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CREDIT OPINION
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**Contacts**

Clifford J Kim 212-553-7880
*VP-Senior Analyst*
clifford.kim@moodys.com

A.J. Sabatelle 212-553-4136
*Associate Managing Director*
angelo.sabatelle@moodys.com

# Energy NW - Nine Canyon Wind Project's (WA) (Nine Canyon)

## Moody's maintains A2 on Energy NW - Nine Canyon Wind Project's (WA) revenue bonds. Outlook is stable.

### Summary Rating Rationale

Energy NW- Nine Canyon Wind Project's (Nine Canyon) A2 rating incorporates its power purchase contracts (PPAs) with ten highly rated participants in the A1-Aa3 range with a weighted average quality of A1 and PPA terms that incorporate many features of traditional 'take or pay' contracts. Washington State's renewable portfolio requirements, demonstrated operating history, and strong liquidity are also factors supportive of the A2 rating. However, the rating also considers Nine Canyon's history of gearbox failures in conjunction with some contractual terms that are atypical relative to traditional 'take or pay' contracts. These atypical terms include an O&M payment cap and ambiguous termination language. Moody's recognizes that certain features like the annual payment cap under the PPAs are a requirement under Washington State law.

### Credit Strengths

- Take-or-pay contracts with participants of A1 weighted average credit quality
- Long operating experience
- Strong liquidity
- State support for renewables

### Credit Challenges

- Atypical contract features include O&M cap and ambiguous termination language
- Costs including debt service are above market prices

### Rating Outlook

The stable outlook considers the project's take-or-pay contract, strong participant credit quality, and robust internal liquidity.

### Factors that Could Lead to an Upgrade

- PPAs are amended to be consistent with traditional 'take or pay' contracts, which we view as unlikely given the state law requirement.

## Factors that Could Lead to a Downgrade

» The project incurs major and sustained operational problems

» Internal liquidity declines materially

» Weighted average participant credit quality drops below A1

» Inability to recover costs under take-or-pay contracts

## Key Indicators

Exhibit 1

| | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|
| Total Sales (mWh) | 261,624 | 228,227 | 239,391 | 196,750 | 244,620 |
| Debt Outstanding ($'000) | 135,712 | 130,955 | 119,385 | 108,750 | 101,620 |
| Debt Ratio (%) | 122.5 | 124.0 | 122.7 | 116.3 | 112.7 |
| Adjusted Days Liquidity on Hand (incl. Bank Lines)(days) | 946 | 652 | 569 | 644 | 785 |
| Fixed Obligation Charge Coverage (if applicable)(x) | 1.07 | 1.19 | 0.97 | 1.04 | 1.13 |

*Source: Moody's, Issuer*

## Recent Developments

Recent developments are incorporated into Detailed Rating Considerations.

## Detailed Rating Considerations

### Revenue Generating Base

**Strong Participants But PPA Contains Weak or Unclear Provisions Compared to a Typical JPA's Take or Pay Arrangement**

The project benefits from take-or-pay PPAs with highly rated public power participants rated from A1 to Aa3 with a weighted average credit quality of A1. Additionally, the PPA contains many features found in a traditional take-or-pay arrangement whereby the participants have to pay for their respective share of debt service and operating costs, with a 25% step up feature for each phase in case of an participant default and generally does not contain specific project performance requirements.

The PPA also contains terms atypical in a JPA 'take or pay' arrangement, such as an annual payment limit and unclear termination provisions. The payment cap consists of the project's scheduled debt service, annual O&M cap of $7 million (2006) adjusted by an inflation index, and any credits or debit of any Renewable Energy Production Incentive (REPI) credits. Moody's understands the annual payment limit caps a participant's payment requirements for any given fiscal year, which could delay the step up requirement under the PPA until the next fiscal year. While the cost cap is a material weakness relative to other take or pay projects, Moody's also recognizes that Nine Canyon's historical O&M has been below the cap at $6.3 million in FY 2015 and $5.7 million in FY 2016. For FY 2016, operating costs decreased largely because of lower turbine maintenance and component rebuild and gear box costs.

Additionally, the benefits of the 25% step up function for a participant default could be limited since the step up provision is limited to each phase. For example, Phase 3 has five participants, including Grays Harbor County P.U.D. 1, WA (Grays Habor PUD, A1), which takes 37.5% of the Phase 3's power generation. Hypothetically, if Grays Harbor PUD were to default and the remaining four participants stepped up 25% of their share, Phase 3 would still experience a shortfall of around 22% of its output and cash flows.

Furthermore, Moody's understands that if a specific phase has not been in operations for 12 months and is not capable of returning to operations without capital improvements that make it uneconomic, the off-takers (with 60% approval) could ultimately seek to terminate the nonperforming phase. In such a scenario, Energy Northwest would have to sell all of the applicable assets and use the proceeds to pay down debt and expenses for that specific phase with any remainder given to the applicable participants. In Moody's view, the off-take contractual terms are ambiguous as to whether the participants would be required to pay for any debt that remains outstanding for the applicable phase assuming the PPA is terminated. We understand that Energy Northwest and their legal counsel believe the participants will continue to be responsible for their respective share of any outstanding debt in the scenario described above. In Moody's view, the Project's strong liquidity and demonstrated operating performance serve as important mitigants that help address this contract uncertainty.

Since all three phases are in commercial operation, the only other possible termination events are at stated maturity or for a participant default. Under a participant default, the PPA explicitly states that the defaulting participant remains obligated to pay for its share of the debt service even after PPA termination.

## Financial Operations and Position

### Project Has Demonstrated Operating History

The project has long operating experience with the earliest Phase reaching commercial operations in 2002. Average unadjusted availability is good at around 97% over the last five years and unadjusted availability for FY 2016 is above the historical average at almost 99%. The project's adjusted availability is higher at an average of around 99% since it excludes events like force majeure. For energy production, the Nine Canyon project generated about 245 GWh of power in FY 2016, which was above the five-year average of 234 GWh and significantly above last year's generation of 197 GWh. We understand the primary causes were improved wind speeds and higher availability.

While the Project has years of operating performance and has maintained good unadjusted availability, Nine Canyon experienced numerous gearbox and main bearing failures for Phase 1 and 2 in the past. Siemens addressed these failures under warranty, which expired in August 2012, and a separate settlement was reached regarding the main bearings in 2010. The Project continues to replace the older gearboxes when necessary and approximately 13 older gearboxes remain out of 49 in total for Phases 1 & 2. Given the expiration of the warranty for Phase 1 and 2, Nine Canyon typically maintains one to four spare gearboxes on site and performs gear oil sampling on a six-month basis. We note there have been a few failures of the replacement gearboxes in FY2014 and FY2015 although none occurred in FY2016.

For Phase 3, the Project has not reported any material problems and Nine Canyon has an extended warranty for this phase that expires in August 2028. The warranty covers major components although it excludes the cost of crane support.

Ultimately, the Project's demonstrated operating performance is a key credit consideration given the unclear termination provision and O&M cost cap. An inability to maintain a sound operational performance would be credit negative.

### Support for Renewable Energy But Expensive Power

Nine Canyon benefits from Washington State's renewable portfolio standards which requires load serving entities with 25,000 customers or more to source renewable energy for 15% of retail energy sales by 2020. The Project contributes to the participants' ability to meet their renewable portfolio requirement. Moody's views Washington State's renewable portfolio requirement as an important regulatory incentive for the participants to purchase Nine Canyon's power given the project's more expensive all-in costs. For FY2016, Nine Canyon's reported cost at approximately 6.07 cents/kWH, which is well above the wholesale market price.

### Low Debt Service Coverage Typical of Take-or-Pay

Nine Canyon's debt service coverage ratios (DSCRs) have averaged around 1.05 times and the DSCR in FY2016 was above average at 1.13 times. The historically low DSCRs are driven by the project's contractual arrangement, which should ensure at least one times coverage.

#### LIQUIDITY

The project's minimum liquidity consists of a debt service reserve sized according to the traditional three prong test, a minimum $750K operating reserve, and a reserve and contingency account. Including the operating and contingency reserves, the project's unrestricted liquidity totaled 785 days cash on hand at FY2016. Nine Canyon's overall strong liquidity position helps to reduce concerns regarding the PPA's contractual weaknesses.

### Debt and Other Liabilities

#### DEBT STRUCTURE

The project's debt consists of traditional fixed rate, amortizing debt with a final maturity in 2030.

#### DEBT-RELATED DERIVATIVES

None.

#### PENSIONS AND OPEB

The project participates in Washington State's statewide, multiple employer Public Employees Retirement System (PERS) pension plan. Nine Canyon's reported net pension liability at FY2016 was less than $1 million. We understand the project has no OPEB liability.

### Management and Governance

The project is part of Energy Northwest, a joint action agency located in Washington State. Energy Northwest oversees the plant and provides operations and maintenance serves. A participant committee comprised of the off-takers also oversees each Phase and at least 60% of the participants of that specific Phase must approve certain items like the annual O&M budget, annual operating plans, and the decision to terminate a specific Phase under certain conditions.

## Legal Security

Nine Canyon's bonds are secured by a pledge of net revenues of Nine Canyon consisting of all three Phases and have a debt service reserve currently funded with $9.5 million in cash and investments. Nine Canyon can issue additional debt with 100% participant approval for each project phase and the inclusion of the new debt under the respective PPAs.

## Use of Proceeds

Not applicable.

## Obligor Profile

The Nine Canyon project is a wind power project that totals 95.9 MW and consists of 63 wind turbines and sells power under take-or-pay contracts. The project was built in three phases (each a Phase) comprising of the 48.1 MW Phase 1, 15.6 MW Phase 2 and 32.2 MW Phase 3. Phase 1 and 2 use Siemens 1.3 MW wind turbines while Phase 3 uses Siemens 2.3 MW turbines. Phase 1 has all ten participants and Phase 2 and Phase 3 has five participants each. Phase 1 individual participant shares range from 2% to 25% while Phase 2 has shares ranging from 6% to 44% and Phase 3 has participant shares ranging from 3% to 38%. The participants consist of highly rated public power entities in Washington State.

## Methodology and Scorecard Factors

Moody's evaluates Nine Canyon under the US Municipal Joint Action Agencies methodology, and, as depicted below, the grid indicated rating is A2, which is the same as the A2 assigned rating.

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

Exhibit 2

| Factor | Subfactor/Description | Score | Metric |
|---|---|---|---|
| 1. Participant Credit Quality and Cost Recovery Framework | a) Participant credit quality. Cost recovery structure and governance | A1 | |
| | | | |
| 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 | 666 |
| | b) Debt ratio (3-year avg) (%) | Baa | 117% |
| | c) Fixed obligation charge coverage ratio (3-year avg) (x) | Baa | 1.05x |
| | | | |
| Material Asset Event Risk | Does agency have event risk? | | |
| | | | |
| **Notching Factors** | | **Notch** | |
| | 1 - Contractual Structure and Legal Environment | -1 | |
| | 2- Participant Diversity and Concentration | 0 | |
| | 3 - Construction Risk | 0 | |
| | 4 - Debt Service Reserve, Debt Structure and Financial Engineering | 0 | |
| | 5 - Unmitigated Exposure to Wholesale Power Markets | 0 | |
| | | | |
| **Scorecard Indicated Rating:** | | **A2** | |

*Source: Moody's Investors Service*

## RATINGS

| **ENERGY NW - NINE CANYON WIND PROJECT** | |
|---|---|
| Rating | A2 |
| Outlook | Stable |

*Source: Moody's*

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## Contacts

**Jamal Mtshali** 212-553-1486
*Associate Analyst*
jamal.mtshali@moodys.com

## CLIENT SERVICES

| | |
|---|---|
| Americas | 1-212-553-1653 |
| Asia Pacific | 852-3551-3077 |
| Japan | 81-3-5408-4100 |
| EMEA | 44-20-7772-5454 |

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