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CREDIT OPINION
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VPPSA-Swanton Peaking Fac. Proj.

Update to credit analysis

Summary

Vermont Public Power Supply Authority's (VPPSA) Project 10 (Swanton Peaking Facility Project; Baa1 stable) credit profile reflects the legal security of the take-or-pay power sales agreement with 11 municipal electric utilities and 1 rural electric cooperative that collectively have a weighted average credit quality in the Baa range. The weighted average credit quality is somewhat weak compared to similarly rated municipal projects and is further exacerbated by Vermont's regulation of municipal utilities as their rates need to be approved by the Vermont Public Utility Commission even though VPPSA and the project itself is unregulated.

This is balanced by the project's profile as a peaking facility and its fast reserve capacity as it is highly valuable to ISO-NE, owing to its ability to quickly help stabilize the New England electrical grid. Moreover, with the project's participation in ISO-NE's capacity and energy markets, the project is able to realize value from the services it provides to ISO-NE. As a result, each member receives an annual bill credit through the authority's power settlement process that reflects the economic benefit to the participants. This structure helps to reduce each member's payment obligation to the project, helps to mitigate the need for a substantial rate increase at VPPSA, and reduces each members' obligation to the project. The credit profile also considers the project's strong liquidity that has consistently produced days cash on hand over 1,000 days as management continues to keep strong liquidity totals for potential maintenance needs of the facility.

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 market product highly valued by ISO-NE due to its ability to quickly help stabilize the NewEngland 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 weak participant profiles securing the obligations under the power sales agreements

- Though VPPSA is unregulated, 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 risk
- Sum sufficient rate covenant is weak compared to peers

Rating outlook

The stable outlook reflects our expectation for steady operating and financial performance at the project, and for no 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

VPPSA - Swanton Peaking Facility Project

	2017	2018	2019	2020	2021
Total Sales (mWh)	589	505	264	428	394
Debt Oustanding ($'000)	17,055	15,590	14,450	13,280	10,805
Debt Ratio (%)	76.1	71.2	65.6	60.8	48.5
Adjusted Days Liquidit on Hand (incl. Bank Lines)(days)	1,566	1,696	2,415	1,853	1,650
Fixed Obligation Charge Coverage (x)	1.53	1.19	1.47	1.24	1.17

Source: Moody's Investors Service

Profile

VPPSA is a joint action agency established in 1979. The authority is a self-supported agency providing a variety of centralized services to its 11 member municipal distribution utilities throughout the State of Vermont. The authority is organized as a public service corporation and the board of directors consists of 11 directors, with one director elected by the legislative body of each of the 11 municipal members.

The Swanton project participants include 11 municipal electric distribution utilities that are VPPSA members and one electric cooperative which is not a VPPSA member. The Swanton plant is a 48 MW dual-fuel peaking electric generation plant in Swanton, Vermont 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.

Detailed credit considerations

Revenue Generating Base

The project debt is secured by the revenues derived under the take-or-pay power sales agreements with 11 municipal electric distribution utilities and one electric distribution cooperative. Of these participants, the entities with the largest shares include the Village of Lyndonville (19.6%), the Village of Northfield (12%), and the Village of Ludlow (10%), while all other participants' shares are below 10%. The participants are unconditionally obligated to make pro-rata payments based on their participant share to cover operating expenses and debt service costs, regardless of whether the Swanton plant is in operation or not. Should any of the participants default on their obligation, the step-up provisions in the agreements 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 strength to the contracts that underpin the Swanton debt.

While Moody's does not maintain public ratings on any of the Swanton participants, their estimated weighted average credit quality 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, which would impact 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.

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. Of the past rate increase requests made by the VPPSA members to the PUC, some have been granted full approval. However, some past rate increase requests have been granted approval of only part of the rate increase requested, resulting in a relatively varied track record for the PUC's regulatory decisions in terms of consistency, predictability and credit supportiveness. A number of participants have asked for rate increases in 2023 or will request rate increases later in 2023.

The Swanton plant continues to perform well with availability factors between 99-100% since the project opened in 2013. Capacity factors during this same time frame were below 1% each year, reflecting the plant's role as a peaking facility. Insurance reviews continue to rate plant maintenance as “good” and the plant has successfully completed all rating tests required by ISO-NE. Borescope inspections are performed annually and both turbines were fully refurbished in 2022. Because the Swanton facility is a peaker, it remains important for 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. Since 2012, VPPSA has had a dedicated plant operator at Swanton who is responsible for monitoring day-to-day operation and maintenance activities, which we view as credit positive to the plant's operational profile. The peaking plant's 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 power into several regional markets.

Swanton has fast-start capabilities, with the ability to produce maximum capable output of 48 MW within ten minutes of being called upon, and is compensated by ISO-NE for that service. Management did bid the plant into the ISO-NE forward capacity market up until June 2021, but decided to self-supply the project in the ISO-NE capacity market. As a result, the plant no longer receives capacity payments, but the decision to self-supply still allows each member utility to continue to receive economic value for the capacity that the project continues to provide to the ISO-NE market.

Financial Operations and Position

Swanton's debt service coverage ratio (DSCR) for 2021 was 1.17x, resulting in a three-year (2019-2021) average DSCR of 1.29x. The higher coverage levels in the past five years are due primarily to increased project revenues, which were a result of additional amounts billed to project participants for building up a project reserve to fund future capital projects. However, due to the revenues earned by the Swanton plant in several regional markets, the project participants normally receive bill credits on an annual basis through the authority's power settlement process. Since 2013, Swanton plant revenues earned in the market each year 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 2022 is expected to be around 1.4x (similar to the prior coverage in 2018-2020) and remain in the 1.1x-1.4x range going forward.

The five-year capital improvement program for 2023-2027 includes a potential $1.4 million of maintenance and improvement projects to the plant. The program is very flexible in the timing of the projects and can be altered as necessary, and we do not expect any projects to have a material impact on Swanton's availability. In February 2023, VPPSA was awarded $5.0 million to update meter infrastructure over the next several years. The first installations are expected to begin in late 2023. Each member will have 50% of the cost covered by grant funds and can choose how they want to fund the remaining portion of their share in updating the project.

Liquidity

Since 2016, the project's unrestricted liquidity has been at higher levels, with days cash on hand over 1,000 days, and at 2021 year-end reached 1,650 days cash or $4.4 million. This liquidity helps mitigate any financial risk related to the plant's operating performance, 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. While the project's liquidity will always appear more elevated due to the plant's low run time and low level of operating expenses, liquidity also has grown in part due to the extra participant billings to accumulate monies in the reserve fund for upcoming capital expenditures. VPPSA has no official policy on maintaining minimum liquidity, but the board considers the minimum reserve fund balance approximately $3 million (the likely cost to fully rebuild both generator units in the event of a major failure) plus the cost of any identified capital projects in each budget year.

The project also has access to VPPSA's $10 million line of credit from KeyBank NA, which is available for all VPPSA uses, including internal needs and other VPPSA projects. The line expires on June 30, 2023 and currently, all of the $10 million is available under the line. We anticipate that the line of credit will be extended and we note that the line of credit does contain a material adverse change clause, which could impair its use should VPPSA face material financial pressure.

Debt and Other Liabilities

The project has one series of bonds, the Series 2017 A and B Bonds ($10 million outstanding at 2022 year-end). There are currently no plans to issue additional debt.

Debt structure

The authority's debt is fixed rate and fully amortizing. The amortization is level at $1.8 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 has only a defined contribution pension plan.

ESG considerations

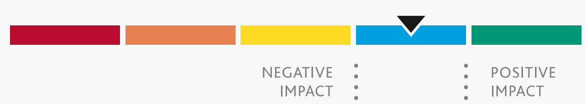
VPPSA-Swanton Peaking Fac. Proj.'s ESG Credit Impact Score is Neutral-to-Low CIS-2

Exhibit 2

ESG Credit Impact Score

CIS-2

Neutral-to-Low



For an issuer scored CIS-2 (Neutral-to-Low), its ESG attributes are overall considered as having a neutral-to-low impact on the current rating; i.e., the overall influence of these attributes on the rating is non-material.

Source: Moody's Investors Service

VPPSA's Swanton Peaking Facility Project Credit impact score of **CIS-2** indicates ESG considerations have a neutral-to-low impact on the rating. The score reflects moderately negative environmental social risks, and neutral-to-low exposure to environmental and governance risks.

Exhibit 3
ESG Issuer Profile Scores

ENVIRONMENTAL	SOCIAL	GOVERNANCE
E-2	S-3	G-2
Neutral-to-Low	Moderately Negative	Neutral-to-Low

Source: Moody's Investors Service

Environmental
VPPSA's Swanton Peaking Facility Project credit exposure to environmental risk is neutral to low (**E-2**). This reflects the project's neutral-to-low exposure to carbon transition, water management, natural capital, and waste and pollution risk. While the project's physical climate risk is also neutral-to-low, Vermont is somewhat exposed to extreme rainfall risk which could result in more frequent local or regional flooding and extreme weather conditions such as nor'easters. However, we believe the project has the resources and capacity to address extreme weather conditions. The project is a peaking facility and only operates occasionally at peak times, which helps to reduce its carbon footprint and carbon transition risks.

Social
VPPSA's Swanton Peaking Facility Project credit exposure to social risk is moderately negative (**S-3**). The project has moderately negative exposure to demographic and societal trends as many of the project's participants are located in areas with below average service area characteristics. The project has neutral-to-low exposure to customer relations, human capital, health and safety, and responsible production.

Governance
VPPSA's Swanton Peaking Facility Project credit exposure to governance risk is neutral-to-low (**G-2**). The project has moderately negative exposure to board structures, policies and procedures because municipal electric utilities across the state are subject to rate regulation and oversight by the Vermont Public Utility Commission which could limit rate increases necessary for member utilities to meet their obligations to the project. This is balanced against neutral-to-low exposure to exposure to financial strategy and record management, management credibility and track record, organizational structure, and compliance and reporting. The project's liquidity is strong as management has consistently kept cash on hand for any unexpected maintenance the project requires. Furthermore, each member receives a bill credit through the authority's power settlement process, which helps reduce each member's payment obligation and helps to reduce the need for rate increases.

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

Rating methodology and scorecard factors
The principal methodology used in this rating was US Municipal Joint Action Agencies published in December 2022. Please see the Rating Methodologies page on www.moodys.com for a copy of this methodology.

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 assigned rating of Baa1 is one notch below the grid indicated outcome of A3 for the VPPSA Swanton project. The rating difference largely reflects rate regulation by the Vermont PUC that is present at the participant level.

Exhibit 4

Take-or-pay Scorecard for US Municipal Joint Action Agencies

Factor	Subfactor/Description	Score	Metric
1. Participant Credit Quality and Cost Recovery Framework	a) Participant credit quality. Cost recovery structure and governance	Baa1	
2. Asset Quality and Exposure to Environmental Regulation	a) Asset diversity, complexity and history. Exposure to environmental compliance costs	Baa	
3. Liquidity	a) Adjusted Days Liquidity on Hand (3-year average)	Aaa	1972
4. Leverage and Coverage	a) Adjusted Debt ratio (3-year avg) (%)	A	58%
	b) Fixed obligation charge coverage ratio (3-year avg) (x)	Baa	1.29x
Notching Factors		**Notch**	
	1 - Competitiveness	0	
	2 - Contractual Structure and Legal Environment	0	
	3- Participant Diversity and Concentration	0	
	4 - Construction Risk	0	
	5 - Financing Structure	0	
	6 - Unmitigated Exposure to Wholesale Power Markets	0	
Scorecard Indicated Outcome:		**A3**	

*Financial metrics reflects fiscal year 2019-2021 metrics

Source: Moody's Investors Service

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