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CREDIT OPINION
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Update

Contacts

Dan Aschenbach 212-553-0880
Senior Vice President
dan.aschenbach@moodys.com

Kurt Krummenacker 212-553-7207
Senior Vice President
kurt.krummenacker@moodys.com

Chee Mee Hu 212-553-3665
MD-Project Finance
cheemee.hu@moodys.com

American Municipal Power, Inc.-Fremont Energy Center Project

Update: Moody's Affirms A1 Rating on American Municipal Power Inc. Fremont Energy Center Proj Rev Bonds; outlook stable

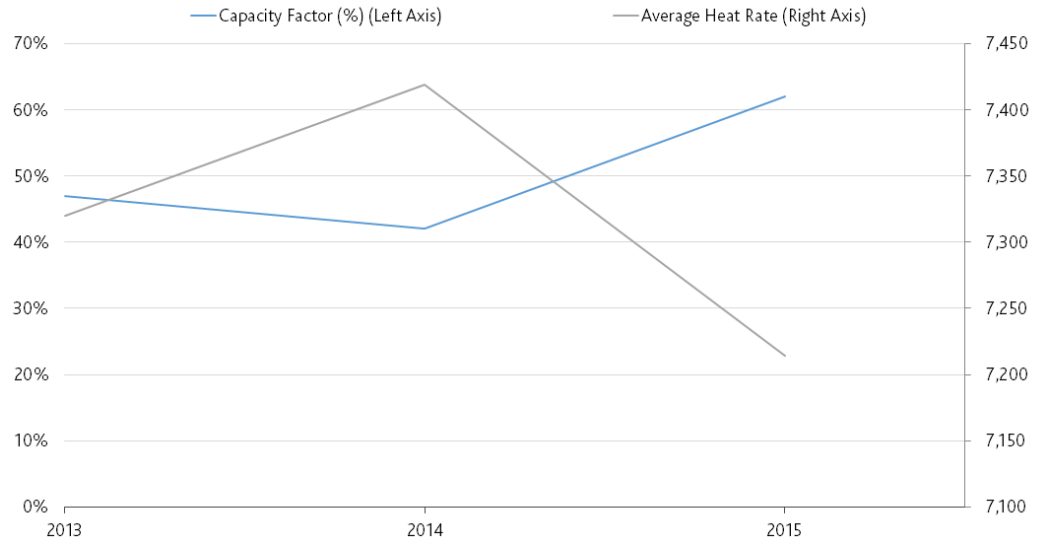
Summary Rating Rationale

Moody's Investors Service has affirmed the A1 rating on the American Municipal Power Inc. outstanding $520,620,000 Fremont Energy Center Project Revenue Bonds. The rating outlook is stable.

The A1 rating takes into consideration the average weighted credit quality in the A3 range on the 87 project participants who are unregulated municipal electric utilities; the strong take-or-pay power sales contracts and the fully funded maximum annual debt service reserve; the tested and monitored cost recovery process; the Fremont Energy Center (Fremont)'s sound operating performance; AMP's sound liquidity profile and its effective power supply management for its members. Please refer to Moody's AMP's A1 issuer rating report dated April 4,2016.

AMP's operation of Fremont, a two unit 675 MW natural gas fired combined cycle facility, has provided power resource diversity for AMP's members from this highly efficient plant that went into commercial operation in January 2012. Fremont has demonstrated a strong operating performance as measured by availability and capacity factors. Fremont Energy Center recorded a sound operating record in 2015 with an 88% availability factor; net capacity factor of 62%; and an average heat rate of 7,214. Fremont generation supply on average about 20-25% of the AFEC participants' peak load requirements in 2016.

Exhibit 1
AMP Fremont Operational Performance



Source: American Municipal Power, Moody's Investors Service

Credit Strengths

» Certainty in cost recovery due to sound AMP power supply contracts with its members; the unregulated rate setting authority of almost all AMP member municipal utilities; and AMP's statutory authority to increase its wholesale power rates on a timely basis

» Average weighted credit quality of the diverse group of AMP's participating members is in A3 range

» Strong contract enforcement provisions including AMP's credit monitoring system that provides an early warning of fiscal stress

» The level and availability of internal and external financial liquidity with bank line agreements with satisfactory terms and conditions

Credit Challenges

» Commodity market risks

» Single project risk

» Some member utilities have customer dominance and above average retail rates

Rating Outlook

The stable credit outlook reflects continued expectations of solid operating performance and AFEC's value to AMP participants with a competitive power supply including fuel diversity. While the restructured wholesale energy marketplace presents challenges, the stable rating outlook factors in AMP's strong track record in managing generation risk for its members. Strong take-or-pay contracts that are monitored by AMP for compliance, Fremont's continued strong operating performance and AMP's favorable liquidity position are additional factors underlying our stable outlook.

Factors that Could Lead to an Upgrade

» Significant improvement in participant credit quality.

Factors that Could Lead to a Downgrade

*Significant deterioration in the generation asset performance or in the credit quality of participants could also lead in a downgrade

*Any noncompliance with the take-or-pay contracts would cause the credit rating to be downgraded.

Recent Developments

Fremont Energy Center had a sound operating record in 2015 with an 88% availability factor; net capacity factor of 62%; an average heat rate of 7,214 and the delivered cost of energy at $30.074/mwh.

Detailed Rating Considerations

Revenue Generating Base

AMP's acquisition of Fremont, a two-unit natural gas fired power plant, from FirstEnergy, has been positive for AMP and its members helping to diversify the fuel mix. AMP and its 87 (65 from Ohio) Fremont project participants executed a 36 year take-or-pay power sales contracts for 90.69% of the aggregate capacity of the plant. The remaining ownership interest in Fremont includes a 4.15% ownership interest by AMP on behalf of and secured solely by Central Virginia Electric Cooperative and a 5.16% undivided ownership interest of Michigan Public Power Agency (MPPA). MPPA share was financed by separate MPPA revenue bonds and are rated A2/stable.

AFEC is a two-unit natural gas fired, combined cycle, electric power generation plant with capacity of 512 MW (unfired) 675 (duct fired) consisting of two Siemens-Westinghouse combustion turbines, two heat recovery steam generators and one steam turbine and condenser. Fremont went into commercial operation in January 2012 and has had a good operating record. Specifically, the plant heat rate has been in the 7300 Btu/kWh range. Fremont's capacity factor has averaged 50%; and engineering inspections have been sound.

AMP is an equity owner in The Energy Authority (TEA). AMP has a contractual relationship with TEA who handles fuel procurement and hedging on AMP's behalf as well as dispatching AFEC economically into the MISO and PJM markets. TEA has a sound industry reputation for conservative and effective natural gas risk management. AMP has a Corporate Energy Risk Control Policy which sets limits for counterparties, and establishes other risk mitigation measures.

In 2015, non-coincident peak demand of AMP's 132 members was 3,387 MW, almost 14% higher than in 2006 primarily due to new members joining the agency and partly due to load growth. AMP electric revenues were in excess of $ 1 billion in 2015. AMP has supplied a part of that peak demand from 1,415 MW of generation that it owns and joint ventures of its members, with the balance coming from market purchases. Rate competitiveness has been maintained with AMP members averaging retail rates in the 20% range lower than region's investor-owned utilities. It is noted that several AMP participants retail rates are higher than the regional average.

AMP historically has been a wholesale power supplier using market purchases to resell to its members. AMP has undertaken a significant shift in its power resource strategy from mostly market purchases to moving towards generation ownership including AFEC. The main driver has been to mitigate the volatility that municipal electric utilities have had to face with the restructured wholesale power markets. AMP forecasts it will move to reliance on purchased power for about 41% in 2016 to 38% in 2017 from 73% of its energy today.

Operational and Financial Performance

AMP has historically operated on a break-even basis as a nonprofit wholesale power supplier with the bulk of its energy resources from market purchases resold to its municipal utility participants. AMP's move to be an owner of generation with operating risks has required a significant increase in liquidity. While AMP has an unregulated authority to set its rates to recover its costs, financial liquidity to manage changes in fuel prices or to meet other immediate impacts on cash flow is required as it is more of a generation owner.

LIQUIDITY

AMP negotiated a $750 million revolving line of credit with 8 banks. The line was originally effective on January 9, 2012 it now has a maturity date of January 10, 2020. The revolving line of credit has an accordion feature to expand the line to $1 billion.

Debt and Other Liabilities

DEBT STRUCTURE

AMP's Fremont Project Revenue bonds are fixed rate; the debt service schedule is level and AMP has no debt derivatives. No additional borrowing for the AMP Fremont Project is currently expected.

DEBT-RELATED DERIVATIVES

None

PENSIONS AND OPEB

The financial impact of unfunded pensions and OPEB of this issuer are not material and thus not a major factor in rating.

Management and Governance

AMP was established by state statute (Ohio Revised Code Chapter 1702) as a non-profit corporation in 1971 to provide its members, which are municipal electric utilities, a reliable and competitive power supply. AMP is governed by a 20-member Board of Trustees made up of officials from 19 member municipalities and DEMEC. AMP operates like a joint powers agency and most of its members have home rule powers which permit retail rates to be set by the local governing boards with no external regulation.

Legal Security

The AFEC Project Revenue bonds are payable from and secured solely by the Trust Estate pledged under the Indenture that includes a net revenue pledge by AMP. Each AFEC participant has a fixed participant share and the participant is required to pay AMP on a monthly basis an amount equal to its proportionate share of AMP's revenue requirement. The payments are to be made as an O&M expense of the participant's electric system. The obligation to make payments are incorporated in the 36-year take-or-pay contract agreement such that the payments are not subject to any reduction, whether by offset, counterclaim, or for any other reason, nor shall they be conditioned on the performance of AMP, or any participant, and the payment shall be made whether the project is completed, operable, operating, or for any other reason. There is a 25% step-up provision. Delaware Municipal Electric Corporation (DEMEC), (A2/ stable) also has a take-or-pay contract for its participant share and a 25% step-up provision.

The bond security covenants include a 1.10 times additional bonds test and 1.10 times rate covenant. The debt service reserve is equal to the least of maximum annual debts service, 125% of average annual debt service or 10% of original principal of parity obligations.

Flow of Funds:

AMP transfers monthly payments received from the participants to the Trustee and funds the waterfall under the Master Indenture Operating Account in the following way: the Fuel Reserve Account; Working Capital Account(estimated $12.5 million) ; Derivatives Receipts Account, General Account; Fuel Hedge Reserve Account; Fuel Hedge Reserve Account (estimated $5 million funded from bond proceeds) ; Capitalized Interest Account; Interest Account; Derivatives Payment Account; Principal Account; Sinking Fund Account; Redemption Account; Parity Common Reserve Account (estimated at $34.5 million funded from bond proceeds); Subordinate Obligations Account; Reserve and Contingency Account; the Renewal and Replacement Account; the Overhaul Account; the Capital Improvement Account; the Rate Stabilization Account; the Environmental Improvement Account; and the Self-Insurance Account.

Strong Cost Recovery Protections

AMP has a master services agreement with all its members that provides a legal framework for the relationship of the municipal electric utility and AMP as it relates to power pools, energy products, power supply arrangements and individual services.

AMP's municipal utility members purchase non-project capacity and energy from AMP pursuant to take-and-pay contracts. The contracts are not secured by the full faith and credit of the respective cities. AMP members by their choice also participate on a take-or-pay basis in AMP-sponsored generation projects including AMP's share of the financing of Fremont. If there is a payment default, AMP has the power to suspend delivery, which we believe creates a significant incentive for the members to pay given the essential nature of the electric service. If nonpayment persists, AMP could bring litigation against the member and seek a judgment but AMP also has additional remedies which would be pursued prior to litigation. AMP has never experienced a payment default by a member.

Payment compliance is aided by AMP's credit monitoring program which produces early warning reports should a city be in fiscal distress. Moody's heavily weights this in the current credit rating.

Use of Proceeds

Not Applicable

Obligor Profile

AFEC project is a two-unit natural gas fired, combined cycle, electric power generation plant with capacity of 512 MW (unfired) 675 (duct fired) consisting of two Siemens-Westinghouse combustion turbines, two heat recovery steam generators and one steam turbine and condenser. Fremont went into commercial operation in January 2012 and has had a good operating record.

Methodology

The principal methodology used in this rating was US Municipal Joint Action Agencies published in October 2012. Please see the Ratings Methodologies page on www.moodys.com for a copy of this methodology.

Joint Action Agency-Take-or-Pay Methodology Scorecard Factors: Fremont Energy Project:

As indicated below, the grid indicated rating for AMP-Fremont is A1, in line with the existing rating. The grid is a reference tool that can be used to approximate credit profiles in the joint action agency sector in most cases. However, the grid is a summary that does not include every rating consideration. Please see the Municipal Joint Action Agency Methodology for more information about the limitations inherent to grids.

Exhibit 2

Methodology

Factor	Subfactor/Description	Score	Metric
1. Participant Credit Quality and Cost Recovery Framework	a) Participant credit quality. Cost recovery structure and governance	A3	
2. Asset Quality	a) Asset diversity, complexity and history	Baa	
3. Competitiveness	a) Cost competitiveness relative to market	Baa	
4. Financial Strength and Liquidity	a) Adjusted days liquidity on hand (3-year avg) (days)	A	
	b) Debt ratio (3-year avg) (%)	Baa	
	c) Fixed obligation charge coverage ratio (3-year avg) (x)	Baa	
Material Asset Event Risk	Does agency have event risk?	No	
Notching Factors		**Notch**	
	1 - Contractual Structure and Legal Environment	+0.5	
	2- Participant Diversity and Concentration	+1.0	
	3 - Construction Risk		
	4 - Debt Service Reserve, Debt Structure and Financial Engineering		
	5 - Unmitigated Exposure to Wholesale Power Markets		
Scorecard Indicated Rating:		**A1**	

*While internal liquidity is limited for Fremont Energy Center Project, AMP has a line of credit authorized at $750 million which the project has access.
Source: Moody's

Key Contact: Robert W. Trippe (614) 540-0990

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