retirement	—	—	—	—	—	—	—	(2,414)	(2,414)
Other	(91)	—	—	—	(91)	—	(91)	—	(91)
Balance as of November 30, 2021	$ 2,665	$ 866,405	$ 909,749	$ (416,667)	$1,362,152	$ 3,906	$1,366,058	$ 24,927	$ 1,390,985
	Six Months Ended November 30, 2021								
Balance as of May 31, 2021	$ 3,125	$ 923,970	$ 909,749	$ (461,871)	$1,374,973	$ (25)	$1,374,948	$ 24,931	$ 1,399,879
Net income	—	—	—	45,204	45,204	—	45,204	193	45,397
Other comprehensive income	—	—	—	—	—	3,931	3,931	—	3,931
Patronage capital retirement	—	(57,565)	—	—	(57,565)	—	(57,565)	(2,414)	(59,979)
Other	(460)	—	—	—	(460)	—	(460)	2,217	1,757
Balance as of November 30, 2021	$ 2,665	$ 866,405	$ 909,749	$ (416,667)	$1,362,152	$ 3,906	$1,366,058	$ 24,927	$ 1,390,985

	Three Months Ended November 30, 2020								
(Dollars in thousands)	Membership Fees and Educational Fund	Patronage Capital Allocated	Members' Capital Reserve	Unallocated Net Income (Loss)	CFC Retained Equity	Accumulated Other Comprehensive Income (Loss)	Total CFC Equity	Non-controlling Interests	Total Equity
Balance as of August 31, 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								
Balance as of May 31, 2020	$ 3,193	$ 894,066	$ 807,320	$(1,076,548)	$ 628,031	$ (1,910)	$ 626,121	$ 22,701	$ 648,822
Cumulative effect from adoption of new accounting standard	—	—	—	(3,900)	(3,900)	—	(3,900)	—	(3,900)
Balance as of June 1, 2020	3,193	894,066	807,320	(1,080,448)	624,131	(1,910)	622,221	22,701	644,922
Net income	—	—	—	304,432	304,432	—	304,432	676	305,108
Other comprehensive income	—	—	—	—	—	164	164	—	164
Patronage capital retirement	—	(59,857)	—	—	(59,857)	—	(59,857)	—	(59,857)
Other	(642)	—	—	—	(642)	—	(642)	2,024	1,382
Balance as of November 30, 2020	$ 2,551	$ 834,209	$ 807,320	$ (776,016)	$ 868,064	$ (1,746)	$ 866,318	$ 25,401	$ 891,719

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, 2021	2020
Cash flows from operating activities:		
Net income	**$ 45,397**	$ 305,108
Adjustments to reconcile net income to net cash provided by operating activities:		
Amortization of deferred loan fees	**(4,232)**	(4,804)
Amortization of debt issuance costs and deferred charges	**4,895**	6,191
Amortization of discount on long-term debt	**6,402**	5,838
Amortization of issuance costs for bank revolving lines of credit	**2,262**	2,223
Depreciation and amortization	**3,974**	3,637
Provision for credit losses	**603**	1,964
Loss on early extinguishment of debt	**118**	1,455
Unrealized (gains) losses on equity and debt securities	**6,512**	(2,985)
Derivative forward value (gains) losses	**72,562**	(198,335)
Changes in operating assets and liabilities:		
Accrued interest receivable	**(525)**	11,993
Accrued interest payable	**(3,233)**	(15,853)
Deferred income	**180**	980
Other	**4,171**	(7,600)
Net cash provided by operating activities	**139,086**	109,812
Cash flows from investing activities:		
Advances on loans, net	**(519,707)**	(360,309)
Investments in fixed assets, net	**(8,722)**	(2,682)
Purchase of trading securities	**(86,334)**	(306,215)
Proceeds from sales and maturities of trading securities	**64,922**	65,562
Proceeds from redemption of equity securities	**—**	30,000
Net cash used in investing activities	**(549,841)**	(573,644)
Cash flows from financing activities:		
Proceeds from short-term borrowings ≤ 90 days, net	**321,906**	870,478
Proceeds from short-term borrowings with original maturity > 90 days	**1,258,908**	1,532,452
Repayments of short-term borrowings with original maturity > 90 days	**(1,415,975)**	(1,676,947)
Payments for issuance costs for revolving bank lines of credit	**(3,563)**	—
Proceeds from issuance of long-term debt, net of discount and issuance costs	**1,459,259**	422,683
Payments for retirement of long-term debt	**(1,269,200)**	(1,075,719)
Payments made for early extinguishment of debt	**(118)**	(1,455)
Proceeds from issuance of members' subordinated certificates	**177**	13,448
Payments for retirement of members' subordinated certificates	**(2,488)**	(66,101)
Payments for retirement of patronage capital	**(57,760)**	(57,835)
Net cash provided by (used in) financing activities	**291,146**	(38,996)
Net decrease in cash, cash equivalents and restricted cash	**(119,609)**	(502,828)
Beginning cash, cash equivalents and restricted cash	**303,361**	680,019
Ending cash, cash equivalents and restricted cash	**$ 183,752**	$ 177,191
Supplemental disclosure of cash flow information:		
Cash paid for interest	**$ 335,793**	$ 353,057
Cash paid for income taxes	**12**	69

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

NOTE 1—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company

National Rural Utilities Cooperative Finance Corporation ("CFC") is a tax-exempt, 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.

Basis of Presentation and Use of Estimates

The accompanying unaudited interim consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States ("U.S. GAAP") and for interim financial statements. 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. Unless stated otherwise, references to "we," "our" or "us" relate to CFC and its consolidated entities.

The preparation of financial statements in conformity with U.S. 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. These estimates are based on information available as of the date of the consolidated financial statements. While management makes its best judgments, actual amounts or results could differ from these estimates. In the opinion of management, these unaudited interim financial statements reflect all adjustments of a normal, recurring nature that are necessary for the fair statement of results for the periods presented. The results in the interim financial statements are not necessarily indicative of results that may be expected for the full fiscal year, and the unaudited interim consolidated financial statements should be read in conjunction with our audited consolidated financial statements included in CFC's Annual Report on Form 10-K for the fiscal year ended May 31, 2021 ("2021 Form 10-K"). Certain reclassifications and updates may have been made to the presentation of information in prior periods to conform to the current period presentation.

COVID-19

The COVD-19 pandemic continues to persist. Although most of the initial restrictions imposed at the onset of the pandemic in the U.S. have been relaxed or lifted as a result of the distribution of vaccines, there has been a resurgence of COVID-19 cases fueled by the recently identified, highly transmissible Omicron variant and the continued spread of the Delta variant. Many states throughout the U.S. are currently experiencing record-breaking levels of COVID-19 cases due to the accelerated spread of these variants, which has led some state and local governments to reinstitute measures and restrictions to slow the transmission and mitigate public health risks in certain jurisdictions. We continue to closely monitor developments; however, we cannot predict the future impact of COVID-19 on our operational and financial performance, or the specific ways the pandemic may uniquely impact our members, all of which continue to involve significant uncertainties that depend on future developments, which include, among others, the severity and duration of the current COVID-19 resurgence and its impact on the overall economy and other industry sectors; vaccination rates; the longer-term efficacy of vaccinations; and the potential emergence of new, more transmissible or severe variants.

New Accounting Standards

Amendments of Certain Securities and Exchange ("SEC") Disclosure Guidance

In August 2021, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2021-06, *Presentation of Financial Statements (Topic 205), Financial Services—Depository and Lending (Topic 942), and Financial Services—Investment Companies (Topic 946), Amendments to SEC Paragraphs Pursuant to SEC Final Rule* Releases *No. 33-10786, Amendments to Financial Disclosures About Acquired and Disposed Businesses, and No.33-10835, Update of Statistical Disclosures for Bank and Savings and Loan Registrants.* This update amends certain SEC disclosure guidance that is included in the accounting standards codification to reflect the SEC's recent issuance of rules intended to modernize and streamline disclosure requirements. We adopted the SEC's guidance on the presentation of financial statements and update of statistical disclosures for bank and savings and loan registrants in conjunction with the completion of our Annual Report on Form 10-K for the fiscal year ended May 31, 2021 ("2021 Form 10-K"), which we filed with the SEC on July 30, 2021. The adoption of this disclosure guidance did not have a material impact on our consolidated financial statements.

Reference Rate Reform

On March 12, 2020, the Financial Accounting Standards Board 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 U.S. 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.

NOTE 2—INTEREST INCOME AND INTEREST EXPENSE

The following table displays 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, 2021 and 2020.

Table 2.1: Interest Income and Interest Expense

	Three Months Ended November 30,		Six Months Ended November 30,	
(Dollars in thousands)	**2021**	**2020**	**2021**	**2020**
Interest income:				
Loans[1][2]	**$ 279,368**	$ 272,642	**$ 558,187**	$ 548,340
Investment securities	**3,784**	3,857	**8,233**	7,743
Total interest income	**283,152**	276,499	**566,420**	556,083
Interest expense:[3][4]				
Short-term borrowings	**3,076**	3,403	**6,469**	7,744
Long-term debt	**144,096**	144,579	**288,969**	293,492
Subordinated debt	**26,424**	26,440	**52,935**	53,162
Total interest expense	**173,596**	174,422	**348,373**	354,398
Net interest income	**$ 109,556**	$ 102,077	**$ 218,047**	$ 201,685

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(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) Includes 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 $47 million and $51 million as of November 30, 2021 and May 31, 2021, respectively, consists primarily of deferred loan conversion fees of $41 million and $45 million as of each respective date.

NOTE 3—INVESTMENT SECURITIES

Our investment securities portfolio consists of debt securities classified as trading and equity securities with readily determinable fair values. We therefore record changes in the fair value of our debt and equity securities in earnings and report these unrealized changes together with realized gains and losses from the sale of securities as a component of non-interest income in our consolidated statements of operations

Debt Securities

The following table presents the composition of our investment debt securities portfolio and the fair value as of November 30, 2021 and May 31, 2021.

Table 3.1: Investments in Debt Securities, at Fair Value

(Dollars in thousands)	November 30, 2021	May 31, 2021
Debt securities, at fair value:		
Certificates of deposit	**$ —**	$ 1,501
Commercial paper	**13,979**	12,365
Corporate debt securities	**504,032**	497,944
Commercial agency mortgage-backed securities ("MBS")[1]	**8,183**	8,683
U.S. state and municipality debt securities	**21,341**	11,840
Foreign government debt securities	**992**	999
Other asset-backed securities[2]	**40,088**	42,843
Total debt securities trading, at fair value	**$ 588,615**	$ 576,175

[1]Consists of securities backed by the Federal National Mortgage Association ("Fannie Mae") and the Federal Home Loan Mortgage Corporation ("Freddie Mac").
[2]Consists primarily of securities backed by auto lease loans, equipment-backed loans, auto loans and credit card loans.

We recognized net unrealized losses on our debt securities of $6 million and $2 million for the three months ended November 30, 2021 and 2020, respectively. We recognized net unrealized losses on our debt securities of $9 million for the six months ended November 30, 2021, compared with net unrealized gains of $1 million for the six months ended November 30, 2020.

We did not sell any debt securities during the three months ended November 30, 2021. We received cash proceeds of $2 million on the sale of debt securities during the six months ended November 30, 2021 and recorded gains on the sale of these securities of less than $1 million for the period. We received cash proceeds of $3 million and $6 million on the sale of debt securities during the three and six months ended November 30, 2020, respectively, and recorded gains related to the sale of these securities of less than $1 million during each period.

Pledged Collateral—Debt securities

Under master repurchase agreements with two counterparties, we can obtain short-term funding by selling investment-grade corporate debt securities from our investment portfolio subject to an obligation to repurchase the same or similar securities at an agreed-upon price and date. Because we retain effective control over the transferred securities, transactions under these repurchase agreements are accounted for as collateralized financing agreements (*i.e.,*secured borrowings) and not as a sale and subsequent repurchase of securities. The obligation to repurchase the securities is reflected as a component of our short-term borrowings on our consolidated balance sheets. The aggregate fair value of debt securities underlying repurchase transactions is parenthetically disclosed on our consolidated balance sheets.

We had short-term borrowings under repurchase transactions of $249 million and $200 million as of November 30, 2021 and May 31, 2021, respectively. The debt securities underlying these transactions had an aggregate fair value of $265 million and $211 million as of each respective date, and we repurchased the securities on December 6, 2021 and June 2, 2021, respectively.

Equity Securities

The following table presents the composition of our equity security holdings and the fair value as of November 30, 2021 and May 31, 2021.

Table 3.2: Investments in Equity Securities, at Fair Value

(Dollars in thousands)	November 30, 2021	May 31, 2021
Equity securities, at fair value:		
Farmer Mac—Series C non-cumulative preferred stock	**$ 27,780**	$ 27,450
Farmer Mac—Class A common stock	**9,725**	7,652
Total equity securities, at fair value	**$ 37,505**	$ 35,102

We recognized net unrealized gains on our equity securities of $2 million for both the three and six months ended November 30, 2021. 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.

NOTE 4—LOANS

We segregate our loan portfolio into 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 consist 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, by member class and by loan type, as of November 30, 2021 and May 31, 2021.

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

(Dollars in thousands)	November 30, 2021 Amount	November 30, 2021 % of Total	May 31, 2021 Amount	May 31, 2021 % of Total
Member class:				
CFC:				
Distribution	**$ 22,558,077**	**78%**	$ 22,027,423	78%
Power supply	**5,122,406**	**18**	5,154,312	18
Statewide and associate	**101,391**	**—**	106,121	—
Total CFC	**27,781,874**	**96**	27,287,856	96
NCSC	**721,299**	**3**	706,868	3
RTFC	**431,641**	**1**	420,383	1
Total loans outstanding[(1)]	**28,934,814**	**100**	28,415,107	100
Deferred loan origination costs—CFC[(2)]	**12,056**	**—**	11,854	—
Loans to members	**$ 28,946,870**	**100%**	$ 28,426,961	100%
Loan type:				
Long-term loans:				
Fixed rate	**$ 26,013,141**	**90%**	$ 25,514,766	90%
Variable rate	**690,177**	**2**	658,579	2
Total long-term loans	**26,703,318**	**92**	26,173,345	92
Lines of credit	**2,231,496**	**8**	2,241,762	8
Total loans outstanding[(1)]	**28,934,814**	**100**	28,415,107	100
Deferred loan origination costs—CFC[(2)]	**12,056**	**—**	11,854	—
Loans to members	**$ 28,946,870**	**100%**	$ 28,426,961	100%

[(1)] Represents the unpaid principal balance, net of charge-offs and recoveries, of loans as of the end of each period.
[(2)] Deferred loan origination costs are recorded on the books of CFC.

Loan Sales

We may transfer whole loans and participating interests to third parties. These transfers are typically made concurrently with the closing of the loan or participation agreement at par value and meet the accounting criteria required for sale accounting. We sold CFC loans, at par for cash, totaling $4 million and $96 million during the six months ended November 30, 2021 and 2020, respectively. We recorded immaterial losses on the sale of these loans.

Accrued Interest Receivable

We report 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 members. Accrued interest receivable amounts generally represent three 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 $94 million and $93 million as of November 30, 2021 and May 31, 2021, respectively. We also elected to exclude accrued interest receivable from the credit quality disclosures required under CECL.

Credit Concentration

Concentrations of credit may exist when a lender has large credit exposures to single borrowers, large credit exposures to borrowers in the same industry sector or engaged in similar activities or large credit exposures to borrowers in a geographic region that would cause the borrowers to be similarly impacted by economic or other conditions in the region. 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 $28,503 million and $27,995 million as of November 30, 2021 and May 31, 2021, respectively, accounted for 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.

Single-Obligor Concentration

The outstanding loan exposure for our 20 largest borrowers totaled $6,134 million and $6,182 million as of November 30, 2021 and May 31, 2021, respectively, representing 21% and 22% of total loans outstanding as of each respective date. The 20 largest borrowers consisted of 11 distribution systems and 9 power supply systems as of November 30, 2021. The 20 largest borrowers consisted of 10 distribution systems and 10 power supply systems as of May 31, 2021. 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, 2021 and May 31, 2021.

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 long-term loans to be covered under the commitment, subject to approval by Farmer Mac, and in the event any such loan later goes into payment default for at least 90 days, upon request by us, Farmer Mac must purchase such loan at par value. 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 $486 million and $512 million as of November 30, 2021 and May 31, 2021, respectively. Loan exposure to our 20 largest borrowers covered under the Farmer Mac agreement totaled $255 million and $309 million as of November 30, 2021 and May 31, 2021, respectively, which reduced our exposure to the 20 largest borrowers to 20% and 21% as of each respective date. We have had no loan defaults for loans covered under this agreement; therefore, no loans had been put to Farmer Mac for purchase pursuant to the standby purchase agreement as of November 30, 2021. Our credit exposure is also mitigated by long-term loans guaranteed by RUS. Guaranteed RUS loans totaled $135 million and $139 million as of November 30, 2021 and May 31, 2021, 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 U.S. The consolidated number of borrowers with loans outstanding totaled 892 as of both November 30, 2021 and May 31, 2021 located in 49 states. Texas, which had 68 and 67 borrowers with loans outstanding as of November 30, 2021 and May 31, 2021, respectively, accounted for the largest number of borrowers with loans outstanding in any one state as of each respective date. Texas also accounted for the largest concentration of loan exposure in any one state as of each respective date. Loans outstanding to Texas-based electric utility organizations totaled $4,975 million and $4,878 million as of November 30, 2021 and May 31, 2021, respectively and accounted for approximately 17% of total loans outstanding as of each respective date. Of the loans outstanding to Texas-based electric utility organizations, $167 million and $172 million as of November 30, 2021 and May 31, 2021, respectively, were covered by the Farmer Mac standby repurchase agreement, which slightly reduces our Texas loan exposure.

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.

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, 2021 and May 31, 2021.

Table 4.2: Payment Status of Loans Outstanding

	November 30, 2021					
(Dollars in thousands)	Current	30-89 Days Past Due	> 90 Days Past Due	Total Past Due	Total Loans Outstanding	Nonaccrual Loans
Member class:						
CFC:						
Distribution	**$ 22,558,077**	**$ —**	**$ —**	**$ —**	**$ 22,558,077**	**$ —**
Power supply	**5,036,877**	**15**	**85,514**	**85,529**	**5,122,406**	**219,444**
Statewide and associate	**101,391**	**—**	**—**	**—**	**101,391**	**—**
CFC total	**27,696,345**	**15**	**85,514**	**85,529**	**27,781,874**	**219,444**
NCSC	**721,299**	**—**	**—**	**—**	**721,299**	**—**
RTFC	**431,641**	**—**	**—**	**—**	**431,641**	**—**
Total loans outstanding	**$28,849,285**	**$ 15**	**$ 85,514**	**$ 85,529**	**$ 28,934,814**	**$ 219,444**
Percentage of total loans	**99.70%**	**— %**	**0.30%**	**0.30%**	**100.00%**	**0.76%**

	May 31, 2021					
(Dollars in thousands)	Current	30-89 Days Past Due	> 90 Days Past Due	Total Past Due	Total Loans Outstanding	Nonaccrual Loans
Member class:						
CFC:						
Distribution	$ 22,027,423	$ —	$ —	$ —	$ 22,027,423	$ —
Power supply	5,069,316	3,400	81,596	84,996	5,154,312	228,312
Statewide and associate	106,121	—	—	—	106,121	—
CFC total	27,202,860	3,400	81,596	84,996	27,287,856	228,312
NCSC	706,868	—	—	—	706,868	—
RTFC	420,383	—	—	—	420,383	9,185
Total loans outstanding	$ 28,330,111	$ 3,400	$ 81,596	$ 84,996	$ 28,415,107	$ 237,497
Percentage of total loans	99.70%	0.01 %	0.29%	0.30%	100.00%	0.84%

We had one delinquent loan totaling $86 million and $85 million as of November 30, 2021 and May 31, 2021, respectively, to Brazos Electric Power Cooperative, Inc. ("Brazos"), a CFC Texas-based power supply borrower, which we classified as nonperforming and placed on nonaccrual status in the third quarter of fiscal year 2021. Brazos filed bankruptcy in March 2021 and is therefore not permitted to make scheduled loan payments without the approval of the bankruptcy court.

The decrease in loans on nonaccrual status, which are classified as nonperforming, of $18 million to $219 million as of November 30, 2021, from $237 million was due to the receipt of loan principal payments. See "Nonperforming Loans" below for additional information.

Troubled Debt Restructurings ("TDR")

We have not had any loan modifications that were required to be accounted for as a TDR 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, 2021 and May 31, 2021.

Table 4.3: Trouble Debt Restructurings

	November 30, 2021			May 31, 2021		
(Dollars in thousands)	Number of Borrowers	Outstanding Amount [1]	% of Total Loans Outstanding	Number of Borrowers	Outstanding Amount [1]	% of Total Loans Outstanding
TDR loans:						
Member class:						
CFC—Distribution	1	**$ 5,092**	**0.02%**	1	$ 5,379	0.02%
RTFC	1	**4,342**	**0.01**	1	4,592	0.02
Total TDR loans	**2**	**$ 9,434**	**0.03%**	2	$ 9,971	0.04%
Performance status of TDR loans:						
Performing TDR loans	**2**	**$ 9,434**	**0.03%**	2	$ 9,971	0.04%
Total TDR loans	**2**	**$ 9,434**	**0.03%**	2	$ 9,971	0.04%

[1] Represents the unpaid principal balance net of charge-offs and recoveries as of the end of each period.

There were no unadvanced commitments related to these loans as of November 30, 2021 and May 31, 2021. These loans, which have been performing in accordance with the terms of their respective restructured loan agreement for an extended period of time, were classified as performing and on accrual status as of November 30, 2021 or May 31, 2021. We did not have any TDR loans classified as nonperforming as of November 30, 2021 or May 31, 2021.

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. The following table presents the outstanding balance of nonperforming loans, by member class, as of November 30, 2021 and May 31, 2021. Loans classified as nonperforming are placed on nonaccrual status.

Table 4.4: Nonperforming Loans

	November 30, 2021			May 31, 2021		
(Dollars in thousands)	Number of Borrowers	Outstanding Amount [1]	% of Total Loans Outstanding	Number of Borrowers	Outstanding Amount [1]	% of Total Loans Outstanding
Nonperforming loans:						
CFC—Power supply[2]	**2**	**$ 219,444**	**0.76%**	2	$ 228,312	0.81%
RTFC	—	—	—	2	9,185	0.03
Total nonperforming loans	**2**	**$ 219,444**	**0.76%**	4	$ 237,497	0.84%

(1) Represents the unpaid principal balance net of charge-offs and recoveries as of the end of each period.
(2) In addition, we had less than $1 million letters of credit outstanding to Brazos as of May 31, 2021.

We had loans to two borrowers totaling $219 million classified as nonperforming as of November 30, 2021. In comparison we had loans to four borrowers totaling $237 million classified as nonperforming as of May 31, 2021. Nonperforming loans represented 0.76% and 0.84% of total loans outstanding as of November 30, 2021 and May 31, 2021, respectively. Loans outstanding to Brazos accounted for $86 million and $85 million of our total nonperforming loans as of November 30, 2021 and May 31, 2021, respectively. Brazos is not permitted to make scheduled loan payments without approval of the bankruptcy court. As a result, we have not received payments from Brazos since March 2021, and its loans outstanding were delinquent as of each respective date. Prior to Brazos' bankruptcy filing in March 2021, we had not experienced any defaults or charge-offs in our electric utility and telecommunications loan portfolios since fiscal years 2013 and 2017, respectively. The reduction in nonperforming loans of $18 million during the six months ended November 30, 2021 was due in part to our receipt during the current quarter of full payment of all amounts due on nonperforming loans to two RTFC borrowers totaling $9 million. In addition, we have continued to receive payments on the remaining outstanding nonperforming loan to a CFC electric power supply borrower, including a payment of $9 million during the six months ended November 30, 2021, which reduced the balance of this loan to $134 million as of November 30, 2021, from $143 million as of May 31, 2021.

Net Charge-Offs

We had no loan charge-offs during the six months ended November 30, 2021, nor during the same prior-year period. Prior to Brazos' bankruptcy filing, we had not experienced any defaults or charge-offs in our electric utility and telecommunications loan portfolios since fiscal year 2013 and 2017, respectively.

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. We categorize loans in our portfolio based on our internally assigned borrower risk ratings, which are intended to assess the general creditworthiness 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.

The 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.

Our internally assigned borrower risk ratings 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 determining our allowance for credit losses.

Table 4.5 displays total loans outstanding, by borrower risk rating category and by member class, as of November 30, 2021 and May 31, 2021. The borrower risk rating categories presented below correspond to the borrower risk rating categories used in calculating our collective allowance for credit losses. 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 calculating the collective allowance.

We present term loans outstanding as of November 30, 2021, by fiscal year of origination for each year during the five-year annual reporting period beginning in fiscal year 2018, and in the aggregate for periods prior to fiscal year 2018. 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 Table 4.5 below, term loan advances made to borrowers prior to fiscal year 2018 totaled $17,122 million, representing 59% of our total loans outstanding of $28,935 million as of November 30, 2021. The average remaining maturity of our long-term loans, which accounted for 92% of total loans outstanding as of November 30, 2021, was 18 years.

As discussed above, as a 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 892 borrowers as of November 30, 2021, the number of loans outstanding was 16,512 as of November 30, 2021, resulting in an average of 19 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 on our loans has typically been more closely correlated to the risk rating of our borrowers.

Table 4.5: Loans Outstanding by Borrower Risk Ratings and Origination Year

	November 30, 2021								
	Term Loans by Fiscal Year of Origination								
(Dollars in thousands)	YTD Q2 2022	2021	2020	2019	2018	Prior	Revolving Loans	Total	May 31, 2021
Pass									
CFC:									
Distribution	$1,003,440	$1,736,046	$1,909,008	$1,211,086	$1,474,402	$13,747,440	$1,225,521	$22,306,943	$21,808,099
Power supply	244,193	541,766	194,019	338,813	248,520	2,665,332	270,648	4,503,291	4,517,408
Statewide and associate	1,465	2,372	20,327	3,486	—	21,957	36,238	85,845	90,261
CFC total	1,249,098	2,280,184	2,123,354	1,553,385	1,722,922	16,434,729	1,532,407	26,896,079	26,415,768
NCSC	—	40,349	236,919	4,225	43,346	249,631	146,829	721,299	706,868
RTFC	25,237	93,813	47,565	11,097	24,799	190,022	34,766	427,299	406,606
Total pass	$1,274,335	$2,414,346	$2,407,838	$1,568,707	$1,791,067	$16,874,382	$1,714,002	$28,044,677	$27,529,242
Special mention									
CFC:									
Distribution	$ —	$ 4,945	$ —	$ 5,150	$ 941	$ 12,693	$ 227,405	$ 251,134	$ 219,324
Power supply	—	—	—	—	—	29,000	—	29,000	29,611
Statewide and associate	—	—	—	5,000	3,946	6,600	—	15,546	15,860
CFC total	—	4,945	—	10,150	4,887	48,293	227,405	295,680	264,795
RTFC	—	—	—	—	—	4,342	—	4,342	4,592
Total special mention	$ —	$ 4,945	$ —	$ 10,150	$ 4,887	$ 52,635	$ 227,405	$ 300,022	$ 269,387
Substandard									
CFC:									
Power supply	$ —	$ 23,200	$ —	$ 81,869	$ —	$ 61,042	$ 204,560	$ 370,671	$ 378,981
Total substandard	$ —	$ 23,200	$ —	$ 81,869	$ —	$ 61,042	$ 204,560	$ 370,671	$ 378,981
Doubtful									
CFC:									
Power supply	$ —	$ —	$ —	$ —	$ —	$ 133,915	$ 85,529	$ 219,444	$ 228,312
CFC total	—	—	—	—	—	133,915	85,529	219,444	228,312
RTFC	—	—	—	—	—	—	—	—	9,185
Total doubtful	$ —	$ —	$ —	$ —	$ —	$ 133,915	$ 85,529	$ 219,444	$ 237,497
Total criticized loans	$ —	$ 28,145	$ —	$ 92,019	$ 4,887	$ 247,592	$ 517,494	$ 890,137	$ 885,865
Total loans outstanding	$1,274,335	$2,442,491	$2,407,838	$1,660,726	$1,795,954	$17,121,974	$2,231,496	$28,934,814	$28,415,107

Criticized loans totaled $890 million and $886 million as of November 30, 2021 and May 31, 2021, respectively, and represented approximately 3% of total loans outstanding as of each respective date. Criticized loans include loans outstanding to Brazos of $86 million and $85 million as of November 30, 2021 and May 31, 2021, respectively, which were classified as doubtful as of each respective date, and loans outstanding to Rayburn Country Electric Cooperative, Inc. ("Rayburn") of $371 million and $379 million as of November 30, 2021 and May 31, 2021, respectively. Each of the borrowers with loans outstanding in the criticized category, with the exception of Brazos, was current with regard to all principal and interest amounts due as of November 30, 2021 and May 31, 2021. Brazos is not permitted to make scheduled loan payments without approval of the bankruptcy court.

Special Mention

One CFC electric distribution borrower with loans outstanding of $251 million and $219 million as of November 30, 2021 and May 31, 2021, respectively, accounted for the substantial majority of loans in the special mention loan category amount of $300 million and $269 million as of each respective date. This borrower experienced an adverse financial impact from restoration costs incurred to repair damage caused by two successive hurricanes. We expect that the borrower will receive grant funds from the Federal Emergency Management Agency and the state where it is located for reimbursement of the hurricane damage-related restoration costs.

Substandard

Loans outstanding to Rayburn of $371 million and $379 million as of November 30, 2021 and May 31, 2021, respectively, account for the loan amounts in the substandard category as of each respective date. The loans outstanding to Rayburn of $371 million as of November 30, 2021 consist of secured loans totaling $159 million and unsecured loans totaling $212 million.

Doubtful

Loans outstanding classified as doubtful totaled $219 million and $237 million as of November 30, 2021 and May 31, 2021, respectively, consisting of loans outstanding to Brazos of $86 million and $85 million as of each respective date and loans outstanding to a CFC electric power supply borrower of $134 million and $143 million as of each respective date. These loans were also classified as nonperforming, as discussed above under "Nonperforming Loans."

In June 2021, Texas enacted securitization legislation that offers a financing program for qualifying electric cooperatives exposed to elevated power costs during the February 2021 polar vortex. Brazos and Rayburn both qualify for the Texas-enacted financing program. Rayburn has initiated the securitization financing process to raise funds for eligible costs incurred during the February 2021 polar vortex, as specified in the legislation, and has stated that it intends to use the proceeds to pay down its related outstanding obligation to the Electric Reliability Council of Texas. There are many factors, which we are unable to predict, that may impact the completion and outcome of the securitization transaction and the ultimate collectibility of Rayburn's loans outstanding. Rayburn, however, was current on all of its debt obligations to us as of the date of this Report.

Unadvanced Loan Commitments

Unadvanced loan commitments represent approved and executed loan contracts for which funds have not been advanced to borrowers. The following table presents unadvanced loan commitments, by member class and by loan type, as of November 30, 2021 and May 31, 2021.

Table 4.6: Unadvanced Commitments by Member Class and Loan Type

(Dollars in thousands)	November 30, 2021	May 31, 2021
Member class:		
CFC:		
Distribution	**$ 9,659,640**	$ 9,387,070
Power supply	**3,904,003**	3,970,698
Statewide and associate	**180,152**	161,340
Total CFC	**13,743,795**	13,519,108
NCSC	**596,904**	551,125
RTFC	**337,652**	286,806
Total unadvanced commitments	**$ 14,678,351**	$ 14,357,039
Loan type:[1]		
Long-term loans:		
Fixed rate	**$ —**	$ —
Variable rate	**5,663,645**	5,771,813
Total long-term loans	**5,663,645**	5,771,813
Lines of credit	**9,014,706**	8,585,226
Total unadvanced commitments	**$ 14,678,351**	$ 14,357,039

[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.

The following table displays, by loan type, the available balance under unadvanced loan commitments as of November 30, 2021, and the related maturities in each fiscal year during the five-year period ended May 31, 2026, and thereafter.

Table 4.7: Unadvanced Loan Commitments

		Notional Maturities of Unadvanced Loan Commitments					
(Dollars in thousands)	Available Balance	2022	2023	2024	2025	2026	Thereafter
Line of credit loans	**$ 9,014,706**	**$ 705,293**	**$ 4,351,138**	**$ 1,184,200**	**$ 1,516,986**	**$ 449,196**	**$ 807,893**
Long-term loans	**5,663,645**	**268,120**	**843,783**	**1,600,903**	**854,606**	**1,083,856**	**1,012,377**
Total	**$14,678,351**	**$ 973,413**	**$ 5,194,921**	**$ 2,785,103**	**$ 2,371,592**	**$ 1,533,052**	**$1,820,270**

Unadvanced line of credit commitments accounted for 61% of total unadvanced loan commitments as of November 30, 2021, 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 $5,664 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 $14,678 million as of November 30, 2021 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 $11,447 million and $11,312 million as of November 30, 2021 and May 31, 2021, 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 $3,231 million and $3,045 million as of November 30, 2021 and May 31, 2021, respectively. As such, we are required to advance amounts on these committed facilities as long as the borrower is in compliance with the terms and conditions of the facility. The following table summarizes the available balance under unconditional committed lines of credit as of November 30, 2021, and the related maturity amounts in each fiscal year during the five-year period ending May 31, 2026, and thereafter.

Table 4.8: Unconditional Committed Lines of Credit—Available Balance

		Notional Maturities of Unconditional Committed Lines of Credit					
(Dollars in thousands)	Available Balance	2022	2023	2024	2025	2026	Thereafter
Committed lines of credit	**$ 3,231,160**	**$ 251**	**$ 512,707**	**$ 483,262**	**$1,194,262**	**$ 273,337**	**$ 767,341**

Pledged Collateral—Loans

We are required to pledge eligible mortgage notes in an amount at least equal to the outstanding balance of our secured debt. Table 4.9 displays the borrowing amount under each of our secured borrowing agreements and the corresponding loans outstanding pledged as collateral as of November 30, 2021 and May 31, 2021. See "Note 6—Short-Term Borrowings" and "Note 7—Long-Term Debt" for information on our secured borrowings and other borrowings.

Table 4.9: Pledged Loans

(Dollars in thousands)	November 30, 2021	May 31, 2021
Collateral trust bonds:		
2007 indenture:		
Collateral trust bonds outstanding	**$ 7,022,711**	$ 7,422,711
Pledged collateral:		
Distribution system mortgage notes pledged	**8,160,235**	8,400,293
RUS-guaranteed loans qualifying as permitted investments pledged	**135,181**	121,679
Total pledged collateral	**8,295,416**	8,521,972
1994 indenture:		
Collateral trust bonds outstanding	**$ 25,000**	$ 30,000
Pledged collateral:		
Distribution system mortgage notes pledged	**32,241**	34,924
Guaranteed Underwriter Program:		
Notes payable outstanding	**$ 6,290,600**	$ 6,269,303
Pledged collateral:		
Distribution and power supply system mortgage notes pledged	**7,032,830**	7,150,240
Farmer Mac:		
Notes payable outstanding	**$ 3,121,485**	$ 2,977,909
Pledged collateral:		
Distribution and power supply system mortgage notes pledged	**3,531,936**	3,440,307
Clean Renewable Energy Bonds Series 2009A:		
Notes payable outstanding	**$ 4,412**	$ 4,412
Pledged collateral:		
Distribution and power supply system mortgage notes pledged	**4,520**	5,316
Cash	**1,179**	394
Total pledged collateral	**5,699**	5,710

NOTE 5—ALLOWANCE FOR CREDIT LOSSES

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. 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.

Allowance for Credit Losses—Loan Portfolio

The following tables summarize, by member class, changes in the allowance for credit losses for our loan portfolio for the three and six months ended November 30, 2021 and 2020.

Table 5.1: Changes in Allowance for Credit Losses

	Three Months Ended November 30, 2021						
(Dollars in thousands)	CFC Distribution	CFC Power Supply	CFC Statewide & Associate	CFC Total	NCSC	RTFC	Total
Balance as of August 31, 2021	**$ 15,369**	**$ 66,469**	**$ 1,422**	**$ 83,260**	**$ 1,455**	**$ 4,820**	**$ 89,535**
Provision (benefit) for credit losses	**663**	**(1,002)**	**2**	**(337)**	**139**	**(3,202)**	**(3,400)**
Balance as of November 30, 2021	**$ 16,032**	**$ 65,467**	**$ 1,424**	**$ 82,923**	**$ 1,594**	**$ 1,618**	**$ 86,135**

	Three Months Ended November 30, 2020						
(Dollars in thousands)	CFC Distribution	CFC Power Supply	CFC Statewide & Associate	CFC Total	NCSC	RTFC	Total
Balance as of August 31, 2020	$ 12,037	$ 39,282	$ 1,411	$ 52,730	$ 829	$ 3,792	$ 57,351
Provision (benefit) for credit losses	1,178	499	2	1,679	512	(553)	1,638
Balance as of November 30, 2020	$ 13,215	$ 39,781	$ 1,413	$ 54,409	$ 1,341	$ 3,239	$ 58,989

	Six Months Ended November 30, 2021						
(Dollars in thousands)	CFC Distribution	CFC Power Supply	CFC Statewide & Associate	CFC Total	NCSC	RTFC	Total
Balance as of May 31, 2021	**$ 13,426**	**$ 64,646**	**$ 1,391**	**$ 79,463**	**$ 1,374**	**$ 4,695**	**$ 85,532**
Provision (benefit) for credit losses	**2,606**	**821**	**33**	**3,460**	**220**	**(3,077)**	**603**
Balance as of November 30, 2021	**$ 16,032**	**$ 65,467**	**$ 1,424**	**$ 82,923**	**$ 1,594**	**$ 1,618**	**$ 86,135**

	Six Months Ended November 30, 2020						
(Dollars in thousands)	CFC Distribution	CFC Power Supply	CFC Statewide & Associate	CFC Total	NCSC	RTFC	Total
Balance as of May 31, 2020	$ 8,002	$ 38,027	$ 1,409	$ 47,438	$ 806	$ 4,881	$ 53,125
Cumulative-effect adjustment from adoption of CECL accounting standard	3,586	2,034	25	5,645	(15)	(1,730)	3,900
Balance as of June 1, 2020	11,588	40,061	1,434	53,083	791	3,151	57,025
Provision (benefit) for credit losses	1,627	(280)	(21)	1,326	550	88	1,964
Balance as of November 30, 2020	$ 13,215	$ 39,781	$ 1,413	$ 54,409	$ 1,341	$ 3,239	$ 58,989

The following tables present, by member class, the components of our allowance for credit losses as of November 30, 2021 and May 31, 2021.

Table 5.2: Allowance for Credit Losses Components

	November 30, 2021						
(Dollars in thousands)	CFC Distribution	CFC Power Supply	CFC Statewide & Associate	CFC Total	NCSC	RTFC	Total
Allowance components:							
Collective allowance	**$ 16,032**	**$ 25,809**	**$ 1,424**	**$ 43,265**	**$ 1,594**	**$ 1,215**	**$ 46,074**
Asset-specific allowance	**—**	**39,658**	**—**	**39,658**	**—**	**403**	**40,061**
Total allowance for credit losses	**$ 16,032**	**$ 65,467**	**$ 1,424**	**$ 82,923**	**$ 1,594**	**$ 1,618**	**$ 86,135**
Loans outstanding:[1]							
Collectively evaluated loans	**$22,552,985**	**$4,902,962**	**$101,391**	**$27,557,338**	**$721,299**	**$427,299**	**$28,705,936**
Individually evaluated loans	**5,092**	**219,444**	**—**	**224,536**	**—**	**4,342**	**228,878**
Total loans outstanding	**$22,558,077**	**$5,122,406**	**$101,391**	**$27,781,874**	**$721,299**	**$431,641**	**$28,934,814**
Allowance ratios:							
Collective allowance coverage ratio[2]	**0.07%**	**0.53%**	**1.40%**	**0.16%**	**0.22%**	**0.28%**	**0.16%**
Asset-specific allowance coverage ratio[3]	**—**	**18.07**	**—**	**17.66**	**—**	**9.28**	**17.50**
Total allowance coverage ratio[4]	**0.07**	**1.28**	**1.40**	**0.30**	**0.22**	**0.37**	**0.30**

	May 31, 2021						
(Dollars in thousands)	CFC Distribution	CFC Power Supply	CFC Statewide & Associate	CFC Total	NCSC	RTFC	Total
Allowance components:							
Collective allowance	$ 13,426	$ 25,104	$ 1,391	$ 39,921	$ 1,374	$ 1,147	$ 42,442
Asset-specific allowance[5]	—	39,542	—	39,542	—	3,548	43,090
Total allowance for credit losses	$ 13,426	$ 64,646	$ 1,391	$ 79,463	$ 1,374	$ 4,695	$ 85,532
Loans outstanding:[1]							
Collectively evaluated loans	$22,022,044	$4,926,000	$106,121	$27,054,165	$706,868	$406,606	$28,167,639
Individually evaluated loans	5,379	228,312	—	233,691	—	13,777	247,468
Total loans outstanding	$22,027,423	$5,154,312	$106,121	$27,287,856	$706,868	$420,383	$28,415,107
Allowance ratios:							
Collective allowance coverage ratio[2]	0.06%	0.51%	1.31%	0.15%	0.19%	0.28%	0.15%
Asset-specific allowance coverage ratio[3]	—	17.32	—	16.92	—	25.75	17.41
Total allowance coverage ratio[4]	0.06	1.25	1.31	0.29	0.19	1.12	0.30

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(1)Represents the unpaid principal amount of loans as of the end of each period. Excludes unamortized deferred loan origination costs of $12 million as of November 30, 2021 and May 31, 2021.

(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.

Our allowance for credit losses of $86 million and allowance coverage ratio of 0.30% as of November 30, 2021 were unchanged from May 31, 2021, reflecting the offsetting impact of an increase in the collective allowance of $4 million and a decrease in the asset-specific allowance of $3 million. The increase in the collective allowance was driven by an increase in the default rates utilized in measuring our collective allowance for credit losses, shifts in borrower risk rating grades and an increase in loans outstanding. The decrease in the asset-specific allowance stemmed from the elimination of an asset-specific allowance of $3 million attributable to nonperforming loans totaling $9 million as a result of our receipt of full payment of all amounts due on these loans during the current quarter.

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, 2021 and May 31, 2021.

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 $4,747 million and accounted for 17% of total debt outstanding as of November 30, 2021, compared with $4,582 million and 17% of total debt outstanding as of May 31, 2021. The following table provides comparative information on our short-term borrowings as of November 30, 2021 and May 31, 2021.

Table 6.1: Short-Term Borrowings Sources

	November 30, 2021		May 31, 2021	
(Dollars in thousands)	Amount	% of Total Debt Outstanding	Amount	% of Total Debt Outstanding
Short-term borrowings:				
Commercial paper:				
Commercial paper dealers, net of discounts	**$ 1,039,967**	**4%**	$ 894,977	3%
Commercial paper members, at par	**1,094,767**	**4**	1,124,607	4
Total commercial paper	**2,134,734**	**8**	2,019,584	7
Select notes to members	**1,553,763**	**6**	1,539,150	6
Daily liquidity fund notes	**410,491**	**1**	460,556	2
Medium-term notes sold to members	**398,656**	**1**	362,691	1
Securities sold under repurchase agreements	**249,291**	**1**	200,115	1
Total short-term borrowings	**$ 4,746,935**	**17%**	$ 4,582,096	17%

We have master repurchase agreements with two counterparties whereby we may sell investment-grade corporate debt securities from our investment portfolio subject to an obligation to repurchase the same or similar securities at an agreed-upon price and date. Transactions under these repurchase agreements are accounted for as collateralized financing agreements and not as a sale. The obligation to repurchase the securities is reported as securities sold under repurchase agreements, which we include as a component of short-term borrowings on our consolidated balance sheets. We disclose the fair value of the debt securities underlying repurchase transactions; however, the pledged debt securities remain in the investment debt securities portfolio amount reported on our consolidated balance sheets. On November 23, 2021, we borrowed $249 million under two securities repurchase transactions. On December 6, 2021, we repurchased the underlying pledged debt securities, which had a fair value of $265 million as of November 30, 2021. We had borrowings under repurchase agreements of $200 million as of May 31, 2021 and we had pledged debt securities underlying these repurchase transactions with a fair value of $211 million as of May 31, 2021.

Committed Bank Revolving Line of Credit Agreements

The following table presents the amount available for access under our bank revolving line of credit agreements as of November 30, 2021.

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

	November 30, 2021				
(Dollars in millions)	Total Commitment	Letters of Credit Outstanding	Available Amount	Maturity	Annual Facility Fee [1]
Bank revolving agreements:					
3-year agreement	$ **1,245**	$ **—**	$ **1,245**	November 28, 2024	7.5 bps
5-year agreement	**1,355**	**3**	**1,352**	November 28, 2025	10 bps
Total	$ **2,600**	$ **3**	$ **2,597**		

[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.

On June 7, 2021, we amended the three-year and five-year committed bank revolving line of credit agreements to extend the maturity dates to November 28, 2024 and November 28, 2025, respectively, and to terminate certain bank commitments totaling $70 million under the three-year agreement and $55 million under the five-year agreement. As a result, the total commitment amount under the three-year facility and the five-year facility is $1,245 million and $1,355 million, respectively, resulting in a combined total commitment amount under the two facilities of $2,600 million. 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.

We did not have any outstanding borrowings under our committed bank revolving line of credit agreements as of November 30, 2021; however, we had letters of credit outstanding of $3 million under the five-year committed bank revolving agreement as of this date. We were in compliance with all covenants and conditions under the agreements as of November 30, 2021.

NOTE 7—LONG-TERM DEBT

The following table displays, by debt product type, long-term debt outstanding as of November 30, 2021 and May 31, 2021. Long-term debt outstanding totaled $20,804 million and accounted for 75% of total debt outstanding as of November 30, 2021, compared with $20,603 million and 75% of total debt outstanding as of May 31, 2021.

Table 7.1: Long-Term Debt by Debt Product Type

(Dollars in thousands)	November 30, 2021	May 31, 2021
Secured long-term debt:		
Collateral trust bonds	**$ 7,047,711**	$ 7,452,711
Unamortized discount	**(221,016)**	(227,046)
Debt issuance costs	**(31,205)**	(33,721)
Total collateral trust bonds	**6,795,490**	7,191,944
Guaranteed Underwriter Program notes payable	**6,290,600**	6,269,303
Farmer Mac notes payable	**3,121,485**	2,977,909
Other secured notes payable	**4,412**	4,412
Debt issuance costs	**(14)**	(22)
Total other secured notes payable	**4,398**	4,390
Total secured notes payable	**9,416,483**	9,251,602
Total secured long-term debt	**16,211,973**	16,443,546
Unsecured long-term debt:		
Medium-term notes sold through dealers	**4,406,592**	3,943,728
Medium-term notes sold to members	**202,710**	232,346
Medium term notes sold through dealers and to members	**4,609,302**	4,176,074
Unamortized discount	**(2,315)**	(2,307)
Debt issuance costs	**(18,446)**	(18,036)
Total unsecured medium-term notes	**4,588,541**	4,155,731
Unsecured notes payable	**3,886**	3,886
Unamortized discount	**(19)**	(35)
Debt issuance costs	**(2)**	(5)
Total unsecured notes payable	**3,865**	3,846
Total unsecured long-term debt	**4,592,406**	4,159,577
Total long-term debt	**$ 20,804,379**	$ 20,603,123

Secured Debt

Long-term secured debt of $16,212 million and $16,444 million as of November 30, 2021 and May 31, 2021, respectively, represented 78% and 80% of total long-term debt outstanding as of each respective date. The decrease in long-term secured debt of $232 million during the six months ended November 30, 2021 was primarily attributable to the early redemption of $400 million of collateral trust bonds, as described below, partially offset by debt borrowings under the Farmer Mac revolving note purchase agreement. We were in compliance with all covenants and conditions under our debt indentures as of November 30, 2021 and May 31, 2021.

We are required to pledge eligible mortgage notes in an amount at least equal to the outstanding balance of our secured debt. See "Note 4—Loans" for information on pledged collateral under our secured debt agreements.

Collateral Trust Bonds

Collateral trust bonds outstanding decreased $396 million to $6,795 million as of November 30, 2021, primarily due to the early redemption of $400 million of 3.05% of collateral trust bonds due February 12, 2021.

Guaranteed Underwriter Program Notes Payable

Notes payable outstanding under the Guaranteed Underwriter Program increased $21 million to $6,291 million as of November 30, 2021, due to notes payable advances under the Guaranteed Underwriter Program, partially offset by principal amortization. On November 4, 2021, we closed on a $550 million committed loan facility ("Series S") from the Federal Financing Bank under the Guaranteed Underwriter Program. Pursuant to this facility, we may borrow any time before July 15, 2026. Each advance is subject to quarterly amortization and a final maturity not longer than 30 years from the date of the advance. We borrowed $200 million and redeemed $100 million of notes payable outstanding under the Guaranteed Underwriter Program during the six months ended November 30, 2021. We had up to $1,325 million available for access under the Guaranteed Underwriter Program as of November 30, 2021.

The notes outstanding 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 Investors Service ("Moody's"), (ii) A- or higher from S&P Global Inc. ("S&P"), (iii) A- or higher from Fitch Ratings ("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. We are required to pledge eligible distribution system or power supply system loans as collateral in an amount at least equal to the total principal amount of notes outstanding under the Guaranteed Underwriter Program.

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 June 30, 2026, with successive automatic one-year renewals without notice by either party. Beginning June 30, 2025, the revolving note purchase agreement is subject to termination of the draw period by Farmer Mac upon 425 days' prior written notice. Pursuant to this 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. Each borrowing under the revolving note purchase agreement is evidenced by a pricing agreement setting forth the interest rate, maturity date and other related terms as we may negotiate with Farmer Mac at the time of each such borrowing. We may select a fixed rate or variable rate at the time of each advance with a maturity as determined in the applicable pricing agreement. The amount outstanding under this agreement included $3,121 million of long-term debt as of November 30, 2021. We advanced long-term notes payable totaling $450 million under the Farmer Mac Note Purchase Agreement during the six months ended November 30, 2021. The amount available for borrowing totaled $2,379 million as of November 30, 2021.

Unsecured Debt

Long-term unsecured debt of $4,592 million and $4,160 million as of November 30, 2021 and May 31, 2021, respectively, represented 22% and 20% of total long-term debt outstanding as of each respective date. The increase in long-term unsecured debt of $432 million for the six months ended November 30, 2021 was primarily attributable to dealer medium-term notes issuance, as described below.

Medium-Term Notes

Medium-term notes represent unsecured obligations that may be issued through dealers in the capital markets or directly to our members.

On October 18, 2021, we issued $400 million aggregate principal amount of dealer medium-term notes at a fixed rate of 1.000%, due on October 18, 2024, and $350 million aggregate principal amount of dealer medium-term notes at a variable rate based on the Secured Overnight Financing Rate ("SOFR") plus 0.33%, due on October 18, 2024.

See "Note 7—Long-Term Debt" in our 2021 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. We had subordinated deferrable debt outstanding of $986 million as of November 30, 2021, unchanged from May 31, 2021. See "Note 8—Subordinated Deferrable Debt" in our 2021 Form 10-K for additional information on the terms and conditions, including maturity and call dates, of our subordinated deferrable debt outstanding.

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, we record derivative instruments at fair value as either a derivative asset or derivative liability on our consolidated balance sheets. We report derivative asset and liability amounts on a gross basis based on individual contracts, which does not take into consideration the effects of master netting agreements or collateral netting. Derivatives in a gain position are reported as derivative assets on our consolidated balance sheets, while derivatives in a loss position are reported as derivative liabilities. Accrued interest related to derivatives 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 recorded in earnings together with offsetting changes in the fair value of the hedged item and any related ineffectiveness. Changes in the fair value of derivatives designated as qualifying cash flow hedges are recorded as a component of other comprehensive income ("OCI"), to the extent that the hedge relationships are effective, and reclassified from accumulated other comprehensive income ("AOCI") to earnings using the effective interest method over the term of the forecasted transaction. Any ineffectiveness in the hedging relationship is recognized as a component of derivative gains (losses) in our consolidated statement of operations.

We generally do not designate interest rate swaps, which represent the substantial majority of our derivatives, for hedge accounting. Accordingly, changes in the fair value of interest rate swaps are reported in our consolidated statements of operations under derivative gains (losses). Net periodic cash settlements expense related to interest rate swaps are classified as an operating activity in our consolidated statements of cash flows.

We typically designate Treasury rate locks as cash flow hedges of forecasted debt issuances or repricings. Changes in the fair value of treasury locks designated as cash flow hedges are recorded as a component of OCI and reclassified from AOCI into interest expense when the forecasted transaction occurs using the effective interest method. Any ineffectiveness is recognized as a component of derivative gains (losses) in our consolidated statements of operations.

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, by derivative instrument type, the notional amount, the weighted-average rate paid and the weighted-average interest rate received for our interest rate swaps as of November 30, 2021 and May 31, 2021. For the substantial majority of interest rate swap agreements, a LIBOR index is currently used as the basis for determining variable interest payment amounts each period.

Table 9.1: Derivative Notional Amount and Weighted Average Rates

	November 30, 2021			May 31, 2021		
(Dollars in thousands)	Notional Amount	Weighted-Average Rate Paid	Weighted-Average Rate Received	Notional Amount	Weighted-Average Rate Paid	Weighted-Average Rate Received
Pay-fixed swaps	**$ 6,118,204**	**2.61 %**	**0.15 %**	$ 6,579,516	2.65 %	0.20 %
Receive-fixed swaps	**2,399,000**	**0.88**	**2.80**	2,399,000	0.92	2.80
Total interest rate swaps	**$ 8,517,204**	**2.12**	**0.90**	$ 8,978,516	2.19	0.89

Cash Flow Hedges

On July 20, 2021, we executed two treasury lock agreements with an aggregate notional amount of $250 million to lock in the underlying U.S. Treasury interest rate component of interest rate payments on anticipated debt issuances and repricings. The treasury locks, which were scheduled to mature on October 29, 2021, were designated and qualified as cash flow hedges. In October 2021, we borrowed $250 million under our Farmer Mac revolving purchase note agreement and terminated the treasury locks. Prior to this anticipated borrowing and the termination of the treasury locks, we recorded changes in the fair value of the treasury locks in AOCI. At termination, the treasury locks were in a gain position of $5 million, of which $4 million is being accreted from AOCI to interest expense over the term of the related Farmer Mac borrowings and the remainder was recognized in earnings. We did not have any derivatives designated as accounting hedges as of November 30, 2021 or May 31, 2021.

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, 2021 and May 31, 2021.

Table 9.2: Derivative Assets and Liabilities at Fair Value

	November 30, 2021		May 31, 2021	
(Dollars in thousands)	**Fair Value**	**Notional Amount**	**Fair Value**	**Notional Amount**
Derivative assets:				
Interest rate swaps	**$ 78,610**	**$ 2,816,570**	$ 121,259	$ 2,560,618
Total derivative assets	**$ 78,610**	**$ 2,816,570**	$ 121,259	$ 2,560,618
Derivative liabilities:				
Interest rate swaps	**$ 615,097**	**$ 5,700,634**	$ 584,989	$ 6,417,898
Total derivative liabilities	**$ 615,097**	**$ 5,700,634**	$ 584,989	$ 6,417,898

While 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, we report derivative asset and liability amounts on a gross basis by individual contract. The following table presents the gross fair value of derivative assets and liabilities reported on our consolidated balance sheets as of November 30, 2021 and May 31, 2021, and provides information on the impact of netting provisions under our master swap agreements and collateral pledged, if any.

Table 9.3: Derivative Gross and Net Amounts

	November 30, 2021					
				Gross Amount Not Offset in the Balance Sheet		
(Dollars in thousands)	**Gross Amount of Recognized Assets/ Liabilities**	**Gross Amount Offset in the Balance Sheet**	**Net Amount of Assets/ Liabilities Presented in the Balance Sheet**	**Financial Instruments**	**Cash Collateral Pledged**	**Net Amount**
Derivative assets:						
Interest rate swaps	**$ 78,610**	**$ —**	**$ 78,610**	**$ 78,610**	**$ —**	**$ —**
Derivative liabilities:						
Interest rate swaps	**615,097**	**—**	**615,097**	**78,610**	**—**	**536,487**

	May 31, 2021					
				Gross Amount Not Offset in the Balance Sheet		
(Dollars in thousands)	**Gross Amount of Recognized Assets/ Liabilities**	**Gross Amount Offset in the Balance Sheet**	**Net Amount of Assets/ Liabilities Presented in the Balance Sheet**	**Financial Instruments**	**Cash Collateral Pledged**	**Net Amount**
Derivative assets:						
Interest rate swaps	$ 121,259	$ —	$ 121,259	$ 121,259	$ —	$ —
Derivative liabilities:						
Interest rate swaps	584,989	—	584,989	121,259	—	463,730

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, 2021 and 2020. 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)

	Three Months Ended November 30,		Six Months Ended November 30,	
(Dollars in thousands)	**2021**	**2020**	**2021**	**2020**
Derivative gains (losses) attributable to:				
Derivative cash settlements interest expense	**$ (25,952)**	$ (29,800)	**$ (53,515)**	$ (56,772)
Derivative forward value gains (losses)	**72,038**	111,087	**(72,562)**	198,335
Derivative gains (losses)	**$ 46,086**	$ 81,287	**$ (126,077)**	$ 141,563

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.

On September 13, 2021, Fitch affirmed CFC's credit ratings and stable outlook. In the prior fiscal quarter, S&P revised its outlook on CFC to stable from negative, stating that the outlook revision mainly reflected its view that the risk of CFC experiencing substantial further losses stemming from the February 2021 polar vortex had diminished. On November 9, 2021, S&P issued a credit ratings report review of CFC in which S&P affirmed CFC's credit ratings and stable outlook. On December 13, 2021, S&P affirmed CFC's credit ratings and stable outlook under its revised criteria and updated methodology for rating financial institutions published on December 9, 2021. On December 16, 2021, Moody's affirmed CFC's credit ratings and stable outlook. Our senior unsecured credit ratings from Moody's, S&P and Fitch were A2, A- and A, respectively, as of November 30, 2021. Moody's, S&P and Fitch had our ratings on stable outlook as of November 30, 2021. Our credit ratings and outlook remain unchanged as of the date of this Report.

The following table displays the notional amounts of our derivative contracts with rating triggers as of November 30, 2021, and the payments that would be required if the contracts were terminated as of that date because of a downgrade of our unsecured credit ratings or the counterparty's unsecured credit ratings below A3/A-, below Baa1/BBB+, to or below Baa2/BBB, or to or below Ba2/BB+ by Moody's or S&P, respectively. In calculating the payment amounts that would be required upon termination of the derivative contracts, we 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 Amount	Payable Due from CFC	Receivable Due to CFC	Net Payable
Impact of rating downgrade trigger:				
Falls below A3/A-[(1)]	$ 38,205	$ (6,748)	$ —	$ (6,748)
Falls below Baa1/BBB+	5,636,404	(357,913)	—	(357,913)
Falls to or below Baa2/BBB [(2)]	398,870	(16,802)	—	(16,802)
Total	$ 6,073,479	$ (381,463)	$ —	$ (381,463)

(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 $223 million as of November 30, 2021. These swaps were in an unrealized loss position of $28 million as of November 30, 2021.

Our largest counterparty exposure, based on the outstanding notional amount, accounted for approximately 24% the total outstanding notional amount of derivatives as of both November 30, 2021 and May 31, 2021. 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 $400 million as of November 30, 2021.

NOTE 10—EQUITY

Total equity decreased $9 million to $1,391 million as of November 30, 2021, attributable primarily to the patronage capital retirement of $58 million authorized by the CFC Board of Directors in July 2021, partially offset by our reported net income of $45 million for the six months ended November 30, 2021.

Allocation of Earnings and Retirement of Patronage Capital

In May 2021, the CFC Board of Directors authorized the allocation of $1 million of net earnings for fiscal year 2021 to the cooperative educational fund. In July 2021, the CFC Board of Directors authorized the allocation of net earnings for fiscal year 2021 as follows: $90 million to members in the form of patronage capital and $102 million to the members' capital reserve. 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 2021, the CFC Board of Directors also authorized the retirement of allocated net earnings totaling $58 million, of which $45 million represented 50% of the patronage capital allocation for fiscal year 2021 and $13 million represented the portion of the allocation from net earnings for fiscal year 1996 that has been held for 25 years pursuant to the CFC Board of Directors policy. The authorized patronage capital retirement amount of $58 million was returned to members in cash in September 2021. The remaining portion of the amount allocated for fiscal year 2021 will be retained by CFC for 25 years under current guidelines adopted by the CFC Board of Directors in June 2009.

See "Note 11—Equity" in our 2021 Form 10-K for additional information on our policy for allocation and retirement of patronage capital.

Accumulated Other Comprehensive Income (Loss)

The following table presents, by component, changes in AOCI for the three and six months ended November 30, 2021 and 2020 and the balance of each component as of the end of each respective period.

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

	Three Months Ended November 30,					
	2021			2020		
(Dollars in thousands)	Unrealized Gains on Derivative Hedges[1]	Unrealized Losses on Defined Benefit Plans[2]	Total	Unrealized Gains on Derivative Hedges[1]	Unrealized Losses on Defined Benefit Plans[2]	Total
Beginning balance	**$ 2,037**	**$ (1,672)**	**$ 365**	$ 2,025	$ (3,852)	$ (1,827)
Changes in unrealized gains	**3,612**	**—**	**3,612**	—	—	—
Realized (gains) losses reclassified to earnings	**(143)**	**72**	**(71)**	(107)	188	81
Ending balance	**$ 5,506**	**$ (1,600)**	**$ 3,906**	$ 1,918	$ (3,664)	$ (1,746)

	Six Months Ended November 30,					
	2021			2020		
(Dollars in thousands)	Unrealized Gains on Derivative Hedges[1]	Unrealized Losses on Defined Benefit Plans[2]	Total	Unrealized Gains on Derivative Hedges[1]	Unrealized Losses on Defined Benefit Plans[2]	Total
Beginning balance	**$ 1,718**	**$ (1,743)**	**$ (25)**	$ 2,130	$ (4,040)	$ (1,910)
Changes in unrealized gains	**4,028**	**—**	**4,028**	—	—	—
Realized (gains) losses reclassified to earnings	**(240)**	**143**	**(97)**	(212)	376	164
Ending balance	**$ 5,506**	**$ (1,600)**	**$ 3,906**	$ 1,918	$ (3,664)	$ (1,746)

(1) Of the derivative gains reclassified to earnings, a portion is reclassified as a component of the derivative gains (losses) line item and the remainder is reclassified as a component of the interest expense line item 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 realized gains of $1 million attributable to derivative cash flow hedges from AOCI into earnings over the next 12 months.

NOTE 11—GUARANTEES

We guarantee certain contractual obligations of our members so they may obtain 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 system defaults on its obligation to pay debt service, then we are obligated to pay any required amounts under 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 system. In general, the member system is required to repay any amount advanced by us with interest, pursuant to the documents evidencing the member system's reimbursement obligation.

The following table displays the notional amount of our outstanding guarantee obligations, by guarantee type and by member class, as of November 30, 2021 and May 31, 2021.

Table 11.1: Guarantees Outstanding by Type and Member Class

(Dollars in thousands)	November 30, 2021	May 31, 2021
Guarantee type:		
Long-term tax-exempt bonds[1]	**$ 123,775**	$ 145,025
Letters of credit[2]	**377,738**	389,735
Other guarantees	**156,468**	154,320
Total	**$ 657,981**	$ 689,080
Member class:		
CFC:		
Distribution	**$ 271,941**	$ 251,023
Power supply	**354,180**	415,984
Statewide and associate[3]	**8,811**	5,523
CFC total	**634,932**	672,530
NCSC	**23,049**	16,550
Total	**$ 657,981**	$ 689,080

[1] Represents the outstanding principal amount of long-term variable-rate guaranteed bonds.
[2] Reflects our maximum potential exposure for letters of credit.
[3] Includes CFC guarantees to NCSC and RTFC members totaling $6 million and $3 million as of November 30, 2021 and May 31, 2021, respectively.

Long-term tax-exempt bonds of $124 million and $145 million as of November 30, 2021 and May 31, 2021, respectively, consist of adjustable or variable-rate bonds that may be converted to a fixed rate as specified in the applicable indenture for each bond offering. We are unable to determine the maximum amount of interest that we may be required to pay related to the remaining adjustable and variable-rate bonds. Many of these bonds have a call provision that allows us to call the bond in the event of a default, which would limit our exposure to future interest payments on these bonds. Our maximum potential exposure generally is secured by mortgage liens on the members' assets and future revenue. If a member's debt is accelerated because of a determination that the interest thereon is not tax-exempt, the member's obligation to reimburse us for any guarantee payments will be treated as a long-term loan. The maturities for long-term tax-exempt bonds and the related guarantees extend through calendar year 2037.

Of the outstanding letters of credit of $378 million and $390 million as of November 30, 2021 and May 31, 2021, respectively, $121 million and $104 million were secured at each respective date. 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, 2021. The maturities for the outstanding letters of credit as of November 30, 2021 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, 2021, we may be required to issue up to an additional $91 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, 2021. 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 $157 million and $154 million as of November 30, 2021 and May 31, 2021, respectively, of which $25 million was secured as of both November 30, 2021 and May 31, 2021. 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 $389 million and $415 million and represented 59% and 60% of total guarantees as of November 30, 2021 and May 31, 2021, respectively.

In addition to the guarantees described above, we were also the liquidity provider for $124 million of variable-rate tax-exempt bonds as of November 30, 2021, 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, 2021 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 $10 million as of both November 30, 2021 and May 31, 2021.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 and accounts for the substantial majority of our guarantee liability, totaled $10 million and $9 million as of November 30, 2021 and May 31, 2021, respectively. The remaining amount pertains to our contingent guarantee exposures.

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, 2021 and May 31, 2021. 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

	November 30, 2021		Fair Value Measurement Level		
(Dollars in thousands)	Carrying Value	Fair Value	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents	$ 172,742	$ 172,742	$ 172,742	$ —	$ —
Restricted cash	11,010	11,010	11,010	—	—
Equity securities, at fair value	37,505	37,505	37,505	—	—
Debt securities trading, at fair value	588,615	588,615	—	588,615	
Deferred compensation investments	7,595	7,595	7,595	—	—
Loans to members, net	28,860,735	30,768,917	—	—	30,768,917
Accrued interest receivable	108,381	108,381	—	108,381	—
Derivative assets	78,610	78,610	—	78,610	—
Total financial assets	$ 29,865,193	$ 31,773,375	$ 228,852	$ 775,606	$ 30,768,917
Liabilities:					
Short-term borrowings	$ 4,746,935	$ 4,747,001	$ —	$ 4,747,001	$ —
Long-term debt	20,804,379	22,255,483	—	12,449,548	9,805,935
Accrued interest payable	120,439	120,439	—	120,439	—
Guarantee liability	10,150	10,884	—	—	10,884
Derivative liabilities	615,097	615,097	—	615,097	—
Subordinated deferrable debt	986,415	1,054,992	266,200	788,792	—
Members' subordinated certificates	1,252,349	1,252,349	—	—	1,252,349
Total financial liabilities	$ 28,535,764	$ 30,056,245	$ 266,200	$ 18,720,877	$ 11,069,168

	May 31, 2021		Fair Value Measurement Level		
(Dollars in thousands)	Carrying Value	Fair Value	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents	$ 295,063	$ 295,063	$ 295,063	$ —	$ —
Restricted cash	8,298	8,298	8,298	—	—
Equity securities, at fair value	35,102	35,102	35,102	—	—
Debt securities trading, at fair value	576,175	576,175	—	576,175	—
Deferred compensation investments	7,222	7,222	7,222	—	—
Loans to members, net	28,341,429	29,967,692	—	—	29,967,692
Accrued interest receivable	107,856	107,856	—	107,856	—
Derivative assets	121,259	121,259	—	121,259	—
Total financial assets	$ 29,492,404	$ 31,118,667	$ 345,685	$ 805,290	$ 29,967,692
Liabilities:					
Short-term borrowings	$ 4,582,096	$ 4,582,329	$ —	$ 4,582,329	$ —
Long-term debt	20,603,123	21,799,736	—	12,476,073	9,323,663
Accrued interest payable	123,672	123,672	—	123,672	—
Guarantee liability	10,041	10,841	—	—	10,841
Derivative liabilities	584,989	584,989	—	584,989	—
Subordinated deferrable debt	986,315	1,062,748	265,200	797,548	—
Members' subordinated certificates	1,254,660	1,254,660	—	—	1,254,660
Total financial liabilities	$ 28,144,896	$ 29,418,975	$ 265,200	$ 18,564,611	$ 10,589,164

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 2021 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 into or out of Level 3 of the fair value hierarchy during the six months ended November 30, 2021 and 2020.

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, 2021 and May 31, 2021, and the classification of the valuation technique within the fair value hierarchy. We did not have any assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs during the three and six months ended November 30, 2021 and 2020.

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

	November 30, 2021			May 31, 2021		
(Dollars in thousands)	Level 1	Level 2	Total	Level 1	Level 2	Total
Assets:						
Equity securities, at fair value	**$ 37,505**	**$ —**	**$ 37,505**	$ 35,102	$ —	$ 35,102
Debt securities trading, at fair value	**—**	**588,615**	**588,615**	—	576,175	576,175
Deferred compensation investments	**7,595**	**—**	**7,595**	7,222	—	7,222
Derivative assets	**—**	**78,610**	**78,610**	—	121,259	121,259
Liabilities:						
Derivative liabilities	**$ —**	**$ 615,097**	**$ 615,097**	$ —	$ 584,989	$ 584,989

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

We may be required, from time to time, to measure certain assets and liabilities at fair value on a nonrecurring basis on our consolidated balance sheets. These assets and liabilities 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 had certain loans measured at fair value on a nonrecurring basis during the six months ended November 30, 2021, which were repaid in full in November 2021. We did not have any assets or liabilities measured at fair value on a nonrecurring basis during the six months ended November 30, 2020.

Collateral-Dependent Loans

Because our loans are classified as held for investment and carried at amortized cost, we generally do not record loans at fair value on a recurring basis. However, we periodically record nonrecurring fair value adjustments for nonperforming collateral-dependent loans through the allowance for credit losses and provision for credit losses. We had no nonperforming collateral-dependent loans outstanding as of November 30, 2021. We had nonperforming collateral-dependent loans outstanding to two affiliated RTFC telecommunications borrowers totaling $9 million as of May 31, 2021, which were paid off in November 2021. The collateral underlying these loans consisted primarily of U.S. Federal Communications

Commission ("FCC") wireless spectrum licenses. Our estimate of the fair value of these loans was $6 million as of May 31, 2021.

Significant Unobservable Level 3 Inputs

We employ various approaches and techniques to estimate the fair value of loans where we expect repayment to be provided solely by the continued operation or sale of the underlying collateral, including estimated cash flows from the collateral, valuations obtained from third-party specialists and comparable sales data. The technique depends on the nature of the collateral and the extent to which observable inputs are available. Our Credit Risk Management group reviews the valuation technique, including the use of any significant inputs that are not readily observable by market participants, to assess the appropriateness of the technique and the reasonableness of the assumptions involved. The estimated fair value of $6 million as of May 31, 2021 for the two affiliated RTFC nonperforming collateral-dependent loans totaling $9 million as of May 31, 2021, was derived primarily based on the lower end of limited publicly available sales data for the underlying FCC spectrum licenses collateral.

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.

All loans that require NCSC board approval also require CFC board approval. CFC is not a member of NCSC and does not elect directors to the NCSC board. If CFC becomes a member of NCSC, it would control the nomination process for one NCSC director. NCSC members elect directors to the NCSC board based on one vote for each member. NCSC is a Class C member of CFC. All loans that require RTFC board approval also require approval by CFC for funding under RTFC's credit facilities with CFC. CFC is not a member of RTFC and does not elect directors to the RTFC board. RTFC is a non-voting associate of CFC. RTFC members elect directors to the RTFC board based on one vote for each member.

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, 2021 and May 31, 2021.

Table 13.1: Consolidated Assets and Liabilities of Variable Interest Entities

(Dollars in thousands)	November 30, 2021	May 31, 2021
Assets:		
Loans outstanding	**$ 1,152,941**	$ 1,127,251
Other assets	**9,932**	11,343
Total assets	**$ 1,162,873**	$ 1,138,594
Liabilities:		
Total liabilities	**$ 30,898**	$ 30,187

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, 2021 and May 31, 2021.

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

(Dollars in thousands)	November 30, 2021	May 31, 2021
CFC credit commitments to NCSC and RTFC:		
Total CFC credit commitments	**$ 5,500,000**	$ 5,500,000
Outstanding commitments:		
Borrowings payable to CFC[1]	**1,130,018**	1,107,185
Credit enhancements:		
CFC third-party guarantees	**23,049**	16,550
Other credit enhancements	**7,578**	8,386
Total credit enhancements[2]	**30,627**	24,936
Total outstanding commitments	**1,160,645**	1,132,121
CFC credit commitments available[3]	**$ 4,339,355**	$ 4,367,879

(1) Intercompany borrowings payable by NCSC and RTFC 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.

Under a loan and security agreement with CFC, NCSC has access to a $1,500 million revolving line of credit and a $1,500 million revolving term loan from CFC, which mature in 2067. Under a loan and security agreement with CFC, RTFC has access to a $1,000 million revolving line of credit and a $1,500 million revolving term loan from CFC, which mature in 2067. 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 $31 million as of November 30, 2021. 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; however, we aggregate segment information for NCSC and RTFC into one reportable segment because neither entity meets the quantitative materiality threshold for separate reporting under the accounting guidance governing segment reporting.

Basis of Presentation

We present the results of our business segments on the basis in which management internally evaluates operating performance to establish short- and long-term performance goals, develop budgets and forecasts, identify potential trends, allocate resources and make compensation decisions. During the current quarter, we changed the presentation of our segment results to align more closely to the presentation of financial information reviewed regularly by our Chief Executive Officer, the chief operating decision maker, to assess performance and inform the decision-making process in managing our business operations. This presentation change excludes derivative forward value derivative gains and losses from the results of operations results for each segment and includes net periodic derivative cash settlement expense amounts as a component of interest expense, which represents the only difference between the accounting and reporting for our business segment results of operations and our consolidated total results of operations. We recast the presentation of our business segment results for the prior fiscal year period to align with the current period presentation.

Business Segment Reporting Methodology

The results of our business segments are intended to present the separate results for each of the legal entities included in our consolidated financial statements. As discussed in "Note 13—Variable Interest Entities," all of NCSC's and RTFC's funding is either provided by CFC or guaranteed by CFC, the terms and conditions of which are stipulated in a loan and security agreement and a guarantee agreement between CFC and each legal entity. Pursuant to the guarantee agreement, CFC unconditionally guarantees full indemnification to NCSC and RTFC for any credit losses. In addition, CFC manages the business operations of NCSC and RTFC under a management agreement that automatically renews on an annual basis unless the agreement is terminated by either party.

We report loans and interest and fees earned on loans based on the legal entity that holds the loans. CFC borrows from various sources to fund the operations of CFC, NCSC and RTFC, the cost of which is reflected in CFC's interest expense. NCSC and RTFC each borrow from CFC to fund loans to their members, the cost of which is reported as interest expense by each legal entity. CFC charges NCSC and RTFC a management fee, which CFC reports as a component of fee and other income. NCSC and RTFC report the management fee charged by CFC as a component of non-interest expense. CFC and NCSC use derivatives, primarily interest rate swaps, to manage interest rate risk. Because we generally do not elect to apply hedge accounting to our interest rate swaps, changes in the fair value of our interest rate swaps are recorded in earnings in our consolidated total results of operations. However, management excludes the impact of derivative forward value gains and losses and includes the net periodic derivative cash settlement interest expense amounts as a component of interest expense in reporting our segment results of operations.

Segment Results and Reconciliation

The following tables display segment results of operations for the three and six months ended November 30, 2021 and 2020, assets attributable to each segment as of November 30, 2021 and November 30, 2020 and a reconciliation of total segment amounts to our consolidated total amounts.

Table 14.1: Business Segment Information

	Three Months Ended November 30, 2021					
(Dollars in thousands)	CFC	NCSC and RTFC	Segments Total	Reclasses and Adjustments(1)	Intersegment Eliminations(2)	Consolidated Total
Results of operations:						
Interest income	$ 281,131	$ 10,973	$ 292,104	$ —	$ (8,952)	$ 283,152
Interest expense	(173,596)	(8,952)	(182,548)	—	8,952	(173,596)
Derivative cash settlements interest expense	(25,533)	(419)	(25,952)	25,952	—	—
Interest expense	(199,129)	(9,371)	(208,500)	25,952	8,952	(173,596)
Net interest income	82,002	1,602	83,604	25,952	—	109,556
Benefit for credit losses	3,400	3,063	6,463	—	(3,063)	3,400
Net interest income after benefit for credit losses	85,402	4,665	90,067	25,952	(3,063)	112,956
Non-interest income:						
Fee and other income	6,093	(1,812)	4,281	—	550	4,831
Derivative gains:						
Derivative cash settlements interest expense	—	—	—	(25,952)	—	(25,952)
Derivative forward value gains	—	—	—	72,038	—	72,038
Derivative gains	—	—	—	46,086	—	46,086
Investment securities losses	(4,344)	—	(4,344)	—	—	(4,344)
Total non-interest income	1,749	(1,812)	(63)	46,086	550	46,573
Non-interest expense:						
General and administrative expenses	(22,716)	(1,975)	(24,691)	—	1,596	(23,095)
Losses on early extinguishment of debt	(118)	—	(118)	—	—	(118)
Other non-interest expense	(313)	(917)	(1,230)	—	917	(313)
Total non-interest expense	(23,147)	(2,892)	(26,039)	—	2,513	(23,526)
Income (loss) before income taxes	64,004	(39)	63,965	72,038	—	136,003
Income tax provision	—	(274)	(274)	—	—	(274)
Net income (loss)	$ 64,004	$ (313)	$ 63,691	$ 72,038	$ —	$ 135,729

	Three Months Ended November 30, 2020					
(Dollars in thousands)	CFC	NCSC and RTFC	Segments Total	Reclasses and Adjustments[1]	Intersegment Eliminations[2]	Consolidated Total
Results of operations:						
Interest income	$ 274,473	$ 11,008	$ 285,481	$ —	$ (8,982)	$ 276,499
Interest expense	(174,422)	(8,982)	(183,404)	—	8,982	(174,422)
Derivative cash settlements interest expense	(29,370)	(430)	(29,800)	29,800	—	—
Interest expense	(203,792)	(9,412)	(213,204)	29,800	8,982	(174,422)
Net interest income	70,681	1,596	72,277	29,800	—	102,077
Benefit (provision) for credit losses	(1,638)	41	(1,597)	—	(41)	(1,638)
Net interest income after benefit (provision) for credit losses	69,043	1,637	70,680	29,800	(41)	100,439
Non-interest income:						
Fee and other income	7,513	686	8,199	—	(1,867)	6,332
Derivative gains:						
Derivative cash settlements interest expense	—	—	—	(29,800)	—	(29,800)
Derivative forward value gains	—	—	—	111,087	—	111,087
Derivative gains	—	—	—	81,287	—	81,287
Investment securities losses	(1,361)	—	(1,361)	—	—	(1,361)
Total non-interest income	6,152	686	6,838	81,287	(1,867)	86,258
Non-interest expense:						
General and administrative expenses	(23,750)	(1,978)	(25,728)	—	1,592	(24,136)
Losses on early extinguishment of debt	(1,455)	—	(1,455)	—	—	(1,455)
Other non-interest expense	(323)	(316)	(639)	—	316	(323)
Total non-interest expense	(25,528)	(2,294)	(27,822)	—	1,908	(25,914)
Income before income taxes	49,667	29	49,696	111,087	—	160,783
Income tax provision	—	(262)	(262)	—	—	(262)
Net income (loss)	$ 49,667	$ (233)	$ 49,434	$ 111,087	$ —	$ 160,521

	Six Months Ended November 30, 2021					
(Dollars in thousands)	CFC	NCSC and RTFC	Segments Total	Reclasses and Adjustments(1)	Intersegment Eliminations(2)	Consolidated Total
Results of operations:						
Interest income	$ 562,438	$ 21,426	$ 583,864	$ —	$ (17,444)	$ 566,420
Interest expense	(348,373)	(17,444)	(365,817)	—	17,444	(348,373)
Derivative cash settlements interest expense	(52,678)	(837)	(53,515)	53,515	—	—
Interest expense	(401,051)	(18,281)	(419,332)	53,515	17,444	(348,373)
Net interest income	161,387	3,145	164,532	53,515	—	218,047
Benefit (provision) for credit losses	(603)	2,857	2,254	—	(2,857)	(603)
Net interest income after benefit (provision) for credit losses	160,784	6,002	166,786	53,515	(2,857)	217,444
Non-interest income:						
Fee and other income	11,416	(928)	10,488	—	(1,716)	8,772
Derivative losses:						
Derivative cash settlements interest expense	—	—	—	(53,515)	—	(53,515)
Derivative forward value losses	—	—	—	(72,562)	—	(72,562)
Derivative losses	—	—	—	(126,077)	—	(126,077)
Investment securities losses	(6,569)	—	(6,569)	—	—	(6,569)
Total non-interest income	4,847	(928)	3,919	(126,077)	(1,716)	(123,874)
Non-interest expense:						
General and administrative expenses	(46,370)	(4,126)	(50,496)	—	3,191	(47,305)
Losses on early extinguishment of debt	(118)	—	(118)	—	—	(118)
Other non-interest expense	(569)	(1,382)	(1,951)	—	1,382	(569)
Total non-interest expense	(47,057)	(5,508)	(52,565)	—	4,573	(47,992)
Income (loss) before income taxes	118,574	(434)	118,140	(72,562)	—	45,578
Income tax provision	—	(181)	(181)	—	—	(181)
Net income (loss)	$ 118,574	$ (615)	$ 117,959	$ (72,562)	$ —	$ 45,397

	November 30, 2021					
	CFC	NCSC and RTFC	Segments Total	Reclasses and Adjustments(1)	Intersegment Eliminations(2)	Consolidated Total
Assets:						
Total loans outstanding	$28,911,891	$ 1,152,940	$30,064,831	$ —	$(1,130,017)	$28,934,814
Deferred loan origination costs	12,056	—	12,056	—	—	12,056
Loans to members	28,923,947	1,152,940	30,076,887	—	(1,130,017)	28,946,870
Less: Allowance for credit losses	(86,135)	(3,212)	(89,347)	—	3,212	(86,135)
Loans to members, net	28,837,812	1,149,728	29,987,540	—	(1,126,805)	28,860,735
Other assets	1,144,912	99,144	1,244,056	—	(89,212)	1,154,844
Total assets	$29,982,724	$ 1,248,872	$31,231,596	$ —	$(1,216,017)	$30,015,579

(Dollars in thousands)	Six Months Ended November 30, 2020 CFC	NCSC and RTFC	Segments Total	Reclasses and Adjustments[1]	Intersegment Eliminations[2]	Consolidated Total
Results of operations:						
Interest income	$ 552,069	$ 22,016	$ 574,085	$ —	$ (18,002)	$ 556,083
Interest expense	(354,398)	(18,002)	(372,400)	—	18,002	(354,398)
Derivative cash settlements interest expense	(55,933)	(839)	(56,772)	56,772	—	—
Interest expense	(410,331)	(18,841)	(429,172)	56,772	18,002	(354,398)
Net interest income	141,738	3,175	144,913	56,772	—	201,685
Benefit (provision) for credit losses	(1,964)	1,107	(857)	—	(1,107)	(1,964)
Net interest income after benefit (provision) for credit losses	139,774	4,282	144,056	56,772	(1,107)	199,721
Non-interest income:						
Fee and other income	12,288	170	12,458	—	(2,610)	9,848
Derivative gains:						
Derivative cash settlements interest expense	—	—	—	(56,772)	—	(56,772)
Derivative forward value gains	—	—	—	198,335	—	198,335
Derivative gains	—	—	—	141,563	—	141,563
Investment securities gains	3,298	—	3,298	—	—	3,298
Total non-interest income	15,586	170	15,756	141,563	(2,610)	154,709
Non-interest expense:						
General and administrative expenses	(45,950)	(4,035)	(49,985)	—	3,186	(46,799)
Losses on early extinguishment of debt	(1,455)	—	(1,455)	—	—	(1,455)
Other non-interest expense	(655)	(531)	(1,186)	—	531	(655)
Total non-interest expense	(48,060)	(4,566)	(52,626)	—	3,717	(48,909)
Income (loss) before income taxes	107,300	(114)	107,186	198,335	—	305,521
Income tax provision	—	(413)	(413)	—	—	(413)
Net income (loss)	$ 107,300	$ (527)	$ 106,773	$ 198,335	$ —	$ 305,108

	November 30, 2020 CFC	NCSC and RTFC	Segment Total	Reclasses and Adjustments[1]	Intersegment Eliminations[2]	Consolidated Total
Assets:						
Total loans outstanding	$27,027,010	$ 1,136,379	$28,163,389	$ —	$(1,112,226)	$27,051,163
Deferred loan origination costs	11,806	—	11,806	—	—	11,806
Loans to members	27,038,816	1,136,379	28,175,195	—	(1,112,226)	27,062,969
Less: Allowance for credit losses	(58,989)	(4,580)	(63,569)	—	4,580	(58,989)
Loans to members, net	26,979,827	1,131,799	28,111,626	—	(1,107,646)	27,003,980
Other assets	1,161,963	107,272	1,269,235	—	(97,113)	1,172,122
Total assets	$28,141,790	$ 1,239,071	$29,380,861	$ —	$(1,204,759)	$28,176,102

[1] Consists of (i) the reclassification of net periodic derivative settlement interest expense amounts, which we report as a component of interest expense for business segment reporting purposes but is included in derivatives gains (losses) in our consolidated total results and (ii) derivative forward value gains and losses, which we exclude from our business segment results but is included in derivatives gains (losses) in our consolidated total results.

[2] Consists of intercompany borrowings payable by NCSC and RTFC to CFC and the interest related to those borrowings, management fees paid by NCSC and RTFC to CFC and other intercompany amounts, all of which are eliminated in consolidation.

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, 2021 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 2021 Form 10-K, as filed with the SEC on July 30, 2021. We are not aware of any material changes in the risk factors identified in our 2021 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 2021 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 2021 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 S Bond Purchase Agreement between the Registrant, the Federal Financing Bank and Rural Utilities Service dated as of November 4, 2021 for up to $550,000,000.
10.2*	—	Series S Future Advance Bond from the Registrant to the Federal Financing Bank dated as of November 4, 2021 for up to $550,000,000 maturing on July 15, 2026.
10.3*	—	Eight Amended, Restated and Consolidated Pledge Agreement dated as of November 4, 2021 between the Registrant, the Rural Utilities Service and U.S. Bank National Association.
10.4*	—	Eight Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 4, 2021 between the Registrant and the Rural Utilities Service.
31.1*	—	Certification of the Chief Executive Officer required by Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	—	Certification of the Chief Financial Officer required by Section 302 of the Sarbanes-Oxley Act of 2002.
32.1†	—	Certification of the Chief Executive Officer required by Section 906 of the Sarbanes-Oxley Act of 2002.
32.2†	—	Certification of the Chief Financial Officer required by Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	—	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)

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* Filed herewith this Report.

† Furnished with this Report, which shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that Section.

SIGNATURES

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

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION

Date: January 14, 2022

By: /s/ YU LING WANG

Yu Ling Wang

Senior Vice President and Chief Financial Officer

By: /s/ ROBERT E. GEIER

Robert E. Geier

Vice President and Chief Accounting Officer

SERIES S BOND PURCHASE AGREEMENT

by and among

FEDERAL FINANCING BANK,

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION,

and

ADMINISTRATOR of the **RURAL UTILITIES SERVICE**

made as of

November 4, 2021

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SERIES S BOND PURCHASE AGREEMENT made as of November 4, 2021, 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 S 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 S Bond Purchase Agreement; and

WHEREAS, the Borrower is authorized to enter into this Series S 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 Eighth Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 4, 2021, made between RUS and the Borrower, as such agreement may be amended, supplemented, and restated from time to time in accordance with its terms.

"Bond Identifier" shall mean the particular sequence of letters and numbers assigned by FFB to the Bond in the Principal Instruments acceptance notice relating to the Bond delivered by FFB in accordance with section 5.1 of this Agreement.

"Borrower Instruments" shall have the meaning specified in section 3.2.1 of this Agreement.

"Business Day" shall mean any day on which FFB and the Federal Reserve Bank of New York are both open for business.

"Certificate Specifying Authorized Borrower Officials" shall mean a certificate of the Borrower specifying the names and titles of those officials of the Borrower who are authorized to execute and deliver from time to time Advance Requests on behalf of the Borrower, and containing the original signature of each of those officials, substantially in the form of the Certificate Specifying Authorized Borrower Officials attached as Exhibit C to this Agreement.

"Certificate Specifying Authorized RUS Officials" shall mean a certificate specifying the names and titles of those officials of RUS who are authorized to execute and deliver Advance Request Approval Notices from time to time on behalf of RUS and setting out the original signature of each of those authorized officials, and specifying the name and title of those officials of RUS who are authorized to confirm telephonically the authenticity of the Advance Request Approval Notices from time to time on behalf of RUS and setting out the telephone number of each of those authorized officials, in the form of the Certificate Specifying Authorized RUS Officials attached as Exhibit D to this Agreement.

"FFB Act" shall mean the Federal Financing Bank Act of 1973 (Pub. L. No. 93-224, 87 Stat. 937, codified at 12 U.S.C. § 2281 et seq.), as amended.

"FFB Financing Options Fee" shall mean the fee, expressed in terms of a basis point increment in the basic interest rate established for an Advance, payable by the Borrower to the Holder if the Borrower elects to have a Fixed Premium Prepayment/Refinancing Privilege apply to such Advance, as described in section 11.3 of this Agreement.

"First Call Date" shall have the meaning specified in section 11.3.2(a) of this Agreement.

"Fixed Premium Prepayment/Refinancing Privilege" shall have the meaning specified in section 11.3.1 of this Agreement.

"Governmental Authority" shall mean any federal, state, county, municipal, or regional authority, or any other entity of a similar nature, exercising any executive, legislative, judicial, regulatory, or administrative function of government.

"Guarantee Authority" shall mean section 313A of the Rural Electrification Act of 1936, as amended (codified at 7 U.S.C. § 940c-1).

"Holder" shall mean FFB, for so long as it shall be the holder of the Bond, and any successor or assignee of FFB, for so long as such successor or assignee shall be the holder of the Bond.

"Loan Commitment Amount" shall mean $550,000,000.00.

"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 Eighth Amended, Restated and Consolidated Pledge Agreement dated as of November 4, 2021, 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 S Bond Purchase Agreement between FFB, RUS, and the Borrower.

"Uncontrollable Cause" shall mean, for FFB, an unforeseeable cause beyond the control and without the fault of FFB, being: act of God, fire, flood, severe weather, epidemic, quarantine restriction, explosion, sabotage, act of war, act of terrorism, riot, civil commotion, lapse of the statutory authority of the United States Department of the Treasury to raise cash through the issuance of Treasury debt instruments, disruption or failure of the Treasury Financial Communications System, closure of the Federal Government, or an unforeseen or unscheduled closure or evacuation of the FFB offices; and shall mean, for RUS, an unforeseeable cause beyond the control and without the fault of RUS, being: act of God, fire, flood, severe weather, epidemic, quarantine restriction, explosion, sabotage, act of war, act of terrorism, riot, civil commotion, closure of the Federal Government, or an unforeseen or unscheduled closure or evacuation of the RUS offices.

Section 1.2 Rules of Interpretation.

Unless the context shall otherwise indicate, the terms defined in section 1.1 of this Agreement shall include the plural as well as the singular and the singular as well as the plural. The words "herein," "hereof," and "hereto," and words of similar import, refer to this Agreement as a whole.

ARTICLE 2

FFB COMMITMENT TO PURCHASE THE BOND

Subject to the terms and conditions of this Agreement, FFB agrees to purchase the Bond that is offered by the Borrower to FFB for purchase under this Agreement.

ARTICLE 3

COMMITMENT CONDITIONS

FFB shall be under no obligation to purchase the Bond under this Agreement unless and until each of the conditions specified in this article 3 has been satisfied.

Section 3.1 Commitment Amount Limit.

The maximum principal amount of the Bond that is offered for purchase shall not exceed the Loan Commitment Amount.

Section 3.2 Borrower Instruments.

3.2.1 Borrower Instruments. FFB shall have received from the Borrower the following instruments (such instruments being, collectively, the "Borrower Instruments"):

(a) an original counterpart of this Agreement, duly executed by the Borrower; and

(b) the original Bond, duly executed by the Borrower.

3.2.2 Opinion of Borrower's Counsel re: Borrower Instruments. FFB shall have received from the Borrower an Opinion of Borrower's Counsel re: Borrower Instruments.

3.2.3 Certificate Specifying Authorized Borrower Officials. FFB shall have received from the Borrower a completed and signed Certificate Specifying Authorized Borrower Officials.

Section 3.3 RUS Instruments.

3.3.1 RUS Instruments. FFB shall have received from RUS the following instruments (such instruments being, collectively, the "RUS Instruments"):

(a) an original counterpart of this Agreement, duly executed by RUS;

(b) the original RUS Guarantee relating to the Bond, duly executed by RUS; and

(c) an original RUS Certificate relating to the RUS Guarantee and other matters, duly executed by RUS.

3.3.2 Opinion of RUS's Counsel re: RUS Guarantee. FFB shall have received a copy of the Opinion of RUS's Counsel re: RUS Guarantee.

3.3.3 Certificate Specifying Authorized RUS Officials. FFB shall have received from RUS a completed and signed Certificate Specifying Authorized RUS Officials.

ARTICLE 4

OFFER OF THE BOND FOR PURCHASE

The Bond that is to be offered to FFB for purchase under this Agreement shall be offered in accordance with the procedures described in this article 4.

Section 4.1 Delivery of Borrower Instruments to RUS.

The Borrower shall deliver to RUS, for redelivery to FFB, the following:

(a) all of the Borrower Instruments, each duly executed by the Borrower;

(b) an Opinion of Borrower's Counsel re: Borrower Instruments; and

(c) a completed and signed Certificate Specifying Authorized Borrower Officials.

Section 4.2 Delivery of Principal Instruments by RUS to FFB.

RUS shall deliver to FFB all of the following instruments (collectively being the "Principal Instruments":

(a) all of the instruments described in section 4.1 of this Agreement;

(b) all of the RUS Instruments, each duly executed by RUS;

(c) a copy of the Opinion of RUS's Counsel re: RUS Guarantee; and

(d) a completed and signed Certificate Specifying Authorized RUS Officials.

ARTICLE 5

PURCHASE OF THE BOND BY FFB

Section 5.1 Acceptance or Rejection of Principal Instruments.

Within 5 Business Days after delivery to FFB of the Principal Instruments relating to the Bond that is offered for purchase under this Agreement, FFB shall deliver by facsimile transmission (fax) to RUS one of the following:

(a) an acceptance notice, which notice shall:

(1) state that the Principal Instruments meet the terms and conditions detailed in article 3 of this Agreement, or are otherwise acceptable to FFB; and

(2) assign a Bond Identifier to the Bond for use by the Borrower and RUS in all communications to FFB making reference to the Bond; or

(b) a rejection notice, which notice shall state that one or more of the Principal Instruments does not meet the terms and conditions of this Agreement and specify how such instrument or instruments does not meet the terms and conditions of this Agreement.

Section 5.2 Purchase.

FFB shall not be deemed to have accepted the Bond offered for purchase under this Agreement until such time as FFB shall have delivered an acceptance notice accepting the Principal Instruments relating to the Bond; provided, however, that in the event that FFB shall make an Advance under the Bond, then FFB shall be deemed to have accepted the Bond offered for purchase.

ARTICLE 6

LOST, STOLEN, DESTROYED, OR MUTILATED BOND

Section 6.1 <u>Borrower's Agreement</u>.

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 <u>RUS's Agreement</u>.

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 <u>FFB's Agreement</u>.

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 re-determined for such Advance and the re-determined interest rate.

Section 7.8 Borrower's Agreement.

The Borrower hereby agrees that each Advance made by FFB in accordance with an RUS-approved Advance Request delivered to FFB shall reduce, by the amount of the respective Advance made, FFB's remaining commitment in section 7.1 of this Agreement to make Advances under the Bond.

ARTICLE 8

REPRESENTATIONS AND WARRANTIES BY THE BORROWER

The Borrower makes to FFB each of the representations and warranties made by the Borrower to RUS in paragraphs (a), (b), (c), (d), (e), (f), (g), and (j) of section 8.2 of the Bond Guarantee Agreement, and each of those representations and warranties of the Borrower are incorporated herein by reference as if set out in full herein.

ARTICLE 9

BILLING BY FFB

Section 9.1 Billing Statements to the Borrower and RUS.

After making each Advance, FFB shall prepare a billing statement detailing the amounts owed on the respective Advance and when such amounts are due. FFB shall deliver, by facsimile transmission, each such billing statement to the Borrower and RUS.

Section 9.2 Failure to Deliver or Receive Billing Statements No Release.

Failure on the part of FFB to deliver any billing statement or failure on the part of the Borrower or RUS to receive any billing statement shall not, however, relieve the Borrower of any of its payment obligations under the Bond or this Agreement or relieve RUS from any of its payment obligations under the RUS Guarantee or this Agreement.

Section 9.3 FFB Billing Determinations Conclusive.

9.3.1 Acknowledgment and Consent. The Borrower and RUS each acknowledge that FFB has described to it the rounding methodology employed by FFB in calculating the amount of accrued interest owed at any time on the Bond, and the Borrower and RUS each consent to this methodology.

9.3.2 Agreement. The Borrower and RUS each agree that any and all determinations made by FFB shall be conclusive and binding upon the Borrower and RUS with respect to the amount of accrued interest owed on the Bond determined using this rounding methodology.

ARTICLE 10

PAYMENTS TO FFB AND RUS

Section 10.1 Manner and Timing of Payment.

Each amount that becomes due and owing on the Bond purchased under this Agreement shall be paid when and as due, as provided in the Bond.

Section 10.2 Application of Payments.

10.2.1 Priority of Payments. Each payment made on the Bond shall be applied, first, to the payment of Late Charges (if any) payable under paragraphs 11 and 18 of the Bond, then to the payment of premiums (if any) payable under paragraphs 16 and 17 of the Bond, then to the payment of unpaid accrued interest, then on account of outstanding principal, and then to the payment of the fee payable under paragraph 9 of the Bond.

10.2.2 Agreement between FFB and RUS. RUS agrees to transfer to FFB payments received by RUS under the Bond in such amounts as may be necessary to conform with the priority of payment requirements contained in section 10.2.1 of this Agreement.

ARTICLE 11

BORROWER'S PRIVILEGES TO PREPAY OR REFINANCE ADVANCES

Section 11.1 Automatic Application or Required Election.

The prepayment/refinancing privilege described in section 11.2 of this Agreement shall apply automatically to each Advance that has a Maturity Date that will occur before the fifth anniversary of the Requested Advance Date specified in the respective Advance Request. With respect to each Advance for which the Borrower has selected a Maturity Date that will occur on or after the fifth anniversary of the Requested Advance Date specified in the respective Advance Request, the Borrower must elect, at the time of requesting the respective Advance, the particular prepayment/refinancing privilege that is to apply to such Advance from between the options described in sections 11.2 and 11.3 of this Agreement.

Section 11.2 "Market Value Prepayment/Refinancing Privilege".

If the prepayment/refinancing privilege described in this section 11.2 applies to an Advance (such privilege being the "Market Value Prepayment/Refinancing Privilege"), the Borrower shall have the privilege to prepay such Advance (as provided in paragraph 16 of the Bond) or to refinance such Advance (as provided in paragraph 17 of the Bond) at a prepayment or refinancing price that will include, in either case, a premium (or discount credit) equal to the difference between:

(a) the price for such Advance that would, if such Advance (including all unpaid interest accrued thereon through the date of prepayment or refinancing, as the case may be) were purchased by a third party and held to the "Maturity Date" applicable to the Advance, produce a yield to the third-party purchaser for the period from the date of purchase to such Maturity Date substantially equal to the interest rate that would be set on a loan from the Secretary of the Treasury to FFB to purchase an obligation having a payment schedule identical to the payment schedule of such Advance for the period from the date of prepayment or refinancing, as the case may be, to such Maturity Date; and

(b) the sum of:

(1) the outstanding principal amount of such Advance on the date of prepayment or refinancing, as the case may be; and

(2) all unpaid interest accrued on such Advance through the date of prepayment or refinancing, as the case may be,

(the difference between the price described in paragraph (a) of this section 11.2 and the sum of the amounts described in paragraph (b) of this section 11.2 being the "Market Value Premium (or Discount)"; if the price described in paragraph (a) is greater than the sum of the amounts described in paragraph (b), that difference is the premium; if the price described in paragraph (a) is less than the sum of the amounts described in paragraph (b), that difference is the discount credit). The price described in paragraph (a) of this section 11.2 shall be calculated by the United States Department of the Treasury as of the close of business on the second Business Day before the date of prepayment or refinancing, as the case may be, using standard calculation methods of the United States Department of the Treasury. FFB shall provide the Borrower and RUS with written notice of the price described in paragraph (a) of this section 11.2 promptly upon completing the calculation.

Section 11.3 "Fixed Premium Prepayment/Refinancing Privilege".

11.3.1 Required Election and Selection. If the prepayment/refinancing privilege described in this section 11.3 applies to such Advance (such privilege being the "Fixed Premium Prepayment/ Refinancing Privilege"), the Borrower shall have the privilege to prepay such Advance (as provided in paragraph 16 of the Bond) or to refinance such Advance (as provided in paragraph 17 of the Bond) at a prepayment or refinancing price that will include, in either case, a fixed premium determined by FFB at the time of such prepayment or refinancing, based on both the no-call period election described in section 11.3.2 of this Agreement and the premium selection described in section 11.3.3 of this Agreement made by the Borrower at the time of requesting such Advance.

11.3.2 "No-Call Period Election". First, the Borrower must elect whether or not the Fixed Premium Prepayment/ Refinancing Privilege that is to apply to the respective Advance shall include a 5-year period during which such Advance shall not be eligible for any prepayment or refinancing (such time period being a "No-Call Period"). The options are:

(a) "yes" -- the Borrower elects to have the Fixed Premium Prepayment/Refinancing Privilege include a 5 year No Call Period, i.e., the Borrower shall have the privilege to prepay the respective Advance (as provided in paragraph 16 of the Bond) or to refinance such Advance (as provided in paragraph 17 of the Bond) on or after (but not before):

(1) the fifth anniversary of the Requested Advance Date for such Advance (if such fifth anniversary date is a Payment Date); or

(2) the first Payment Date to occur after the fifth anniversary of the Requested Advance Date for such Advance (if such fifth anniversary date is not a Payment Date),

(in either case, such date being the "First Call Date" for such Advance); or

(b) "no" -- the Borrower elects to have the Fixed Premium Prepayment/Refinancing Privilege not include a 5-year No-Call Period, i.e., the Borrower shall have the privilege to prepay the respective Advance (as provided in paragraph 16 of the Bond) or to refinance such Advance (as provided in paragraph 17 of the Bond) on any Business Day.

11.3.3 "Premium Selection". Second, the Borrower must select the particular fixed premium that will be required in connection with any prepayment or refinancing of the respective Advance. The options are:

(a) "10 percent premium declining over 10 years" the price for any prepayment or refinancing of the respective Advance shall include a premium equal to 10 percent of the amount of principal being prepaid or refinanced, as the case may be, multiplied by a fraction:

(1) the numerator of which is the number of Payment Dates that occur between:

(A) in the case of a prepayment, the date of prepayment (if such date is a Payment Date) or the Payment Date immediately preceding the date of prepayment (if the date of prepayment is not a Payment Date), and, in the case of a refinancing, the date of refinancing, which date, in either case, shall be included in computing the number of Payment Dates; and

(B) the tenth anniversary of the applicable First Call Date (if the Borrower elected to have the prepayment/refinancing privilege include a 5-year No-Call Period) or the tenth anniversary of the Requested Advance Date (if the Borrower elected to have the prepayment/refinancing privilege not include a 5 year No-Call Period), which date, in either case, shall be excluded in computing the number of Payment Dates; and

(2) the denominator of which is 40,

and no premium on or after the tenth anniversary of the applicable First Call Date (if the Borrower elected to have the prepayment/refinancing privilege include a 5 year No-Call Period) or the tenth anniversary of the Requested Advance Date (if the Borrower elected to have the prepayment/refinancing privilege not include a 5 year No-Call Period);

(b) "<u>5 percent premium declining over 5 years</u>" -- the price for any prepayment or refinancing of the respective Advance shall include a premium equal to 5 percent of the amount of principal being prepaid or refinanced, as the case may be, multiplied by a fraction:

(1) the numerator of which is the number of Payment Dates that occur between:

(A) in the case of a prepayment, the date of prepayment (if such date is a Payment Date) or the Payment Date immediately preceding the date of prepayment (if the date of prepayment is not a Payment Date), and, in the case of a refinancing, the date of refinancing, which date, in either case, shall be included in computing the number of Payment Dates; and

(B) the fifth anniversary of the applicable First Call Date (if the Borrower elected to have the prepayment/refinancing privilege include a 5-year No-Call Period) or the fifth anniversary of the Requested

Advance Date (if the Borrower elected to have the prepayment/refinancing privilege not include a 5-year No-Call Period), which date, in either case, shall be excluded in computing the number of Payment Dates; and

(2) the denominator of which is 20,

and no premium on or after the fifth anniversary of the applicable First Call Date (if the Borrower elected to have the prepayment/refinancing privilege include a 5 year No-Call Period) or the fifth anniversary of the Requested Advance Date (if the Borrower elected to have the prepayment/refinancing privilege not include a 5 year No-Call Period); or

(c) "par" -- the price for any prepayment or refinancing of the respective Advance shall include no premium.

11.3.4 Standard for Calculating FFB Financing Options Fee for Fixed-Premium Prepayment/ Refinancing Privilege. The fee assessed by FFB and payable by the Borrower to have the Fixed-Premium Prepayment/Refinancing Privilege described in this section 11.3 to apply to any Advance (such fee being an "FFB Financing Options Fee") shall be established on the basis of the determination made by FFB described in paragraph 6(d) of the Bond.

11.3.5 Calculation and Notification of FFB Financing Options Fee for Fixed-Premium Prepayment/Refinancing Privilege. FFB shall make the determination described in section 11.3.4 of this Agreement for each Advance to which the Borrower has elected to have the Fixed-Premium Prepayment/Refinancing Privilege apply, at the time of the establishment of the particular basic interest rate that is to apply to the respective Advance. After making such determination for each Advance, FFB shall notify the Borrower and RUS of the particular FFB Financing Options Fee (expressed in terms of a basis point increment) that is assessed by FFB and payable by such Borrower for such Fixed-Premium Prepayment/Refinancing Privilege in the particular interest rate confirmation notice relating to such Advance to be delivered by FFB in accordance with section 7.7 of this Agreement.

Section 11.4 New Notices and Billing Statements After Refinancings.

In the event of a refinancing of any Advance, FFB shall provide the Borrower and RUS with a new interest rate confirmation notice and a new billing statement reflecting the new interest rate applicable to such Advance.

ARTICLE 12

BOND SERVICING AND RELATED DUTIES AND RIGHTS

Section 12.1 Custody of Bond.

Subject to section 15.4 of this Agreement, RUS shall have custody, as agent for FFB, of the original Bond that has been purchased by FFB under this Agreement until all amounts that are owed under the Bond have been paid in full or until such time as actual possession of the original Bond has been requested by FFB. If FFB requests RUS for actual possession of the original Bond, RUS shall promptly deliver the original Bond to FFB.

Section 12.2 RUS Duties as Bond Servicer and Guarantor.

12.2.1 Bond Servicing To Be Performed by RUS. Bond servicing shall be performed by RUS, as agent for FFB, for so long as FFB shall be the Holder of the Bond. Payment by FFB for RUS's servicing of the Bond shall be made in accordance with section 12.3 hereof.

12.2.2 Bond Servicing Duties. As a part of servicing the Bond, RUS shall:

(a) serve as principal point of contact for the Borrower with respect to any questions that the Borrower may have about its borrowings from FFB;

(b) hold, as agent for FFB, the original Bond in accordance with the terms of section 12.1 hereof;

(c) prepare and deliver to the Borrower billing statements, which billing statements shall reflect the terms of the billing statements prepared by FFB and delivered to RUS showing amounts owed with respect to each Advance made under the Bond;

(d) collect, as agent for FFB, all amounts paid by the Borrower under the Bond; and

(e) turn over to FFB all amounts collected under clause (d) of this section 12.2.2 when and as due under the Bond.

Section 12.3 Bond Servicing Fee.

RUS shall be compensated for performing the bond servicing described in this article 12 by deducting from the fee assessed by FFB under paragraph 9 of the Bond and collected by RUS an amount equal to the cost to RUS, as determined by RUS, of performing the bond servicing, provided, however, that the cost to RUS of performing bond servicing for any time period shall not exceed the fee assessed by FFB under paragraph 9 of the Bond for the same time period.

Section 12.4 Liability and Rights of RUS as Guarantor.

12.4.1 Liability as Guarantor. If the Bond is in payment default, RUS shall be liable to FFB in accordance with the terms of the RUS Guarantee, without regard to the sufficiency of the security or the remedies RUS may enforce against the Borrower.

12.4.2 Rights as Guarantor. In consideration of the RUS Guarantee, RUS shall have the sole authority (vis-a-vis FFB), if the Bond is in payment default, in respect of acceleration of the Bond, the exercise of other available remedies, and the disposition of sums or property recovered.

Section 12.5 Bond Payments Made by RUS.

12.5.1 General. RUS and FFB understand and agree that RUS, in its combined capacity as both bond servicer and guarantor of the Bond, shall pay to FFB all amounts due and owing under the Bond, when and as those amounts are due and payable under the terms of the Bond.

(a) Bond Servicing Payments. As bond servicer, RUS shall make payments by turning over to FFB, when and as due under the Bond, all amounts that have been collected by RUS under section 12.2.2(d) of this Agreement.

(b) Bond Guarantee Payments. As guarantor, RUS shall pay to FFB, when and as due under the Bond, the difference, if any, between the amounts that are owed to FFB under the terms of the Bond and the amounts that have been collected under section 12.2.2(d) of this Agreement.

12.5.2 RUS Payments To Be Made by Book Transfer. RUS shall make each payment under section 12.5.1 of this Agreement by internal transfer of funds on the books of the United States Department of the Treasury from the account of RUS to the account of FFB specified by FFB from time to time.

12.5.3 Late Charges. Subject to section 12.5.4 of this Agreement, in the event that RUS shall fail to make any payment under section 12.5.1 of this Agreement when and as that payment by RUS to FFB is due (any such amount being then an "Overdue Amount"), the amount payable shall be that Overdue Amount with interest thereon (such interest being the "Late Charge"). The Late Charge shall accrue from the scheduled date of payment for the Overdue Amount (taking into account any Business Day adjustments under the Bond) to the actual date on which payment is made. The Late Charge applicable to RUS shall be calculated in the same manner as Late Charges applicable to the Borrower are calculated under the Bond.

12.5.4 Uncontrollable Cause. In the event that RUS is prevented by an Uncontrollable Cause from making any payment under section 12.5.1 of this Agreement at the time or in the manner as RUS is required to make that payment, then RUS shall make that payment as soon as the respective Uncontrollable Cause ceases to prevent RUS from making that payment. The amount that is then due and owing that is not paid due to an Uncontrollable Cause for RUS shall bear interest at the 91-day loan rate then established by FFB based on a determination made by the Secretary of the Treasury pursuant to section 6(b) of the FFB Act, such rate being subject to re-determination at 91-day intervals if the amount due and owing is not paid.

12.5.5 No Modification of Times for Payment. Nothing in section 12.5.3 or section 12.5.4 of this Agreement shall be construed as permitting or implying that RUS may, without the prior written consent of

FFB, modify, extend, alter, or affect in any manner whatsoever (except as explicitly provided herein) the right of FFB to receive any and all payments on account of the Bond when and as due under the Bond.

12.5.6 Bond Assignment upon Payment in Full. Upon payment by RUS to FFB of all amounts required to be paid by RUS to FFB under section 12.5.1 of this Agreement with respect to the Bond , FFB shall assign and transfer to RUS all rights held by FFB in that Bond.

ARTICLE 13

AGREEMENTS AND OTHER RIGHTS OF RUS

Section 13.1 Delivery of Replacement Certificates Specifying Authorized RUS Officials.

13.1.1 Annual Replacement Certificates. Promptly after the commencement of each fiscal year, RUS shall deliver to FFB a Certificate Specifying Authorized RUS Officials, updated as appropriate, in replacement of the original such certificate delivered pursuant to section 4.2(d) hereof.

13.1.2 Replacement Certificates within any Fiscal Year. RUS may at any time within any fiscal year deliver to FFB a revised Certificate Specifying Authorized RUS Officials, updated as appropriate, in replacement of the annual certificate delivered pursuant to section 13.1.1 hereof.

Section 13.2 Certain Agreements of RUS and FFB.

13.2.1 Agent for Compliance Purposes. In the event that FFB shall become subject to any duties under any applicable law or regulation solely because of its providing or having provided financing under the Bond, RUS shall serve as agent for FFB to the fullest extent permitted under that law or regulation in connection with satisfying the requirements of that law or regulation.

13.2.2 RUS's Agreement Regarding Its Appointment as Agent for FFB. Recognizing the legitimate needs of FFB to ensure that RUS, as compliance agent for FFB, has performed all duties to which FFB becomes subject under any applicable law or regulation solely because of providing or having provided financing under the Bond, and with RUS and

FFB expressing their intent to cooperate in connection with the exchange of information related thereto, RUS agrees:

(a) to deliver to representatives of FFB or its designate, when requested to do so by FFB or its designate, actual possession of the original of any certificate, report, document, or paper collected or prepared by RUS, as compliance agent for FFB; or

(b) at the option of FFB, to permit representatives of FFB or its designate, during reasonable business hours, to have access to, and to inspect and make copies of, any and all certificates, reports, documents, or papers collected or prepared by RUS, as compliance agent for FFB.

13.2.3 Litigation Cooperation. When requested to do so by FFB, RUS shall cooperate with FFB in the prosecution or defense of any litigation that FFB may institute against any Person other than RUS or to which FFB is named as a party, as the case may be, arising out of FFB providing or having provided financing under the Bond.

Section 13.3 Reimbursement.

13.3.1 RUS's Agreement to Reimburse. To the extent permitted by applicable law and subject to the availability of funds, RUS agrees to reimburse FFB (but not any successor, assignee or transferee of FFB) for any and all liabilities, losses, costs, or expenses of any nature that may be imposed upon, incurred by, or asserted against FFB by any Person other than RUS in any way relating to or arising out of FFB providing or having provided financing under the Bond, but specifically excluding any liability, loss, cost or expense relating to or arising out of any sale, assignment, or other transfer by FFB, pursuant to section 15.4 hereof, of all or any part of the Bond.

13.3.2 RUS's Agreement to Seek Appropriations. In the event that no funds are available to RUS at the time that RUS needs funds to reimburse FFB as contemplated by section 13.3.1 hereof, RUS agrees that it will diligently seek to obtain additional appropriations for that purpose.

13.3.3 FFB's Agreement to Deliver Notice. Solely for the purpose of assisting RUS in mitigating the extent of any reimbursement contemplated by section 13.3.1 hereof, FFB agrees that it will deliver notice to RUS of any and all liabilities, losses, costs, or expenses imposed upon, incurred by, or asserted against FFB promptly after FFB has actual knowledge of the imposition, incurrence, or assertion of such liability, loss, cost, or expense.

Section 13.4 Effect of RUS's Nonperformance.

In the event that RUS shall fail to fulfill any of its agreements in this article 13, FFB shall nevertheless continue to make Advances under the Bond before the date of the respective failure.

Section 13.5 Right of RUS to Purchase Advances and Bonds.

13.5.1 RUS's Right. Notwithstanding the provisions of the Bond, RUS may purchase from FFB all or any portion of any Advance that has been made under the Bond, or may purchase from FFB the Bond in its entirety, in either case in the same manner, at the same price, and subject to the same limitations as shall be applicable, under the terms of the Bond, to a prepayment by the Borrower of all or any portion of any Advance that has been made under the Bond, or a prepayment by the Borrower of the Bond in its entirety, as the case may be.

13.5.2 Borrower's Acknowledgement of RUS's Right. Notwithstanding the provisions of the Bond, the Borrower acknowledges that RUS may purchase from FFB all or any portion of any Advance that has been made under the Bond, or may purchase from FFB the Bond in its entirety, in the same manner, at the same price, and subject to the same limitations as shall be applicable, under the terms of the Bond, to a prepayment by the Borrower of all or any portion of any Advance made under the Bond, or a prepayment by the Borrower of the Bond in its entirety, as the case may be.

ARTICLE 14

EFFECTIVE DATE, TERM, SURVIVAL

Section 14.1 Effective Date.

This Agreement shall be effective as of the date first above written.

Section 14.2 Term of Commitment to Make Advances.

The obligation of FFB under this Agreement to make Advances under the Bond issued by the Borrower shall expire on the "Last Day for an Advance" specified in the Bond.

Section 14.3 Survival.

14.3.1 Representations, Warranties, and Certifications. All representations, warranties, and certifications made by the Borrower in this Agreement, or in any agreement, instrument, or certificate delivered pursuant hereto, shall survive the execution and delivery of this Agreement, the purchasing of the Bond hereunder, and the making of Advances thereunder.

14.3.2 Remainder of Agreement. Notwithstanding the occurrence and passage of the Last Day for an Advance, the remainder of this Agreement shall remain in full force and effect until all amounts owed under this Agreement and the Bond purchased by FFB under this Agreement have been paid in full.

ARTICLE 15

MISCELLANEOUS

Section 15.1 Notices.

15.1.1 Addresses of the Parties. All notices and other communications hereunder or under the Bond to be made to any party shall be in writing and shall be addressed as follows:

To FFB:

Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, NW
Washington, DC 20220

Attention: Director of Lending

Telephone No. (202) 622-2470
Facsimile No. (202) 622-0707

To the Borrower:

National Rural Utilities Cooperative
Finance Corporation
20701 Cooperative Way

Dulles, VA 20166

Attention: Chief Financial Officer

Telephone: (703) 467-1628
Facsimile: (703) 467-5178

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
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 <u>Counterparts</u>.

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/J. Andrew Don________

Name: J. Andrew Don

Title: Governor and
Chief Executive Officer

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

By: /s/ Christopher A. McLean__

Name: Christopher A. McLean

Title: Acting Administrator

EXHIBIT A

TO

BOND PURCHASE AGREEMENT

FORM

OF

ADVANCE REQUEST

ADVANCE REQUEST
(RUS APPROVAL REQUIRED)

****

REFER TO RURAL UTILITIES SERVICE (RUS) REGULATIONS AND INSTRUCTIONS FOR A DESCRIPTION OF (1) THE OTHER FORMS AND MATERIALS THAT ARE REQUIRED IN CONNECTION WITH EACH REQUEST FOR AN ADVANCE, AND (2) THE TIME LIMITS FOR SUBMITTING THOSE FORMS AND MATERIALS AND THIS ADVANCE REQUEST TO RUS.

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of the Assistant Administrator, Electric Program
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 the Assistant Administrator, Electric Program
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1560
1400 Independence Avenue, SW
Washington, DC 20250

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

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

****

ADVANCE REQUEST

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier: ______________________[1]

The undersigned, as an authorized officer of the Borrower, hereby requests FFB to make an advance of funds ("this Advance") under, pursuant to, and in accordance with the applicable terms of the Bond.

The undersigned further requests that this Advance be made as follows:

1. Requested Advance Amount: $_____________________[2]

2. Requested Advance Date: ___________[3]

---

[1]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:

A. CORRESPONDENT BANK (if any) FOR PAYEE'S BANK:

Name of financial institution ____________________

Address of financial institution ____________________

ABA number of financial institution ____________________

B. PAYEE'S BANK AND ACCOUNT:

Name of financial institution ____________________

Address of financial institution ____________________

ABA number of financial institution ____________________

Account name ____________________

Account number ____________________

Taxpayer ID number ____________________

4. Maturity Date: ____________________[4]

5. Principal Repayment Method:

[SELECT 1 OF THE FOLLOWING 3 METHODS FOR THE REPAYMENT OF PRINCIPAL.]

"P" for the "equal principal installments" method

"G" for "graduated principal installments" method

[4] Insert the particular calendar date that the Borrower selects to be the date on which this Advance is to mature, which date must meet all of the criteria for Maturity Dates specified in section 7.3.1(a)(5) of the Bond Purchase Agreement referred to in the Bond.

"L" for the "level debt service" method

6. Prepayment/Refinancing Privilege:

If (and <u>only if</u>) the Borrower selects, as the "Maturity Date" for this Advance, a date that will occur <u>on or after</u> the fifth anniversary of the "Requested Advance Date," then the Borrower <u>must</u> elect <u>1</u> of the following 2 alternative prepayment/refinancing privileges.

Alternative Prepayment/Refinancing Privileges: [5] ☐

"M" for the "<u>Market Value</u> Prepayment/ Refinancing Privilege

"F" for the "<u>Fixed Premium</u> Prepayment/ Refinancing Privilege

If (and <u>only if</u>) the Borrower elects the "<u>Fixed Premium</u> Prepayment/ Refinancing Privilege," then the Borrower <u>must</u> elect <u>1</u> of the following 2 alternative no-call period options.

Alternative No-Call Period Options: [6] ☐

"Y" for "yes," if the privilege <u>is</u> to include a 5-year No-Call Period

"N" for "no," if the privilege is <u>not</u> to include a 5-year No-Call Period

---

[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 5-year No-Call Period during which this Advance will not be eligible for prepayment or refinancing. Insert in the box "N" if the Borrower elects to have the Fixed Premium Prepayment/Refinancing Privilege <u>not</u> include any 5-year No-Call Period, i.e. this Advance will be eligible for prepayment or refinancing on any Business day.

If (and <u>only if</u>) the Borrower elects the "<u>Fixed Premium</u> Prepayment/ Refinancing Privilege, then the borrower <u>must</u> select <u>1</u> of the following 3 alternative premium options.

Alternative Premium Options: [7] ☐

"X" for 10% premium declining over 10 years

"V" for 5% premium declining over 5 years

"P" for par (no premium)

[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: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

NOTICE OF RUS APPROVAL OF
ADVANCE REQUEST

Notice is hereby given to FFB that the preceding Advance Request made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

FOR ACCOUNTING USE ONLY:
RUS Budget Account Number ____________________

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

EXHIBIT B
TO
BOND PURCHASE AGREEMENT

FORM
OF
BOND

Bond Date	November 4, 2021
Place of Issue	Washington, DC
Last Day for an Advance (¶3)	July 15, 2026
Maximum Principal Amount (¶4)	$550,000,000.00
Final Maturity Date (¶5)	July 15, 2056

FOR FFB USE ONLY
Bond Identifier:
CFC-0015
Purchase Date:
November 4, 2021

FUTURE ADVANCE BOND
SERIES S

1. Promise to Pay.

FOR VALUE RECEIVED, NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, a cooperative association existing under the laws of the District of Columbia (the "Borrower," which term includes any successors or assigns) promises to pay the **FEDERAL FINANCING BANK** ("FFB"), a body corporate and instrumentality of the United States of America (FFB, for so long as it shall be the holder of this Bond, and any successor or assignee of FFB, for so long as such successor or assignee shall be the holder of this Bond, being the "Holder"), at the times, in the manner, and with interest at the rates to be established as hereinafter provided, such amounts as may be advanced from time to time by FFB to the Borrower under this Bond (each such amount being an "Advance", and more than one such amount being "Advances").

2. Reference to Certain Agreements.

(a) Bond Purchase Agreement. This Bond is the "Bond" referred to in, and entitled to the benefits of, the Series S Bond Purchase Agreement dated as of even date herewith, made by and among FFB, the Borrower, and the Administrator of the Rural Utilities Service, a Rural Development agency of the United

States Department of Agriculture ("RUS") (such agreement, as it may be amended, supplemented, and restated from time to time in accordance with its terms, being the "Bond Purchase Agreement").

(b) Bond Guarantee Agreement. This Bond is the "Bond" referred to in, and entitled to the benefits of, the Eighth Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 4, 2021, 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 Eighth Amended, Restated and Consolidated Pledge Agreement dated as of November 4, 2021, made among the Borrower, RUS, and U.S. Bank National Association, a national association (such agreement, as it may be amended, supplemented, and restated from time to time in accordance with its terms, being the "Pledge Agreement").

3. Advances; Advance Requests; RUS Approval Requirement; Last Day for an Advance.

(a) Subject to the terms and conditions of the Bond Purchase Agreement, FFB shall make Advances to the Borrower from time to time under this Bond, in each case upon delivery to FFB of a written request by the Borrower for an Advance under this Bond, in the form of request attached to the Bond Purchase Agreement as Exhibit A thereto (each such request being an "Advance Request") and completed as prescribed in section 7.3.1 of the Bond Purchase Agreement.

(b) To be effective, an Advance Request must first be delivered to RUS for approval and be approved by RUS in writing, and such Advance Request, together with written notification of RUS's approval thereof (each such notification being an "Advance Request Approval Notice"), must be received by FFB consistent with the advance notice requirements prescribed in sections 7.3.1(c) and 7.3.2(b) of the Bond Purchase Agreement.

(c) FFB shall make each requested Advance on the particular calendar date that the Borrower requested in the respective Advance Request to be the date on which the respective Advance is to be made (such date being the "Requested Advance Date" for such Advance), subject to the provisions of the Bond Purchase Agreement describing certain circumstances under which a requested Advance shall be made on a later date; provided, however, that no Advance shall be made under this Bond after the particular date specified on page 1 of this Bond as being the "Last Day for an Advance."

4. Principal Amount of Advances; Maximum Principal Amount.

The principal amount of each Advance shall be the particular dollar amount that the Borrower specified in the respective Advance Request as the "Requested Advance Amount" for the respective Advance; provided, however, that the aggregate principal amount of all Advances made under this Bond shall not exceed the particular amount specified on page 1 of this Bond as being the "Maximum Principal Amount."

5. Maturity Dates for Advances.

Subject to paragraph 15 of this Bond, each Advance shall mature on the particular calendar date that the Borrower selected in the respective Advance Request to be the date on which the respective Advance is to mature (such date being the "Maturity Date" for such Advance), provided that such Maturity Date meets all of the criteria for Maturity Dates prescribed in section 7.3.1(a)(5) of the Bond Purchase Agreement.

6. Computation of Interest on Advances.

(a) Subject to paragraphs 11 and 16 of this Bond, interest on the outstanding principal of each Advance shall accrue from the date on which the respective Advance is made to the date on which such principal is due.

(b) Interest on each Advance shall be computed on the basis of (1) actual days elapsed from (but not including) the date on which the respective Advance is made (for the first payment of interest due under this Bond for such Advance) or the date on which the payment of interest was last due (for all other payments of interest due under this Bond for such Advance), to (and including) the date on which the payment of interest is next due; and (2) a year of 365 days (except in calendar years including February 29, when the basis shall be a 366-day year).

(c) The basic interest rate for each Advance shall be established by FFB, as of the date on which the respective Advance is made, on the basis of the determination made by the Secretary of the Treasury pursuant to section 6(b) of the Federal Financing Bank Act of 1973, as amended (codified at 12 U.S.C. § 2281 et seq.) (the "FFB Act"); provided, however, that the shortest maturity used as the basis for any rate determination shall be the remaining maturity of the most recently auctioned United States Treasury bills having the shortest maturity of all United States Treasury bills then being regularly auctioned.

(d) In the event that (1) the Borrower has selected for any Advance a Maturity Date that will occur on or after the fifth anniversary of the Requested Advance Date for such Advance, and (2) the Borrower has elected for such Advance a prepayment/ refinancing privilege described in section 11.3 of the Bond

Purchase Agreement, then the interest rate for such Advance shall also include a price (expressed in terms of a basis point increment to the applicable basic interest rate) for the particular prepayment/refinancing privilege that the Borrower selected, which price shall be established by FFB on the basis of a determination made by FFB as to the difference between (A) the estimated market yield of a notional obligation if such obligation were to (i) be issued by the Secretary of the Treasury, (ii) have a maturity comparable to the maturity of such Advance, and (iii) include a prepayment and refinancing privilege identical to the particular prepayment/refinancing privilege that the Borrower elected for such Advance, and (B) the estimated market yield of a notional obligation if such obligation were to (i) be issued by the Secretary of the Treasury, (ii) have a maturity comparable to the maturity of such Advance, but (iii) not include such prepayment and refinancing privilege.

7. Payment of Interest; Payment Dates.

Interest accrued on the outstanding principal amount of each Advance shall be due and payable quarterly on January 15, April 15, July 15, and October 15 of each year (each such day being a "Payment Date"), beginning on the first Payment Date to occur after the date on which the respective Advance is made, up through and including the Maturity Date of such Advance; provided, however, that with respect to each Advance that is made in the 30-day period immediately preceding any Payment Date, payments of accrued interest on the outstanding principal amount of the respective Advance shall be due beginning on the second Payment Date to occur after the date on which such Advance is made.

8. Repayment of Principal; Principal Repayment Options.

(a) The principal amount of each Advance shall be payable in quarterly installments, which installments shall be due beginning on the first Payment Date to occur after the date on which the respective Advance is made, and shall be due on each Payment Date to occur thereafter until the principal amount of the respective Advance is repaid in full on or before the particular date specified on page 1 of this Bond as being the "Final Maturity Date" (such date being the "Final Maturity Date"); provided, however, that with respect to each Advance that is made in the 30-day period immediately preceding any Payment Date, principal installments shall be due beginning on the second Payment Date to occur after the date on which the respective Advance is made.

(b) In the respective Advance Request for each Advance, the Borrower must also select a method for the repayment of principal of such Advance from among the following options:

(1) "equal principal installments" -- the amount of each quarterly principal installment shall be substantially equal to the amount of every other quarterly principal installment and shall be sufficient, when added to all other such quarterly installments of equal principal, to repay the principal amount of such Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such Advance that will occur before the Final Maturity Date);

(2) "graduated principal installments" -- the amount of each of the first one-third (or nearest number of payments that rounds to one-third) of the total number of quarterly principal installments shall be substantially equal to one-half of the amount of each of the remaining quarterly principal installments, and shall be sufficient, when added to all other such quarterly installments of graduated principal, to repay the principal amount of such Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such Advance that will occur before the Final Maturity Date); or

(3) "level debt service" -- the amount of each quarterly payment consisting of a principal installment and accrued interest shall be substantially equal to the amount of every other quarterly payment consisting of a principal installment and accrued interest, and shall be sufficient, when added to all other such level quarterly payments consisting of a principal installment and accrued interest, to repay the principal amount of such Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such Advance that will occur before the Final Maturity Date).

(c) For each Advance, the amount of principal that shall be due and payable on each of the dates specified in subparagraph (a) of this paragraph 8 shall be the amount of the principal installment due under a principal repayment schedule for the respective Advance that is computed in accordance with the principles of the particular method for the repayment of principal that is selected by the Borrower for such Advance from among the options described in subparagraph (b) of this paragraph 8. Except at the times described in the immediately following sentence, the method for the repayment of principal that is selected by the Borrower for any Advance, and the resulting principal repayment schedule that is so computed for such Advance, may not be changed. Notwithstanding the foregoing, with respect to each Advance for which the Borrower has selected a Maturity Date that will occur before the Final Maturity Date, the Borrower may change the particular method for the repayment of principal that was selected by the Borrower for the respective Advance from either the "equal principal installments" method or the "graduated principal installments" method to the "level debt service" method at the time (if ever) that the Borrower elects to extend the maturity of such Advance (as provided in paragraph 15 of this Bond), effective as of the effective date of such maturity extension, or at the time (if ever) that the Borrower elects to refinance the outstanding principal amount of such Advance (as provided in paragraph 18 of this Bond), effective as of the effective date of such refinancing, and the principal repayment schedule for such Advance shall thereupon be newly computed in accordance with the "level debt service" method for the repayment of principal. After the Borrower has selected the Final Maturity Date as the Maturity Date for any Advance, the Borrower may so change the particular method for the repayment of principal of any Advance, and the principal repayment schedule for such Advance shall be so newly computed, only at the time (if ever) that the Borrower elects to refinance the outstanding principal amount of such Advance (as provided in paragraph 18 of this Bond), effective as of the effective date of such refinancing.

(d) With respect to each Advance that has a Maturity Date that will occur before the Final Maturity Date, the entire unpaid principal amount of the respective Advance shall be payable on such Maturity Date, subject to extensions of the maturity of such Advance (as provided in paragraph 15 of this Bond).

(e) Notwithstanding which of the methods for the repayment of principal described in subparagraph (b) of this paragraph 8 is selected by the Borrower for any Advance, the aggregate of all quarterly payments of principal and interest on such Advance shall be such as will repay the entire principal amount of such Advance, and pay all interest accrued thereon, on or before the Final Maturity Date.

9. Fee.

(a) A fee to cover expenses and contingencies, assessed by FFB pursuant to section 6(c) of the FFB Act, shall accrue on the outstanding principal amount of each Advance for the period from the date on which the respective Advance is made to the date on which the principal amount of such Advance is due, not taking into account any maturity extensions permitted by paragraph 15 of this Bond (such period being the "Advance Period").

(b) The fee on each Advance shall be:

(1) 12.5 basis points (0.125%) per annum of the unpaid principal balance of such Advance for an Advance Period of 10 years or less; and

(2) 25 basis points (0.25%) per annum of the unpaid principal balance of such Advance for an Advance Period greater than 10 years.

(c) The fee on each Advance shall be computed in the same manner as accrued interest is computed under paragraph 6(b) of this Bond, and shall be due and payable at the same times as accrued interest is due and payable under paragraph 7 of this Bond (adjusted as provided in paragraph 10 of this Bond if a Payment Date is not a Business Day). The fee on each Advance shall be credited to RUS as required by section 505(c) of the Federal Credit Reform Act of 1990, as amended (codified at 2 U.S.C. § 661d(c)).

10. Business Days.

(a) Whenever any Payment Date, the Maturity Date for any Advance, or the Final Maturity Date shall fall on a day on which either FFB or the Federal Reserve Bank of New York is not open for business, the payment that would otherwise be due on such Payment Date, Maturity Date, or Final Payment Date, as the case may be, shall be due on the first day thereafter on which FFB and the Federal Reserve Bank of New York are both open for business (any such day being a "Business Day").

(b) In the event that any Payment Date falls on a day other than a Business Day, then the extension of time for making the payment that would otherwise be due on such Payment Date shall be (1) taken into account in establishing the interest rate for the respective Advance, (2) included in computing interest due in connection with such payment, and (3) excluded in computing interest due in connection with the next payment.

(c) In the event that the Maturity Date for any Advance or the Final Maturity Date falls on a day other than a Business Day, then the extension of time for making the payment that would otherwise be due on such Maturity Date or the Final Maturity, as the case may be, shall be (1) taken into account in establishing the interest rate for such Advance, and (2) included in computing interest due in connection with such payment.

11. Late Payments.

(a) In the event that any payment of any amount owing under this Bond is not made when and as due (any such amount being then an "Overdue Amount"), then the amount payable shall be such Overdue Amount plus interest thereon (such interest being the "Late Charge") computed in accordance with this subparagraph (a).

(1) The Late Charge shall accrue from the scheduled date of payment for the Overdue Amount (taking into account paragraph 10 of this Bond) to the date on which payment is made.

(2) The Late Charge shall be computed on the basis of (A) actual days elapsed from (but not including) the

scheduled date of payment for such Overdue Amount (taking into account paragraph 10 of this Bond) to (and including) the date on which payment is made, and (B) a year of 365 days (except in calendar years including February 29, when the basis shall be a 366-day year).

(3) The Late Charge shall accrue at a rate (the "Late Charge Rate") equal to one and one-half times the rate to be determined by the Secretary of the Treasury taking into consideration the prevailing market yield on the remaining maturity of the most recent auctioned 13-week United States Treasury bills.

(4) The initial Late Charge Rate shall be in effect until the earlier to occur of either (A) the date on which payment of the Overdue Amount and the amount of accrued Late Charge is made, or (B) the first Payment Date to occur after the scheduled date of payment for such Overdue Amount. In the event that the Overdue Amount and the amount of the accrued Late Charge are not paid on or before such Payment Date, then the amount payable shall be the sum of the Overdue Amount and the amount of the accrued Late Charge, plus a Late Charge on such sum accruing at a new Late Charge Rate to be then determined in accordance with the principles of clause (3) of this subparagraph (a). For so long as any Overdue Amount remains unpaid, the Late Charge Rate shall be re-determined in accordance with the principles of clause (3) of this subparagraph (a) on each Payment Date to occur thereafter, and shall be applied to the Overdue Amount and all amounts of the accrued Late Charge to the date on which payment of the Overdue Amount and all amounts of the accrued Late Charge is made.

(b) Nothing in subparagraph (a) of this paragraph 11 shall be construed as permitting or implying that the Borrower may, without the written consent of FFB, modify, extend, alter or affect in any manner whatsoever (except as explicitly provided herein) the right of FFB to receive any and all payments on account of this Bond on the dates specified in this Bond.

12. Final Due Date.

Notwithstanding anything in this Bond to the contrary, all amounts outstanding under this Bond remaining unpaid as of the Final Maturity Date shall be due and payable on the Final Maturity Date.

13. Manner of Making Payments.

(a) For so long as FFB is the Holder of this Bond and RUS is the bond servicing agent for FFB (as provided in the Bond Purchase Agreement), each payment under this Bond shall be paid in immediately available funds by electronic funds transfer to the account of the United States Treasury (for credit to the subaccount of RUS, as bond servicing agent for FFB) maintained at the Federal Reserve Bank of New York specified by RUS in a written notice to the Borrower, or to such other account as may be specified from time to time by RUS in a written notice to the Borrower.

(b) In the event that FFB is the Holder of this Bond and RUS is not the bond servicing agent for FFB, each payment under this Bond, with the exception of the fee described in paragraph 9 of this Bond, shall be paid in immediately available funds by electronic funds transfer to the account of the United States Treasury (for credit to the subaccount of FFB) maintained at the Federal Reserve Bank of New York specified by FFB in a written notice to the Borrower, or to such other account as may be specified from time to time by FFB in a written notice to the Borrower. In the event that FFB is the Holder of this Bond and RUS is not the bond servicing agent for FFB, each payment of the fee described in paragraph 9 of this Bond shall be paid in immediately available funds by electronic funds transfer to the account of the United States Treasury (for credit to the subaccount of RUS) maintained at the Federal Reserve Bank of New York specified from time to time by RUS in a written notice delivered by RUS to the Borrower.

(c) In the event that FFB is not the Holder of this Bond, then each payment under this Bond, with the exception of the fee described in paragraph 9 of this Bond, shall be made in immediately available funds by electronic funds transfer to such account as shall be specified by the Holder in a written notice to the Borrower. In the event that FFB is not the Holder of this Bond, each payment of the fee described in paragraph 9 of this Bond shall be made in the manner specified by FFB in the written notice delivered by FFB to the Borrower and RUS as provided in section 15.4.2 of the Bond Purchase Agreement.

14. Application of Payments.

Each payment made on this Bond shall be applied, first, to the payment of Late Charges (if any) payable under paragraphs 11 and 18 of this Bond, then to the payment of premiums (if any) payable under paragraphs 16 and 17 of this Bond, then to the payment of unpaid accrued interest, then on account of outstanding principal, and then to the payment of the fee payable under paragraph 9 of this Bond.

15. Maturity Extensions.

(a) With respect to each Advance (1) for which the Borrower has selected a Maturity Date that will occur before the 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 <u>before</u> 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 <u>on or after</u> 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 (<u>provided</u>, <u>however</u>, 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.

16. Prepayments.

(a) The Borrower may elect to prepay all or any portion of the outstanding principal amount of any Advance made under this Bond, or to prepay this Bond in its entirety, in the manner, at the price, and subject to the limitations specified in this paragraph 16 (each such election being a "Prepayment Election").

(b) For each Prepayment Election in which the Borrower elects to prepay a particular amount of the outstanding principal of an Advance, the Borrower shall deliver to RUS written notification of the respective Prepayment Election, in the form of notification attached to this Bond as Annex 2-A (each such notification being a "Prepayment Election Notice"), making reference to the Advance Identifier that FFB assigned to the respective Advance (as provided in the Bond Purchase Agreement) and specifying, among other things, the following:

(1) the particular date on which the Borrower intends to make the prepayment on such Advance (such date being the "Intended Prepayment Date" for such Advance), which date:

(A) must be a Business Day; and

(B) for any Advance for which the Borrower has selected a fixed premium prepayment/refinancing privilege that includes a 5-year period during which such Advance shall not be eligible for any prepayment or refinancing (such time period being a "No-Call Period"), may not be a date that will occur before the applicable "First Call Date" determined as provided in section 11.3.2 of the Bond Purchase Agreement (such date being the "First Call Date"); and

(2) the amount of principal of the respective Advance that the Borrower intends to prepay, which amount may be either:

(A) the total outstanding principal amount of such Advance; or

(B) an amount less than the total outstanding principal amount of such Advance (subject to subparagraph (g) of this paragraph 16) (any such amount being a "Portion").

(c) For each Prepayment Election in which the Borrower elects to have a particular amount of funds applied by FFB toward the prepayment of the outstanding principal of an Advance, the Borrower shall deliver to RUS written notification of the respective Prepayment Election, in the form of notification attached to this Bond as Annex 2-B (each such notification also being a "Prepayment Election Notice"), making reference to the Advance Identifier that FFB assigned to the respective Advance (as provided in the Bond Purchase Agreement) and specifying, among other things, the following:

(1) the particular date on which the Borrower intends to make the prepayment on such Advance (such date being the "Intended Prepayment Date" for such Advance), which date:

(A) must be a Business Day; and

(B) for any Advance for which the Borrower has selected a fixed premium prepayment/refinancing privilege that includes a 5-year No-Call Period, may not be a date that will occur before the applicable First Call Date; and

(2) the particular amount of funds that the Borrower elects to be applied by FFB toward a prepayment of the outstanding principal amount of such Advance.

(d) To be effective, a Prepayment Election Notice must be approved by RUS in writing, and such Prepayment Election Notice, together with written notification of RUS's approval thereof, must be received by FFB on or before the fifth Business Day before the date specified therein as the Intended Prepayment Date for the respective Advance or Portion.

(e) The Borrower shall pay to FFB a price for the prepayment of any Advance, any Portion of any Advance, or this Bond in its entirety (such price being the "Prepayment Price" for such Advance or Portion or this Bond, as the case may be) determined as follows:

(1) in the event that the Borrower elects to prepay the entire outstanding principal amount of any Advance,

then the Borrower shall pay to FFB a Prepayment Price for such Advance equal to the sum of:

(A) the entire outstanding principal amount of such Advance on the Intended Prepayment Date;

(B) all unpaid interest (and Late Charges, if any) accrued on such Advance through the Intended Prepayment Date; and

(C) the amount of the premium or discount credit (if any) that is required under the particular prepayment/refinancing privilege that applies to such Advance as provided in article 11 of the Bond Purchase Agreement;

(2) in the event that the Borrower elects to prepay a Portion of any Advance, then the Borrower shall pay to FFB a Prepayment Price for such Portion that would equal such Portion's pro rata share of the Prepayment Price that would be required for a prepayment of the entire outstanding principal amount of such Advance (determined in accordance with the principles of clause (1) of this subparagraph (e)); and

(3) in the event that the Borrower elects to prepay this Bond in its entirety, then the Borrower shall pay to FFB an amount equal to the sum of the Prepayment Prices for all outstanding Advances (determined in accordance with the principles of clause (1) of this subparagraph (e)).

(f) Payment of the Prepayment Price for any Advance, any Portion of any Advance, or this Bond in its entirety shall be due to FFB before 3:00 p.m. (Washington, DC, time) on the Intended Prepayment Date for such Advance or Portion or this Bond, as the case may be.

(g) Each prepayment of a Portion shall, as to the principal amount of such Portion, be subject to a minimum amount equal to $100,000.00 of principal.

(h) The Borrower may make more than one Prepayment Election with respect to an Advance, each such Prepayment Election being made with respect to a different Portion of such Advance, until such time as the entire principal amount of such Advance is repaid in full.

17. <u>Refinancings</u>.

(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 "<u>Refinancing Election</u>").

(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 <u>Annex 3-A</u> (each such notification being a "<u>Refinancing Election Notice</u>"), 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 "<u>Intended Refinancing Date</u>" 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 (<u>provided</u>, <u>however</u>, that for purposes of selecting a new Maturity Date in connection with a Refinancing Election, each of the references to the "Requested Advance Date" for the respective Advance in section 7.3.1(a)(5)(D) of the Bond Purchase Agreement shall be deemed to be a reference to the "respective Refinancing Effective Date").

(c) To be effective, a Refinancing Election Notice must be received by FFB on or before the fifth Business Day before the date specified therein as the Intended Refinancing Date.

(d) In the event that either of the circumstances described in clause (1) or (2) of the next sentence shall have occurred, then a Refinancing Election Notice (in the form of notice attached to this Bond as Annex 3-B), to be effective, must first be delivered to RUS for approval and be approved by RUS in writing, and such Refinancing Election Notice, together with written notification of RUS's approval thereof, must be received by FFB on or before the fifth Business Day before the date specified therein to be the Intended Refinancing Date. RUS approval of a Refinancing Election Notice will be required under either of the following circumstances:

(1) (A) payment of any amount owing under this Bond is not made by the Borrower when and as due; (B) payment is made by RUS in accordance with the guarantee set forth at the end of this Bond; and (C) RUS delivers notice to both the Borrower and FFB advising each of them that each Refinancing Election Notice delivered by the Borrower after the date of such notice shall require the approval of RUS; or

(2) FFB at any time delivers written notice to both the Borrower and RUS advising each of them that each Refinancing Election Notice delivered by the Borrower after the date of such notice shall require the approval of RUS.

(e) The Borrower shall pay to FFB a price for the refinancing of any Advance (such price being the "Refinancing Price" for such Advance) equal to the sum of:

(1) all unpaid interest (and Late Charges, if any) accrued on such Advance through the Intended Refinancing Date; and

(2) the amount of the premium (if any) that is required under the particular prepayment/refinancing privilege that applies to such Advance as provided in article 11 of the Bond Purchase Agreement.

In the event that (A) the prepayment/refinancing privilege that applies to the particular Advance being refinanced is the privilege described in section 11.2 of the Bond Purchase Agreement, and (B) the Market Value Premium (or Discount) that is to be included in the Refinancing Price for such Advance is a discount on such Advance, then such discount shall be applied by FFB in the manner requested by the Borrower in a written notice delivered by the Borrower to FFB and approved by RUS in writing.

(f) Payment of the Refinancing Price for any Advance shall be due to FFB before 3:00 p.m. (Washington, DC, time) on the Intended Refinancing Date for such Advance.

(g) In the event that a Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB on or before the fifth Business Day before the Intended Refinancing Date specified therein, then the refinancing of the respective Advance shall become effective on such Intended Refinancing Date (in such event, the Intended Refinancing Date being the "Refinancing Effective Date"). In the event that a Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB after the fifth Business Day before the Intended Refinancing Date specified therein, then the refinancing of the respective Advance shall become effective on the fifth Business Day to occur after the day on which such Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB (in such event, the fifth Business Day to occur after the day on which such Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB being the "Refinancing Effective Date"), provided that the Borrower shall have paid to FFB, in addition to the Refinancing Price required under subparagraph (e) of this paragraph 17, the interest accrued from the Intended Refinancing Date through such Refinancing Effective Date.

(h) In the event that the Borrower makes a Refinancing Election with respect to any Advance, the basic interest rate for such Advance, from and after the respective Refinancing Effective Date, shall be the particular rate that is established by FFB, as of such Refinancing Effective Date, in accordance with the principles of paragraph 6(c) of this Bond.

(i) In the event that the Borrower makes a Refinancing Election with respect to any Advance, then the fee for such Advance, from and after the respective Refinancing Effective Date, shall be the particular fee that is assessed by FFB, as of such Refinancing Effective Date, with the new Advance Period being the period from the Refinancing Effective Date through the new Maturity Date, in accordance with the principles of paragraphs 9(b) and (c) of this Bond.

(j) In the event that (1) the Borrower makes a Refinancing Election with respect to any Advance, and (2) the Borrower selects as the Maturity Date for such refinanced Advance either (A) the Maturity Date that is in effect for such Advance immediately before such refinancing, and such Maturity Date will occur before the fifth anniversary of the respective Refinancing Effective Date, or (B) a new Maturity Date that will occur before the fifth anniversary of the respective Refinancing

Effective Date, then the prepayment/refinancing privilege described in section 11.2 of the Bond Purchase Agreement shall apply automatically to such Advance.

(k) In the event that (1) the Borrower makes a Refinancing Election with respect to any Advance, and (2) the Borrower selects as the Maturity Date for such refinanced Advance either (A) the Maturity Date that is in effect for such Advance immediately before such refinancing, and such Maturity Date will occur on or after the fifth anniversary of the respective Refinancing Effective Date, or (B) a new Maturity Date that will occur on or after the fifth anniversary of the respective Refinancing Effective Date, then the Borrower must elect a prepayment/refinancing privilege for such refinanced Advance from between the options described in sections 11.2 and 11.3 of the Bond Purchase Agreement (provided, however, that each of the references to the "Requested Advance Date for such Advance" in section 11.3 of the Bond Purchase Agreement shall be deemed to be a reference to the "respective Refinancing Effective Date"). The Refinancing Election Notice delivered by the Borrower in connection with each such Refinancing Election must also specify the particular prepayment/refinancing privilege that the Borrower elects for the respective refinanced Advance. In the event that the Borrower elects for any such refinanced Advance a prepayment/refinancing privilege described in section 11.3 of the Bond Purchase Agreement, then the interest rate for such refinanced Advance, from and after the respective Refinancing Effective Date, shall include a price (expressed in terms of a basis point increment to the applicable basic interest rate) for the particular prepayment/refinancing privilege that the Borrower elects, which increment shall be established by FFB, as of such Refinancing Effective Date, in accordance with the principles of paragraph 6(d) of this Bond.

(l) In the event that the Borrower makes a Refinancing Election with respect to any Advance, then the outstanding principal amount of such Advance, after the respective Refinancing Effective Date, shall be due and payable in accordance with this subparagraph (l).

(1) With respect to each Advance to which either the "equal principal installments" method or the "graduated principal installments" method for the repayment of principal applies, the amount of the quarterly principal installments that will be due after the respective Refinancing Effective Date shall be equal to the amount of the quarterly installments of equal principal or graduated principal, as the case may be, that were due in accordance with the principal repayment schedule that applied to such Advance immediately before the respective Refinancing Effective Date.

(2) With respect to each Advance to which the "level debt service" method for the repayment of principal

applies, the amount of the level quarterly payments consisting of a principal installment and accrued interest that will be due after the respective Refinancing Effective Date shall be newly computed so that the amount of each such quarterly payment consisting of a principal installment and accrued interest (taking into account the new interest rate that applies to such Advance from and after such Refinancing Effective Date) shall be substantially equal to the amount of every other quarterly payment consisting of a principal installment and accrued interest, and shall be sufficient, when added to all other such newly-computed level quarterly payments consisting of a principal installment and accrued interest, to repay the outstanding principal amount of such refinanced Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such refinanced Advance that will occur before the Final Maturity Date).

(3) The quarterly installments of equal principal or graduated principal, or the newly-computed level quarterly payments consisting of a principal installment and accrued interest, as the case may be, shall be due beginning on the first Payment Date to occur after the respective Refinancing Effective Date, and shall be due on each Payment Date to occur thereafter up through and including the earlier to occur of (A) the new Maturity Date that the Borrower selected for such refinanced Advance, on which date the entire unpaid principal amount of such refinanced Advance shall also be payable, subject to Maturity Extensions (as provided in paragraph 15 of this Note) if the new Maturity Date is an Interim Maturity Date, or (B) the date on which the entire principal amount of such refinanced Advance, and all unpaid interest (and Late Charges, if any) accrued thereon, are paid.

(m) The Borrower may make more than one Refinancing Election with respect to any Advance.

18. <u>Rescission of Prepayment Elections and Refinancing Elections; Late Charges for Late Payments</u>.

(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 "<u>Election Rescission Notice</u>") 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 (844) 749-0736, or at such other facsimile number or numbers as either FFB or RUS may from time to time communicate to the Borrower.

(c) To be effective, an Election Rescission Notice must be received by both FFB and RUS not later than 3:30 p.m. (Washington, DC, time) on the second Business Day before the Intended Prepayment Date or the Intended Refinancing Date, as the case may be.

(d) In the event that the Borrower (1) makes a Prepayment Election in accordance with paragraph 16 of this Bond or a Refinancing Election in accordance with paragraph 17 of this Bond; (2) does not rescind such Prepayment Election or Refinancing Election, as the case may be, in accordance with this paragraph 18; and (3) does not, before 3:00 p.m. (Washington, DC, time) on the Intended Prepayment Date or Intended Refinancing Date, as the case may be, pay to FFB the Prepayment Price described in paragraph 16(e) of this Bond or Refinancing Price described in paragraph 17(e) of this Bond, as the case may be, then a Late Charge shall accrue on any such unpaid amount from the Intended Prepayment Date or Intended Refinancing Date, as the case may be, to the date on which payment is made, computed in accordance with the principles of paragraph 11 of this Bond.

19. Amendments to Bond.

To the extent not inconsistent with applicable law, this Bond, for so long as FFB or its agent is the holder thereof, shall be subject to modification by such amendments, extensions, and renewals as may be agreed upon from time to time by FFB and the Borrower, with the approval of RUS.

20. Certain Waivers.

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

21. Bond Effective Until Paid.

This Bond shall continue in full force and effect until all principal outstanding hereunder, all interest accrued hereunder, all premiums (if any) payable under paragraphs 16 and 17 of this Bond, all Late Charges (if any) payable under paragraphs 11 and 18 of this Bond, and all fees (if any) payable under paragraph 9 of this Bond have been paid in full.

22. RUS Guarantee of Bond.

Upon execution of the guarantee set forth at the end of this Bond (the "RUS Guarantee"), the payment by the Borrower of all amounts due and payable under this Bond, when and as due, shall be guaranteed by the United States of America, acting through RUS, pursuant to the Rural Electrification Act of 1936, as amended (codified at 7 U.S.C. § 901 et seq.). In consideration of the RUS Guarantee, the Borrower promises to RUS to make all payments due under this Bond when and as due.

23. Pledge Agreement.

This Bond is one of several Bonds referred to in the Pledge Agreement, wherein the Borrower made provision for the pledge and grant of a security interest in, under certain circumstances described therein, certain property of the Borrower, described therein, to secure the payment of and performance of certain obligations owed to RUS, as set forth in the Pledge Agreement.

24. Guarantee Payments; Reimbursement.

If RUS makes any payment, pursuant to the RUS Guarantee, of any amount due and payable under this Bond, when and as due, each and every such payment so made shall be deemed to be a payment hereunder; provided, however, that no payment by RUS pursuant to the RUS Guarantee shall be considered a payment for purposes of determining the existence of a failure by the Borrower to perform its obligation to RUS to make all payments under this Bond when and as due. RUS shall have any rights by way of subrogation, agreement or otherwise which arise as a result of such payment pursuant to the RUS Guarantee.

25. Default and Enforcement.

In case of a default by the Borrower under this Bond or the occurrence of an event of default under the Bond Guarantee Agreement, then, in consideration of the obligation of RUS under the RUS Guarantee, in that event, to make payments to FFB as provided in this Bond, RUS, in its own name, shall have all rights, powers, privileges, and remedies of the holder of this Bond, in accordance with the terms of this Bond, the Bond Guarantee Agreement, and the Pledge Agreement, including, without limitation, the right to enforce or collect all or any part of the obligation of the Borrower under this Bond or arising as a result of the RUS Guarantee, to file proofs of claim or any other document in any bankruptcy, insolvency, or other judicial proceeding, and to vote such proofs of claim.

26. **Acceleration.**

The entire unpaid principal amount of this Bond, and all interest thereon, may be declared, and upon such declaration shall become, due and payable to RUS, under the circumstances described, and in the manner and with the effect provided, in the Bond Guarantee Agreement.

IN WITNESS WHEREOF, the Borrower has caused this Bond to be signed in its corporate name and its corporate seal to be hereunder affixed and attested by its officers thereunto duly authorized, all as of the day and year first above written.

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION
(the "Borrower")

BY:

Signature: __________________________

Print Name: J. Andrew Don

Title: Governor and
Chief Executive Officer

ATTEST:

Signature: __________________________

(SEAL)

Print Name: Roberta B. Aronson

Title: Assistant Secretary-Treasurer

ANNEX 1-A

TO

FUTURE ADVANCE BOND

FORM

OF

MATURITY EXTENSION ELECTION NOTICE

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Maturity Extension Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
(the "Borrower")

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

ANNEX 1-B

TO

FUTURE ADVANCE BOND

FORM

OF

MATURITY EXTENSION ELECTION NOTICE

(RUS APPROVAL REQUIRED)

MATURITY EXTENSION ELECTION NOTICE
(RUS APPROVAL REQUIRED)

****

PART 1 OF THIS FORM HAS BEEN COMPLETED BY RUS. THE BORROWER SHOULD COMPLETE PART 2 OF THIS FORM ONLY FOR THOSE PARTICULAR ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WITH RESPECT TO WHICH THE BORROWER ELECTS TO HAVE THE MATURITY EXTENDED TO A NEW MATURITY DATE OTHER THAN THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of the Assistant Administrator, Electric Program
Telephone: (202) 205-8663

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

Office of the Assistant Administrator, Electric Program
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1560
1400 Independence Avenue, SW
Washington, DC 20250

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

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

THE BORROWER SHOULD NOT COMPLETE THIS FORM OR DELIVER IT TO RUS IF THE BORROWER DESIRES TO HAVE THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

IF THE BORROWER DOES NOT RETURN THIS FORM TO RUS, THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WILL BE EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

****

MATURITY EXTENSION ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier: ______________________

RUS Bond Number: ______________________

Part 1 (To be completed by RUS):

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

FFB ADVANCE IDENTIFIER	RUS ACCOUNT NUMBER	ORIGINAL ADVANCE DATE	ORIGINAL ADVANCE AMOUNT	OUTSTANDING PRINCIPAL AMOUNT
			$	$
			$	$
			$	$
			$	$

Part 2:

Notice is hereby given to FFB (and RUS) of the Borrower's election that the maturity of each of the Advances identified in this Part 2 be extended as follows:

FFB ADVANCE IDENTIFIER[1]	OPTIONAL PRINCIPAL PAYMENT[2]	AMOUNT OF PRINCIPAL TO BE EXTENDED[3]	NEW MATURITY DATE[4]	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE[5]	5-YEAR NO-CALL PERIOD[6]	PREMIUM OPTION[7]
___	$ ___	___	___	☐	☐	☐
___	$ ___	___	___	☐	☐	☐
___	$ ___	___	___	☐	☐	☐
___	$ ___	___	___	☐	☐	☐

[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.

NATIONAL RURAL UTILITIES COOPERATIVE
FINANCE CORPORATION
(the "Borrower")

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

NOTICE OF RUS APPROVAL OF
MATURITY EXTENSION ELECTION NOTICE

Notice is hereby given to FFB that the preceding Maturity Extension Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

ANNEX 2-A

TO

FUTURE ADVANCE BOND

FORM

OF

PREPAYMENT ELECTION NOTICE

SPECIFIED PRINCIPAL AMOUNT(S)

(RUS APPROVAL REQUIRED)

PREPAYMENT ELECTION NOTICE
SPECIFIED PRINCIPAL AMOUNT(S)
(RUS APPROVAL REQUIRED)

****

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of the Assistant Administrator, Electric Program
Telephone: (202) 205-8663

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

Office of the Assistant Administrator, Electric Program
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1560
1400 Independence Avenue, SW
Washington, DC 20250

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

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

****

PREPAYMENT ELECTION NOTICE
SPECIFIED PRINCIPAL AMOUNT(S)

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier: ______________________[1]

[1] Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to prepay all or a portion of the outstanding principal amount of the advances of funds ("Advances") identified in this Part 1:

FFB ADVANCE IDENTIFIER[2]	RUS ACCOUNT NUMBER[3]	ORIGINAL ADVANCE DATE[4]	ORIGINAL ADVANCE AMOUNT[5]	OUTSTANDING PRINCIPAL AMOUNT[6]
			$	$
			$	$
			$	$

Part 2:

The Borrower intends to prepay all or a portion of the outstanding principal amount of each of the Advances identified in Part 1 on the following date (such date being the "Intended Prepayment Date"):

________________________________[7]

[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.

<u>Part 3</u>:

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]	**AMOUNT OF PRINCIPAL TO BE PREPAID**[9]
___________	$_____________
___________	$_____________
___________	$_____________

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Prepayment Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
(the "Borrower")

By: _________________________

Name: _________________________

Title: _________________________

Date: _________________________

[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.

NOTICE OF RUS APPROVAL OF
PREPAYMENT ELECTION NOTICE

Notice is hereby given to FFB that the preceding Prepayment Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

ANNEX 2-B

TO

FUTURE ADVANCE BOND

FORM

OF

PREPAYMENT ELECTION NOTICE

FIXED SUM TO BE APPLIED

(RUS APPROVAL REQUIRED)

PREPAYMENT ELECTION NOTICE
FIXED SUM TO BE APPLIED
(RUS APPROVAL REQUIRED)

****

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of the Assistant Administrator, Electric Program
Telephone: (202) 205-8663

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

Office of the Assistant Administrator, Electric Program
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1560
1400 Independence Avenue, SW
Washington, DC 20250

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

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

****

PREPAYMENT ELECTION NOTICE
FIXED SUM TO BE APPLIED

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier: ______________________[1]

[1] Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to prepay all or a portion of the outstanding principal amount of the advances of funds ("Advances") identified in this Part 1:

FFB ADVANCE IDENTIFIER[2]	RUS ACCOUNT NUMBER[3]	ORIGINAL ADVANCE DATE[4]	ORIGINAL ADVANCE AMOUNT[5]	OUTSTANDING PRINCIPAL AMOUNT[6]
			$	$
			$	$
			$	$
			$	$

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]

[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.

Part 3:

The Borrower elects to have the following amount of funds applied by FFB toward a prepayment of the outstanding principal amount of the Advances identified in Part 1, in the order in which they appear in Part 1:

_______________________________________[8]

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Prepayment Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
(the "Borrower")

By: ___________________________

Name: __________________________

Title: ____________________________

Date: ___________________________

[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.

NOTICE OF RUS APPROVAL OF
PREPAYMENT ELECTION NOTICE

Notice is hereby given to FFB that the preceding Prepayment Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

ANNEX 3-A

TO

FUTURE ADVANCE BOND

FORM

OF

REFINANCING ELECTION NOTICE

REFINANCING ELECTION NOTICE

****

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of the Assistant Administrator, Electric Program
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 the Assistant Administrator, Electric Program
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1560
1400 Independence Avenue, SW
Washington, DC 20250

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

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

****

REFINANCING ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Corporation

FFB Bond Identifier: ______________________[1]

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to refinance the outstanding principal amount of each of the advances of funds ("Advances") identified in this Part 1:

FFB ADVANCE IDENTIFIER[2]	**RUS ACCOUNT NUMBER**[3]	**ORIGINAL ADVANCE DATE**[4]	**ORIGINAL ADVANCE AMOUNT**[5]	**OUTSTANDING PRINCIPAL AMOUNT**[6]
			$	$
			$	$
			$	$
			$	$

Part 2:

The Borrower intends to refinance the outstanding principal amount of each of the Advances identified in Part 1 on the following date (such date being the "Intended Refinancing Date"):

______________________________________[7]

[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 <u>before</u> 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.

Part 3:

Notice is hereby given to FFB (and RUS) of the Borrower's election that each of the Advances identified in Part 1 is to be refinanced as follows:

FFB ADVANCE IDENTIFIER[8]	AMOUNT OF PRINCIPAL TO BE REFINANCED[9]	NEW MATURITY DATE[10]	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE[11]	5-YEAR NO-CALL PERIOD[12]	PREMIUM OPTION[13]
____________	$ ____________	____________	☐	☐	☐
____________	$ ____________	____________	☐	☐	☐
____________	$ ____________	____________	☐	☐	☐
____________	$ ____________	____________	☐	☐	☐

[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: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

ANNEX 3-B

TO

FUTURE ADVANCE BOND

FORM

OF

REFINANCING ELECTION NOTICE

(RUS APPROVAL REQUIRED)

REFINANCING ELECTION NOTICE
(RUS APPROVAL REQUIRED)

****

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of the Assistant Administrator, Electric Program
Telephone: (202) 205-8663

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

Office of the Assistant Administrator, Electric Program
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1560
1400 Independence Avenue, SW
Washington, DC 20250

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

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

****

REFINANCING ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Corporation

FFB Bond Identifier: ______________________[1]

[1] Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to refinance the outstanding principal amount of each of the advances of funds ("Advances") identified in this Part 1:

FFB ADVANCE IDENTIFIER[2]	RUS ACCOUNT NUMBER[3]	ORIGINAL ADVANCE DATE[4]	ORIGINAL ADVANCE AMOUNT[5]	OUTSTANDING PRINCIPAL AMOUNT[6]
______________	____________	______________	$ ____________	$ ________________
______________	____________	______________	$ ____________	$ ________________
______________	____________	______________	$ ____________	$ ________________

Part 2:

The Borrower intends to refinance the outstanding principal amount of each of the Advances identified in Part 1 on the following date (such date being the "Intended Refinancing Date"):

____________________________________[7]

[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.

Part 3:

Notice is hereby given to FFB (and RUS) of the Borrower's election that each of the Advances identified in Part 1 is to be refinanced as follows:

FFB ADVANCE IDENTIFIER[8]	AMOUNT OF PRINCIPAL TO BE REFINANCED[9]	NEW MATURITY DATE[10]	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE[11]	5-YEAR NO-CALL PERIOD[12]	PREMIUM OPTION[13]
____________	$ ____________	____________	☐	☐	☐
____________	$ ____________	____________	☐	☐	☐
____________	$ ____________	____________	☐	☐	☐
____________	$ ____________	____________	☐	☐	☐

[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: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

NOTICE OF RUS APPROVAL OF
REFINANCING ELECTION NOTICE

Notice is hereby given to FFB that the preceding Refinancing Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

EXHIBIT C

TO

BOND PURCHASE AGREEMENT

FORM

OF

CERTIFICATE SPECIFYING AUTHORIZED BORROWER OFFICIALS

CERTIFICATE SPECIFYING
AUTHORIZED BORROWER OFFICIALS

Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, NW
Washington, DC 20220

Reference is made to the Series S Bond Purchase Agreement dated as of November 4, 2021 (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:

Name	Title	Signature
J. Andrew Don	Chief Executive Officer	____________________

Ling Wang	Senior Vice President and Chief Financial Officer	____________________
Roberta B. Aronson	Senior Vice President, General Counsel and Assistant Secretary-Treasurer	____________________
Brad Captain	Senior Vice President, Chief Corporate Affairs 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 4, 2021

EXHIBIT D

TO

BOND PURCHASE AGREEMENT

FORM

OF

CERTIFICATE SPECIFYING AUTHORIZED RUS OFFICIALS

CERTIFICATE SPECIFYING AUTHORIZED RUS OFFICIALS

Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, NW
Washington, DC 20220

Reference is made to the Series S Bond Purchase Agreement dated as of November 4, 2021 (the "Bond Purchase Agreement"), by and among the Federal Financing Bank ("FFB"), National Rural Utilities Cooperative Finance Corporation (the "Borrower"), and the Administrator of the Rural Utilities Service ("RUS"). Capitalized terms used herein and not defined herein shall have the respective meanings ascribed to them in the Bond Purchase Agreement.

This Certificate Specifying Authorized RUS Officials is delivered to FFB pursuant to section 4.2 or 13.1 of the Bond Purchase Agreement.

1. The undersigned, on behalf of RUS, hereby certifies that:

a. each of the individuals named below is the duly qualified and incumbent official of RUS holding the position title set out opposite the respective individual's name;

b. each of the individuals named below is authorized to execute and deliver Advance Request Approval Notices from time to time on behalf of RUS; and

c. the signature of each such individual set out opposite the respective individual's name and title is the genuine signature of such individual:

Christopher A. McLean	Assistant Administrator Electric Program Rural Utilities Service	______________________
James F. Elliott	Director of Operations Electric Program Rural Utilities Service	______________________

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:

Name	Title	Telephone Number
Christopher A. McLean	Assistant Administrator Electric Program Rural Utilities Service	(202) 720-9545
James F. Elliott	Director of Operations Electric Program Rural Utilities Service	(202) 720-9546

IN WITNESS WHEREOF, the undersigned has executed this Certificate Specifying Authorized RUS Officials and caused it to be delivered to FFB.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,

By: ________________________

Name: Christopher A. McLean

Title: Acting Administrator

Date: November 4, 2021

EXHIBIT E

TO

BOND PURCHASE AGREEMENT

FORM

OF

OPINION OF BORROWER'S COUNSEL

re:

BORROWER'S INSTRUMENTS

November 4, 2021

Administrator
Rural Utilities Service
United States Department of Agriculture
1400 Independence Avenue, S.W.
Washington, DC 20250

Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, N.W.
Washington, DC 20220

Gentlemen:

I am delivering this opinion as General Counsel ("Counsel") of National Rural Utilities Cooperative Finance Corporation, a District of Columbia cooperative association ("Borrower"), and am familiar with matters pertaining to the loan to Borrower in the principal amount of $550,000,000.00, provided for in the Series S Bond Purchase Agreement ("Bond Purchase Agreement"), dated as of November 4, 2021 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 4, 2021, in the maximum principal amount of $550,000,000.00 ("Guaranteed Bond"), said Guaranteed Bond payable to FFB, (c) the Eighth Amended, Restated and Consolidated Bond Guarantee Agreement, dated as of November 4, 2021, made by and between RUS and Borrower, ("Guarantee Agreement"), (d) the Eighth Amended, Restated and Consolidated Pledge Agreement, dated as of November 4, 2021, made by and among Borrower, RUS and U.S. Bank National Association ("Pledge Agreement"), and (e) the Series S Reimbursement Note, dated as of November 4, 2021, 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.

The foregoing opinions are subject to the following assumptions, exceptions, qualifications and limitations:

A. I am a member of the Bar of the District of Columbia and render no opinion on the laws of any jurisdiction other than the laws of the District of Columbia, the federal laws of the United States of America and the General Corporation Law of the District of Columbia.

B. My opinions are limited to the present laws and to the facts, as they presently exist. I assume no obligation to revise or supplement this opinion should the present laws of the jurisdictions referred to in paragraph A above be changed by legislative action, judicial decision or otherwise.

C. This letter is rendered to you in connection with the Bond Documents and the transactions related thereto, and may not be relied upon by any other person or by you in any other context or for any other purpose.

D. I have assumed with your permission (i) the genuineness of all signatures by each party other than the Borrower, (ii) the authenticity of documents submitted to me as originals and the conformity to authentic original documents of all documents submitted to me as copies, and (iii) the due execution and delivery, pursuant to due authorization, of the Bond Documents by each party other than the Borrower.

Yours sincerely,

Roberta B. Aronson
General Counsel

EXHIBIT F

TO

BOND PURCHASE AGREEMENT

FORM

OF

OPINION OF RUS'S COUNSEL

re:

RUS GUARANTEE

November 4, 2021

MEMORANDUM FOR: CHRISTOPHER A. MCLEAN
ACTING ADMINISTRATOR
RURAL UTILITIES SERVICE

FROM: Janie Simms Hipp
General Counsel

SUBJECT: Section 313A Legal Opinion

This is in response to your letter of November 4, 2021, written in your capacity as Acting Administrator of the Rural Utilities Service ("RUS"), a Rural Development agency of the United States Department of Agriculture ("USDA"). That letter requested an opinion from this office concerning your authority to act as Acting Administrator to execute and deliver a certain guarantee (the "Guarantee") pursuant to the Rural Electrification Act of 1936, as amended, and whether the Guarantee when executed by you will be an incontestable obligation of the United States of America, acting through RUS, supported by the full faith and credit of the United States.

More particularly, the Guarantee is endorsed on a Future Advance Bond (the "Bond") dated November 4, 2021, 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 Consolidated Appropriations Act, 2021, Pub. L. No. 116-260, Division A, 134 Stat. 1182, 1207 (the "Appropriations Act");

4. Delegations of authority from the Secretary of Agriculture to the Under Secretary for Rural Development pursuant to the delegations in 7 C.F.R. § 2.17 (2021), 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 (2021);

5. Designation by Secretary Perdue, dated January 7, 2021, designating Chris McLean as Acting Administrator of RUS, and delegating authority to him to perform the duties assigned to such position by law and Federal regulation;

6. The executed Bond of the Borrower in the maximum principal amount of five hundred fifty million dollars ($550,000,000), having a final maturity date of July 15, 2056, and payable to FFB and any successor or assign of FFB;

7. The Guarantee endorsed by the Acting Administrator of RUS, which is attached to the Bond; and

8. The Commitment Letter, dated September 13, 2021, from Christopher A. McLean, Acting Administrator of RUS, notifying the Borrower that RUS has approved the Guarantee.

Based upon the foregoing, having regard to legal considerations which we deem relevant, we are of the opinion that:

1. You are authorized under the Rural Electrification Act of 1936 and the Appropriations Act to execute and deliver the Guarantee.

2. The Guarantee has been executed by you pursuant to section 313A of the Rural Electrification Act of 1936.

3. The Guarantee is an enforceable obligation of RUS supported by the full faith and credit of the United States and incontestable except for fraud or misrepresentation of which the holder of the Guarantee had actual knowledge at the time it became a holder.

Based on the foregoing and upon such further investigation as we have deemed necessary, we are of the opinion that:

1. The execution and delivery of the Guarantee by the Acting Administrator is authorized by applicable law.

2. The Guarantee has been executed and delivered by an official of RUS who is duly authorized to execute and deliver such document.

3. The Guarantee is a valid obligation of the United States of America for which the full faith and credit of the United States of America are pledged.

EXHIBIT G

TO

BOND PURCHASE AGREEMENT

FORM

OF

RUS CERTIFICATE

RUS CERTIFICATE

Federal Financing Bank
Main Treasury Building
1500 Pennsylvania Avenue, NW
Washington, DC 20220

Reference is made to:

(a) the Series S Bond Purchase Agreement dated as of November 4, 2021 (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 S Bond dated as of November 4, 2021 (the "Bond"), issued by the Borrower payable to FFB in the maximum principal amount of $550,000,000.00; and

(c) the RUS Guarantee dated as of November 4, 2021 (the "RUS Guarantee").

Pursuant to sections 3.3.1(c) and 4.2(b) of the Bond Purchase Agreement, the undersigned hereby certifies the following:

1. I am the Acting Administrator of RUS.

2. I am furnishing this RUS Certificate to FFB with the intent that it be relied upon by FFB as a basis for taking or withholding action pursuant to the Bond Purchase Agreement.

3. As the Acting 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: Cristopher A. McLean
Acting Administrator

Date: November 4, 2021

EXHIBIT H

TO

BOND PURCHASE AGREEMENT

FORM

OF

RUS GUARANTEE

RUS GUARANTEE

The United States of America, acting through the Administrator of the Rural Utilities Service ("RUS"), a Rural Development agency of the United States Department of Agriculture, hereby guarantees to the Federal Financing Bank, its successors and assigns ("FFB"), all payments of principal, interest, premium (if any), and late charges (if any), when and as due in accordance with the terms of the Series S Bond dated November 4, 2021, issued by National Rural Utilities Cooperative Finance Corporation (the "Borrower") payable to FFB in the maximum principal amount of $550,000,000, 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 S Bond Purchase Agreement dated as of November 4, 2021, among FFB, the Borrower, and RUS.

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

By: ___________________________
Name: Christopher A. McLean
Acting Administrator of the
Rural Utilities Service

Date: November 4, 2021

Bond Date November 4, 2021

FOR FFB USE ONLY:
Bond Identifier:
CFC-0015
Purchase Date:
November 4, 2021

Place of Issue Washington, DC

Last Day for an Advance (¶3) July 15, 2026

Maximum Principal Amount (¶4) $550,000,000.00

Final Maturity Date (¶5) July 15, 2056

FUTURE ADVANCE BOND
SERIES S

1. Promise to Pay.

FOR VALUE RECEIVED, NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, a cooperative association existing under the laws of the District of Columbia (the "Borrower," which term includes any successors or assigns) promises to pay the **FEDERAL FINANCING BANK** ("FFB"), a body corporate and instrumentality of the United States of America (FFB, for so long as it shall be the holder of this Bond, and any successor or assignee of FFB, for so long as such successor or assignee shall be the holder of this Bond, being the "Holder"), at the times, in the manner, and with interest at the rates to be established as hereinafter provided, such amounts as may be advanced from time to time by FFB to the Borrower under this Bond (each such amount being an "Advance", and more than one such amount being "Advances").

2. Reference to Certain Agreements.

(a) Bond Purchase Agreement. This Bond is the "Bond" referred to in, and entitled to the benefits of, the Series S Bond Purchase Agreement dated as of even date herewith, made by and among FFB, the Borrower, and the Administrator of the Rural Utilities Service, a Rural Development agency of the United

States Department of Agriculture ("RUS") (such agreement, as it may be amended, supplemented, and restated from time to time in accordance with its terms, being the "Bond Purchase Agreement").

(b) Bond Guarantee Agreement. This Bond is the "Bond" referred to in, and entitled to the benefits of, the Eighth Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 4, 2021, 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 Eighth Amended, Restated and Consolidated Pledge Agreement dated as of November 4, 2021, made among the Borrower, RUS, and U.S. Bank National Association, a national association (such agreement, as it may be amended, supplemented, and restated from time to time in accordance with its terms, being the "Pledge Agreement").

3. Advances; Advance Requests; RUS Approval Requirement; Last Day for an Advance.

(a) Subject to the terms and conditions of the Bond Purchase Agreement, FFB shall make Advances to the Borrower from time to time under this Bond, in each case upon delivery to FFB of a written request by the Borrower for an Advance under this Bond, in the form of request attached to the Bond Purchase Agreement as Exhibit A thereto (each such request being an "Advance Request") and completed as prescribed in section 7.3.1 of the Bond Purchase Agreement.

(b) To be effective, an Advance Request must first be delivered to RUS for approval and be approved by RUS in writing, and such Advance Request, together with written notification of RUS's approval thereof (each such notification being an "Advance Request Approval Notice"), must be received by FFB consistent with the advance notice requirements prescribed in sections 7.3.1(c) and 7.3.2(b) of the Bond Purchase Agreement.

(c) FFB shall make each requested Advance on the particular calendar date that the Borrower requested in the respective Advance Request to be the date on which the respective Advance is to be made (such date being the "Requested Advance Date" for such Advance), subject to the provisions of the Bond Purchase Agreement describing certain circumstances under which a requested Advance shall be made on a later date; provided, however, that no Advance shall be made under this Bond after the particular date specified on page 1 of this Bond as being the "Last Day for an Advance."

4. **Principal Amount of Advances; Maximum Principal Amount.**

The principal amount of each Advance shall be the particular dollar amount that the Borrower specified in the respective Advance Request as the "Requested Advance Amount" for the respective Advance; provided, however, that the aggregate principal amount of all Advances made under this Bond shall not exceed the particular amount specified on page 1 of this Bond as being the "Maximum Principal Amount."

5. **Maturity Dates for Advances.**

Subject to paragraph 15 of this Bond, each Advance shall mature on the particular calendar date that the Borrower selected in the respective Advance Request to be the date on which the respective Advance is to mature (such date being the "Maturity Date" for such Advance), provided that such Maturity Date meets all of the criteria for Maturity Dates prescribed in section 7.3.1(a)(5) of the Bond Purchase Agreement.

6. **Computation of Interest on Advances.**

(a) Subject to paragraphs 11 and 16 of this Bond, interest on the outstanding principal of each Advance shall accrue from the date on which the respective Advance is made to the date on which such principal is due.

(b) Interest on each Advance shall be computed on the basis of (1) actual days elapsed from (but not including) the date on which the respective Advance is made (for the first payment of interest due under this Bond for such Advance) or the date on which the payment of interest was last due (for all other payments of interest due under this Bond for such Advance), to (and including) the date on which the payment of interest is next due; and (2) a year of 365 days (except in calendar years including February 29, when the basis shall be a 366-day year).

(c) The basic interest rate for each Advance shall be established by FFB, as of the date on which the respective Advance is made, on the basis of the determination made by the Secretary of the Treasury pursuant to section 6(b) of the Federal Financing Bank Act of 1973, as amended (codified at 12 U.S.C. § 2281 et seq.) (the "FFB Act"); provided, however, that the shortest maturity used as the basis for any rate determination shall be the remaining maturity of the most recently auctioned United States Treasury bills having the shortest maturity of all United States Treasury bills then being regularly auctioned.

(d) In the event that (1) the Borrower has selected for any Advance a Maturity Date that will occur on or after the fifth anniversary of the Requested Advance Date for such Advance, and (2) the Borrower has elected for such Advance a prepayment/ refinancing privilege described in section 11.3 of the Bond

Purchase Agreement, then the interest rate for such Advance shall also include a price (expressed in terms of a basis point increment to the applicable basic interest rate) for the particular prepayment/refinancing privilege that the Borrower selected, which price shall be established by FFB on the basis of a determination made by FFB as to the difference between (A) the estimated market yield of a notional obligation if such obligation were to (i) be issued by the Secretary of the Treasury, (ii) have a maturity comparable to the maturity of such Advance, and (iii) include a prepayment and refinancing privilege identical to the particular prepayment/refinancing privilege that the Borrower elected for such Advance, and (B) the estimated market yield of a notional obligation if such obligation were to (i) be issued by the Secretary of the Treasury, (ii) have a maturity comparable to the maturity of such Advance, but (iii) not include such prepayment and refinancing privilege.

7. Payment of Interest; Payment Dates.

Interest accrued on the outstanding principal amount of each Advance shall be due and payable quarterly on January 15, April 15, July 15, and October 15 of each year (each such day being a "Payment Date"), beginning on the first Payment Date to occur after the date on which the respective Advance is made, up through and including the Maturity Date of such Advance; provided, however, that with respect to each Advance that is made in the 30-day period immediately preceding any Payment Date, payments of accrued interest on the outstanding principal amount of the respective Advance shall be due beginning on the second Payment Date to occur after the date on which such Advance is made.

8. Repayment of Principal; Principal Repayment Options.

(a) The principal amount of each Advance shall be payable in quarterly installments, which installments shall be due beginning on the first Payment Date to occur after the date on which the respective Advance is made, and shall be due on each Payment Date to occur thereafter until the principal amount of the respective Advance is repaid in full on or before the particular date specified on page 1 of this Bond as being the "Final Maturity Date" (such date being the "Final Maturity Date"); provided, however, that with respect to each Advance that is made in the 30-day period immediately preceding any Payment Date, principal installments shall be due beginning on the second Payment Date to occur after the date on which the respective Advance is made.

(b) In the respective Advance Request for each Advance, the Borrower must also select a method for the repayment of principal of such Advance from among the following options:

(1) "equal principal installments" -- the amount of each quarterly principal installment shall be substantially equal to the amount of every other quarterly principal installment and shall be sufficient, when added to all other such quarterly installments of equal principal, to repay the principal amount of such Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such Advance that will occur before the Final Maturity Date);

(2) "graduated principal installments" -- the amount of each of the first one-third (or nearest number of payments that rounds to one-third) of the total number of quarterly principal installments shall be substantially equal to one-half of the amount of each of the remaining quarterly principal installments, and shall be sufficient, when added to all other such quarterly installments of graduated principal, to repay the principal amount of such Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such Advance that will occur before the Final Maturity Date); or

(3) "level debt service" -- the amount of each quarterly payment consisting of a principal installment and accrued interest shall be substantially equal to the amount of every other quarterly payment consisting of a principal installment and accrued interest, and shall be sufficient, when added to all other such level quarterly payments consisting of a principal installment and accrued interest, to repay the principal amount of such Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such Advance that will occur before the Final Maturity Date).

(c) For each Advance, the amount of principal that shall be due and payable on each of the dates specified in subparagraph (a) of this paragraph 8 shall be the amount of the principal installment due under a principal repayment schedule for the respective Advance that is computed in accordance with the principles of the particular method for the repayment of principal that is selected by the Borrower for such Advance from among the options described in subparagraph (b) of this paragraph 8. Except at the times described in the immediately following sentence, the method for the repayment of principal that is selected by the Borrower for any Advance, and the resulting principal repayment schedule that is so computed for such Advance, may not be changed. Notwithstanding the foregoing, with respect to each Advance for which the Borrower has selected a Maturity Date that will occur before the Final Maturity Date, the Borrower may change the particular method for the repayment of principal that was selected by the Borrower for the respective Advance from either the "equal principal installments" method or the "graduated principal installments" method to the "level debt service" method at the time (if ever) that the Borrower elects to extend the maturity of such Advance (as provided in paragraph 15 of this Bond), effective as of the effective date of such maturity extension, or at the time (if ever) that the Borrower elects to refinance the outstanding principal amount of such Advance (as provided in paragraph 18 of this Bond), effective as of the effective date of such refinancing, and the principal repayment schedule for such Advance shall thereupon be newly computed in accordance with the "level debt service" method for the repayment of principal. After the Borrower has selected the Final Maturity Date as the Maturity Date for any Advance, the Borrower may so change the particular method for the repayment of principal of any Advance, and the principal repayment schedule for such Advance shall be so newly computed, only at the time (if ever) that the Borrower elects to refinance the outstanding principal amount of such Advance (as provided in paragraph 18 of this Bond), effective as of the effective date of such refinancing.

(d) With respect to each Advance that has a Maturity Date that will occur before the Final Maturity Date, the entire unpaid principal amount of the respective Advance shall be payable on such Maturity Date, subject to extensions of the maturity of such Advance (as provided in paragraph 15 of this Bond).

(e) Notwithstanding which of the methods for the repayment of principal described in subparagraph (b) of this paragraph 8 is selected by the Borrower for any Advance, the aggregate of all quarterly payments of principal and interest on such Advance shall be such as will repay the entire principal amount of such Advance, and pay all interest accrued thereon, on or before the Final Maturity Date.

9. Fee.

(a) A fee to cover expenses and contingencies, assessed by FFB pursuant to section 6(c) of the FFB Act, shall accrue on the outstanding principal amount of each Advance for the period from the date on which the respective Advance is made to the date on which the principal amount of such Advance is due, not taking into account any maturity extensions permitted by paragraph 15 of this Bond (such period being the "Advance Period").

(b) The fee on each Advance shall be:

(1) 12.5 basis points (0.125%) per annum of the unpaid principal balance of such Advance for an Advance Period of 10 years or less; and

(2) 25 basis points (0.25%) per annum of the unpaid principal balance of such Advance for an Advance Period greater than 10 years.

(c) The fee on each Advance shall be computed in the same manner as accrued interest is computed under paragraph 6(b) of this Bond, and shall be due and payable at the same times as accrued interest is due and payable under paragraph 7 of this Bond (adjusted as provided in paragraph 10 of this Bond if a Payment Date is not a Business Day). The fee on each Advance

shall be credited to RUS as required by section 505(c) of the Federal Credit Reform Act of 1990, as amended (codified at 2 U.S.C. § 661d(c)).

10. Business Days.

(a) Whenever any Payment Date, the Maturity Date for any Advance, or the Final Maturity Date shall fall on a day on which either FFB or the Federal Reserve Bank of New York is not open for business, the payment that would otherwise be due on such Payment Date, Maturity Date, or Final Payment Date, as the case may be, shall be due on the first day thereafter on which FFB and the Federal Reserve Bank of New York are both open for business (any such day being a "Business Day").

(b) In the event that any Payment Date falls on a day other than a Business Day, then the extension of time for making the payment that would otherwise be due on such Payment Date shall be (1) taken into account in establishing the interest rate for the respective Advance, (2) included in computing interest due in connection with such payment, and (3) excluded in computing interest due in connection with the next payment.

(c) In the event that the Maturity Date for any Advance or the Final Maturity Date falls on a day other than a Business Day, then the extension of time for making the payment that would otherwise be due on such Maturity Date or the Final Maturity, as the case may be, shall be (1) taken into account in establishing the interest rate for such Advance, and (2) included in computing interest due in connection with such payment.

11. Late Payments.

(a) In the event that any payment of any amount owing under this Bond is not made when and as due (any such amount being then an "Overdue Amount"), then the amount payable shall be such Overdue Amount plus interest thereon (such interest being the "Late Charge") computed in accordance with this subparagraph (a).

(1) The Late Charge shall accrue from the scheduled date of payment for the Overdue Amount (taking into account paragraph 10 of this Bond) to the date on which payment is made.

(2) The Late Charge shall be computed on the basis of (A) actual days elapsed from (but not including) the

scheduled date of payment for such Overdue Amount (taking into account paragraph 10 of this Bond) to (and including) the date on which payment is made, and (B) a year of 365 days (except in calendar years including February 29, when the basis shall be a 366-day year).

(3) The Late Charge shall accrue at a rate (the "Late Charge Rate") equal to one and one-half times the rate to be determined by the Secretary of the Treasury taking into consideration the prevailing market yield on the remaining maturity of the most recent auctioned 13-week United States Treasury bills.

(4) The initial Late Charge Rate shall be in effect until the earlier to occur of either (A) the date on which payment of the Overdue Amount and the amount of accrued Late Charge is made, or (B) the first Payment Date to occur after the scheduled date of payment for such Overdue Amount. In the event that the Overdue Amount and the amount of the accrued Late Charge are not paid on or before such Payment Date, then the amount payable shall be the sum of the Overdue Amount and the amount of the accrued Late Charge, plus a Late Charge on such sum accruing at a new Late Charge Rate to be then determined in accordance with the principles of clause (3) of this subparagraph (a). For so long as any Overdue Amount remains unpaid, the Late Charge Rate shall be re-determined in accordance with the principles of clause (3) of this subparagraph (a) on each Payment Date to occur thereafter, and shall be applied to the Overdue Amount and all amounts of the accrued Late Charge to the date on which payment of the Overdue Amount and all amounts of the accrued Late Charge is made.

(b) Nothing in subparagraph (a) of this paragraph 11 shall be construed as permitting or implying that the Borrower may, without the written consent of FFB, modify, extend, alter or affect in any manner whatsoever (except as explicitly provided herein) the right of FFB to receive any and all payments on account of this Bond on the dates specified in this Bond.

12. Final Due Date.

Notwithstanding anything in this Bond to the contrary, all amounts outstanding under this Bond remaining unpaid as of the Final Maturity Date shall be due and payable on the Final Maturity Date.

13. Manner of Making Payments.

(a) For so long as FFB is the Holder of this Bond and RUS is the bond servicing agent for FFB (as provided in the Bond Purchase Agreement), each payment under this Bond shall be paid in immediately available funds by electronic funds transfer to the account of the United States Treasury (for credit to the subaccount of RUS, as bond servicing agent for FFB) maintained at the Federal Reserve Bank of New York specified by RUS in a written notice to the Borrower, or to such other account as may be specified from time to time by RUS in a written notice to the Borrower.

(b) In the event that FFB is the Holder of this Bond and RUS is not the bond servicing agent for FFB, each payment under this Bond, with the exception of the fee described in paragraph 9 of this Bond, shall be paid in immediately available funds by electronic funds transfer to the account of the United States Treasury (for credit to the subaccount of FFB) maintained at the Federal Reserve Bank of New York specified by FFB in a written notice to the Borrower, or to such other account as may be specified from time to time by FFB in a written notice to the Borrower. In the event that FFB is the Holder of this Bond and RUS is not the bond servicing agent for FFB, each payment of the fee described in paragraph 9 of this Bond shall be paid in immediately available funds by electronic funds transfer to the account of the United States Treasury (for credit to the subaccount of RUS) maintained at the Federal Reserve Bank of New York specified from time to time by RUS in a written notice delivered by RUS to the Borrower.

(c) In the event that FFB is not the Holder of this Bond, then each payment under this Bond, with the exception of the fee described in paragraph 9 of this Bond, shall be made in immediately available funds by electronic funds transfer to such account as shall be specified by the Holder in a written notice to the Borrower. In the event that FFB is not the Holder of this Bond, each payment of the fee described in paragraph 9 of this Bond shall be made in the manner specified by FFB in the written notice delivered by FFB to the Borrower and RUS as provided in section 15.4.2 of the Bond Purchase Agreement.

14. Application of Payments.

Each payment made on this Bond shall be applied, first, to the payment of Late Charges (if any) payable under paragraphs 11 and 18 of this Bond, then to the payment of premiums (if any) payable under paragraphs 16 and 17 of this Bond, then to the payment of unpaid accrued interest, then on account of outstanding principal, and then to the payment of the fee payable under paragraph 9 of this Bond.

15. Maturity Extensions.

(a) With respect to each Advance (1) for which the Borrower has selected a Maturity Date that will occur before the 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.

16. Prepayments.

(a) The Borrower may elect to prepay all or any portion of the outstanding principal amount of any Advance made under this Bond, or to prepay this Bond in its entirety, in the manner, at the price, and subject to the limitations specified in this paragraph 16 (each such election being a "Prepayment Election").

(b) For each Prepayment Election in which the Borrower elects to prepay a particular amount of the outstanding principal of an Advance, the Borrower shall deliver to RUS written notification of the respective Prepayment Election, in the form of notification attached to this Bond as Annex 2-A (each such notification being a "Prepayment Election Notice"), making reference to the Advance Identifier that FFB assigned to the respective Advance (as provided in the Bond Purchase Agreement) and specifying, among other things, the following:

(1) the particular date on which the Borrower intends to make the prepayment on such Advance (such date being the "Intended Prepayment Date" for such Advance), which date:

(A) must be a Business Day; and

(B) for any Advance for which the Borrower has selected a fixed premium prepayment/refinancing privilege that includes a 5-year period during which such Advance shall not be eligible for any prepayment or refinancing (such time period being a "No-Call Period"), may not be a date that will occur before the applicable "First Call Date" determined as provided in section 11.3.2 of the Bond Purchase Agreement (such date being the "First Call Date"); and

(2) the amount of principal of the respective Advance that the Borrower intends to prepay, which amount may be either:

(A) the total outstanding principal amount of such Advance; or

(B) an amount less than the total outstanding principal amount of such Advance (subject to subparagraph (g) of this paragraph 16) (any such amount being a "Portion").

(c) For each Prepayment Election in which the Borrower elects to have a particular amount of funds applied by FFB toward the prepayment of the outstanding principal of an Advance, the Borrower shall deliver to RUS written notification of the respective Prepayment Election, in the form of notification attached to this Bond as Annex 2-B (each such notification also being a "Prepayment Election Notice"), making reference to the Advance Identifier that FFB assigned to the respective Advance (as provided in the Bond Purchase Agreement) and specifying, among other things, the following:

(1) the particular date on which the Borrower intends to make the prepayment on such Advance (such date being the "Intended Prepayment Date" for such Advance), which date:

(A) must be a Business Day; and

(B) for any Advance for which the Borrower has selected a fixed premium prepayment/refinancing privilege that includes a 5-year No-Call Period, may not be a date that will occur before the applicable First Call Date; and

(2) the particular amount of funds that the Borrower elects to be applied by FFB toward a prepayment of the outstanding principal amount of such Advance.

(d) To be effective, a Prepayment Election Notice must be approved by RUS in writing, and such Prepayment Election Notice, together with written notification of RUS's approval thereof, must be received by FFB on or before the fifth Business Day before the date specified therein as the Intended Prepayment Date for the respective Advance or Portion.

(e) The Borrower shall pay to FFB a price for the prepayment of any Advance, any Portion of any Advance, or this Bond in its entirety (such price being the "Prepayment Price" for such Advance or Portion or this Bond, as the case may be) determined as follows:

(1) in the event that the Borrower elects to prepay the entire outstanding principal amount of any Advance,

then the Borrower shall pay to FFB a Prepayment Price for such Advance equal to the sum of:

(A) the entire outstanding principal amount of such Advance on the Intended Prepayment Date;

(B) all unpaid interest (and Late Charges, if any) accrued on such Advance through the Intended Prepayment Date; and

(C) the amount of the premium or discount credit (if any) that is required under the particular prepayment/refinancing privilege that applies to such Advance as provided in article 11 of the Bond Purchase Agreement;

(2) in the event that the Borrower elects to prepay a Portion of any Advance, then the Borrower shall pay to FFB a Prepayment Price for such Portion that would equal such Portion's pro rata share of the Prepayment Price that would be required for a prepayment of the entire outstanding principal amount of such Advance (determined in accordance with the principles of clause (1) of this subparagraph (e)); and

(3) in the event that the Borrower elects to prepay this Bond in its entirety, then the Borrower shall pay to FFB an amount equal to the sum of the Prepayment Prices for all outstanding Advances (determined in accordance with the principles of clause (1) of this subparagraph (e)).

(f) Payment of the Prepayment Price for any Advance, any Portion of any Advance, or this Bond in its entirety shall be due to FFB before 3:00 p.m. (Washington, DC, time) on the Intended Prepayment Date for such Advance or Portion or this Bond, as the case may be.

(g) Each prepayment of a Portion shall, as to the principal amount of such Portion, be subject to a minimum amount equal to $100,000.00 of principal.

(h) The Borrower may make more than one Prepayment Election with respect to an Advance, each such Prepayment Election being made with respect to a different Portion of such Advance, until such time as the entire principal amount of such Advance is repaid in full.

17. Refinancings.

(a) The Borrower may elect to refinance the outstanding principal amount of any Advance (but not any Portion) in the manner, at the price, and subject to the limitations specified in this paragraph 17 (each such election being a "Refinancing Election").

(b) Except under the circumstances described in subparagraph (d) of this paragraph 17, the Borrower shall deliver to FFB (with a copy to RUS) written notification of each Refinancing Election, in the form of notification attached to this Bond as Annex 3-A (each such notification being a "Refinancing Election Notice"), making reference to the Advance Identifier that FFB assigned to the respective Advance (as provided in the Bond Purchase Agreement) and specifying, among other things, the following:

(1) the particular date on which the Borrower intends to refinance the respective Advance (such date being the "Intended Refinancing Date" for the respective Advance), which date:

(A) must be a Payment Date; and

(B) for any Advance for which the Borrower has selected a prepayment/ refinancing privilege that includes a 5-year No-Call Period, may not be a date that will occur before the applicable First Call Date;

(2) the amount of the outstanding principal of the respective Advance that the Borrower elects to refinance (which may not be a Portion); and

(3) the Maturity Date that the Borrower selects to be in effect for such principal amount after such refinancing, which date may be:

(A) the Maturity Date that is in effect for such Advance immediately before such refinancing; or

(B) a new Maturity Date that the Borrower selects in connection with such Refinancing Election, provided that such new Maturity Date meets the criteria for Maturity Dates prescribed in section 7.3.1(a)(5) of the Bond Purchase Agreement (provided, however, that for purposes of selecting a new Maturity Date in connection with a Refinancing Election, each of the references to the "Requested Advance Date" for the respective Advance in section 7.3.1(a)(5)(D) of the Bond Purchase Agreement shall be deemed to be a reference to the "respective Refinancing Effective Date").

(c) To be effective, a Refinancing Election Notice must be received by FFB on or before the fifth Business Day before the date specified therein as the Intended Refinancing Date.

(d) In the event that either of the circumstances described in clause (1) or (2) of the next sentence shall have occurred, then a Refinancing Election Notice (in the form of notice attached to this Bond as Annex 3-B), to be effective, must first be delivered to RUS for approval and be approved by RUS in writing, and such Refinancing Election Notice, together with written notification of RUS's approval thereof, must be received by FFB on or before the fifth Business Day before the date specified therein to be the Intended Refinancing Date. RUS approval of a Refinancing Election Notice will be required under either of the following circumstances:

(1) (A) payment of any amount owing under this Bond is not made by the Borrower when and as due; (B) payment is made by RUS in accordance with the guarantee set forth at the end of this Bond; and (C) RUS delivers notice to both the Borrower and FFB advising each of them that each Refinancing Election Notice delivered by the Borrower after the date of such notice shall require the approval of RUS; or

(2) FFB at any time delivers written notice to both the Borrower and RUS advising each of them that each Refinancing Election Notice delivered by the Borrower after the date of such notice shall require the approval of RUS.

(e) The Borrower shall pay to FFB a price for the refinancing of any Advance (such price being the "Refinancing Price" for such Advance) equal to the sum of:

(1) all unpaid interest (and Late Charges, if any) accrued on such Advance through the Intended Refinancing Date; and

(2) the amount of the premium (if any) that is required under the particular prepayment/refinancing privilege that applies to such Advance as provided in article 11 of the Bond Purchase Agreement.

In the event that (A) the prepayment/refinancing privilege that applies to the particular Advance being refinanced is the privilege described in section 11.2 of the Bond Purchase Agreement, and (B) the Market Value Premium (or Discount) that is to be included in the Refinancing Price for such Advance is a discount on such Advance, then such discount shall be applied by FFB in the manner requested by the Borrower in a written notice delivered by the Borrower to FFB and approved by RUS in writing.

(f) Payment of the Refinancing Price for any Advance shall be due to FFB before 3:00 p.m. (Washington, DC, time) on the Intended Refinancing Date for such Advance.

(g) In the event that a Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB on or before the fifth Business Day before the Intended Refinancing Date specified therein, then the refinancing of the respective Advance shall become effective on such Intended Refinancing Date (in such event, the Intended Refinancing Date being the "Refinancing Effective Date"). In the event that a Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB after the fifth Business Day before the Intended Refinancing Date specified therein, then the refinancing of the respective Advance shall become effective on the fifth Business Day to occur after the day on which such Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB (in such event, the fifth Business Day to occur after the day on which such Refinancing Election Notice (and, if required under subparagraph (d) of this paragraph 17, written notification of RUS's approval thereof) is received by FFB being the "Refinancing Effective Date"), provided that the Borrower shall have paid to FFB, in addition to the Refinancing Price required under subparagraph (e) of this paragraph 17, the interest accrued from the Intended Refinancing Date through such Refinancing Effective Date.

(h) In the event that the Borrower makes a Refinancing Election with respect to any Advance, the basic interest rate for such Advance, from and after the respective Refinancing Effective Date, shall be the particular rate that is established by FFB, as of such Refinancing Effective Date, in accordance with the principles of paragraph 6(c) of this Bond.

(i) In the event that the Borrower makes a Refinancing Election with respect to any Advance, then the fee for such Advance, from and after the respective Refinancing Effective Date, shall be the particular fee that is assessed by FFB, as of such Refinancing Effective Date, with the new Advance Period being the period from the Refinancing Effective Date through the new Maturity Date, in accordance with the principles of paragraphs 9(b) and (c) of this Bond.

(j) In the event that (1) the Borrower makes a Refinancing Election with respect to any Advance, and (2) the Borrower selects as the Maturity Date for such refinanced Advance either (A) the Maturity Date that is in effect for such Advance immediately before such refinancing, and such Maturity Date will occur before the fifth anniversary of the respective Refinancing Effective Date, or (B) a new Maturity Date that will occur before the fifth anniversary of the respective Refinancing

Effective Date, then the prepayment/refinancing privilege described in section 11.2 of the Bond Purchase Agreement shall apply automatically to such Advance.

(k) In the event that (1) the Borrower makes a Refinancing Election with respect to any Advance, and (2) the Borrower selects as the Maturity Date for such refinanced Advance either (A) the Maturity Date that is in effect for such Advance immediately before such refinancing, and such Maturity Date will occur on or after the fifth anniversary of the respective Refinancing Effective Date, or (B) a new Maturity Date that will occur on or after the fifth anniversary of the respective Refinancing Effective Date, then the Borrower must elect a prepayment/refinancing privilege for such refinanced Advance from between the options described in sections 11.2 and 11.3 of the Bond Purchase Agreement (provided, however, that each of the references to the "Requested Advance Date for such Advance" in section 11.3 of the Bond Purchase Agreement shall be deemed to be a reference to the "respective Refinancing Effective Date"). The Refinancing Election Notice delivered by the Borrower in connection with each such Refinancing Election must also specify the particular prepayment/refinancing privilege that the Borrower elects for the respective refinanced Advance. In the event that the Borrower elects for any such refinanced Advance a prepayment/refinancing privilege described in section 11.3 of the Bond Purchase Agreement, then the interest rate for such refinanced Advance, from and after the respective Refinancing Effective Date, shall include a price (expressed in terms of a basis point increment to the applicable basic interest rate) for the particular prepayment/refinancing privilege that the Borrower elects, which increment shall be established by FFB, as of such Refinancing Effective Date, in accordance with the principles of paragraph 6(d) of this Bond.

(l) In the event that the Borrower makes a Refinancing Election with respect to any Advance, then the outstanding principal amount of such Advance, after the respective Refinancing Effective Date, shall be due and payable in accordance with this subparagraph (l).

(1) With respect to each Advance to which either the "equal principal installments" method or the "graduated principal installments" method for the repayment of principal applies, the amount of the quarterly principal installments that will be due after the respective Refinancing Effective Date shall be equal to the amount of the quarterly installments of equal principal or graduated principal, as the case may be, that were due in accordance with the principal repayment schedule that applied to such Advance immediately before the respective Refinancing Effective Date.

(2) With respect to each Advance to which the "level debt service" method for the repayment of principal

applies, the amount of the level quarterly payments consisting of a principal installment and accrued interest that will be due after the respective Refinancing Effective Date shall be newly computed so that the amount of each such quarterly payment consisting of a principal installment and accrued interest (taking into account the new interest rate that applies to such Advance from and after such Refinancing Effective Date) shall be substantially equal to the amount of every other quarterly payment consisting of a principal installment and accrued interest, and shall be sufficient, when added to all other such newly-computed level quarterly payments consisting of a principal installment and accrued interest, to repay the outstanding principal amount of such refinanced Advance in full on the Final Maturity Date (notwithstanding the fact that the Borrower may have selected a Maturity Date for such refinanced Advance that will occur before the Final Maturity Date).

(3) The quarterly installments of equal principal or graduated principal, or the newly-computed level quarterly payments consisting of a principal installment and accrued interest, as the case may be, shall be due beginning on the first Payment Date to occur after the respective Refinancing Effective Date, and shall be due on each Payment Date to occur thereafter up through and including the earlier to occur of (A) the new Maturity Date that the Borrower selected for such refinanced Advance, on which date the entire unpaid principal amount of such refinanced Advance shall also be payable, subject to Maturity Extensions (as provided in paragraph 15 of this Note) if the new Maturity Date is an Interim Maturity Date, or (B) the date on which the entire principal amount of such refinanced Advance, and all unpaid interest (and Late Charges, if any) accrued thereon, are paid.

(m) The Borrower may make more than one Refinancing Election with respect to any Advance.

18. Rescission of Prepayment Elections and Refinancing Elections; Late Charges for Late Payments.

(a) The Borrower may rescind any Prepayment Election made in accordance with paragraph 16 of this Bond or any Refinancing Election made in accordance with paragraph 17 of this Bond, but only in accordance with this paragraph 18.

(b) The Borrower shall deliver to both FFB and RUS written notification of each rescission of a Prepayment Election or a Refinancing Election (each such notification being an "Election Rescission Notice") specifying the particular Advance for which the Borrower wishes to rescind such Prepayment Election or Refinancing Election, as the case may be, which specification must make reference to both:

(1) the particular Advance Identifier that FFB assigned to such Advance (as provided in the Bond Purchase Agreement); and

(2) the RUS account number for such Advance.

The Election Rescission Notice may be delivered by facsimile transmission to FFB at (202) 622-0707 and to RUS at (844) 749-0736, or at such other facsimile number or numbers as either FFB or RUS may from time to time communicate to the Borrower.

(c) To be effective, an Election Rescission Notice must be received by both FFB and RUS not later than 3:30 p.m. (Washington, DC, time) on the second Business Day before the Intended Prepayment Date or the Intended Refinancing Date, as the case may be.

(d) In the event that the Borrower (1) makes a Prepayment Election in accordance with paragraph 16 of this Bond or a Refinancing Election in accordance with paragraph 17 of this Bond; (2) does not rescind such Prepayment Election or Refinancing Election, as the case may be, in accordance with this paragraph 18; and (3) does not, before 3:00 p.m. (Washington, DC, time) on the Intended Prepayment Date or Intended Refinancing Date, as the case may be, pay to FFB the Prepayment Price described in paragraph 16(e) of this Bond or Refinancing Price described in paragraph 17(e) of this Bond, as the case may be, then a Late Charge shall accrue on any such unpaid amount from the Intended Prepayment Date or Intended Refinancing Date, as the case may be, to the date on which payment is made, computed in accordance with the principles of paragraph 11 of this Bond.

19. <u>Amendments to Bond</u>.

To the extent not inconsistent with applicable law, this Bond, for so long as FFB or its agent is the holder thereof, shall be subject to modification by such amendments, extensions, and renewals as may be agreed upon from time to time by FFB and the Borrower, with the approval of RUS.

20. <u>Certain Waivers</u>.

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

21. <u>Bond Effective Until Paid</u>.

This Bond shall continue in full force and effect until all principal outstanding hereunder, all interest accrued hereunder, all premiums (if any) payable under paragraphs 16 and 17 of this Bond, all Late Charges (if any) payable under paragraphs 11 and

18 of this Bond, and all fees (if any) payable under paragraph 9 of this Bond have been paid in full.

22. RUS Guarantee of Bond.

Upon execution of the guarantee set forth at the end of this Bond (the "RUS Guarantee"), the payment by the Borrower of all amounts due and payable under this Bond, when and as due, shall be guaranteed by the United States of America, acting through RUS, pursuant to the Rural Electrification Act of 1936, as amended (codified at 7 U.S.C. § 901 et seq.). In consideration of the RUS Guarantee, the Borrower promises to RUS to make all payments due under this Bond when and as due.

23. Pledge Agreement.

This Bond is one of several Bonds referred to in the Pledge Agreement, wherein the Borrower made provision for the pledge and grant of a security interest in, under certain circumstances described therein, certain property of the Borrower, described therein, to secure the payment of and performance of certain obligations owed to RUS, as set forth in the Pledge Agreement.

24. Guarantee Payments; Reimbursement.

If RUS makes any payment, pursuant to the RUS Guarantee, of any amount due and payable under this Bond, when and as due, each and every such payment so made shall be deemed to be a payment hereunder; provided, however, that no payment by RUS pursuant to the RUS Guarantee shall be considered a payment for purposes of determining the existence of a failure by the Borrower to perform its obligation to RUS to make all payments under this Bond when and as due. RUS shall have any rights by way of subrogation, agreement or otherwise which arise as a result of such payment pursuant to the RUS Guarantee.

25. Default and Enforcement.

In case of a default by the Borrower under this Bond or the occurrence of an event of default under the Bond Guarantee Agreement, then, in consideration of the obligation of RUS under the RUS Guarantee, in that event, to make payments to FFB as provided in this Bond, RUS, in its own name, shall have all rights, powers, privileges, and remedies of the holder of this Bond, in accordance with the terms of this Bond, the Bond Guarantee Agreement, and the Pledge Agreement, including, without limitation, the right to enforce or collect all or any part of the obligation of the Borrower under this Bond or arising as a result of the RUS Guarantee, to file proofs of claim or any other document in any bankruptcy, insolvency, or other judicial proceeding, and to vote such proofs of claim.

26. Acceleration.

The entire unpaid principal amount of this Bond, and all interest thereon, may be declared, and upon such declaration shall become, due and payable to RUS, under the circumstances described, and in the manner and with the effect provided, in the Bond Guarantee Agreement.

IN WITNESS WHEREOF, the Borrower has caused this Bond to be signed in its corporate name and its corporate seal to be hereunder affixed and attested by its officers thereunto duly authorized, all as of the day and year first above written.

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION
(the "Borrower")

BY:

Signature: ___________________________

Print Name: J. Andrew Don

Title: Governor and
Chief Executive Officer

ATTEST:

Signature: ___________________________

(SEAL)

Print Name: Roberta B. Aronson

Title: Assistant Secretary-Treasurer

ANNEX 1-A

TO

FUTURE ADVANCE BOND

FORM

OF

MATURITY EXTENSION ELECTION NOTICE

MATURITY EXTENSION ELECTION NOTICE

****

PART 1 OF THIS FORM HAS BEEN COMPLETED BY RUS. THE BORROWER SHOULD COMPLETE PART 2 OF THIS FORM ONLY FOR THOSE PARTICULAR ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WITH RESPECT TO WHICH THE BORROWER ELECTS TO HAVE THE MATURITY EXTENDED TO A NEW MATURITY DATE OTHER THAN THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of the Assistant Administrator, Electric Program
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 the Assistant Administrator, Electric Program
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1560
1400 Independence Avenue, SW
Washington, DC 20250

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

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

THE BORROWER SHOULD NOT COMPLETE THIS FORM OR DELIVER IT TO FFB IF THE BORROWER DESIRES TO HAVE THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

IF THE BORROWER DOES NOT RETURN THIS FORM TO FFB, THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WILL BE EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

****

MATURITY EXTENSION ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier: ______________________

RUS Bond Number: ______________________

Part 1 (To be completed by RUS):

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

FRB ADVANCE IDENTIFIER	RUS ACCOUNT NUMBER	ORIGINAL ADVANCE DATE	ORIGINAL ADVANCE AMOUNT	OUTSTANDING PRINCIPAL AMOUNT
______________	______________	______________	$________________	$________________
______________	______________	______________	$________________	$________________
______________	______________	______________	$________________	$________________
______________	______________	______________	$________________	$________________

Part 2:

Notice is hereby given to FFB (and RUS) of the Borrower's election that the maturity of each of the Advances identified in this Part 2 be extended as follows:

FFB ADVANCE IDENTIFIER[1]	OPTIONAL PRINCIPAL PAYMENT[2]	AMOUNT OF PRINCIPAL TO BE EXTENDED[3]	NEW MATURITY DATE[4]	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE[5]	5-YEAR NO-CALL PERIOD[6]	PREMIUM OPTION[7]
____________	$ ________	____________	________	☐	☐	☐
____________	$ ________	____________	________	☐	☐	☐
____________	$ ________	____________	________	☐	☐	☐
____________	$ ________	____________	________	☐	☐	☐

[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 <u>other than</u> 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 <u>difference between</u> 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 <u>new</u> 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 <u>only</u> if the new Maturity Date selected for such Advance will occur <u>on or after</u> 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 <u>only</u> 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 <u>not</u> 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 <u>only</u> if a fixed premium privilege is elected as the prepayment/refinancing privilege for such Advance. The 3 premium options are: a 10% premium declining over 10 years ("X"), a 5% premium declining over 5 years ("V"), and par (no premium) ("P"). Insert in the box the letter-symbol for the particular premium option selected.

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Maturity Extension Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
(the "Borrower")

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

ANNEX 1-B

TO

FUTURE ADVANCE BOND

FORM

OF

MATURITY EXTENSION ELECTION NOTICE

(RUS APPROVAL REQUIRED)

MATURITY EXTENSION ELECTION NOTICE
(RUS APPROVAL REQUIRED)

****

PART 1 OF THIS FORM HAS BEEN COMPLETED BY RUS. THE BORROWER SHOULD COMPLETE PART 2 OF THIS FORM ONLY FOR THOSE PARTICULAR ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WITH RESPECT TO WHICH THE BORROWER ELECTS TO HAVE THE MATURITY EXTENDED TO A NEW MATURITY DATE OTHER THAN THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of the Assistant Administrator, Electric Program
Telephone: (202) 205-8663

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

Office of the Assistant Administrator, Electric Program
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1560
1400 Independence Avenue, SW
Washington, DC 20250

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

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

THE BORROWER SHOULD NOT COMPLETE THIS FORM OR DELIVER IT TO RUS IF THE BORROWER DESIRES TO HAVE THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

IF THE BORROWER DOES NOT RETURN THIS FORM TO RUS, THE MATURITY OF ALL OF THE ADVANCES IDENTIFIED IN PART 1 OF THIS FORM WILL BE EXTENDED AUTOMATICALLY TO THE IMMEDIATELY FOLLOWING QUARTERLY PAYMENT DATE.

****

MATURITY EXTENSION ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier: ______________________

RUS Bond Number: ______________________

Part 1 (To be completed by RUS):

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

FRB ADVANCE IDENTIFIER	RUS ACCOUNT NUMBER	ORIGINAL ADVANCE DATE	ORIGINAL ADVANCE AMOUNT	OUTSTANDING PRINCIPAL AMOUNT
____________	____________	____________	$______________	$______________
____________	____________	____________	$______________	$______________
____________	____________	____________	$______________	$______________
____________	____________	____________	$______________	$______________

Part 2:

Notice is hereby given to FFB (and RUS) of the Borrower's election that the maturity of each of the Advances identified in this Part 2 be extended as follows:

FFB ADVANCE IDENTIFIER[1]	OPTIONAL PRINCIPAL PAYMENT[2]	AMOUNT OF PRINCIPAL TO BE EXTENDED[3]	NEW MATURITY DATE[4]	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE[5]	5-YEAR NO-CALL PERIOD[6]	PREMIUM OPTION[7]
________	$ ________	________	________	☐	☐	☐
________	$ ________	________	________	☐	☐	☐
________	$ ________	________	________	☐	☐	☐
________	$ ________	________	________	☐	☐	☐

[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.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
(the "Borrower")

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

NOTICE OF RUS APPROVAL OF MATURITY EXTENSION ELECTION NOTICE

Notice is hereby given to FFB that the preceding Maturity Extension Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

ANNEX 2-A
TO
FUTURE ADVANCE BOND

FORM
OF
PREPAYMENT ELECTION NOTICE
SPECIFIED PRINCIPAL AMOUNT(S)
(RUS APPROVAL REQUIRED)

PREPAYMENT ELECTION NOTICE
SPECIFIED PRINCIPAL AMOUNT(S)
(RUS APPROVAL REQUIRED)

****

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of the Assistant Administrator, Electric Program
Telephone: (202) 205-8663

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

Office of the Assistant Administrator, Electric Program
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1560
1400 Independence Avenue, SW
Washington, DC 20250

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

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

****

PREPAYMENT ELECTION NOTICE
SPECIFIED PRINCIPAL AMOUNT(S)

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier: ______________________[1]

[1]Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to prepay all or a portion of the outstanding principal amount of the advances of funds ("Advances") identified in this Part 1:

FRB ADVANCE IDENTIFIER[2]	RUS ACCOUNT NUMBER[3]	ORIGINAL ADVANCE DATE[4]	ORIGINAL ADVANCE AMOUNT[5]	OUTSTANDING PRINCIPAL AMOUNT[6]
______________	______________	______________	$________________	$________________
______________	______________	______________	$________________	$________________
______________	______________	______________	$________________	$________________

Part 2:

The Borrower intends to prepay all or a portion of the outstanding principal amount of each of the Advances identified in Part 1 on the following date (such date being the "Intended Prepayment Date"):

____[7]

[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.

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]		**AMOUNT OF PRINCIPAL TO BE REPAID**[9]
______________	$	______________
______________	$	______________
______________	$	______________

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Prepayment Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
(the "Borrower")

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

[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.

NOTICE OF RUS APPROVAL OF
PREPAYMENT ELECTION NOTICE

Notice is hereby given to FFB that the preceding Prepayment Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: ________________________

Name: ______________________

Title: ________________________

Date: _______________________

ANNEX 2-B

TO

FUTURE ADVANCE BOND

FORM

OF

PREPAYMENT ELECTION NOTICE

FIXED SUM TO BE APPLIED

(RUS APPROVAL REQUIRED)

PREPAYMENT ELECTION NOTICE
FIXED SUM TO BE APPLIED
(RUS APPROVAL REQUIRED)

****

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of the Assistant Administrator, Electric Program
Telephone: (202) 205-8663

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

Office of the Assistant Administrator, Electric Program
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1560
1400 Independence Avenue, SW
Washington, DC 20250

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

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

****

PREPAYMENT ELECTION NOTICE
FIXED SUM TO BE APPLIED

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Finance Corporation

FFB Bond Identifier: ______________________[1]

---

[1] Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to prepay all or a portion of the outstanding principal amount of the advances of funds ("Advances") identified in this Part 1:

FRB ADVANCE IDENTIFIER[2]	RUS ACCOUNT NUMBER[3]	ORIGINAL ADVANCE DATE[4]	ORIGINAL ADVANCE AMOUNT[5]	OUTSTANDING PRINCIPAL AMOUNT[6]
____________	____________	____________	$______________	$______________
____________	____________	____________	$______________	$______________
____________	____________	____________	$______________	$______________

Part 2:

The Borrower intends to 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]

[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.

Part 3:

The Borrower elects to have the following amount of funds applied by FFB toward a prepayment of the outstanding principal amount of the Advances identified in Part 1, in the order in which they appear in Part 1:

____[8]

The undersigned hereby certifies that the authority of the undersigned to execute and deliver this Prepayment Election Notice on behalf of the Borrower is valid and in full force and effect on the date hereof.

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION
(the "Borrower")

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

[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.

NOTICE OF RUS APPROVAL OF
PREPAYMENT ELECTION NOTICE

Notice is hereby given to FFB that the preceding Prepayment Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

ANNEX 3-A

TO

FUTURE ADVANCE BOND

FORM

OF

REFINANCING ELECTION NOTICE

REFINANCING ELECTION NOTICE

****

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of the Assistant Administrator, Electric Program
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 the Assistant Administrator, Electric Program
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1560
1400 Independence Avenue, SW
Washington, DC 20250

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

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

****

REFINANCING ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Corporation

FFB Bond Identifier: ______________________[1] **RUS**

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:

FRB ADVANCE IDENTIFIER[2]	RUS ACCOUNT NUMBER[3]	ORIGINAL ADVANCE DATE[4]	ORIGINAL ADVANCE AMOUNT[5]	OUTSTANDING PRINCIPAL AMOUNT[6]
____________	____________	____________	$______________	$______________
____________	____________	____________	$______________	$______________
____________	____________	____________	$______________	$______________

Part 2:

The Borrower intends to refinance the outstanding principal amount of each of the Advances identified in Part 1 on the following date (such date being the "Intended Refinancing Date"):

______________________________________[7]

[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.

Part 3:

Notice is hereby given to FFB (and RUS) of the Borrower's election that each of the Advances identified in Part 1 is to be refinanced as follows:

FFB ADVANCE IDENTIFIER[8]	AMOUNT OF PRINCIPAL TO BE REFINANCED[9]	NEW MATURITY DATE[10]	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE[11]	5-YEAR NO-CALL PERIOD[12]	PREMIUM OPTION[13]
______	$ ______	______	☐	☐	☐
______	$ ______	______	☐	☐	☐
______	$ ______	______	☐	☐	☐
______	$ ______	______	☐	☐	☐

[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: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

ANNEX 3-B

TO

FUTURE ADVANCE BOND

FORM

OF

REFINANCING ELECTION NOTICE

(RUS APPROVAL REQUIRED)

REFINANCING ELECTION NOTICE
(RUS APPROVAL REQUIRED)

****

DIRECT ALL QUESTIONS ON HOW TO COMPLETE THIS FORM TO THE ASSIGNED CONTACT OFFICE FOR THE BORROWER:

Office of the Assistant Administrator, Electric Program
Telephone: (202) 205-8663

WHEN COMPLETED, DELIVER THIS ORIGINAL FORM TO RUS AT THE ADDRESS OF THE CONTACT OFFICE INDICATED BELOW:

Office of the Assistant Administrator, Electric Program
Rural Utilities Service
U.S. Department of Agriculture
Mail Stop 1560
1400 Independence Avenue, SW
Washington, DC 20250

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

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

****

REFINANCING ELECTION NOTICE

Director of Lending
Federal Financing Bank

Reference is made to the following-described Future Advance Bond (the "Bond") payable to the Federal Financing Bank ("FFB"), which is guaranteed by the Rural Utilities Service ("RUS"):

Name of Borrower (the "Borrower"):

National Rural Utilities Cooperative Corporation

FFB Bond Identifier: ______________________[1]

[1] Insert the FFB Bond Identifier that FFB assigned to the Bond (as provided in the Bond Purchase Agreement referred to in the Bond).

Part 1:

Notice is hereby given to FFB (and RUS) of the Borrower's election to refinance the outstanding principal amount of each of the advances of funds ("Advances") identified in this Part 1:

FRB ADVANCE IDENTIFIER[2]	RUS ACCOUNT NUMBER[3]	ORIGINAL ADVANCE DATE[4]	ORIGINAL ADVANCE AMOUNT[5]	OUTSTANDING PRINCIPAL AMOUNT[6]
______________	______________	______________	$________________	$________________
______________	______________	______________	$________________	$________________
______________	______________	______________	$________________	$________________

Part 2:

The Borrower intends to refinance the outstanding principal amount of each of the Advances identified in Part 1 on the following date (such date being the "Intended Refinancing Date"):

____[7]

---

[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.

Part 3:

Notice is hereby given to FFB (and RUS) of the Borrower's election that each of the Advances identified in Part 1 is to be refinanced as follows:

FFB ADVANCE IDENTIFIER[8]	AMOUNT OF PRINCIPAL TO BE REFINANCED[9]	NEW MATURITY DATE[10]	TYPE OF PREPAYMENT/ REFINANCING PRIVILEGE[11]	5-YEAR NO-CALL PERIOD[12]	PREMIUM OPTION[13]
____________	$ ____________	____________	☐	☐	☐
____________	$ ____________	____________	☐	☐	☐
____________	$ ____________	____________	☐	☐	☐
____________	$ ____________	____________	☐	☐	☐

---

[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: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

NOTICE OF RUS APPROVAL OF
REFINANCING ELECTION NOTICE

Notice is hereby given to FFB that the preceding Refinancing Election Notice made by the Borrower identified therein has been approved by RUS for purposes of the Bond identified therein.

ADMINISTRATOR of the
RURAL UTILITIES SERVICE,
acting through his or her
duly authorized designee

By: ________________________

Name: ________________________

Title: ________________________

Date: ________________________

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

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION

and

U.S. BANK NATIONAL ASSOCIATION,
as Collateral Agent

EIGHTH AMENDED, RESTATED AND CONSOLIDATED PLEDGE AGREEMENT

Dated as of
November 4, 2021

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EIGHTH AMENDED, RESTATED AND CONSOLIDATED PLEDGE AGREEMENT, dated as of November 4, 2021, among NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, a District of Columbia cooperative association and its successors and assigns (hereinafter called the "Borrower"), having its principal executive office and mailing address at 20701 Cooperative Way, Dulles, Virginia 20166, the UNITED STATES OF AMERICA, acting through the Rural Utilities Service, a Rural Development agency of the United States Department of Agriculture and its successors and assigns ("RUS"), and U.S. BANK NATIONAL ASSOCIATION, a national association and its successors and assigns (hereinafter called the "Collateral Agent"), having its corporate office at 100 Wall Street, Suite 1600, New York, NY 10005-3701.

RECITALS OF THE BORROWER

WHEREAS, the Borrower has previously issued the following bonds to the Federal Financing Bank ("FFB") to evidence loans therefrom in the aggregate principal amount of up to $8,173,286,000: (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, (l) that certain Series N Future Advance Bond dated as of November 15, 2018, (m) that certain Series P Future Advance Bond dated as of February 13, 2020, and (n) that certain Series R Future Advance Bond dated as of November 19, 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 $550,000,000.00 (hereinafter called the "Series S Bond") and may from time to time issue additional bonds to FFB (the "New Bonds"); (the Original Bonds, the Series S Bond, and the New Bonds are collectively referred to as the "Bonds");

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

November 19, 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 S Bond, the Borrower and FFB have entered into the Eighth Amended, Restated and Consolidated Bond Guarantee Agreement, dated as of November 4, 2021 (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 Seventh Amended, Restated and Consolidated Pledge Agreement, dated as of November 19, 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

Definitions and Other Provisions of General Application

SECTION 1.01. Definitions. For all purposes of this Pledge Agreement, except as otherwise expressly provided or unless the context otherwise requires:

(i) the terms defined in this Article have the meanings assigned to them in this Article, and include the plural as well as the singular;

(ii) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with generally accepted accounting principles;

(iii) all reference in this instrument to designated “Articles”, “Sections” and other subdivisions are to the designated Articles, Sections and other subdivisions of this instrument; and

(iv) the words “herein”, “hereof” and “hereunder” and other words of similar import refer to this Pledge Agreement as a whole and not to any particular Article, Section or other subdivision.

“Allowable Amount” on any date, means:

(a) with respect to cash, 100% thereof;

(b) with respect to Eligible Securities, the aggregate principal amount of such Eligible Securities theretofore advanced thereon which remains unpaid on such date; and

(c) with respect to Permitted Investments, the cost to the Borrower thereof (exclusive of accrued interest or brokerage commissions) except that with respect to any Permitted Investments which are traded on any national securities exchange or over-the-counter market, Allowable Amount on any date shall mean the fair market value thereof (as determined by the Borrower).

“Bonds” has the meaning set forth in the recitals hereto.

“Borrower” means the Person named as the “Borrower” in the first paragraph of this instrument.

"Borrower Notice" and "Borrower Order" mean, respectively, a written notice or order signed in the name of the Borrower by either its Governor, Chief Financial Officer, and by any Vice President of the Borrower, and delivered to the Collateral Agent and RUS.

"Business Day" shall have the meaning given to such term in the Consolidated Bond Guarantee Agreement.

"Certificate of Pledged Collateral" means (i) the Certificate of Pledged Collateral delivered to the Collateral Agent and RUS as of Closing Date and (ii) each certificate delivered from and after the date hereof to the Collateral Agent and RUS substantially in the form of Schedule I attached hereto.

"Class B Member" means any Class B Member of the Borrower as described in the Borrower's Bylaws as of the date hereof.

"Closing Date" shall mean November 4, 2021.

"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," "Doubtful," or "Loss" 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

Application of this Pledge Agreement

SECTION 2.01 Application of the Lien of this Pledge Agreement. Notwithstanding any other provision of this Pledge Agreement, and in accordance with the Granting Clause hereof, the Lien hereof shall automatically and without further act, attach and apply to the Pledged Securities.

SECTION 2.02 Delivery of Certificates of Pledged Collateral.

(a) On each of the following: (i) the Closing Date, (ii) within 15 Business Days of the end of each of the Borrower's fiscal quarters (August 31, November 30, February 28 and May 31), and (iii) each time money is advanced under a Bond, the Borrower shall deliver, and from time to time the Borrower may deliver, a Certificate of Pledged Collateral to the Collateral Agent and RUS, showing that the aggregate principal amount of Pledged Collateral specified in Schedule A thereto that have been delivered to the Collateral Agent as of the last day of the most recent month ended more than 10 Business Days before the date thereof shall at least equal the aggregate principal amount of the Bonds outstanding, or to be outstanding after any such advance, at the date thereof. At the time of delivery of a Certificate of Pledged Collateral, the Borrower shall deliver to the Collateral Agent all Pledged Collateral specified in such certificate that are not already deposited with the Collateral Agent accompanied by the appropriate instruments of transfer executed in blank and in a form satisfactory to the Collateral Agent and by such other instruments and documents as the Collateral Agent may reasonably request. The Borrower acknowledges and agrees that it is pledging the Pledged Collateral to RUS to reimburse RUS for all payments made, and expenses incurred, by RUS under the Reimbursement Notes, including any and all principal, interest and fees accruing thereunder, and any additional fees incurred by RUS in connection with RUS exercising its rights and remedies under the Consolidated Bond Guarantee Agreement and this Pledge Agreement upon the occurrence of an Event of Default (as defined in Section 10.1 of the Consolidated Bond Guarantee Agreement). All Pledged Collateral deposited with the Collateral Agent that were previously Pledged Collateral, but that is no longer specified in the Certificate of Pledged Collateral most recently delivered, shall, at the Borrower's expense and pursuant to a Borrower Order, be returned by the Collateral Agent to the Borrower.

(b) Each time that the Borrower requests an advance under a Bond, the Borrower is required to submit to RUS Schedule A to the Certificate of Pledged Collateral no more than ninety (90) days prior to the date of the requested advance. RUS shall have, in its sole discretion, the right to reject any Pledged Collateral listed on Schedule A to the Certificate of Pledged Collateral by providing written notice of such rejection to the Borrower within fourteen (14) Business Days of RUS's receipt of such Schedule. Schedule A to the Certificate of Pledged Collateral will be deemed to have been approved by RUS in the event that RUS does not reject any Pledged Collateral listed thereon by written notice within fourteen (14) Business Days of its receipt of such Schedule.

(c) In the event that RUS rejects any portion of the Pledged Collateral listed on Schedule A to the Certificate of Pledged Collateral pursuant to Section 2.02 (b) above, the Borrower shall have thirty (30) days to replace, substitute or withdraw the Pledged Collateral and replace the Pledged Collateral with Pledged Collateral to be approved or deemed approved by RUS pursuant to Section 2.02(b) above. Notwithstanding the foregoing, Borrower will make all reasonable attempts to replace any Pledged Collateral rejected by RUS prior to an advance. RUS shall not be required to process an advance request until it is reasonably satisfied that Borrower has made or will make attempts to replace any such rejected Pledged Collateral.

(d) Each time that the Borrower requests an advance under the Series S 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 S 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 2.03. Maintenance of Pledged Collateral.

(a) The Collateral Agent shall hold and segregate the Pledged Collateral in a separate account.

(b) The Borrower shall cause the aggregate principal amount of Pledged Collateral at all times to be not less than 100% of the aggregate principal amount of the Bonds outstanding.

(c) The Borrower shall cause the aggregate principal amount of the Pledged Collateral of Class B Members at all times to be not more than 30% of the total aggregate principal amount of the Pledged Collateral.

(d) The Borrower shall not create, or permit to exist, any Lien that is secured by, or in any way attaches to, the Pledged Collateral, without the prior written consent of RUS.

SECTION 2.04. UCC Filings. The Borrower shall prepare and file in the proper Uniform Commercial Code filing office in the District of Columbia (i) on or prior to the Closing Date, a financing statement recording the Collateral Agent's interest in the Pledged Collateral; and (ii) from time to time thereafter, continuation statements or such other filings as are necessary to maintain the perfection of the Lien hereof on the Pledged Collateral.

ARTICLE III
Provisions as to Pledged Collateral

SECTION 3.01 Pledged Securities. The "Pledged Securities" shall mean (i) the Eligible Securities listed on Schedule A and Schedule B of the Certificate of Pledged Collateral delivered on the Closing Date and (ii) the Eligible Securities listed on Schedule A and Schedule B of any Certificate of Pledged Collateral delivered subsequent to the execution of this Pledge Agreement.

SECTION 3.02 Holding of Pledged Securities. Unless and until an Event of Default shall occur, the Collateral Agent, on behalf of RUS, shall hold the Pledged Securities in the name of the Borrower (or its nominee), endorsed or assigned in blank or in favor of the Collateral Agent. Upon the occurrence of an Event of Default, the Collateral Agent, on behalf of RUS, shall have the right (in its sole and absolute discretion), to the extent a register is maintained therefor, to register the Pledged Securities in the Collateral Agent's own name as pledgee, or in the name of the Collateral Agent's nominee (as pledgee or as sub-agent) or to continue to hold the Pledged Securities in the name of the Borrower, endorsed or assigned in blank or in favor of the Collateral Agent. Upon cessation of such Event of Default, the Collateral Agent shall take such action as is necessary to again cause the Pledged Securities to be registered in the name of the Borrower (or its nominee).

SECTION 3.03 Withdrawal and Substitution of Pledged Collateral.

(a) Any part of the Pledged Collateral may be withdrawn by the Borrower or substituted for cash or other Eligible Securities or Permitted Investments by the Borrower and shall be delivered to the Borrower by the Collateral Agent upon Borrower Order at any time and from time to time, together with any other documents or instruments of transfer or assignment necessary to reassign to the Borrower said Pledged Collateral and the interest of the Borrower, provided the aggregate Allowable Amount of Pledged Collateral remaining after such withdrawal or substitution shall at least equal the aggregate principal amount of the Bonds outstanding after such withdrawal or substitution, as shown by the Certificate of Pledged Collateral furnished to the Collateral Agent pursuant to Subsection (b)(i) of this Section.

(b) Prior to any such withdrawal or substitution, the Collateral Agent shall be furnished with the following instruments:

(i) a Certificate of Pledged Collateral, dated not more than 30 days prior to such withdrawal or substitution, showing that immediately after such withdrawal or substitution the requirements of Subsection (a) of this Section will be satisfied; and

(ii) an Officers' Certificate certifying that no Event of Default has occurred which has not been remedied.

Upon any such withdrawal or substitution, the Borrower shall deliver any cash or Eligible Securities or Permitted Investments to be substituted and the Collateral Agent shall execute any instruments of transfer or assignment specified in a Borrower Order as necessary to vest in the Borrower any part of the Pledged Collateral withdrawn.

In case an Event of Default shall have occurred and be continuing, the Borrower shall not withdraw or substitute any part of the Pledged Collateral, provided that any Pledged Collateral may be withdrawn (a) as provided for in Section 3.04; or (b) upon the deposit with the Collateral Agent of an amount of cash at least equal to the Allowable Amount (at the time of such withdrawal) of the Pledged Securities so withdrawn and the delivery to the Collateral Agent of the instruments referred to in Subsection (b)(i) of this Section and a Borrower Order.

SECTION 3.04 Reassignment of Pledged Securities upon Payment. Upon receipt of:

(i) an Officers' Certificate stating that all payments of principal, premium (if any) and interest have been made upon any Pledged Securities held by the Collateral Agent other than payment of an amount (if any) specified in said certificate required fully to discharge all obligations on said Pledged Securities; and

(ii) cash in the amount (if any) so specified fully to discharge said Pledged Securities,

the Collateral Agent shall deliver to the Borrower upon Borrower Order said Pledged Securities, together with any other documents or instruments of transfer or assignment necessary to reassign to the Borrower said Pledged Securities and the interest of the Borrower specified in such Borrower Order.

SECTION 3.05. Addition of Pledged Collateral. At any time, the Borrower may pledge additional Eligible Securities, cash or Permitted Investments under this Pledge Agreement by delivering such Pledged Collateral to the Collateral Agent, accompanied by a Certificate of Pledged Collateral specifying such additional collateral and dated not more than 30 days prior thereto, provided that, in the case of additional Permitted Investments, no such Permitted Investments shall be subject to any reservations, limitations or conditions referred to in the Granting Clause hereof.

SECTION 3.06. Accompanying Documentation. Where Eligible Securities are delivered to the Collateral Agent under Section 3.03 or Section 3.05, such securities shall be accompanied by the appropriate instruments of transfer executed in blank and in a form satisfactory to the Collateral Agent and by such other instruments and documents as the Collateral Agent may reasonably request. All other property delivered to the Collateral Agent under Section 3.03 or Section 3.05 and comprising part of the Pledged Collateral shall be accompanied by proper instruments of assignment duly executed by the Borrower and such other instruments or documents as the Collateral Agent may reasonably request.

SECTION 3.07. Renewal; Extension; Substitution. Unless and until an Event of Default shall have occurred and be continuing, the Borrower may at any time renew or extend, subject to the Lien of this Pledge Agreement, any Pledged Security upon any terms or may accept in place of and in substitution for any such Pledged Security, another Eligible Security or Securities of the same issuer or of any successor thereto for at least the same unpaid principal amount, all as evidenced by a Borrower Order delivered to the Collateral Agent; provided, however, that in case of any substitution, Eligible Securities substituted as aforesaid shall be subject to the Lien of this Pledge Agreement as part of the Pledged Collateral and be held in the same manner as those for which they shall be substituted, and in the case of each substituted Eligible Security the Borrower shall provide an Officers' Certificate certifying to the Collateral Agent that such substituted security satisfies the requirements of this Section. So long as no Event of Default shall have occurred and be continuing, the Collateral Agent, upon Borrower Order stating that no Event of Default shall have occurred and be continuing, shall execute any consent to any such renewal, extension or substitution as shall be specified in such Borrower Order.

SECTION 3.08. Voting Rights; Interest and Principal

(a) Unless and until an Event of Default has occurred and is continuing, and RUS delivers to the Collateral Agent an RUS Notice of Default suspending the Borrower's rights under this clause:

(i) The Borrower shall be entitled to exercise any and all voting and/or other consensual rights and powers inuring to an owner of Pledged Securities or any part thereof provided that such rights and powers shall not be exercised in any manner inconsistent with the terms of the Consolidated Bond Guarantee Agreement or this Pledge Agreement.

(ii) The Collateral Agent shall execute and deliver to the Borrower, or cause to be executed and delivered to the Borrower, all such proxies, powers of attorney and other instruments as the Borrower may reasonably request for the purpose of enabling the Borrower to exercise the voting and/or consensual rights and powers it is entitled to exercise pursuant to subparagraph (i) above.

(iii) The Borrower shall be entitled to receive and retain any and all interest, principal and other distributions paid on or distributed in respect of the Pledged Securities; provided that any non-cash interest, principal or other distributions that would constitute Pledged Securities if pledged hereunder, and received in exchange for Pledged Securities or any part thereof pledged hereunder, or in redemption thereof, or as a result of any merger, consolidation, acquisition or other exchange of assets to which such issuer of Pledged Securities may be a party or otherwise, shall be and become part of the Pledged Collateral, and, if received by the Borrower, shall not be commingled by the Borrower with any of its other funds or property but shall be held separate and apart therefrom, shall be held in trust for the benefit of the Collateral Agent and shall be forthwith delivered to the Collateral Agent in the same form as so received (with any necessary endorsement).

(b) If an Event of Default shall have occurred and be continuing, then, to the extent such rights are suspended by the applicable RUS Notice of Default, all rights of the Borrower to interest, principal or other distributions that the Borrower is authorized to receive pursuant to paragraph (a)(iii) of this Section 3.08 shall cease, and all such suspended rights shall thereupon become vested in the Collateral Agent, which shall have the sole and exclusive right and authority to receive and retain such interest, principal or other distributions. All interest, principal or other distributions received by the Borrower contrary to the provisions of this Section 3.08 shall be held in trust for the benefit of the Collateral Agent, shall be segregated from other property or funds of the Borrower and shall be forthwith delivered to the Collateral Agent in the same form as so received (with any necessary endorsement). Any and all money and other property paid over to or received by the Collateral Agent pursuant to the provisions of this paragraph (b) shall be retained by the Collateral Agent in an account to be established by the Collateral Agent upon receipt of such money or other property and shall be applied in accordance with the provisions of Section 5.03. After all Events of Default have ceased, the Collateral Agent shall promptly repay to the Borrower (without interest) all interest, principal or other distributions that the Borrower would otherwise be permitted to retain pursuant to the terms of paragraph (a)(iii) of this Section 3.08 and that remain in such account.

(c) If an Event of Default shall have occurred and be continuing, then, to the extent such rights are suspended by the applicable RUS Notice of Default, all rights of the Borrower to exercise the voting and consensual rights and powers it is entitled to exercise pursuant to paragraph (a)(i) of this Section 3.08, and the obligations of the Collateral Agent under paragraph (a)(ii) of this Section 3.08, shall cease, and all such rights shall thereupon become vested in the Collateral Agent, which shall have the sole and exclusive right and authority to exercise such voting and consensual rights and powers; provided that the Collateral Agent shall have the right from time to time during the existence of such Event of Default to permit the Borrower to exercise such rights and powers.

SECTION 3.09 Protection of Title; Payment of Taxes; Liens, etc. The Borrower will:

(i) duly and promptly pay and discharge, or cause to be paid and discharged, before they become delinquent, all taxes, assessments, governmental and other charges lawfully levied, assessed or imposed upon or against any of the Pledged Collateral, including the income or profits therefrom and the interests of the Collateral Agent in such Pledged Collateral;

(ii) duly observe and conform to all valid requirements of any governmental authority imposed upon the Borrower relative to any of the Pledged Collateral, and all covenants, terms and conditions under or upon which any part thereof is held;

(iii) cause to be paid and discharged all lawful claims (including, without limitation, income taxes) which, if unpaid, might become a lien or charge upon Pledged Collateral; and

(iv) do all things and take all actions necessary to keep the Lien of this Pledge Agreement a first and prior lien upon the Pledged Collateral and protect its title to the Pledged Collateral against loss by reason of any foreclosure or other proceeding to enforce any lien prior to or *pari passu* with the Lien of this Pledge Agreement.

Nothing contained in this Section shall require the payment of any such tax, assessment, claim, lien or charge or the compliance with any such requirement so long as the validity, application or amount thereof shall be contested in good faith; provided, however, that the Borrower shall have set aside on its books such reserves (segregated to the extent required by generally accepted accounting principles) as shall be deemed adequate with respect thereto as determined by the Board of Directors of the Borrower (or a committee thereof).

SECTION 3.10. 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.

ARTICLE IV

Application of Moneys Included in Pledged Collateral

SECTION 4.01. Investment of Moneys by Collateral Agent. Any moneys held by the Collateral Agent as part of the Pledged Collateral shall, upon Borrower Order and as stated therein, be invested or reinvested by the Collateral Agent until required to be paid out by the Collateral Agent as provided in this Pledge Agreement, in any one or more of the following (herein called "Permitted Investments"):

(i) obligations of or guaranteed by the United States of America or any agency thereof for which the full faith and credit of the United States of America or such agency shall be pledged;

(ii) obligations of any state or municipality, or subdivision or agency of either thereof, which are rated AA (or equivalent) or better by at least two nationally recognized statistical rating organizations or having a comparable rating in the event of any future change in the rating system of such agencies;

(iii) certificates of deposit issued by, or time deposits of, any bank or trust company (including the Collateral Agent) organized under the laws of the United States of America or any State thereof having capital and surplus of not less than $500,000,000 (determined from its most recent report of condition, if it publishes such reports at least annually pursuant to law or the requirements of Federal or State examining or supervisory authority); and

(iv) commercial paper of bank holding companies or of other issuers (excluding the Borrower) generally rated in the highest category by at least two nationally recognized statistical rating organizations and maturing not more than one year after the purchase thereof.

Unless and until an Event of Default shall have occurred and be continuing, any interest received by the Collateral Agent on any such investments which shall exceed the amount of accrued interest, if any, paid by the Collateral Agent on the purchase thereof, and any profit which may be realized from any sale, redemption or maturity of such investments, shall be paid to the Borrower. Such investments shall be held by the Collateral Agent as a part of the Pledged Collateral, but upon Borrower Order the Collateral Agent shall sell all or any designated part of the same, and the proceeds of such sale shall be held by the Collateral Agent subject to the same provisions hereof as the cash used by it to purchase the investments so sold. In case the net proceeds realized upon any sale, redemption or maturity shall amount to less than the purchase price paid by the Collateral Agent for the purchase of the investments so sold, the Collateral Agent shall notify the Borrower in writing thereof, and the Borrower shall pay to the Collateral Agent the amount of the difference between such purchase price and the amount so realized, and the amount so paid shall be held by the Collateral Agent in like manner and subject to the same conditions as the proceeds realized upon such sale. The Borrower will reimburse the Collateral Agent for any brokerage commissions or other expenses incurred by the Collateral Agent in connection with the purchase or sale of such investments. The Collateral Agent may aggregate such costs and expenses of and such receipts from such investments on a monthly basis (or such other periodic basis as the Borrower and the Collateral Agent may agree in writing from time to time) so as to net each against the other during such period and pay to the Borrower amounts due to it or notify the Borrower of amounts due from it on a net basis for such period.

SECTION 4.02. Collateral Agent To Retain Moneys during Event of Default. If an Event of Default shall have occurred and be continuing, moneys held by the Collateral Agent as a part of the Pledged Collateral shall not be paid over to the Borrower upon Borrower Order except pursuant to Section 5.03.

ARTICLE V

Remedies

SECTION 5.01. Events of Default. "Event of Default", wherever used herein, means any "Event of Default" as defined in Sections 10.1(a) and 10.1(c) of the Consolidated Bond Guarantee Agreement, provided that, for the purposes of this Pledge Agreement:

(a) the Collateral Agent shall not be required to recognize that an Event of Default exists before such time as the Collateral Agent receives an RUS Notice or Borrower Notice stating that an Event of Default exists and specifying the particulars of such default in reasonable detail; and

(b) the Collateral Agent shall not be required to recognize that an Event of Default has ceased until (i) such time as the Collateral Agent receives an RUS Notice stipulating that such event has ceased to exist; or (ii) 30 days after receipt by the Collateral Agent of a Borrower Notice stipulating that such event has ceased to exist, provided that the Collateral Agent does not receive an RUS Notice within such timeframe disputing the cessation of such Event of Default, and further provided that no additional RUS Notice of Default shall have been received in respect of any other subsisting Event(s) of Default. Upon receipt of any Borrower Notice under subparagraph (ii) of this Subsection, the Collateral Agent shall provide a copy of such Borrower Notice to RUS.

SECTION 5.02. Remedies Upon Default. If an Event of Default shall have occurred and be continuing, RUS may issue a notice (an "RUS Notice of Default"), which may be combined with the notice provided under Section 5.01(b), suspending the rights of the Borrower under Section 3.08 in part without suspending all such rights (as specified by RUS in its sole and absolute discretion) without waiving or otherwise affecting RUS' rights to give additional RUS Notices of Default from time to time suspending other rights under Section 3.08 so long as an Event of Default has occurred and is continuing. Subject to paragraph (b) of this Section 5.02, upon cessation of an Event of Default, all rights of the Borrower suspended under the applicable RUS Notice of Default shall 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.

ARTICLE VI

The Collateral Agent

SECTION 6.01. Certain Duties and Responsibilities.

(a) At all times under this Pledge Agreement:

(i) the Collateral Agent undertakes to perform such duties and only such duties as are specifically set forth in this Pledge Agreement, and no implied covenants or obligations shall be read into this Pledge Agreement against the Collateral Agent; and

(ii) in the absence of bad faith on its part, the Collateral Agent may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Collateral Agent and substantially conforming to the requirements of this Pledge Agreement; but in the case of any such certificates or opinions which by any provision hereof are specifically required to be furnished to the Collateral Agent the Collateral Agent shall be under a duty to examine the same to determine whether or not they substantially conform to the requirements of this Pledge Agreement.

(b) No provision of this Pledge Agreement shall be construed to relieve the Collateral Agent from liability for its own grossly negligent action, its own grossly negligent failure to act, or its own willful misconduct, except that:

(i) this Subsection shall not be construed to limit the effect of Subsection (a) of this Section;

(ii) the Collateral Agent shall not be liable for any error of judgment made in good faith, unless it shall be proved that the Collateral Agent was grossly negligent in ascertaining the pertinent facts; and

(iii) no provision of this Pledge Agreement shall require the Collateral Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

(c) Whether or not therein expressly so provided, every provision of this Pledge Agreement relating to the conduct or affecting the liability of or affording protection to the Collateral Agent shall be subject to the provisions of this Section.

SECTION 6.02. Certain Rights of Collateral Agent. Except as otherwise provided in Section 6.01:

(a) the Collateral Agent may rely and shall be protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(b) any request or direction of the Borrower mentioned herein shall be sufficiently evidenced by a Borrower Notice or Borrower Order;

(c) any request or direction of RUS mentioned herein shall be sufficiently evidenced by an RUS Notice or RUS Order;

(d) whenever in the administration of this Pledge Agreement the Collateral Agent shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Collateral Agent (unless other evidence be herein specifically prescribed) may, in the absence of bad faith on its part, rely upon an Officers' Certificate in the case of the Borrower, and a certificate signed by the Secretary in the case of RUS;

(e) the Collateral Agent may consult with counsel and the advice of such counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;

(f) the Collateral Agent shall be under no obligation to exercise any of the rights or powers vested in it by this Pledge Agreement at the request or direction of either the Borrower or RUS pursuant to this Pledge Agreement, unless such party shall have offered to the Collateral Agent reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction;

(g) the Collateral Agent shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture or other paper or document, or to recompute, verify, reclassify or recalculate any information contained therein, but the Collateral Agent, in its sole and absolute discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Collateral Agent shall determine to make such further inquiry or investigation, it shall be entitled to examine the books, records and premises of the Borrower, personally or by agent or attorney;

(h) the Collateral Agent may execute any of the powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Collateral Agent shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder;

(i) unless explicitly stated herein to the contrary, the Collateral Agent shall have no duty to inquire as to the performance of any Borrower's covenants herein. In addition, the Collateral Agent shall not be deemed to have knowledge of an Event of Default, unless the

Collateral Agent has received an RUS Notice in accordance with Section 5.01(a), and shall not be deemed to have knowledge of the cessation of the same until such time as it receives a Borrower Notice in accordance with Section 5.01(b); and

(j) unless explicitly stated herein to the contrary, the Collateral Agent shall have no obligation to take any action with respect to any Event of Default until it has received an RUS Notice in accordance with Section 5.01(a), and the Collateral Agent shall have no liability for any action or inaction taken, suffered or omitted in respect of any such event by it prior to such time as the applicable RUS Notice is delivered. Similarly, the Collateral Agent shall have no obligation to take any action with respect to the cessation of an Event of Default until it has received a Borrower Notice applicable to such event in accordance with Section 5.01(b), and the Collateral Agent shall have no liability for any action or inaction taken, suffered or omitted in respect of any such event by it prior to such time as the applicable Borrower Notice is delivered.

SECTION 6.03. Money Held by Collateral Agent. Money held by the Collateral Agent hereunder need not be segregated from other funds except to the extent required by law. The Collateral Agent shall have no liability to pay interest on or (except as expressly provided herein) invest any such moneys.

SECTION 6.04. Compensation and Reimbursement.

(a) The Borrower agrees:

(i) to pay to the Collateral Agent from time to time reasonable compensation for all services rendered by it hereunder;

(ii) except as otherwise expressly provided herein, to reimburse the Collateral Agent upon its request for all reasonable expenses, out-of-pocket costs, disbursements and advances incurred or made by the Collateral Agent in accordance with any provision of this Pledge Agreement (including the reasonable compensation and the expenses and disbursements of its agents and counsel), except to the extent any such expense, disbursement or advance may be attributable to its gross negligence or bad faith; and

(iii) to indemnify the Collateral Agent for, and to defend and hold it harmless against, any loss, liability or expense incurred without gross negligence or bad faith on its part, arising out of or in connection with the acceptance or administration of this Pledge Agreement or the performance of its duties hereunder, including the costs and expenses of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder, except to the extent such loss, liability or expense may be attributable to its gross negligence or bad faith; provided, however, that the Borrower shall have no liability under this clause for any settlement of any litigation or other dispute effected without the prior written consent of the Borrower (such consent not to be unreasonably withheld).

(b) Any such amounts payable as provided hereunder shall be additional Obligations secured by the Lien hereof. The provisions of this Section 6.04 shall remain operative and in full force and effect regardless of the termination of this Pledge Agreement or the Consolidated Bond Guarantee Agreement, the consummation of the transactions contemplated hereby, the repayment of any of the Obligations, the invalidity or unenforceability of any term or provision of this Pledge Agreement or the Consolidated Bond Guarantee Agreement, or any investigation made by or on behalf of the Collateral Agent or RUS. All amounts due under this Section 6.04 shall be payable on written demand therefor.

SECTION 6.05. Corporate Collateral Agent Required; Eligibility. There shall at all times be a Collateral Agent hereunder which shall be a corporation or association organized and doing business under the laws of the United States of America or of any State, authorized under such laws to exercise corporate trust powers, having a combined capital and surplus of at least $50,000,000, subject to supervision or examination by Federal or State authority. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of the aforesaid supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such corporation shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. Neither the Borrower nor any Person directly or indirectly controlling, controlled by or under common control with the Borrower shall serve as Collateral Agent hereunder. If at any time the Collateral Agent shall cease to be eligible in accordance with the provisions of this Section, it shall resign immediately in the manner and with the effect hereinafter specified in this Article.

SECTION 6.06. Resignation and Removal; Appointment of Successor.

(a) No resignation or removal of the Collateral Agent and no appointment of a successor Collateral Agent pursuant to this Article shall become effective until the acceptance of appointment by the successor Collateral Agent under Section 6.07.

(b) The Collateral Agent may resign at any time by giving written notice thereof to the Borrower. If an instrument of acceptance by a successor Collateral Agent shall not have been delivered to the Collateral Agent within 30 days after the giving of such notice of resignation, the resigning Collateral Agent may petition any court of competent jurisdiction for the appointment of a successor Collateral Agent.

(c) If at any time:

(i) except if an Event of Default has occurred and is continuing, the Borrower, in its sole and absolute discretion, elects to remove the Collateral Agent; or

(ii) the Collateral Agent shall cease to be eligible under Section 6.05 or shall become incapable of acting or shall be adjudged a bankrupt or insolvent or a receiver of the Collateral Agent or of its property shall be appointed or any public officer shall take charge or control of the Collateral Agent or of its property or affairs for the purpose of rehabilitation, conservation or liquidation,

then, in any such case, the Borrower may remove the Collateral Agent by delivery of a Borrower Order to that effect.

(d) If the Collateral Agent shall resign, be removed or become incapable of acting, or if a vacancy shall occur in the office of Collateral Agent for any cause, the Borrower shall promptly appoint a successor Collateral Agent by delivering a Borrower Notice to the retiring Collateral Agent, the successor Collateral Agent and RUS to such effect.

SECTION 6.07. Acceptance of Appointment by Successor. Every successor Collateral Agent appointed hereunder shall execute, acknowledge and deliver to the Borrower, RUS and to the retiring Collateral Agent an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Collateral Agent shall become effective and such successor Collateral Agent, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Collateral Agent; but, on request of the Borrower, RUS or the successor Collateral Agent, such retiring Collateral Agent shall, upon payment of its charges, execute and deliver an instrument transferring to such successor Collateral Agent all the rights, powers and trusts of the retiring Collateral Agent, and shall duly assign, transfer and deliver to such successor Collateral Agent all property and money held by such retiring Collateral Agent hereunder, subject nevertheless to its Lien, if any, provided for in Section 6.04. Upon request of any such successor Collateral Agent, the Borrower shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor Collateral Agent all such rights, powers and trusts.

No successor Collateral Agent shall accept its appointment unless at the time of such acceptance such successor Collateral Agent shall be eligible under Section 6.05 hereof.

SECTION 6.08. Merger, Conversion, Consolidation or Succession to Business. Any corporation into which the Collateral Agent may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Collateral Agent shall be a party, or any corporation succeeding to all or substantially all of the corporate trust business of the Collateral Agent, shall be the successor of the Collateral Agent hereunder, provided such corporation shall be eligible under Section 6.05 hereof without the execution or filing of any paper or any further act on the part of any of the parties hereto.

ARTICLE VII

Miscellaneous

SECTION 7.01. Notices.

(a) All notices and other communications hereunder to be made to any party shall be in writing and shall be addressed as specified in Schedule II attached hereto as appropriate. The address, telephone number, or facsimile number for any party may be changed at any time and from time to time upon written notice given by such changing party to the other parties hereto. A properly addressed notice or other communication to the Borrower shall be deemed to have been delivered at the time it is sent by facsimile (fax) transmission. A properly addressed notice or other communication to the Collateral Agent shall be deemed to have been delivered at the time it is sent by facsimile (fax) transmission. A properly addressed notice or other communication to RUS shall be deemed to have been delivered at the time it is sent by facsimile (fax) transmission, provided that the original of such faxed notice or other communication shall have been received by RUS within five Business Days.

(b) All Borrower Notices and Borrower Orders delivered to the Collateral Agent shall be contemporaneously copied to RUS by the Borrower, and all RUS Notices and RUS Orders delivered to the Collateral Agent shall be contemporaneously copied by RUS to the Borrower, and all Collateral Agent notices delivered to either the Borrower or RUS shall be contemporaneously copied to the other such party by the Collateral Agent.

SECTION 7.02. Waivers; Amendment.

(a) No failure or delay by a party in exercising any right or power hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such a right or power, preclude any other or further exercise thereof or the exercise of any other right or power. The rights and remedies of each party hereunder are cumulative and are not exclusive of any rights or remedies that such party would otherwise have. No waiver of any provision of this Pledge Agreement or consent to any departure by any party therefrom shall in any event be effective unless the same shall be permitted by paragraph (b) of this Section 7.02, and then such waiver or consent shall be effective only in the specific instance and for the purpose for which given. No notice or demand on any party in any case shall entitle any party to any other or further notice or demand in similar or other circumstances.

(b) Neither this Pledge Agreement nor any provision hereof may be waived, amended or modified except pursuant to an agreement or agreements in writing entered into by the Borrower, the Collateral Agent and RUS.

SECTION 7.03. Successors and Assigns. Whenever in this Pledge Agreement any of the parties hereto is referred to, such reference shall be deemed to include the successors and assigns of such party; and all covenants, promises and agreements by or on behalf of the Borrower, the Collateral Agent or RUS that are contained in this Pledge Agreement shall bind and inure to the benefit of their respective successors and assigns.

SECTION 7.04. Counterparts; Effectiveness. This Pledge Agreement may be executed in counterparts, each of which shall constitute an original but all of which when taken together shall constitute a single contract. Delivery of an executed signature page to this Pledge Agreement by facsimile transmission shall be as effective as delivery of a manually signed counterpart of this Pledge Agreement.

SECTION 7.05. Severability. Any provision of this Pledge Agreement held to be invalid, illegal or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such invalidity, illegality or unenforceability without affecting the validity, legality and enforceability of the remaining provisions hereof; and the invalidity of a particular provision in a particular jurisdiction shall not invalidate such provision in any other jurisdiction. The parties shall endeavor in good-faith negotiations to replace the invalid, illegal or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal or unenforceable provisions.

SECTION 7.06. GOVERNING LAW. THIS PLEDGE AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE UNITED STATES OF AMERICA, TO THE EXTENT APPLICABLE, AND OTHERWISE THE LAWS OF THE STATE OF NEW YORK.

SECTION 7.07. WAIVER OF JURY TRIAL. EACH PARTY HERETO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS PLEDGE AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH PARTY HERETO (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT IT AND THE OTHER PARTIES HERETO HAVE BEEN INDUCED TO ENTER INTO THIS PLEDGE AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 7.07.

SECTION 7.08. Headings. Article and Section headings and the Table of Contents used herein are for convenience of reference only, are not part of this Pledge Agreement and are not to affect the construction of, or to be taken into consideration in interpreting, this Pledge Agreement.

SECTION 7.09. Security Interest Absolute. All rights of the Collateral Agent and/or RUS hereunder, the grant of a security interest in the Pledged Collateral and all obligations of the Borrower hereunder shall be absolute and unconditional irrespective of (a) any lack of validity or enforceability of the Consolidated Bond Guarantee Agreement, any agreement with respect to any of the Obligations or any other agreement or instrument relating to any of the foregoing, (b) any change in the time, manner or place of payment of, or in any other term of, all or any of the Obligations, or any other amendment or waiver of or any consent to any departure from the Consolidated Bond Guarantee Agreement or any other agreement or instrument, (c) any exchange, release or non-perfection of any Lien on other collateral, or any release or amendment or waiver of or consent under or departure from any guarantee, securing or guaranteeing all or any of the Obligations, or (d) any other circumstance that might otherwise constitute a defense available to, or a discharge of, the Borrower in respect of the Obligations or this Pledge Agreement.

SECTION 7.10. Termination or Release.

(a) This Pledge Agreement shall terminate on the date when the Collateral Agent receives an RUS Notice to the effect that all of the Obligations have been indefeasibly paid in full and the Federal Financing Bank has no further commitment to lend under the Bonds, and at such time the Lien hereof shall be released.

(b) Upon any withdrawal, substitution or other disposal by the Borrower of any Pledged Collateral that is permitted by the terms of this Pledge Agreement, or upon the effectiveness of any written consent to the release of the security interest granted hereby in any Pledged Collateral, the Lien hereof securing such Pledged Collateral shall be automatically released.

(c) In connection with any termination or release pursuant to paragraph (a) or (b) the Collateral Agent shall deliver to the Borrower the Pledged Collateral and shall execute and deliver to the Borrower, at the Borrower's expense, all documents that the Borrower shall reasonably request to evidence such termination or release. Any execution and delivery of documents pursuant to this Section 7.10 shall be without recourse to or warranty by the Collateral Agent.

SECTION 7.11. Collateral Agent Appointed Attorney-in-Fact. The Borrower hereby appoints the Collateral Agent the attorney-in-fact of the Borrower for the purpose of, upon the occurrence and during the continuance of an Event of Default, carrying out the provisions of this Pledge Agreement with respect to the Pledged Collateral and taking any action and executing any instrument that the Collateral Agent may deem necessary or advisable to accomplish the purposes hereof, which appointment is irrevocable and coupled with an interest but is subject nevertheless to the terms and conditions of this Pledge Agreement. Without limiting the generality of the foregoing, the Collateral Agent shall have the right, upon the occurrence and during the continuance of an Event of Default, with full power of substitution either in the Collateral Agent's name or in the name of the Borrower (a) to receive, endorse, assign and/or deliver any and all notes, acceptances, checks, drafts, money orders or other evidences of payment relating to the Pledged Collateral or any part thereof; (b) to demand, collect, receive payment of, give receipt for and give discharges and releases of all or any of the Pledged Collateral; (c) to commence and prosecute any and all suits, actions or proceedings at law or in equity in any court of competent jurisdiction to collect or otherwise realize on all or any of the Pledged Collateral or to enforce any rights in respect of any Pledged Collateral; (d) to settle, compromise, compound, adjust or defend any actions, suits or proceedings relating to all or any of the Pledged Collateral; (e) to notify, or to require the Borrower to notify, obligors under Pledged Securities to make payment directly to the Collateral Agent; and (f) to use, sell, assign, transfer, pledge, make any agreement with respect to or otherwise deal with all or any of the Pledged Collateral, and to do all other acts and things necessary to carry out the purposes of this Pledge Agreement, as fully and completely as though the Collateral Agent were the absolute owner of the Pledged Collateral for all purposes; provided that nothing herein contained shall be construed as requiring or obligating the Collateral Agent to make any commitment or to make any inquiry as to the nature or sufficiency of any payment received by the Collateral Agent, or to present or file any claim or notice, or to take any action with respect to the Pledged Collateral or any part thereof or the moneys due or to become due in respect thereof or any property covered thereby. The Collateral Agent and RUS shall be accountable only for amounts actually received as a result of the exercise of the powers granted to them herein, and neither they nor their officers, directors, employees or agents shall be responsible to the Borrower for any act or failure to act hereunder, except for their own gross negligence or willful misconduct.

IN WITNESS WHEREOF, the parties hereto have caused this Pledge Agreement to be duly executed, all as of the day and year first above written.

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION

by

/s/ J. Andrew Don
Name: J. Andrew Don
Title: Governor and
Chief Executive Officer

UNITED STATES OF AMERICA, acting
through the Administrator of the
Rural Utilities Service,

by

/s/ Christopher A. McLean
Name: Christopher A. McLean
Acting Administrator

U.S. BANK NATIONAL ASSOCIATION

by

/s/ K. Wendy Kumar
Name: K. Wendy Kumar
Title: Vice President

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE CORPORATION

EIGHTH AMENDED, RESTATED AND CONSOLIDATED PLEDGE AGREEMENT
DATED AS OF NOVEMBER 4, 2021

CERTIFICATE OF PLEDGED COLLATERAL FILED WITH
U.S. BANK NATIONAL ASSOCIATION, Collateral Agent

__________________, Governor (or Chief Financial Officer) and ________________________, Vice-President, respectively, of National Rural Utilities Cooperative Finance Corporation (the "Borrower"), hereby certify to RUS and the Collateral Agent under the above-mentioned Eighth Amended, Restated and Consolidated Pledge Agreement as amended to the date hereof (herein called the "Pledge Agreement") as follows:

1.	The Allowable Amount of Pledged Collateral shown in item 9 in the most recent Certificate of Pledged Collateral dated __________ delivered to the Collateral Agent is ...	$
2.	The increase (or decrease) in the Allowable Amount of such Pledged Collateral and the Allowable Amount of any Eligible Securities substituted for other Pledged Securities pursuant to Section 3.07 of the Pledge Agreement, remaining on deposit with the Collateral Agent, as shown on Schedule A hereto, is..	$
3.	The Allowable Amount, as at the date of such most recent Certificate of Pledged Collateral, of Pledged Collateral which has, since such date, ceased to be Eligible Securities (including Pledged Securities fully paid) is........................	$
4.	The present Allowable Amount of Pledged Collateral certified to the Collateral Agent in the most recent Certificate of Pledged Collateral (item 1 plus (or minus, if decrease) item 2, minus item 3) is...................................	$
5.	The Allowable Amount of Pledged Collateral certified hereby, including the Pledged Collateral deposited herewith, which were not certified in the most recent Certificate of Pledged Collateral, all as shown on Schedule B hereto, is...	$

6.	The cumulative amount excluded from the Allowable Amount of Pledged Collateral on Schedule B based on the Maximum Debtor Principal Amount is............................	$
7.	The Allowable Amount of Pledged Collateral held by the Collateral Agent on the date hereof and included in this Certificate before any withdrawals (item 4 plus (item 5-item 6)) is..	$
8.	The Allowable Amount of Pledged Collateral the withdrawal of which is hereby requested, if any, as shown on Schedule C hereto (the Pledged Collateral made the basis of such withdrawal being designated on Schedule A and/or Schedule B hereto) is...	$
9.	The Allowable Amount of Pledged Collateral held by the Collateral Agent on the date hereof and included in this Certificate after any withdrawals (item 7 minus item 8) is.	$
10.	The aggregate principal amount of the Bonds outstanding at the date hereof is...	$
11.	The aggregate amount, if any, of the Advance to be made on the basis of this Certificate is.......................................	$
12.	The sum of the amounts in items 10 and 11 is.................	$
13.	The aggregate amount by which such Allowable Amount of Pledged Securities exceeds the aggregate principal amount of the Bonds outstanding (item 9 minus item 12) is..	$
14.	The Allowable Amount of Pledged Collateral held by the Collateral Agent on the date hereof and included in this Certificate after any withdrawals does not contain any note that is unsecured or that has been classified as non-performing, 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

SCHEDULE I
TO
EIGHTH AMENDED, RESTATED AND
CONSOLIDATED PLEDGE AGREEMENT

PLEDGED COLLATERAL HELD BY THE COLLATERAL AGENT
SCHEDULE A TO OFFICERS' CERTIFICATE
DATED

Pledged Collateral	Name of Issuer	Allowable Amount included in Certificate last Previously filed (Item 1)	Increase (Decrease) in such Allowable Amount (Items 2 and 3)	Current Allowable Amount (Item 4)
Cash.................................				
Permitted Investments (Here List).....................				
Pledged Securities (Here List Securities)....				

SCHEDULE I
TO
EIGHTH AMENDED, RESTATED AND
CONSOLIDATED PLEDGE AGREEMENT

**PLEDGED COLLATERAL BEING SUBMITTED TO THE COLLATERAL AGENT
SCHEDULE B TO OFFICERS' CERTIFICATE
DATED ____________**

Pledged Collateral	Name of Issuer	Allowable Amount (Item 5)
Cash....................................		
Permitted Investments (Here List)........................		
Pledged Securities (Here List Securities).......		

SCHEDULE I
TO
EIGHTH AMENDED, RESTATED AND
CONSOLIDATED PLEDGE AGREEMENT

PLEDGED COLLATERAL BEING DEPOSITED
SCHEDULE C TO OFFICERS' CERTIFICATE
DATED ____________

Pledged Collateral	Name of Issuer	Allowable Amount (Item 8)
Cash......................................		
Permitted Investments (Here List).........................		
Pledged Securities (Here List Securities)........		

SCHEDULE II
TO
EIGHTH AMENDED, RESTATED AND
CONSOLIDATED PLEDGE AGREEMENT

Addresses for Notices

1. The addresses referred to in Section 7.01 hereof, for purposes of delivering communications and notices, are as follows:

If to RUS:

Rural Utilities Service
United States Department of Agriculture
1400 Independence Avenue, SW
Washington, DC 20250
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
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: 703-467-1628
Fax: 703-467-5178
Attention of: Ling Wang, Senior Vice President and 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

EIGHTH AMENDED, RESTATED, AND CONSOLIDATED BOND GUARANTEE AGREEMENT

dated as of November 4, 2021

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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EIGHTH AMENDED, RESTATED AND CONSOLIDATED BOND GUARANTEE AGREEMENT dated as of November 4, 2021, between the UNITED STATES OF AMERICA (the "Government"), acting through the Rural Utilities Service, a Rural Development agency of the United States Department of Agriculture, and its successors and assigns ("RUS"); and NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, a cooperative association existing under the laws of the District of Columbia (the "Borrower").

RECITALS

1. The Federal Financing Bank, a body corporate and instrumentality of the Government under the general supervision of the Secretary of the Treasury, and its permitted successors and assigns ("FFB"), has previously made loans to the Borrower in the aggregate principal amount of up to $8,173,286,000 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, (l) that certain Series N Bond Purchase Agreement dated as of November 15, 2018, (m) that certain Series P Bond Purchase Agreement dated as of February 13, 2020, and (n) that certain Series R Bond Purchase Agreement dated as of November 19, 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, (l) that certain Series N Future Advance Bond dated as of November 15, 2018, (m) that certain Series P Future Advance Bond

dated as of February 13, 2020, and (n) that certain Series R Future Advance Bond dated as of November 19, 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 Seventh Amended, Restated, and Consolidated Bond Guarantee Agreement dated as of November 19, 2020, by and between the Borrower and RUS (the "Prior Bond Guarantee Agreement").

3. On April 29, 2021, the Borrower applied to RUS (the "Application"), in accordance with the RE Act and the Regulations, for RUS to guarantee a fifteenth 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 $550,000,000 upon the terms and subject to the conditions set forth in the Series S 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 S 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 S Future Advance Bond issued by the Borrower to FFB and dated as of the date hereof (the "Series S 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 S Bond, and (iii) set forth the terms by which RUS will issue additional guarantees, as contemplated by Section 313A of the RE Act, upon the terms and subject to the conditions hereinafter provided.

NOW, THEREFORE, in consideration of the mutual agreements herein contained, RUS and the Borrower agree as follows:

ARTICLE I

DEFINITIONS

SECTION 1.1. Definitions. As used in this Agreement, the following terms shall have the following meanings:

"91-day Treasury-Bill Rate" shall mean, for any date, the rate equal to the weighted average per annum discount rate (expressed as a bond equivalent yield and applied on a daily basis) for direct obligations of the United States with a maturity of thirteen weeks ("91-day Treasury-Bills") sold at the applicable 91-day Treasury-Bill auction on or most recently prior to such date, as published on the website http://www.treasurydirect.gov/RI/OFBills or otherwise as reported by the U.S. Department of the Treasury. In the event that the results of the auctions of 91-day Treasury Bills cease to be published or reported as provided above, or that no 91-day Treasury Bill auction is held in a particular week, then the 91-day Treasury-Bill Rate in effect as a result of the last such publication or report will remain in effect until such time, if any, as the results of auctions of 91-day Treasury-Bills will again be so published or reported or such auction is held, as the case may be.

"Administrator" shall mean the Administrator of RUS.

"Advance" shall have the meaning given to that term in the Bond.

"Agreement" shall mean this Eighth Amended, Restated and Consolidated Bond Guarantee Agreement, as the same may be amended, supplemented, consolidated or restated from time to time.

"Application" shall have the meaning given to that term in the recitals hereto.

"Bond" shall have the meaning given to that term in the recitals hereto.

"Bond Fee" shall mean the fee applicable to each Advance as calculated in accordance with paragraph 9(b) of the Bond.

"Bond Purchase Agreements" shall have the meaning given to that term in the recitals hereto.

"Bond Documents" shall mean the Bonds, the Bond Purchase Agreements, the Guarantees, this Agreement, the Pledge Agreement and the Reimbursement Notes.

"Borrower" shall have the meaning given to that term in the Preamble.

"Borrower Notice" shall have the meaning given to that term in the Pledge Agreement.

"Business Day" shall mean any day other than a Saturday, a Sunday, a legal public holiday under 5 U.S.C. §6103 for the purpose of statutes relating to pay and leave of employees or any other day declared to be a legal holiday for the purpose of statutes relating to pay and leave of employees by Federal statute or Federal Executive Order.

"Certificate of Pledged Collateral" shall have the meaning given to that term in the Pledge Agreement.

"Closing Date" shall mean November 4, 2021.

"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 Eighth Amended, Restated and Consolidated Pledge Agreement dated as of November 4, 2021, 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 S Bond" shall have the meaning given to that term in the recitals hereto.

"Series S Guarantee" shall mean the Guarantee executed by the Secretary and attached to the Series S Bond.

"Series S 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.

ARTICLE II

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 S Guarantee. Upon presentation to RUS of the Series S 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 S Guarantee.

SECTION 2.3. Coverage of the Series S Guarantee. The Series S 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 S Guaranteed Bond.

SECTION 2.4. Payment on the Guarantees. RUS guarantees the full repayment of the principal, interest, late payment charges, Bond Fees and discount or prepayment premiums, if any, when and as due on the Guaranteed Bonds in accordance with the terms of the Guarantees, provided, however, that any payment by RUS under each Guarantee does not relieve the Borrower of any of its obligations or liabilities under or in respect of this Agreement or any of the Bond Documents.

SECTION 2.5. Issuance of Additional Guarantees. RUS may from time to time issue additional guarantees of loans of the Borrower pursuant to the RE Act. Such guarantees shall become subject to this Agreement by the execution of a supplement by RUS and the Borrower substantially in the form attached hereto as Annex A.

ARTICLE III

CONDITIONS PRECEDENT

SECTION 3.1. Conditions Precedent to Issuance of a Guarantee. RUS shall be under no obligation to execute and deliver a Guarantee unless and until the following conditions have been satisfied or waived in writing:

(a) Bond Documents. RUS shall have received originals of: (i) the Bond to which the Guarantee relates (with an unexecuted Guarantee attached thereto) duly executed on behalf of the Borrower, identical in all respects to the form of Bond attached to the Bond Purchase Agreement except to the extent that

RUS may have approved changes therein, (ii) a Bond Purchase Agreement duly executed on behalf of the Borrower and FFB, identical in all respects to the form of Bond Purchase Agreement in Annex B attached hereto except to the extent that RUS may have approved changes therein, and (iii) a Reimbursement Note duly executed on behalf of the Borrower, identical in all respects to the form of Reimbursement Note in Annex D attached hereto except to the extent that RUS may have approved changes therein.

(b) Amount of RE Act Loans. The Borrower shall have provided RUS a certification by its Governor and its Chief Financial Officer (or other senior management acceptable to the Secretary) certifying that as of the Closing Date the outstanding principal amount of Loans made for 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 2.04(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 S Bond, advances made under the Original Bonds, or advances under any new Bonds executed by the Borrower subsequent to the Closing Date, the Borrower shall have certified as to the portion of Eligible Loans that is comprised of (A) refinanced RUS debt; (B) debt of Members for whom both RUS and the Borrower have outstanding loans; and (C) debt of Members for whom both RUS and the Borrower have outstanding concurrent loans pursuant to Section 307 of the RE Act, and that the amount of Eligible Loans in (A), (B) and (C) of this subparagraph exceeds the amount of Bonds outstanding as of the date thereof.

(b) Use of Proceeds. The Borrower shall have certified to the Secretary (in the manner specified in paragraph (d) of this Section 3.2) that the Advance will be applied: (A) to fund new Eligible Loans under the RE Act; and/or (B) to refinance existing debt instruments of the Borrower, in the case of each such debt instrument up to the percentage certified by the Borrower in accordance with Section 3.2(a)(i)(C) hereof.

(c) No material adverse change. The Borrower shall have certified to the Secretary (in the manner specified in paragraph (d) of this Section 3.2), and the Secretary shall be satisfied, that no material adverse change shall have occurred in the financial condition of the Borrower between the Closing Date and the applicable Requested Advance Date.

(d) Certification of Senior Management. The Borrower shall have provided RUS a certification by its Governor and its Chief Financial Officer (or other senior management acceptable to the Secretary), substantially in the form attached as Annex G attached hereto, of the matters to be certified under paragraphs (a), (b) and (c) of this Section 3.2.

(e) Certificate of Pledged Collateral. The Borrower shall have provided RUS a copy of a Certificate of Pledged Collateral in accordance with the terms of the Pledge Agreement.

ARTICLE IV

GUARANTEE FEE

SECTION 4.1. Guarantee Fee. The Borrower shall pay a guarantee fee (the "Guarantee Fee"), to the RUS for deposit into the Rural Economic Development Subaccount maintained under Section 313(b)(2)(A) of the RE Act.

SECTION 4.2. Amount of Guarantee Fee; Dates of Payment. The Guarantee Fee will be in the amount of 30 basis points (0.30 percent) of the unpaid principal amount of the Bonds, payable as provided in paragraph (b) of this Section 4.2.

(b) The Guarantee Fee will be payable, in advance, on each January 15 and July 15 in the amount of 15 basis points (0.15 percent) of the outstanding principal amount of the Bonds on that date. In addition, on the date of each Advance under a Bond, the Borrower will pay to RUS the Guarantee Fee on the principal amount of such advance in the amount of (i) 30 basis points (0.30 percent) of the principal amount of such advance multiplied by (ii) the ratio of (x) the actual amount of days from the date of such advance until the next January 15 or July 15, whichever comes first, to (y) 365 (except in calendar years including February 29, when the number shall be 366).

(c) Payments of the Guarantee Fee are non-refundable as of the date and in the amount required to be paid hereunder, without regard to any reduction in the principal amount of the Bonds after that date.

ARTICLE V

SERVICING OF THE GUARANTEED BONDS

SECTION 5.1. Servicing. The Secretary, or other agent of the Secretary on his or her behalf, shall have the right to service the Guaranteed Bonds, and periodically inspect the books and accounts of the Borrower to ascertain compliance with the provisions of the RE Act with respect to the guarantees under Section 313A thereof and the Bond Documents. The Secretary, or agent thereof, shall endeavor to give the Borrower at least five Business Days' notice of any intention to inspect the Borrower's books and accounts. Such inspection shall be made only during regular office hours of the Borrower or at any time the Borrower and Secretary, or agent thereof, find mutually convenient.

ARTICLE VI

REPORTING REQUIREMENTS

SECTION 6.1. Annual Reporting Requirements. Until the Termination Date, the Borrower shall provide the Secretary with the following items within 90 days of the end of each Fiscal Year, in each case, in form and substance satisfactory to the Secretary:

(a) the Financial Statements for such Fiscal Year;

(b) a Certificate of Pledged Collateral as of the end of such Fiscal Year;

(c) a letter substantially in the form of Annex H attached hereto, by KPMG LLP or by such other reputable, independent certified public accountants engaged by the Borrower, who in the judgment of the Secretary have the requisite skills, knowledge, reputation and experience to provide such letter, such letter to be based upon Schedule A to the applicable certificate delivered under paragraph (b) of this Section 6.1;

(d) a receipt from the Collateral Agent (as defined in the Pledge Agreement), or such other evidence as is satisfactory to the Secretary, as to the Pledged Collateral held by the Collateral Agent at the end of such Fiscal Year, such Pledged Collateral to agree with Schedule A to the applicable certificate delivered under paragraph (b) of this Section 6.1;

(e) a projection of the Borrower's balance sheet, income statement and statement of cash flows over the ensuing five years, pro forma assuming the full principal amount of the Bond is advanced;

(f) the most recent credit assessment of the Borrower issued by a Rating Agency;

(g) the most recent Senior Secured Credit Rating issued by a Rating Agency; and

(h) such other information as is reasonably requested by the Secretary.

SECTION 6.2. 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.

ARTICLE VII

LIMITATIONS ON AMENDMENTS TO THE GUARANTEED BONDS

SECTION 7.1. Limitations on Amendments to the Guaranteed Bonds. No amendment or supplement to, and no modification or rescission of, the Guaranteed Bonds shall be effective unless approved in writing by RUS, nor shall any waiver of any rights of RUS under the Guaranteed Bonds be effective against RUS unless such waiver has been approved in writing by RUS. No amendment or supplement to, and no modification of, any of the other Bond Documents, which materially adversely affects RUS, shall be effective unless approved in writing by RUS, nor shall any waiver of any rights of RUS under any of the Bond Documents be effective against RUS unless such waiver has been approved in writing by RUS.

ARTICLE VIII

REPRESENTATIONS OF THE PARTIES

SECTION 8.1. Representation of RUS. RUS represents that the Guarantees endorsed on the original of the Guaranteed Bonds constitute legal, valid and binding obligations supported by the full faith and credit of the Government, incontestable except for fraud or misrepresentation of which FFB had actual knowledge at the time it extended the loan represented by the Guaranteed Bonds.

SECTION 8.2. Representations of the Borrower. The Borrower hereby represents to RUS that on the date hereof, the Closing Date, and each Requested Advance Date:

(a) the Borrower has been duly organized and is validly existing and in good standing as a cooperative association under the laws of the District of Columbia;

(b) the Borrower has the corporate power and authority to execute and deliver this Agreement and each of the other Bond Documents to which the Borrower is a party, to consummate the transactions contemplated hereby and thereby and to perform its obligations hereunder and thereunder;

(c) the Borrower has taken all necessary corporate action to authorize the execution and delivery of this Agreement and each of the other Bond Documents to which the Borrower is a party, the consummation by the Borrower of the transactions contemplated hereby and thereby and the performance by the Borrower of its obligations hereunder and thereunder;

(d) this Agreement and each of the other Bond Documents to which the Borrower is a party have been duly authorized, executed and delivered by the Borrower and constitute the legal, valid and binding obligations of the Borrower, enforceable against the Borrower in accordance with their respective terms, subject to: (i) applicable bankruptcy, reorganization, insolvency, moratorium and other laws of general applicability relating to or affecting creditors' rights generally; and (ii) the application of general principles of equity regardless of whether such enforceability is considered in a proceeding in equity or at law;

(e) no approval, consent, authorization, order, waiver, exemption, variance, registration, filing, notification, qualification, license, permit or other action is now, or under existing law in the future will be, required to be obtained, given, made or taken, as the case may be, with, from or by any regulatory body, administrative agency or governmental authority having jurisdiction over the Borrower to authorize the execution and delivery by the Borrower of this Agreement or any of the other Bond Documents to which the Borrower is a party, or the consummation by the Borrower of the transactions contemplated hereby or thereby or the performance by the Borrower of its obligations hereunder or thereunder;

(f) neither the execution or delivery by the Borrower of this Agreement or any of the other Bond Documents to which the Borrower is a party nor the consummation by the Borrower of any of the transactions contemplated hereby or thereby nor the performance by the Borrower of its obligations hereunder or thereunder, including, without limitation, the pledge of the Pledged Securities (as such term is defined in the Pledge Agreement) to RUS if required, conflicts with or will conflict with, violates or will violate, results in or will result in a breach of, constitutes or will constitute a default under, or results in or will result in the imposition of any lien or encumbrance pursuant to any term or provision of the articles of incorporation or the bylaws of the Borrower or any provision of any existing law or any rule or regulation currently applicable to the Borrower or any judgment, order or decree of any court or any regulatory body, administrative agency or governmental authority having jurisdiction over the Borrower or the terms of any mortgage, indenture, contract or other agreement to which the Borrower is a party or by which the Borrower or any of its properties is bound;

(g) there is no action, suit, proceeding or investigation before or by any court or any regulatory body, administrative agency or governmental authority presently pending or, to the knowledge of the Borrower, threatened with respect to the Borrower, this Agreement or any of the other Bond Documents to which the Borrower is a party challenging the validity or enforceability of this

Agreement or any of the other Bond Documents to which the Borrower is a party or seeking to restrain, enjoin or otherwise prevent the consummation by the Borrower of the transactions contemplated by this Agreement or any of the other Bond Documents to which the Borrower is a party or which, if adversely determined, would have a material adverse effect on the Borrower's financial condition or its ability to perform its obligations under this Agreement or any of the other Bond Documents to which the Borrower is a party;

(h) the Borrower is a lending institution organized as a member-owned, not-for-profit, cooperative association with the appropriate expertise, experience and qualifications to make loans for 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.

ARTICLE IX

AGREEMENTS OF THE BORROWER

SECTION 9.1. Patronage Refunds. The Borrower shall not make cash patronage refunds in excess of five percent of its total patronage capital, as disclosed in its most recent Financial Statements, during any portion of a Fiscal Year in which the Borrower has a Senior Secured Credit Rating (without regard to the Guarantee or any other third party credit support) that is not equal to at least two of the following ratings: (i) "A-"or higher from Standard & Poor's, a division of The McGraw-Hill Companies, Inc.; (ii) "A3" or higher from Moody's Investors Service, Inc.; (iii) "A-" or higher from Fitch, Inc.; and (iv) an equivalent rating from a successor rating agency to any of those Rating Agencies. While the Borrower is subject to such restriction, equity securities issued as part of a patronage refund shall not be redeemed in cash, and, if the Borrower shall have outstanding any common stock or preferred stock, the Borrower shall not issue any dividends on any such stock.

SECTION 9.2. Security and Collateral. 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.

ARTICLE X

EVENTS OF DEFAULT

SECTION 10.1. Events of Default. Each of the following actions, occurrences or events shall, but only (except in the case of subsections (a), (c) and (e) below) if the Borrower does not cure such action, occurrence or event within 30 days of notice from RUS requesting that it be cured, constitute an "Event of Default" under the terms of this Agreement:

(a) A failure by the Borrower to make a payment of principal, interest or a Bond Fee when due on a Guaranteed Bond;

(b) The issuance of a Guaranteed Bond in violation of the terms and conditions of this Agreement or any of the other Bond Documents;

(c) A failure by the Borrower to make payment of the Guarantee Fee required by Article IV when due;

(d) A misrepresentation by the Borrower to the Secretary in any material respect in connection with this Agreement, the Guaranteed Bonds or the information reported pursuant to Article VI;

(e) A failure by the Borrower to comply with the covenant contained in Section 9.5 hereof; or

(f) A failure by the Borrower to comply with any other material covenant or provision contained in this Agreement or any of the other Bond Documents, except that the failure of the Borrower to comply with Section 9.8 hereof shall not constitute such an Event of Default.

SECTION 10.2. Compulsory Redemption. If an Event of Default occurs, the Secretary may demand that the Borrower redeem the Guaranteed Bonds in accordance with its terms.

SECTION 10.3. Acceleration by RUS's Purchase of the Bonds. If an Event of Default occurs, and RUS purchases from FFB each Bond in its entirety in the manner provided in Section 13.5 of each Bond Purchase Agreement, then the entire purchase price shall be included in the Principal Amount of the Reimbursement Notes as defined therein and shall be immediately due and payable to RUS. Payment to RUS of all amounts due under the Reimbursement Notes after such an acceleration shall satisfy in full all obligations of the Borrower under the Bonds and Reimbursement Notes and all corresponding obligations under the other Bond Documents, including any obligations to reimburse RUS for any payments thereafter made by RUS under the RUS Guarantees.

SECTION 10.4 .Effect of Payments by RUS Pursuant to the RUS Guarantees. No payment by RUS pursuant to the RUS Guarantees shall (i) be considered a payment for purposes of determining the existence of a failure of the Borrower to perform its obligations to RUS under the Bond Documents, or (ii) relieve the Borrower of its obligations to reimburse RUS for payments made by RUS pursuant to the RUS Guarantees. Payment by the Borrower to RUS of amounts due under the Reimbursement Notes shall satisfy *pro 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.

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. 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/ Christopher A. McLean
Name: Christopher A. McLean
Acting Administrator

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, as the Borrower

By: /s/ J. Andrew Don
Name: J. Andrew Don
Title: Governor and
Chief Executive Officer

SCHEDULE I
TO
AMENDED, RESTATED AND CONSOLIDATED BOND GUARANTEE
AGREEMENT

Addresses for Notices

1. The addresses referred to in Section 11.4 hereof, for purposes of delivering communications and notices, are as follows:

If to RUS:

Rural Utilities Service
United States Department of Agriculture
1400 Independence Avenue, SW
Washington, DC 20250
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
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: 703-467-1628
Fax: 703-467-5178
Attention of: Ling Wang, Senior Vice President and 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 Eighth Amended, Restated and Consolidated Bond Guarantee Agreement

SUPPLEMENT TO EIGHTH AMENDED, RESTATED AND CONSOLIDATED BOND GUARANTEE AGREEMENT dated as of [_____________] (the "Supplement") by and between the UNITED STATES OF AMERICA (the "Government"), acting through the Rural Utilities Service, a Rural Development agency of the United States Department of Agriculture, and its successors and assigns ("RUS"); and NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, a cooperative association existing under the laws of the District of Columbia (the "Borrower").

RECITALS

1, The Borrower and RUS are parties to that certain Eighth Amended, Restated and Consolidated Bond Guarantee Agreement, dated as of November 4, 2021, pursuant to which RUS has agreed to issue guarantees of certain Bonds, as contemplated by Section 313A of the RE Act, upon the terms and subject to the conditions provided therein (the "Original Agreement"). Capitalized terms that are not defined herein shall have the meanings assigned to them in the Original Agreement.

2. On [date of Application], the Borrower applied to RUS, in accordance with Section 313A of the Act and the Regulations, for RUS to guarantee a [Application number] loan from FFB to the Borrower, the proceeds of which would be used by the Borrower to fund new Eligible Loans or to refinance existing debt instruments of the Borrower used to fund Eligible Loans.

3, FFB is willing to make a loan to the Borrower in the aggregate principal amount of up to $[___________] upon the terms and subject to the conditions set forth in that certain Series [__] Bond Purchase Agreement, dated as of [__________], by and among FFB, the Borrower and RUS, as the same may be amended, supplemented, consolidated or restated from time to time in accordance with the terms thereof (the "Series [__] Bond Purchase Agreement"), and upon the terms and subject to the conditions set forth in the Series [__] Future Advance Bond issued by the Borrower to FFB and dated as of the date hereof (the "Series [__] Bond").

4. RUS has determined that the Borrower is eligible for guarantees under Section 313A of the RE Act and is willing to issue its guarantee of the Series [__] Bond (the "Section [__] Guarantee") upon the terms and subject to the conditions set forth in the Original Agreement.

NOW, 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 [__________].

"Bond Purchase Agreement" shall mean the Original Bond Purchase Agreements, the Series S Bond Purchase Agreement, and the Series [__] Bond Purchase Agreement dated as of [___________].

SECTION 3. Conditions Precedent to the Issuance of the Series [__] Guarantee. The obligation of RUS to enter into this Supplement and to issue the guarantee of the Series [__] Bond pursuant to the terms hereof is subject to the satisfaction of the conditions precedent listed in Section 3.1 of the Original Agreement unless and until such conditions have been satisfied or waived in writing.

SECTION 4. Prior Representation of RUS. The representation made by RUS in Section 8.1 of the Original Agreement is true and correct as of the date hereof.

SECTION 5. Prior Representations of the Borrower. All representations made by the Borrower in Section 8.2 of the Original Agreement are true and correct as of the date hereof.

SECTION 6. Incorporation; Inconsistency with Original Agreement. Except as otherwise amended or modified herein, the terms, conditions and provisions of the Original Agreement are incorporated herein by reference as if set forth in full herein and remain in full force and effect. In the event of any conflict or inconsistency between the terms of this Supplement and the Original Agreement, the terms of this Supplement shall control. Nothing in this Supplement shall, however, eliminate or modify any special condition, special affirmative covenant or special negative covenant, if any, specified in the Original Agreement.

SECTION 7. GOVERNING LAW. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE UNITED STATES OF AMERICA, TO THE EXTENT APPLICABLE, AND OTHERWISE THE LAWS OF THE DISTRICT OF COLUMBIA.

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:______________________________
Title: Administrator
Rural Utilities Service

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION, as the Borrower

By:______________________________
Name: ___________________________
Title: ____________________________

ANNEX B

Form of Bond Purchase Agreement

ANNEX C

Pledge Agreement

Dated as of November 4, 2021

ANNEX D

<u>Form of Reimbursement Note</u>

ANNEX E

Opinion of Counsel to the Borrower

(1) The Borrower has been duly incorporated and is validly existing as a not-for-profit cooperative association in good standing under the laws of the District of Columbia with corporate power and authority to execute and perform its obligations under the Bond Documents.

(2) The Bond Documents have been duly authorized, executed and delivered by the Borrower, and such documents constitute the legal, valid and binding agreements of the Borrower, enforceable against the Borrower in accordance with their respective terms subject to (a) applicable bankruptcy, reorganization, insolvency, moratorium and other laws of general applicability relating to or affecting creditors' rights generally, and (b) the application of general principles of equity regardless of whether such enforceability is considered in a proceeding in equity or at law.

(3) Neither the execution nor the delivery by the Borrower of any of the Bond Documents nor the consummation by the Borrower of any of the transactions contemplated therein, including, without limitation, the pledge of the Pledged Securities (as such term is defined in the Pledge Agreement) to RUS if required, nor the fulfillment by the Borrower of the terms of any of the Bond Documents will conflict with or violate, result in a breach of or constitute a default under any term or provision of the Articles of Incorporation or By-laws of the Borrower or any law or any regulation or any order known to Counsel currently applicable to the Borrower of any court, regulatory body, administrative agency or governmental body having jurisdiction over the Borrower or the terms of any indenture, deed of trust, note, note agreement or instrument to which the Borrower is a party or by which the Borrower or any of its properties is bound.

(4) No approval, authorization, consent, order, registration, filing, qualification, license or permit of or with any state or Federal court or governmental agency or body including, without limitation, RUS, having jurisdiction over the Borrower is required for any consummation by the Borrower of the transactions contemplated by the Bond Documents except such as have been obtained from RUS; provided, however, no opinion is expressed as to the applicability of any Federal or state securities law to any sale, transfer or other disposition of the Guaranteed Bond after the date hereof.

(5) There is no pending or, to the best of Counsel's knowledge, threatened action, suit or proceeding before any court or governmental agency, authority or body or any arbitrator with respect to the Borrower, or any of the Bond Documents, or which, if adversely determined, would have a material adverse effect on the Borrower's financial condition or its ability to perform its obligations under any of the Bond Documents, except as previously disclosed.

ANNEX F

Officers' Closing Certificate

TO: The United States of America acting through the Rural Utilities Service.

We, [ ], Governor and Chief Executive Officer, and [ ], Senior Vice President and Chief Financial Officer, of National Rural Utilities Cooperative Finance Corporation (the "Borrower"), pursuant to the Eighth Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 4, 2021, 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.

DATED as of this 4th day of November 2021.

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE
CORPORATION

____
Governor and
Chief Executive Officer

____
Senior Vice President and
Chief Financial Officer

ANNEX G

Officers' Advance Certificate

TO: The United States of America acting through the Rural Utilities Service.

We, [ ], [Governor and Chief Executive Officer or Senior Vice President and Chief Financial Officer], and [ ], Senior Vice President, of National Rural Utilities Cooperative Finance Corporation (the "Borrower"), pursuant to the Eighth Amended, Restated and Consolidated Bond Guarantee Agreement dated as of November 4, 2021, between the Borrower and the United States of America acting through Rural Utilities Service (the "Bond Guarantee Agreement"), hereby certify on behalf of the Borrower that:

(1) (i) as at the last day of the most recent month ended more than 10 business days before the date hereof, the total aggregate principal amount of outstanding Eligible Loans is: $;

(ii) as at the last day of the most recent month ended more than 10 business days before the date hereof, the total aggregate principal amount of outstanding Loans is: $;

(iii) the percentage the amount under (i) comprises of the amount under (ii) is: %;

(2) (i) Of the total aggregate principal amount of outstanding Eligible Loans under (1) (i), the amount associated with refinancing RUS Debt is: $;

(ii) Of the total aggregate principal amount of outstanding Eligible Loans under (1) (i), the amount associated with debt of Members for whom both RUS and the Borrower have outstanding loans is: $;

(iii) Of the total aggregate principal amount of outstanding Eligible Loans under (1) (i), the amount associated with debt of Members for whom both RUS and the Borrower have outstanding concurrent loans pursuant to Section 307 of the RE Act is: $; and

(iv) The sum of the amount of Eligible Loans in (2)(i), (2)(ii), and (2)(iii) of $____________ exceeds the amount of Bonds outstanding of $____________ as of this date.

(3) the Advance will be applied to: (i) fund new Eligible Loans under the RE Act; or (ii) to refinance existing debt instruments of the Borrower, in the case of each such debt instrument up to the percentage set forth in clause (1)(iii) above;

(4) as at the date hereof, no material adverse change has occurred in the financial condition of the Borrower between the Closing Date and the applicable Requested Advance Date; and

(5) as at the date hereof, all of the representations contained in Section 8.2 of the Bond Guarantee Agreement remain true and correct in all respects.

Capitalized terms used in this certificate shall have the meanings given to those terms in the Bond Guarantee Agreement.

DATED as of this ___ day of _________, 20__.

NATIONAL RURAL UTILITIES
COOPERATIVE FINANCE
CORPORATION

____

Governor and
Chief Executive Officer

____

Senior Vice President and
Chief Financial Officer

ANNEX H

Auditors' Letter

To the Board of Directors of
National Rural Utilities Cooperative Finance Corporation
Dulles, Virginia

We have performed the procedures enumerated below, which were agreed to by National Rural Utilities Cooperative Finance Corporation (the "Company") and the Rural Utilities Service (the "RUS"), solely to assist in evaluating the Company's compliance with Section 6.1(b) of the Eighth Amended, Restated and Consolidated Bond Guarantee Agreement between the Company and the United States of America, acting through the RUS, dated November 4, 2021 (the "Bond Guarantee Agreement"), as of [last day of preceding fiscal year]. The Company's management is responsible for the Company's compliance with those requirements. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of those parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

The procedures that we performed and our findings are as follows:

1. We obtained the attached schedule of the total aggregate unpaid principal amount of the securities identified by the Company as comprising the Pledged Securities, as defined in the Bond Guarantee Agreement, as of [last day of preceding fiscal year] from Company management and compared the total aggregate unpaid principal amount shown on such schedule ($ ____) to the Company's underlying accounting records as of the same date and found them to be in agreement.
2. We obtained the attached schedule of the total aggregate amount of all amounts outstanding under the Guaranteed Bonds, as defined in the Bond Guarantee Agreement, as of [last day of preceding fiscal year] from Company management and compared the amount shown on such schedule ($_____) to the Company's underlying accounting records as of the same date and found them to be in agreement.

We were not engaged to, and did not, conduct an examination, the objective of which would be the expression of an opinion on compliance. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the Company and the RUS and is not intended to be and should not be used by anyone other than these specified parties.

July , 20__

Yours truly,

____

KPMG LLP

Exhibit 31.1

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

I, J. Andrew Don, certify that:

1. I have reviewed this report on Form 10-Q of National Rural Utilities Cooperative Finance Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:

    a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the Audit Committee of the registrant's board of directors:

    a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: January 14, 2022

By: /s/ J. ANDREW DON
J. Andrew Don
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.

Exhibit 31.2

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, Yu Ling Wang, 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 14, 2022

By: /s/ YU LING WANG
Yu Ling Wang
Senior Vice President and 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

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 quarter ended November 30, 2021 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 14, 2022

By: /s/ J. ANDREW DON
J. Andrew Don
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.

Exhibit 32.2

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 quarter ended November 30, 2021 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 14, 2022

By: /s/ YU LING WANG
Yu Ling Wang
Senior Vice President and 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.