

CREDIT OPINION

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Analyst Contacts

Moses Kopmar +1.212.553.2846
 Analyst
 moses.kopmar@moodys.com

Earl Heffintrayer +1.214.979.6860
 VP-Senior Analyst
 earl.heffintrayer@moodys.com

Kurt Krummenacker +1.212.553.7207
 Senior Vice President/
 Manager
 kurt.krummenacker@moodys.com

CLIENT SERVICES

Americas 1-212-553-1653
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South Carolina State Ports Authority

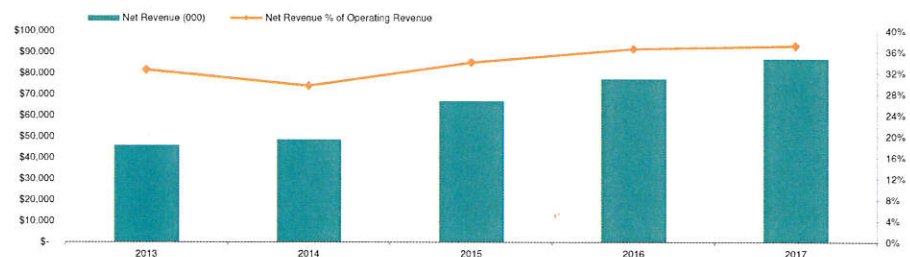
South Carolina State Ports Authority: Update to Discussion of Key Credit Factors

Summary

The credit profile incorporates the strong cargo demand generated by the South Carolina and Southeast economies; the authority's competitive infrastructure and operating model, which affords low port charges; high degree of volume risk in the authority's operating model, mitigated in part by headroom from strong financial metrics, in particular debt service coverage ratios (DSCRs) and EBITDA margins; and low but growing financial leverage as the authority implements a large capital program that will support its competitive position in the Southeast market.

Exhibit 1

The authority has benefitted from higher volumes, with financial margins improving slightly and remaining solid



Source: South Carolina State Ports Authority, Moody's Investors Service

Credit strengths

- » Total DSCRs of 2.79x and EBITDA margins of 37% in fiscal 2017
- » Strong cargo demand from above-average population growth and expanding industrial activity in South Carolina and the Southeast
- » Strong explicit and implicit support from the state of South Carolina (Aaa stable) and the state-owned Palmetto Railways, which have committed more than \$700 million for dredging, access roadway improvements, and a new intermodal container transfer facility
- » The authority is implementing a large, multi-faceted capital program that will position it with competitive water, terminal and rail infrastructure
- » Competitive productivity and handling costs as a result of operational/organizational structure

Credit challenges

- » The Southeast market is competitive, with larger ports in Georgia and Virginia both competing to serve cargo in the region
- » The authority has a predominantly fixed cost structure, but its revenue structure is almost entirely variable as it has an immaterial level of fixed revenues/minimum volume commitments from customers
- » Evolving ocean shipping patterns, which have the potential to result in rationalized services with fewer port calls, could prove a challenge in the context of larger gateways in Savannah and Norfolk; however, Charleston will be one of the best positioned ports to accommodate the larger vessels these services would operate, which would support its competitiveness as a port of call
- » Financial leverage is increasing as the authority implements a large capital program, entailing negative free cash flow in recent and future years

Rating outlook

The stable outlook is based upon our expectation that the authority will continue to exhibit strong operating and financial performance, and that it will incur debt required to fund its growth capital projects in a phased manner, retaining flexibility to manage if there is a downturn in demand, and without significantly weakening coverage and liquidity metrics.

Factors that could lead to an upgrade

- » Total DSCRs maintained above 2.5x and days cash on hand above 600 post implementation of the capital program, combined with the expectation of lower/more manageable capital spending levels

Factors that could lead to a downgrade

- » Senior DSCRs below 2.0x and days cash on hand below 300 for a sustained period
- » Debt to operating revenues above 4.5x

Key indicators

Exhibit 2

Key Indicators for South Carolina State Ports Authority

	2013	2014	2015	2016	2017
TEUs (000)	1,560	1,685	1,916	1,943	2,138
Ro/Ro Vehicles	200,231	208,874	253,597	274,662	258,804
Operating Revenue (000)	\$140,388	\$164,143	\$196,759	\$211,166	\$233,648
Debt to Operating Revenue	1.28	1.19	1.48	2.32	2.26
Days Cash on Hand	709	478	738	717	986
Senior DSCR	3.48	3.67	5.05	4.97	3.11
Aggregate DSCR	3.32	3.35	4.39	4.30	2.79

Source: Moody's Investors Service

Profile

The South Carolina State Ports Authority is an instrumentality of the State of South Carolina, with a mission to contribute to the economic development of the state by fostering and stimulating waterborne commerce and shipment of freight. The authority owns and operates port facilities, principally at the Port of Charleston, where it handles breakbulk, container and roll-on/roll-off cargo.

Detailed credit considerations

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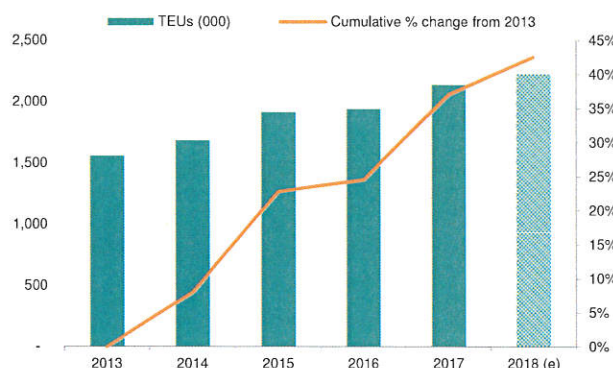
Revenue Generating Base

Strong growth above the US port market average

The authority has been one of the fastest growing container ports in the US over the last five years. Twenty-foot equivalent units (TEUs) have compounded at 8% per year for a total increase of 37% over the last five years, recovering recessionary declines and reaching an all-time high level at the end of fiscal 2017. Notably, these record volumes were achieved despite one berth at the authority's Wando Welch terminal being out of service for 800 days while undergoing refurbishment to support the handling of large vessels. Among Southeast ports, the authority has grown the most in percentage terms, and has increased regional market share, over the last five years. TEUs have increased 4% through the first six months of fiscal 2018.

Exhibit 3

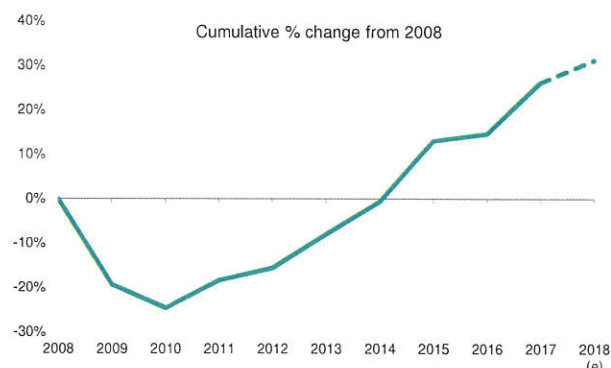
TEUs have increased 37% in the five years from fiscal 2013-2017...



Source: South Carolina State Ports Authority, Moody's Investors Service

Exhibit 4

... erasing recessionary declines and reaching record highs



Source: South Carolina State Ports Authority, Moody's Investors Service

Containers (including rail dray) contribute about 79% of the port's operating revenues, with the remainder from breakbulk and Ro/Ro (10%), inland port (5%) and cruise (5%). While Ro/Ro and cruise volumes have increased 30% and 23%, respectively, over the last five years, breakbulk volume has declined as the authority has de-emphasized heavier, lower value tonnage in favor of more profitable or strategic accounts in the segment.

Activity at inland port Greer continues to exceed expectations. Rail lifts have more than doubled in the three full years (fiscal 2015 to fiscal 2017) the facility has been online, from 58,000 to 122,000. The authority has reached phase 1 capacity at Greer and is studying expansion options. The authority is also currently constructing a second inland port in Dillon, which is expected to come online in April 2018 and should further strengthen the authority's position in the South Carolina market.

Healthy cargo demand, driven by regional population growth and industrial activity

Demographics and industrial activity are working in the authority's favor to drive cargo volume. On the import side, population is growing in the Southeast at a rate almost twice the US average. On the export side, the majority of domestic manufacturing activity is increasingly located in the Southeast, [in particular in South Carolina](#), and the Southeast has started to serve a portion of the chemicals and plastics production occurring on the Gulf Coast.

The strength of the state's automotive industry is notable - South Carolina is one of the leading states in the export of finished passenger vehicles. Automakers Daimler and Volvo will open new production facilities in 2018, complementing the volume generated by BMW. Daimler has historically used its North Charleston facility to reassemble Mercedes Benz vans imported from Germany, but demand has since led it to upgrade the facility to a full production site. [Volvo has invested \\$500 million](#) to add a second production line at its Berkeley County facility, where it plans to build up to 100,000 cars per year, an estimated 60% of which will be exported from the Port of Charleston. The ramp up of production by Daimler and Volvo will add to the volume generated by BMW's Spartanburg County facility, which is BMW's largest final assembly plant in the world and produced 410,000 vehicles in 2016, approximately 70% of which were exported from the Port of Charleston. BMW, the anchor tenant for inland port Greer, has announced plans to invest \$600

million in its Spartanburg County facility over the next 10 years. In addition to the export of finished vehicles, the automotive industry consumes a range of parts and materials as inputs, with auto parts one of the primary import commodities for the authority.

The performance of non-auto manufacturers is equally strong. Samsung recently announced that it will build a \$380 million home appliance manufacturing plant in Newberry County, and Boeing recently won a \$15 billion contract to produce 40 (forty) 787-10 Dreamliners, the final assembly of which will take place exclusively at Boeing's Charleston facility.

The authority has also captured a share of the resin production occurring along the Gulf. While the majority of these volumes move through Houston, shippers have looked to Southeast ports for capacity and to take advantage of larger ships and more frequent sailings, in addition to the more extensive global market reach ports like Charleston offer. Houston-based Frontier Logistics recently announced plans to build a 400,000 square foot warehouse for bagging and transloading of plastic pellets in North Charleston, which will create export volume for the authority. The authority is currently estimated to have approximately 6% share of resin exports in the US, which is likely to increase in the years ahead.

Good infrastructure to serve regional demand

The authority, a coastal port, benefits from deeper and wider navigation channels and shorter time to ocean than the river ports of Jacksonville, Savannah and Wilmington in the Southeast.

Landside, truck capacity is adequately provided for as the authority participates with Georgia Ports Authority in the South Atlantic Chassis Pool (SACP), which serves a wide territory and has facilitated the growth of containerized trade in the Southeast because of its extensive regional coverage. The authority also continues to make use of an inland port network connecting its marine terminals via short-haul rail with inland terminals located near consumption zones, which has extended the authority's market reach and increased connectivity and efficiency for shippers.

While Charleston does not have on-dock rail, it has demonstrated success with its RapidRail program, which is meant to replicate on-dock rail from the perspective of shippers through authority provided drayage to Class I rail ramps in North Charleston. RapidRail volumes increased 12% and the authority moved 23% of all containers by rail in fiscal 2017, the second highest percentage of intermodal volume behind the Port of Virginia on the East Coast. The rail drayage product remains less efficient than on-dock or near-dock rail, which is why the authority and Palmetto Railways, the state-owned short line railroad, are developing a near-dock intermodal container transfer facility that will be connected via private road to the new Hugh K. Leatherman container terminal.

The authority's capital plan continues to focus across water, terminal and landside infrastructure to address key challenges for freight carriers and cargo owners. Chief among these challenges are the logistical/coordination issues of managing larger vessel load and discharge patterns; tightening capacity and declining productivity in truck transport; and the availability of industrial real estate capacity to support changing distribution needs for importers. On top of the infrastructure, the authority has added an in-house supply chain management service to support customers in managing logistics. We view the comprehensive focus of the capital plan (described further below) as positive.

Inland ports strengthen share of regional cargo market, leverage truck and rail capacity and

The authority's inland ports allow shippers to gain efficiency by locating cargo and intermodal transfer activity at points closer to distribution and commercial centers. The authority's use of the inland terminals also decongests the Wando Welch gate by shifting container discharge and receipt to an inland location, allows the authority to originate and terminate empty containers and chassis at the inland location, and, because the inland ports are located closer to consumption zones, the staging of cargo exchanges at these locations supports the ability to achieve multiple truck turns per day. With the extension of spokes into pockets of the catchment area to serve demand, the inland ports allow the authority to efficiently aggregate and transfer volumes by short-haul rail for consolidation at the Port the Charleston (and vice versa in reverse), eliminating the inefficiencies of longer drays and fewer turns.

Inland port Greer now serves a number of cargo owners in the industrial cluster of Greenville and Spartanburg counties in addition to BMW, the facility's anchor customer and close to 38% of Greer's volume. The authority is constructing a second inland port in Dillon, in the northeastern portion of the state, which will broaden its presence in the regional market, both in the state and potentially in portions of North Carolina. Harbor Freight Tools, which is doubling the size of its Dillon distribution center to 1 million square feet, will serve as the anchor tenant for the new inland port, which is located on I-95 and near additional manufacturers in the region. The inland port network should continue to increase the authority's capture of regional cargo.

Competitive operating profile

In addition to improved rail infrastructure, the authority also offers lower port charges than import gateways in Southern California and New York/New Jersey. Since the expansion of the Panama Canal, ocean carriers have upsized vessels and competitively priced freight rates on Asia-East Coast services. In combination, these factors have caused incremental shifts of discretionary cargo from the West Coast to those Southeast ports with the capacity (water, terminal and rail) to handle larger vessels and the concentrated cargo exchanges these ships entail, while regional population growth at close to 2x the US average has also reinforced the attractiveness of Southeast ports as import gateways. Asian import volumes increased 17% for the authority, compared to 5% for the US port market, in calendar year 2017.

The authority also benefits from competitive productivity metrics and lower handling costs relative to ports in Southern California and the Northeast. Many terminal operators on the East Coast hire ILA labor on a temporary, day-of basis, for nearly all aspects of their operations. However, South Carolina, like Georgia, employs non-union state workers on a full-time basis to operate container cranes and certain yard equipment (primarily RTGs). While this model increases the ratio of "fixed" costs within the operating budget relative to most terminal operators (who benefit from a more flexible model with a high ratio of variable costs), the use of non-union employees allows the authority greater staffing flexibility and lower commercial rates for these activities, which it is able to pass through to customers in the form of lower charges.

Financial Operations and Position

Key financial metrics remain strong, but may be impacted in the years ahead by the cost of the authority's capital program. Total DSCRs were strong at 4.4x in fiscal 2015 and 4.30x in fiscal 2016. Debt service increased by \$13 million, to \$31 million, in fiscal 2017, but senior and total DSCRs remained healthy at 3.1x and 2.79x, respectively. The authority expects to finance a portion of its capital expansion plan, which is likely to cause total annual debt service to increase in future years. In such a scenario, the authority would require a combination of higher volumes and/or prices, and stable margins, in order to maintain senior DSCRs above 2.0x, which is the authority's internal target.

We expect healthy economic conditions will drive authority volumes in the 2-4% range in 2018, and that handling charges will increase, at a minimum with inflation, if not more. The authority's contracts with ship lines came up for renegotiation in fiscal 2018, with the authority securing rate increases of approximately 6% on average, which we view as positive. The Bayonne Bridge in New York is now elevated, allowing container carriers to deploy larger and more efficient ships on East Coast services. More importantly, container carriers generally achieved a profitable year in 2017, which, combined with their ability to operate more cost efficient vessels on East Coast services, should better support their ability to accommodate increases to handling rates from the authority than in years past.

The authority's EBITDA margins have also improved with the higher volumes, reflecting a combination of modest increases to contract rates in recent years and positive operating leverage in the business.

Financial leverage is increasing as the authority implements its large capital program, which means the authority's cost structure will remain predominantly fixed, which is a credit challenge because the authority's revenues are almost entirely variable. As the authority is expected to add upwards of \$400 million of new debt to fund a portion of its capital program, including the new Hugh K. Leatherman terminal, its ability to maintain strong credit metrics amid a downturn in volume will prove critical. The authority's strong debt service coverage ratios provide flexibility to manage lower revenues, as does the authority's relatively strong liquidity. Recent investments at the Wando Welch terminal, in the form of larger cranes and automated gates, will also help drive productivity and lower costs. For example, in fiscal 2017, the first full year of the advanced gate system at Wando Welch, average hourly gate transactions increased 28% over fiscal 2016.

LIQUIDITY

The authority's historically healthy liquidity may narrow over the next three to five years as cash is applied to capital spending.

The authority faces several years of negative free cash flow as it implements a large capital program. The authority had \$180 million of capital expenditures relative to \$78 million of cash from operations in fiscal 2017, and has budgeted nearly \$1 billion of capital expenditures for the period fiscal 2018-2021, a level of capital spending that will significantly exceed internal/operating cash flow.

Strong liquidity is an important credit consideration because of the volume risk in the authority's operating model. The authority ended fiscal 2017 with \$413 million, or 986 days, of unrestricted cash on hand, a very solid liquidity position. While the authority is still determining a plan of finance, cash may decrease meaningfully over the period fiscal 2018-2021 as the authority implements the capital program. If liquidity were to decline below 300 days, or remain at a historically low level for an extended period, we would view this as a credit challenge.

Debt and Other Liabilities

Phased implementation of capital projects provides flexibility to manage if demand weakens, but program spending requirements are likely to elevate debt from historically low levels

Between fiscal 2018-2021, the port will spend nearly \$1 billion to develop a new container terminal - the Hugh K. Leatherman terminal (previously the Navy Base Terminal) - and an adjacent intermodal container transfer facility; develop the inland port/intermodal container transfer facility in Dillon; and acquire new cargo handling equipment. This follows close to \$520 million of capital expenditures over the five year period from fiscal 2013-2017.

In addition, the authority is partnering with the US Army Corps of Engineers to deepen the harbor and entrance channel by 7 feet, to 52 feet and 54 feet, respectively, which will provide Charleston with the deepest water on the East Coast when the project is completed in 2020. In December 2016, the US Congress passed the Water Infrastructure Improvements for the Nation (WIIN) Act, which authorized \$231 million of funding, or a 40% share, for the port's harbor deepening project. The \$300 million local share of the project cost, which had already been provided by the state of South Carolina, will be lowered due to a recent revision to the cost-sharing formula.

The authority has included relatively large contingency/escalation allowances in its cost estimates for major projects, and with the third berth at Wando Welch reactivated it has the ability to defer development of new container terminal capacity if demand weakens materially. However, while certain elements of the capital program can practically be deferred, the authority is unlikely, in our view, to forego completion of phase 1 of the new container terminal and adjacent ICTF. At present, the authority essentially has one container terminal capable of handling Neopanamax vessels, as access to the North Charleston terminal is constrained by a 155 foot air draft restriction. (The Cooper River Bridge air draft of 188 feet does not present a constraint on the ability of Wando Welch or the new Hugh K. Leatherman terminal to accommodate Neopanamax vessels, and the authority has simulated the ability to bring 18,000 TEU vessels under the bridge.) Phase 1 of Hugh K. Leatherman would provide an additional deep-water berth with five cranes and 120 acres of terminal, along with a superior rail offering in the ICTF, which will allow shippers to access two Class I railroads at a single near-dock facility and will allow the authority to scale back the rail dray program, which is less efficient than the ICTF and requires the authority to be a buyer of (increasingly scarce) truck capacity.

We estimate an incremental \$300 million of debt for the authority to complete phase 1 of the Hugh K. Leatherman terminal, which would include construction of the superstructure, site development, engineering and construction of one 1,350 foot berth and the purchase of container crane and yard handling equipment. Completion of phase 1 would increase total throughput capacity.

DEBT STRUCTURE

The authority initiated the capital program from a position of low leverage, with 1.28x debt to operating revenues in fiscal 2013. The authority ended fiscal 2017 with 2.26x debt to operating revenues and is on course to reach upwards of 3.5x debt to operating revenues (pro forma for \$300 to \$400 million of additional debt) by fiscal 2021. We expect debt levels will stabilize and eventually moderate following completion of the current capital program, which is limited to phase 1 of the Hugh K. Leatherman terminal.

Approximately \$445 million, or 84%, of the authority's \$530 million of debt outstanding at the end of fiscal 2017 was on the senior lien, with the senior debt structured to produce relatively level annual debt service.

The authority has also borrowed on the second lien and third lien, with primarily partial amortization loans/bonds at a mix of tenors. In fiscal 2013, the authority entered a \$30 million promissory note to fund development of Inland Port Greer, with the note scheduled to mature in the amount of \$17 million in fiscal 2023. In fiscal 2016, the authority entered a \$14 million bank note scheduled to mature in the amount of \$9 million in fiscal 2025. In fiscal 2017, the authority entered into a \$25 million subordinate loan with SunTrust to purchase handling equipment for the Wando Welch and North Charleston terminals. The loan matures in 15 years (fiscal 2033) and amortizes over 20 years. Also in fiscal 2017, the authority entered into a \$20 million mortgage with Marlboro Development Team, Inc., a South Carolina Corporation, for the development and construction of the Inland Port in Dillon, with the loan maturing in fiscal 2037.

DEBT-RELATED DERIVATIVES

The authority is party to three interest rate swaps. In fiscal 2006, the authority entered into two forward starting swaps with plans to effect a forward refunding of the Series 1998B bonds. The authority ultimately chose not to refund the Series 1998B bonds, and due to high termination costs it entered into a third swap agreement, with the same tenor and total notional amount, in order to neutralize the 2005 swaps exposure. Under each of the 2005 swaps, the authority pays a fixed rate of 3.67% and receives a variable rate of 70% of one-month LIBOR. Under the 2008 swap, the authority receives a fixed rate of 3.51% and pays SIFMA. As of June 30, 2017, the net mark-to-market of the three swaps was \$889,000 against the authority. Additional termination events for the two Goldman swaps include a downgrade of either party's rating to below Baa2 by Moody's or the equivalent by S&P.

Additional termination events for the Wachovia swap include a downgrade of either party's rating to below Baa3 by Moody's or the equivalent by S&P. Collateral posting requirements factor a threshold of \$10 million at the current A1 rating level.

PENSIONS AND OPEB

In 2017, the state enacted legislation that will require the state itself as well as other participating governments to increase annual contributions to public pensions. While we view the increased funding commitment as positive from a credit perspective (despite the increased fiscal pressure), South Carolina for now continues to have large unfunded pension liabilities. Among states rated Aaa, South Carolina carries one of the highest relative pension burdens.

The authority reported a net pension liability of \$75 million in fiscal 2016. With Moody's standard adjustments to reported pension data, the adjusted net pension liability (ANPL) increases to \$140 million, or 0.66x operating revenues, in fiscal 2016.

Management and Governance

The authority operates as a self-supporting governmental enterprise. The authority has no stockholders or equity holders and is directed by a governing board whose members are appointed by the Governor of South Carolina for five-year terms. In addition to the nine voting members of the Board of Directors appointed by the Governor, the Act requires an additional two nonvoting board members including the Secretary of Transportation and the Secretary of Commerce. The authority's financial statements are included in the State of South Carolina general purpose financial statements as a discretely presented component unit.

The authority is a critical piece of South Carolina's economic development and transportation planning, and benefits from strong explicit and implicit state support, which we view as positive. This support manifests in the form of extraordinary aid for dredging, and access roadway improvements and a new near-dock intermodal container transfer facility at Hugh K. Leatherman; construction and funding of the replacement Cooper River Bridge; and economic development incentives supporting the location and expansion of major port customers in the state. Additional support is provided in the form of close coordination/involvement in economic development and transportation planning with state agencies.

Support for future Jasper Ocean Terminal

The state has also supported the authority with the Jasper Ocean Terminal (JOT) joint venture, which is a partnership between the authority and the Georgia Ports Authority to jointly develop, own and operate a 1,500-acre, state-of-the-art marine container terminal on the north bank of the Savannah River, in Jasper County, South Carolina. Despite current capacity expansion at Hugh K. Leatherman and the Garden City Terminal in Savannah, both ports forecast the need for additional capacity by 2035, and the JOT is being designed to accommodate 7 million TEUs per year. The \$4.5 billion project will require state support, and the state has already provided funds for design, land acquisition and legal work, with future support expected to assist with the development of related road infrastructure and the cost of the terminal.

Other Considerations

Exhibit 5

Project Finance Infrastructure Scorecard Public Port Revenue Bonds

Factor	Subfactor	Score	Metric
1. Market Position	a) Port Size (Operating Revenues) (000s)	Aa	233,648
	b) Quality of Service Area and Competition	Baa	
	c) Operational Restrictions	Aa	
2. Diversity and Volatility	a) Financial Revenue Variation (5-year operating revenue CAGR)	Aaa	13.6%
	b) Customer Diversity	Ba	
3. Capital Program	a) Capital Needs Requiring Leverage	B	
4. Key Credit Metrics	a) Net Revenues DSCR (3 year avg)	Aa	3.83x
	b) Debt to Operating Revenue (3 year avg)	A	2.02x
Rating From Grid:		A1	
Notching Considerations		Notch	
	1 - Tax Support for Operations	0	
	2 - Liquidity- Cash to Debt	0.5	85%
Indicated Rating From Grid:		Aa3	

Source: Moody's Investors Service

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