

CREDIT OPINION

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New Issue

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VERMONT PUBLIC POWER SUPPLY AUTHORITY - SWANTON PEAKING FACILITY PROJECT

New Issue: Moody's assigns Baa1 to VPPSA, VT's Swanton Project Bonds; affirms parity ratings at Baa1; outlook stable

Summary Rating Rationale

Moody's Investors Service has assigned a Baa1 rating on Vermont Public Power Supply Authority (VPPSA) Project 10 Revenue Refunding Bonds (Swanton Peaking Facility Project), Series 2017A and (Taxable) 2017B of approximately \$16.6 million. Concurrently, we have affirmed the Baa1 rating on approximately \$18 million of parity senior lien debt. The outlook is stable.

Proceeds of the Series 2017A and 2017B bonds will advance refund the Series 2009A and 2009B bonds. The refunding is projected to provide 5% net present value savings of refunded bonds, or \$892,446. Savings will be uniform over the life of the bonds and there will be no extension of maturity.

The Baa1 rating on the VPPSA - Swanton project bonds reflects the legal security of the take-or-pay power sales agreements with 11 municipal electric utilities and 1 rural electric cooperative which have an estimated Baa weighted average credit quality. The rating also considers the requirement for Vermont municipal utilities to have their rates approved by the Vermont Public Utility Commission (though VPPSA has unregulated rate setting authority). The rating further considers issuer's strong liquidity profile as well as the plant's value as a peaking facility, with the project participants benefiting from owning a local resource that can bid into the forward capacity and energy markets, and realize value from its ancillary services.

Credit Strengths

- » Take-or-pay power sales agreements are a strong source of cash flow security
- » The Swanton facility provides the participants with fast start reserve capacity, a highly valued market product by ISO-NE due to its ability to quickly help stabilize the New England electrical grid
- » VPPSA has a track-record of consistent financial management, and maintains an active role in its participants' electric systems by assisting in rate-making and other management services

Credit Challenges

- » Estimated Baa weighted average participant credit quality reflects somewhat weaker participant profiles securing the obligations under the power sales agreements
- » Though VPPSA has unregulated rate setting authority, the Vermont Public Utility Commission (PUC) regulates the Swanton participants' electric rates which could limit the scope of rate increases necessary to meet obligations under the power sales agreement
- » Single asset concentration

Rating Outlook

The stable outlook reflects our expectation for steady operating and financial performance at the project, and for not appreciable deterioration in participant credit quality.

Factors that Could Lead to an Upgrade

- » Notable improvement in the project participants' weighted average credit quality

Factors that Could Lead to a Downgrade

- » Material deterioration in the project participants' weighted average credit quality
- » Unexpected major plant outages that impact financial performance

Key Indicators

Exhibit 1

Vermont Public Power Supply Authority Project 10 (Swanton Peaking Facility Project)					
	2012	2013	2014	2015	2016
Debt outstanding (\$'000)	24,635	23,225	21,785	20,320	18,815
Debt ratio (%)	100.0	98.5	93.8	90.5	84.7
Days Cash on Hand	195	210	588	718	1,085
Adjusted Days Liquidity on Hand (incl. Bank Lines)(days)	195	210	588	718	1,085
Adjusted Debt Service Coverage (x) (Post Transfers/PILOTS - All Debt)	1.05	1.04	1.29	1.27	1.23

Source: Moody's Investors Service and Audited Financial Statements

Recent Developments

The Project 10 (Swanton Peaking Facility) plant continues to perform well, at 99% availability factor for the past three years (2014-2016). Capacity factors during this same timeframe were below 1% each year, reflecting the plant's role in the market as a peaking facility. Management bids the plant into the ISO-NE Forward Capacity Market (FCM) and Forward Reserve Market (FRM). Recent FCM auctions resulted in higher prices for the 2017/2018 and 2018/2019 periods due to capacity shortfalls, but lower prices for the 2019/2020 and 2020/2021 periods, indicating the introduction of additional resources in the region.

Detailed Rating Considerations

Revenue Generating Base

PARTICIPANT WEIGHTED AVERAGE CREDIT QUALITY ANCHORS THE PROJECT RATING

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

Bondholder security is derived from the project's take-or-pay power sales agreements with 11 municipal electric distribution utilities and one rural electric distribution cooperative located in northern Vermont. The participants are obligated to make pro-rata payments based on their participant share to cover operating expenses and debt service costs, regardless if the Swanton plant is in operation. Step-up provisions require transfer of a defaulting participant's share of costs and debt service to the remaining non-defaulting participants, subject to a 25% limit of each non-defaulting participant's original participation share. Each participant's obligation was approved by the Vermont PUC and then authorized by voter approval and subsequent board resolution in each of their respective jurisdictions. Similar take-or-pay contracts in Vermont have been previously court-validated by the Vermont Supreme Court, which also affirms the validity of municipalities to enter into take-or-pay contracts within the state, providing further legal security to the contracts that underpin the Swanton debt.

While Moody's does not maintain ratings on any of the Swanton participants, the estimated weighted average credit quality for all Swanton participants is in the Baa rating category. Most of Swanton's participants are small utilities with under 6,000 customers and some with median family income below the national average, impacting customers' ability to absorb higher electric bills, should they occur. Moody's views this as a rating constraint, as lower wealth levels of the population indicates lower tolerance for higher overall rates, since the electric bill is a larger part of their disposable income. Many of the project's participants financial metrics deteriorated during the challenging 2008-2009 period as a result of overall weak economic conditions and a decision to delay needed rate increases owing in part to a weak economy. Since then, the Swanton participants have strengthened their financial positions by implementing rate increases in 2009 and 2010.

While VPPSA is free from regulation when setting its rates, municipal electric utilities across the state are subject to rate regulation and oversight by the Vermont PUC (unique in the municipal power sector), which we view as a weakness and potential constraint to full and timely cost recovery. While there were numerous rate increase requests in the 2009-2010 time frame that the PUC generally accommodated in full or in part, there has been fewer rate requests presented to the PUC in the past five years (2012-2016), resulting in a less visible track record of the PUC's regulatory decisions in terms of consistency, predictability and credit supportiveness.

LIMITED PLANT DISPATCH IS TEMPERED BY THE BENEFITS OF A FULLY-OWNED ASSET THAT EARNS FORWARD CAPACITY REVENUE AND ANCILLARY SERVICES

As a peaking plant, the facility is not anticipated to have many run hours in a given year, but its strategic value rests in the reliability it offers to both the project participants and the New England region as a whole and its ability to sell its capacity into the forward and real time markets. Swanton has "Fast-Start" capabilities, with the ability to produce maximum capable output (48 MW) within ten minutes of being called upon, and is compensated by ISO-NE for that service. It will be incumbent on VPPSA to manage the major maintenance needs of the facility in order to meet the plant's Capacity Supply Obligation in each year to earn capacity revenue from ISO-NE. VPPSA has hired a dedicated plant operator at Swanton who is responsible for monitoring day-to-day operation and maintenance activities and we view this as credit positive to the plant's operational profile.

Financial Operations and Position

Swanton's debt service coverage ratio averaged 1.26x for the last three years (2014-2016), an increase over the three prior years (2011-2013) which were all approximately 1.05 times. The higher coverage levels in the past three years are due primarily to increased project revenues, which were a result of additional amounts billed to project participants for the purpose of building up a project reserve fund. However, due to the revenues earned by the Swanton plant in several regional markets, the project participants received bill credits through the authority's power settlement process. In the last four years (2013-2016) Swanton plant revenues earned in the market have been in excess of the payments paid by the participants to VPPSA, thereby offsetting the higher invoices and demonstrating the value of the plant for its participants. Debt service coverage in 2017 is expected to be slightly higher at 1.35x due to the mid-year defeasance of a note payable which was paid down in April 2017 and thus results in slightly lower debt service requirements.

LIQUIDITY

The project's unrestricted liquidity has been growing during the last three years (2014-2016), averaging 797 days cash on hand, due to the extra participant billings for the accumulation of the project reserve fund. In 2017, further increase to 1,102 days is projected. The project reserve fund is expected to be used for future capital projects, but is unrestricted money and could be used for either capital projects and/or for operating expenses. This liquidity helps mitigate any financial risk related to operating performance, is

available to fund capital expenditures, if needed, and alleviates any potential timing mismatch between cost outlays and recovery from participants, particularly if any true-up would require a participant to file a 45-day rate case. The project also has access to VPPSA's \$6 million line of credit, which is available for all VPPSA uses, including internal needs and other VPPSA projects.

Debt and Other Liabilities

The project has one series of bonds, the Series 2009 A and B Bonds (\$18.4 million outstanding at year-end 2016). The variable rate note payable (\$416,666 outstanding at year-end 2016) that was to mature in October 2017 was paid down in April 2017. There are no debt issuance plans for the near-term future.

DEBT STRUCTURE

The authority's debt is fixed rate and fully amortizing. The amortization is level at \$1.95 million through final maturity, which is in 2029.

DEBT-RELATED DERIVATIVES

No debt-related derivatives.

PENSIONS AND OPEB

The project has no pension liability, as it only has a defined contribution pension plan.

Management and Governance

The authority's Board of Directors consists of 12 directors, with one director elected by the legislative body of each of the 12 municipal members.

Legal Security

Pledged net revenues are derived from the power sales agreements with 11 municipal electric utilities and 1 rural electric cooperative according to their project entitlement shares. The bond rate covenant is sum-sufficient, and there is no additional bonds test although any issuance is subject to approval by the Vermont PUC. The debt service reserve fund is fully cash funded and sized to meet maximum annual debt service.

Use of Proceeds

Proceeds of the Series 2017A and 2017B bonds will advance refund the Series 2009A and 2009B bonds. The refunding is projected to provide 5% net present value savings of refunded bonds, or \$892,446. Savings will be uniform over the life of the bonds and there will be no extension of maturity.

Obligor Profile

The authority is a joint action agency established in 1979. There are 12 members in the authority, all of which are municipal electric utilities in Vermont. The Swanton Project is a 48 MW dual-fuel peaking electric generation plant in Swanton, VT that achieved full commercial operations in June 2010. The plant has "Fast-Start" capabilities and is mostly utilized for reserve capacity purposes in the ISO-NE forward and real time markets.

Methodology

The principal methodology used in this rating was US Municipal Joint Action Agencies published in October 2016. Please see the Rating Methodologies page on www.moody.com for a copy of this methodology.

Scorecard Factors and Other Considerations

Note: The grid is a reference tool that can be used to approximate credit profiles in most cases. However, the grid is a summary that does not include every rating consideration. Please see US Municipal Joint Action Agencies methodology for information about the limitations inherent to grids.

The VPPSA Swanton project's indicated rating under the below depicted grid is Baa1, which is consistent with the assigned rating of Baa1.

Exhibit 2

Factor	Subfactor/Description	Score	Metric
1. Participant Credit Quality and Cost Recovery Framework	a) Participant credit quality. Cost recovery structure and governance	Baa	
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)	Aaa	797
	b) Debt ratio (3-year avg) (%)	Baa	89.7
	c) Fixed obligation charge coverage ratio (3-year avg) (x)	Baa	1.26x
Material Asset Event Risk	Does agency have event risk?	No	
Notching Factors		Notch	
1 - Contractual Structure and Legal Environment			
2- Participant Diversity and Concentration			
3 - Construction Risk			
4 - Debt Service Reserve, Debt Structure and Financial Engineering			
5 - Unmitigated Exposure to Wholesale Power Markets			
Scorecard Indicated Rating:		Baa1	

Source: Moody's Investors Service

Ratings

Exhibit 3

VPPSA-Swanton Peaking Fac. Proj.

Issue	Rating
Project 10 Revenue Refunding Bonds (Swanton Peaking Facility Project) Series 2017A	Baa1
Rating Type	Underlying LT
Sale Amount	\$15,700,000
Expected Sale Date	11/13/2017
Rating Description	Revenue: Government Enterprise
Project 10 Revenue Refunding Bonds (Taxable) (Swanton Peaking Facility Project) Series 2017B	Baa1
Rating Type	Underlying LT
Sale Amount	\$945,000
Expected Sale Date	11/13/2017
Rating Description	Revenue: Government Enterprise

Source: Moody's Investors Service

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