

CREDIT OPINION

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Update

 Rate this Research

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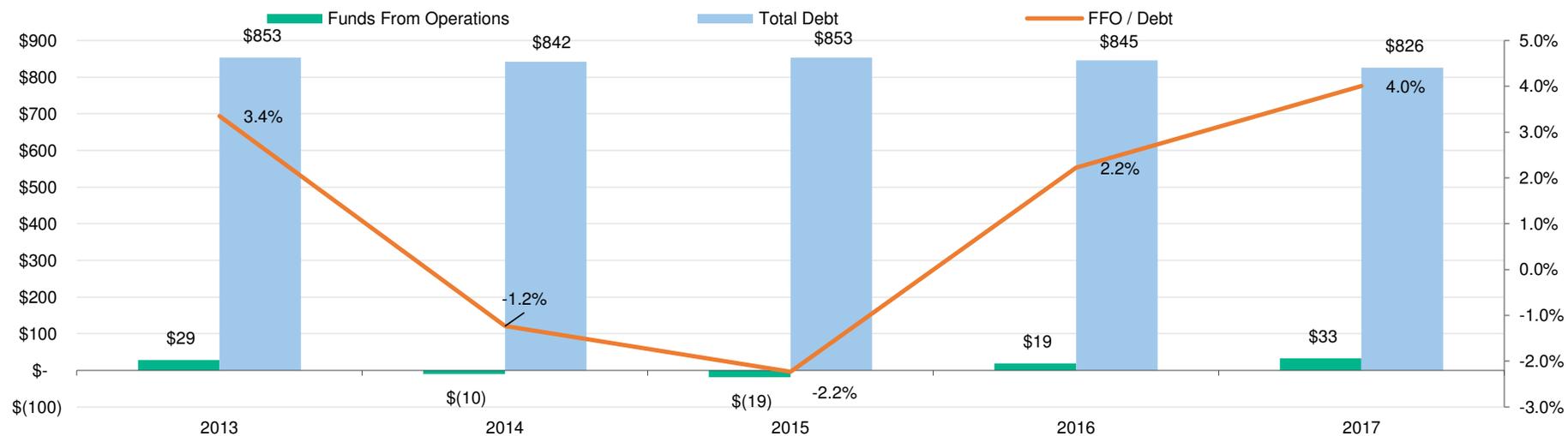
Big Rivers Electric Corporation

Update following rating upgrade

Summary

Big Rivers Electric Corporation's credit profile reflects a supportive regulatory environment and prospects for sustaining stronger financial metrics which are necessary to help balance business and financial risks owing to its substantial excess generation capacity and increasing regulatory assets, both of which could pose potential cost recovery and write-off challenges. Since 2013, progress in addressing excess generation capacity has included idling a 443 megawatt coal plant and signing medium-term contracts for the sale of excess capacity. Sizable rate increases approved by the Kentucky Public Service Commission (KPSC) and cost saving initiatives are helping to maintain viable financial performance. With regulatory support prevailing and sales of excess capacity phasing in, funds from operations (FFO) coverage of interest and debt are likely to strengthen further after improving in FY 2017 to 1.8x and 4%, respectively, from 1.5x and 2.2%, respectively, for FY 2016. Big Rivers is likely to be free cash flow positive for the next three years, while also maintaining ample liquidity.

Exhibit 1
Historical FFO, Total Debt and FFO to Total Debt
 (\$ in millions)



Source: Moody's Financial Metrics

Credit Strengths

- » Contracted sales of excess capacity to be phased in over several years began in January 2018
- » The likelihood of sustaining sound net margins, no patronage capital returns to members and routine capital spending should drive free cash flow and contribute to debt reduction
- » Timely and substantial recovery of costs of service owing to regulatory support for base rate increases, a variable cost adjustment mechanism and an environmental cost surcharge bode well for improving financial metrics
- » Long term wholesale power contracts with three member owners through 2043 produce a steady and predictable revenue stream from electricity sold to rural residential and other non-smelter industrial customers
- » Ownership of generally competitive coal-fired generation plants

Credit Challenges

- » Avoiding customer backlash as bill credits have expired and the full impact of increases to the members' wholesale power rate has increased retail rates for members' customers
- » Increasing regulatory assets resulting from deferral of depreciation for certain coal-fired generation assets and other expenses poses potential cost recovery and write-off risks
- » Significant excess of mostly coal-fired, carbon-emitting, owned generation capacity, including idled capacity, while awaiting more clarity on future environmental regulations
- » Sizable debt maturities beyond the term of certain existing power sales agreements with replacement loads following termination of contracts with the two aluminum smelters
- » Finding additional long-term market opportunities to sell significant excess capacity beyond the term of existing contracts that are phasing in over the next few years
- » Local economic dependence on industrial activity, including two aluminum smelters

Rating Outlook

The stable rating outlook reflects a prevailing supportive regulatory environment and the likelihood that Big Rivers can sustain its financial metrics at the stronger levels attained in FY 2017 while continuing to achieve better than expected progress in reducing its significant excess capacity through off-system capacity and energy sales in the Midcontinent Independent System Operator (MISO) and other markets at favorable margins. The stable outlook also considers Big Rivers having free cash flow to reduce debt during the next three years, and incorporates our view that the smelters will continue to operate, thereby providing support for the local economy, including employment levels. The stable outlook further expects that Big Rivers will continue to pursue additional long-term contracts for the sale of its excess capacity for terms beyond those already in place.

Factors that Could Lead to an Upgrade

- » A rating upgrade is possible if credit supportive regulatory treatment remains intact and there is future support for cost recovery of the increasing regulatory asset account which would avoid potential write-offs while maintaining reasonably competitive rates
- » Achieving further successful financial results through ongoing strategies to mitigate a long capacity position
- » Achieving stronger metrics to balance its unique business and financial risks; for example, FFO coverage of interest and debt improving to 2.4x and in a range of 6%-7%, respectively, with the debt service coverage (DSC) ratio tracking at close to 1.2x or better on a sustained basis

Factors that Could Lead to a Downgrade

- » We could take a negative rating action if there was a shift to a less credit supportive regulatory environment and if liquidity unexpectedly deteriorates
- » The pressure for a negative rating action would increase if substantial and timely recovery of environmental compliance costs and increasing regulatory assets do not occur as anticipated under the KPSC approved environmental cost recovery mechanism and future rate proceedings, especially if such amounts increase beyond currently anticipated levels
- » A scenario under which either or both of the smelters discontinued operations would be credit negative owing to the potential residual negative effects on the local economy
- » In terms of metrics, FFO to debt and DSC ratios below 4% and 1.2x, respectively, for a sustained period would pressure the rating

Key Indicators

Exhibit 2

Big Rivers Electric Corporation

	2013	2014	2015	2016	2017
Times Interest Earned Ratio (TIEF)	1.5x	1.6x	1.3x	1.1x	1.3x
DSC (Debt Service Coverage)	0.8x	1.5x	1.2x	1.2x	1.2x
FFO / Debt	3.4%	-1.2%	-2.2%	2.2%	4.0%
(FFO + Interest Expense) / Interest Expense	1.7x	0.8x	0.5x	1.5x	1.8x
Equity / Total Capitalization	33.1%	34.9%	35.3%	36.2%	37.2%

Source: Moody's Investors Service

Obligor Profile

Big Rivers is an electric generation and transmission cooperative headquartered in Henderson, Kentucky and owned by its three member system distribution cooperatives -- Jackson Purchase Energy Corporation; Kenergy Corp; and Meade County Rural Electric Cooperative Corporation. These member system cooperatives provide retail electric power and energy to more than 116,000 residential, commercial, and industrial customers in 22 Western Kentucky counties. In aggregate, Big Rivers owns 1,444 net MW of coal-fired generating capacity at four stations, including Robert D. Green (454 MW), Robert A. Reid ((130 MW), D.B. Wilson (417 MW) and Kenneth C. Coleman (443 MW), which has been idled since May 2014. Including its rights to about 197 MW of coal-fired capacity from Henderson Municipal Power and Light (HMPL) Station Two and about 178 MW of contracted hydro capacity from the Southeastern Power Administration (SEPA) its total power capacity is 1,819 MW. Big Rivers' owned transmission system includes 1,299 miles of transmission lines and 24 substations. The cooperative also has about 25 transmission interconnections to link its system with several surrounding utilities. Unlike most of its peers, Big Rivers is subject to rate regulation by the KPSC.

Detailed Credit Considerations

Good progress on strategies to mitigate credit challenges resulting from sizable excess capacity following loss of aluminum smelters' load

Big Rivers has been making good progress towards replacing the roughly two-thirds of its annual energy sales, just under 60% of its system demand and in excess of 60% of its annual revenues previously derived from the contracts it had with two aluminum smelters. While initial worst case expectations contemplated the prospect that both smelters would cease operations upon expiration of their respective power contracts, regulatory approvals of the smelters' definitive agreements with Big Rivers and Kenergy enable the continued operations of both smelters with energy demands met by open market purchases of electricity. That said, in the absence of both smelters' load, Big Rivers remains long on generation. The progress in addressing the excess capacity is attributable to both supply-side and demand-side strategies, as well as reducing staff and controlling other expenses where feasible and without compromising reliability.

Supply-side strategies continue to unfold

Big Rivers supply-side initiatives included idling its 443-MW Coleman plant and it is taking steps to terminate its longstanding operating agreement with HMPL. The latter strategy, if successful, will reduce its excess capacity by eliminating its rights to about 197 MW of competitively challenged coal-fired capacity from the HMPL Station Two plant no later than May 2019. The latter strategy is the subject of a KPSC regulatory filing, through which Big Rivers has asked the KPSC to address its request to end the operating agreement with HMPL on an expedited basis during 2018. Big Rivers is also requesting regulatory asset treatment for its approximately \$90 million of net book value relating to its past investments in Station Two as part of the operating agreement, with an intent to seek recovery in the next rate case. Meanwhile, Big Rivers continues to honor the operating agreement with a desire to terminate by May 31, 2019 at the latest. If HMPL is successful in finding adequate replacement resources to meet its full requirements, Big Rivers and HMPL would terminate the operating agreement sooner than May 31, 2019.

Although the Coleman plant was idled in May 2014, it is being maintained to permit restart should market conditions become economically feasible. By idling the Coleman plant, Big Rivers achieved overall cost savings of about \$26 million annually. Big Rivers is reporting internal load growth and additional longer term opportunities may also arise for sales of electricity, depending on economic development activity in its service territory. For example, Big Rivers has an industrial customer utilizing the cooperative's economic development incentive rate in its business expansion, which will contribute significant growth to the cooperative's load. Meanwhile, Big Rivers is also considering the transfer of some environmental control equipment at the Coleman plant to its Wilson plant. If this strategy is successfully implemented, it is likely to reduce the financial impact of a potential writeoff if management elects to permanently shutter the Coleman plant in the future. The current net book value of the Coleman plant, including deferred depreciation, is estimated at \$181 million. The net book value includes approximately \$73 million of investments in scrubbers. The remaining amounts of net investment in both the Coleman and Station Two plants loom as potential write-off risks to Big Rivers' common equity if the cooperative is not able to recover the remaining costs from its customers as a regulatory asset.

Demand-side strategies progressing well

Big Rivers' demand-side strategies include securing medium-term contracts for the sale of capacity and energy from its fleet to load serving municipal-distribution entities in Nebraska and Kentucky, making short-term off system sales and participating in the capacity markets.

In that regard, Big Rivers currently has three nine-year contracts to sell capacity and energy to three Nebraska entities which will grow to about 85 MW to the Nebraska entities. Power being provided under this contract began flowing this year and is scheduled to reach full output in 2022. Big Rivers also has executed a 10-year contract to transmit as much as 100 MW from its coal-fired Wilson Station to Kentucky Municipal Energy Agency (KyMEA), beginning in 2019, with the potential to increase the contract for sale of capacity by another 50 MW starting in 2022. Moreover, in June 2018, the City of Owensboro awarded its full-requirements contract, approximating 180 MW to Big Rivers, which together with other supply-side efforts, helps to further balance Big Rivers' generation capacity and load requirement. The contract with the City of Owensboro covers a term of June 2020 through December 2026 to provide the municipal utility's full annual energy requirements estimated at 825,000 megawatt hours and annual peak load of about 155 MW (net of its 25 MW SEPA contract).

These contracts are credit positive for Big Rivers because they lock up some of its substantial excess capacity and energy with load-serving municipal-distribution entities for multiple year periods, helping the cooperative replenish the smelter load lost during 2013-2014. The contracts are likely to prove beneficial for Big Rivers' long-term financial performance and provide a reliable source of recovery for Big Rivers' fixed and variable costs and contribute to its overall competitiveness through better rates for its members. Moreover, the contracts allow Big Rivers to become less dependent on the currently depressed wholesale power market for incremental revenues and helps diversify the cooperative's revenue stream, which historically was heavily dependent on the aluminum industry, to one that is less volatile and more predictable.

Setting aside the still idled Coleman capacity and assuming successful termination of the operating agreement with HMPL which eliminates rights to a portion of capacity at the Station Two plant, Big Rivers would have just under 1,200 MW of capacity available beginning in 2020. This level of capacity compares with average member peak load of 650 MW, plus additional aforementioned contracted capacity sales of about 350 MW phasing in during 2018-20 and allocating about 150 MW for an approximate 15% reserve margin, leaves Big Rivers very close to supply and demand balance. That said, overhang risks associated with the ultimate recovery of

the idled Coleman and Station Two investments remain, which together remain a rating constraint within the speculative grade rating category.

Smelters continue to operate, with increased production levels at the Hawesville smelter

Since canceling their respective contracts, both of the smelters continue to operate. We understand that the Hawesville smelter has been operating at about 40% of its capacity during recent years; however, with some economic aid and improved commodity pricing for aluminum, the Hawesville smelter is now operating at about 60% of its capacity with expectations to increase to 100% in 2019. The Sebree smelter has been operating for the most part at full production for several years. When compared with the alternative scenario of having both smelters permanently shut down, this outcome is acceptable particularly since Big Rivers and Kenergy are being reimbursed for any incremental costs to their members of the smelters' continued operation and there are residual benefits to the local economy.

More specifically, following regulatory approvals from the KPSC in 2013 and 2014, Century Aluminum of Kentucky (a subsidiary of Century Aluminum Company) continues to operate its Hawesville and Sebree smelters by purchasing electricity on the open market. Under an agreement that Big Rivers and Kenergy have with Century, Kenergy arranges with a third party for the energy purchases at wholesale market prices and Century pays the market price and additional amounts to cover any incremental costs incurred by Big Rivers and Kenergy to accommodate Century's desire to purchase energy on the market for the two smelters.

Rate case decisions and ongoing cost recovery mechanisms are credit positive factors serving as mitigants to credit challenges

In addition to the challenges facing Big Rivers in securing asset recovery for Coleman and Station Two in a credit benign manner, Big Rivers also remains exposed to incremental execution risk in securing extensions of the aforementioned medium term contractual arrangements with economically similar or better terms as Big Rivers' debt profile has sizable maturities extending beyond the tenor of the existing power sales contracts. Notwithstanding these credit challenges, Big Rivers' profile benefits from credit supportive rate case decisions rendered by the KPSC in October 2013 and April 2014, which resulted in approval of a combined wholesale power rate increase of about \$90.4 million. Moreover, as part of these decisions, residual cash, set aside in restricted accounts, provided a mitigant to Big Rivers' liquidity after the loss of the smelter load. Specifically, cash in the restricted accounts was used to provide bill credits during 2014-16, which temporarily minimized the rate shock to ratepayers until September 2015 for large industrial/business (non-smelter) customers and until August 2016 for rural (residential) customers.

With the expiration of bill credits in 2016, the full effects of the wholesale power rate increases are now being fully borne by Big Rivers' members and, in turn, the members' retail customers. The rate increases are credit positive for Big Rivers because the incremental amounts are estimated to result in about 90% of Big Rivers' total gross margins coming from its members that have all requirements contracts in place through 2043. The current wholesale power rates are likely to support steady financial performance at recently improved levels, ensure a degree of cushion for compliance with financial covenants and should allow for Big Rivers to further advance its strategies.

While Big Rivers faces ongoing challenges, our view of the credit profile acknowledges credit supportive actions and comments from the KPSC in the latest rate orders about prudent mitigation steps taken by Big Rivers as well as the commission's clear intention to ensure that electric rates are sufficient to maintain Big Rivers' financial integrity. In that regard, the KPSC rates approved in the April 2014 rate order are designed to enable Big Rivers to achieve a 1.3x times interest earned ratio (TIER), a level that is 20 basis points higher than the 1.1x margins for interest (MFI), essentially the equivalent of TIER, required as defined under Big Rivers' indenture. The additional revenue amounts to support Big Rivers' TIER at 1.3x is credit positive because the amounts help to partially offset certain other cost items not covered by the approved rate increases, the most significant of which relate to deferrals of any recovery of depreciation costs relating to the Coleman and Wilson plants. In addition to the predictable revenue stream provided by the contracts, entering the long term contracts for the sale of excess power also bodes well for Big Rivers' regulatory relationship with the KPSC, since the regulators established an action plan in 2013 that called for the pursuit of such supply contracts.

Maintaining supportive regulatory relationships remains an important credit factor for Big Rivers since its rate-setting is subject to regulation, which is atypical for an electric generation and transmission cooperative. Rate regulation can potentially introduce uncertainty around the timeliness and extent of future cost recovery, making that uncertainty an especially important credit risk factor for Big Rivers as its regulatory asset balance is increasing. With existing contracts in place as described above, we understand that Big

Rivers will likely seek regulatory approval for recovery of the regulatory asset balance tied to the Wilson plant depreciation deferrals beginning in 2021.

In addition to the 2013 and 2014 rate increases approved by the KPSC, the existence of certain fuel and purchased power cost adjustment mechanisms and the existence of an environmental cost surcharge in rates are favorable to Big Rivers' credit profile since they can temper risk of cost recovery shortfalls if there is a mismatch relative to existing rate levels.

Overall credit positive impact from KPSC mandated independent management audit

As required by the KPSC in its April 2014 rate order, an independent consultant conducted a comprehensive management audit, with a particular focus on Big Rivers' load mitigation strategies, and a final action plan was issued in December 2015. The action plan is a credit positive since it incorporates a combination of many supportive or neutral findings about Big Rivers' past decisions and future plans, as well as five specific, seemingly manageable, recommendations. Of those five recommendations, four were already in process as of the report date, including those relating to increasing expertise regarding the MISO market, pursuing new energy sales and analyzing the best use of the currently idled Coleman plant. Two of the five action items have been closed by the KPSC, including an agreement that the recommendation of adding a new board member with energy expertise is not warranted and that Big Rivers was sufficiently pursuing new energy sales.

Big Rivers has added staff resources focused on enhancing internal expertise in production cost and financial modeling to further leverage its association as a member of ACES and has executed amendments to its debt documents to address restrictions around the sale or early retirement of the Coleman plant. The advanced stage of action plans relating to these two items makes it likely that the items can be closed by the KPSC in the near term, perhaps as soon as October 2018.

With respect to the action item focusing on sale, retirement or redevelopment of the Coleman plant, Big Rivers is still studying its options and may opt to relocate a scrubber from the Coleman plant to its Wilson plant. This action item is expected to continue as an ongoing issue at least during the remainder of 2018. As Big Rivers moves forward in addressing the still open audit recommendations, it is currently required to report to the KPSC annually if necessary. Big Rivers has provided four reports to this point and anticipates filing its next report with the KPSC in October.

Reasonably competitive position maintained

Although Big Rivers' rates have increased following the loss of the smelter loads and KPSC approved rate increases, the economics of power produced from Big Rivers' generation sources have enabled it to still maintain a reasonable competitive position in the Southeast and even more so when compared to other regions around the country. The capacity factors and efficient operations of the assets resulted in a 2017 average member rate per MWh for rural members and large industrial members of \$85.14 and \$63.37, respectively, compared to \$82.21 and \$63.96, respectively, for 2016, \$82.35 and \$63.20, respectively, for 2015, \$81.79 and \$63.56, respectively, for 2014 and \$57.74 and \$47.00, respectively, for 2013 (in all instances, excluding the benefits of member rate stability mechanism).

Wholesale power contracts support Big Rivers' credit profile

The revenues derived under Big Rivers' long-term wholesale contracts with its members for sales to non-smelter customers are continuing as the contracts are in effect through December 31, 2043. The underlying favorable economics of power produced by Big Rivers' generation assets and bill credits provided during 2014-16 appear to have tempered any expressed or latent member disenchantment now that members are feeling the full impact of significant rate increases. Despite a relatively competitive starting point in 2013 and other price mitigating strategies, it remains possible that member unrest will surface, especially if further substantial rate increases become necessary to recover an increasing regulatory asset balance or if environmental compliance and other operating cost pressures surface unexpectedly. We understand that there was some decline in member satisfaction surveys for 2017, at least partially attributable to expiration of the rate stability mechanism.

Improved financial performance following base rate increases and other strategic initiatives

Big Rivers' financial performance is being supported by the outcomes in its last two rate cases and other mitigation strategies. Big Rivers' financial performance in fiscal year (FY) December 31, 2017 was reasonably consistent with its budget expectations and very much in line with FY 2016, including net margins of \$13.0 million, which supported a 1.32x TIER, a contractual MFI ratio of 1.32x and a DSC ratio of 1.22x, all as defined in the cooperative's debt documents. Although the net margins in fiscal years 2015-2017 were far

below the net margins of \$32.7 million achieved in FY 2014, financial performance during 2014 was aided by the positive weather effects of the polar vortex which added more than \$25 million on a non-reoccurring basis to Big Rivers' off-system margins that year.

For fiscal years 2015-2017 (including Moody's standard adjustments), Big Rivers' FFO coverage of interest, FFO to debt and DSC ratios averaged in the "Ba", "B" and "A" rating categories, respectively, for the ratios covered under the Rating Methodology for U.S. Electric G&T Cooperatives. For example, Big Rivers' three year average FFO coverage of interest, FFO to Debt, and DSC for 2015-2017 were 1.27x, 1.3%, and 1.2x, respectively. Although the average scores for two of these three metrics are at weak levels under the rating methodology, the ratio of FFO to interest and FFO to debt metrics during FY 2014 and to a lesser degree in FY 2015 are negatively affected by the accounting effects of noncash member rate mitigation revenue. The 2013 and 2014 rate case decisions firmly established the necessary revenue requirements and rate levels to maintain Big Rivers' financial viability and have restored these metrics to stronger levels in FY 2017 now that the economic reserve, rural economic reserve and transmission revenue economic reserve accounts have been utilized. The A category ranking for the average DSC ratio for the same period primarily reflects the absence of any large principal payments during the period. Big Rivers has some non-amortizing debt issues in its capital structure which can pressure the DSC ratio in years when large principal repayments are required. We expect that the DSC ratio can be sustained near 1.2x for the near term, with the next sizable bullet maturity of about \$240 million not until FY 2023.

For the same 2015-2017 period, the TIER averaged 1.2x (in the "A" category range) primarily reflecting supportive regulatory decisions which support net margins, and equity to total capitalization averaged 36.1% (in the "Aa" category range) as the metric is benefitting from debt reduction and full retention of net margins. With about \$181 million of net book value relating to the idled Coleman plant, Big Rivers could experience some pressure in complying with a minimum equity level as described in the liquidity section if it decides to shutter the plant permanently and has to take a write-off.

As noted in our summary above, Big Rivers' FFO coverage of interest and debt ratios strengthened in FY 2017 and prospectively are likely to be sustained to support the cooperative's credit quality as power sales agreements with entities in Nebraska and Kentucky help compensate for the substantial overcapacity at Big Rivers. Still, Big Rivers faces regulatory and execution risks as it eventually needs to seek recovery of increasing regulatory asset balances and decide on a final strategy to best address the idled Coleman plant.

Liquidity

We expect that Big Rivers will maintain ample liquidity over the next 12-18 months and will generate positive cash flow each year for the next several years.

Big Rivers supplements its existing cash on hand and internally generated cash flow with a multi-year \$100 million syndicated senior secured credit agreement with five financial institutions, led by National Rural Utilities Cooperative Finance Corporation (NRUCFC), which expires September 18, 2020. As of June 30, 2018, Big Rivers had a cash and temporary investments balance of about \$60.4 million and \$92.3 million available under the NRUCFC credit agreement. Big Rivers has manageable debt maturities over the next eight quarters, which are largely comprised of scheduled amortizations of long-term debt to be paid at roughly \$6.5 million per quarter. Terms of the NRUCFC credit agreement provide a good quality source of alternate liquidity in the form of a syndicated credit agreement which benefits from a multi-year tenor and the absence of any onerous financial covenants largely consistent with the financial covenants in existing debt documents. The syndicated agreement does, however, separately require Big Rivers to maintain a minimum equity balance at each fiscal quarter-end and year-end of \$375 million plus 50% of the cooperative's cumulative positive net margins for each of the preceding fiscal years, beginning with the fiscal year ended December 31, 2015. Big Rivers is comfortably in compliance with those covenants. Additionally, the credit agreement benefits from no ongoing material adverse change (MAC) clause. The syndicated credit agreement does not have any rating triggers, just a pricing grid based on Big Rivers' rating.

During 2017, Big Rivers also expanded its bank relationships by negotiating a \$15 million term loan with Federal Agricultural Mortgage Corporation, proceeds from which it pre-paid a portion of the existing series A loan from the Rural Utilities Service (RUS) to achieve interest cost savings. The note currently has an outstanding balance of \$14.3 million and a final maturity of October 23, 2020. More recently, in April 2018 Big Rivers received about \$46.1 million of funding from the RUS in the form of amortizing first mortgage bonds, with \$25.6 million maturing in 2033 and \$20.5 million maturing in 2043. Proceeds from these RUS loans and existing cash were used to repay in full the remaining balance of the RUS series A loan, thereby achieving interest cost savings, minimizing debt maturities for 2020 and 2021 and re-establishing access to low-cost RUS financing.

Debt Structure

As part of the unwinding of various transactions completed in 2009, Big Rivers replaced the previously existing RUS mortgage with a senior secured indenture. Under the senior secured indenture RUS and all senior secured debt holders, including the \$83.3 million of County of Ohio, Kentucky Pollution Control Refunding Revenue Bonds (Big Rivers Electric Corporation Project; cusip number 677288AG7), are on equal footing in terms of priority of claim and lien on assets. The current senior secured indenture provides Big Rivers with the flexibility to access public debt markets without first obtaining a case specific RUS lien accommodation, while retaining the right to request approval from the RUS for additional direct borrowings under the RUS loan program, if they choose to do so. Given persistent questions about the availability of funds under the federally subsidized RUS loan program, the added flexibility of the current senior secured indenture is credit positive.

Other Considerations

Big Rivers' mapping under Moody's U.S. Electric Generation & Transmission Cooperative Rating Methodology grid below is based on historical data through December 31, 2017. The grid indicated rating for Big Rivers' senior most obligations under the Methodology is currently Baa3. However, Big Rivers' actual senior secured rating of Ba1 reflects several of the unique risks at Big Rivers and the challenges facing the cooperative in mitigating these risks, including further implementation of its load mitigation strategies following the smelter contract terminations and addressing issues surrounding its increasing regulatory asset accounts and idled Coleman plant.

Methodology

Exhibit 3

U.S. Electric Generation & Transmission Cooperative Rating Methodology

Rating Factors			Moody's 12-18 Month Forward View As of Published Date [3]	
Big Rivers Electric Corporation, KY			Measure	Score
U.S. Electric Generation & Transmission Cooperatives [1][2]			Current FY 12/31/2017	
Factor 1 : Wholesale Power Contracts and Regulatory Status (20%)	Measure	Score	Measure	Score
a) % Member Load Served and Regulatory Status	Ba	Ba	Ba	Ba
Factor 2 : Rate Flexibility (20%)				
a) Board Involvement / Rate Adjustment Mechanism	Baa	Baa	Baa	Baa
b) Purchased Power / Sales (%)	32.5%	Baa	25%-35%	Baa
c) New Build Capex (% of Net PP&E)	Aa	Aa	Aa	Aa
d) Rate Shock Exposure	B	B	B	B
Factor 3 : Member / Owner Profile (10%)				
a) Residential Sales / Total Sales	29.8%	Ba	25%-35%	Ba
b) Members' Consolidated Equity / Capitalization	38.8%	Baa	38%-40%	Baa
Factor 4 : 3-Year Average G&T Financial Metrics (40%)				
a) Times Interest Earned Ratio (TIER)	1.2x	A	1.2x-1.4x	A
b) Debt Service Coverage Ratio (DSC)	1.2x	A	1.2x	A
c) FFO / Debt	1.3%	B	4%-6%	Baa
d) (FFO + Interest) / Interest Expense (3 Year Avg)	1.3x	Ba	1.8x-2x	Baa
e) Equity/Total Adjusted Capitalization	36.1%	Aa	36% - 39%	Aa
Factor 5 : G&T Size (10%)				
a) MWh Sales	7.4	Baa	7-10	Baa
b) Net PP&E	\$1.0	A	\$1 - \$1.1	A
Rating:				
Indicated Rating from Grid		Baa3		Baa2
Actual Rating Assigned (Senior Secured)		Ba1		Ba1

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

[2] As of 12/31/2016; Source: Moody's Financial Metrics™

[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody's Investors Service

RATINGS

BIG RIVERS ELECTRIC CORPORATION, KY

Rating: County of Ohio, Kentucky Pollution Control Refunding Revenue
Bonds (Big Rivers Electric Corporation Project; cusip number 677288AG7)

Ba1

Outlook

Stable

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