

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 7628

Joint Petition of Green Mountain Power Corporation,)
Vermont Electric Cooperative, Inc., and Vermont Electric)
Power Company, Inc. for a certificate of public good,)
pursuant to 30 V.S.A. Section 248, to construct up to a)
63 MW wind electric generation facility and associated)
facilities on Lowell Mountain in Lowell, Vermont, and)
the installation or upgrade of approximately 16.9 miles)
of transmission line and associated substations in Lowell,)
Westfield and Jay, Vermont)

Order entered: 1/21/2014

PROCEDURAL ORDER RE: CONTINUOUS MONITORING PROPOSALS

I. Introduction and Procedural History

On September 25, 2013, the Public Service Board ("Board") issued a Procedural Order re: Continuous Noise Monitoring ("Noise Order"). In the Noise Order, we directed Green Mountain Power Corporation ("GMP") to undertake an investigation into the feasibility of continuous sound monitoring for GMP's wind electric generation facility located in Lowell, Vermont (the "Project") and to file a report on the results of its investigation within 90 days of the date of the Noise Order. Thereafter, parties with standing on the issue of noise were provided 14 days in which to file comments and recommendations in response to the report.

On December 23, 2013, GMP filed its report.

On January 8, 2014, responsive comments and recommendations were filed by the Department of Public Service ("Department") and Donald and Shirley Nelson (the "Nelsons").

In today's Order we establish a schedule for two rounds of discovery on GMP, followed by the filing of final recommendations, and we direct GMP to file a response to the Nelsons' comments and the continuous sound monitoring proposal contained therein.

II. Positions of the Parties

Green Mountain Power Corporation

GMP's report describes a number of options for a continuous sound monitoring program, including different vendors, technology options and monitoring procedures. It identifies certain challenges associated with continuous monitoring, as well as potential solutions to those challenges. The report also includes cost information for a variety of continuous monitoring options. Ultimately, however, the report does not make any specific recommendation on which option would be most appropriate.

GMP's cover letter accompanying the report states that the company was prepared to institute a program of continuous monitoring commencing as early as possible in January 2014 and extending until April 1, 2014, in order to capture the period during which the turbines were likely to be operating at their highest sound power levels. GMP proposed to conduct this monitoring at the Nelsons' property. Other than describing the use of what are referred to as Method 2 and Method 3 in GMP's approved Sound Monitoring Plan for determining background sound levels, there is no detail regarding which approach GMP is proposing from the continuous sound monitoring report. GMP states only that it, "has evaluated which option would result in cost-effective continuous monitoring and produce compliance quality data."¹ GMP does acknowledge that, as a result of its proposal to begin monitoring as early as possible, that it may have to modify or supplement its proposal at a later date if required to do so by the Board.²

GMP's proposal includes the filing of a sound report at the end of the monitoring period summarizing the data collected, an analysis of the data for any period in which GMP received a noise complaint, and direct reporting during times of any complaints received from the Nelsons.³

Department of Public Service

The Department raises two concerns in its comments. First, it is concerned that the report places too much emphasis on the monitoring protocols being used under the current Noise

1. Letter from Joshua Castonguay to Susan M. Hudson, Clerk of the Board, dated December 23, 2012 ("Castonguay Letter") at 1.

2. Castonguay Letter at 2.

3. Castonguay Letter at 2.

Monitoring Plan. According to the Department, while the existing protocols may be a helpful guide in evaluating a continuous monitoring proposal, they are not binding with respect to any additional monitoring. The Department asserts that any vendor and technology, within a reasonable price range, capable of providing accurate and continuous monitoring of decibel and tonal levels should be considered.⁴

Second, the Department is concerned over the lack of detail in the report and concludes that, overall, the report presents an "incomplete picture of the feasibility of continuous monitoring."⁵

The Department recommends that the parties be allowed to serve two rounds of discovery on GMP to better understand the technical capabilities and requirements of the various vendors described in the report, as well as the costs associated with each vendor's equipment and services. Following completion of discovery, the Department would provide its final comments and recommendations on the feasibility and scope of continuous monitoring at the Project site. The Department proposes that the first round of discovery be served on GMP one week after the issuance of this Order, followed by two-week periods for responses to the first set of discovery, issuance of and responses to the second set of discovery, and the filing of its final comments and recommendations.⁶

The Nelsons

The Nelsons' comments express a number of concerns that can be grouped into four categories. First, the Nelsons characterize GMP's proposal to begin monitoring in early January as "premature," noting that they received an e-mail from GMP seeking permission to locate the continuous monitoring equipment on their property before they had an opportunity to review GMP's December 23, 2013, proposal. The Nelsons are no longer willing to allow sound monitoring to be conducted on their property but state that two other property owners in the

4. Department Comments at 2.

5. Department Comments at 2-3.

6. Department Comments at 3-4.

vicinity of the Project, Kevin McGrath, and Carl Cowles and Sandra Waterman, are agreeable to monitoring taking place at their residences.⁷

Second, the Nelsons are concerned that GMP's proposal does not adequately capture the goal of continuous monitoring because it envisions only a summary report at the end of the process. The Nelsons assert that continuous monitoring should include the ability to access information on turbine sound levels and turbine output in real time that would result in shutdown or reduction in turbine output at any time the applicable noise standard is being exceeded.⁸

Third, the Nelsons also contend that GMP's report is flawed when it suggests that sound monitoring using a specific type of directional microphone has never been used for monitoring wind turbines, stating that the vendor in question actually markets its product for that purpose. The Nelsons state that they have contacted two noise control experts, Robert Rand and Stephen Ambrose, who have put together a draft proposal that the Nelsons assert is less expensive and more effective than what GMP proposes, using appropriate equipment and protocols, including real time data feeds and use of full-time attended monitoring. The Nelsons do not have faith in the monitoring being performed by GMP's consultant and recommend that either GMP be required to hire Mr. Rand and Mr. Ambrose to implement their continuous monitoring proposal, or the Board should retain their services and bill the costs of the monitoring to GMP.⁹

Lastly, the Nelsons raise a number of issues that are not necessarily specific to the potential continuous monitoring proposal, but are related to noise monitoring generally. These include, infrasound and interior monitoring, daily or real-time availability of SCADA¹⁰ data to a neutral observer, the ability to track wind shear from the valley floor or neighbor elevations up to the height of the turbines, use of an independent third party monitor, protocol for measuring

7. Nelson Comments at 2-3, 7, 12, Attachment A.

8. Nelson Comments at 4, 7-8.

9. Nelson Comments at 5-7, 8-11, 14-15.

10. SCADA stands for supervisory control and data acquisition.

background sound, and technology connectivity challenges when attempting to collect and transmit data in remote locations.¹¹

The Nelsons recommend that the Board require "continuous full spectrum interior and exterior monitoring in two locations" in the vicinity of the Project commencing as soon as possible, utilizing a sound consultant other than the consultant currently being utilized by GMP.¹²

III. Discussion

We agree with the Department that GMP's report and accompanying cover letter do not provide the parties or the Board with sufficient information to determine the feasibility or efficacy of the continuous monitoring proposal GMP had envisioned undertaking in early January at the Nelsons' residence.¹³ We appreciate GMP's intentions to initiate its proposal in as timely a fashion as possible, the fact that GMP sought permission from the Nelsons before doing so, its acknowledgment that its proposal might be subject to modification after Board review, and note that the continuous monitoring report, depending on the specifics of implementation and the duration of monitoring, identifies monitoring solutions that could be in excess of the \$54,000 penalty recommended by the Department, and in some cases, well in excess of that amount. We also believe that it is important to capture a meaningful amount of data from the winter period since the previously identified violations of the Project's sound standards occurred in cold weather conditions. Additionally, we understand that climatic conditions during winter result in an increased likelihood of higher and more constant wind conditions. However, we also see some value in the monitoring extending into the seasonal change into spring in order to capture a variety of climatic conditions.

And, while we believe that a period of discovery followed by final recommendations would inform our decision-making ability in this proceeding, we conclude that it cannot extend for too long a time or we will miss the opportunity to capture a meaningful period of winter

11. Nelson Comments at 13-15.

12. Nelson Comments at 16.

13. Given that the Nelsons have withheld permission from GMP to undertake the continuous monitoring proposal at their property, we assume the proposal has not yet been put into effect.

conditions in the event a continuous monitoring proposal is implemented. While we understand the issues of workloads and time constraints, we believe that the Department's proposal will not result in a timely resolution of this matter and would eliminate the ability to obtain that meaningful amount of winter data. Therefore, we establish the following schedule for discovery and final recommendations:

First Round Discovery Served	January 28, 2014
Responses to First Round Discovery	February 4, 2014
Second Round Discovery Served	February 11, 2014
Responses to Second Round Discovery	February 18, 2014
Final Comments and Recommendations	February 25, 2014

Even with the reduced times imposed in this schedule, we note that it will still be difficult to arrive at a resolution of this matter soon enough to capture the final weeks of winter conditions. Accordingly, we encourage the parties to exchange information informally on a rolling basis to the extent that they are able, and to inform the Board if they believe they have sufficient information to file their final recommendations at an earlier date. The parties are also reminded that the feasibility analysis being conducted is part of an investigation into GMP's self-reported violations of the sound standards applicable to the Project. In the event some or all of the parties reach agreement on a continuous sound monitoring protocol and proposal, it should be filed and presented accordingly.

Additionally, we direct GMP to file a response to the Nelsons' comments and the monitoring proposal contained therein. It is apparent from their comments that the Nelsons expended a good deal of effort seeking information on the feasibility of continuous monitoring and in developing and presenting their proposal to the Board. GMP shall file its response to the Nelsons' comments no later than close of business on January 28, 2014. In the event the Department has any comments in response to the Nelsons' proposal, those comments should also be filed by this date.

As a final matter, we take a moment to respond to the Nelsons' decision not to allow sound monitoring to occur on their property. We appreciate and understand their concerns that

led them to this decision. However, we are also cognizant of the fact that the Nelsons believe that the Project is resulting in sound levels at their home in excess of the allowable standards, resulting in disruptions to their daily lives. If monitoring is not allowed on their property, it would be more difficult to know whether violations were occurring there, particularly if monitoring at other locations did not identify any violations during times the Nelsons believe the Project was operating above allowable levels. We fully respect the Nelsons' decision and anticipate that GMP will arrange for an alternate location for the fourth monitoring site for the seasonal monitoring required by the approved Sound Monitoring Plan, and for any continuous monitoring proposal as well. We do, however, want to ensure that the Nelsons are cognizant of the potential ramifications of their decision.

SO ORDERED.

Dated at Montpelier, Vermont, this 21st day of January, 2014.

<u>s/James Volz</u>	)	
	)	
	)	PUBLIC SERVICE
<u>s/David C. Coen</u>	)	
	)	BOARD
	)	
	)	OF VERMONT
<u>s/John D. Burke</u>	)	

OFFICE OF THE CLERK

FILED: January 21, 2014

ATTEST: s/Susan M. Hudson
Clerk of the Board

NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: psb.clerk@state.vt.us)