

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: 10/23/2013

ORDER RE: NELSON MOTION TO ALTER

I. Introduction

On October 4, 2013, Donald and Shirley Nelson (the "Nelsons") filed with the Public Service Board ("Board") a Motion to Alter, seeking a revision to the Board's September 25, 2013, Procedural Order re: Continuous Noise Monitoring ("Noise Order"). Specifically, the Nelsons ask that the 90-day period for Green Mountain Power Corporation ("GMP") to investigate and report on the feasibility of continuous sound monitoring for GMP's wind electric generating facility located in Lowell, Vermont (the "Project") that was established by the Noise Order be deemed to have begun on August 8, 2013.¹

For the reasons discussed below, we deny the Nelsons' motion.

II. Procedural History

On August 8, 2013, the Board conducted a technical hearing to consider the imposition of civil penalties against GMP under 30 V.S.A. § 30 for violations of the noise standard imposed on the operation of the Project".²

1. As discussed below, August 8, 2013, was the day the Board held a technical hearing to consider civil penalties against GMP for violations of condition 39 of the CPG that governs the construction and operation of the Project.

2. Condition 39 of the Board's Order and Certificate of Public Good approving the Project requires GMP to "construct and operate the proposed project so that the turbines emit no prominent discrete tones pursuant to ANSI

Following the hearing, briefs were filed by GMP, the Vermont Department of Public Service ("Department") and the Nelsons. GMP filed a reply brief. No other party filed a reply brief.³

In their briefs, both the Department and the Nelsons discussed the desirability of continuous noise monitoring for the Project. The Nelsons recommended that we impose continuous monitoring as a requirement.⁴ The Department recommended that the Board direct GMP to investigate the cost and feasibility of continuous noise monitoring for the Project and to file a report with the Board and parties describing the results of the investigation, with parties then having an opportunity to file comments on the report. In the event such monitoring was found to be feasible, useful and not excessively costly, the Department stated its willingness to work with GMP to reach an agreement that would direct payments to the costs of continuous monitoring in lieu of the imposition of a civil penalty under Section 30.

In its reply brief, GMP noted that it was willing to investigate the possibility of continuous monitoring and to review its findings with the Department. GMP proposed that such an effort be undertaken separately from the show cause proceeding and that GMP and the Department submit their reports and recommendations within 90 days.⁵

Given the interest expressed by the Department and the Nelsons in the possibility of continuous monitoring, and given GMP's stated willingness to explore such a possibility, we directed GMP in the Noise Order to undertake an investigation into the feasibility of continuous monitoring for the Project and to file a report with the Board within 90 days of the date of that Order. Parties with standing on the issue of noise would have 14 days in which to file comments on and recommendations in response to GMP's report.⁶

standards at the receptor locations, and project-related sound levels at any existing surrounding residences do not exceed 45 dBA(exterior)(Leq)(1 hr) or 30 dBA (interior bedrooms)(Leq)(1 hr)." Docket 7628, Order of 5/31/11 at 165; CPG dated 5/31/11 at 8.

3. On September 10, 2013, the Nelsons filed a correction to their initial brief.

4. Nelson Brief at 8-9.

5. GMP Reply Brief at 6.

6. Noise Order at 2.

On October 4, 2013, the Nelsons filed their motion seeking to have the 90-day investigation period deemed to have begun on August 8, 2013, rather than September 25, 2013, as established in the Noise Order.

On October 15, 2013, the Department and GMP filed responses to the Nelsons' motion.

III. Positions of the Parties

The Nelsons advance four reasons why the 90-day investigation period should be deemed to have begun on August 8, 2013.

First, the Nelsons assert that Project operations are resulting in continuing harm to area residents and attached a noise diary kept by Mrs. Nelson to document the effects that the Project is having on the Nelsons. The Nelsons contend that impacts from the Project will only grow as power production at the Project increases due to a recent transmission upgrade. According to the Nelsons, allowing GMP 90 days to investigate the feasibility of continuous monitoring does nothing to address the current impacts from Project operations and sends a signal that the Board is willing to allow GMP to define the consequences for its violations of condition 39.⁷

Second, the Nelsons state that the 90-day investigation period will result in missed opportunities for the collection of valuable information on Project noise levels. According to the Nelsons, the time line created by the Noise Order means that there will only be a single two-week monitoring period between now and late winter or early spring of 2014. This means that, if the Board orders additional monitoring, it will not capture periods of the year when the winds are strongest and Project operations loudest. The Nelsons emphasize that GMP plans to install a synchronous condenser for operation in February of 2014, allowing the Project to operate at higher capacity factor levels than it currently operates. The Nelsons assert that it is important to gather sound data before the new condenser is installed so that an accurate "before" and "after" picture can be developed, and that these timing considerations warrant compressing the time period in which GMP and the Department should respond to the Noise Order.⁸

7. Nelson Motion at 2.

8. Nelson Motion at 2-3.

Third, the Nelsons state their belief that GMP has been investigating the possibility of continuous monitoring commencing immediately after the August 8 hearing if not well before that time. The Nelsons also point to the fact that the Department's witness mentioned during the August 8 hearing that the Department had already looked into the possibility of continuous monitoring.⁹

Lastly, the Nelsons contend that GMP provided no specific reasoning for why it would need the 90-day investigation period suggested by GMP in its reply brief, characterizing the suggested period as a "request for courtesy and leniency," one the Nelsons do not believe has been earned based on GMP's violations of condition 39.¹⁰

GMP opposes the Nelsons' motion, asserting that the motion should be denied because it places no information before the Board that the Board did not already have when it issued the September 25 Noise Order.¹¹ GMP also contends that the Nelsons' motion should be denied on substantive grounds because the Nelsons: 1) do not demonstrate that an adequate investigation can occur in less than 90 days; 2) fail to explain why a shortened deadline would allow continuous monitoring to commence prior to installation of the synchronous condenser; and 3) fail to explain why the current protocol is not sufficient both to capture information before and after installation of the synchronous condenser for purposes of comparison, and to understand any impacts from increased output that may result from the condenser installation.¹²

The Department recommends that the Nelsons' motion be denied because the reasons advanced in their motion are unpersuasive. First, the Department states that continuous monitoring would do little to ameliorate Mrs. Nelson's described harms because Mrs. Nelson has stated that those harms occur at times when the Project has been shown to be in compliance with the noise standard imposed on its operation. Continuous monitoring, the Department states,

9. Nelson Motion at 3-4. While not expressly stated in their discussion on this point, the Nelsons presumably mean to impart that commencing the 90-day investigation period as of August 8, 2013, would not prejudice GMP since the Nelsons believe that such an investigation had already started as of that date.

10. Nelson Motion at 4.

11. GMP Reply at 1-2.

12. GMP Reply at 2-3.

would be used to ensure Project operations are within those noise standards, levels at which Mrs. Nelson contends are causing her harm. Therefore, the Department states, imposition of continuous monitoring would not necessarily address Mrs. Nelson's concerns. The Department also notes that the noise violations identified to date have involved variances that are too small to be detected by the human ear.¹³

Second, the Department contends that a "before" and "after" picture of Project operations related to installation of the synchronous condenser is not needed because the noise standards are absolute standards that must be complied with regardless of the Project's potential to generate added power once the condenser is installed. The Department also states that, even if the Nelsons' motion was granted, it is highly doubtful that a continuous monitoring system could be reviewed, approved, installed and operational prior to February, 2014. Additionally, the Department notes that accelerating the deadline for the investigation increases the chances of error and the potential for installation of a system that does not perform as desired, an unwise approach given that the need for continuous monitoring prior to installation of the condenser is not clear.¹⁴

III. Discussion

For the reasons discussed below, we deny the Nelsons' motion to begin the 90-day investigation period effective August 8, 2013.

First, we take the descriptions of Project impacts set forth in Mrs. Nelson's diary seriously. However, as the Department points out, Mrs. Nelson's diary indicates impacts during times when the existing monitoring protocol has confirmed that the turbines are operating below the maximum permissible sound level imposed in the CPG. Additionally, for those instances where monitoring has confirmed violations of the sound standard, the increment of violation has been small enough to be imperceptible by the human ear. In other words, Mrs. Nelson's complaint appears to be more with the actual sound standard that we imposed in approving the Project, rather than the actual monitoring being done to confirm whether or not the Project is in

13. Department Reply at 2.

14. Department Reply at 2-3.

compliance with that standard. Shortening the deadline as requested would not address what appears to be Mrs. Nelson's true concern. Even if continuous monitoring had only been initially imposed as a condition of approval, it would have been utilized to ensure that the Project was not exceeding the maximum sound levels imposed by the CPG, levels beneath which Mrs. Nelson describes as having impacts to her health.¹⁵ As noted during the August 8 hearing, the current phase of this Docket is not intended to address the noise standard itself. Rather, it is intended to determine an appropriate civil penalty to be applied for those instances where the Project was not in compliance with the sound standard.¹⁶

We are also aware of the fact that Mrs. Nelson has obtained and been using a sound meter to take decibel readings of turbine sound levels on a regular basis, and that those readings indicate sound levels at times in excess of the applicable noise standard, including times when GMP is not conducting sound monitoring. However, while we appreciate Mrs. Nelson's efforts, the approach does not allow for the elimination of background sound levels to isolate and determine the actual sound levels of the turbines themselves. The sound standard for the Project applies to noise from the Project only, not to the total sound level from all sources in the vicinity of receptor locations. As a result, we cannot draw any conclusions regarding Project compliance from the information submitted by Mrs. Nelson.¹⁷ That said, the purpose behind the requirements in the Noise Order is to determine if there is a feasible approach to continuous monitoring so that concerns about operational sound levels outside of the current seasonal monitoring periods can be addressed. While we have not yet made a determination about whether to require continuous monitoring, we do expect GMP to present a thorough and reasoned report as a result of being provided its requested 90-day investigation period.

15. The noise standard imposed by condition 39 is based on, and is equivalent to if not more stringent than, World Health Organization noise guidelines designed to protect the public from the adverse health effects of noise. *See* Docket 7628, Order of 5/31/11 at 92.

16. Tr. 8/8/13 at 133 (statement of Chairman Volz).

17. There are a number of technical issues associated with the readings taken by Mrs. Nelson that would likely render the reliability of the results questionable. We discuss the issue of background sound in this Order because it is perhaps the most significant of those issues.

Second, the Nelsons' description of the timing of ongoing and upcoming monitoring events and how they would interact with the recent transmission upgrade and the upcoming installation of the synchronous condenser is not quite complete.

As of the August 8, 2013, hearing, the Board had received the results of the Fall 2012 and Winter and Spring 2013, monitoring periods. As of the date of this Order, the Board has received GMP's report presenting the results of the Summer 2013, monitoring period, and the Fall 2013, monitoring period should be taking place shortly if it has not already commenced. In other words, the Board and parties have access to the results of sound monitoring from four monitoring periods that reflect Project sound levels prior to the transmission upgrade,¹⁸ and an additional report that will reflect the results of sound monitoring after the transmission upgrade and prior to the installation of the synchronous condenser. Lastly, the Board is considering directing GMP to conduct its upcoming Winter monitoring so that it occurs immediately after the synchronous condenser is put into service. This result, coupled with the Spring 2014, monitoring period will provide information sufficient to understand the "before" and "after" impacts, if any, of the two equipment upgrades on Project sound levels. Thus, shortening the time for GMP to report on the results of its investigation into continuous monitoring would not provide any information on changes in Project sound levels that may result from the equipment upgrades that the Board and parties will not otherwise already have.¹⁹

Third, the Nelsons allege that GMP has been studying the feasibility of continuous monitoring at the Project site since at least as early as the August 8, 2013, hearing. However, testimony from GMP's witness at the time of the hearing indicated the Company's understanding that continuous monitoring would, among other issues, be technically very challenging at the Lowell Mountain site due to a lack of wireless coverage.²⁰ We understand this to mean that GMP has considered the possibility of continuous monitoring at the Lowell Mountain site at a very general level, as opposed to doing detailed research on the feasibility of particular

18. Fall 2012, and Winter, Spring and Summer, 2013.

19. It also bears noting that the Department is correct that the Project must comply with the applicable sound limits regardless of any increased operational capacity that may result from the equipment upgrades.

20. Tr. 8/8/13 at 89-92 (Kaliski).

approaches, and determined that it would be very difficult to implement at the Project location. The goal of the requirement in the Noise Order that GMP investigate the feasibility of continuous monitoring at the Project site is for GMP to present a comprehensive and accurate analysis of the potential for continuous monitoring options. We adopted the 90-day period suggested by GMP because we concluded that 90 days was an adequate and reasonable amount of time to realize such a result. Hastening that process could mean errors or an incomplete understanding that could result in missed possibilities for continuous monitoring. While we take the Nelsons' concerns seriously, we also want to ensure that we are able to make a fully informed decision when we decide on the request for continuous monitoring at the site. Accelerating the deadline for the investigation and report runs a risk for interfering with that outcome that we decline to create.

Lastly, we disagree with the Nelsons' assertion that GMP has not provided any basis for why a 90-day period is necessary to explore the feasibility of continuous monitoring. GMP's witness, Mr. Kaliski, testified at the August 8, 2013, hearing that there were a number of technical challenges associated with continuous monitoring at the Lowell Mountain site.²¹ On the other hand, the Department's witness, Mr. St. Peter, testified that the Department's initial inquiries had yielded some potential opportunities to implement continuous monitoring at a fixed cost.²² What is clear from these two witnesses is that both the Department and GMP had, as of the August 8 hearing, engaged in initial inquiries into a complex subject and had only begun asking general questions about feasibility and cost. We concluded that this testimony warranted a 90-day time period to ensure that a complete and accurate report was generated as the end product of those efforts, and continue to believe that such a period is reasonable under the circumstances.

While we deny the Nelsons' motion in today's Order, we do note that the Department has urged GMP to complete its investigation as expeditiously as possible, has made its staff available

21. Tr. 8/8/13 at 89-92 (Kaliski).

22. Tr. 8/8/13 at 144 (St. Peter).

to consult with GMP, and has committed to expedite the process if possible.²³ We appreciate the Department's efforts in this regard and encourage both the Department and GMP to work towards producing a complete and reasoned report as quickly as possible, provided that can be accomplished without compromising the accuracy and completeness of the report.

So ORDERED.

Dated at Montpelier, Vermont, this 23rd day of October, 2013.

<u>s/James Volz</u>	)	
	)	
	)	
<u>s/David C. Coen</u>	)	
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	)	
<u>s/John D. Burke</u>	)	

PUBLIC SERVICE
BOARD
OF VERMONT

OFFICE OF THE CLERK

FILED: October 23, 2013

ATTEST: s/Judith C. Whitney
Deputy Clerk of the Board

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23. Department Reply at 1.