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CREDIT OPINION
31 October 2023

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Contacts

Clifford J Kim	+1.212.553.7880
VP-Sr Credit Officer	
clifford.kim@moodys.com	
Ian Rice	12125534810
Ratings Associate	
ian.rice@moodys.com	
A. J. Sabatelle	+1.212.553.4136
Associate Managing Director	
angelo.sabatelle@moodys.com	

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South Carolina Public Service Authority

Credit update following rating affirmation and outlook revision to stable

Summary

South Carolina Public Service Authority's (Santee Cooper: A3 stable) credit profile considers the utility's broad service area directly or indirectly serving approximately 2 million people in South Carolina, ownership by the state of South Carolina (Aaa stable), and competitive rates. Additional credit strengths include a long term, all requirements contract with Central Electric Power Cooperative Inc. (Central) maturing at the end of 2058 and some generation diversity

Further weighing on the issuer's credit quality are high leverage with its debt ratio around 140% owing to the termination of the Summer nuclear project, counterparty concentration with Central, carbon transition risk due to coal plant ownership, and uncertainty surrounding the utility's future resource mix. Through 2024, the utility's rate freeze represents its most significant credit weakness.

The recent affirmation of Santee Cooper's A3 rating and the change in outlook to stable from negative considers the substantial moderation of power and natural gas prices since 2022 that should lead to substantially stronger financial metrics for 2023 compared to 2022. In 2023, US Henry Hub natural gas prices have fallen around 60% compared to 2022 with a similar reduction to power prices across most major power markets. The lower fuel and purchased power costs and lower debt service are expected to lead to the utility improving its debt service coverage ratio (DSCR) to between 1.15x to 1.20x in 2023 compared to 0.43x for 2022.

The rating action also incorporates our assessment of Santee Cooper's forecast which should result in DSCR close to 1.30x for 2024 as fuel and purchased power costs further moderate while maintaining strong adjusted liquidity exceeding 200 days. After 2024, the primary driver to Santee Cooper's future financial performance will be the implementation of new rates to recover capital, operating, and Cook exception costs of which the latter remains under dispute. In addition, the utility will need to have excess coverage to strength its financial health and fund higher capital spending to improve system reliability and decarbonize its power supply. Given the length of the rate freeze and extensive cost inflation that has occurred over the rate freeze period, we see uncertainty around the amount and timing of these necessary rate changes. If all of the necessary rate changes are implemented in 2025, the utility's customers could experience material rate shock that could lead to more disputes with customers. Because of that, we incorporate a more conservative rate assumption that the utility will set rates sufficiently to achieve DSCR in the 1.20x to 1.40x range on a Moody's adjusted basis. To the extent, Santee Cooper implements all rate

increases in 2025 including a hypothetical five to ten year period to fully recover the Cook exception costs, we estimate the utility could have DSCR in excess of 1.50x.

Credit strengths

- Broad service area directly or indirectly serving 2 million people in South Carolina
- Ownership by the state of South Carolina
- Current competitive rates for wholesale and retail customers
- Some generation diversity primarily across coal, nuclear, natural gas
- Long term contract with Central through 2058
- Strong adjusted liquidity metric in the 'Aa' category

Credit challenges

- Rate freeze applicable to most customers through 2024
- Increased financial burden from 2022's high power and fuel prices
- Historically high debt leverage ratio in the 'B' and volatile DSCR
- Counterparty concentration with Central
- Heightened environmental risk including carbon transition risk given coal fired generation ownership

Rating outlook

The stable outlook further reflects expected improvement to the utility's financial performance with DSCR returning to 1.15x to 1.20x for 2023 and at least 1.20x by 2024 given the moderation of fuel and power costs. The stable outlook also considers our assumption that Santee Cooper will implement sufficiently prudent rate increases once the rate freeze ends after 2024 to ensure the utility's financial health leading to DSCR in the 1.20x to 1.40x.

Factors that could lead to an upgrade

- The utility's rating could be upgrade if Santee Cooper demonstrates strong rate setting and conservative financial management post rate freeze that leads to DSCR above 1.50x on a sustained basis and maintenance of strong adjusted liquidity above 200 days.

Factors that could lead to a downgrade

- Santee Cooper's rating can be downgraded if the utility does not implement rate changes to lead to DSCR of at least 1.20x or if unexpectedly high fuel and purchased power costs substantially increases the utility's debt burden or reduce adjusted liquidity to below 150 days. The utility's rating could also be downgraded if political influence weighs on Santee Cooper's operations, if new major disputes arise with Central, particularly as it relates to the rate freeze, or if the borrower is not able to renew its bank lines at beneficial terms.

Key indicators

Exhibit 1
Santee Cooper's key indicators

Santee Cooper	2018	2019	2020	2021	2022
Total Sales (mWh)	23,718,000	23,229,000	22,233,000	24,601,000	26,224,000
Debt Outstanding ($'000)	7,206,028	6,774,448	6,816,498	6,785,860	7,223,997
Debt Ratio (%)	116.2	117.4	118.1	119.7	130.0
Adjusted Debt Ratio (%)	127.0	129.4	132.1	133.7	140.0
Total Days Cash on Hand (days)	283	158	159	160	69
Adjusted Days Liquidity on Hand (days)	306	177	205	242	206
Debt Service Coverage Ratio (if applicable)(x)	1.41x	1.48x	1.51x	1.29x	0.43x

Source: Moody's, Audit financial statements

Profile

South Carolina Public Service Authority (Santee Cooper) was created by the South Carolina State Legislature in 1934 and provides both retail and wholesale electric service directly or indirectly to approximately two million people in all 46 counties of the state. The utility directly or indirectly serves suburban areas outside Charleston, Columbia, Greenville, and Spartanburg as well as the coastal areas of Myrtle Beach and the Grand Strand, Hilton Head Island, Kiawah Island and Seabrook Island. Santee Cooper also has two water systems that serves over 210,000 people. The utility also operates an integrated transmission system which includes lines owned by the issuer as well as those owned by Central Electric Power Cooperative Inc. (Central), Santee Cooper's largest wholesale customer.

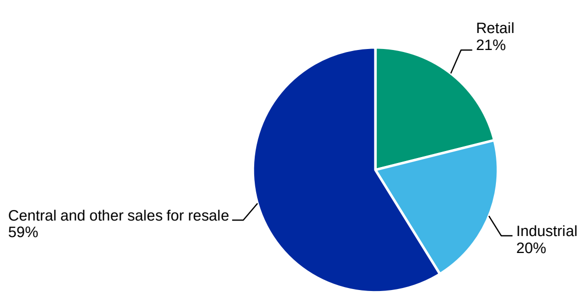
Detailed credit considerations

Revenue Generating Base

Broad service area serving for than one third of South Carolina's population

Santee Cooper directly or indirectly serves a broad service area with approximately 2 million people, roughly 40% of the state's population, in all 46 counties of the state of South Carolina. Most of these people are served indirectly via the all requirements arrangement with Central that expires at the end of 2058. Central provides power to 20 distribution cooperatives in the state and represents the issuer's largest revenue source at around 60% of total sales. After Central, direct sales to around 204,766 retail customers is the second largest at around 21% of total sales followed by direct sales to some of the largest industrial firms in the state and to military installations that represents around 20% of sales (see exhibit 2).

Exhibit 2
Electricity sales breakdown



Source: Audited financials

Rate freeze represents Santee Cooper's most significant credit weakness

While the utility's rates are set by the utility's board of directors and not by the state regulator, Santee Cooper remains subject to a rate freeze for most of its customers through 2024 due to the Cook settlement. On July 31, 2020, the South Carolina state circuit court approved the Cook settlement to end a class action lawsuit related to the abandonment of the construction of V.C. Summer Units 2 & 3 in 2017. Key provisions of the settlement include (1) a cash payment to plaintiffs and (2) a rate freeze through 2024 with several exceptions (see exhibit 3 for list of exceptions). After the rate freeze expires, Santee Cooper may recover just and reasonable costs and expenses incurred during the rate freeze period directly resulting from the listed exceptions.

Exhibit 3

Rate freeze exceptions under the Cook settlement

Exceptions to Cook settlement rate freeze
Change in Law (not initiated or advocated for by Santee Cooper).
Named storm events, acts of God or the public enemy, flood, fire, strike, or catastrophic failure of equipment for reasons beyond Santee Cooper's control.
Significant cyber security attacks or other security attacks outside of Santee Cooper's control.
Changes in regulatory or governance requirements imposed by the Act 95 legislative process.
Deviations in Central's actual loads (used for allocation of demand costs) as compared to Central's billing determinants used in the Reform Plan if such deviation exceeds +/ 4% on an annual (calendar) basis. (any exercise of Opt Out rights by Central under the CA shall not be deemed to result in a change in load for purpose of this provision).
If Santee Cooper's costs incurred after the date of execution of this Agreement are increased above those in the Reform Plan because Santee Cooper is not permitted to engage in forward hedging of fuel price solely by reason of restrictions imposed by the Act 95 legislative process and solely for the period of such restrictions imposed by the Act 95 legislative process.

Source: Santee Cooper

The rate freeze represents a substantial burden on the utility since it severely limits a core strength of the public power model, which is self rating setting. In 2022, a steep rise to fuel and power prices in conjunction with a partial outage of the issuer's largest coal supplier led to substantial deterioration of the utility's financial (see section on High leverage and volatile DSCR) including incremental borrowing to fund the higher costs. The major coal supply disruption exacerbated Santee Cooper's market exposure since the utility had to make up for the coal supply shortfall through the purchase of more expensive fuel supplies or power. In 2023, US Henry Hub natural gas prices have fallen around 60% compared to 2022 with a similar reduction to power prices across most major power markets. The lower fuel and purchased power costs and lower debt service should lead to much stronger DSCRs for 2023 and 2024. Additionally, the utility has rebuilt its coal storage to over 100 days and has hedged around 73% of its fuel costs.

While the utility cannot immediately recover 2022's higher fuel and purchased power costs, Santee Cooper's board has authorized regulatory accounting treatment for a portion of the costs that could qualify as rate freeze exceptions. We understand the amount of deferred Cook exceptions totals $600-700 million and mostly relate to the consequences directly or indirectly caused by the mine outage. Our understanding is that the utility will seek to recover these costs and other deferred costs after the rate freeze expires, which then exposes the utility to the potential risk of dispute with Central, its largest customer and any other party to the Cook settlement. Central has already indicated its opposition to treat some of these costs as a rate freeze exception.

Given the rate freeze, the utility rates are significantly competitive with its peers and we expect the utility's rates will be closer to peers once the rate freeze ends.

Significant state oversight

The state of South Carolina provides substantial state oversight on the utility. Per Act 90 of 2021, Santee Cooper's 12 voting board members are appointed by South Carolina's governor subject to review by the State Regulation of Public Utilities Review Committee and confirmation by the state senate. Central appoints two non-voting members to the board. The utility's board is required to provide reports to the Advisory Board consisting of the state governor, attorney general, state treasurer, comptroller general, and secretary of state. The Advisory Board also approves the external auditor and board member compensation.

Furthermore, the state of South Carolina has oversight of key board actions including rates, debt issuance, and new generation. On rates, the utility must submit any rate adjustments to the state Office of Regulatory Staff (ORS) for review or comment prior to board approval in addition to providing public notice to customers with an opportunity for comment. Act 90 has also established a process for challenging rate changes although Santee Cooper can implement interim rates for 18 months if needed to avoid a default or to ensure proper operations after the rate freeze under the Cook settlement.

On debt issuance, the state's Joint Bond Review Committee (JBRC) must approve any new debt prior to issuance other than short term or revolving loans needed for day to day operations. JBRC also must approve any real estate transfers.

Santee Cooper must file an integrated resource plan (IRP) every 3 years with the state utility regulator and the state utility regulator also needs to approve any major utility facility acquisition.

General fund transfers to the state total approximately $17 million per year.

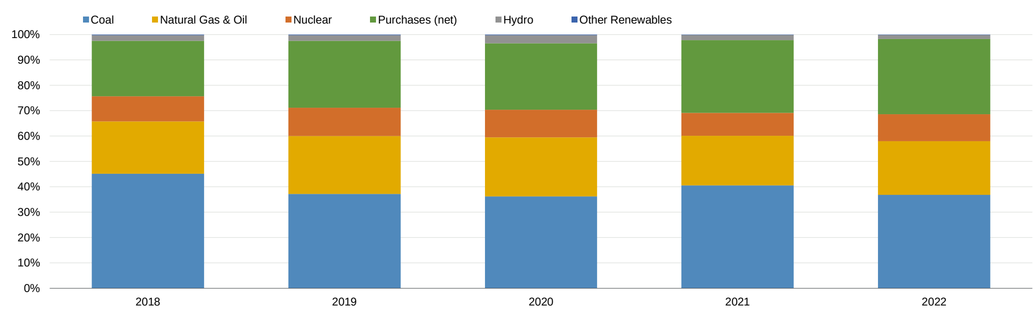
Financial Operations and Position

Some generation diversity but coal exposure increases long term carbon transition risk

The utility owns power generation assets totaling 5,075 MW (summer) / 5,293 MW (winter) and over the last three years, coal fired generation represented the largest source of power with an average share of 38% (see exhibit 3).

Exhibit 4

Historical power supply mix



Source: Audited financial statements

Santee Cooper's reliance on coal fired generation exposes the issuer to heightened environmental risk including longer term carbon transition risk. There is no renewable energy requirement in South Carolina at this time. In the near term, the utility's reliance on coal fired generation also exposes the utility to coal supplier risk given the previously described coal mine outage.

That said, Santee Cooper has some fuel diversity with natural gas & oil and nuclear providing 21% and 11%, respectively of the utility's power supply in 2022. Currently renewables including hydropower represent only 2% of the 2022 power supply. Over the long term, we expect the utility's reliance on coal should decrease according to the utility's 2023 IRP. Under the IRP, Santee Cooper expects to add 1,500 MW of new solar power, retire the 1,150 MW Winyah coal fired power plant, and add at least 1,000 MW of natural gas fired generation. The utility currently expects to issue a significant amount of new debt over the next five years to fund its decarbonization plans as well as to improve reliability.

While not an operating asset, the failed expansion of the Summer nuclear plant, which was abandoned in 2017, continues to represent a major ongoing burden on the utility's finances given the associated debt requirements that will remain for many years leading to high leverage as well as the previously mentioned rate freeze.

High leverage and recent DSCR volatility

Santee Cooper's DSCRs for 2022 was 0.43x caused by the utility's inability to pass on a sharp increase to natural gas and power prices given the rate freeze through 2024. For 2023, lower fuel and purchased power costs and lower debt service are expected to lead to the utility improving its DSCR to between 1.15x to 1.20x. Afterwards, our assessment of Santee Cooper's forecasts further improve with DSCR close to 1.30x for 2024. Post rate freeze, we incorporate a conservative assumption that the utility will set rates sufficiently to achieve DSCR in the 1.20x to 1.40x range on a Moody's adjusted basis. To the extent, Santee Cooper implements all rate increases in

2025 including a hypothetical five to ten year period to fully recover the Cook exception costs, we estimate the utility could have DSCR in excess of 1.50x.

Regarding leverage, the utility's adjusted debt ratio at 140% at year end 2022 is very high relative to its peers and falls in the 'B' category for this metric due to the failed construction of the Summer nuclear plant expansion and the need to continue to pay debt service on the related debt. Santee Cooper's debt burden was further exacerbated by 2022's sharp rise to fuel and power costs that the utility was not able to recover that year. Santee Cooper's very high leverage will remain a continuing characteristic of this issuer for the foreseeable future while new capital spending requirements will continue likely leading to elevated leverage on a sustain basis.

Liquidity

The utility maintains both internal and external liquidity sources to manage its overall liquidity position. As of year end 2022, Santee Cooper had Moody's adjusted, unrestricted cash and investments equal to approximately 69 days cash on hand (DCOH), which is a substantial drop off from 160 days DCOH in 2021. External liquidity currently comprises of $300 million letter of credit backed commercial paper program and $700 million of bank lines across four banks with maturities between June 2024 and March 2026. Including these external liquidity sources, Santee Cooper had adjusted liquidity on hand of 206 days as of year end 2022. During 2022, the bank lines were modified to enhance their accessibility such that we now include the net availability under the bank lines in our adjusted liquidity on hand calculation in addition to net availability under the letter of credit backed commercial paper program. The letter of credit backing the CP expires in Febuary 2025. That said, Santee Cooper's bank lines have rating triggers whereby ratings below Baa3 or BBB- by two of three rating agencies result in an event of default. To the extent, Santee Cooper's rating approaches this level, we will reconsider the inclusion of the bank lines in our adjusted liquidity ratio.

Debt and other liabilities

Legal security

Santee Cooper's bonds benefit from a pledge of the electric and water system's gross revenues and a sum-sufficient rate covenant. There is no debt service reserve account or additional bonds test.

Debt structure

As of year end 2022, Santee Cooper had approximately $6.9 billion in revenue bonds outstanding. Most of these bonds are long term, fixed rate amortizing debt except for the 2019 Series A bonds totaling $143 million, which are variable rate debt. The utility also has a $300 million commercial paper program backed by a $300 million letter of credit arrangement and $700 million of bank lines.

Debt-related derivatives

Santee Cooper does not have debt related derivatives.

Pensions and OPEB

Santee Cooper participates in the South Carolina Retirement Systems (SCRS), a cost sharing, multiple-employer public employee retirement system. Moody's adjusted net pension liability (ANPL) for Santee Cooper as of year end 2022 was $540 million, compared to its reported net pension liability of $309 million. 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.

Separately, Santee Cooper's reported net OPEB liability totaled $204 million as of year end 2022.

ESG considerations

South Carolina Public Service Authority's ESG Credit Impact Score is Highly Negative CIS-4

Exhibit 5
ESG Credit Impact Score

CIS-4
Highly Negative

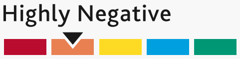
For an issuer scored CIS-4 (Highly Negative), its ESG attributes are overall considered as having a discernible negative impact on the current rating. The negative influence of the overall ESG attributes on the rating is more pronounced compared to an issuer scored CIS-3.

Source: Moody's Investors Service

South Carolina Public Service Authority (Santee Cooper) ESG Credit Impact Score is highly negative (**CIS-4**) since its ESG attributes are considered to have a highly negative impact on the current rating. Santee Cooper's **CIS-4** reflects highly negative environmental risks due to significant coal generation ownership. Furthermore, social and governance risks are highly negative since customers could be subject to rate shock once the rate freeze ends in 2024 and the rate freeze severely limits Santee Cooper's ability to manage risk, respectively.

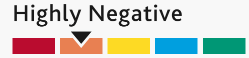
Exhibit 6
ESG Issuer Profile Scores

ENVIRONMENTAL
E-4
Highly Negative



SOCIAL
S-4
Highly Negative

GOVERNANCE
G-4
Highly Negative



Source: Moody's Investors Service

Environmental

Santee Cooper's highly negative environmental risk (**E-4** issuer profile score) largely reflects highly negative exposure to carbon transition risk since the issuer owns around 3.46 GW of coal fired generation that provide almost 40% of its power supply and highly negative exposure to physical climate risk due to the potential for extreme weather events such a storm risks in its broad service area covering large portions of the state of South Carolina. Furthermore, the issuer additional waste & pollution risk because of its coal fired plants and partial ownership of a nuclear plant.

Social

Santee Cooper's exposure to social risks is highly negative (**S-4**) reflecting the risk that demographic and societal trends that could include social pressures or public concern around affordability, utility reputational or environmental concerns. Costs concerns on the now cancelled V.C. Summer unit 3 & 4 expansion have resulted in adverse political intervention and a settlement with customers that included a 5 year rate freeze. Additionally, customers are exposed to rate affordability concerns once the rate freeze expires at the end of 2024. Furthermore, the issuer has moderately negative exposure to responsible production given its partial nuclear plant ownership and moderate negatively customer relationship that reflects historical litigation with its largest customer.

Governance

The influence of governance risk (**G-4**) is highly negative owing to financial strategy and risk management due to negative financial impact from the current rate freeze through 2024, extended rate setting process for retail customers compared to public power peers and increased oversight by state agencies around board representation.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Rating methodology and scorecard factors

Moody's evaluates Santee Cooper's rating under the US Public Power Electric Utilities with Generation Ownership Exposure methodology, As depicted below, the grid indicated outcome is Baa1 which is one notch lower than its A3 assigned rating.

The one notch difference reflects the utility's expectation of manageable fuel and power costs for 2024, expected end of the utility's rate freeze at the end of 2024 and expected implementation of rate changes to recover costs and improve the utility's financial health starting in 2025.

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.

Exhibit 7

Santee Cooper's Scorecard

Factor	Subfactor	Score	Metric
1. Cost Recovery Framework Within Service Territory		Aa	
2. WIlingness and Ability to Recover Costs with Sound Financial Metrics		A	
3. Generation and Power Procurement Risk Exposure		A	
4. Competitiveness	Rate Competitiveness	A	
5. Financial Strength and Liquidity	a) Adjusted days liquidity on hand (3-year avg) (days)	Aa	218
	b) Debt ratio (3-year avg) (%)	B	135.0%
	c) Adjusted Debt Service Coverage or Fixed Obligation Charge Coverage (3-year avg) (x)	Ba	1.06
Preliminary Grid Indicated rating from Grid factors 1-5		**A2**	
		Notch	
6. Operational Considerations		0.0	
7. Debt Structure and Reserves		-0.5	
8. Revenue Stability and Diversity		-1.0	
Grid Indicated outcome:		**Baa1**	

Source: Moody's Investor Service

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