

## CREDIT OPINION

6 November 2020



### Contacts

Jennifer Chang +1.212.553.3842  
 VP-Senior Analyst  
 jennifer.chang@moody's.com

Julien Paolantoni +1.212.553.4755  
 Associate Analyst  
 julien.paolantoni@moody's.com

A. J. Sabatelle +1.212.553.4136  
 Associate Managing Director  
 angelo.sabatelle@moody's.com

### CLIENT SERVICES

Americas 1-212-553-1653  
 Asia Pacific 852-3551-3077  
 Japan 81-3-5408-4100  
 EMEA 44-20-7772-5454

# South Carolina Public Service Authority

## Update to credit analysis

### Summary

South Carolina Public Service Authority's ("Santee Cooper" or "the Authority") credit profile (A2/Stable) takes into consideration the resolution of the Cook litigation, a class action lawsuit related to the 2017 abandonment of construction at the V.C. Summer nuclear power plants Units 2 and 3 (Summer), which places an upper limit on the financial obligations associated with the lawsuit between the Authority and Central Electric Power Cooperative Inc. ("Central"), Santee Cooper's largest customer.

A positive consideration concerning Santee Cooper's credit profile is the recent debt refunding of over \$500 million, which will provide interest costs savings that when coupled with fuel cost savings should grant Santee Cooper sufficient headroom to enable it to maintain its targeted fixed charge coverage ratio (FCCR) of between 1.35x to 1.40x during the four-year rate freeze period that is a component in the Cook Settlement. The credit profile reflects Santee Cooper's monopoly position in serving a large customer base either through wholesale power sales to Central and its 20 distribution cooperatives, retail sales or direct sales to some of the largest industrial firms in the state and to military installations.

While the Authority has been able to address several legal uncertainties and manages its COVID-19 exposure well, uncertainty remains as to whether Santee Cooper will be reformed or sold. We expect this issue to be addressed during the General Assembly session that will begin in January 2021. If Santee Cooper were to be sold, it is fair to assume that South Carolina would include terms which guarantee that the utility's obligations under the settlement would be taken over by the purchasing party. Despite interest cost savings through the issuance of the 2020 Series A & B bonds, high leverage following the termination of the Summer project will persist for many years which is likely to chronically pressure the Authority's ability to recover costs while maintaining its cost competitiveness.

### Credit strengths

- » Current competitive rates for wholesale and retail customers
- » Major customers including the Central customers currently bear fuel cost risk with a monthly fuel cost adjustment mechanism. Over 75% of Santee Cooper revenues are pass through costs
- » Broad service area and Santee Cooper has several key state roles such as water supply and economic development
- » Below-average power production costs and strong generation performance of existing generation portfolio

- » Lower coal-fired generation as part of carbon mitigation strategy
- » The Authority is owned by the Aaa-rated state of South Carolina but fiscally separate from it; economic trends indicate that the state entered recession in Q2 2020 as the COVID-19 pandemic depressed tourism and transportation manufacturing industries however in the long term favorable demographics and low business and living costs will allow South Carolina to outperform the U.S. according to Moody's forecasts

### Credit challenges

- » Contentious relationship with Governor intent on selling the utility
- » High leverage with nuclear-related debt and no performing asset for several decades
- » Customer concentration, with a significant amount of sales under long-term contract to 2058 to the Central, an association of 20 electric distribution cooperatives
- » Exposure to environmental regulatory uncertainty since a significant amount of energy is still from coal-fired generation
- » Significant large industrial load that may be more susceptible to retail competition or customer relocation
- » Current uncertainty surrounding future ownership structure or management
- » Base rate freeze imposed through the end of 2024 as part of the Cook Settlement
- » Declining liquidity amid an economic recession, somewhat mitigated by interest rate savings resulting from a partial refunding of the Authority's outstanding debt

### Rating outlook

The stable outlook captures improved visibility regarding Santee Cooper's financial profile over the next few years thanks to the settlement of a major lawsuit in August, and anticipated interest cost savings from the current refunding as well as future forecasted refundings. Although some uncertainty remains regarding the utility's future governance, management maintains some flexibility with respect to operations in order to deliver on its strategy of maintaining targeted debt service coverage ratios, rate competitiveness, and stable levels of liquidity.

### Factors that could lead to an upgrade

- » Further mitigation steps are executed to reduce leverage caused by the Summer project through a combination of expenditure reductions, new revenues, refinancing opportunities, and customer growth;
- » Following the lifting of the rate freeze, governance is reestablished which provides more transparent certainty around cost recovery

### Factors that could lead to a downgrade

- » Three year average fixed charge coverage falls below 1.30x and liquidity is consistently below 110 days;
- » Further political influence weighs on Santee Cooper's operations

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on [www.moody's.com](http://www.moody's.com) for the most updated credit rating action information and rating history.

## Key indicators

Exhibit 1

**Key Operating and Financial Metrics show higher debt ratios in 2017 and 2018, but a decline in debt outstanding in FY 2018 due to applied Toshiba proceeds. The 2019 DSCR takes into account the \$200 million legal settlement costs as part of the Cook settlement, although the costs will be spread out over the 2020-2022 period**

| <b>SOUTH CAROLINA PUBLIC SERVICE AUTHORITY</b>                 | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| Total Sales (MWh)  | 27,353,000  | 26,498,000  | 23,700,000  | 22,779,000  | 23,717,000  | 23,228,000  |
| Debt outstanding (\$000)                                       | 6,959,277   | 7,731,752   | 8,195,451   | 7,877,998   | 7,292,262   | 6,864,714   |
| Debt Ratio (%)   | 89.8        | 90.6        | 85.4        | 118.7       | 117.6       | 119.0       |
| Adjusted Debt Ratio (%)  | 88.4        | 96.8        | 92.5        | 129.6       | 128.4       | 131.0       |
| Total Days Cash on Hand  | 175         | 177         | 252         | 463         | 283         | 158         |
| Adjusted Days Liquidity on Hand (incl. Bank Lines)             | 273         | 219         | 360         | 527         | 306         | 158         |
| Total Debt Service Coverage (x) Bond Ordinance                 | 1.53        | 1.45        | 1.55        | 1.51        | 1.54        | 1.43        |
| Adjusted Debt Service Coverage (x) (Post Transfers/PILOTs-All) | 1.51        | 1.25        | 1.35        | 1.35        | 1.40        | 1.05*       |

Source: Audited Financials, Moody's Investors Service

## Profile

South Carolina Public Service Authority (Santee Cooper) is a component unit of the State of South Carolina (GO bonds rated Aaa) and was created by the State Legislature in 1934. It is governed by a 12 member board of directors, 7 year staggered terms, appointed by the Governor with the advice and consent of the Senate. One board member has to come from each congressional district in the state and each of the Authority's direct-serve counties and a chairperson appointed at large. The authority provides electric service, retail and wholesale, and wholesale water supply in several regions of the state. It also serves in other capacities including flood control; real estate management; park management and economic development assistance for local communities.

The Authority's assets include wholly owned and ownership interests in a variety of coal, natural gas, nuclear, hydro, biomass, landfill and solar generating units totaling 5,115 megawatts (MW) of summer power supply peak capability. This consists of 3,500 MW of coal-fired capacity, 1,117 MW of natural gas and oil capacity, 322 MW of nuclear capacity, 142 MW of hydro capacity, 29 MW of landfill methane gas capacity and 3 MW of solar capacity.

The Authority may purchase from, sell to or exchange with other bulk electric suppliers additional capacity and energy in order to maximize the efficient use of generating resources, reduce operating costs and increase operating revenues. The Authority also operates an integrated transmission system which includes lines owned by the Authority as well as those owned by Central Electric Power Cooperative Inc. ("Central"), the Authority's largest wholesale customer.

## Detailed credit considerations

### Revenue generating base

Santee Cooper serves over one-third of the state's population, or approximately 2 million customers in all 46 counties of the state either through wholesale power sales to Central (58% of sales) and its 20 distribution cooperatives, or retail (189,000 customers) (24% of sales) to areas such as Myrtle Beach or direct sales to some of the largest industrial firms in the state (13%) and to military installations. Santee Cooper had a 2.2% customer growth in FY 2019, continuing a trend of 2% customer growth on average since 2014.

In that regard, we note that on October 12th, a trial court in South Carolina issued an order ruling Santee Cooper has the exclusive right to provide electrical service to Century Aluminum unless or until there is a ruling by the South Carolina Public Service Commission that Santee Cooper's service to Century is inadequate or undependable, which is the only way a municipal utility can oust an incumbent utility provider. The ruling was against the City of Goose Creek. While Century Aluminum does not represent a material share of the Authority's revenue base, we view this ruling as credit positive since it is one of Santee Cooper's legacy customers and helps to fortify its monopoly position within its service territory.

The authority's rates are not regulated by the state Public Service Commission and are set by Santee Cooper's board of directors. Rates can be established on an abbreviated schedule but typically there is a process which includes public hearings. Over 75% of Santee Cooper revenues are derived from cost recovery that is automatically passed through to customers since they are set by pass through cost of service wholesale charges or direct fuel pass through.

The state's economy has diversified beyond heavy manufacturing including previously being dependent on textiles. While the state encourages large manufacturing firms to relocate to the area, including autos, some growth in other sectors has been a positive development since the last recession. Santee Cooper has aggressively used its economic development rate to attract new commercial and industrial customers.

However, the coronavirus pandemic dealt a sizable hit to tourism and transportation manufacturing, two of South Carolina key industries, as a result of related travel and trade disruptions. State revenues are constrained by declining tax revenues and increased expenditures, yet in the long run Moody's expects favorable demographics and low business and living costs to enable South Carolina to outperform the U.S. Santee Cooper itself has not been too heavily impacted by the financial fallout from coronavirus-related disruptions.

**COVID-19 did not significantly disrupt Santee Cooper's operations and financial position to date, thanks to effective management of operating costs and refunding**

Santee Cooper's financial performance has been modestly affected by the coronavirus crisis so far, as the Authority maintains some flexibility to adjust to a decline in load and some increased costs related to COVID-19.

Decreased power usage is being mitigated by fuel cost efficiency savings and other operating cost adjustments of \$17.5 million as well as a \$59 million reduction in capital expenditures relative to budget. Further, Santee Cooper has been able to unlock additional savings by hedging fuel costs through 2024 and entering into new coal commodity and transportation contracts which will generate around \$88 million in savings through 2024. Also, half of the additional expenses related to COVID-19 are expected to be recovered from the Federal Emergency Management Agency (FEMA). For the year, Santee Cooper anticipates load being 8% lower than original expectations; however weather adjusted load through August 2020 is already 3% higher than the Authority's revised expectations. Account delinquencies increased in the earlier months of the pandemic, however since mid-July the number of delinquent accounts have returned to pre-COVID 19 levels. As a result of the limited impact so far and the Authority's ability to mitigate revenue loss through the above mentioned expenditure adjustments, the Authority is not expecting a material change in net revenues in FY 2020.

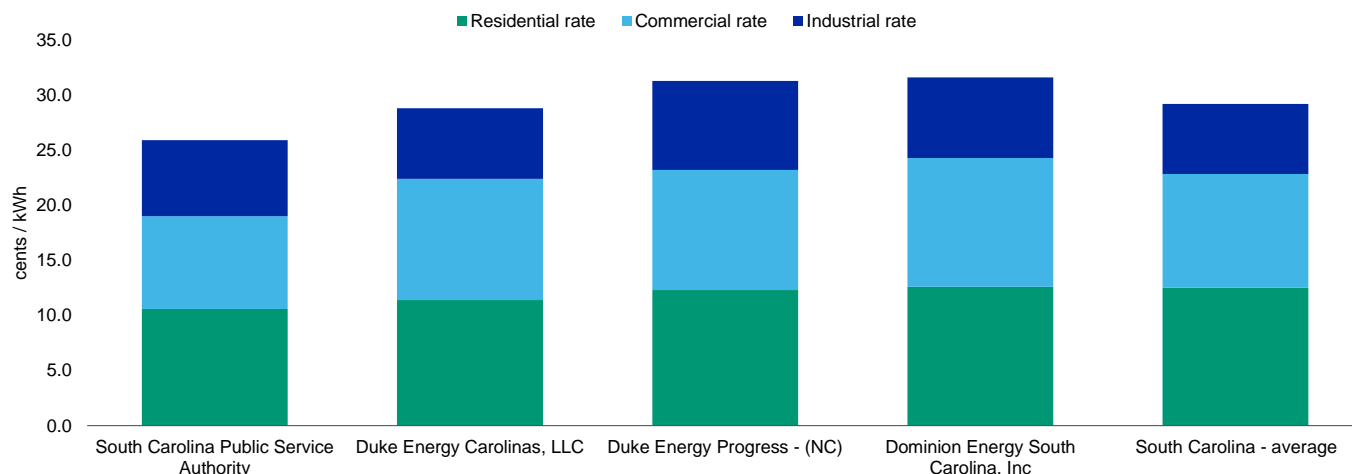
Santee Cooper only transfers approximately \$17 million to the state of South Carolina which is about 1% of its budget. The state has not tried to increase the transfer level for close to a decade partly due to past legislative opposition.

Santee Cooper's FCCR for FY 2019 was 1.32x excluding the non-cash financial impact of the \$200 million legal settlement liability recorded during the year, which is somewhat lower than the 1.45x 3-year FCCR average from 2016-2018. As the cash flow impact of the settlement will occur over a three year period beginning in 2021, the FCCR is expected to be in the 1.35 -1.40x range in FY 2020 and going forward, while the debt ratio and adjusted debt ratio should begin a gradual decline from the current high levels of 119% and 131%, respectively, as of FY 2019, owing principally to planned amortization and modest future borrowing requirements.

**The Authority is maintaining competitive rates compared to regional peers, a credit positive amid potential structural changes to the State's electricity market**

Based on EIA data, Santee Cooper is the second cheapest option for residential, commercial and industrial customers in its service perimeter, as measured by the average price paid by each category of customers. In aggregate, the Authority provides service at a price approximately 17% below State average.

Exhibit 2

**Santee Cooper offers competitive rates across all customer classes**

Source: Santee Cooper, EIA, Moody's Investors Service

Moody's expects Santee Cooper to remain competitive for the foreseeable future, as reforms to the local electricity market structure are contemplated by the state.

In February 2020, Bill (H.4940) was introduced in the state's House of Representatives and it established a legislative committee to study the electricity market in South Carolina. H.4940 also considers energy market alternatives and whether the legislature should adopt market reform measures affecting the provision of electric service in South Carolina along with the public benefits associated with such measures. H.4940, among other things, provides that the committee studies whether the General Assembly should require Santee Cooper to take actions necessary to implement one or more of the studied electricity market reform measures. Contemplated measures include breaking up the electric utilities into two distinct groups: companies engaged in power generation and those managing electricity distribution, giving every power customer in the state the ability to choose which company they buy electricity from and requiring utilities in South Carolina to join or form a Regional Transmission Organization. H.4940 also proposes the establishment of an advisory committee to the legislative study committee to which the CEO of Santee Cooper would be a designated member. The study committee is directed to issue recommendations related to South Carolina's electricity market structure by November 1, 2021. These are studies only and action would still need to be taken by the General Assembly if the committee recommends any action at all. Santee Cooper expects that the committee will begin its work in January 2021.

**Future ownership and management structure is uncertain, but potential acquisition would have to cover existing debt and pension liabilities**

Uncertainty still remains as to whether Santee Cooper will be reformed or sold. We expect this issue to be addressed during the General Assembly session that will begin in January 2021, at the earliest.

The purchase bid by NextEra Energy, Inc. (NextEra, Baa1 stable) as well as Santee Cooper's own reform plan and the management proposal by Dominion Energy, Inc. (Dominion, Baa2 stable) received by the Department of Administration (DoA) earlier this year, were all rejected in their proposed form. Please see issuer comment on [Report by the Department of Administration provides greater insight into Santee Cooper's future](#) for further details on the proposed plans. The legislature concluded its regular two-year session and passed a temporary resolution (Act 135 of 2020) that provides interim guidance, for up to a year, until the legislature can return to consider any additional legislative action related to Santee Cooper.

Although the reform plan was rejected, Santee Cooper continued to move forward with a successful resolution of the Cook litigation, and Act 135 provides Santee Cooper with ample authority to adhere to the provisions of the Cook Settlement, such as enabling it to proceed with necessary actions to close and decommission the Winyah Generating Station, execute on up to 500MWs of new solar generation, perform normal financing operations such as defease debt, issue new debt and refund existing debt, and renegotiate

existing fuel supply contracts, among other items. The Act also allows Santee Cooper to adhere to the rate freeze through 2024 associated with the Cook Settlement.

Some of the common bidding criteria included satisfaction of existing debt including pension obligations, commitment to projected rates and revenue requirements, plans for future investments in generation and transmission and inclusion or exclusion of lake assets. The master bond resolution states that the Santee Cooper board can sell Santee Cooper and its assets but it has to comply with the bond covenants in the resolution. See [Moody's FAQ on the political and legislative risks to Santee Cooper's credit profile following the Summer Nuclear suspension, February 28, 2018](#) on questions about sale economics.

#### **Recent litigation settlements are credit positive, although relationship with Central remains challenging**

On 31 July 2020, the South Carolina state circuit court approved a settlement to end a class action lawsuit related to the abandonment of the construction of V.C. Summer Units 2&3 in 2017. The construction had been previously undertaken through a joint venture between Santee Cooper and SCANA Corporation, which was subsequently acquired by Dominion Energy, Inc. (Dominion: Baa2 stable). Key provisions of the settlement include (1) a cash payment to plaintiffs totaling \$520 million split between Santee Cooper (\$200 million) and Dominion (\$320 million) and (2) a rate freeze for service through 2024 agreed to by Santee Cooper. The cash payments will be made over the next three years, with \$65 million in each of 2020 and 2021, and \$70 million in 2022, which helps alleviate the liquidity impact on the utility. See [Issuer Comment](#) on the Cook Settlement which was published earlier this year.

In April 2019, Westinghouse Electric Company, LLC ("Westinghouse") filed an adversary proceeding complaint against the Authority, claiming that it is the owner of and has title to certain equipment related to the construction of Summer pursuant to the EPC Agreement between SCE&G, acting for itself and as agent for the Authority, and a contractor consortium consisting of Westinghouse and Stone & Webster, Inc. On August 28, 2020, the Authority and Westinghouse entered into an agreement. Under the terms of the Westinghouse Settlement Agreement, the Authority was given full ownership of all non-nuclear equipment and the ability to immediately begin the marketing and sale of the non-nuclear equipment and retain 100% of the proceeds of the sales of the non-nuclear equipment. Westinghouse, for a five-year period commencing with the execution of the Westinghouse Settlement Agreement, will be solely responsible for marketing and selling all nuclear-related equipment. Proceeds of the nuclear-related equipment sales will be divided between Westinghouse and the Authority as follows:

- Major non-installed nuclear equipment: 50% Authority and 50% Westinghouse;
- Major installed nuclear equipment: 90% Authority and 10% Westinghouse;
- Any other equipment that could be used in nuclear projects: 67% to the Authority and 33% to Westinghouse

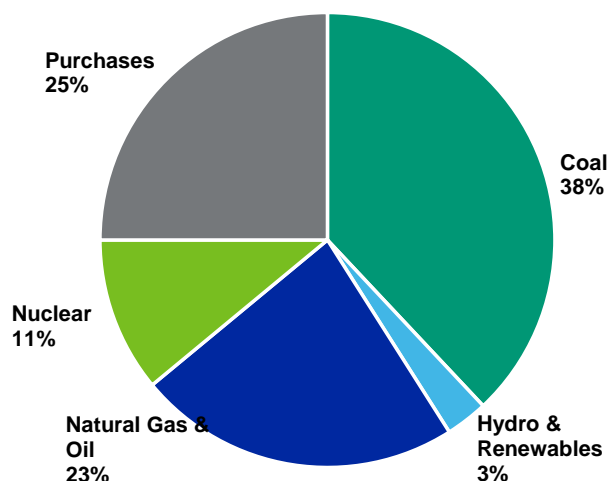
As referenced earlier in this Credit Opinion, on October 12th, a trial court in South Carolina ruled against the City of Goose Creek, ruling that Santee Cooper has the exclusive right to provide electrical service to Century Aluminum (Caa1/Stable) in Berkeley County, SC, unless or until there is a ruling by the South Carolina Public Service Commission that Santee Cooper's service to Century is inadequate or undependable, which is the only way a municipal utility can oust an incumbent utility provider. While Century Aluminum does not represent a material share of the Authority's revenue (1.4% of revenues and 1.7% of total sales in 2019), the ruling is viewed positively from a credit perspective, since Century Aluminum has been one of Santee Cooper's legacy customers since 1980. It also highlights the importance of maintaining competitive rates in the utility's service territory.

#### **Reserve margins are adequate but the energy mix is still coal heavy**

Total generation capacity stands at 5,343 MW in the winter and 5,115 MW in the summer. Even after the nuclear suspension, Santee Cooper is still in a somewhat comfortable position with respect to its energy and capacity needs, with a healthy winter peak reserve margin of 22% today, estimated to decline to a minimum of 15% in the next ten years (expected to be reached in 2023), per its latest integrated resource plan which considers peak loads of less than 5,000 MWs on an annual basis. The Authority's forecast includes two new 5-year solar purchased power agreements (PPA) in 2021, one new 5-year solar PPA in 2023, and one new 5-year PPA in 2024; all based on existing agreements entered into pursuant to the PURPA avoided cost methodology. The forecast also includes additional future solar PPAs, bringing the energy mix below 40% coal by 2025.

Although the utility has a more diverse generation mix than in the past with manageable demand growth in the 0.4% range and strong availability of existing generation units, it still has a fairly large coal mix in its long-term forecast.

Exhibit 3

**2019 Generation by Fuel Mix (MWh)****2019 Generation by Fuel Mix (MWh)**

Source: Santee Cooper, Moody's Investors Service

Santee Cooper's carbon mitigation strategy includes a scheduled retirement date of 2027 for the Winyah coal-fired facility, which produced 756 GWh in 2019 (i.e. 3.2% of the total energy output for the year). There is no renewable energy requirement in South Carolina.

**Liquidity**

As of September 2020, Santee Cooper had \$541 million of unrestricted cash, corresponding to approximately 153 days cash on hand (DCOH), a decline versus FY 2018 (283 days). Management forecasts liquidity to remain at around 115-120 DCOH over the next four years, with some strengthening anticipated after 2025, when the base rate freeze period is over. This level of liquidity is lower than the 300 three year DCOH average for the 2017-2019 period, as a result of the \$360 million par debt defeasance using cash on hand during the year.

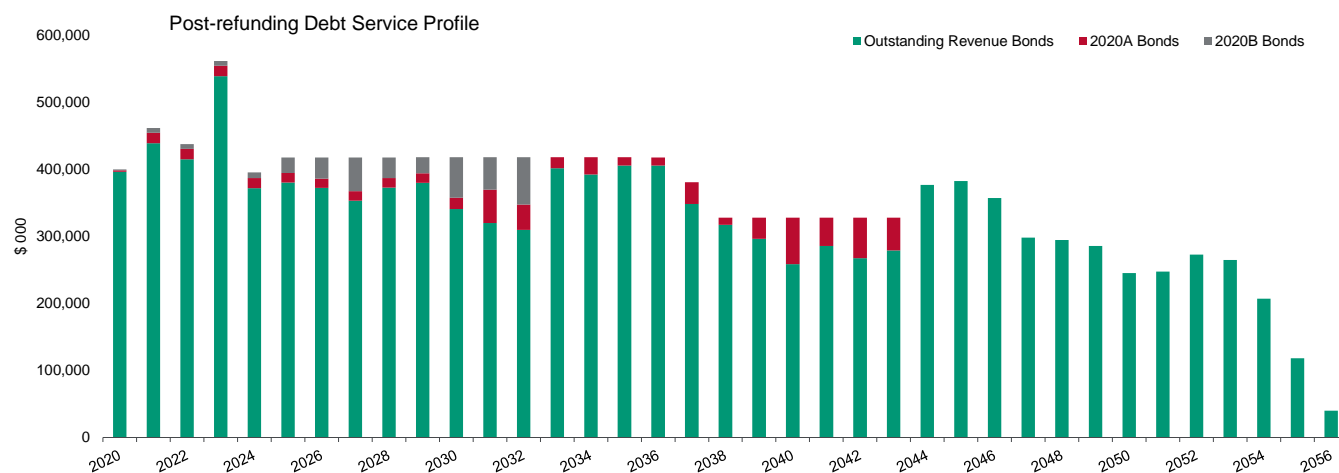
As of September 2020 the utility had \$550 million in revolving credit commitments from various banks (TD, JP Morgan, Bank of America) and \$300 million in letters of credit from Barclays maturing between June 2021 and September 2023. Undrawn amounts stood at approximately \$172 million for the revolving facilities and \$165 million for the letters of credit. Although we acknowledge the additional liquidity the revolving credit facilities provide, we do not include them in our adjusted days cash calculation since the agreements require the representation that no material adverse litigation has occurred as a precedent to any borrowing. We do, however, include the undrawn portion of the letters of credit backing Santee Cooper's commercial paper program given the irrevocable and unconditional nature of the letters of credit.

**Debt and other liabilities****Debt structure**

As of October 1, 2020, Santee Cooper had approximately \$6.58 billion in revenue bonds outstanding. The debt service profile post the recent refunding remains relatively flat, with a peak in 2023 which is expected to be addressed through a future refunding, prior to stabilizing in 2024 and beyond.



Exhibit 4

**Debt Service Profile Post Series 2020 Revenue Bonds' Refunding**

Source: Moody's Investors Service, Santee Cooper

As of FY 2019, Santee Cooper's debt ratio was one of the highest among US public power electric utilities at 119% prior to adjusting for net pension liabilities. Implementation of its debt moderation plan through expenditure reductions, debt refinancing initiatives and internal funding of capital improvements are expected to be future mitigating factors.

**Bond security**

The bond resolution includes a sum-sufficient rate covenant and no debt service reserve account or additional bonds test but Santee Cooper must deposit annually into the Capital Improvement Fund an amount which, together with amounts deposited during the prior two years, equals a minimum of 8% of required revenues in the preceding three fiscal years. As of June 30th, 2020, the capital improvement fund balance was \$200 million. These funds are typically used for debt service or for capital. The amount Santee Cooper is required to transfer to the state is restricted to a maximum of 1% of Santee Cooper's projected operating revenues. There is no external rate regulation except for federal regulation on transmission rates.

**Pensions and OPEB**

Moody's adjusted net pension liability (ANPL) for Santee Cooper as of fiscal 2019 is \$683.2 million, compared to its reported net pension liability of \$326 million. Under our adjustments, unfunded pension liabilities increase Santee Cooper's debt ratio from 119% as of FY 2019 to an adjusted debt ratio of around 131%, given Santee Cooper's total debt outstanding of around \$7 billion. Although the adjusted pension liability is not significant, given Santee Cooper's debt ratio already being on the higher end of its peers, the adjusted debt ratio is also deemed high comparatively.

Moody's adjusts the reported pension liabilities of entities that report under governmental accounting standards, to enhance comparability across rated issuers. Under governmental pension accounting, liabilities are discounted using the assumed rate of investment return on plan assets. Under our standard adjustments, we value liabilities completely independent of asset composition or return expectation, using a market based discount rate for high quality taxable bonds as a proxy for the risk of pension benefits.

Santee Cooper participates in the South Carolina Retirement Systems (SCRS), a cost sharing, multiple-employer public employee retirement system.

**Management and Governance**

Santee Cooper is governed by a 12 member board of directors, 7 year staggered terms, appointed by the Governor with the advice and consent of the Senate. One board member has to come from each congressional district in the state, each of the Authority's direct-serve counties and a chairperson appointed at large.



Santee Cooper's board approved the appointment Mark Bonsall, as President and CEO earlier in 2019, diminishing governance instability. Mr. Bonsall was formerly at Salt River Project Agricultural Improvement and Power District (Aa1 Sta). The board also has an acting chairman, Dan Ray.

### Rating methodology and scorecard factors

The scorecard is a reference tool that can be used to approximate credit profiles in the public power electric utility sector.

The scorecard-indicated rating of A3 is one notch lower than Santee Cooper's current rating of A2 reflecting the dominance of the Central wholesale contract and incorporating many of the challenges outlined above following the termination of the Summer nuclear project, as well as temporary constraints imposed by the Cook litigation settlement.

The scorecard is a summary that does not include every rating consideration. Please see Methodology on U.S. Public Power Electric Utilities with Generation Ownership Exposure for more information about the limitations inherent to grids.

#### US Public Power Electric Utilities With Generation Ownership Exposure (FY 2017-2019)

| Factor  | Subfactor  | Score        | Metric |
|---|--|--------------|--------|
| 1. Cost Recovery Framework Within Service Territory                       |  | Aa           |        |
| 2. Willingness and Ability to Recover Costs with Sound Financial Metrics  |  | A            |        |
| 3. Generation and Power Procurement Risk Exposure                         |  | A            |        |
| 4. Competitiveness  | Rate Competitiveness (compared to state average)       | A            |        |
| 5. Financial Strength and Liquidity                                       | a) Adjusted days liquidity on hand (3-year avg) (days) | Aaa          | 330    |
|   | b) Adjusted Debt ratio (3-year avg) (%)                | B            | 129.6% |
|   | c) Adjusted Debt Service Coverage (3-year avg) (x)     | A            | 1.27x  |
| <b>Preliminary Scorecard-Indicated Outcome from Scorecard factors 1-5</b> |  | <b>A2</b>    |        |
|   |  | <b>Notch</b> |        |
| 6. Operational Considerations   |  | 0.0          |        |
| 7. Debt Structure and Reserves  |  | -0.5         |        |
| 8. Revenue Stability and Diversity  |  | -0.5         |        |
| <b>Scorecard-Indicated Outcome:</b>                                       |  | <b>A3</b>    |        |

Source: Moody's Investors Service

© 2020 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND/OR ITS CREDIT RATINGS AFFILIATES ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S INVESTORS SERVICE DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S INVESTORS SERVICE CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing its Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at [www.moody.com](http://www.moody.com) under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657 AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

## CLIENT SERVICES

|              |                 |
|--------------|-----------------|
| Americas     | 1-212-553-1653  |
| Asia Pacific | 852-3551-3077   |
| Japan        | 81-3-5408-4100  |
| EMEA         | 44-20-7772-5454 |