

NEW YORK STATE BOARD ON ELECTRIC  
GENERATION SITING AND THE ENVIRONMENT

CASE 16-F-0328 - Application of Number Three Wind LLC for a  
Certificate of Environmental Compatibility and  
Public Need Pursuant to Article 10 for  
Construction of a Wind Project Located in Lewis  
County.

ORDER GRANTING CERTIFICATE OF ENVIRONMENTAL  
COMPATIBILITY AND PUBLIC NEED, WITH CONDITIONS

Issued and Effective: November 12, 2019

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NEW YORK STATE BOARD ON ELECTRIC  
GENERATION SITING AND THE ENVIRONMENT

At a session of the New York State  
Board on Electric Generation Siting  
and the Environment held in the  
City of Albany on November 12, 2019

BOARD MEMBERS PRESENT:

John B. Rhodes, Chair  
New York State Public Service Commission

Vincent Ravaschiere, Alternate for  
Eric Gertler, Acting Commissioner, New York State  
Department of Economic Development and President and  
Chief Executive Officer Designate, Empire State Development

Louis Alexander, Alternate for  
Basil Seggos, Commissioner  
New York State Department of Environmental Conservation

John Williams, Alternate for  
Richard L. Kauffman, Chair  
New York State Energy Research and Development Authority

Elizabeth Lewis-Michl, Alternate for  
Howard A. Zucker, M.D., J.D., Commissioner  
New York State Department of Health

Leslie A. Sheldon, Ad Hoc Member, dissenting

William H. Schaab, Ad Hoc Member

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(Issued and Effective November 12, 2019)

BY THE BOARD:

I. INTRODUCTION

In this order, we grant Number Three Wind, LLC (NTW or the Applicant) a conditional Certificate of Environmental Compatibility and Public Need (Certificate) to construct and operate a major electric generating facility in Lewis County, New York (the Project or Facility). We determine that, with the conditions attached to and made a part of this order, the Facility will meet the statutory requirements for certification under Article 10 of the Public Service Law (PSL). Our decision is supported by the extensive record compiled through evidentiary hearings before the Examiners as well as the August 22, 2019 Recommended Decision prepared by Presiding Examiner Maureen F. Leary of the Department of Public Service (DPS) and Associate Examiner Molly T. McBride of the Department of Environmental Conservation (DEC), who summarized the record and made proposed factual findings and recommendations. Our decision is based upon the Recommended Decision, the evidentiary record, post-hearing briefs, briefs on exceptions to the Recommended Decision and briefs opposing exceptions, public comments, and all applicable laws and policies.

II. BACKGROUND

A. Description of the Project

NTW's proposed Facility will consist of 31 turbines located in the Towns of Lowville and Harrisburg, Lewis County, New York, and would have a maximum nameplate generating capacity of 105.8 megawatts (MW). NTW proposes eight alternate turbines in addition to the 31 it indicates are in preferred locations. The two turbine models that NTW will use for the Project are the GE 2.3-116, which generates 2.3 MW of electricity, has a total turbine height of 453 feet from the turbine base at ground level

to the tip of the blade at its highest position, and emits a sound power level of 107.5 A-weighted decibels (dBA); and the GE 3.6-137, which generates 3.6 MW of electricity, has a total turbine height of 586 feet from tower base at ground level to the tip of the blade at its highest position, and emits a sound power level of 106 dBA.<sup>1</sup> Both turbine models have a 20-year manufacturer's design life.

The Facility will also include approximately 12.5 miles of access roads, 3.7 miles of above-ground and underground transmission lines, 32 miles of underground collection lines, a substation, a point of interconnection (POI) switchyard and other interconnection facilities connecting the Project to National Grid's Lowville-Bremen 115-kilovolt (kV) overhead transmission line, two permanent meteorological towers of approximately 200 feet in height, an operations and maintenance building, and a construction lay down yard.

The Project's turbines will be located on approximately 8,000 acres of leased or owned land located in the Towns of Lowville and Harrisburg. A total of 13 turbines are to be located in Lowville and a total of 18 turbines are to be located in Harrisburg.<sup>2</sup>

Each turbine will generate renewable 34.5 kV of alternating current renewable electricity for delivery to the Facility's collection system and collection substation, where it will be transformed to 115 kV of electricity for delivery to the POI switchyard and then transmitted to the electric grid. The

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<sup>1</sup> Hearing Exhibit (Hearing Exh.) 1, Application Exhibit (App. Exh.) 10, p. 10-2, Table 2.a-1.

<sup>2</sup> Although NTW included an additional eight alternate turbine locations as part of its application, it indicated during the proceeding that they were no longer being considered as alternatives. This order does not approve any of the eight alternative turbine locations.

entire Project will telecommunicate with Invenergy's central monitoring and control system. NTW personnel will staff the operations and maintenance building and perform routine inspections, maintenance and monitoring of the Facility. The Facility's POI switchyard will telecommunicate with the New York Independent System Operator (NYISO) and local transmission system operator, National Grid.

Approximately 235 turbines now operate directly adjacent to or near the NTW Facility in the northwestern part of Lewis County. Two existing wind facilities, Maple Ridge Wind and Copenhagen Wind, have 195 and 40 turbines, respectively.<sup>3</sup> In addition, Deer River Wind, a 27 turbine, 100 MW proposed wind facility, is currently engaged in the Article 10 process.

B. Procedural History

On May 27, 2016, NTW submitted a letter to the Secretary of the Siting Board, indicating its intent to file an application for a Certificate to construct and operate the Project in the Towns of Lowville and Harrisburg (the Towns). NTW also filed its Public Involvement Program Plan (PIP Plan), pursuant to 16 NYCRR § 1000.4 and thereafter published public notice of the PIP Plan.<sup>4</sup>

On November 8 and 10, 2016, NTW filed draft and revised Preliminary Scoping Statements (PSSs) and numerous

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<sup>3</sup> Maple Ridge Wind has a total generating capacity of 321 MW and is located in the Towns of Lowville, Harrisburg, Martinsburg and Watson. Copenhagen Wind has a total generating capacity of 80 MW and is located in the Village of Copenhagen and the Town of Denmark.

<sup>4</sup> Department of Public Service Document and Matter Management Item Number (DMM No.) 1. Following agency review and public comment, NTW filed a revised PIP Plan on July 28, 2016. DMM Nos. 2, 3.

materials related to the application.<sup>5</sup> On November 18, 2016, the Secretary issued a notice of the filing of the PSS, which established a deadline for submitting comments.<sup>6</sup> DPS Staff, DEC Staff, and the Town of Lowville timely submitted comments on the PSS.<sup>7</sup>

On November 8, 2016, the Secretary also issued a notice of availability of intervenor funds for the pre-application stage, which established a schedule to request funds, and a notice of a pre-application conference to consider intervenor funding requests and to initiate the stipulations process pursuant to 16 NYCRR § 1000.5(j).<sup>8</sup>

On November 22, 2016, the Lewis County Board of Legislators nominated Leslie A. Sheldon and William H. Schaab to serve as an ad hoc members of the Siting Board. On December 19, 2016, the New York State Senate appointed Ms. Sheldon to serve as an ad hoc member.<sup>9</sup> On October 4, 2019, the New York State Assembly appointed Mr. Schaab to serve as an ad hoc member.

On January 24, 2017, the Examiners issued a ruling awarding pre-application stage intervenor funds separately to

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<sup>5</sup> DMM Nos. 9, 16. Following receipt of agency and public comments on the PSS, NTW filed responses to the comments on January 5, 2017 and filed a revised PSS on March 28, 2017. DMM Nos. 36, 42.

<sup>6</sup> DMM No. 17.

<sup>7</sup> DMM Nos. 22, 27, and 28.

<sup>8</sup> DMM Nos. 18-19. Generally, during stipulations consultations, the Project applicant, DPS, and other statutory parties and interested stakeholders may enter into agreements addressing the nature and scope of the studies the applicant will conduct and submit as part of its Article 10 Application, which are documented in written stipulations.

<sup>9</sup> DMM No. 21. PSL § 160(4) provides for the Siting Board to include ad hoc members who reside in the community in which the proposed electric generating facility will be located.



the Towns of Lowville and Harrisburg.<sup>10</sup> On March 28, 2017, NTW filed a Notice of Commencement of Stipulations Consultations.<sup>11</sup> No stipulations were entered into by the parties.

On January 5, 2018, NTW filed its formal application for a Certificate. The Secretary issued a notice of the availability of application-stage intervenor funds.<sup>12</sup> The Towns submitted timely requests for intervenor funding pursuant to the Secretary's notice.<sup>13</sup>

On March 6, 2018 and July 16, 2018, the Siting Board Chair notified NTW of application deficiencies.<sup>14</sup> NTW filed supplemental information to address the deficiencies on May 17, 2018 and August 9, 2018.<sup>15</sup>

On September 28, 2018, the Siting Board Chair notified NTW that its application, including the supplemental filings of May 17, 2018 and August 9, 2018, complied with PSL § 164.<sup>16</sup> The Chair fixed November 14, 2018 as the date for commencement of a public hearing pursuant to PSL § 165(1). The Secretary issued a Notice of Public Statement Hearing and a Notice of Procedural Conference on October 11, 2018.<sup>17</sup>

The Tug Hill Alliance for Rural Preservation (THARP) and the Fort Drum Regional Liaison Organization (FDRLO) together filed a belated request for intervenor funds and party status in

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<sup>10</sup> DMM No. 39, Ruling on Intervenor Funding Requests (issued January 24, 2017).

<sup>11</sup> DMM No. 42.

<sup>12</sup> DMM Nos. 50-52, 56.

<sup>13</sup> DMM Nos. 58, 60, 102.

<sup>14</sup> DMM Nos. 62, 83.

<sup>15</sup> DMM Nos. 66, 86.

<sup>16</sup> DMM No. 93.

<sup>17</sup> DMM Nos. 95-96.

the proceeding.<sup>18</sup> NTW filed opposition to the THARP/FDRLO request for intervenor funds and party status.<sup>19</sup> FDRLO withdrew its request for intervenor funds and party status on November 9, 2018, but THARP continued with its own request as revised to eliminate FDRLO.<sup>20</sup>

On November 14, 2018, the Examiners held afternoon and evening information sessions followed by public statement hearings in the Town of Lowville. At both afternoon and evening hearings, several people provided statements in support of or in opposition to the Project.

On November 15, 2019, the Examiners held a procedural conference with the parties at which they granted requests for party status to THARP and National Grid; addressed NTW's opposition to THARP's motion for intervenor funding; awarded intervenor funding to THARP and the Towns; and discussed a proposed schedule for the evidentiary portion of the proceeding. Thereafter, the Examiners issued a ruling adopting a procedural schedule, which among other things set deadlines of February 8, 2019 for filing direct testimony, February 22, 2019 for filing rebuttal testimony, and March 27, 2019 for the commencement of the evidentiary hearing.<sup>21</sup>

In a December 12, 2018 ruling, the Examiners granted party status to THARP and National Grid and awarded intervenor

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<sup>18</sup> DMM Nos. 98, 103.

<sup>19</sup> DMM No. 104.

<sup>20</sup> DMM No. 108, 109.

<sup>21</sup> DMM No. 113; Ruling Adopting Schedule (issued November 27, 2018).

funds separately to each of the Towns and to THARP.<sup>22</sup> Thus, the parties actively participating in the proceeding included NTW, the Staff of the Department of Public Service (DPS Staff), the Department of Environmental Conservation (DEC Staff), the Department of Agriculture and Markets (DAM), and the Department of Health (DOH), as well as Lewis County, the Towns of Lowville and Harrisburg, THARP, Niagara Mohawk, the United States Army Garrison at Fort Drum, and the Alliance for Clean Energy.

On January 11, 2019, NTW circulated a revised Project layout map to the parties showing a reduction in the total number of turbines from 43 to 31 and changes to turbine locations, collection lines, access roads, and other project components.<sup>23</sup> The details of NTW's changes to the application are set forth in the Recommended Decision and will not be repeated here.<sup>24</sup> On March 13, 2019, the Examiners issued a ruling adopting a revised procedural schedule and extending by approximately seven weeks the deadlines for filing testimony and for commencement of the evidentiary hearing in order to develop a complete record for the Siting Board's review.<sup>25</sup>

Pursuant to the Examiners' scheduling ruling, the parties submitted issues statements on December 14, 2018, which

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<sup>22</sup> DMM No. 118, Ruling Granting Party Status and Awarding App.-Stage Intervenor Funding (issued December 12, 2018). Under the ruling, Lowville was awarded \$32,500, Harrisburg was awarded \$30,000, and THARP was awarded \$52,900. THARP later applied for additional intervenor funds. The Examiners granted THARP an additional \$10,000 in an April 9, 2019 ruling.

<sup>23</sup> NTW submitted application updates between January and March 2019, and thereafter continued to file application amendments including at the evidentiary hearing and after the close of the hearing. Recommended Decision, pp. 23-24.

<sup>24</sup> Recommended Decision, pp. 10-25.

<sup>25</sup> Ruling Adopting Revised Schedule (issued March 13, 2019), pp. 8-10.

were updated on April 23, 2019. On May 6, 2019, the Examiners issued a ruling identifying multiple substantive issues to be litigated in the evidentiary hearing related to the Facility layout and design, environmental impacts, and mitigation or avoidance of such impacts; compliance with federal, State and local laws; compliance with interconnection agreements and National Grid's safety requirements; site restoration and decommissioning; and public participation.<sup>26</sup> The Examiners also identified certain procedural issues that could be litigated, including whether the application amendments constituted a "revision" to the application within the meaning of 16 NYCRR 1000.2(ak) warranting an extension of the twelve-month statutory time frame pursuant to PSL § 165(4).

Pursuant to the Secretary's April 22, 2019 notice, the Examiners presided over a three-day hearing beginning on May 13, 2019 and ending on May 15, 2019.<sup>27</sup> NTW, DPS Staff, DEC Staff, DAM, and THARP participated in the evidentiary hearing. Eighteen witnesses testified at the hearing and the Examiners admitted pre-filed direct and rebuttal testimony and 165 exhibits into the hearing record. NTW introduced additional information, including its "Anticipated Schedule for Compliance Filings" to be approved at the time the Certificate was issued and identifying the date by which NTW needed approval in order to obtain its production tax credits.<sup>28</sup> The evidentiary hearing resulted in transcripts of testimony totaling 1,194 pages.

Immediately following the close of the evidentiary hearing, NTW filed a notice of pending settlement discussions pursuant to 16 NYCRR § 3.9 in an effort to resolve certain

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<sup>26</sup> Ruling on Issues (issued May 6, 2019), Attachment A.

<sup>27</sup> DMM No. 173.

<sup>28</sup> Hearing Exh. 113.

outstanding issues.<sup>29</sup> Ultimately, NTW, DPS Staff, DEC Staff and DAM reached an agreement on certain Certificate Conditions.

Following the evidentiary hearing, NTW continued to submit application and other materials for inclusion in the hearing record, including wetlands delineation maps.<sup>30</sup> NTW and DEC Staff moved to include certain additional evidence in the hearing record.<sup>31</sup>

On June 7, 2019, the parties that participated in the hearing filed post-hearing briefs. Attached to NTW's brief was a June 2019 Stipulation of Partial Settlement (June 2019 Stipulation) signed by DPS Staff, DEC Staff and DAM, which attached certain agreed upon Certificate Conditions. In the June 2019 Stipulation, DPS Staff carved out numerous conditions it did not agree to. No other party, including THARP, entered into the June 2019 Stipulation. On June 24, 2019, the parties filed reply briefs.<sup>32</sup>

On July 10, 2019, the Examiners issued a ruling requiring NTW to serve the previously-filed application amendments on all statutory parties and other persons, agencies and entities identified in PSL §§ 164(2), 166(1) and 16 NYCRR § 1000.6(a).<sup>33</sup> NTW thereafter effectuated service.<sup>34</sup>

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<sup>29</sup> DMM No. 182.

<sup>30</sup> DMM Nos. 192, 202, 209.

<sup>31</sup> DMM No. 212.

<sup>32</sup> DAM filed a reply letter brief, indicating that it had reached an agreement with NTW regarding the issues it had raised.

<sup>33</sup> Ruling Requiring Service of App. Amendments (issued July 10, 2019).

<sup>34</sup> DMM Nos. 214, 216. On July 18, 2019, NTW filed an affidavit of service of the application amendments in compliance with the Examiners' ruling.

In a July 30, 2019 letter to NTW, the Siting Board Chair found that the application amendments were "material and substantial changes" and constituted a "revision" of the application within the meaning of 16 NYCRR § 1000.2(ak).<sup>35</sup> The Chair determined pursuant to PSL § 165(4) and 16 NYCRR § 1000.13 that NTW's application amendments warranted a 45-day extension of the 12-month statutory timeframe<sup>36</sup> and the submission of additional intervenor funds totaling \$75,000. NTW subsequently filed a request for reconsideration of the Chair's determination, which THARP opposed.<sup>37</sup> On September 25, 2019, the Chair denied NTW's request for reconsideration and confirmed his determination.<sup>38</sup>

On August 22, 2019, the Secretary issued the Examiners' Recommended Decision with a notice seeking public comments and a separate notice setting a schedule for the parties to file briefs on exceptions and opposition to exceptions.<sup>39</sup> On September 11, 2019, the parties submitted briefs on exceptions to the Recommended Decision. On September 27, 2019, the parties submitted briefs opposing exceptions. The parties' exceptions and opposition to exceptions are detailed below.

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<sup>35</sup> DMM No. 217.

<sup>36</sup> Under PSL § 165(4), the Siting Board must make its final decision on an Article 10 application within twelve months following the Chair's determination that the application complies with PSL § 164, unless that timeframe is extended. Here, the Chair's compliance determination was on September 28, 2019 and the Chair's 45-day extension moves the twelve-month deadline to November 12, 2019.

<sup>37</sup> DMM Nos. 218 and 219.

<sup>38</sup> DMM No. 228.

<sup>39</sup> DMM Nos. 121, 122.

C. Public Involvement and Comment

Article 10 and the Siting Board's regulations require applicants to promote public involvement throughout the Article 10 process in order to provide the Siting Board with a complete record of local concerns. Starting with the requirement that applicants file and implement a PIP Plan in consultation with State agencies and other stakeholders, the Article 10 process is designed to encourage stakeholder participation throughout the planning, pre-application, application, certification, compliance and implementation process.<sup>40</sup> Funding for affected municipalities and other intervenors is made available in the pre-application and the application phases of the proceeding to facilitate participation in the process.<sup>41</sup>

As set forth in the Recommended Decision, in addition to its twice-revised PIP Plan,<sup>42</sup> NTW detailed its public outreach and involvement in Exhibit 2 of its application and filed PIP Plan tracking logs during the pendency of the proceeding.<sup>43</sup> As documented in NTW's PIP log and elsewhere in the record, NTW fostered public participation by hosting multiple open houses and stakeholder meetings in the community in which the Project is located, making Project information widely available to the public, opening a local office in Lowville that was open on a part-time basis, attending numerous local town board meetings, filing an extensive stakeholder list at the instruction of the Examiners, communicating with stakeholders by postcard, letter,

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<sup>40</sup> 16 NYCRR § 1000.4; 16 NYCRR § 1001.2(c) and (d). The PIP Plan should detail an applicant's plans to foster public involvement through outreach and education about the proposed Project and the Article 10 process.

<sup>41</sup> PSL § 163(4) and § 164(6); 16 NYCRR § 1000.10(a), (b).

<sup>42</sup> DMM Nos. 3 and 20.

<sup>43</sup> Hearing Exh. 15; App. Exh. 2; DMM Nos. 8, 20, 40, 43-44, 47, 51, 59, 77, and 94.

email and/or telephone, and establishing a Project-specific website and a toll-free telephone number for public questions and comments. NTW's filing of PIP tracking logs reflects its public outreach efforts and work with the Towns.

NTW did not initially publish notice of the application properly in the newspaper with the largest circulation in Lewis County, the Watertown Times, as required by 16 NYCRR § 1000.7(a). At the direction of the Examiners, NTW remedied that defect.<sup>44</sup> As noted above, NTW also did not properly serve the application amendments but at the direction of the Examiners, remedied this defect.<sup>45</sup>

Prior to the Public Statement Hearings in Lowville on November 14, 2019, the Secretary mailed notice of the hearings to approximately 150 persons and organizations who had asked to be informed about the Project. At the information sessions held before the Public Statement Hearings, the Examiners provided the public with an overview of the Article 10 process and NTW provided an overview of the Project. At the Public Statement Hearing, many local residents spoke in opposition to the Project, while a few members of a labor union and a local resident spoke in favor.

In addition to the comments received at the public statement hearings, approximately 31 public comments were filed from October 2, 2018 to July 12, 2019. Most of the comments expressed opposition to the Project based on inadequate public involvement efforts, noise impacts, aviation and lighting impacts, adverse economic impacts on tourism and local

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<sup>44</sup> DMM Nos. 80 and 81, Ruling Requiring Additional Publication of Application and Application Supplement (issued July 12, 2018).

<sup>45</sup> See DMM No. 210, Ruling Requiring Service of Application Amendments (issued July 10, 2019).



businesses, the absence of local economic benefit, and the cumulative visual impacts associated with the Facility and the existing Maple Ridge and Copenhagen wind projects. Some commenters, including a local farmer and representatives of a local labor union, supported the Project for economic, job creation, and climate change reasons.

After the Secretary issued the Recommended Decision for comment, approximately 14 comments were received. The majority of comments strongly support requiring NTW to install an Aircraft Detection Lighting System (ADLS). Those commenters assert that, given the proximity of other wind projects, the night sky is already rife with red flashing lights and that requiring this system would mitigate visual impacts during nighttime hours. One commenter asserts that ADLS should be the new State-wide standard for wind facilities. Several commenters oppose the Project based on their concerns with noise and vibration, safety of the turbines, impacts on wildlife, visual impacts and potential negative impact to property values.

A local farmer and supporter of the Project raised concerns with the neutrality of the Examiners and the availability of intervenor funds to Project supporters. Another commenter requested that the Siting Board maintain the noise standards recommended by the Examiners in the Recommended Decision, maintaining that, had Copenhagen Wind been operational at the time of the Public Statement Hearings for the Facility, many additional people would have spoken out about noise impacts. The commenter believes that existing setbacks and previously-adopted standards are insufficient to protect residents. In addition, one commenter, citing his concern for visual impacts, requested that the Siting Board honor the Town of Lowville's decision to limit the waiver of the Town's

requirement to underground the Project's transmission lines from east of Route 26 to north of Route 812.

Several commenters raised concerns regarding bird species, particularly, bald eagles and grassland birds. Some commenters contend that bald eagles are nesting in the Project area and may be harmed by the Project. One commenter asserted that habitat for the grassland birds is only present because of the local farming practices and, without farming, the habitat would not exist. He maintains that if turbines are not authorized to be placed on farmland, farmers should be paid to preserve farmland to protect grassland bird habitat.

Audubon New York commented that the mitigation DEC Staff recommended for the Upland Sandpiper and Northern Harrier is reasonable to compensate for the impacts to State-listed bird species in this case and that development of wind power may contribute to farm viability, promoting continuation of agriculture on the Project site. However, it states that while farming may continue in areas with wind turbines, those areas may not provide adequate habitat for nesting or wintering grassland birds. Audubon New York advocates for the habitat mitigation proposed by DEC Staff for the Upland Sandpiper and Northern Harrier.

### III. FINDINGS AND DETERMINATIONS

#### A. Procedural Issues

The following sections summarize the procedural issues considered by the Examiners, set forth their recommendations, and details the Siting Board's findings and determinations with respect to each issue.

##### 1. Adequacy of Public Involvement

After reciting Article 10's purpose in fostering the early public involvement of communities in which a wind project

is proposed so that the Siting Board is made aware of stakeholder concerns, the Recommended Decision notes that this Project was proposed at an early stage in Article 10's implementation, which explains why certain procedural requirements may have been lacking.<sup>46</sup> The Recommended Decision discusses THARP's challenge to the adequacy of NTW's public involvement activities and its submission of testimony of community members complaining that they had been deprived of the opportunity to meaningfully participate in this proceeding.<sup>47</sup>

The Recommended Decision recounts NTW's public outreach activities, including meetings with municipalities and stakeholders, community open houses, numerous mailings to stakeholders, and unintentional errors on its website. The Recommended Decision also indicated that NTW had failed to serve the application amendments on the required parties identified in PSL § 164(2), PSL § 166(1) and 16 NYCRR § 1000.6(a), whereupon the Examiners issued a ruling requiring proper service and the filing of an affidavit of service.<sup>48</sup>

The Recommended Decision also references DPS Staff's Consumer Services Panel's testimony that NTW public outreach activities were lacking in certain areas, such as ensuring that interested parties had access to information about available intervenor funding, educational publications and instructions about how to join the stakeholder list; failure to update the Project website with up to date Project layout maps; failure to consistently submit PIP tracking report; and inadequate educational materials.<sup>49</sup> DPS Staff was also critical of NTW's

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<sup>46</sup> Recommended Decision, pp. 35-36.

<sup>47</sup> Tr. 1590-1598.

<sup>48</sup> Recommended Decision, pp. 24-25; Ruling Requiring Service of Application Amendments (issued July 10, 2019).

<sup>49</sup> DPS Staff Initial Brief, p. 17.

failure to diligently provide proof of service that the entire stakeholder list was notified of major Project filings and to timely publish notice of its application in the newspaper of largest circulation.<sup>50</sup>

The Examiners concluded in the Recommended Decision that while NTW's public involvement activities were flawed, they were sufficient.<sup>51</sup> The Recommended Decision notes that intervenor funding was awarded to the Towns and THARP, thereby enabling their full participation in the proceeding. It also discusses THARP's retention of a visual expert, who filed testimony, its cross-examination of witnesses, and other activities reflecting its full participation in the proceeding, specifically in the evidentiary hearing and post-hearing proceedings.

On exceptions, THARP continues to challenge the adequacy of NTW's public involvement activities and complains that they were largely an ineffective exercise in form over substance.<sup>52</sup> Citing the testimony of its witnesses and other parts of the record, THARP sets forth numerous instances of NTW's failures to address and respond to concerns expressed by THARP members, David and Rebecca Sheldon; to explain how public comments could be provided; to display the Project's key elements on large maps; to disclose the Project's cumulative impacts; to provide timely Project updates; to comply with the PIP's provisions; and to maintain the Project website with accurate information.<sup>53</sup> THARP concludes that the Siting Board should deny issuance of a Certificate because NTW's public

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<sup>50</sup> DPS Staff Initial Brief, p. 18.

<sup>51</sup> Recommended Decision, p. 38.

<sup>52</sup> THARP Brief on Exceptions, p. 5.

<sup>53</sup> THARP Brief on Exceptions, pp. 5-8.

outreach was not sufficient to generate meaningful public involvement in the pre-application phase of the project, resulting in an "incurable failure of public participation."<sup>54</sup>

We agree with the Examiners that NTW's public involvement activities were sufficient, although we note that a failure to involve the public at the earliest time in the Article 10 process undermines Article 10's intent. We recognize that in the early stages of the Article 10 process, assuring full public participation can be challenging. We disagree with THARP that there was a failure of public participation in this proceeding even though NTW's efforts in this regard were flawed.

During the proceeding, the Examiners required the Applicant's strict compliance with the procedural requirements in the Department's regulations and mandated correction of evident defects that had the potential to impact public participation, including requiring service of amended application materials and additional publication of notices.<sup>55</sup> The Examiners awarded intervenor funding to the Towns and THARP in the pre-application and the application phases in order to foster the public's participation. In his July 30, 2019 letter, the Chair required NTW's submission of additional intervenor funds to facilitate the review of the application revisions and in furtherance of the public's participation. And as evidenced by THARP's extensive involvement in the evidentiary hearing as well as its pre- and post-hearing participation, we cannot conclude that public participation in this proceeding was lacking. As the Siting Board considers future Article 10 cases,

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<sup>54</sup> THARP Brief on Exceptions, p. 8.

<sup>55</sup> Ruling Requiring Service of Application Amendments (issued July 10, 2019); July 9, 2019 and July 12, 2019 Letters of Presiding Examiner to NTW (requiring re-publication of application notices).

an applicant's extensive efforts to involve the public at the earliest stages of the process will continue to be expected.

2. THARP Request for Recusal of NYSERDA Chair from Siting Board for this Proceeding

In its post-hearing brief, THARP sought recusal of the Chair of NYSERDA in this proceeding as a member of the Siting Board because NYSERDA had executed a Renewable Portfolio Standard contract with NTW for the Project. THARP did not raise this issue in its pre-hearing issues statement, nor was it included as an issue for adjudication in the Examiners' issues ruling.<sup>56</sup>

In the Recommended Decision, the Examiners found that the question of the NYSERDA Chair's recusal was not one for the Examiners to determine in this proceeding and made no recommendation.<sup>57</sup> They noted, however, that THARP failed to present evidence of the NYSERDA Chair's personal bias or self-interest in the proceeding or in the contract with NTW in order to warrant recusal.

On exceptions, THARP asserts that the NYSERDA Chair is biased because of NYSERDA's role in entering into a contract for renewable energy credits (REC Contract) with NTW and that this asserted bias requires recusal.

We agree with the Examiners' determination that this issue is not appropriate for adjudication in this proceeding by either the Siting Board or the Examiners. The appropriate manner in which to raise this issue is by motion directed to the decision-maker, namely, the NYSERDA Chair.<sup>58</sup> THARP did not file such a motion. In any event, we agree with the Examiners that

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<sup>56</sup> Ruling on Issues (issued May 6, 2019).

<sup>57</sup> Recommended Decision, p. 40.

<sup>58</sup> 16 NYCRR § 2.2.

there is a complete absence of evidence of the NYSERDA Chair's personal bias or self-interest in either this proceeding or in the REC Contract NYSERDA has executed with NTW for the Project.

The NYSERDA Chair is a public official and a statutory member of the Siting Board under Article 10.<sup>59</sup> His statutory appointment reflects a legislative choice and determination that he could lawfully carry out his duties as both the NYSERDA Chair and a Siting Board member under Article 10. As a matter of law, we find that the NYSERDA Chair's dual roles do not require recusal.

3. Examiners' Discovery Ruling Denying NTW Access to Agency Information

In its post-hearing briefs, NTW sought reconsideration of the Examiners' May 10, 2019 ruling denying discovery requests seeking access to inter-agency and intra-agency communications related to clean energy objectives and climate change. The Examiners found that the relief NTW requested was moot because the evidentiary hearing was closed and no purpose would be served in directing the agencies to respond. The Examiners recommended that we reach the same result.<sup>60</sup>

On exceptions, NTW continues to seek relief from the Examiners' ruling regarding discovery responses from the agencies. NTW argues that, although the hearing record is closed, the information sought has a bearing on the Siting Board's determination and is not moot.<sup>61</sup> NTW claims that the Siting Board should be deeply interested in whether the agencies' positions took into account the State's clean energy goals. NTW further claims that the positions of DPS Staff and

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<sup>59</sup> PSL § 160(4).

<sup>60</sup> Recommended Decision, p. 40

<sup>61</sup> NTW Brief on Exceptions, p. 11.

DEC Staff with respect to noise, shadow flicker, bats and grassland birds "gave no consideration to those policies and goals."<sup>62</sup> NTW provides several reasons why the discovery responses sought are not covered by any privilege or FOIL exception. NTW argues that it is entitled to understand how the agency positions were shaped by State policies concerning climate change and clean energy and that the discovery requests are relevant and material.<sup>63</sup> NTW also complains that the Examiners' conflated the attorney-client privilege with the deliberative process privilege and that neither attaches to the information requested.<sup>64</sup>

With respect to the deliberative process privilege, NTW argues that neither party raised that as a ground for objecting to the discovery requests and the Examiners' role does not include "rescuing agency staff attorneys from ill-founded objections."<sup>65</sup> NTW further argues that information communicated from one agency to another is not the trigger for invoking the privilege, which should not be used for "hiding the plans of agency staff called to testify."<sup>66</sup> NTW cites FOIL's purpose to promote access to government information and asserts that

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<sup>62</sup> NTW Brief on Exceptions, p. 11.

<sup>63</sup> NTW Brief on Exceptions, pp. 12-13.

<sup>64</sup> NTW Brief on Exceptions, pp. 14-16. Although NTW also argues that the testimony of agency experts is not offered or prepared solely in anticipation of litigation (pp. 16-17), this issue was not the basis of the Examiners' ruling and will not be addressed here, except to note that Article 10 is an adjudicatory process in which issues, including those raised by expert testimony, are litigated and therefore testimony prepared as part of that process is prepared in anticipation of litigation.

<sup>65</sup> NTW Brief on Exceptions, pp. 17-18.

<sup>66</sup> NTW Brief on Exceptions, pp. 18-19.



whether the privilege applies may only be evaluated by examining the "input" given.<sup>67</sup>

In its opposition to exceptions, DPS Staff agrees with the Examiners' recommendation that the Siting Board find the issue moot and reiterates its position that the information sought is protected because it was prepared for litigation.<sup>68</sup> DPS Staff disputes NTW's position that it should not be afforded the protection of the privilege because it has a responsibility to share information with the Siting Board under PSL § 167.<sup>69</sup> DPS Staff disputes NTW's assertion that it is not a litigant but is instead "an advisor" to the Siting Board in this proceeding. DPS Staff claims that the breadth of the discovery request extended to protected communications and therefore triggered both the attorney client and work product privileges. Specifically, DPS Staff asserted that NTW requested internal discussions and materials related to the development of witness testimony produced exclusively for and in anticipation of litigation.<sup>70</sup>

On exceptions, DEC Staff asserts that the hearing record is closed, that NTW's position on exceptions is irrelevant, and that in any event, the attorney-client privilege applies to the information NTW seeks.<sup>71</sup>

We reject NTW's position that the discovery is necessary at this point. First, NTW had an opportunity during cross-examination to ask agency witnesses if they took into consideration clean energy objectives and climate change in

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<sup>67</sup> NTW Brief on Exceptions, p. 19.

<sup>68</sup> DPS Staff Brief Opposing Exceptions, pp. 3-5.

<sup>69</sup> DPS Staff Brief Opposing Exceptions, p. 3.

<sup>70</sup> DPS Staff Brief Opposing Exceptions, pp. 4-5.

<sup>71</sup> DEC Staff Brief on Exceptions, p. 2.

offering their expert opinions. We agree with the Examiners that no purpose would be served in reconsidering the ruling or in requiring disclosure from the agencies at this juncture. The record is more than sufficient for the Siting Board to make its findings and determinations.

We have reviewed the Examiners' ruling on the merits and find it to be sound. The discovery questions NTW posed to DPS Staff, DEC Staff and DAM sought information from agency experts that involved both internal intra-agency discussions and external inter-agency discussions during this litigated adjudicatory process.<sup>72</sup> FOIL's exemption for non-final intra- and inter-agency communications and the governmental public interest privilege, New York's corollary to the federal deliberative process privilege,<sup>73</sup> protects the open exchange of opinions, ideas, advice, and other non-final communications between and among agencies before a final agency position is advanced.<sup>74</sup> We agree with the Examiners that such information is not subject to disclosure under either the Department's discovery rules or FOIL. We therefore confirm the Examiners' ruling.

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<sup>72</sup> For example, CPLR § 3101(d) limits discovery related to expert testimony and under Fed. R. Civ. P. 26(b)(4)(B), draft expert reports and any discussions underlying the reports or involved in their preparation are considered attorney work product and are similarly not discoverable. The information NTW requested here would not have been required to be produced in discovery pursuant to those provisions.

<sup>73</sup> See Cirale v 80 Pine St. Corp., 35 N.Y.2d 113, 117 (1974).

<sup>74</sup> We further agree with DPS Staff's exception and reject NTW's argument that DPS Staff is an advisor to the Siting Board and that its testimony was not prepared in anticipation of litigation. DPS Staff is the trial team appointed by the Department to participate as a litigant in this adjudicatory proceeding.

4. NTW Motion to Strike DPS Staff Sur-Rebuttal Testimony

In its brief on exceptions, NTW again raises the propriety of the Examiners' ruling authorizing the filing of DPS Staff sur-rebuttal testimony.<sup>75</sup> NTW claims that DPS Staff's sur-rebuttal testimony went beyond the issues that NTW's rebuttal testimony raised.<sup>76</sup> The Examiners denied NTW's motion to strike the sur-rebuttal testimony at the commencement of the evidentiary hearing. We find the Examiners' ruling allowing DPS Staff to file sur-rebuttal testimony and their denial of NTW's oral motion to strike the testimony to be sound and affirm it.

We find that the record supports DPS Staff's position that NTW's rebuttal testimony raised for the first time new issues related to its application, which no party had the opportunity to address in pre-filed testimony. These new issues involved significant changes to proposed Certificate Conditions, pre-certificate approval of compliance filings, and compliance filing plans. We also disagree that DPS Staff's sur-rebuttal testimony went beyond the issues that should have been addressed and should not have been allowed.

The Examiners gave all parties, including NTW, time to object to DPS Staff's motion.<sup>77</sup> In an April 29, 2019 letter, NTW expressly stated that it "does not oppose the request" by DPS Staff to file sur-rebuttal. NTW has waived any right to complain now that part of the testimony should be stricken because it opened the door to its filing by improperly including new information in its rebuttal testimony that DPS Staff had the right to address in sur-rebuttal. We also reject NTW's

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<sup>75</sup> Ruling Authorizing DPS Staff to File Sur-Rebuttal Testimony (issued April 30, 2019).

<sup>76</sup> NTW Brief on Exceptions, pp. 7-8.

<sup>77</sup> Ruling Authorizing Responses to DPS Staff Motion to File Sur-Rebuttal Testimony (issued April 25, 2019).

unsupported assertion that it was prejudiced by the sur-rebuttal testimony.

5. Chair's Extension of Twelve-Month Statutory Timeframe and Requirement for Submission of Additional Intervenor Funding

NTW's brief on exceptions recites its then-pending request for reconsideration of the Siting Board Chair's July 30, 2019 determination that NTW's application amendments constituted a "revision."<sup>78</sup> As noted above, on September 25, 2019, the Chair confirmed his determination that an extension of the twelve-month statutory timeframe and NTW's submission of an additional \$75,000 in intervenor funds were warranted. The bases of the Chair's determination are set forth in his July 30, 2019 and September 25, 2019 letters.

We find that the Chair has the authority to make the determination that application amendments constitute a revision and, as a consequence, to extend the twelve-month statutory timeframe and to require additional intervenor funds. Accordingly, the issue is not before us and has already been determined in the Chair's September 25, 2019 letter. In any event, the Siting Board has now reviewed the record and finds that the Chair had a substantial factual basis for confirming his determination that the application amendments constituted a revision. We therefore reaffirm his decision.

B. Substantive Issues

The following sections summarize the probable impacts associated with the proposed Facility, as identified by the Examiners. In addition, these sections include the Examiners' recommendations regarding the Siting Board's required findings, the exceptions, if any, to the Examiners' recommendations, and

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<sup>78</sup> NTW Brief on Exceptions, p. 10.

our findings and determinations pursuant to PSL § 168 with respect to the impacts that have been identified.

1. Pre-Approval of Compliance Documents

Pursuant to the Article 10 regulations, following the issuance of a Certificate, an applicant must show compliance with the terms of the Certificate through the submission of "compliance filings."<sup>79</sup> Such documents are filed with the Siting Board and served on the parties to the proceeding, who then may file comments within 21 days.<sup>80</sup>

In its rebuttal testimony, NTW asked the Siting Board to approve certain construction plan "packages" at the same time it issues a Certificate instead of following the prescribed compliance filing process.<sup>81</sup> These would purportedly take the place of DPS Staff's proposed Site Engineering and Environmental Plan (SEEP) documents that are usually submitted after Certificate issuance.<sup>82</sup> NTW had submitted as a hearing exhibit a sequenced list of 29 packages for Siting Board approval as part of the Certificate and eliminated the requirement that it file a SEEP as a post-certificate compliance filing to be reviewed by DPS Staff and interested parties.<sup>83</sup> NTW argued that this approach would "reduce to a minimum the number of post-

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<sup>79</sup> 16 NYCRR Part 1002.

<sup>80</sup> 16 NYCRR § 1002.2(c), (d).

<sup>81</sup> Hearing Exh. 89 (EM-R2), Certificate Conditions, Attachment A; Tr. 1012-1014, Supplemental Testimony of Eric Miller.

<sup>82</sup> The SEEP contains detailed construction plans and protocols designed to assure compliance with specific Certificate Conditions that have been approved by the Siting Board.

<sup>83</sup> Hearing Exh. 89 (EM-R2), Certificate Conditions, Attachment A.

certificate filings so that preparations for construction need not be delayed.”<sup>84</sup>

NTW asserted that the Siting Board’s approval of these documents upon issuance of the Certificate, rather than as post-Certificate compliance filings, is necessary to meet a December 2020 “commercial operation deadline” and to “qualify for 100% Production Tax Credits.”<sup>85</sup> In advancing this proposal, NTW complained that too many issues addressed during the hearing process are not resolved with finality in a Certificate, but rather are left to be resolved in the post-certification compliance process.<sup>86</sup> NTW asserted that the Siting Board has the authority to approve the SEEP and other plans at the same time it grants a Certificate and that DPS Staff’s post-certification approval is “a blatant transfer of Siting Board authority to agency staff.”<sup>87</sup> NTW advanced this position for the first time in rebuttal testimony, which prompted a DPS Staff motion to file sur-rebuttal testimony, and which the Examiners granted.

In sur-rebuttal, the DPS Staff Policy Panel asserted that NTW cannot change the protocol and timing for submission of the SEEP and other post-certificate compliance filings and plans because the Siting Board must first decide in the Certificate what compliance filings will be required.<sup>88</sup> The Policy Panel also asserted that, by definition, a compliance filing cannot be submitted prior to Certificate issuance because 16 NYCRR § 1002.3 requires identification of the specific Certificate

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<sup>84</sup> Tr. 1013. At the evidentiary hearing, NTW for the first time submitted a schedule (Hearing Exh. 164) outlining the timing for Siting Board approval of its “filing packages.”

<sup>85</sup> Tr. 1023; NTW Initial Brief, pp. 31-32.

<sup>86</sup> Tr. 1027, 1086; NTW Initial Brief, p. 31.

<sup>87</sup> Tr. 128; NTW Initial Brief, pp. 31, 33.

<sup>88</sup> Tr. 445-447.

Condition for which the filing is made and a demonstration of how compliance with that condition will be achieved.<sup>89</sup> The DPS Staff Policy Panel indicates that if a compliance filing is approved as part of the Certificate, changing the filing later could require a Certificate amendment.<sup>90</sup> DPS Staff argued that NTW assumes that the Siting Board will issue the Certificate exactly as NTW proposes and without modification of any conditions. Finally, the DPS Staff Policy Panel asserted that NTW's position fails to give the required 21-day notice to the parties provided in Rule 1002.2 in order to provide an adequate opportunity to comment.<sup>91</sup>

In its post-hearing brief, NTW modified its request to the Siting Board, indicating that it was seeking approval of three "Limited Notice to Proceed Packages," specifically, "Packages 30, 31 and 32."<sup>92</sup> These three packages apparently would include detailed plans, methods and other information that would allow NTW to proceed with all clearing activities throughout the Project site and the grading and construction of the laydown yard and point of interconnection switchyard.<sup>93</sup> In its brief, NTW stated that it would submit the substance of Packages 30, 31 and 32 by July 31, 2019 in order to provide

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<sup>89</sup> Tr. 447-448.

<sup>90</sup> Tr. 448. DPS Staff noted that as a practical matter, final project design details are refined in compliance filings only after the Siting Board issues a Certificate because only then will the parties know precisely what has been approved in order to foster the necessary refinements.

<sup>91</sup> Tr. 447.

<sup>92</sup> NTW Initial Brief, p. 10. NTW cited Exhibit 89, which is Exhibit EM-R2 to NTW witness Eric Miller's rebuttal testimony, but it does not list Packages 30, 31 and 32 and contains only 29 listed items.

<sup>93</sup> Settlement Stipulation, Certificate Conditions, Attachment A, Packages 30-31.

parties with a 21-day comment period.<sup>94</sup> To date, NTW has not submitted Packages 30, 31 and 32.<sup>95</sup>

The Examiners did not address NTW's position in the Recommended Decision. NTW did not submit the packages for the Examiners' expedited consideration after the Siting Board Chair extended the twelve-month timeframe. In its Brief Opposing Exceptions, NTW argues that the Siting Board has the authority to approve the SEEP and construction plans when it grants the Certificate.<sup>96</sup> NTW also acknowledges that the proposal is moot because the Siting Board Chair extended the twelve-month timeframe, but still claims that "the principle remains an important one for the Siting Board to address."<sup>97</sup>

In its post-hearing brief, DPS Staff strongly objected to NTW's request for pre-approval of the clearing, construction laydown yard and point of interconnection Packages and asserted that the Siting Board should adopt its proposed SEEP specifications.<sup>98</sup> DPS Staff asserted that a SEEP is submitted and reviewed only after a Certificate is issued and is designed to "provide critical guidance" for NTW's development of compliance filings for the Project and would streamline review by assuring the appropriate details are provided.<sup>99</sup>

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<sup>94</sup> NTW Initial Brief, p. 10. 16 NYCRR § 1002.2(c) and (d), which together provide that any compliance filing must be filed and served on DPS, DEC and any other parties identified in the Certificate and gives those parties 21 days to file comments on the compliance filing.

<sup>95</sup> NTW also states that the remaining 29 packages will be submitted "as early as practicable to minimize time for review." NTW Initial Brief, p. 10.

<sup>96</sup> NTW Brief Opposing Exceptions, pp. 1-4.

<sup>97</sup> NTW Brief Opposing Exceptions, p. 2.

<sup>98</sup> DPS Staff Initial Brief, p. 11.

<sup>99</sup> DPS Staff Initial Brief, p. 12.



On exceptions, DPS Staff seeks clarification of whether NTW is permitted to obtain Siting Board approval of SEEP-related packages and "limited notices to proceed" with construction of the Project before Certificate issuance.<sup>100</sup> DPS Staff reiterates the arguments raised in its Initial Brief and asserts that such a process "would inappropriately bypass the Application review process and not allow parties a reasonable opportunity to review and potentially litigate substantive portions of the evidentiary record."

We agree with NTW and DPS Staff that this issue requires clarification, particularly if applicants for other Projects seek to advance this process. Because the Recommended Decision does not address the issue, we do so here.

We agree with the position advanced by the DPS Staff Policy Panel that the Article 10 regulations do not allow for the process NTW proposes.<sup>101</sup> We also agree with the Policy Panel's position that compliance filings should be submitted for approval to the Siting Board only after a Certificate is issued and only after they are subjected to a thorough review process that allows for adequate notice to the parties and an opportunity to comment.

The Article 10 regulations, 16 NYCRR Part 1002, establish the procedures, requirements, and sequencing of compliance filings, including when they are filed, served, and

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<sup>100</sup> DPS Staff Brief on Exceptions, pp. 2-3.

<sup>101</sup> 16 NYCRR § 10002.3

subject to public comment.<sup>102</sup> Such filings are considered and approved only after the Siting Board issues a Certificate for a Project and the applicant has accepted it. The standard of review for approval is "whether the compliance filing reasonably assures compliance with the Certificate."<sup>103</sup>

Each Article 10 Certificate issued by the Siting Board has followed the procedures set forth in the compliance filing regulations.<sup>104</sup> NTW has not requested a formal waiver of these regulations pursuant to 16 NYCRR § 3.3(c) and (d). Despite NTW's assertion of urgency in building the Project, we see no basis in the record to disturb Article 10's regulatory requirements for the sequence and timing of compliance filings.

We find NTW's proposal to be inconsistent with the purpose of 16 NYCRR Part 1002, which is to assure compliance with the Certificate Conditions in the construction and operation of the Facility after adequate notice and opportunity to comment.<sup>105</sup> We approve DPS Staff's SEEP specifications (Hearing Exhibit 51, SPP-2) in addition to Attachment A -- Required Filings -- and we attach those to the Certificate Conditions here because we find that it sets forth the minimum requirements for compliance and other filings and because it

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<sup>102</sup> For example, the Siting Board often requires approval of a compliance filing as a condition precedent to construction. Construction is prohibited until the filing is approved. 16 NYCRR § 1002.2(b). Compliance filings are required to contain a description of and citation to the condition in the Certificate requiring the filing and demonstrate how compliance with the condition will be achieved, such as final maps, plans, diagrams, drawings, studies, reports, or other documents that show compliance. 16 NYCRR § 1002.3(a)-(c).

<sup>103</sup> 16 NYCRR § 1002.2(i).

<sup>104</sup> See Case 14-F-0490, Cassadaga Wind Energy; Case 16-F-0062, Eight Point Wind; Case 15-F-0122, Baron Winds LLC.

<sup>105</sup> 16 NYCRR § 1002.1.

will inform the Certificate Holder's submission of required filings.

We also modify Attachment A - "Required Filings," which was appended to the Recommended Decision by: (1) designating four filing packages as compliance filings rather than as information reports, including the Wells Package (No. 15), Clearing Package (No. 30), Construction Laydown Yard Package (No. 31), and POI Switchyard Package (No. 32); and (2) deleting the Shadows Package filing (No. 10) because it is more adequately addressed in Certificate Condition 57. We further determine that, prior to consideration by the Siting Board, all compliance filings required by the Certificate Conditions and Attachment A, must be in compliance with the SEEP specifications and the notice and other requirements of 16 NYCRR Part 1002.

Finally, to the extent that there is any inconsistency between the Certificate Conditions and Attachment A thereto, or with the SEEP specifications, the Certificate Conditions will control.

## 2. Certificate Conditions

The Examiners included in the Recommended Decision the Certificate Conditions to which some of the parties had agreed in the June 2019 Stipulation, as well as others. On their signatory pages to the Stipulation, DPS Staff expressly excluded certain Conditions that were contained in the Stipulation and

DEC Staff limited the Stipulation's reach.<sup>106</sup> In addition, DPS Staff did not agree to delete from the Certificate Conditions several substantive provisions that are noted in the Stipulation as "Intentionally Omitted."<sup>107</sup>

Having reviewed the record in its entirety, we have amended the Certificate Conditions attached to the Recommended Decision by adding certain Conditions we deem necessary for this Project, as further discussed below. These Conditions are consistent with our determination here as well as our prior decisions. We hereby adopt the Recommended Decision's Certificate Conditions, as amended here.

C. Beneficial Addition to Electric Generation Capacity - PSL § 168(3)(a)

For Project approval, we must find that NTW's Project will be a beneficial addition to the electric generation capacity of the State. To make such a determination, we look at whether the Facility is consistent with the State's energy policy and planning objectives, including the most recent State Energy Plan (SEP) issued in 2015. The Examiners noted that

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<sup>106</sup> As noted on the signature page to the June 2019 Stipulation, DPS Staff identified the specific Conditions to which it was agreeing, including Conditions 1-30, 34-35, 37, 40, 44, 46-51, 56, 58-59, 61-62, 67, 76-78, 81, 83, 85-118, 129-130. As noted in the Recommended Decision, DPS Staff did not agree to Conditions 42 (water supply protection), 45 (decommissioning and site restoration), 57 ("shadow flicker"), 60 (curtailment), 69 (noise compliance), 71 (noise monitoring), 72 (noise levels), 73 (noise complaint protocols), 74 (operational conditions log), 75 (construction noise compliance), and 84 (limits of disturbance, wetland boundaries, archeological sites, fencing and signage). DEC Staff limited its stipulated agreement to a particular bat species, as further discussed below.

<sup>107</sup> DPS Staff Initial Brief, pp. 10-11.

under the PSC's Clean Energy Standard,<sup>108</sup> New York has adopted a broad view of the benefits of renewable energy and carbon emissions reductions. The Examiners cited the 2015 New York SEP, finding that the State's policy is to encourage the development of renewable resources necessary to provide for resilient power, reduce fuel cost volatility, and lower greenhouse gas emissions. Based on the foregoing, the Examiners determined that the Project, as a commercial-scale wind farm, is consistent with the State's policy goals and therefore constituted a beneficial addition to the State's electric generating capacity.

No party took exception to the Examiners' findings as to the Project being a beneficial addition to the State's generating capacity. We agree with the Examiners' findings for the reasons stated in their Recommended Decision and find that the Project will provide a beneficial addition to New York's generating capacity under PSL § 168(3)(a).

D. Environmental Impacts - PSL §§ 168(2) & 168(3)(c) and (e)

Pursuant to PSL § 168(2), the Siting Board must make explicit findings regarding the probable environmental impacts from the construction and operation of a proposed facility, including impacts to (a) ecology, air, ground and surface water, wildlife, and habitat; (b) public health and safety; (c) cultural, historic, and recreational resources, including aesthetics and scenic values; and (d) transportation, communication, utilities and other infrastructure. Before an Article 10 Certificate may be issued, PSL § 168(3)(c) requires the Siting Board to determine that any adverse environmental

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<sup>108</sup> Case 15-E-0302, Implementation of a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard (issued August 1, 2016) (CES Order).

impacts resulting from the construction and operation of the facility will be minimized or avoided to the maximum extent practicable. PSL § 168(3)(e) requires the Siting Board to find that the facility is designed to operate in compliance with applicable State environmental, public health, and safety laws. In making its findings, the Siting Board may impose, and monitor compliance with, any terms and conditions it deems necessary.

The following sections summarize the probable environmental impacts associated with the proposed Facility, as identified by the Examiners. In addition, these sections include the Examiners' recommendations regarding the Siting Board's required findings, the objections, if any, to the Examiners' recommendations, and our findings and determinations with respect to the environmental impacts that have been identified.

1. Ecology

a. Invasive Species

Environmental Conservation Law (ECL) Article 9, Title 17, requires that projects subject to State review be examined for any risks posed to the State's environment by invasive species, and that wherever practical, invasive species be prohibited and actively eliminated at project sites regulated by the State.<sup>109</sup>

NTW's application contained field studies documenting the presence and extent of invasive species in the Project Area, and a proposed Invasive Species Control Plan (ISC Plan) detailing procedures for handling and preventing the spread of invasive species.<sup>110</sup> In post-hearing discussions, the parties resolved issues regarding the proposed ISC Plan, and agreed to

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<sup>109</sup> ECL §§ 9-1701, 9-1709(2)(b)(iv).

<sup>110</sup> Recommended Decision, p. 46.

several Certificate Conditions and additional filing requirements to implement the parties' agreement.<sup>111</sup>

Based on the ISC Plan, the Examiners recommended that the Siting Board determine that the impacts related to invasive species have been avoided or mitigated to the maximum extent practicable.<sup>112</sup> The Examiners also recommended that the Siting Board conclude that the Applicant, to the extent practicable, will prohibit and actively eliminate invasive species at the Facility, in compliance with State environmental law.<sup>113</sup> The Examiners recommended that the Board impose the agreed-upon Certificate Conditions related to invasive species consistent with the parties' June 2019 Stipulation and Attachment A, paragraphs 30-32.<sup>114</sup>

The parties did not take exception to this portion of the Recommended Decision. Accordingly, we adopt the recommendations of the Examiners.

b. Impacts to Forest Ecology

With respect to impacts to area ecology other than from invasive species, the Siting Board must determine that any adverse impacts to area ecology resulting from the construction and operation of the facility will be minimized or avoided to the maximum extent practicable. PSL § 168(3)(c). The Examiners noted that the Project area's ecology consists primarily of a mix of agricultural land uses and deciduous forests. Twenty-seven percent of the Project area is forested (4,903 acres).<sup>115</sup>

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<sup>111</sup> Recommended Decision, pp. 46-47.

<sup>112</sup> Recommended Decision, p. 47.

<sup>113</sup> Recommended Decision, p. 47.

<sup>114</sup> See Recommended Decision, Appendix A, Certificate Conditions 92, 102, 105, and 109; and Attachment A, Additional Filing Requirements, ¶¶ 30-32.

<sup>115</sup> Recommended Decision, p. 48.

Of that area, only nine acres of forest are expected to be permanently impacted.<sup>116</sup> Because the amount of habitat fragmentation is expected to be small and no landscape level changes in habitat are expected to occur, the Examiners concluded that impacts to forest ecology will be limited.<sup>117</sup>

The Examiners noted that the parties agreed upon Certificate Conditions that provide for "minimum necessary" tree and vegetation clearing, compliance with 6 NYCRR Part 192 (Forest Insect and Disease Control) and ECL § 9-1303, and other conditions to minimize impacts.<sup>118</sup> The Examiners recommended that the Siting Board determine that the Project's impacts to plant and forest ecology have been avoided or mitigated to the maximum extent practicable, and adopt Certificate Conditions 90-94.<sup>119</sup>

The parties did not take exception to this portion of the Recommended Decision. Accordingly, we adopt the recommendations of the Examiners.

c. Impacts to Agricultural Lands

Agricultural uses within the Project area include hay/pasture lands (35.2% of the Project area) and cultivated crops (26.5%).<sup>120</sup> Permanent impacts to agricultural lands include the permanent conversion of farmland to non-agricultural uses resulting from the construction of turbines, access roads, crane pads, laydown areas, POI switchyard, and overhead collection system components, poles, and transmission lines.<sup>121</sup>

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<sup>116</sup> Recommended Decision, p. 48.

<sup>117</sup> Recommended Decision, p. 48.

<sup>118</sup> Recommended Decision, p. 48.

<sup>119</sup> Recommended Decision, p. 49.

<sup>120</sup> Recommended Decision, pp. 44, 48.

<sup>121</sup> Recommended Decision, p. 49.



Citing the DAM Guidelines for Wind Power Projects, DAM's witnesses raised a variety of concerns regarding the location of transmission line pole structures and the POI switchyard, and the impacts to field crop land and prime tillable agricultural lands.<sup>122</sup> After the hearing, DAM and NTW agreed to Hearing Exhibit 83, which details pole placements satisfactory to DAM and relevant landowners.<sup>123</sup> The POI switchyard will remain in the location originally proposed by NTW, however, due to engineering constraints.<sup>124</sup>

The Examiners recommended that the Siting Board adopt the parties' agreed upon plan documented in Hearing Exhibit 83 as well as the proposed location of the POI substation as detailed in the Application.<sup>125</sup> Based upon the adoption of the relevant proposed Certificate Conditions, the Examiners recommended that the Siting Board conclude that impacts to agricultural lands have been avoided or minimized to the maximum extent practicable.<sup>126</sup>

The parties did not take exception to this portion of the Recommended Decision. Accordingly, we adopt the recommendations of the Examiners.

## 2. Air

ECL Article 19 and 6 NYCRR Part 200 et seq. establish the State's air pollution control program. This includes the recently enacted program targeting reductions in carbon dioxide emissions from new major electric generating facilities (ECL § 19-0312), and the State-issued, federally-approved air permit

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<sup>122</sup> Recommended Decision, pp. 49-51.

<sup>123</sup> Recommended Decision, p. 52.

<sup>124</sup> Recommended Decision, p. 52.

<sup>125</sup> Recommended Decision, p. 53.

<sup>126</sup> Recommended Decision, p. 53.

program under the federal Clean Air Act (CAA) (42 USC § 7401, et seq.).

The Examiners noted that during the operational phase of the Project, the turbines will generate electricity without combusting fuel.<sup>127</sup> Because the Project will not emit air pollutants, no Title V air permit, State air facility permit, or facility registration are required. Operational phase air impacts are expected to be small, consisting primarily of direct and indirect emissions resulting from the use of service vehicles during Project operation and maintenance.<sup>128</sup> Accordingly, the Examiners recommended that the Siting Board conclude that the operational phase of the Project will result in no significant adverse air emissions, that air emissions will be avoided or minimized to the maximum extent practicable during the operation of the Project, and that the Project will be operated in compliance with all applicable State air pollution control laws.<sup>129</sup>

With respect to the construction phase of the Project, NTW anticipates only temporary minor adverse impacts to air quality resulting from the operation of construction equipment and vehicles during construction, including fugitive dust from operations on unpaved roads and vehicle emissions.<sup>130</sup> NTW proposed several mitigation measures to reduce those impacts, including the deployment of dust abatement measures, and the use of modern emission reduction devices and fuels on construction equipment.<sup>131</sup>

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<sup>127</sup> Recommended Decision, pp. 54-55.

<sup>128</sup> Recommended Decision, p. 57.

<sup>129</sup> Recommended Decision, pp. 57-58.

<sup>130</sup> Recommended Decision, p. 55.

<sup>131</sup> Recommended Decision, pp. 55-56.

The Examiners noted that no parties disputed NTW's analysis of potential construction phase air emissions from the Project or the effectiveness of NTW's mitigation measures.<sup>132</sup> The Examiners recommended the adoption of Certificate Condition 79, with modifications proposed by the Examiners, including NTW's installation of air emissions controls noted above, as well as measures to minimize emissions from generators by directing contractors not to leave generators idling when electricity is not needed, by requiring diesel engines in trucks, equipment and machinery to be turned off when not in use, and by requiring that all required emission control systems be maintained on all transportation and construction machinery.<sup>133</sup> Based upon the record and Condition 79 as modified, the Examiners recommended that the Siting Board determine that the Project's impacts to air quality during the construction phase have been minimized or avoided to the maximum extent practicable.<sup>134</sup>

The parties did not take exception to this portion of the Recommended Decision. Accordingly, we adopt the recommendations of the Examiners.

3. Ground and Surface Water

a. Surface Water, Protected Streams, and Wetlands

The Examiners concluded that certain Project components would impact ground and surface waters.<sup>135</sup> The Project will entail clearing land; creating access roads (or improving existing farm roads where they are being used) for construction access and turbine installation; creating or

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<sup>132</sup> Recommended Decision, p. 56.

<sup>133</sup> Recommended Decision, pp. 56-57.

<sup>134</sup> Recommended Decision, p. 57.

<sup>135</sup> Recommended Decision, p. 58.

improving driveways for the access roads; excavating trenches for underground Electrical Collection System lines and the underground segment of the transmission line; horizontal directional drilling for installing underground lines under wetlands and streams; jack and bore operations for underground lines crossing State and county highways; excavations and concrete pours for turbine, collection substation and POI Switchyard foundations; delivery of heavy or oversized equipment, including turbine components and Collection Substation and POI switchyard components and construction cranes; turbine erection; and site restoration.<sup>136</sup> These Project components will impact water resources and it is undisputed that both Project construction and operation will impact State-protected wetlands, adjacent areas, and streams.<sup>137</sup>

DPS Staff Terrestrial Ecology and Wetlands Panel members Smith and Rosenthal reviewed and evaluated the application as to probable environmental impacts from construction and operation to terrestrial ecology, and provided proposals to avoid, minimize and mitigate those impacts.<sup>138</sup> The Panel provided recommendations to minimize the wetland impacts of the Project and those were the foundation of proposed Certificate Conditions 84, 89, 91, and 98-118, which the Parties agreed to in the June 2019 Stipulation.<sup>139</sup> DPS Staff also noted an issue with wetland impacts along the transmission line from the collection substation to the point of interconnect.<sup>140</sup> DPS Staff indicated it was satisfied that the remaining wetland issue could be

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<sup>136</sup> Recommended Decision, p. 58.

<sup>137</sup> Recommended Decision, p. 59.

<sup>138</sup> Recommended Decision, p. 59.

<sup>139</sup> Recommended Decision, pp. 59-60.

<sup>140</sup> Recommended Decision, p. 60.

resolved through Compliance Filings and that the Project with the proposed Certificate Conditions 84, 89, 91, and 98-118 would reasonably avoid or minimize impacts to wetlands and streams.<sup>141</sup> DPS Staff further recommended that, with the understanding that the Applicant would offset the unavoidable impacts by mitigation measures detailed in a final wetland mitigation plan to be filed as a Compliance Filing,<sup>142</sup> the Siting Board could determine that the Applicant has satisfied its burden pursuant to PSL § 168(2) with respect to wetlands and streams.<sup>143</sup>

With respect to the Project's compliance with State freshwater wetland protection laws, Christopher Balk, DEC Regional Habitat Manager in the Department's Region 6 office, reviewed the parts of the Application related to State-regulated wetlands to evaluate whether the Project complies with and is consistent with 6 NYCRR Part 663.<sup>144</sup> After review of the updated Project layout and supporting documents, DEC Staff determined the Project would impact 12.17 acres of wetlands (9.09 acres will be temporary, and 3.08 acres will be permanent) and 0.31 acres of adjacent area.<sup>145</sup> NTW disagreed with the calculations and contended that the calculations are based on the Project's initial layout and, under the revised layout, there would be forested wetland conversion of 1.875 acres and 0.499 acres of permanent wetland occupation, of which 0.0366 acres constitute DEC jurisdictional wetlands.<sup>146</sup>

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<sup>141</sup> Recommended Decision, p. 60.

<sup>142</sup> June 2019 Stipulation, Attachment A - Additional Required Filings, 12. Wetland and Stream Package.

<sup>143</sup> Recommended Decision, p. 60.

<sup>144</sup> Recommended Decision, p. 61.

<sup>145</sup> Recommended Decision, p. 61.

<sup>146</sup> Recommended Decision, p. 61.

DEC Witness Balk also reviewed the Application and proposed Certificate Conditions with respect to impacts to State protected streams.<sup>147</sup> Witness Balk detailed in his testimony the additional requirements that need to be met and the additional detailed stream and wetland crossing plans that need to be developed for the Siting Board to find that impacts to surface waters have been avoided or mitigated to the maximum extent practicable, and that the Project would be constructed and operated in compliance with State law and regulations governing protected freshwater wetlands and streams.<sup>148</sup> NTW objected to the proposed additional requirements related to stream and wetland crossings, arguing that those Conditions are overly restrictive and will add unnecessary costs and delays.<sup>149</sup>

The Examiners deferred to DEC and DPS Staffs' position that the agreed upon Certificate Conditions 84, 89, 91, and 98-121, the DEC proposed Certificate Condition 115(a), and the requirements for stream and wetlands crossings plans and filings detailed by Witness Balk in his testimony, would ensure NTW's compliance with ECL Articles 15 and 24. Accordingly, the Examiners recommended that the Siting Board adopt proposed Certificate Conditions 84, 89, 91, and 98-121 based upon the parties' June Stipulation, DEC Staff's Initial Brief, and Witness Balk's testimony. The Examiners further recommended that based upon those Conditions and the hearing record, the Siting Board could find that impacts to ground and surface waters have been avoided or mitigated to the maximum extent practicable, and that

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<sup>147</sup> Recommended Decision, pp. 62-63.

<sup>148</sup> Recommended Decision, pp. 63-64.

<sup>149</sup> Recommended Decision, pp. 64-65.

the Project will be constructed and operated in compliance with ECL Articles 15 and 24.<sup>150</sup>

The parties did not take exception to this portion of the Recommended Decision. With the exception of our revision to the timing in Certificate Condition 84 and the addition of the requirement that NTW submit a Wetland Mitigation Remedial Plan if standards of performance are not met (Certificate Condition 122),<sup>151</sup> we adopt the recommendations of the Examiners.

b. Water Quality Certification

The Project will require a Section 401 Water Quality Certification (WQC) (see 6 NYCRR § 608.9[a]). For Article 10 projects, WQCs are issued by the Siting Board (see 16 NYCRR § 1000.8). To obtain a WQC, an applicant must demonstrate compliance with New York State effluent limitations and standards, New York State water quality standards and thermal discharge criteria, New York State new source standards, New York State prohibited discharges, and New York State regulations and criteria that are otherwise applicable.<sup>152</sup> The governing State standards are set forth in 6 NYCRR Parts 701, 702, 703, 704, and applicable provisions of Part 750. NTW applied for a WQC but withdrew the request by letter to the

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<sup>150</sup> Recommended Decision, p. 66.

<sup>151</sup> In the June 2019 Stipulation, the parties agreed to provide 48-hours' notice prior to construction commencing for the notice required in Certificate Condition 84. We find this time-frame too short to provide adequate notice to DPS Staff, DEC Staff, and the other parties. Consequently, we revise this time-frame in Certificate Condition 84 to require two weeks' notice before construction commences. In Certificate Condition 122, we assure that standards of performance for wetlands mitigation are met following five-years of Facility operations.

<sup>152</sup> 6 NYCRR § 608.9(a).

Chair dated March 14, 2018.<sup>153</sup> Accordingly, as noted by the Examiners, the WQC is before the Siting Board pursuant to 16 NYCRR § 1000.8.<sup>154</sup>

c. Groundwater and Wells

Most farms and residences in the Project area depend on groundwater wells for their water supply and residents report the wells range from approximately 25 to 300 feet deep or more.<sup>155</sup> No primary aquifer is located in the Project area.<sup>156</sup> The Town of Lowville has a water storage tank located approximately 700 feet inside the Project area boundary and is the only municipal water supply in the Project area.<sup>157</sup> NTW stated the Project will not impact groundwater supplies for residences and farms or public drinking water sources.<sup>158</sup> No party disputed this.

Impacts from cables and other Facility components installed through hydraulic directional drilling (HDD) could affect drinking water wells if they are installed close to a well. NTW, relying on a wellhead protection study conducted in Western New York, has agreed to provide for a 500-foot radius wellhead protection area to minimize any impacts.<sup>159</sup> In its Application, NTW provided a map showing a 500-foot radius buffer around all year-round residences and commercial uses near planned HDD installations.<sup>160</sup>

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<sup>153</sup> Recommended Decision, p. 67.

<sup>154</sup> Recommended Decision, p. 67.

<sup>155</sup> Recommended Decision, p. 67.

<sup>156</sup> Recommended Decision, p. 67.

<sup>157</sup> Recommended Decision, pp. 67-68.

<sup>158</sup> Recommended Decision, p. 68.

<sup>159</sup> Recommended Decision, p. 68.

<sup>160</sup> Recommended Decision, p. 68; Hearing Exh. 1, App. Exh. 23, Appendix 23.a-3.



DPS Staff indicated that a 500-foot setback from wells for blasting activities during construction was preferred to avoid all possible temporary impacts on nearby wells and water quality during blasting activity. NTW agreed to this setback as detailed in Certificate Condition 42(c).<sup>161</sup> NTW also agreed to avoid siting any collection lines or access roads within 100 feet of existing active water supply wells, or any turbines within 1,000 feet of existing active water supply wells on a non-participating parcel.<sup>162</sup> DPS Staff requested pre- and post-construction testing, which the Applicant agreed to in proposed Certificate Condition 42, in the event that environmental or engineering constraints require the siting of collection lines, access roads, or turbines within the above setbacks. Certificate Condition 42 requires that in the event impacts are found, the Applicant is required to construct a new well more than 100 feet from any collection line or access road, or more than 1,000 feet from any turbine.<sup>163</sup>

Finally, DPS Staff asked that during the final design phase of the Project, the Certificate Holder contact all well owners or operators within the Project area in order to survey the exact locations of the wells. The actual locations of water supply wells should be shown on maps included in the SEEP or equivalent document. NTW agreed to the conditions in Condition 42 with the exception of the water well survey.<sup>164</sup> NTW argued that requiring mapping in such a large Project area when only a small portion of the area will be impacted is unnecessary.<sup>165</sup>

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<sup>161</sup> Recommended Decision, p. 69.

<sup>162</sup> Recommended Decision, p. 69.

<sup>163</sup> Recommendation Decision, p. 69.

<sup>164</sup> Recommended Decision, p. 69.

<sup>165</sup> Recommended Decision, p. 69.

Impacts to ground water or drinking water are not anticipated during the operational phase of the Project.<sup>166</sup>

The Examiners recommended that the Siting Board adopt Certificate Condition 42 as proposed by DPS Staff, and concluded that with the adoption of Condition 42, impacts to groundwater and wells will be avoided and mitigated to the maximum extent practicable.<sup>167</sup> The Examiners also recommended that DPS Staff, DEC Staff, and NTW work together to determine the exact language for the well mapping requirement that balances the need for sufficient protection of drinking water supplies and the projected cost for well mapping.<sup>168</sup>

DPS Staff, in its Brief on Exceptions, continues to argue for well mapping by stating that the Applicant has agreed to adhere to the setbacks and water quality testing provisions of Condition 42 and, without mapping the "well locations that may be potentially impacted," there is no means to verify that the setback requirements have been met.<sup>169</sup> DPS Staff notes that the information that would be contained in the well location maps "would provide critical resource information during construction and allow field compliance personnel to ensure that the Certificate Holder is adhering to the required setbacks and well testing protocols."<sup>170</sup> DPS Staff notes that "[t]he mapping would also facilitate complaint resolution for nearby well owners that may report impacts to well performance during construction."<sup>171</sup>

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<sup>166</sup> Recommended Decision, p. 70.

<sup>167</sup> Recommended Decision, p. 70.

<sup>168</sup> Recommended Decision, p. 70.

<sup>169</sup> DPS Staff Brief on Exceptions, p. 4.

<sup>170</sup> DPS Staff Brief on Exceptions, p. 4.

<sup>171</sup> DPS Staff Brief on Exceptions, p. 4.

Neither NTW nor THARP addressed the issue in their Briefs on Exceptions, and DEC Staff did not submit a Brief on Exceptions.

In its Brief Opposing Exceptions, NTW disputes that it has refused to map wells.<sup>172</sup> NTW references the requirements for the Water Wells Package to be submitted as a Compliance Filing, which requires NTW, among other things, to map the location of all existing and active drinking water wells within 100 feet of collections lines, transmission lines, and access roads, and all existing and active drinking water wells on non-participating parcels within 1,000 feet of turbine locations.<sup>173</sup> NTW notes that the Water Wells Package requirements directly resulted from consultations with DPS Staff and refutes the claim that NTW has refused or resisted mapping wells.

While we agree that NTW should identify well locations that may be potentially impacted by Project construction, we do not agree that every well in the entire Project area needs to be identified and mapped. Wells that potentially may be impacted by Project construction, and for which NTW is required to apply the well testing protocol, are those wells located within the agreed-upon setbacks in the June 2019 Stipulation. In addition, wells located within 500 feet of HDD operations or within 500 feet of blasting also may be potentially impacted.<sup>174</sup> Wells outside of these setbacks are not likely to be impacted by Project construction and, therefore, mapping those wells is not necessary.

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<sup>172</sup> NTW Brief Opposing Exceptions, pp. 5-6.

<sup>173</sup> Recommended Decision, Appendix A, Attachment A - Additional Required Filings, Water Wells Package, No. 15, p. 8.

<sup>174</sup> As we noted above, blasting is not authorized within 500 feet of wells, see Certificate Condition 42(b).

Accordingly, Certificate Condition 42(a) is modified to require mapping of all wells within the agreed-upon setbacks. In addition, Condition 42(c) is modified to require application of the well testing protocol to wells located within 500 feet of HDD installations. Condition 42 is further modified to require NTW to consult with DOH as well as DEC and DPS Staffs to develop the water supply well survey. Based upon the foregoing, we conclude that impacts to groundwater and wells will be avoided or minimized to the maximum extent practicable, and that all State water quality standards for groundwater will be met.

4. Wildlife and Habitat

a. Grassland Birds

DEC Grassland Panel members Denoncour and Mazzocchi concluded that occupied habitat for both the Upland Sandpiper (*Circus hudsonius*) (UPSA) and Northern Harrier (*Bartramia longicauda*) (NOHA) are located within the Project area.<sup>175</sup> They based their testimony on information supplied in the Application, and further developed during the application process, including application updates filed from May 2018 through March 2019, and Hearing Exhibits 159 and 160, and their years of experience and education. The Applicant agreed with DEC Staff's testimony in this respect.<sup>176</sup>

Upland Sandpipers and Northern Harriers are listed as threatened species pursuant to the State Endangered Species Act (ECL § 11-0535) and 6 NYCRR § 182.5(b)(6)(iv) and (vi). DEC Staff asserted that nine turbines are sited on parcels identified as occupied habitat for UPSA and NOHA located in the southeast portion of the Project area.<sup>177</sup> Occupied habitat is

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<sup>175</sup> Recommended Decision, p. 70.

<sup>176</sup> Recommended Decision, p. 71.

<sup>177</sup> Recommended Decision, p. 72.

defined as a geographic area in New York within which a species listed as endangered or threatened has been determined by DEC to exhibit one or more essential behaviors. Once identified as occupied habitat, DEC will continue to consider that area as occupied habitat until the area is no longer suitable habitat for that species or monitoring has indicated that reoccupation by that species is unlikely. 6 NYCRR § 182.2(o).

DEC Staff provided evidence that grassland birds, such as the UPSA and NOHA, rely on habitat with specific characteristics to perform essential life functions and behaviors, including feeding, nesting, roosting, and breeding.<sup>178</sup> Those characteristics include large, open, unfragmented grassland fields that do not contain tall structures or human disturbances.<sup>179</sup> UPSA and NOHA breed within large grassland fields spread across the State. Grassland birds have been declining faster than any other habitat-species suite in the northeastern United States primarily due to abandonment of agricultural lands, causing habitat loss, or due to sprawl development.<sup>180</sup> Other threats to grassland bird species include habitat fragmentation, mortality incurred during summer agricultural activities, predation by wild and domestic animals, parasitism by brown-headed cowbirds, and human disturbance.<sup>181</sup>

DEC Staff cited studies that detailed the needs of the UPSA and NOHA to allow grassland birds to continue to breed in the State. Successful breeding requires large areas of quality open habitat. DEC Grassland Panel members testified that vegetation, including grasses and sedges, as well as

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<sup>178</sup> Recommended Decision, p. 72.

<sup>179</sup> Recommended Decision, p. 72.

<sup>180</sup> Recommended Decision, pp. 72-73.

<sup>181</sup> Recommended Decision, p. 73.

agricultural crops such as hay and alfalfa, provide cover for nesting, foraging, and roosting.<sup>182</sup>

Based upon testimony regarding the modification or disturbance of the occupied habitat of UPSA and NOHA as a result of Project construction or the permanent placement of Project components, DEC Staff urged the Siting Board to find that a take of the threatened UPSA and NOHA is likely (see 6 NYCRR § 182.2[1], [x]).<sup>183</sup> DEC Staff also recommended the full avoidance of impacts to the threatened species, including no construction of the nine turbines and related infrastructure on occupied habitat, a prohibition on construction activity in occupied habitat during breeding season (April 23-August 15), and imposition of a 250-meter buffer area around the occupied habitat.<sup>184</sup> DEC Staff argued that the Applicant did not demonstrate that full avoidance is impractical.<sup>185</sup>

NTW argued that: (1) the grassland bird habitat will not be adversely impacted by the Project components being located in the occupied habitat; (2) a take will not occur; and (3) mitigation thus is not required.<sup>186</sup> NTW contended that, rather than posing a threat to the UPSA and NOHA, the Project will promote their protection in both the near-term and the long-term by preserving farmland and associated habitat. NTW also asserted that the Project would benefit UPSA and NOHA by lessening the effects of climate change, resulting in reductions of carbon dioxide (CO<sub>2</sub>), nitrogen oxide (NO<sub>x</sub>), and sulfur

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<sup>182</sup> Recommended Decision, p. 73.

<sup>183</sup> Recommended Decision, pp. 73-74.

<sup>184</sup> Recommended Decision, p. 75.

<sup>185</sup> Recommended Decision, p. 75.

<sup>186</sup> Recommended Decision, p. 75.

dioxide (SO<sub>2</sub>) and their associated impacts to bird health and habitat.<sup>187</sup>

DEC Staff offered an alternate plan in the event that the Siting Board does not direct full avoidance of all impacts. DEC Staff recommended that, to minimize impacts to the threatened species to the maximum extent practicable, the Applicant must provide appropriate and effective mitigation, resulting in a net conservation benefit to the impacted UPSA and NOHA, as required under 6 NYCRR Part 182.<sup>188</sup> DEC Staff offered to work with NTW on minimizing direct impacts to the maximum extent practicable before mitigation is adopted.<sup>189</sup> For its part, NTW proposed various minimization efforts, including deterring use of otherwise suitable fields by breeding birds by commencing construction activities in the fall of 2019 (outside breeding season).<sup>190</sup>

The Examiners concluded that a taking is likely to occur to UPSA and NOHA as a result of the adverse modification and disturbance of the occupied UPSA and NOHA habitat of those species during the construction and operation of the Project. The Examiners concluded that the Applicant must fully avoid impacts to the occupied habitat or make a demonstration to the satisfaction of DEC Staff and DPS Staff that full avoidance is impracticable.<sup>191</sup> The Examiners further concluded that, if impacts cannot be fully avoided during construction or operation, NTW must work with DEC Staff to take every step practical to minimize those impacts through mitigation that will

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<sup>187</sup> Recommended Decision, pp. 75-76.

<sup>188</sup> Recommended Decision, p. 76.

<sup>189</sup> Recommended Decision, p. 76.

<sup>190</sup> Recommended Decision, p. 76.

<sup>191</sup> Recommended Decision, p. 78.

result in a net conservation benefit to impacted threatened species pursuant to 6 NYCRR Part 182.<sup>192</sup>

The Examiners recommended NTW, in consultation with DEC Staff, be required to develop and file as a Compliance Filing an Endangered or Threatened Species Mitigation Plan (ETSMP) demonstrating either full avoidance or minimization of impacts to occupied habitat or impacts to UPSA and NOHA, and include information on impacts to the Project construction that would result from avoiding all construction activity in occupied habitats during breeding season, April 23 to August 15.<sup>193</sup>

In the event the Applicant makes a demonstration that full avoidance is impracticable, the Examiners recommended that Certificate Conditions require DEC Staff's preferred mitigation, which is the conservation or creation of quality grassland habitat under the following conditions: (1) usage of best management practices for grassland birds; (2) greater than 250 meters from the nearest existing or proposed turbine; and (3) minimum of one contiguous area of at least 100 acres in size.<sup>194</sup> The Examiners recommended that the issue of grassland birds be addressed in Certificate Conditions 63, 64, 95, 96 and 97, as modified in Appendix A to the Recommended Decision. The Examiners concluded that these Conditions will provide for avoidance and mitigation of the impacts to grassland birds and their habitat to the maximum extent practicable, and that the Project will comply with the State Endangered Species Act and regulations with respect to the State-listed grassland birds.

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<sup>192</sup> Recommended Decision, p. 78.

<sup>193</sup> Recommended Decision, p. 79.

<sup>194</sup> Recommended Decision, p. 79.



NTW objects to the Examiners' recommendations regarding impacts to grassland birds<sup>195</sup> based on the same arguments it made during the evidentiary hearing. NTW takes the position that, while there is a lack of information and studies available to gauge impacts from wind facilities, it is undisputed that a reduction in farmland does negatively impact grassland birds.<sup>196</sup> NTW argues on exception that the Siting Board need not defer to DEC Staff's views regarding the interpretation and implementation of the Endangered Species Act, and that DEC Staff's proposals raise the need for the Siting Board to reconcile conflicting State policies.<sup>197</sup> NTW requests that the Siting Board reject the Examiners conclusions for the following reasons:

- (i) the recommendation to declare proposed turbine locations to be "occupied habitat" is not supported by science;
- (ii) DEC Staff failed to present convincing justification for its conclusion that any habitat, let alone 570.4 acres, will be impacted;
- (iii) the recommendations ignore the State's interest in stemming climate change -- a major threat to grassland bird habitat;
- (iv) the impact on the State's renewable energy policy is potentially devastating; and
- (v) the application of Part 182 to NTW conflicts with other State policies and is untested as applied to renewable facilities.<sup>198</sup>

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<sup>195</sup> NTW expressly does not take exception to proposed Conditions 64, 96, or 97. NTW Brief on Exceptions, p. 23.

<sup>196</sup> NTW Brief on Exceptions, pp. 22-23.

<sup>197</sup> NTW Brief on Exceptions, pp. 23-24, 32-33.

<sup>198</sup> NTW Brief on Exceptions, pp. 25-32.

With respect to impacts to the State's renewable energy program, NTW argues that DEC Staff's requirement that renewal energy developers acquire and maintain conservation easements of otherwise suitable agricultural land at a three-to-one ratio as mitigation for the take of occupied habitat "will impose new and unexpected hurdles and costs for developing renewable energy facilities," particularly if such a requirement becomes precedent applicable to solar projects.<sup>199</sup>

NTW urges that, in lieu of requiring Certificate conditions consistent with a take permit and a mitigation plan pursuant to 6 NYCRR § 182.12, the Siting Board should adopt NTW's plan to: "(i) commence and sequence construction activities so as to deter the two bird species from temporarily occupying the areas in which construction will occur during the breeding season; (ii) restore those areas to a condition suitable for habitat, and (iii) conduct a three-year post-restoration study on the re-habitation of those two species to areas then occupied by turbines."<sup>200</sup> NTW argues that its proposal will avoid conflicts with breeding grassland birds.<sup>201</sup>

In its Brief Opposing Exceptions, DEC Staff refutes each of the points raised by NTW. DEC Staff notes that DEC has original jurisdiction over the Endangered Species Act and its implementing regulations. Accordingly, DEC is responsible for advising the Siting Board regarding compliance with the State law and regulations, and for offering its expert opinion based on the best available scientific data. In response to NTW's charge that DEC Staff's opinion is inaccurate, unsubstantiated, and conflicts with other State policies, DEC Staff notes that

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<sup>199</sup> NTW Brief on Exceptions, p. 32.

<sup>200</sup> NTW Brief on Exceptions, pp. 24-25.

<sup>201</sup> NTW Brief on Exceptions, pp. 33-34.

NTW offered no factual testimony or evidence in support of its arguments.<sup>202</sup>

With respect to NTW's position in items (i) and (ii) DEC Staff argues that it cited numerous studies evidencing the impact of wind turbines on UPSA and NOHA or related species and, in any event, a conservative approach to protect the species is warranted. As to the amount of land that DEC Staff asserts is required to mitigate for the loss of 570.4 acres of occupied habitat, DEC Staff notes that the 3:1 mitigation ratio it seeks to have applied only begins the analysis. DEC Staff's full analysis takes into account the natural succession of grassland habitat when calculating the land needed for mitigation. Applying that analysis, the actual amount of land that would need to be managed for a 30-year life of Project would be approximately 342.2 acres, not the full 1,711.2 acres (three times the estimated 570.4 acres taken).<sup>203</sup>

With respect to NTW's positions in items (iii)-(v), DEC Staff notes that NTW offered no testimony or other evidence regarding these items, and the record does not otherwise contain evidence supporting NTW's assertions. DEC Staff noted in its Reply Brief that NTW did not even raise climate change as a specific issue for adjudication. DEC Staff also notes that, while DEC acknowledged that climate change potentially poses an existential threat to threatened and endangered species in general, that point does not obviate Article 10's requirement that a project comply with all State environmental laws, and mitigate environmental impacts, including those to endangered and threatened species.<sup>204</sup> Similarly, with respect to item (v)

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<sup>202</sup> DEC Staff Brief Opposing Exceptions, p. 4.

<sup>203</sup> DEC Staff Brief Opposing Exceptions, pp. 4-5.

<sup>204</sup> DEC Staff Brief Opposing Exceptions, p. 5, citing DEC Staff Reply Brief, pp. 10-13.

above, DEC Staff references the direct testimony of its expert witnesses and its arguments in briefing.<sup>205</sup> In that testimony and briefing, DEC Staff asserted that mitigation for grassland birds is not mutually exclusive with protection of agricultural land and, therefore, DEC and DAM do not have conflicting policies or positions on the issue.<sup>206</sup> DEC Staff concluded that addressing climate change and ensuring compliance with State law are not mutually exclusive -- both can and should be done.<sup>207</sup>

NTW's exceptions are unpersuasive. As an initial matter, while Article 10 directs the Siting Board to consider the consistency of a project with the State's energy policies and long-range energy planning objectives and strategies,<sup>208</sup> the Board is also directed to consider a range of additional factors, including whether the Project will comply with all applicable State environmental laws.<sup>209</sup> While climate change is a critical issue that the State is addressing, in part, through renewables mandates, we agree with DEC Staff that the importance of such issues does not trump the need to protect the State's endangered and threatened species.

Contrary to NTW's assertions, the Examiners' conclusion that Project construction and operation will likely result in the take of listed grassland birds is supported by record evidence. Under the regulations, a "take" of listed species includes "any adverse modification of habitat" of any

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<sup>205</sup> DEC Staff Brief Opposing Exceptions, p. 6, citing Tr. 739, DEC Staff Initial Brief, p. 27, and DEC Staff Reply Brief, p. 10-13.

<sup>206</sup> Tr. 739; DEC Staff Initial Brief, p. 27; DEC Staff Reply Brief, p. 10-13.

<sup>207</sup> DEC Staff Reply Brief, p. 12-13.

<sup>208</sup> PSL § 168(3)(a), (4)(e).

<sup>209</sup> PSL § 168(3)(e).

listed species, or "any interference with or impairment of an essential behavior" of those species.<sup>210</sup> Adverse modification of habitat means "any alteration of the occupied habitat" of a listed species that "is likely to negatively affect one or more essential behaviors" of the species.<sup>211</sup> Occupied habitat is defined as a geographic area in New York within which a listed species has been determined "to exhibit one or more essential behaviors."<sup>212</sup> Essential behaviors means any of the behaviors exhibited by a listed species "that are part of its normal or traditional life cycle and that are essential to its survival and perpetuation. Essential behavior includes behaviors associated with breeding, hibernation, reproduction, feeding, sheltering, migration and overwintering."<sup>213</sup>

Here, the parties agreed that the Project area contains habitat of both the listed UPSA and NOHA. We find unpersuasive NTW's arguments challenging DEC Staff testimony regarding the specific location and extent of occupied habitat, and the nature and scope of impacts to that habitat from Project construction and operation. While we agree that more studies need to be performed in this subject area, we find that the studies cited by DEC Staff provide sufficient record evidence to support its conclusions. For example, DEC Staff cited to studies showing impacts of wind turbines on either UPSA and NOHA

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<sup>210</sup> 6 NYCRR § 182.2(1), (x); see also State of New York v Sour Mtn. Realty, Inc., 276 A.D.2d 8, 13-15 (2d Dept. 2000).

<sup>211</sup> 6 NYCRR § 182.2(b).

<sup>212</sup> 6 NYCRR § 182.2(o). To account for the large home range of UPSA and NOHA and to be consistent with the screening criteria applied by the New York Natural Heritage Program, DEC Staff further limits the definition of occupied habitat of those species as all grasslands greater than 25 acres that occur within each core occupied habitat, and within 0.5 mile around each core occupied habitat. Tr. 765.

<sup>213</sup> 6 NYCRR § 182.2(f).

or closely-related relatives. The same studies support DEC's approximation of the amount of occupied habitat impacted by the Project, which studies examined the distance from turbines that grassland bird species would impose on themselves when flying near wind turbines.

By contrast, the evidence presented by NTW is insufficient to carry its burden of proving by a preponderance of the evidence that the Project will not result in the taking of occupied habitat. To the contrary, NTW offered evidence of impacts to grassland species that had no relationship to the species at issue in this case. For this and other reasons noted herein, we conclude that the weight of record evidence supports a finding that Project construction and operation will likely result in a taking of listed species.

As previously noted, NTW's options are thus to first fully avoid all impacts to the listed species or, if it makes a showing that full avoidance is impracticable, prepare a plan with minimization and mitigation measures that would result in a net conservation benefit (NCB) to the species. Accordingly, we adopt the Examiners' recommendation that NTW, in consultation with DEC and DPS Staffs, develop an Endangered or Threatened Species Mitigation Plan (ETSMP) through the Compliance Filing process to allow NTW to make the required demonstration of avoidance or minimization and mitigation measures.

As to NTW's objections regarding DEC Staff's preferred mitigation measures, we agree with DEC Staff that NTW failed to make an adequate showing that the 3:1 ratio should be reduced to account for climate change. We base our finding on NTW's failure to introduce any evidence showing that climate change is impacting the grassland bird species at issue. Accordingly, based on the record here, we find DEC's proposed mitigation

measures to be reasonable, although with some minor clarification discussed below.

First, DEC's 3:1 ratio to calculate the acreage of land subject to an NCB is based on a long-standing policy that it applies with respect to all species of concern. Second, although DEC Staff calculated that 570.4 acres of land are subject to the take at issue, it also provided testimony explaining that it would account for the fact that farmland would naturally begin the reforestation process to the point of losing its attraction as habitat to UPSA and NOHA if not maintained for five years. Accordingly, DEC Staff would allow the 1,711 acres at issue to be protected in five-year increments (minus one five-year increment to account for no net conservation benefit during the first 5-year cycle), meaning that NTW has the option of entering into conservation easements or land management contracts for 342 acres ( $1,711 \text{ acres} \div 5$ ) for 30 years, or something equivalent.<sup>214</sup>

Accordingly, if NTW makes a demonstration in the proposed ETSMP that full avoidance is impracticable, the ETSMP should include, among other measures, provisions implementing DEC Staff's preferred mitigation. We note that DEC Staff's 3:1 mitigation is premised, in part, on the uncertainty inherent in creating new breeding habitat. NTW is encouraged to propose mitigation measures that have a greater likelihood of success -- such as conserving habitat known to be occupied by the listed species -- to reduce the amount of habitat required to mitigate for the habitat taken by the Project.

In addition, consideration should also be given to the avoidance, minimization, and mitigation measures proposed by NTW specifically related to the commencement and sequencing of

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<sup>214</sup> Tr. 768-769.

construction activities so as to deter occupation of construction areas during the breeding season, the restoration of those areas to a condition suitable for habitat, and the proposed post-restoration study. Construction during the breeding season constitutes a take of protected species as a result of the disturbance of occupied habitat that requires the set aside of land as described above. Nevertheless, DEC Staff must give consideration to NTW's suggestion that commencing construction before and continuing construction into the breeding season avoids the need to further mitigate for the take of listed species as a result of those activities (see Certificate Condition 95[b]).

Finally, a plan to revisit and potentially modify mitigation measures -- similar to the plan to revisit the bat curtailment regime provided for in Condition 61 -- should also be considered for the grassland bird mitigation program in the event that post-construction monitoring reveals that impacts to occupied habitat are either greater or lesser than currently estimated.

Based on the foregoing, we adopt the Examiners' recommendations. Based upon the relevant Certificate Conditions, including Condition 63, we conclude that impacts to grassland birds and their habitat will be avoided or minimized to the maximum extent practicable, and that the Project will comply with the State Endangered Species Act and regulations with respect to State-listed grassland birds. We wish to end this discussion by pointing out that the Siting Board is certainly authorized under Article 10 to consider the positive impacts associated with renewable energy facilities in these cases, including the reduction in carbon emissions that would result from siting such facilities. We thus leave open to future cases the introduction of evidence establishing a



connection between a project's reduction in carbon emissions and a benefit to a listed species or its habitat. Among other things, such evidence would be considered as part of a net conservation benefit plan for that species.

b. Bats

DEC Staff testified that all bat species resident in New York, except the big brown bat, have been designated species of conservation concern and are considered Species of Greatest Conservation Need.<sup>215</sup> In addition, the tri-colored and little brown bats are currently under review by federal and State authorities to determine whether they should be given endangered species protection.<sup>216</sup>

Under both federal and State law, the Indiana bat is listed as an endangered species and the Northern Long Eared Bat (NLEB) is listed as a threatened species.<sup>217</sup> The Applicant conducted bat mist-netting in the Project area. The Applicant found no federally or State-listed threatened or endangered bat species, but noted that the Project area contains suitable forested habitat for Indiana bats and NLEBs.<sup>218</sup> Based on the widespread nature and distribution of the NLEB in the State during winter and summer and its high mortality rate at wind turbine facilities, DEC Staff determined that all on-shore wind turbine facilities in New York pose a threat to NLEBs and, thus, Part 182 applies to the Project for NLEB as well.<sup>219</sup>

It was undisputed that without protective measures, the Project could jeopardize tree roosts used by certain bat

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<sup>215</sup> Recommended Decision, p. 81.

<sup>216</sup> Recommended Decision, p. 81.

<sup>217</sup> Recommended Decision, p. 81.

<sup>218</sup> Recommended Decision, pp. 81-82.

<sup>219</sup> Recommended Decision, pp. 81-82.

species if any roosts are near Project construction, and Project operation could result in bat fatalities.<sup>220</sup> DEC Staff testified that without immediate action to reduce bat fatalities by wind turbine, other bat species in addition to the NLEB are likely to experience populations declines resulting in the need to protect those species under the Endangered Species Act.<sup>221</sup> DEC Staff further testified that most turbine-caused fatalities are to migratory tree bats.<sup>222</sup>

In the June 2019 Stipulation, DEC and DPS Staffs and the Applicant agreed to several Certificate Conditions related to avoidance, minimization, and mitigation of impacts to NLEBs.<sup>223</sup> The proposed Conditions include a requirement that the Applicant submit a Net Conservation Benefit Plan (NCBP) for NLEB and implement a curtailment regime during the period from July 1 through October 1 when wind speeds are equal to or less than 5.5 m/s, beginning at astronomical dusk and ending at astronomical dawn, when temperatures are greater than 50 degrees Fahrenheit.<sup>224</sup> The parties agreed that the 5.5 m/s curtailment regime will result in the take of 12.9 NLEBs over the 30-year life of the Project (see June 2019 Stipulation, Certificate Condition 62).<sup>225</sup> DEC Staff also noted that the 5.5 m/s curtailment regime will also reduce impacts to migratory tree bat species by curtailing wind turbines from operating at night when the greatest number of fatalities have been documented.<sup>226</sup>

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<sup>220</sup> Recommended Decision, p. 86.

<sup>221</sup> Recommended Decision, p. 82-83.

<sup>222</sup> Recommended Decision, p. 83.

<sup>223</sup> Recommended Decision, p. 87.

<sup>224</sup> Recommended Decision, p. 87. As discussed further below, DPS Staff did not accept this Condition in whole or in part.

<sup>225</sup> Recommended Decision, p. 87.

<sup>226</sup> Recommended Decision, p. 87.

Measures to be included in the NCBP for NLEB include mist-netting and radio-telemetry tracking operations to identify previously unknown maternity roost trees or hibernacula.<sup>227</sup> In addition, the Applicant agreed to review curtailment operations every five years, and to test bat deterrent options at the Orangeville Wind Farm in Orangeville, New York.<sup>228</sup> The review will assess changes in technology or knowledge of impacts to bats to determine whether changes to the curtailment regime are appropriate.<sup>229</sup>

The agreements between the parties with respect to the NLEB were included in the Proposed Certificate Conditions as Conditions 60-62. The Examiners concluded that the June 2019 Stipulation should be accepted by the Siting Board as to bats and the associated Certificate Conditions 60-62, with one modification -- that the curtailment period should begin at one half hour before sunset July 1-October 1 every year, rather than beginning curtailment at "astronomical dusk," and end at one half hour after sunrise, not at "astronomical dawn."<sup>230</sup>

The issue of the time of day to begin and end curtailment arose after the parties negotiated the terms of the June 2019 Stipulation. The original language of Condition 60 proposed by NTW included the curtailment regime beginning at astronomical dusk and ending at astronomical dawn, among other conditions. On its June 4, 2019 signature page to the Stipulation, however, DPS Staff indicated that it did not accept Condition 60 in whole or in part.<sup>231</sup> DPS Staff explained in its

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<sup>227</sup> Recommended Decision, pp. 87-88.

<sup>228</sup> Recommended Decision, p. 88.

<sup>229</sup> Recommended Decision, p. 88.

<sup>230</sup> Recommended Decision, p. 89.

<sup>231</sup> DPS Initial Brief, Appendix A.

post-hearing Initial Brief that "astronomical dusk" occurs as much as two hours and thirty-four minutes after sunset as determined by the United States Naval Observatory (USNO).<sup>232</sup> DPS Staff noted that using "astronomical dusk" and "astronomical dawn" results in the absence of curtailment for over two and a half hours after sunset at a time when bat activity across species tends to be greatest.<sup>233</sup> The Examiners noted the significant time difference between astronomical sunset and sunrise, and USNO's sunrise and sunset, in recommending the adoption of DPS Staff's proposed change to Condition 60.<sup>234</sup>

In its Brief on Exceptions, NTW objects to DPS Staff's request to modify the use of astronomical dawn and dusk in Condition 60. NTW notes "without DPS's concurrence with the relevant conditions in their entirety, NTW would not have agreed to either the curtailment cut-off of 5.5 meters per second or committed to testing a bat deterrent system at Invenergy's Orangeville Wind Farm. However, because DPS reversed course after NTW and DEC had executed the Stipulation and initial briefs were due, there was no opportunity to reopen negotiations."<sup>235</sup> NTW argues that DPS Staff should not be rewarded for raising this objection after purportedly agreeing to NTW's proposed Certificate Condition 60. The record is clear that DPS Staff did not agree to that proposed Condition.<sup>236</sup>

On the merits, we must conclude that with respect to the threatened NLEB, the recommended curtailment regime, as

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<sup>232</sup> DPS Initial Brief, p. 23.

<sup>233</sup> DPS Initial Brief, p. 23.

<sup>234</sup> Recommended Decision, p. 89.

<sup>235</sup> NTW Brief on Exceptions, pp. 35-36.

<sup>236</sup> June 2019 Stipulation, DPS Staff signature page (specifying that it did not stipulate to Condition 60, among other conditions).

advanced by DPS Staff, complies with the State Endangered Species Act and its implementing regulations, and that with respect to all bat species, impacts will be avoided or minimized to the maximum extent practicable (see PSL §168[3][c] and [e]). In this case, the record supports the conclusion that the use of astronomical dusk and dawn should be rejected. Record evidence concerning the impacts of the proposed curtailment regime was premised on the "one half hour before sunset to one half hour after sunrise" curtailment period.<sup>237</sup> Moreover, NTW's Bat Panel testified that bat activity across all species tends to be greatest during the first three hours after sunset.<sup>238</sup> As noted by DPS Staff, delaying curtailment until astronomical dusk - over two and a half hours after sunset - would result in no curtailment for almost the entire three hour period when all bat species are most active. Accordingly, a curtailment regime using astronomical dusk and dawn would not avoid or minimize impacts to all bat species to the maximum extent practicable.

Finally, use of astronomical dusk and dawn is inconsistent with the curtailment regime used in other projects in New York as well as in the region.<sup>239</sup> Accordingly, we accept the Examiners' proposed change to Condition 60. Based upon Condition 60 as modified, and Conditions 61 and 62, we conclude that as to the NLEB, the Project will be constructed and operated in compliance with the State Endangered Species Act and its implementing regulations (see PSL §168[3][e]). We also conclude that based on those Conditions, impacts to all bat species will be avoided or minimized to the maximum extent practicable (see PSL § 168[3][c]).

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<sup>237</sup> See, e.g., Tr. 586-587.

<sup>238</sup> Tr. 539-540.

<sup>239</sup> See, e.g., Tr. 582-583.

c. Wildlife Other Than Bats and Grassland Birds and  
Habitat Other Than Occupied Habitat

Impacts to wildlife other than bats and grassland birds and habitat other than occupied habitat, and measures to avoid, minimize, or mitigate those impacts, are described in Application Exhibits 22 and 23, as updated. The Examiners noted that the predominant habitat types in the Project area are hay/pasture, deciduous forest, and cultivated crops.<sup>240</sup> The Project area also contains smaller amounts of low-intensity developed areas as well as shrub/scrub, herbaceous, woody wetlands, emergent wetlands, and open water habitats.<sup>241</sup> Other than the occupied habitat described above, the Project area contains no federal Critical Wildlife Habitat, National Wilderness Areas, National Audubon Important Bird Areas, or DEC Bird Conservation Areas.<sup>242</sup> The Project area contains wildlife species that are typically found in these habitats in New York.<sup>243</sup>

The Examiners found that with respect to wildlife, some temporary displacement of wildlife may be caused by construction noise and earthmoving.<sup>244</sup> Other construction related impacts include incidental injury and mortality.<sup>245</sup> Operational impacts to wildlife primarily involve impacts to birds and bats.<sup>246</sup> NTW detailed a variety of measures to avoid or minimize construction and operation-related impacts to wildlife, including implementation of post-construction

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<sup>240</sup> Recommended Decision, p. 89.

<sup>241</sup> Recommended Decision, p. 89.

<sup>242</sup> Recommended Decision, pp. 89-90.

<sup>243</sup> Recommended Decision, p. 90.

<sup>244</sup> Recommended Decision, p. 90.

<sup>245</sup> Recommended Decision, p. 90.

<sup>246</sup> Recommended Decision, p. 90.

monitoring and adaptive management plans for birds and bats that require the regular review of the effectiveness of the avoidance and mitigation measures.<sup>247</sup>

Impacts to wildlife other than bats and grassland birds, and to habitat other than occupied habitat, and the avoidance and mitigation measures proposed by NTW with respect to those impacts were not disputed by the parties. The Examiners recommended that the Siting Board conclude that those impacts have been avoided or minimized to the maximum extent practicable.<sup>248</sup>

The parties did not take exception to this portion of the Recommended Decision. Accordingly, we adopt the recommendations of the Examiners.

E. Public Health and Safety

PSL § 168(2)(b) requires the Siting Board's examination of probable adverse impacts to public health and safety from the construction and operation of a wind farm facility. The Examiners reviewed the potential risks to public health and safety that wind turbines pose from noise, shadow flicker, tower collapse, blade throw, and ice shedding or ice throw. We agree with the Examiners that the Project may have impacts related to public health and safety and that, but with the appropriate Certificate Conditions in place, such impacts can be minimized or avoided to the maximum extent practicable.<sup>249</sup>

NTW's application information for noise and vibration is contained in Hearing Exhibit 1 (January 5, 2018 Application Exhibit 19, Noise and Vibration Report, Noise Impact Assessment

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<sup>247</sup> Recommended Decision, p. 90.

<sup>248</sup> Recommended Decision, p. 90.

<sup>249</sup> Hearing Exh. 1, Application Exh. 15.

Report, Expected Sound Levels tables, Construction Noise Contours, Post-Construction Noise Monitoring Plan, Noise Complaint Handling Procedures Plan, Seismic Monitoring Stations map, and Nuclear Test Ban Treaty Locations map); in the revisions related to the new layout for the Project contained in Exhibit 15 (January 25, 2019 Noise and Vibration Report, Noise Contour Map, Expected Sound Level tables, and Noise Complaint Handling Procedures); in Exhibit 17 (February 1, 2019 corrected Expected Sound Level tables); in Exhibit 20 (March 27, 2019 revised Expected Sound Level tables); and in Exhibit 102 (April 16, 2019 Post Construction Noise Monitoring and Measurement Plan).

NTW conducted noise modeling, which it presented in its application and included expected sound levels for "participating" and "non-participating" noise receptors in the community. NTW defines "participating" receptors as those who have signed a "wind agreement" with NTW or are "in discussions" regarding such an agreement and "non-participating" receptors as those who do not have an agreement with NTW.<sup>250</sup> NTW does not define the kinds of agreements that it considers to be wind agreements with participating receptors. The assumptions NTW used in the modeling include the use of 26 GE 3.6-137 turbines with sound power levels of 106 dBA and five GE 2.3-116 turbines with sound power levels of 107.5 dBA.<sup>251</sup>

1. Noise

The Siting Board has had several occasions to consider what turbine noise levels will limit health impacts to the maximum extent practicable. As the Recommended Decision recounts in detail, these issues are technically complex and the

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<sup>250</sup> Hearing Exh. 17, n. 4.

<sup>251</sup> Hearing Exh. 17, n. 2.



science is evolving. The Examiners went to great length to describe the evidence and technical positions presented by the parties and provided us with extensive discussions of the various guidelines published by the World Health Organization (WHO) in 1999, 2009, and 2018 and other authorities.

Nevertheless, upon review of the Examiners' careful work, we find that important uncertainties persist, and that the science on which we must rely is not sufficiently well-developed to eliminate questions of judgment and interpretation. At the same time, we recognize that developers -- here in this case as well as those considering investing in our State -- require a degree of certainty about regulatory requirements in order to plan and finance projects. Under Article 10, the difficult question of how to balance the protection of human health and natural resources, where the science may still be emerging, with the legitimate need for reasonable regulatory certainty falls to the Siting Board.

Because we believe the Examiners did not accord enough weight to the concern for regulatory certainty, we will adjust the balancing-point reached in the Recommended Decision. There, the Examiners proposed adoption of Certificate Conditions that would establish short term regulatory limits of 42 dBA  $L_{eq}$  8 hour for non-participating residences and 52 dBA  $L_{eq}$  8 hour for participating residences.<sup>252</sup> On exceptions, NTW pressed for short-term sound limit of 45 dBA 8-hour for non-participating residences.<sup>253</sup>

In Baron Winds, we addressed precisely this issue of the appropriate short-term regulatory limit, and held that levels of 45 dBA  $L_{eq}$  (8 hour) at non-participating residences

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<sup>252</sup> Recommended Decision, pp. 117-119.

<sup>253</sup> NTW Brief on Exceptions, pp. 37-40.

and 55 dBA Leq (8 hour) at participating homes, with a 5 dBA tonal penalty, would "avoid and minimize noise impacts from the Project to the maximum extent practicable."<sup>254</sup> We do not see any significant difference in the record presented to us in Baron from what is presented here. Indeed, we find that the Recommended Decision in this case cites evidence and arguments that the Board ultimately rejected in the Baron decision -- information which, given the timing of that decision, we recognize the parties did not have at the time they submitted their case. Similarly, we did not establish a long-term regulatory limit in Baron because we concluded that it would be both difficult to monitor and impractical to enforce.<sup>255</sup> We do not see any record basis in this case for a different result on this point. Because we are mindful of the need for reasonable regulatory certainty, the prospect of allowing such varying results in these two cases concerns us.

In particular, DPS Staff's and the Examiners' reliance on the WHO 2018 study as a basis for a more stringent short-term limit than the level approved in Baron is misplaced. We examined the WHO 2018 guidelines in that earlier case and declined to apply them "because of the limitations of the guidelines themselves."<sup>256</sup> We further recognized that the WHO 2018 recommendation "is conditional due to its reliance on low quality data."<sup>257</sup> We note that WHO 2018 cites to several studies that evaluated the potential relationship between wind turbine

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<sup>254</sup> Case 15-F-0122, Baron Winds LLC - Electric Generation Siting, Order Granting Certificate of Environmental Compatibility and Public Need, With Conditions (issued September 12, 2019) (Baron Winds Order), p. 120.

<sup>255</sup> Baron Winds Order, pp. 120-121.

<sup>256</sup> Baron Winds Order, p. 114.

<sup>257</sup> Id.

noise and three outcomes -- cardiovascular disease, annoyance, and other impairments like sleep disturbance -- but did not find any of those studies to be definitive. For example, with respect to any potential association between wind turbine noise and annoyance, it found the "statistical analyses . . . yield evidence rated low quality . . ." <sup>258</sup> It made the identical finding related to the potential association between wind turbine noise and sleep disturbance. <sup>259</sup> For these reasons, we do not believe that the WHO 2018 guidelines provide a sound basis for establishing a lower short-term noise standard. Where we have found that a regulatory limit is sufficiently protective, we will expect the parties in future cases to adhere to it, unless and until developments in the relevant science suggest that an additional increment of protection is necessary.

With that said, we recognize that the impacts of noise on human health is an area of ongoing research here and abroad, and that the standard we found sufficient in this case and in Baron may require revision in the future. We anticipate that DPS Staff will bring to our attention any developments in this field that support the conditional recommendations of the WHO 2018 guidelines. We leave open the possibility of reducing the noise standard based upon the results of future studies.

Furthermore, we caution wind developers to be attentive to the long-term effects that a noise standard may have on the communities who host their projects. While we believe the standard set here is adequately protective of public health, it is not in the industry's interests to incur frequent community complaints. Thus, responsible project design should strive to improve on the standard wherever possible in order to

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<sup>258</sup> See WHO (2018), pp. 81-82.

<sup>259</sup> Id., pp. 82-83.

ensure a minimal number of noise complaints in the communities in which these facilities are located.

Except as modified by our determinations here on the short-term standard and the lack of need for a long-term regulatory limit, we otherwise adopt the recommendations of the Examiners on noise.

2. Blade Throw, Ice Throw, and Tower Collapse

Under PSL § 168(2)(b), we are required to evaluate any potentially adverse impacts to public health and safety. In addition to noise, addressed above, the Examiners identified three potential operational issues that could affect public health and safety. The Recommended Decision identifies blade throw, ice throw and tower collapse as public safety issues that have been experienced in the wind turbine industry.

Relying on evidence in the record, the Examiners determined that the impacts to health and public safety from operational issues related to turbine collapse, blade throw, and ice throw were analyzed appropriately. The Examiners recommended that we find that such impacts can be minimized to the maximum extent practicable by setback requirements and NTW's Updated Proposed Certificate Condition 48, which requires NTW to maintain the turbines in a manner that assures safety; Condition 49, which requires NTW to file its final Emergency Response Plan with the Secretary; and Condition 67, which requires NTW to file a Long-range Facility and Corridors Management Plan with safety criteria.

No party took exception to the Examiners' findings and recommendations on these issues. We find the Examiners' position in the Recommended Decision on these issues to be supported by the record and that the public health impacts associated with blade throw, ice throw and tower collapse will be mitigated to the maximum extent practicable by Condition 48.

3. Shadow Flicker

As noted in the Recommended Decision, shadow flicker is caused by sunlight passing through the moving blades of a wind turbine causing repetitive, periodic interruptions, and creating temporary shadows that can be perceived by a receptor. Under 16 NYCRR § 1001.15(e) and § 1001.24(a)(9), an Article 10 application must include an analysis of expected shadow flicker and a description of any related operational effects of the Facility. NTW included its shadow flicker analysis in Exhibit 15 of its Application and updates.

The Examiners found that the Application sufficiently analyzed shadow flicker and recommended that we adopt, consistent with the Siting Board's order in Cassadaga Wind, Certificate Conditions that would limit the annual exposure to shadow flicker at any non-participating residence to 30 hours.<sup>260</sup> However, the Examiners rejected a proposal by DPS Staff that would impose an additional 30-minute daily limit for those same receptors.

On exceptions, DPS Staff states that the Examiners misconstrued the Siting Board's determinations in Cassadaga Wind and that the Cassadaga Wind Order supports the imposition of a 30-minute daily limit on shadow flicker, notwithstanding the fact that no 30-minute daily limit is imposed in the Certificate Conditions in Cassadaga Wind. DPS Staff notes that the Cassadaga Wind established that the effects of shadow flicker should be minimized or avoided to the maximum extent practicable and included specific language that is not included in the Certificate Condition in the Examiners' Recommended Decision.

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<sup>260</sup> See Case 14-F-0490, Cassadaga Wind LLC - Wind Electric Generation Siting, Order Granting Certificate of Environmental Compatibility and Public Need, with Conditions (issued January 17, 2018) (Cassadaga Wind Order), pp. 56-57.

DPS Staff notes that this same language was also included in the Siting Board's Eight Point Wind Order and in the Baron Winds Order.

It is not clear from DPS Staff's exceptions how the issue of a 30-minute daily limit is addressed by language that is not included in the Cassadaga Wind Certificate Condition 30, as that Certificate Condition does not specify any daily limit. Consequently, we agree with the Examiners' imposition of an annual 30-hour shadow flicker limit without a daily limit.

4. Setbacks

The applicable setbacks for this Project are identified below:

Town of Lowville

Each wind energy conversion system (WECS) (including wind turbines) shall be set back from site boundaries measured from the center of the WECS as follows:

- (1) A distance equal to 1.5 times the total height from the nearest site boundary property line;
- (2) 250 feet plus 1.5 times the total height from all public roads;
- (3) No WECS shall be within 1,000 feet of any off-site residence, whether or not the residence is located in the Town of Lowville, measured at the exterior of the residence;
- (4) 2,000 feet from the property line of any public or private school, church, hospital, nursing home facility, government office building, public assembly buildings, (such as convention centers, restaurants, funeral homes, libraries, etc.), and active cemeteries.
- (5) A distance equal to 1.5 times the total height of the WECS from any non-WECS structure or above ground utilities unless waived by the utility companies.<sup>261</sup>

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<sup>261</sup> Town of Lowville Code, Wind Energy Facilities, Chapter 100, Article I, § 100-14.

Town of Harrisburg:

Setbacks. All wind energy generating facilities shall be set back from all road lines and all side and rear lot lines at least the height of the [turbine] tower plus the blade when fully vertical.<sup>262</sup>

NTW is required to comply with the foregoing setback requirements in Lowville and Harrisburg, unless NTW files consent agreements, as described below. We find that the Project's potential impacts on public health have been avoided or minimized to the maximum extent practicable.

F. Cultural, Historic and Recreational Resources - PSL § 168(2) (c) & § 168(3) (c)

1. Visual Impacts

The Examiners concluded that the Project will have an impact on viewsheds in and around the Project area, including changes to the visual character of existing historical and recreational resources, and that those impacts cannot be completely mitigated.<sup>263</sup> The Facility's probable visual impacts are detailed in Application Exhibit 24 and Appendix 24.a-1 supplemented by the March 2019 Project updates, including updated viewshed maps and simulations, and a visual impact assessment (VIA). The VIA also assessed the visibility of the POI Switchyard, access roads, O&M building, and Project substation, and lighting. NTW and DPS Staff agreed to Certificate Conditions 40 and 50 to reduce the impacts from lighting and other changes.<sup>264</sup>

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<sup>262</sup> Town of Harrisburg Zoning Law, Special Uses, Article VI, § 665(A).

<sup>263</sup> Recommended Decision, p. 130.

<sup>264</sup> Recommended Decision, p. 133.

The Examiners recommended that the Siting Board adopt Certificate Conditions 40, 50 and 58 with respect to visual impact avoidance and mitigation. The Examiners also recommended that NTW employ the Aircraft Detection Lighting System (ADLS) on wind turbines, if feasible, and asked the Parties to address this issue more fully in their Briefs on Exceptions.<sup>265</sup> With the Siting Board's adoption of Certificate Conditions 40, 50 and 58, as modified, the Examiners concluded that the Siting Board had sufficient information to conclude that the Project will avoid or minimize visual impacts to the maximum extent practicable, including minimizing adverse lighting impacts as a result of the use of the aircraft detection system lighting controls on wind turbines.

As requested by the Examiners, NTW more fully addressed the use of ADLS for this Project in its Brief on Exceptions. NTW argues that based upon the projected cost -- \$850,000<sup>266</sup> for the installation two ADLS units that may be required -- the ADLS system is not a "worthwhile investment" for the marginal gain it would afford.<sup>267</sup> DPS Staff, in its Brief on Exceptions, noted that NTW has not advised if the Federal Aviation Administration (FAA) or Department of Defense (DOD) has opined whether ADLS would be acceptable or not for deployment at this location.<sup>268</sup> DPS Staff requests that NTW be required to show that it has requested FAA/DOD consideration of the use of ADLS; "that any design requirements or criteria recommended by FAA/DOD be addressed by NTW (purported Certificate Holder); and that the final design of the FAA

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<sup>265</sup> Recommended Decision, p. 136.

<sup>266</sup> Hearing Exh. 93, DMM Item No. 211.

<sup>267</sup> NTW Brief on Exceptions, p. 57.

<sup>268</sup> DPS Staff Brief on Exceptions, p. 10.



lighting be addressed in the required Compliance Filing - Lighting Package."<sup>269</sup>

In its Brief Opposing Exceptions, NTW asserts that DPS Staff interprets "practicable" to be the equivalent of "possible." NTW argues that requiring it to invest a minimum of \$850,000 to install ADLS with no reasonable expectation of achieving a meaningful outcome would not minimize visual impacts "to the maximum extent practicable" as required by PSL § 168.3(c).<sup>270</sup>

Based upon our review of the record testimony and the arguments of the parties, we conclude that the record in this case does not provide a sufficient basis upon which to require implementation of ADLS. Even assuming that the FAA would approve ADLS in the location of the Project, the record contains insufficient proof that use of the system would significantly reduce visual impacts, particularly given the proximity of other large wind projects in the immediate vicinity of the Project that currently do not employ ADLS. The record does not support the conclusion that the reduction of visual impacts resulting from the use of ADLS outweighs the costs associated with its installation.

THARP also raised exceptions to the Recommended Decision's conclusions with respect to visual impacts. THARP contends that the VIA is inadequate because NTW failed to follow the methodology for visual impact rating and assessment required by 16 NYCRR § 1001.24 and therefore (1) the viewshed mapping did not show whether turbines would be visible in the foreground, mid-ground or background, and (2) the VIA did not address mitigation through turbine relocation or elimination.

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<sup>269</sup> DPS Staff Brief on Exceptions, p. 10.

<sup>270</sup> NTW Brief Opposing Exceptions, p. 7.

Accordingly, THARP argues that the VIA does not provide an adequate basis upon which to make the required findings and determination regarding visual impacts.<sup>271</sup> THARP also contends that the VIA fails to adequately quantify the visual impact on community character, in particular, viewshed impacts to the Tug Hill Vineyard, which THARP described as a scenic venue for weddings and other special events."<sup>272</sup>

In its Brief Opposing Exceptions, NTW notes that THARP's expert, witness Palmer, used a novel approach that is not supported by the visual impact assessment professional community, the Siting Board, the Public Service Commission, DPS Staff or DEC Staff. With respect to THARP's claims regarding inadequate viewshed mapping, NTW asserts that the mapping included demarcation lines that allows the user to determine how many turbines would be visible in the foreground, mid-ground and background from any location. NTW notes that it has agreed to implement mitigation for potential impacts to a scenic highway, and that THARP failed to adequately demonstrate the need for mitigation of impacts to private properties.

THARP's exceptions are overruled. We accept the evaluation of DPS Staff and the Examiners that NTW's VIA provides an accurate representation of the Project visual impacts and, therefore, provides a sufficient basis upon which to make findings regarding those impacts. Nothing in the record supports adopting the approach to assessing visual impacts urged by THARP's expert witness. Moreover, the record reflects NTW's agreement to eliminate certain turbines from the Project, resulting in the reduction of turbines visible from the Tug Hill Vineyard from nine to four. The record does not support the

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<sup>271</sup> THARP Brief on Exceptions, pp. 16-22.

<sup>272</sup> THARP Brief on Exceptions, pp. 23-24, quoting Tr. 1569-1570.

need to eliminate additional turbines to avoid or minimize impacts to the maximum extent practicable.

Accordingly, we conclude that, based upon the record and with the relevant proposed Certificate Conditions, the Project will avoid or minimize visual impacts to the maximum extent practicable.

## 2. Impacts to Historic Resources

NTW's study of potential cultural and historic resources that could be visually affected by the Project identified ten resources listed in the National Register of Historic Places (NRL), six historic districts that were not NRL but had been determined to be eligible for listing on the National Register of Historic Places (NRE) or previously identified but not clearly determined to be eligible, and 212 NRE properties.<sup>273</sup> The types of historic resources that potentially could be impacted by the Project include schools, churches, farm complexes, individual residences, commercial buildings, and cemeteries. Two NRE historic districts include the Copenhagen Village Historic District North-Main Street (west side of NY 12/Main Street; 16 resources) and the Copenhagen Village Historic District South-Main Street (east side of NY 12/High Street; 15 resources).<sup>274</sup> No archaeological sites or other cultural resources were identified in the study area.<sup>275</sup>

DPS Staff noted that preliminary offset mitigation measures were identified through consultations with local

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<sup>273</sup> Recommended Decision, pp. 136-137.

<sup>274</sup> Recommended Decision, p. 137.

<sup>275</sup> Recommended Decision, p. 138. DPS Staff notes in its Brief on Exceptions that the reference to the archeological resource investigation in Recommended Decision footnote 481 should be to Exh. 1, App. Exh. 20, Appendix 20.a-3, pp. 4-1 to 4-2, not to Appendix 20.a-2 (DPS Staff Brief on Exceptions, p. 13). The correction is noted.

historians and State Historic Preservation Office (SHPO) personnel.<sup>276</sup> DPS Staff Witness Davis testified that the proposed mitigation is typical for such projects and recommended that the Siting Board require SHPO to accept the mitigation plan and confirm that funding is committed for it.<sup>277</sup> Certificate Condition 59 calls for no construction, clearing or other disturbances in areas that have not been subject to consultation with and approval by the SHPO.<sup>278</sup>

The Examiners concluded that the record coupled with the proposed Conditions, including but not limited to Certificate Conditions 58 and 59, together provide adequate support for the Siting Board to make the requisite findings as to the nature of the probable environmental impacts from the construction and operation of the Facility on cultural, historic, and recreational resources.<sup>279</sup> The Examiners further concluded that the record and the Conditions provide adequate support for the Siting Board to determine that any adverse impacts have been avoided or minimized to the maximum extent practicable.<sup>280</sup>

The parties did not take exception to this portion of the Recommended Decision. Accordingly, we adopt the recommendations of the Examiners.

G. Impacts on Transportation, Communications, Utilities and Other Infrastructure - PSL § 168(2)(d) and § 168(3)(c)

The Examiners determined that, with the adoption of certain recommended Certificate Conditions, the record provides

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<sup>276</sup> Recommended Decision, p. 137.

<sup>277</sup> Recommended Decision, pp. 137-138.

<sup>278</sup> Recommended Decision, p. 138.

<sup>279</sup> Recommended Decision, p. 138.

<sup>280</sup> Recommended Decision, p. 138.

the Siting Board with an ample basis to find that impacts on transportation communications, utilities, and other infrastructure have been minimized or avoided to the maximum extent practicable.<sup>281</sup> Specifically, the Examiners recommended that we adopt Certificate Conditions requiring NTW to submit as compliance filings:

(1) a Traffic Control Plan as part of the Construction Management filing package;

(2) an agreement with the United States Department of Defense (DOD) regarding issuance of the FAA's Determination of No Hazard as to the Project's potential impacts on the Fort Drum Air Base; and

(3) a document containing the nature of the consultations NTW had with the Watertown International Airport about potential impacts from the Project and the results of those consultations.<sup>282</sup>

On exceptions, NTW does not object to these conditions with one limited exception related to the DOD agreement. NTW agrees to submit a copy of its executed agreement with the DOD, once executed, but requests that the Siting Board make explicit that it may be submitted as an information report under 16 NYCRR § 1002.3 rather than as a compliance filing.<sup>283</sup> NTW presents no justification for this request. In light of the fact that the record lacks evidence of the terms of this agreement and that we nevertheless base our finding of no aviation impacts on it, we see no reason to deprive the parties of the opportunity to comment to the Siting Board on the nature of the agreement by allowing its submission as an information request. We therefore

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<sup>281</sup> Recommended Decision, pp. 139-140.

<sup>282</sup> Recommended Decision, pp. 139-141.

<sup>283</sup> NTW Brief on Exceptions, p. 58.

make explicit in the Certificate Conditions that it be submitted as a compliance filing.

In addition, with respect to Project impacts on utilities, the Examiners recommended that we adopt the Certificate Conditions proposed by National Grid and require NTW to submit as a compliance filing evidence of compliance with the New York Independent System Operator's (NYISO's) Open Access Transmission Tariff (OATT) interconnection and related safety requirements in the operation of the Facility.<sup>284</sup> In so doing, the Examiners rejected NTW's argument that would have limited the Siting Board's jurisdiction in this regard.<sup>285</sup>

On exceptions, NTW continues to assert that the Siting Board lacks authority to impose conditions related to the OATT that touch on the jurisdiction of the Federal Energy Regulatory Commission and matters otherwise under NYISO's control.<sup>286</sup> NTW argues that Certificate Conditions 15, 34, 35, and 132-138 would give the Siting Board, the Commission and DPS Staff the authority to enforce OATT requirements under the Federal Power Act.<sup>287</sup> NTW claims that the conditions are premised on independent enforcement of the OATT related to safety and reliability and that "the State's authority ends well short of a generator's interaction with the wholesale capacity and energy markets and its acquisition of and compliance with the terms of open access interconnection service."<sup>288</sup>

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<sup>284</sup> Recommended Decision, pp. 142-143; Certificate Conditions 15, 34-35, 132-138; DMM No. 215, National Grid Proposed Conditions (January 15, 2019).

<sup>285</sup> Recommended Decision, pp. 142-143; Tr. 1028-1029.

<sup>286</sup> NTW Brief on Exceptions, pp. 61-62.

<sup>287</sup> NTW Brief on Exceptions, p. 61.

<sup>288</sup> NTW Brief on Exceptions, p. 62.

No other party objected to National Grid's proposed Certificate Conditions and the requirement that NTW show compliance with the OATT. DPS Staff urges adoption of the Conditions.

NTW misunderstands the comprehensive nature of the Siting Board's authority to confirm that the Facility complies with all applicable requirements related to the State's electric grid. This necessarily includes demonstrating compliance with the OATT requirements. The proposed Conditions do not provide for the Siting Board's enforcement of matters within FERC's jurisdiction. Rather, they require NTW to demonstrate compliance and if such compliance cannot be demonstrated, the Siting Board has the authority to revoke the Certificate. We do not read the Recommended Decision or the proposed Certificate Conditions as enabling the Siting Board, the Commission or DPS Staff to enforce the Federal Power Act, as NTW alleges.

Consequently, we reject NTW's position limiting the Siting Board's jurisdiction and adopt the Examiners' rationale set forth in the Recommended Decision that the Siting Board has the authority under Article 10 to require NTW to demonstrate compliance with NYISO's OATT and all other applicable requirements governing interconnection with New York's electric grid. We adopt Certificate Conditions 15, 34-35, 132-138, and find that they appropriately address issues associated with minimizing or avoiding impacts on transportation, utilities and communications minimized to the maximum extent practicable.

H. Environmental Justice - PSL § 168(2)(d) & (3)(d)

No party to this proceeding raised environmental justice issues or asserted that Project impacts would result in or contribute to a significant and adverse disproportionate environmental impact on a community adversely affected by

cumulative levels of pollutants.<sup>289</sup> Consequently, we find that the Project will not result in disproportionate impacts on such communities.

I. Compliance with State and Local Laws - PSL § 168(3)(e)

With limited exceptions, State and local procedural requirements that otherwise would be applicable to a major electric generating facility are preempted unless the Siting Board expressly authorizes the enacting local authority to exercise such procedural requirements.<sup>290</sup> With respect to State and local substantive requirements, the Siting Board cannot grant a Certificate unless it determines that "the facility is designed to operate in compliance with applicable state and local laws and regulations issued thereunder concerning, among other matters, the environment, public health and safety."<sup>291</sup> The Siting Board may elect to waive the substantive local requirements, in whole or in part, if it finds that the law's application to the facility is "unreasonably burdensome."

The applicant has the burden of seeking the Siting Board's waiver of a substantive local law and of showing that it is unreasonably burdensome. An applicant seeking the Siting Board's waiver is required to justify its request by showing "the degree of burden caused by the requirement, why the burden should not reasonably be borne by the Applicant, that the request cannot reasonably be borne by the Applicant, that the request cannot reasonably be obviated by design changes to the proposed facility, the request is the minimum necessary, and the

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<sup>289</sup> PSL § 168(2)(d), 168(3)(d) and 168(4)(f).

<sup>290</sup> PSL § 168(3)(e); see also PSL § 172(1); 16 NYCRR § 1001.31(a).

<sup>291</sup> PSL § 163(3)(e); 16 NYCRR § 1001.31(d).



adverse impacts in granting the request are mitigated to the maximum extent practicable.”<sup>292</sup>

1. Compliance with Applicable State Laws

With respect to substantive State laws, the Examiners recommended that, with appropriate Certificate Conditions in place, including proposed Certificate Condition 3, we find that NTW will comply with all applicable substantive State laws.<sup>293</sup> No party takes exception to that recommendation. With our adoption of the Certificate Conditions attached as Appendix A to this Order, we find that the construction and operation of the Facility will comply with applicable substantive State laws.

2. Compliance with Substantive Local Laws

No party raises exceptions to those parts of the Recommended Decision that require NTW to file as compliance filings: (1) the post-construction certifications specified in Lewis County Local Law No. 4; (2) a final project layout with sufficient detail to verify that the Facility will meet all local setback requirements and, where setback requirements are met through landowner or other agreements, documentation demonstrating that such agreements have been finalized; and (3) final executed road use agreements.<sup>294</sup> We agree with those recommendations and adopt them along with the associated Certificate Conditions.

An issue remains, however, regarding the Examiners’ recommendation that we “adopt a condition requiring NTW’s compliance with the local laws of Lowville and Harrisburg but provide NTW with an opportunity to request the Siting Board’s waiver of the Towns’ laws and make the appropriate showing that

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<sup>292</sup> 16 NYCRR § 1001.31(e).

<sup>293</sup> Recommended Decision, pp. 144-146.

<sup>294</sup> Recommended Decision, pp. 147-148, 151-153.

those laws are unduly burdensome.”<sup>295</sup> In this proceeding, NTW did not seek the Siting Board’s waiver of the Towns’ substantive local laws pursuant to PSL § 168(3)(e). Instead, as the Examiners recognized, NTW requested that the Siting Board authorize the Towns to waive certain substantive laws governing wind energy facilities and other matters. These local laws are contained in Lowville’s Wind Energy Facilities Law (Chapter 100) and Zoning Law (Chapter 250), and in Harrisburg’s Zoning Laws (Sections 605 and 665), governing Major Wind Energy Generating Facilities and Special Uses.<sup>296</sup>

NTW included in its application a list of local laws “of a procedural nature” that would be preempted under PSL § 172 and, pursuant to 16 NYCRR § 1001.31(b), identified those procedural requirements that the Applicant wished the Siting Board to expressly authorize the exercise of the procedural requirement by the local municipality.<sup>297</sup> NTW also listed substantive laws applicable to the Project along “with a description of the degree to which the Project will comply with each.”<sup>298</sup>

Specifically, NTW asks the Siting Board to give substantive effect to both Lowville’s and Harrisburg’s waiver of the “requirements of their laws affecting wind power facilities.”<sup>299</sup> In addition, NTW seeks authorization for Lowville to administer its road use law (Section 100-13),

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<sup>295</sup> Recommended Decision, pp. 150-151.

<sup>296</sup> Hearing Exhs. 1, 9; App. Exhs. 31 (January 2018) and 31.d-3 (May 2018 Supp.).

<sup>297</sup> Hearing Exh. 1, p. 3; App. Exh. 31, p. 3; Appendix 31.a (January 2018).

<sup>298</sup> Hearing Exh. 1, p. 3; App. Exh. 31, p. 3; Appendix 31.d-1 (January 2018).

<sup>299</sup> Hearing Exh. 1, p. 1; App. Exh. 31, p. 1 (January 2018).

implement its process for permitting wind measurement towers (Section 100-20), and allow its Code Enforcement Officers to enforce the State Uniform Fire Prevention and Building Code and to issue permits for the Operation and Maintenance building, point of interconnection switchyard building, and substation building included as part of the Project (Chapter 118).<sup>300</sup>

In its May 2018 application supplement, NTW included its August 24, 2017 letters to both Towns, seeking waivers of certain substantive local laws. In its letter to Lowville, NTW cited local law Section 100-23, which contains a provision authorizing it to "grant a waiver from the provisions of [Wind Energy Facilities law] where its strict compliance would cause undue or unnecessary hardship and such waiver is otherwise in the best interest of the Town." NTW asked Lowville to waive: the 1,400 foot elevation restrictions (Zoning Law Section 100-8) for 16 turbines; zoning restrictions prohibiting transmission lines in Zones CB, CR-R, R30-A, and I-2 (Sections 100-5 and 250-8); noise and setback requirements mandating specified distances of wind facility components and wind measurement towers from public roads, property boundaries, residences, and other public buildings (Sections 100-14 and 100-21) for non-residential structures;<sup>301</sup> the requirement for underground installation of transmission lines (Section 100-11[A]) for the substation and

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<sup>300</sup> Hearing Exh. 1, p. 1; App. Exh. 31, p. 1 (January 2018).

<sup>301</sup> Lowville Zoning Law Section 100-14(A) and (B) prohibits noise levels exceeding L-55 dBA; establishes set back distances equal to 1.5 times the total wind turbine height from the nearest property line; 250 feet plus 1.5 times the total height from any public roads; 1,000 feet from any residence; 2,000 feet from the property line of any public or private school, church, hospital, nursing home facility, government office building, public assembly buildings, (such as convention centers, restaurants, funeral homes, libraries, etc.), and active cemeteries.

point of interconnection switchyard; the prohibition of advertising signs on any part of the wind energy facility (Section 100-11[C]) for a sign on the Operations and Maintenance Building; and the requirement for fencing for wind turbines or group of turbines (Sections 100-12[B] and 250-45[D]) for 23 turbines.<sup>302</sup>

In its letter to Harrisburg, NTW sought Harrisburg's waiver of its Zoning Law and Special Use permits law (Section 665) for 14 turbines that otherwise would be subject to a setback from side and rear property lines of the total height of wind turbines plus the blades.<sup>303</sup> In seeking the waivers, NTW cited Harrisburg's Zoning Law Section 605, which provides that "any special permit requirements may be waived by the Planning Board, where the requirements are found not to be requisite in the interest of public health, safety, or general welfare or inappropriate to a particular Special Permit."

In further supplements to Application Exhibit 31, NTW provided the November 16, 2017 minutes of the Lowville Town Board meeting in which Lowville had approved, pursuant to its waiver law, NTW's requested waivers of turbine elevation restrictions of 1,400 feet (Section 100-8), restricted transmission line locations (Section 100-8), the requirement for underground transmission line installation (Section 100-11A), setbacks (Section 100-14B), signage (Section 100-11C), and fencing (Section 100-12B and 250-45D).<sup>304</sup>

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<sup>302</sup> Hearing Exhibit 9; App. Exh. 31.d-3 (May 2018 Supp.).

<sup>303</sup> Hearing Exhibit 9; App. Exh. 31.d-3 (May 2018 Supp.). NTW sought the waiver for 14 turbines, where it held a leasehold interest on the adjoining property and for adjacent properties on which no residence is located

<sup>304</sup> Hearing Exh. 11; App. Exh. 31e-2 (August 2018 Supp.).

In its application supplement, NTW also included an April 4, 2018 letter from the Harrisburg Planning Board Chair, which approved, with limited exceptions, NTW's requested waivers of setback requirements for 14 turbines.<sup>305</sup>

As the Examiners noted in the Recommended Decision, PSL § 168(3)(e) states that substantive local laws are binding on an applicant unless the Siting Board elects not to apply them, in whole or in part, upon a finding that compliance with the local standard or requirement is unreasonably burdensome.<sup>306</sup> The Examiners found that the local law provisions under which the Towns were authorized to waive compliance with their substantive laws were themselves procedural in nature and therefore were preempted by PSL § 172(1).<sup>307</sup> The Examiners recommended that we consider the Towns' waivers as indicative of their desires with respect to the Project. Recognizing the improper procedure NTW pursued in this proceeding with the Towns, the Examiners recommended that NTW be required to direct its local law waiver requests to the Siting Board in a post-Certificate compliance filing and show that they are unreasonably burdensome.<sup>308</sup>

Citing our determination in Cassadaga Wind, the Examiners stated that "allowing municipalities to waive the substantive provisions of local laws 'would undermine the Article 10 process by allowing the local municipalities to preempt the Board's waiver authority.'"<sup>309</sup> The Examiners reasoned that "the Siting Board stands in the Towns' stead and

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<sup>305</sup> Hearing Exh. 11; App. Exh. 31e-2 (August 2018 Supp.).

<sup>306</sup> Recommended Decision, pp. 149-150.

<sup>307</sup> Recommended Decision, p. 149.

<sup>308</sup> Recommended Decision, pp. 150-151.

<sup>309</sup> Recommended Decision, pp. 149-150 and n. 518.

is solely empowered to waive local laws upon a showing that they are 'unreasonably burdensome,'" and that, at best, "the Siting Board should consider the Towns' waivers as representative of an expressed desire of the local home ruling municipal bodies."<sup>310</sup>

On exceptions, NTW argues that the Siting Board should give effect to waivers granted by local legislative bodies pursuant to local laws providing a process by which to authorize such waivers. NTW asserts that Article 10 evinces the intent of the Legislature to defer to local legislative authority and states that, "if a town's law provides a mechanism and standards for granting waivers and the town has granted a waiver pursuant to its law, it would be consistent with Article 10's deference to local laws to also defer to the town's authority to grant waivers and to any waivers duly granted."<sup>311</sup> NTW maintains that Cassadaga Wind is distinguishable because, in that case, the Cherry Creek Town Board merely expressed its support for a waiver by passing a resolution that did not have the force of law and was only advisory in nature.<sup>312</sup>

In the alternative, NTW requests that, if we agree with the Examiners that Article 10 preempts all local authority to grant waivers, we retroactively authorize Lowville and Harrisburg to exercise their waiver authority under local law and accept the waivers already granted.<sup>313</sup> According to NTW, the "same approach is embodied in proposed Certificate Condition 3, whereby the Siting Board delegates authority to the New York State Public Service Commission and the New York State Department of Transportation to exercise their authorities

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<sup>310</sup> Recommended Decision, p. 149.

<sup>311</sup> NTW's Brief on Exceptions, p. 59.

<sup>312</sup> NTW's Brief on Exceptions, p. 59.

<sup>313</sup> NTW's Brief on Exceptions, p. 60.

under, respectively, the PSL and the Highway Law and is consistent with the deference the Siting Board pays to the terms of local road use agreements.”<sup>314</sup>

We agree with the Examiners that the waiver provisions in the Town laws are procedural in nature and therefore are preempted under PSL § 172(1). We further find that NTW’s attempt to exercise a local procedural requirement to avoid the application of the Town laws’ substantive requirements is contrary to the express language in PSL § 168(3)(e), which requires an applicant to show compliance with local laws or demonstrate that the laws are unreasonably burdensome. As we noted in *Cassadaga Wind*, and as the Examiners noted here, this undermines the role of the Siting Board in the Article 10 process.

We reject NTW’s use of 16 NYCRR § 1001.31(b) as the mechanism for achieving its design goals, and we do not read that section to permit a waiver of local substantive standards. A procedure whose exercise results in nullifying a substantive requirement is not the type of local law contemplated in that subsection of the regulations. Article 10 applicants must present requests for waivers of local substantive laws to the Siting Board in the first instance, as required by the statute.

Consequently, in this case, we will treat NTW’s applications to the Towns, as set forth in its August 24, 2017 letter requests for waiver of Lowville’s and Harrisburg’s substantive laws, as a request for a waiver of those laws to the Siting Board. We find in this instance that NTW’s applications to the Towns for waiver of certain laws present adequate grounds for us to make the finding required in PSL § 168(3)(e).

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<sup>314</sup> NTW’s Brief on Exceptions, p. 60.

With respect to the 1,400-foot elevation threshold in Section 100-8 of the Lowville Zoning Law, NTW indicates that the absence of the waiver for 16 turbines proposed to be sited at elevations between 1,200 and 1,400 feet would result in at least 40% of the Project's wind potential being lost. NTW points out that the loss of this production would deprive the State of this contribution to our clean energy goals. We note that the Town's apparent concern for noise is fully addressed through our noise mitigation requirements. Thus, our election not to apply the local law will not adversely affect the Town. Here, the need for the Facility outweighs the possible negative noise impacts to the community that may result from allowing 16 turbines to be located below 1,400 feet. In light of these circumstances, we find the waiver is justified.

With respect to Lowville's zoning restriction in Section 100-8(C), we find that a waiver is not necessary and the Facility can comply. The basis for NTW's request to the Town on this issue was the ambiguity in the Town law that made it unclear whether particular facilities could be sited in certain zones. The Town's waiver -- although ineffective as a matter of Article 10 -- is evidence that the Town agreed with NTW's interpretation of the local law. Thus, we conclude that NTW can comply with the law as interpreted by the Town and accomplish the interconnection without obtaining a waiver from the Siting Board.

With respect to Lowville's requirement in Section 100-11(A) that NTW install transmission and collection lines underground "to the maximum extent possible," we find that the record is insufficient for granting a waiver of this requirement. In its request to Lowville, NTW sought a waiver of the undergrounding requirement for transmission lines connecting the Project substation with the POI switchyard. NTW also



requested a similar waiver for all collection lines between all turbines and the substation. NTW explained that the waiver is needed because it would add significant costs to the Project as well as additional environmental impacts.<sup>315</sup>

However, since NTW did not make the showing required for a waiver under our regulations, we find that we do not have sufficient information to determine whether the additional costs of undergrounding transmission and collection lines outweighs the benefits of applying Lowville's undergrounding requirements. Consequently, we deny the waiver request and find that NTW is required to underground both the collection and transmission lines for the Project.

With respect to Lowville's 1.5 turbine height setback requirements in Section 100-14(B), NTW makes the case that only non-residential and infrequently used structures, such as deer stands, sheds, and hunting camps, would be affected by the setback waiver. We again find that NTW has not made the showings necessary under our regulations to justify a waiver of this requirement. Accordingly, we will require NTW to comply with the Town's setback requirements in siting its turbines, or to obtain specific consent agreements from the impacted landowners waiving such setback requirements. Those agreements must be filed prior to construction as part of NTW's compliance obligations.

With regard to the question of signage, we find again that this issue is one of interpretation of a local law. Lowville's ordinance prohibits "advertising signs," and NTW sought a waiver only to the extent a sign identifying its company name and its street address could be interpreted as advertising. We do not believe the Town could reasonably insist

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<sup>315</sup> Hearing Exh. 9.

on the applicability of its law to the public identification of the Facility's owner. Indeed, such identifying signage is plainly necessary, from a public safety point of view. For these reasons, we find that NTW complies with the Town Law Section 100-11(C).

With respect to Lowville's fencing requirements in Sections 100-12(B) and 250-45(D), NTW asserts that available technology adequately secures Project components from unauthorized access, so fencing is not needed, and associated expenses are unwarranted. We find that NTW has not made the showings required to support a blanket waiver of these requirements, and we will require NTW to comply with the local law. However, we note that the law requires fencing only at locations that require it in accordance with safety needs. To ensure compliance, we will require NTW to obtain the Town's written acceptance of any safety-related fencing components included its construction and operation site plans and to submit the same as a compliance filing.

With respect to Harrisburg's setback law in Section 665(A), NTW asserts that 14 wind turbines are contiguous to properties on which NTW has leaseholds and the setbacks from those properties should not apply.<sup>316</sup> NTW's application does not provide the required justifications for a waiver of this

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<sup>316</sup> Hearing Exh. 9; NTW identified these original turbine locations on a map appended to its waiver application to Harrisburg, which includes Turbines 17, 22, 25-26, 28-29, 31-32, 36-38 and 40-42. Harrisburg waived the setbacks for these turbines. NTW also identified two additional turbines, Turbines 39 and 44 and requested waiver of those setbacks as well, but Harrisburg denied the waiver for them. In its March 2019 revision of Application Exhibit 1001.31 (Hearing Exh. 21), NTW indicated that under its new Project layout, Turbine 39 was eliminated and Turbine 44 was relocated. Thus, the Siting Board need not consider waiving the setbacks for these turbines here.

setback. Consequently, NTW must comply with Harrisburg's law or obtain consent agreements from the owners of the contiguous parcels. We require NTW to submit as a compliance filing (1) a revised map with setback estimates for all turbines and adjoining properties on which NTW holds leasehold interests; and (2) copies of any agreements reached with the adjoining landowners.

We want to make clear that 16 NYCRR § 1001.31(b) is a mechanism to allow an applicant to request that a Town be authorized to administer procedural requirements. In such instances, if we grant that request, the municipality would be able to require submission and review of certain plans and documents. NTW requested authorization for Lowville to administer its road use law, its process for permitting wind measurement towers, and to allow its Code Enforcement Officers to enforce the State Uniform Fire Prevention and Building Code and to issue permits for the Operation and Maintenance building, point of interconnection switchyard building, and substation building included in the Project.

With regard to the State Uniform Fire Prevention and Building Code, our regulations require applicants to identify the "city, town, village, county, or State agency qualified by the Secretary of State that shall review and approve the building plans, inspect construction work, and certify compliance with the New York State Uniform Fire Prevention and Building Code, the Energy Conservation Construction Code of New York State, and the substantive provisions of any applicable local electrical, plumbing or building code."<sup>317</sup> Where the town has adopted and incorporated the New York State Uniform Fire Prevention and Building Code for administration into its local

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<sup>317</sup> 16 NYCRR 1001.31(c).

codes, an applicant may request that the Siting Board expressly authorize the exercise of the electric, plumbing and building permit application, inspection and certification processes by such town.<sup>318</sup>

In this instance, NTW has identified that the Town of Lowville, through its Code Enforcement Officer, will review and approve building plans, inspect the construction work, and certify compliance with the above-listed codes and standards for the "O&M Building and any enclosed buildings in the Project Substation and POI Switchyard."<sup>319</sup> Here, NTW has requested that Lowville be authorized to exercise Chapter 118 of its local law to authorizes the Lowville Code Enforcement Officer to enforce the State Uniform Fire Prevention and Building Code and to issue building permits. The Siting Board is not qualified to certify compliance with the New York State Uniform Fire Prevention and Building Code and, consequently, we will authorize Lowville to exercise its procedural requirements under Chapter 118 for review of the Facilities to ensure compliance with the requisite building standards.

We note that with regards to the wind turbines, NTW has not identified the requisite entity that will review compliance with the applicable building standards for the wind turbines, and states that the "wind turbines will be inspected for compliance with relevant codes by a third-party contractor." To ensure compliance with the applicable standards, the third-party company that NTW retains is required to coordinate with and report to the Town of Lowville Code Enforcement Officer or another town, county or State agency qualified by the Secretary of State to review and approve the building plans, inspect the

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<sup>318</sup> Id.

<sup>319</sup> App. Exh. 31 rev. 1, pp. 1-2.

construction work, and certify compliance with applicable standards, including the New York State Uniform Fire Prevention and Building Code.

NTW also seeks our authorization for Lowville to exercise Section 100-13 Chapter 100 of its Town Code, which requires wind farm developers to execute road agreements and Section 100-20 of the Lowville Code that provides a process for permitting wind measurement towers. With regards to the road agreements, we authorize the Town to exercise its procedural requirements over the use of town roadways. However, with regards to permitting wind measurement towers, we deny NTW's request. The towers are appurtenant to the Facility and are otherwise included in our review of this Project, therefore we find no need for such authorization.

We waive only those laws specifically set forth above. We find that this Project otherwise will comply with applicable substantive local laws in its construction and operation.

Finally, we wish to explain the important role a Town can play with respect to the question of waiving substantive local laws. We encourage applicants to have open communications with host towns on a variety of issues, including early discussion of the applicability of local laws. Municipal officials are often best situated to understand the sensibilities of their residents. Thus, while we cannot defer to a Town's waiver of its local laws through a preempted procedural mechanism, we certainly can consider such a waiver as evidence of a town's position regarding the appropriateness of waiving local laws. Other ways a Town can make its intent known with respect to this issue is through the filing of testimony in the proceeding or a town resolution making clear that it does not object to the waiver of specific local laws. The applicant remains responsible for explaining in its application why the

local law is unreasonably burdensome, even if the host town does not object to the waiver of its local laws.

J. Decommissioning and Restoration - 16 NYCRR § 1001.29

The Recommended Decision contains a detailed discussion about the disputed issues associated with NTW's site restoration and decommissioning plans (SR&D Plans).<sup>320</sup> The SR&D Plans provide that the Facility will be decommissioned at the end of its projected lifespan of 40 years, assuming regular maintenance and component replacement. The Examiners reviewed the scope of work for decommissioning and site restoration, the absence of total cost estimates for those activities, the proposed offset for salvage values, the procedures applicable to the Towns, including posting their own financial security instrument, and the letter of credit form of the financial instrument to be used to assure completion of those activities.

The Examiners concluded that the Siting Board's order in Cassadaga Wind provides the best starting point to resolve the disputed issues, including the letter of credit requirement and the exclusion of salvage value as an offset.<sup>321</sup> The Examiners recommended that we first require as a Certificate Condition NTW's revision of the SR&D Plans and submission as compliance filings.<sup>322</sup> With respect to the letter of credit, the Examiners further recommended a Certificate Condition requiring NTW to post an irrevocable letter of credit for the benefit of the Towns to cover the full amount of the total site restoration and decommissioning costs as estimated in revised SR&D Plans.<sup>323</sup>

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<sup>320</sup> Recommended Decision, pp. 156-160.

<sup>321</sup> Recommended Decision, p. 160.

<sup>322</sup> Recommended Decision, p. 163.

<sup>323</sup> Recommended Decision, p. 163.

The Examiners recommended that we adopt the approach taken in Cassadaga Wind and reject any offset of decommissioning costs with salvage value.<sup>324</sup> The Examiners recommended updates to cost estimates every five years during the life of the Facility and an increase to the letter of credit amount within 60 days of the updates.

The Examiners also disagreed with what they referred to as the "potentially burdensome" process NTW proposed for the Towns to compel decommissioning if NTW fails to act when turbines have been non-operational for one year.<sup>325</sup> The Examiners recommended instead that we adopt a Certificate Condition that requires decommissioning of any turbines that have not been operational for at least 12 months but allow NTW to apply to the Siting Board or the Commission for leave to extend that time-frame for extraordinary circumstances.<sup>326</sup> The Examiners recommended that the O&M building be decommissioned unless NTW can demonstrate a plan for maintaining the building or otherwise show that it will be used.<sup>327</sup>

In addition, the Examiners recommended that we find that NTW's SR&D Plans lack sufficient detail and require NTW to submit revised Plans to clarify that NTW will remove all project components, including access roads and components on prime agricultural land that may be buried, such as cables and collection lines.<sup>328</sup> The Examiners also recommended that we require NTW to submit to DPS Staff written consent from any landowner seeking to exempt an access road from removal.

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<sup>324</sup> Recommended Decision, p. 162.

<sup>325</sup> Recommended Decision, p. 162.

<sup>326</sup> Recommended Decision, p. 162.

<sup>327</sup> Recommended Decision, p. 162.

<sup>328</sup> Recommended Decision, p. 162.

The Examiners determined that, in large part due to NTW's inclusion of off-setting salvage values, the record did not provide a basis to establish a specific amount for decommissioning and site restoration.<sup>329</sup> The Examiners therefore recommended that we require NTW to submit, as a compliance filing, revised cost estimates without off-setting salvage values.<sup>330</sup> The Examiners also recommended that NTW be required to update its cost estimates at least once every five years during the life of the Facility, submit those updated cost estimates to DPS Staff and the Towns for comment and approval, and increase the letter of credit accordingly within 60 days of the updates.<sup>331</sup>

The Examiners recommended that the Siting Board adopt proposed Certificate Condition 45, which is similar to the condition adopted in Cassadaga Wind. Condition 45 would require NTW: (1) to revise and resubmit as a compliance filing its revised Plans to DPS Staff for approval, which should include removal of all Project components and restoration of access roads unless written approval from the participating property owner is provided; (2) to submit revised cost estimates for decommissioning and site restoration that includes access road restoration and eliminate salvage and resale value offsets; (3) post and maintain an irrevocable letter of credit for the benefit of the Towns to cover the full amount of updated decommissioning and site restoration costs, as approved by DPS Staff and the Towns and to be held by each host Town until the Facility is fully decommissioned; (4) to update decommissioning and site restoration cost estimates every five years and

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<sup>329</sup> Recommended Decision, p. 162.

<sup>330</sup> Recommended Decision, pp. 162-163.

<sup>331</sup> Recommended Decision, p. 163.



increase the amount of the letter of credit accordingly; and (5) to simplify the process for the Towns to compel decommissioning for turbines that are not operational for 12 months by requiring NTW to commence decommissioning of any turbines that have not been operational for at least 12 months or to apply to the Siting Board or Commission to extend the 12-month time-frame based on extraordinary circumstances.<sup>332</sup>

NTW excepts to the requirement that it post a letter of credit and fund the full amount of site restoration and decommissioning. NTW argues that this requirement would add significant cost to the Project and result in funds "sitting idle for the life of the Project that could be better invested elsewhere."<sup>333</sup> NTW also excepts to the exclusion of net salvage value and asserts that estimated value can be updated every three years.<sup>334</sup>

DPS Staff supports all of the Examiners' recommendations and argues that any risks associated with decommissioning and site restoration should be borne by NTW.<sup>335</sup> DPS Staff asserts that financial assurance in the form of a letter of credit provides certainty and swift access to funds, unlike other financial assurance mechanisms.<sup>336</sup> DPS Staff asserts that the public interest in assuring the prompt

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<sup>332</sup> Recommended Decision, p. 163.

<sup>333</sup> NTW Brief on Exceptions, p. 61.

<sup>334</sup> NTW does not except to the Examiners' other recommendations regarding updates to the SR&D Plans and cost estimates, removal of all project components, including underground cables, and restoration of access roads unless the landowner consents to allow any access road to remain. NTW Brief on Exceptions, p. 60.

<sup>335</sup> DPS Staff Brief Opposing Exceptions, p. 13.

<sup>336</sup> DPS Staff Brief Opposing Exceptions, pp. 13-14.

availability of funds for the Towns outweighs NTW's interest in reducing costs.

We agree with the Examiners' recommendations and adopt the approach taken in Cassadaga Wind, specifically with respect to requiring a letter of credit for decommissioning and site restoration costs and excluding salvage value offsets from cost estimates.

The Siting Board in Cassadaga Wind included a Certificate Condition requiring the applicant to post a letter of credit with the estimated amount for decommissioning and site restoration costs excluding any offset for the salvage or resale value of component parts. The Siting Board also ordered periodic submission of updated cost estimates to DPS Staff for approval during the life of the project.<sup>337</sup>

We found in Cassadaga Wind that excluding the use of salvage and resale values to determine decommissioning and site restoration cost estimates would best address the primary risks to the municipalities posed by potential abandonment of the Facility. We stated that it is crucial that sufficient funds be available for decommissioning and site restoration work to proceed in a timely and efficacious manner, which can be assured only by having the full decommissioning cost available, with no salvage offset.<sup>338</sup> We also noted that salvage values can fluctuate dramatically, a risk that should not be borne by the affected Towns.<sup>339</sup> Although in the Cassadaga Order we recognized that salvage value had to be addressed in an Article 10 application, see 16 NYCRR § 1001.29(a)(4), we found that nothing in PSL § 168 requires the Siting Board to include that value as

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<sup>337</sup> Recommended Decision, p. 161.

<sup>338</sup> Cassadaga Wind Order, p. 98.

<sup>339</sup> Cassadaga Wind Order, p. 98.

an offset in approving a certificate condition requiring financial assurance for full decommissioning and site restoration costs.

We agree with the Examiners' finding here that if Project components have salvage value at the end of their useful life, NTW will realize those benefits as it decommissions the facility, which is preferable to the Towns bearing the risk that the projected salvage/resale values estimated today will not be realized decades from now. We therefore adopt the Examiners' recommendations and consistent with our findings, include Certificate Condition 45.

K. Public Interest Review - PSL § 168(3)(b)

PSL § 168(3)(b) states that the Siting Board may not grant a Certificate unless it determines that the construction and operation of the facility will serve the public interest. PSL § 168(4), directs the Siting Board to consider the state of the available technology, the nature and economics of reasonable alternatives, the environmental impacts of the entire Project including the construction and operation of related facilities, whether the Project is consistent with the State Energy Plan and New York's broader energy policies, the impact on community character, and any other considerations deemed pertinent by the Siting Board, including economic impacts.<sup>340</sup>

As the Examiners noted, the dispute over whether construction and operation of the Project will serve the public interest focuses on a single issue: whether the socioeconomic costs and benefits have been adequately presented by NTW in

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<sup>340</sup> See Case 14-F-0490, Cassadaga Wind Recommended Decision (issued November 8, 2017), pp. 151-155 (explaining the public interest review in Article 10 proceedings); Cassadaga Wind Order, pp. 101-103 (approving and adopting Recommended Decision's public interest review standard).

Exhibit 27 of its application.<sup>341</sup> The Examiners found that NTW's application addressed such impacts and recommended that we find that construction and operation of the Project is in the public interest.<sup>342</sup>

In their Recommended Decision, the Examiners rejected THARP's argument that the addition of another industrial wind facility in the Lowville/Harrisburg community will result in job losses in the tourism industry and otherwise adversely impact the local economy.<sup>343</sup> The Examiners found that THARP's argument was unpersuasive because it presented no evidence to support its argument. The Examiners concluded that the record evidence, including Application Exhibit 27, was sufficient for the Siting Board to make its public interest determination.<sup>344</sup>

On exceptions, THARP claims that the Examiners impermissibly shifted NTW's burden to THARP to prove adverse effects on tourism and improperly ignored the evidence presented by an existing business owner about anticipated negative impacts on tourism-based businesses.<sup>345</sup> THARP argues that, in reaching their conclusion, the Examiners ignored pre-filed testimony by the co-owner of the Tug Hill Vineyards, Susan Maring, that the noise from and view of numerous turbines will "likely impact" her business -- a winery that hosts various events including up to 35 weddings a year. She also asserts secondary impacts on other local businesses frequented by her customers.<sup>346</sup> THARP

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<sup>341</sup> Recommended Decision, pp. 166-167.

<sup>342</sup> Recommended Decision, pp. 171-172.

<sup>343</sup> Recommended Decision, pp. 169-172; THARP Initial Brief, pp. 46-48.

<sup>344</sup> Recommended Decision, p. 172.

<sup>345</sup> THARP Brief on Exceptions, p. 24.

<sup>346</sup> THARP Brief on Exceptions, pp. 24-26.

reiterates Ms. Maring's belief that "turbine-free views of the countryside are critical to the success of her business."<sup>347</sup>

THARP maintains that the Siting Board should deny NTW's request for a Certificate based on the lack of analysis of negative local economic impacts. Alternatively, THARP submits that, if a Certificate is granted, specific conditions be added requiring NTW to relocate or remove certain turbines (T-1, T-2, T-3 and T-4) and to submit as a compliance filing a revised assessment of local economic impacts on tourism and agritourism businesses with a plan for mitigation. THARP claims that in the absence of an analysis of local economic impacts, the Siting Board cannot make a finding that the Project is in the public interest.<sup>348</sup>

In opposing THARP's exceptions, NTW responds that its burden was to ensure that the Siting Board can make the required determinations under Article 10.<sup>349</sup> NTW asserts that it does not have the burden to disprove claims made by Project opponents unless supported by sufficient evidence to shift the burden. Citing record evidence of the Tug Hill Vineyards' use of wine labels depicting a wind turbine, NTW claims that THARP's claims that wind farms depress tourism are not supported.<sup>350</sup>

No other party took exception to the Examiners' findings or recommendations that the Project met the public interest standard.

We agree with the Examiners' conclusions that the record is sufficient on which to base our public interest determination. We also agree with the Examiners that the

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<sup>347</sup> THARP Brief on Exceptions, pp. 24-25; Tr. 10-21; 339; 1634-1638.

<sup>348</sup> THARP Brief on Exceptions, p. 26.

<sup>349</sup> NTW Brief Opposing Exceptions, p. 11.

<sup>350</sup> Tr. 965; NTW Brief Opposing Exceptions, p. 12.

potential adverse impacts on area tourism are speculative and unsupported in the record. We do not agree that the Examiners improperly shifted the Applicant's burden to THARP. NTW has met its burden and shown in its Application and other record evidence that the Project meets the public interest standard. Accordingly, we adopt the Examiners' recommendation that we find the Project to be in the public interest.

L. Consistency with State Energy Policies - PSL § 168(4)(e)

PSL § 168(4)(e) requires that we consider whether this Project is consistent "with the energy policies and long-range planning objectives and strategies" contained in the State Energy Plan. The Examiners found evidence in the record of the Project is consistency.<sup>351</sup> We agree.

On exceptions, DPS Staff concurs with the Examiners' recommendation that the Siting Board find the Project to be consistent with State energy policies, but reiterated that the Project will have a de minimus impact on the dispatch of "must-run" generation.<sup>352</sup> DPS Staff clarified that impacts on this kind of must-run generation included decreases in energy production from existing hydropower, wind, nuclear and co-generation rather than solely fossil fuel generation.<sup>353</sup>

On exceptions, THARP appears to challenge the Project's consistency with State Energy Policies, but its arguments are primarily focused on and applicable to the Siting Board's public interest determination under PSL § 168(3)(b). As such, we have addressed that issue in the Public Interest section, above.

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<sup>351</sup> Recommended Decision, pp. 126-129.

<sup>352</sup> DPS Staff Brief on Exceptions, p. 13.

<sup>353</sup> DPS Staff Brief on Exceptions, p. 13.

We agree with the Examiners that the construction and operation of the NTW Project is consistent with State energy policies and the long-range energy planning objectives and strategies contained in the State Energy Plan (SEP), as required by PSL § 168(4) (e).<sup>354</sup> The NTW Project is a large-scale wind facility that will provide renewable energy without long-term greenhouse gas emissions and will generate economic development and jobs.<sup>355</sup> The Project is expected to displace facilities with greater greenhouse emissions. It would have no significant adverse effect on the dispatch of must-run generation in New York State, and is anticipated to result in a decrease in wholesale electricity prices in energy markets.<sup>356</sup> As the Examiners' noted, the NTW Project is consistent with the SEP's policy of promoting renewable energy and competition for the benefit of ratepayers and the overall modernization of the grid.<sup>357</sup>

#### IV. CONCLUSION

Based on the record before us, the arguments of the parties, and all applicable laws and policies, we grant the Certificate of Environmental Compatibility and Public Need to Number Three Wind, LLC, subject to the conditions set forth in the Certificate Conditions, Attachment A to this order, and the SEEP Specifications set forth in Appendix B to this order.

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<sup>354</sup> Recommended Decision, pp. 126-129.

<sup>355</sup> Recommended Decision, p. 127.

<sup>356</sup> Recommended Decision, pp. 127-128.

<sup>357</sup> Recommended Decision, p. 128-129.

The Board on Electric Generation Siting and the Environment  
orders:

1. The Recommended Decision of Examiners Maureen F. Leary and Molly T. McBride, to the extent consistent with this opinion and order, is adopted and, together with this opinion and order, constitutes the decision of the Siting Board in this proceeding.

2. Except as granted herein, all exceptions to the Examiners' recommended decision are denied.

3. Subject to the conditions set forth in this opinion and order and appended to it, a Certificate of Environmental Compatibility and Public Need (Certificate) is granted, pursuant to Article 10 of the Public Service Law, to Number Three Wind, LLC (Certificate Holder) for the construction and operation of a 105.8 megawatt wind farm consisting of up to 31 wind turbines in the Towns of Lowville and Harrisburg in Lewis County, New York, and a point of interconnection with the electric grid through the existing 115-kilovolt Lowville-Bremen owned and operated by National Grid, provided that the Applicant files, within 30 days after the date of issuance of this opinion and order, a written acceptance of the Certificate pursuant to 16 NYCRR § 1000.15(a).

4. Upon acceptance of the Certificate granted in this opinion and order or at any time thereafter, the Certificate Holder shall serve copies of its compliance filings in accordance with the requirements set forth in 16 NYCRR §1002.2(c) and the Certificate Conditions attached as Appendix A and the Site Engineering and Environmental Plans (SEEP) specifications attached as Appendix B. Pursuant to 16 NYCRR § 1002.2(d), parties served with the compliance filings may file comments on the filing within 21 days of its service date.



5. Prior to the commencement of construction, the Certificate Holder shall comply with those requirements of Public Service Law § 68 that do not relate to the construction and operation of the facility by obtaining Public Service Commission permission and approval as an electric corporation.

6. If the Certificate Holder decides not to commence construction of any portion of the Project, it shall so notify the Secretary in writing within 30 days of making such decision and shall serve a copy of such notice upon all parties and all entities entitled to service of the application or notice of the application.

7. In the Secretary's sole discretion, the deadlines set forth in this order may be extended. Any request for an extension must be in writing, include a justification for the extension, and be filed at least one day prior to the affected deadline.

8. This proceeding is continued.

By the New York State Board  
on Electric Generation Siting  
and The Environment,

(SIGNED)

MICHELLE L. PHILLIPS  
Acting Secretary

**APPENDIX A**

**CERTIFICATE CONDITIONS**

**Certificate Conditions**

**I. Project Authorization**

1. Number Three Wind, LLC ("the Certificate Holder") is authorized to construct and operate the Facility (Facility or the Project), as described in the Application by Number Three Wind LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 of the New York State Public Service Law (PSL) (the Application) and clarified by the Certificate Holder's supplemental filings, updates and replies to discovery data requests, additional exhibits, except as waived, modified or supplemented by the New York State Board on Electric Generation Siting and the Environment's (Siting Board's) Order Granting Certificate or other permits.
2. Pursuant to Title 16 of the New York Codes, Rules and Regulations (NYCRR) § 1000.15, the Certificate Holder shall, within 30 days after the issuance of the Certificate, file with the Siting Board either a petition for rehearing or a verified statement that it accepts and will comply with the Certificate for the Project. Failure of the Certificate Holder to comply with this condition shall invalidate the Certificate.
3. (a) The Certificate Holder is responsible for obtaining all necessary permits and any other approvals (including those required pursuant to PSL §§ 68, 69, and 70) that may be required for the Project and which the Siting Board is not empowered to provide or has expressly authorized.  
  
(b) The Siting Board authorizes (i) the New York State Department of Transportation (NYSDOT) to administer permits associated with Oversize/Overweight Vehicles and deliveries, Highway Work Permits, and associated Use and Occupancy approvals as needed to construct and operate the proposed facilities; and (ii) the Town of Lowville to enter into road use agreements and implement the New York State Uniform Fire Prevention and Building Code.
4. If the Certificate Holder believes that any action taken, or determination made, by a State or local agency or their respective staffs, in furtherance of such agency's review

of any applicable regulatory permits or approvals, or actions or the lack thereof by a utility subject to the Public Service Commission's jurisdiction, is unreasonable or unreasonably delayed, conditioned or withheld, the Certificate Holder may petition the Siting Board or the Commission, as the case may be, upon reasonable notice to that agency or utility, to seek a determination of any such unreasonable or unreasonably delayed, conditioned or withheld, action or determination. The permitting agency, agency staff or utility, as the case may be, may respond to the petition, within ten days, to address the reasonableness of its action or determination.

5. Facility construction is authorized for up to 31 wind turbines in the Towns of Lowville and Harrisburg in Lewis County, temporary or permanent access roads, 34.5 kilovolt (kV) underground collection system, collection substation, 115 kV interconnection line, point of interconnection (POI) switchyard, two permanent meteorological towers, one operations and maintenance (O&M) Building, and a temporary staging/laydown area. The total generating capacity of the Facility shall not exceed 105.8 megawatts (MWs).
6. If the Certificate Holder decides not to commence construction of any portion of the Project (not including turbine deletions as a result of final facility design as long as turbine deletions do not result in substantial re-routing of proposed Facility components including access roads, interconnection and collection lines), it shall so notify the Secretary to the Siting Board (Secretary) in writing within 30 days of making such decision and shall serve a copy of such notice upon all parties in the same manner and at the same time as it files with the Secretary.
7. If the Project results in activities regulated under Section 401 of the Clean Water Act, prior to the construction of the Facility the Certificate Holder shall file a request/application for a Water Quality Certification with the Secretary, which shall be filed and served and noticed pursuant to 16 NYCRR §100.8(a)(8). This request shall be filed concurrently with the permit application filed with the United States Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act.

8. The Certificate Holder has not asserted that it has the power of eminent domain to acquire real property or demonstrated that the feasibility of the Project relies in any way upon the Certificate Holder or any other entity having the power of eminent domain or exercising the power of eminent domain to acquire permanent or temporary real property rights for the Facility or for any of the access roads, construction staging areas or interconnections necessary to service the Facility. By granting this Certificate to the Certificate Holder, an entity in the nature of a merchant generator and not in the nature of a fully regulated public utility company with an obligation to serve customers, the Siting Board is not making a finding of public need for any particular parcel of land such that a condemnor would be entitled to an exemption from the provisions of Article 2 of the New York State Eminent Domain Procedure Law ("EDPL") pursuant to Section 206 of the EDPL. As a condition of this Certificate, the Certificate Holder shall not commence any proceedings or cause any other entity having the power of eminent domain to commence any proceedings under the EDPL to acquire permanent or temporary real property rights for the Facility or for any of the access roads, construction staging areas or interconnections necessary to service the Facility without an express amendment to this Certificate, granted by the Siting Board, authorizing such proceedings.
9. This Certificate will automatically expire in five years from the date of issuance of this Certificate (the "Expiration Date") unless the Certificate Holder has completed construction and commenced commercial operation of the Facility prior to said Expiration Date.
10. The Secretary to the Siting Board, or Secretary to the Commission after the Siting Board's jurisdiction has ceased, may extend any deadlines established by this order for good cause shown. Any request for an extension must be in writing, include a justification for the extension, and be filed at least one day prior to the affected deadline.

## **II. General Conditions**

11. The Certificate Holder shall file notice of receipt of the federal, State, and local permit(s) with the Secretary to the Siting Board (Secretary) as required by Attachment A.

Should any permits be denied, the Certificate Holder shall file with the Secretary documentation demonstrating the reasons for the denial and how it plans to proceed with its Project plans in light of the denial.

12. The Certificate Holder shall implement the impacts avoidance, minimization and mitigation measures, as described in the Application and clarified by the Certificate Holder's supplemental filings, updates and replies to discovery data requests and additional exhibits, and this Certificate.
13. The Certificate Holder shall construct and operate the Facility in accordance with the substantive provisions of the applicable local laws as identified in Exhibit 31 of the Application and as further amended, revised, and adopted, except for those local laws the Siting Board waived as unreasonably burdensome, as stated in this Order Granting Certificate. The Certificate Holder shall comply with the substantive provisions of Lewis County Local Law No. 4 by filing as a Compliance Filing the required post-construction certifications specified therein.
14. The Certificate Holder shall design, construct, and operate the Facility in accordance with those American National Standards Institute (ANSI) standards applicable and intended for use in a wind energy facility.
15. The Certificate Holder shall work with Niagara Mohawk Power Corporation, d/b/a National Grid, and any successor Transmission Owner (as defined in the New York Independent System Operator (NYISO) Agreement), to ensure that, with the addition of the Facility (as defined in the Interconnection Agreement between the Certificate Holder, NYISO and National Grid), the system will have power system relay protection and appropriate communication capabilities to ensure that operation of the National Grid transmission system is adequate under Northeast Power Coordinating Council (NPCC) standards, and meets the protection requirements at all times of the North American Electric Reliability Corporation (NERC), NPCC, New York State Reliability Council (NYSRC), NYISO, and National Grid, and any successor Transmission Owner (as defined in the NYISO Agreement). The Certificate Holder shall demonstrate compliance with applicable NPCC criteria and shall be

responsible for the costs to verify that the relay protection system is in compliance with applicable NPCC, NYISO, NYSRC and National Grid criteria.

16. The authority granted in the Certificate and any subsequent Order(s) in this proceeding is subject to the following conditions necessary to ensure compliance with such Order(s):

- a) The Certificate Holder shall regard the Department of Public Service Staff (Staff or DPS Staff), authorized pursuant to PSL §66(8), as the Siting Board's representatives in the field and, after the Siting Board's jurisdiction has ceased, as the Public Service Commission's (Commission) representatives in the field. In the event of an emergency resulting from the specific construction or maintenance activities that violate, or may violate, the terms of the Certificate, Compliance Filings, or any other order in this proceeding, such DPS Staff may issue a stop work order for that location or activity. For the purposes of this Condition, "emergency" means the creation of a condition that could not be readily remediated and that has a high likelihood of creating a risk to human health or safety or damage to a sensitive environmental resource.
- b) A stop work order shall expire 24 hours after issuance unless confirmed by the Siting Board, or the Commission after the Siting Board's jurisdiction has ceased, including by Order issued by the Chair of the Siting Board or by one Commissioner of the Commission. DPS Staff shall give the Certificate Holder notice by electronic mail of any application to the Siting Board or Commissioner to have a stop work order confirmed. If a stop work order is confirmed, Certificate Holder may seek reconsideration from the confirming Commissioner, Siting Board or the whole Commission. If the emergency prompting the issuance of a stop work order is resolved to the satisfaction of DPS Staff, the stop work order will be lifted. If the emergency has not been satisfactorily resolved, the stop work order will remain in effect.

- c) Stop work authority shall be exercised with consideration of potential environmental impact, economic costs involved, possible impact on construction activities, and whether an applicable statute or regulation is violated. Before exercising such authority, DPS Staff will consult wherever practicable with the Certificate Holder's representative(s) possessing comparable authority. Within reasonable time constraints, all attempts will be made to address any issue and resolve any dispute in the field. In the event the dispute cannot be resolved, the matter will be brought immediately to the attention of the Certificate Holder's Project Managers and the Director of the DPS Office of Electric, Gas and Water. If DPS Staff issues a stop work order, neither the Certificate Holder nor the Contractor will be prevented from undertaking any safety-related activities as they deem necessary and appropriate under the circumstances. Issuance of a stop work order or the implementation of measures as described below may be directed at the sole discretion of DPS Staff during these discussions.
- d) If DPS Staff discovers a specific activity that represents a significant environmental threat that is, or immediately may become, a violation of the Certificate, Compliance Filings, or any other Order in this proceeding, DPS Staff may -- in the absence of responsible Certificate Holder supervisory personnel, or in the presence of such personnel who, after consultation with DPS Staff, refuse to take appropriate action -- direct the field crews to stop the specific potentially harmful activity immediately. If responsible Certificate Holder personnel are not on site, DPS Staff will immediately thereafter inform the Certificate Holder's construction supervisor(s) and/or environmental monitor(s) of the action taken. The stop work order may be lifted by DPS Staff if the situation prompting its issuance is resolved.
- e) If DPS Staff determines that a significant threat exists such that protection of the public or the environment at a particular location requires the immediate implementation of specific measures, DPS Staff may, after making reasonable efforts to communicate with Certificate Holder supervisory



personnel as identified in the Project Communications Plan, or in the presence of such personnel who, after consultation with DPS Staff, refuse to take appropriate action, direct the Certificate Holder or the relevant Contractors to implement the corrective measures identified in the approved Certificate or Compliance Filings. All directives must follow the protocol established for communication between parties as required by the final approved Project Communications Plan. The field crews shall immediately comply with DPS Staffs directive as provided through the communication protocol. DPS Staff will immediately thereafter inform Certificate Holder pursuant to the Project Communications Plan and/or Environmental Monitor(s) of the action taken.

17. The Certificate Holder shall notify its contractors that the Siting Board may seek to recover penalties for any violation of the Certificate and other orders issued in this proceeding, not only from such Certificate Holder, but also from its contractors and that contractors also may be liable for other fines, penalties, and environmental damage.
18. The Certificate Holder shall construct and operate the Facility in a manner that conforms to all substantive State requirements, including, but not limited to, those identified in Exhibit 32 of the Application.
19. The Certificate Holder may elect to phase the construction activities as provided in this section. Upon approval of all compliance filings related to clearing, the preparation of the construction laydown yard, and grading for the POI Switchyard, the Certificate Holder may request permission to proceed with Limited Construction. The request shall be directed to the Chief, Environmental Compliance and Certification Section, Department of Public Service and shall designate (1) the specific activities approved in the compliance filings that the Certificate Holder plans to undertake, and (2) the anticipated schedule for the work. Within 5 business days of receipt, the Chief, Environmental Compliance and Certification Section, shall provide either a Notice to Proceed with Limited Construction or a written explanation of why such a Notice will not be issued. The Certificate Holder may proceed with all construction

activities authorized under the Notice to Proceed with Limited Construction.

Upon compliance with all pre-construction obligations identified in these Certificate Conditions, the Certificate Holder may request permission to proceed with Full Construction. The request shall be directed to the Chief, Environmental Compliance and Certification Section, Department of Public Service. The request shall identify the proposed start date for Full Construction and include the anticipated schedule for construction activities. Within 5 business days of receipt, the Chief, Environmental Compliance and Certification Section, shall provide either a Notice to Proceed with Full Construction or a written explanation of why such a Notice will not be issued. The Certificate Holder may proceed with all activities authorized under the Notice to Proceed with Full Construction.

Activities required to enable engineering and environmental surveys and access for testing necessary for preparation of final facilities design, Compliance Filings, and site plan preparation, including minor trimming, cutting, and removal of vegetation and trees for such purposes, are not considered construction.

### **III. Notifications**

20. At least 14 days prior to the commencement of construction activities authorized under either a Limited Notice to Proceed or a Notice to Proceed with Full Construction (Approved Activities), the Certificate Holder shall notify the public as follows:
  - a) Provide notice by mail to host landowners, adjacent landowners within 5,000 feet of the final layout to be constructed, and persons who reside on such property (if different from the landowner);
  - b) Provide notice to local Town and County officials and emergency personnel;
  - c) Publish notice in the local newspapers of record for dissemination and in the local newspaper of largest

circulation, including at least one free publication if available (e.g., Pennysaver);

- d) Provide notice for display in public places, which will include, but not be limited to, the Town Halls of the host municipalities, at least one library in each host municipality, at least one post office in each host municipality, the Facility website, and the Facility construction trailers/offices; and
  - e) File notice with the Secretary for posting on the DPS Document Matter Management website.
21. The Certificate Holder shall write the Pre-Construction Notice in language reasonably understandable to the average person and shall ensure that the notice(s) contain:
- a) A map of the Project;
  - b) A brief description of the Project;
  - c) The construction schedule and transportation routes;
  - d) The name, mailing address, local or toll-free telephone number, and email address of the Project Development Manager and Construction Manager;
  - e) The procedure and contact information for registering a complaint; and
  - f) Contact information for the Siting Board and Commission.
22. Upon distribution of the Pre-Construction Notice, and prior to commencement of Approved Activities, the Certificate Holder shall notify the Town Boards of all areas where information regarding the Project, the Approved activities, and Project contact information have been posted.
23. At least seven (7) business days prior to commencement of Approved Activities, the Certificate Holder shall file with the Secretary an affirmation that it has provided the notifications required by this Section III and include a

copy of the notice(s) under this Section as well as a distribution list.

24. Prior to the end of construction, the Certificate Holder shall notify the entities identified in Condition 20(a), 20(b), and 20(e) with the contact name, telephone number, email and mailing address of the Facility Operations Manager.
25. The Certificate Holder shall file a written notice with the Secretary within 14 days of the completion of construction and provide an anticipated date of commencement of commercial operation of the Facility.
26. Within 14 days of the completion of final post-construction restoration, the Certificate Holder shall notify the Secretary that all such restoration has been completed in compliance with this Certificate and the Order(s) approving all applicable compliance filings.

**IV. Information Reports, Compliance Filings and Other Requirements**

27. A. The Certificate Holder shall file with the Siting Board the plans, reports, drawings, computer files, and other documents specified in Attachment A and according to the deadlines specified in Attachment A.
  - a) Items identified in Attachment A as Compliance Filings shall be filed in accordance with the rules for submittal, public comment, and decisions set forth in 16 NYCRR § 1002.2-1002.3.
  - b) Items identified in Attachment A as Information Reports shall be filed in accordance with 16 NYCRR § 1002.4.
- B. In addition to the plans, reports, drawings, computer files other document specified in Attachment A, the Certificate Holder shall file as a Compliance Filing the following documents:
  - a) The agreement with the United States Department of Defense regarding issuance of the FAA's Determination

of No Hazard. The filing of the agreement shall be subject to conditions necessary to preserve any confidential information.

- b) A report detailing the nature of Certificate Holder's consultations with the Watertown International Airport and the result of those consultations.
- c) Documentation, including proofs of consent, redacted as needed to protect confidential information, demonstrating that all necessary agreements are in place for use of the Facility Site for construction and operation (e.g., landowner agreements, easements, setback waivers, or Good Neighbor Agreements) and redacted as needed to protect confidential information.
- d) The post-construction certifications specified in Lewis County Local Law No. 4.
- e) A final project layout with sufficient detail to verify that the Facility will meet all local setback requirements and, where setback requirements are met through landowner or other agreements, documentation of such agreements having been finalized.
- f) A final executed road use agreement with the Town of Lowville.

### **Other Requirements**

#### 28. Interconnection:

- a) Any updates or revisions to the Interconnection Agreement shall be submitted throughout the life of the Project.
- b) Except in the event of an emergency, if any equipment or control system with different characteristics is installed throughout the life of the Project, the Certificate Holder shall, at least 90 days before any such change is made, provide information regarding the need for, and the nature of, the change to National Grid and file such information with the Secretary. If

any such change(s) is made in the event of an emergency, the Certificate Holder shall notify the Secretary as soon as practicable, within one week of the date of installation.

29. Facilities Studies:

- a) [Intentionally omitted.]
- b) Any updated facilities agreements will also be filed throughout the life of the Facility.

30. Any System Reliability Impact Study (SRIS) required as part of a future Facility modification or uprate, performed in accordance with the NYISO Open Access Transmission Tariff (OATT) approved by the Federal Energy Regulatory Commission, and all appendices thereto, reflecting the interconnection of the Facility.

31. The following shall be submitted regarding wind turbine model certification(s) for all proposed model(s), if not already provided to the Siting Board:

- (a) Third-party type certification in accordance with international Electrotechnical Commission (IEC) 61400, proving that wind turbine model(s) meet international design standards; and
- (b) Third-party Project certification showing that turbine model(s) are compatible with existing Project conditions (i.e., site specific conditions).

32. The Certificate Holder shall file with the Secretary within 60 days of the commercial operation date a certification that the collector lines were constructed to the latest editions of ANSI standards. The Facility's electrical collection system shall be designed in accordance with applicable standards, codes, and guidelines as specified in 16 NYCRR §1001.5.

33. [Intentionally omitted.]

34. Prior to the Certificate Holder providing final design plans and profile drawings of the 115-kV transmission line, new POI station, collector station, feeder lines, and other work related to interconnection, the Certificate Holder shall work with National Grid to ensure such documents are in accordance with the Interconnection Agreement and National Grid's Electric System Bulletins, as well as the New York State High Voltage Proximity Act.
35. A Relay Coordination Study that has been reviewed and accepted by National Grid shall be filed at least four months prior to the projected date for commencement of commercial operation of the Facility.
36. The Certificate Holder shall file with the Secretary, within one year after the Project becomes operational, a tracking report of the actual number of direct jobs created during the construction and operational phases of the Project, as well as the actual tax payments to local jurisdictions made during the Project.
37. If relevant Project plans require modifications due to conditions of federal, State, or local permits, the final design drawings and all applicable compliance filings shall be revised accordingly and submitted for review and approval pursuant to 16 NYCRR §1002.2 and §1002.3.
38. The following shall be filed regarding Federal Aviation Administration (FAA) permits and required approval documentation:
  - a) Prior to construction, Final Determinations or Determinations with conditions resulting from aeronautical studies;
  - b) If any Determinations of No Hazard to Air Navigation for the Project's wind turbines are extended, revised, or terminated by the issuing office, documentation or verification detailing the actions shall be filed with the Secretary within 10 days of issuance;
  - c) All material related to the FAA approval of lighting systems to be installed on wind turbines (and any associated equipment), including Aircraft Detection

Lighting Systems and non-Aircraft Detection Lighting Systems, shall be filed with the Secretary prior to construction.

- d) Certificate Holder shall provide any updated Compliance Filings, such as modified site plans and other drawings or details, in accordance with the requirements set forth in Appendix A "Requirements for the Development of Site Engineering and Environmental Plan Compliance Filings" and detailed in Condition 52, if relevant Project plans require modifications due to results of FAA studies and Determinations; and
  - e) A copy (or verification of filing to the FAA) of the FAA Form 7460-2, Notice of Actual Construction or Alternation shall be filed with the Secretary upon completion of construction of the Project.
39. Upon receipt, any local or State permits and/or approvals required for construction and operation of the Facility if such approvals were authorized by the Siting Board. If relevant Project plans require modifications due to conditions of local or State permits, the final design drawings and all applicable compliance filings shall be revised accordingly and submitted for review and approval pursuant to 16 NYCRR §1002.2 and §1002.3.
40. The final Facility design shall incorporate the following measures for visual impact minimization:
- a) Advertisements, conspicuous lettering, or logos identifying the Facility owner, turbine manufacturer, or any other entity on the turbines shall not be allowed;
  - b) White or off-white color of wind turbines, towers and blades (as required by the FAA to avoid the need for daytime aviation hazard lighting) shall be utilized; and non-reflective finishes used on wind turbines to minimize reflected glare;
  - c) Medium-intensity red strobe lights on turbines for aviation hazard marking, and the extent of lighting will be minimized to the extent allowable by the FAA;



- d) Lighting controls at substations, turbines, turbine sites and other Facility components shall be installed in accordance with the Exterior Lighting Package in Attachment A and maintained in accordance with good utility practice; and
  - e) Radar-activated aircraft detection controls be evaluated for use to potentially reduce visibility of on-turbine aviation hazard lighting, to the extent allowable by the Federal Aviation Administration.
41. *As-Built Plans* in both hard and electronic copies shall be filed within six months of the commencement of commercial operation of the Facility and shall include the following:
- a) GIS shapefiles showing all components of the Project (wind turbine locations, electrical collection system, transmission lines, substation, buildings, access roads, met towers, POI, etc.);
  - b) Collection circuit layout map; and
  - c) *As-Built Plans* and details for all Project component crossings of, and co-located installations of Project components with, existing pipelines: showing cover, separation distances, any protection measures installed, and locations of such crossings and co-located installations.
42. Water Supply Protection:
- a) During the final design phase of the Project, the Certificate Holder in consultation with DEC, DPS, and DOH Staff will develop a survey of exact locations of water supply wells in the Project area. The actual locations of water supply wells will be shown on maps included in a Compliance Filing. Water supply wells to be shown on the maps include:
    - (i) all existing, active water supply wells located within 100 feet of any collection lines or access roads;

- (ii) all existing, active water supply wells located within 1,000 feet of any turbines;
    - (iii) all existing, active water supply wells located within 500 feet of hydraulic directional drilling (HDD) operations; and
    - (iv) all existing, active water supply wells or water supply intakes located on non-participating parcels that are within 500 feet of any blasting operations.
  - b) Blasting shall be prohibited within 500 feet of any existing, active water supply well or water supply intake on a non-participating parcel.
  - c) If environmental or engineering constraints require siting of any collection lines or access roads within 100 feet of an existing, active water supply well or any turbines within 1,000 feet of an existing, active water supply well on a non-participating parcel, or if HDD operations are conducted within 500 feet of an existing, active water supply well, the Certificate Holder shall engage a qualified third party to perform pre- and post-construction testing of the potability of water wells within the above specified distances of construction disturbance before Commencement of Full Construction and after completion of construction to ensure the wells are not impacted.
  - d) Should the third-party testing conclude that Facility construction has adversely impacted potability of an existing, active water supply well, the Certificate Holder shall cause a new water well to be constructed, in consultation with the property owner, at least 100 feet from collection lines and access roads, and at least 1,000 feet from wind turbines.
43. [Intentionally omitted.]
44. In accordance with Attachment A, the Certificate Holder shall submit a Project Communications Plan as a Compliance Filing identifying the Certificate Holder's construction organizational structure, contact list, and protocol for

communication between parties. The plan shall include the names and contact information of all individuals responsible for Project oversight.

45. Prior to commencement of construction and after consultation with DPS Staff, a *Final Decommissioning Plan* shall be submitted as a Compliance Filing based on the final approved Facility layout. Irrevocable letters of credit will be established by the Certificate Holder to be held by each town hosting Facility components. The total amount of the letters of credit created for the Towns of Lowville and Harrisburg will represent the total final decommissioning and site restoration estimate, as described below. The letters of credit shall remain active until the Facility is fully decommissioned. The *Final Decommissioning Plan* will include the following:

- a) A final decommissioning and site restoration estimate. No offset for projected salvage value is permitted in the calculation of the estimate. The estimate shall be updated by a qualified independent engineer licensed to practice engineering in the State of New York to reflect inflation and any other changes after one year of Facility operation, and every fifth year thereafter. Updated estimates will be filed with the Secretary after one year of Project operation and every fifth year thereafter;
- b) Documentation indicating approval by the Towns of Lowville and Harrisburg of an acceptable form of letter of credit;
- c) Proof that the letters of credit have been obtained in the final decommissioning and site restoration estimate amount, as calculated pursuant to the Final Decommissioning Plan;
- d) Letters of credit shall be updated after one year of Facility operation and every fifth year thereafter, based on updated estimates described in sub-section a of this condition. Documentation shall be filed with the Secretary after one year of Project operation and every fifth year thereafter specifying changes to the structure of the letters of credit; and

- e) Copies of agreements between the Certificate Holder and the Towns, establishing a right for each Town to draw on the letters of credit dedicated to its portion of the Facility.
46. The Certificate Holder shall submit a final Complaint Resolution Plan as a Compliance Filing for both construction and operation phases of the Project. A copy of the Final Complaint Resolution Plan shall be submitted to the Towns and filed at the Facility document repositories. The plan shall address complaint reporting and resolution procedures for all construction and operation issues. The plan shall include protocols for:
- a) Registering a complaint;
  - b) Notifying the public of the complaint procedures;
  - c) Responding to and resolving complaints in a consistent and respectful manner;
  - d) Logging and tracking of all complaints received and resolutions achieved;
  - e) Reporting to DPS Staff any complaints not resolved within 30 days of receipt;
  - f) Arbitrating complaints not resolved within 60 days, unless the Certificate Holder files a status update with the Secretary establishing that the Certificate Holder and complainant are continuing to work in good faith to resolve the issue; and
  - g) Providing quarterly reports of complaint resolution tracking to DPS Staff that shall also be filed with the Secretary.

If the complaint resolution process determines that Facility operation has resulted in impacts to existing off-air television coverage, the Certificate Holder shall address each individual problem by investigating methods of improving the television reception system. Should this prove ineffective, cable television or equivalent service shall be offered (in areas where cable service is

available), or in areas where cable service is not available or not practical, direct broadcast satellite reception systems.

47. Replacement of major Facility components, such as wind turbines, with different make, model, size, or other material modification, shall be subject to review and approval under appropriate authority of the Siting Board.
48. The Certificate Holder shall maintain the wind turbines in accordance with manufacturer's required maintenance schedules or its own schedule that assures a commercially reasonable level of reliability and safety.
49. The Certificate Holder shall file construction and operations versions of its emergency response plans as a Compliance Filing. The Certificate Holder shall file annually with the Secretary an updated copy of its emergency response plan, including any changes to the list of emergency contacts.
50. The Exterior Lighting Package submitted pursuant to Attachment A as a Compliance Filing shall meet the following requirements:
  - a) Exterior lighting should be designed to provide safe working conditions at appropriate locations and to avoid off-site lighting effects, by:
    - (i) using task lighting as appropriate to perform specific tasks;
    - (ii) designing task lighting to be capable of manual or auto-shut off switch activation rather than motion detection (including lighting in the substation);
    - (iii) using full cutoff fixtures, with no drop-down optical elements (that can spread illumination and create glare), for permanent exterior lighting except for FAA lights, turbine door lighting, and task lighting;
  - b) [Intentionally omitted.]

51. The Certificate Holder shall coordinate with the State, County, and local municipalities to respond to any locations that may experience any traffic flow or capacity issues. The Certificate Holder shall file the following, as Compliance Filings, regarding potential transportation impacts in accordance with applicable requirements in Section 16(d) and 17(d) of Attachment A (Additional Required Filings):
- a) Traffic Control Plans for any city, town, or village that may experience delays to local traffic during construction activities. The Traffic Control Plans shall include copies of any Host Community Agreements and/or Road Use Agreements with the County and any affected towns where the local roads will be utilized for delivery or construction vehicle transportation.
52. Maps, site plans, profile figures, and environmental controls and construction details incorporating all components of the final layout of the Project shall be provided in a Compliance Filing, in accordance with the requirements set forth in Attachment A - Additional Required Filings, and any applicable Certificate Conditions.
53. Final design drawings, site plans, and construction details (to be included as part of the Compliance Filing in accordance with the requirements set forth in Attachment A and applicable Certificate Conditions) will show compliance with municipal wind turbine setback requirements.
54. The Certificate Holder shall provide the information required pursuant to Section A.1.q. of Attachment B - SEEP Specifications as a Compliance Filing, as applicable to Project component crossings of, or co-locations with, existing utilities within the Project Area.
55. Shapefile data shall be provided to DPS Staff for the locations of turbines, collection lines, transmission lines, substation, switchyard, designated clearing, construction and laydown areas, access ways, limits of disturbance and other Project facilities.
56. Blasting operations in locations where geotechnical investigations confirm the presence of subsurface karst

features shall be limited or performed under specific procedures recommended for those locations by a geotechnical engineer.

57. *Shadow Flicker Impacts Analysis, Control, Minimization and Mitigation Plan.* Shadow flicker caused by wind turbine operations shall be limited to a maximum of 30 hours annually at any non-participating residential receptor, subject to verification using shadow detection and operational controls at appropriate wind turbines. The *Shadow Flicker Impacts Minimization and Mitigation Plan* shall be filed as a Compliance Filing and include:

- a) updated analysis of realistic and receptor-specific predicted flicker based on final proposed design;
- b) a protocol for monitoring operational conditions and potential flicker exposure at the wind turbine locations identified in the updated analysis, based on meteorological conditions;
- c) details of the shadow detection and prevention technology or operational measures that will be adopted for real-time meteorological monitoring or operational control of turbines;
- d) temporary turbine shutdowns during periods that produce flicker; and
- e) shielding or blocking measures (such as landscape plantings and window treatments) for receptor locations that submit complaints for exposures that are not subject to the 20-hour or 30-hour annual limits.

Details of flicker control, minimization and mitigation measures shall be indicated on final design drawings and standards, and site plans as appropriate.

58. The Certificate Holder shall mitigate visual impacts of overhead transmission lines, if any, at NYS Route 812 (Maple Traditions Scenic Byway) by (a) planting a single row of sugar maple trees on the east side of Route 812 from the point approximately 350 feet north of the entrance to the Town of Lowville gravel pit and continuing

approximately 600 feet north and east along the south side of Route 812 (implementation of this mitigation shall be contingent on the agreement of the NYSDOT to allow the trees to be planted in the existing right of way for Route 812); and (b) reviewing the adequacy of that planting within one year after the commercial operations date, and consulting with DPS Staff regarding the need for additional visual mitigation, if any.

59. Cultural Resources Protection Measures, including plans to avoid or minimize impacts to archeological and historic resources to the extent practicable. Construction, including site preparation, clearing or other disturbance, shall not be allowed in any areas that have not been subject to consultation with the NYSOPRHP and/or SHPO. Prior to construction, the Certificate Holder shall demonstrate such consultation and approval.
60. The Certificate Holder shall implement a curtailment regime at all turbines during the period July 1 through October 1 requiring curtailment when wind speeds are equal to or less than 5.5 m/s, beginning at 30 minutes before sunset and ending 30 minutes after sunrise, when temperatures are greater than 10 degrees Celsius.
61. The Certificate Holder shall submit a review of the Facility's curtailment operations every five years to DPS and DEC Staffs. The first five-year review shall also include the results of research conducted of testing a bat deterrent system at the Orangeville Wind Farm in the Town of Orangeville, NY, which will also be filed as an information report to the Siting Board or PSC, as applicable. The review will assess if changes in technology or knowledge of impacts to bats supports modification of the existing curtailment regime. Modifications to the existing curtailment regime that further decrease mortality may be proposed or negotiated. Any such modifications shall be acceptable to DEC, DPS, and the Certificate Holder.
62. The Certificate Holder shall propose for Siting Board or PSC approval as a compliance filing a final Net Conservation Benefit Plan (NCBP) for the total calculated take of 12.9 Northern Long Eared Bats (NLEB) over the life of the Project. The NCBP shall be prepared in consultation



with and accepted by DEC and DPS Staffs (such acceptance not to be unreasonably delayed or withheld as determined by the Siting Board or PSC). Consultations shall be open to any Party desiring to participate or observe and shall meet the requirements of 6 NYCRR §182.11. In the event that the final NCBP is not filed, or if mitigation measures are not implemented, prior to commencement of operation of the Facility, the Certificate Holder shall implement curtailment when wind speeds are less than 6.9 m/s, from July 1 to October 1, beginning at 30 minutes before sunset and ending 30 minutes after sunrise, when air temperature is equal to or greater than 10 degrees Celsius. Upon filing of the final NCBP and implementation of mitigation, curtailment when wind speeds are less than 5.5 m/s, as described in Condition 60 above, will begin and continue for the remaining life of the project. The NCBP shall contain:

- a) a demonstration that the Net Conservation Benefit Plan (NCBP) results in a positive benefit on the NLEB and not solely an offset for any potential take of the species;
- b) net benefit calculations based on current practices regarding location and type of mitigation measures to be taken;
- c) full source information used as inputs to the net benefit calculations;
- d) a consideration of potential mitigation measures and sites identified by DEC Staff including NLEB mist-netting and radio-telemetry tracking operations to assist in the identification of previously unknown maternity roost trees and/or NLEB hibernacula;
- e) adaptive management options and next steps to be implemented (except for additional curtailment) if the permitted level of take of 12.9 NLEB is exceeded; and
- f) use of the curtailment regime specified in Certificate Condition 60. No additional curtailment or mitigation shall be required for migratory tree bats unless mutually agreed upon pursuant to Certificate Condition 61.

63. The Certificate Holder shall propose for Siting Board or PSC approval as a compliance filing a final Endangered or Threatened Species Mitigation Plan (ETSMP) for the total take of northern harrier (*Circus hudsonius*) and upland sandpiper (*Bartramia longicauda*) as calculated by DEC Staff over the life of the Project. The ETSMP shall be prepared in consultation with and accepted by DEC and DPS Staffs (such acceptance not to be unreasonably delayed or withheld as determined by the Siting Board or PSC). Consultations shall be open to any Party desiring to participate or observe and shall meet the requirements of 6 NYCRR §182.11. The final ETSMP shall be filed no more than two months after issuance of a Certificate by the Siting Board. At minimum the ETSMP shall contain:

- a) a detailed description of measures to fully avoid impacts to northern harrier (*Circus hudsonius*) and upland sandpiper (*Bartramia longicauda*), or a demonstration that measures to fully avoid impacts is impracticable. If the Certificate Holder demonstrates to the satisfaction of DEC and DPS Staffs that full avoidance of impacts to northern harrier or upland sandpiper is impracticable, the ETSMP must include a demonstration that the mitigation actions described in the ETSMP will result in a positive benefit to northern harrier and upland sandpiper, and not just an offset for any potential take of individuals;
- b) if full avoidance is demonstrated to be impracticable, detailed net benefit calculations based on the actual location and type of minimization measures to be taken;
- c) a consideration of potential avoidance and mitigation measures identified by DEC Staff;
- d) a consideration of potential sites identified by DEC Staff for avoidance or mitigation measures;
- e) the location(s) and size of the mitigation parcel(s);
- f) proof of access to and right to perform land management activities on the mitigation site(s);

- g) identification of all persons that will be involved in implementing the ETSMP, with individuals responsible for funding and implementing the plan clearly identified;
  - h) the signatures of all persons that will be involved in implementing the ETSMP;
  - i) the management maintenance actions required to achieve a net conservation benefit for impacted species;
  - j) a schedule for undertaking these activities;
  - k) an appropriate post-construction monitoring program to determine the effectiveness of the mitigation;
  - l) adaptive management options and next steps to be implemented if the permitted level of take is exceeded; and
  - m) a letter of credit or other financial guarantee securing the Certificate Holder's ability to execute such management, maintenance and monitoring for the 30-year life of the Project.
64. A Post-Construction Avian and Bat Monitoring and Adaptive Management Plan (Monitoring Plan) shall be prepared in consultation with DEC Staff and filed as a compliance filing. The final Monitoring Plan shall be filed prior to the start of project operation. The Monitoring Plan shall include direct impact fatality studies, habituation/avoidance studies, breeding bird surveys and include details of these studies (i.e., the start date, number and frequency of turbine searches, search area, bat monitoring, duration and scope of monitoring, methods for observational surveys, reporting requirements, etc.) and be based in part on DEC's June 2016 Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects. The Guidelines will be adapted as needed to design a work plan for surveys capable of adequately detecting displacement impacts, rare events and impacts to listed species.
65. [Intentionally omitted.]

66. [Intentionally omitted.]
67. The Certificate Holder shall file as a Compliance Filing a Long-range Facility and Corridors Management Plan in accordance with Attachment A. The plan shall address specific standards, protocols, procedures and specifications for:
- a) Vegetation management recommendations, based on on-site surveys of vegetation cover types and growth habits of undesirable vegetation species;
  - b) All proposed chemical and mechanical techniques for managing undesirable vegetation. Herbicide use and limitations, specifications, and control measures will be included, if proposed;
  - c) Substation Fence-line Clearances, and Overhead Wire Security Clearance Zone specifications, indicating applicable safety, reliability and operational criteria;
  - d) Inspection and target treatment schedules and exceptions;
  - e) Standards and practices for inspection of facilities easements for erosion hazard, failure of drainage facilities, hazardous conditions after storm events or other incidents;
  - f) Review and response procedures to avoid conflicts with future use encroachment or infrastructure development;
  - g) Wetland and stream protection areas, principles and practices; and
  - h) Host landowner notification procedures.

**V. Noise and Vibration**

68. The Certificate Holder shall present to the Siting Board, or the Commission after the Siting Board's jurisdiction has ceased, by filing with the Secretary at a minimum of 120

days prior to the start of construction as Compliance Filings:

- a) Final drawings and details of the Wind Generating Facility, as well as final construction drawings incorporating any appropriate changes to the design and details, including:
  - (i) Location of the turbines identified with Geographic Information System (GIS) coordinates and GIS files.
  - (ii) Turbine dimensions to include hub height and diameter of tip blades rotation.
- b) Proposed grading and turbine ground elevations. Site plan and elevation details of substations as related to the location of all relevant noise sources (transformers, emergency generator, reactors, if any), any identified mitigations, specifications, and appropriate clearances for sound walls, barriers, mufflers, silencers, and enclosures, if any. Sound information from the manufacturers for all relevant noise sources shall also be presented.
- c) Sound Power levels from the turbines by following these provisions:
  - (i) Sound Power levels from the turbines selected for the Project shall be documented with information from the manufacturers based on tests that determined sound power levels following the International Electrotechnical Commission (IEC) 61400-11 standard and Technical Specification IEC TS 61400-14 (2005-1st edition), if available. Sound Power Information will be reported associated with wind speed magnitudes, angular speed of the rotor, and rated power to the extent this information is available. The Sound Power Information will include specifications for Noise Reduced Operations and Low-Noise Trailing Edges if these are available or required to meet the noise conditions of this Certificate.

- (ii) Apparent Sound Power levels from the turbines at any wind speed at hub height shall not exceed the final overall broadband (dBA) and the 16 Hz, 31.5 Hz, and 63 Hz full octave band levels (linear) presented in the Application or any subsequent supplement, as measured by following the IEC 61400-11 Standard.
- d) Revised sound modeling with the specifications of the wind turbine model selected for construction to demonstrate that the Project is modeled to meet the regulatory limits of Condition 72. The revised sound modeling will include a cumulative noise assessment that includes noise from the Maple Ridge and Copenhagen facilities. Revised sound modeling shall not incorporate the use of any noise reduction operations (NROs). In addition, the revised sound modeling will show conformance with the following design goals:
  - (i) 40 dBA L(night-outside), annual equivalent continuous average night-time sound level from the Facility outside any permanent or seasonal non-participating residence.
  - (ii) 50 dBA L(night-outside), annual equivalent continuous average night-time sound level from the Facility outside any participating residence.
  - (iii) 50 dBA L(night-outside), annual equivalent continuous average nighttime sound level from the Facility across any portion of a non-participating property, except for portions delineated as wetlands, as demonstrated through compliance with the limit at worst-case locations. The Applicant shall demonstrate how it determined the worst-case locations with noise data reflecting the final turbine layout.
  - (iv) 65 dBZ L(1-hour), maximum 1-hour equivalent continuous average sound level from the Facility at the 16 Hz, 31.5 Hz, and 63 Hz full octave bands outside any existing non-participating residence.

- (v) All pre-construction noise modeling will be modeled at a 4 meter assessment point and a 2 dBA uncertainty factor will be added to the results.
- 69. Compliance with noise-related Certificate Conditions for the Facility shall be evaluated by the Certificate Holder by following a Sound Testing Compliance and Noise Complaint Protocol that shall follow the provisions and procedures for post-construction noise performance evaluations presented by DPS Staff.
- 70. At least two Sound Compliance Tests conforming to the compliance protocol required by the Certificate Conditions shall be performed by the Certificate Holders after the commercial operations date of the Facility: one during the "leaf-off" season and one during the "leaf-on" season.
  - a) Within seven months of the commercial operations date of the Facility, the Certificate Holders shall perform and complete the first Sound Compliance Test and the results shall be submitted to the Siting Board, or the Commission after the Siting Board's jurisdiction has ceased, by filing with the Secretary a report from an independent acoustical or noise consultant, no later than eight months after the commercial operations date, specifying whether or not the Facility is found in compliance with all Certificate Conditions on noise of this Certificate during the "leaf-on" or "leaf-off" season as applicable.
  - b) The second Sound Compliance Test shall be performed and results shall be submitted to the Siting Board, or the Commission after the Siting Board's jurisdiction has ceased, by filing with the Secretary subject to the same conditions contained in sub-condition 70(a), but no later than thirteen (13) months after the commencement of operations of the Facility.
- 71. If the results of the first or the second Sound Compliance Tests, or any subsequent Sound Compliance Test performed by the Certificate Holder or any Violation Tests performed by DPS, or any test performed in response to complaints, indicate that the Facility, related facilities and ancillary equipment do not comply with all Certificate

Conditions on noise contained in this Certificate, the Certificate Holder shall:

- a) Present minimization options to the Siting Board, or the Commission after the Siting Board's jurisdiction has ceased, by filing a Compliance Filing with the Secretary within 60 days after the filing of a noncompliance test result or the finding of a non-compliance or violation of Certificate Conditions on noise of this Certificate:
  - (i) Operational minimization options related to noise or vibrations caused by the wind turbines that shall be considered, including, at a minimum, modifying or reducing time of turbine operation, incorporating noise reduced operations, shutting down relevant turbines, and modifying operational conditions of the turbines.
  - (ii) Physical minimization options related to noise or vibration caused by the wind turbines that shall be considered, including installation of serrated edge trails on the turbine blades, replacement or maintenance of noisy components of the equipment, and any other measures as feasible and appropriate.
  - (iii) If applicable, any minimization measures related to noise from transformers (such as walls or barriers) and emergency generators (such as installation of noise walls or barriers, adding or replacing enclosures or silencers to the emergency generator) if any, or any other mitigation measures as appropriate.
- b) Implement any operational noise mitigation measures within 90 calendar days after the finding of a non-compliance or violation situation, as necessary to achieve compliance.
- c) Implement any physical noise mitigation measures within 150 days after the finding of a non-compliance or violation situation, as necessary to achieve compliance.



- d) Not operate the turbines of the Facility that caused the violation if the minimization measures are not implemented within the schedules specified in this Certificate Condition, and not operate the turbines without the operational or physical minimization measures that are presented and approved by the Siting Board, or the Commission after the Siting Board's jurisdiction has ceased after they are implemented as specified in these Certificate Conditions.
  - e) Test, document and present to the Siting Board, or the Commission after the Siting Board's jurisdiction has ceased, by filing with the Secretary results of any minimization measures and compliance with all Certificate Conditions on noise of this Certificate, no later than 90 days after the minimization measures are implemented.
72. Noise levels from the all noise sources from the Wind Generating Facility, related facilities and ancillary equipment shall:
- a) Comply with a maximum noise limit of 45 dBA Leq (8-hour) at any permanent or seasonal non-participant residence existing as of the issuance date of this Certificate ("NP Residences") and 55 dBA Leq (8-hour) for any participant residence existing as of the issuance date of this Certificate ("Participating Residences").
  - b) Comply with the limits of 40 dBA L(night-outside) and 45 dBA Lden, annual equivalent continuous average sound level from the Facility outside any existing permanent or seasonal non-participating residence, and a limit of 50 dBA L(night-outside), annual equivalent continuous average nighttime sound level from the Facility outside any existing participating residence.
  - c) Not produce any audible prominent tones, as defined under ANSI S12 .9 Part 4-2005 Annex C at any NP Residences existing as of the issuance date of this Certificate. Should a prominent tone occur, the broadband overall (dBA) noise level at the evaluated position shall be increased by 5 dBA for evaluation of compliance with sub-condition 72(a).

- d) Comply with a maximum noise limit of 65 dB Leq-1-h at the full octave frequency bands of 16, 31.5, and 63 Hertz outside of any NP Residences existing as of the issuance date of this Certificate in accordance with Annex D of ANSI standard S12 .9- 2005/Part 4 Section D.2.(1) (Analysis of sounds with strong low-frequency content).
- e) Not produce human perceptible vibrations inside any NP Residences existing as of the issuance date of this Certificate that exceed the limits for residential use recommended in ANSI Standard 52 .71-1983 (August 6, 2012) "Guide to evaluation of human exposure to vibration in Buildings."
- f) Comply with a limit of 40 dBA Leq (1-hour) at the outside wall of any NP Residence from the collector substation equipment, and subject to the tonal penalties of sub-condition 72(c).

Emergency situations are exempt from any of these limits.

73. The Certificate Holder shall follow the Noise Complaint Resolution Plan proposed by DPS Staff and adhere to the following conditions regarding Complaints:
- a) The Certificate Holder is required to maintain a log of complaints received relating to noise and vibrations caused by the operation of the Facility, related facilities and ancillary equipment. The log shall include name and contact information of the person that lodges the complaint, name of the property owner(s), address of the residence where the complaint was originated, the date and time of the day underlying the event complained of, and a summary of the complaint.
  - b) The Certificate Holder shall provide the Towns of Lowville and Harrisburg with a phone number, email address and mailing address where complaints can be notified, along with a form to report complaints designed according to the details required in subsection (a) of this condition.

- c) All complaints received shall be reported to the Siting Board, or the Commission after the Siting Board's jurisdiction has ceased, monthly during construction and quarterly during operation, by filing with the Secretary during the first 10 calendar days of each month (or the first 10 days of each quarter after three years). Reports shall include copies of the complaints and, if available, a description of the probable cause (e.g., outdoor or indoor noise, tones, low frequency noise, amplitude modulation, vibrations, rumbles, rattles, etc., if known); the status of the investigation, summary of findings and whether the Facility has been tested and found in compliance with applicable noise Certificate Conditions or minimization measures have been implemented. If no noise or vibration complaints are received, the Certificate Holder shall submit a letter to the Secretary indicating that no complaints were received during the reporting period.
- d) Should complaints related to excessive and persistent amplitude modulation occur at any NP Residence existing as of the issuance date of this Certificate with measured or modeled sound levels exceeding 40 dBA Leq (1-hour), the Certificate Holder shall investigate and measure amplitude modulation at the affected receptors during the time frame when the worst conditions are known, or, if not known, expected, to occur. If the L90-10 minute noise levels (dBA), including any amplitude modulation and prominent tone penalties exceed a noise level of 45 dBA and amplitude modulation is in excess of a 5 dB modulation depth at the evaluated receptor(s) for more than 5% of the time during the identified time frame of evaluation (which will not exceed eight consecutive hours), the Certificate Holder shall continue with the investigation, identify frequency of occurrence and the conditions that may be favorable for its occurrence, and propose measures to avoid, minimize, or mitigate the impacts. Minimization measures that avoid, minimize, resolve or mitigate the amplitude modulation impacts shall be identified and reported to the Siting Board, or the Commission after the Siting Board's jurisdiction has ceased, by filing with the Secretary and implemented after review and approval. Compliance with this Certificate Condition shall be

finally demonstrated by conducting a test that shows that the L90-10-minute sound levels (dBA), including a 5-dBA penalty for amplitude modulation (if amplitude modulation depth is in excess of 5 dB for more than 5% of the time in any eight consecutive hours) at that particular location and any additional prominent tone penalties, are lower than or equal to 45 dBA. For any complaints that do not exceed the limits established in the foregoing, the Certificate Holder should handle those complaints under its complaint resolution protocol.

- e) The Certificate Holder shall investigate all other noise and vibration complaints by following the Complaint Protocol in, and consistent with the limits imposed by, these Certificate Conditions.
74. The Certificate Holder shall maintain a log of operational conditions of all the turbines with a 10-minute time interval to include at a minimum wind velocity and wind direction at the hub heights, angular speed of the rotors and generated power and notes indicating operational conditions that could affect the noise levels (e.g. maintenance, shutdown, etc.). A schedule and log of Noise Reduced Operations for individual turbines shall also be kept and updated as necessary and maintained for the life of the Project.
75. The Certificate Holder shall comply with the following conditions regarding construction noise:
- a) Comply with all local laws regulating construction noise;
  - b) Maintain functioning mufflers on all transportation and construction machinery;
  - c) Respond to noise and vibration complaints from construction according to the Protocols established in the Certificate Conditions and in the Noise Complaint Resolution Plan.

**VI. Facility Construction and Maintenance****General**

76. At least 60 days prior to the start of construction, the Certificate Holder shall become a member of Dig Safely New York. The Certificate Holder shall require all contractors, excavators, and operators associated with its facilities to comply with the requirements of the Commission's regulations regarding the protection of underground facilities (16 NYCRR Part 753).
77. The Certificate Holder shall comply with all requirements of the Commission's regulations regarding identification and numbering of above ground utility poles/structures (16 NYCRR Part 217).
78. The Certificate Holder shall implement an Environmental Monitoring Plan (EMP) to be submitted as a Compliance Filing in accordance with Attachment A. The EMP shall contain provisions for (i) hiring an independent, third-party environmental monitor and an independent third-party agricultural monitor to oversee compliance with environmental permit requirements of the Certificate, with Public Service Law, with Environmental Conservation Law, and with any Section 401 Water Quality Certification, (ii) funding of the monitor(s) by the Certificate Holder, (iii) regular inspections of construction sites by the monitor(s), (iv) issuance of regular reports to the Certificate Holder, DPS, DEC, and the New York State Department of Agriculture and Markets (NYSDAM), (v) stop work authority of the monitor(s), (vi) equipping of the monitor(s) with sufficient documents, transportation, and communications equipment to effectively perform their monitoring responsibilities. If NYSDAM agrees that the independent third-party monitor is qualified on agricultural issues, one monitor can act as both environmental and agricultural monitor.
79. The Certificate Holder shall comply with the following conditions regarding construction noise and air emissions:
- a) Maintain functioning mufflers and all required emission control systems on all transportation and construction machinery;

- b) Require that contractors not leave generators idling when electricity is not needed and not leave diesel engines idling when equipment is not actively being used;
  - c) Minimize air quality impacts from potential road dust and deploy a water truck to periodically spray water on the surface of access roads in areas of high construction traffic during excessively dry periods. The Certificate Holder will apply these measures judiciously to (i) prevent unnecessary silted runoff from the access roads that could affect adjacent streams or wetland areas, and (ii) maintain the structural integrity of the access roads; and
  - d) Use construction equipment with modern, up-to-date technology fueled by ultra-low sulfur diesel.
80. a) The environmental monitor shall have stop work authority over all aspects of the Project.
- b) The Certificate Holder shall ensure that its environmental monitor and construction supervisor are equipped with sufficient access to documentation, transportation, and communication equipment to effectively monitor such Certificate Holder's contractor's compliance with the provisions of every Order issued in this proceeding with respect to such Certificate Holder's Project components and to those sections of the Public Service Law, Environmental Conservation Law, Section 401 Water Quality Certification, and the SEEP.
81. At least 14 days before the Commencement of Full Construction, the Certificate Holder shall hold a pre-construction meeting with DPS Staff, NYSDAM Staff, NYSDOT, Town Supervisors and Highway Departments, and DEC. The Certificate Holder will also invite National Grid to all pre-construction meetings. The Balance of Plant (BOP) construction contractor and the environmental compliance monitor shall be required to attend the pre-construction meeting.
- a) An agenda, the location, and an attendee list shall be agreed upon between DPS Staff and the Certificate

Holder and distributed to the attendee list at least one week prior to the meeting;

- b) Maps showing designated travel routes, construction worker parking and access road locations and a general project schedule shall be distributed to the attendee list at least one week prior to the meeting;
- c) The Certificate Holder shall supply draft minutes from this meeting to the attendee list for corrections or comments, and thereafter the Certificate Holder shall issue the finalized meeting minutes;
- d) If, for any reason, the BOP Contractor cannot finish the construction of the Project, and one or more new BOP contractors are needed, there shall be another preconstruction meeting with the same format as outlined above.

82. Modifications to the approved SEEP:

- a) The Certificate Holder may propose changes to the approved SEEP, with supporting documentation, to DPS Staff. DPS Staff will refer any proposed changes that will not result in any increase in adverse environmental impacts, or that are not directly related to contested issues decided by the Hearing Examiners or the Siting Board during the proceeding, to the Chief of the Environmental Certification and Compliance Section for review and approval; any approved changes shall be filed with the Secretary. All other proposed changes in the SEEP shall be referred by Staff to the Siting Board, or the Commission where the Siting Board's jurisdiction has ceased.
- b) Upon being advised that DPS Staff will refer a proposed change to the Siting Board, the requesting Certificate Holder shall notify all parties to the proceeding, as well as property owners and lessees whose property is affected by the proposed change. The notice shall:
  - (i) describe the original conditions and the requested change;

(ii) state that documents supporting the request are available for inspection at specified locations; and

(iii) state that persons may comment by writing or calling (followed by written confirmation) the Secretary within 21 days of the notification date. Any delay in receipt of written confirmation will not delay Siting Board action on the proposed change.

- c) The Certificate Holders shall not execute any proposed change until the requesting Certificate Holder has received oral or written approval, except in emergency situations threatening personal injury, property, or severe adverse environmental impact. Any oral approval from DPS Staff will be followed by written approval from the Chief of the Environmental Certification and Compliance Section in the Office of Electric, Gas and Water, or the Siting Board as soon as possible thereafter.

83. Construction and routine maintenance activities on the Project shall be limited to 7:00 a.m. to 7:00 p.m. or daylight hours outside of this window, Monday through Saturday.

- a) Construction work hour limits apply to Facility construction and maintenance, and to construction-related activities including delivery and unloading of materials, maintenance and repairs of construction equipment at outdoor locations, large vehicles idling for extended periods at roadside locations, and related disturbances.
- b) If, due to safety or continuous operation requirements, maintenance or construction activities are required to occur on Sundays or beyond the allowable work hours Monday through Saturday, the Certificate Holder shall notify DPS Staff, affected landowners and the municipalities. Such notice shall be given at least 24 hours in advance, unless such maintenance or construction activities are required to address emergency situations threatening personal injury, property, or severe adverse environmental impact that arise less than 24 hours in advance.



84. At least two weeks before construction begins in any project area the Certificate Holder shall stake and/or flag the following:
- a) The limits of clearing;
  - b) The limits of disturbance;
  - c) All on or off right-of-way (ROW) access roads;
  - d) Other areas needed for construction such as, but not limited to, turbine work areas, laydowns, and storage areas;
  - e) All wetlands;
  - f) Designated restrictive areas and sensitive environmental resources; and
  - g) Streams and waterbodies.
85. The Certificate Holder shall confine construction and subsequent maintenance for its Project Components to the Facility site and approved additional work areas, as delineated in approved site plans. If a local contractor is used for the work, the local contractor's facility may also be used as a marshaling yard.
86. Construction status reporting and site inspections: Bi-Weekly Status Reports:
- a) The Certificate Holder shall provide DPS Staff, NYSDEC, and NYSDAM with bi-weekly status reports summarizing the status of construction activities and indicating the schedule and locations of Project construction activities for the upcoming two-week period.

Monthly Inspections:

- b) The Certificate Holder shall organize and conduct monthly site-compliance inspections for DPS Staff as

needed during construction and restoration of the Facility site.

- c) The Certificate Holder shall ensure that the required safety procedures and worksite hazards are communicated to site inspectors in a documented tailboard meeting prior to entry onto the site of work on such Certificate Holder's Project Components.
- d) The monthly inspections shall include a review of the status of compliance with all conditions contained in the Certificate and any other Order issued in this proceeding, as well as a field review of the Project site, if necessary. The inspection also may include:
  - (i) Review of all complaints received, and their proposed or actual resolutions;
  - (ii) Review of any significant comments, concerns, or suggestions made by the public, local governments, or other agencies and indicate how the Certificate Holder has responded to the public, local governments, or other agencies;
  - (iii) Review of the status of the Project in relation to the overall schedule established prior to the Commencement of Full Construction; and
  - (iv) Other items the Certificate Holder or DPS Staff consider appropriate.
- e) The Certificate Holder shall provide a written record of the results of the inspection, including resolution of issues and additional measures to be taken, to agencies involved in the inspection audit.

### **Environmental**

- 87. All construction vehicles must be equipped with a spill kit. Any leaks must be stopped and cleaned up immediately.
- 88. Any debris or excess construction materials shall be removed to a facility duly authorized to receive such

material. No burying of construction debris or excess construction materials will be allowed.

89. Cleared vegetation and slash will not be (i) burned anywhere or (ii) buried within a wetland or adjacent area.
90. Tree and vegetation clearing shall be limited to the minimum necessary for Facility construction and operation. Surrounding trees and vegetation will not be cut down on any property solely to reduce turbulence or increase wind flow to the Facility.
91. In connection with vegetation clearing, the Certificate Holder shall:
  - a) comply with the provisions of 6 NYCRR Part 192, Forest Insect and Disease Control, and ECL §9-1303 and any quarantine orders issued thereunder; and
  - b) not create a maximum wood chip depth greater than three inches, except for chip roads (if applicable), nor store or dispose wood chips in wetlands, within stream banks, delineated floodways, or active agricultural fields.
92. Use of hay for erosion control or other construction-related purposes is prohibited to minimize the risk of introduction of invasive plant species.
93. The Certificate Holder shall implement all practical measures to achieve a minimum of 80% vegetative cover across all disturbed soil areas by the end of the first full growing season following construction.
94. The Certificate Holder shall restore disturbed areas, ruts, and rills to original grades and conditions with permanent re-vegetation and erosion controls appropriate for those locations.

**Threatened and Endangered Species**

95. a) Tree clearing activities shall be conducted between November 1 and April 1 to the maximum extent practicable. This limitation does not include trees less than or equal to 3 inches in diameter at breast height (DBH) or hazard trees. Hazard trees shall be defined as those trees that pose an imminent threat to life or property.
- (i) To achieve full avoidance of direct impacts to NLEB maternity roost sites, no tree clearing activities will occur at any time within 150 feet of any identified maternity roosts, and all tree clearing activities proposed to occur within one and one half (1.5) miles of the roost site must be conducted during hibernation season between November 1 and April 1. This limitation does not include trees less than or equal to 3 inches in diameter at breast height (DBH) or hazard tree removal.
- (ii) If at any time during the life of the Facility a NLEB maternity roost tree is discovered within the Project area, DEC and DPS shall be notified within twenty-four (24) hours of discovery, and an area at least five hundred (500) feet in radius around the roost tree will be avoided until notice to continue construction, ground clearing, grading, maintenance or restoration activities, as applicable, at that site is granted by DPS, with DEC concurrence.
- b) All ground disturbance, tree clearing, construction, restoration, equipment/component storage, and non-emergency maintenance activities in grassland habitat must occur between August 16 and April 22. Any such activities that occur outside these times will be considered a direct impact on breeding State-listed threatened or endangered (T&E) grassland bird species, as well as grassland bird species of special concern, and will require appropriate and timely mitigation.
- c) All temporary disturbance or modification of grassland habitat that occurs at any time of year as a result of

construction or maintenance activities will be restored to pre-existing grassland habitat conditions by re-grading and re-seeding with an appropriate native seed mix after disturbance activities are completed. These areas will include, but are not limited to temporary roads, material and equipment staging and lay-down areas, crane and turbine pads, and electric line rights of way.

96. a) During construction, maintenance, and operation of the Facility, the Certificate Holder shall maintain a record of all observations of New York State threatened and endangered (T&E) species and species of special concern, as follows:

- (i) Construction: During construction the onsite environmental monitors and environmental compliance manager identified in the Environmental Compliance Manual shall be responsible for recording all observations of T&E species and species of special concern. All observations shall be reported in the bi-weekly monitoring report submitted to DPS and DEC Staff and shall include the information described below under Reporting Requirements. If a T&E avian species or avian species of special concern is demonstrating breeding behavior, it will be reported to the DEC Region 6 Natural Resources Supervisor (NRS) and the NYSDEC Central Office Project Manager (PM) within forty-eight (48) hours;
- (ii) Post-construction: During post-construction wildlife monitoring inspections, the environmental contractor shall be responsible for recording all observations of T&E species and species of special concern. Observations of T&E species and species of special concern during wildlife surveys shall be reported as required in the post-construction monitoring and adaptive management plan;
- (iii) Operation and Maintenance (O&M): During O&M, the Certificate Holder shall be responsible for training O&M staff to focus on successfully

identifying the following bird species: bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), short-eared owl (*Asio flammeus*), sedge wren (*Cistothorus platensis*), northern harrier (*Circus hudsonius*), Henslow's Sparrow (*Centronyx henslowii*); and upland sandpiper (*Bartramia longicauda*). The Certificate Holder shall report all observations to the Region 6 NRS and Central Office PM within one week of the event;

- (iv) Reporting Requirements: All reports of T&E species and species of special concern shall include the following information: species; number of individuals; age and sex of individuals (if known); observation date(s) and time(s); GPS coordinates of each individual observed (if O&M staff do not have GPS available the report should include the nearest turbine number and cross roads location); behavior(s) observed; identification and contact information of the observer(s); and the nature of and distance to any project construction, maintenance or restoration activity; and
- (v) If at any time during the life of the Project any dead, injured or damaged federally or State-listed T&E species and species of special concern, or their parts, eggs, or nests are discovered within the Project Area (defined for the purpose of this condition as leased land or property parcels containing Project components) by the Certificate Holder, its designated agents, or a third party that notifies the Certificate Holder, the Certificate Holder shall immediately (within twenty-four (24) hours) contact the Region 6 NRS and Central Office PM (and United States Fish and Wildlife Service (USFWS), if federally listed species) to arrange for recovery and transfer of the specimen(s). The following information pertaining to the find shall be recorded: species; age and sex of the individual(s), if known; the date of discovery of the animal or nest; condition of the carcass, or state of the nest or live animal; the GPS coordinates of the

location(s) of discovery; the name(s) and contact information of the person(s) involved with the incident(s) and find(s); weather conditions for the previous forty-eight (48) hours; photographs, including scale and of sufficient quality to allow for the later identification of the animal or nest; and, if known, an explanation of how the mortality/injury/damage occurred. Each record shall be kept with the container holding the specimen(s) and given to NYSDEC or USFWS at the time of transfer. If the discovery is followed by a non-business day, the Certificate Holder shall ensure all the information listed above is properly documented and stored with the specimen(s). Unless otherwise directed by DEC or USFWS, after all information has been collected in the field, the specimen(s) will be placed in a freezer, or in a cooler on ice until transported to a freezer, until it can be retrieved by the proper authorities.

- b) With the exception of bald eagles (*Haliaeetus leucocephalus*), northern harriers, short-eared owls, upland sandpipers, and sedge wrens, if at any time during construction and operation of the Facility, an active nest of any federally, or State, listed threatened or endangered bird species is discovered within the Facility site, the regional DEC Natural Resource Supervisor and DPS Staff will be notified within 48 hours of discovery, and the nest site will be marked. An area 500 feet in radius around the nest will be posted and avoided to the maximum extent practicable until notice to continue construction at that site is granted by DPS Staff, with concurrence from the regional DEC Natural Resource Supervisor.
97. a) If at any time during construction and operation of the Facility a bald eagle nest is identified within the Facility site, the regional DEC Natural Resource Supervisor and DPS Staff will be notified within 48 hours of discovery, and prior to any disturbance of the nest or immediate area. An area 1320 feet in radius from the nest tree if there is no visual buffer or an area of at least 660 feet in radius from the nest tree if there is a visual buffer will be posted

and avoided to the maximum extent practicable until notice to continue construction at that site is granted by DPS Staff, with concurrence from the regional DEC Natural Resources Supervisor.

- b) If at any time during construction or operational life of the Project, a nest or roost of a northern harrier, short-eared owl, upland sandpiper, or sedge wren is located, or if any of these species are observed in the Project Area exhibiting breeding or roosting behavior, the Region 6 NRS and DPS Staff will be notified within forty-eight (48) hours of discovery or observation, and prior to any disturbance around the nest, roost, or area where these species were seen exhibiting any breeding or roosting behavior. An area at least six hundred sixty (660) feet in radius around the nest(s) or roost(s) of these species will be posted and avoided. The nest(s) or roost(s) will not be approached under any circumstances, and the 660-foot avoidance area will remain in place until notice to continue construction, ground clearing, grading, maintenance or restoration activities at that site is granted by the Region 6 NRS and DPS Staff.

#### **Wetlands and Streams, Vegetation, and Invasive Species**

- 98. Equipment and machinery storage, refueling, maintenance, and repair shall be conducted and safely contained more than 100 feet from wetlands and waterbodies to the maximum extent practicable.
- 99. Fuel or other chemical storage containers shall be located at least 300 feet from wetlands and waterbodies.
- 100. All mobile equipment, excluding dewatering pumps, must be fueled in a location at least 100 feet from wetlands and waterbodies unless moving the equipment will cause additional environmental impact. Dewatering pumps operated closer than 100 feet from the stream bank, wetland, or waterbody, must be within a secondary containment large enough to hold the pump and accommodate refueling.
- 101. Spillage of fuels, waste oils, other petroleum products or hazardous materials shall be reported to DEC's Spill Hotline (1-800-457-7362) within two hours, in accordance



with the DEC Spill Reporting and Initial Notification Requirements Technical Field Guidance. DPS Staff shall also be notified of all reported spills.

102. All fill shall consist of clean soil, sand and/or gravel that is free of the following substances: asphalt, slag, fly ash, broken concrete, demolition debris, garbage, household refuse, tires, and metal objects. Reasonable efforts will be made use fill materials that are visually free of invasive species.
103. Turbid water resulting from dewatering operations shall not be allowed to enter any wetland, stream or water body. Water resulting from dewatering operations shall be discharged directly to settling basins, filter bags, or other approved device. All necessary measures shall be implemented to prevent any substantial visible contrast due to turbidity or sedimentation downstream of the work site.
104. All construction activities completed within State regulated wetlands shall adhere to the following requirements:
  - a) Excavation, installation, and backfilling must be done in one continuous operation.
  - b) Work should be conducted during dry conditions without standing water or when the ground is frozen, where practicable.
  - c) In areas containing amphibian breeding areas, work in wetlands or adjacent areas should not occur during the peak amphibian breeding season (April 1 to June 15).
  - d) Before trenching occurs, upland sections of the trench shall be backfilled or plugged to prevent drainage of possible turbid trench water from entering the stream or wetland.
  - e) Trench breakers/plugs shall be used at the edges of wetlands as needed to prevent wetland draining during construction.

- f) If there is an inadvertent puncturing of a hydrologic control for a wetland, the puncture shall be immediately sealed, and no further activity shall take place until DPS and DEC staff are notified and a remediation plan to restore the wetland and prevent future dewatering of the wetland has been approved by the agency staffs.
- g) Only the excavated wetland topsoil and subsoil shall be utilized as backfill.
- h) In wetland areas, the topsoil shall be removed and stored separate from subsoil. The top 12 inches of wetland top soil shall be removed first and temporarily placed onto a geo-textile blanket running parallel to the trench, if necessary.
- i) Wide-track or amphibious excavators shall be used for wetland installations.
- j) Subsoil dug from the trench shall be sidecast on the opposite side of the trench on another geo-textile blanket running parallel to the trench, if necessary.
- k) The length of the trench to be opened shall not exceed the length that can be completed in one day. This length of trench generally should not exceed 1,500 feet in a wetland.
- l) Trench shall be backfilled with the wetland subsoil and the wetland top soil shall be placed back on top. All excess materials shall be completely removed to upland areas more than 100 feet from the wetland and suitably stabilized.
- m) When backfilling occurs, the subsoil shall be replaced as needed, and then covered with the top soil, such that the restored top soil is the same depth as prior to disturbance.
- n) All disturbed soils within NYS-regulated freshwater wetlands and the associated adjacent areas must be seeded with a native seed mix or crops consistent with existing agricultural uses. Mulch shall be maintained

until the disturbed area is permanently stabilized. Additional seeding shall be completed as necessary to achieve an 80% vegetative cover across all such disturbed areas.

105. Restoration of wetlands and NYS-regulated adjacent areas to pre-construction contours must be completed within 48 hours of final backfilling of the trench.

- a) Immediately upon completion of grading, the area shall be seeded with an appropriate species mix.
- b) Restored areas shall be monitored for a minimum of 5 years. Monitoring shall continue until an 80% cover of appropriate species has been reestablished over all portions of the replanted area, unless the invasive species baseline survey indicates a smaller percentage of appropriate species exists prior to construction.

106. Cut vegetation in wetlands may be left in place (drop and lop or piled in dry or seasonally saturated portions of freshwater wetlands and 100-foot adjacent areas to create wildlife brush piles).

107. Installation of underground collection lines in NYS-regulated wetlands shall be performed via Horizontal Directional Drilling (HDD) or using the following methods:

- a) Topsoil shall be segregated from subsoil and temporarily placed onto a geotextile blanket.
- b) The Certificate Holder shall implement best management practices to minimize soil compaction (e.g. use of swamp mats).
- c) The length of the trench exposed shall not exceed 1,500 feet in a wetland to the maximum extent practicable.
- d) All reasonable efforts shall be made to backfill open trenches within the same work day.

- e) All excess materials shall be completely removed from wetlands to upland areas more than 100 feet from State wetlands and suitably stabilized.
  - f) Immediately upon completion of grading, the disturbed area shall be seeded with an appropriate native wetland species mix and replanted with native shrubs as described in the Wetlands Mitigation Plan required by these Certificate Conditions. Replanted areas shall be monitored for 5 years or an 80% cover has been established. If at the end of the second year of monitoring, this cover requirement is not met, the Certificate Holder must evaluate the reasons for these results and provide a plan to achieve the requirement by the end of the 5-year monitoring period.
108. Installation of access roads through wetlands shall be performed using the following methods:
- a) vegetation and topsoil shall be removed;
  - b) a layer of geotextile fabric shall be placed in the location of the wetland crossing following removal of vegetation and before backfilling;
  - c) at least six inches of gravel shall be placed over geotextile fabric in the location of the wetland crossing.
109. To control the spread of invasive insects, the Certificate Holder shall provide training for clearing and construction crews to identify the Spotted Lanternfly, Asian Longhorned Beetle and the Emerald Ash Borer and other invasive insects of concern as a potential problem at the project site. If these insects are found, they must be reported to the DEC regional forester as soon as practicable.
110. Concrete washouts shall be located and installed to minimize impacts to water resources. Locations should be at least 100 feet from any wetland, waterbody and agricultural field, to the maximum extent practicable.

111. In-stream work in streams shall only occur during times of no flow or when the stream is bypassed to allow work in the dewatered section of the stream.
112. For any permanent stream (permanent streams shall be defined as all streams except intermittent or ephemeral streams) impacted as part of construction, the restored stream channel shall be equal in width, depth, gradient, length and character to the pre-existing stream channel and tie in smoothly to profile of the stream channel upstream and downstream of the project area. The planform of any permanent stream shall not be changed.
113. Trees shall not be felled into any permanent stream.
114. The Certificate Holder shall be responsible for checking all culverts and assuring that they are not crushed or blocked during construction and restoration of the Project. If a culvert is blocked or crushed, or otherwise damaged, the Certificate Holder shall repair the culvert or replace it with alternative measures appropriate to maintaining proper drainage.
115. The creation, modification or improvement of any permanent road crossing of a NYSDEC-protected stream must meet the following requirements:
  - a) New culvert pipes that the Certificate Holder is required to install shall be designed to safely pass the 1% annual chance storm event;
  - b) Culvert pipes must be embedded beneath the existing grade of the stream channel;
  - c) Width of the structure must be a minimum of 1.25 times (1.25X) width of the mean high- water channel, as practicable; and
  - d) The culvert slope shall remain consistent with the slope of the adjacent stream channel. For slopes greater than 3%, an open bottom culvert must be used.
116. Horizontal Directional Drilling (HDD) shall be performed in accordance with an approved HDD Frac-Out Plan to be

submitted in accordance with these Certificate Conditions and which shall contain the following requirements:

- a) Erosion and sediment control will be used at the point of horizontal directional drilling, so that drilling fluid shall not escape the drill site and enter streams or wetlands. The disturbed area will be restored to original grade and reseeded upon completion of directional drilling.
- b) Drilling fluid circulation shall be maintained to the extent practical.
- c) If inadvertent returns occur in upland areas, the fluids shall be immediately contained and collected.
- d) If the amount of drilling fluids released is not enough to allow practical collection, the affected area will be diluted with freshwater and allowed to dry and dissipate naturally.
- e) If the amount of surface return exceeds that which can be collected using small pumps, drilling operations shall be suspended until surface volumes can be brought under control.
- f) If inadvertent drilling fluids surface returns occur in an environmentally sensitive area (i.e. wetlands and water bodies) the returns shall be monitored and documented.
- g) Drilling operations must be suspended if the surface returns pose a threat to the resource or to public health and safety.
- h) Removal of released fluids from environmentally sensitive areas will take place only if the removal does not cause additional adverse impacts to the resource.
- i) If inadvertent drilling fluids surface returns occur in an environmentally sensitive area, the DEC Region 6 Supervisor of Natural Resources and DPS Staff shall be notified immediately and a monitoring report

summarizing the location of surface returns, estimated quantity of fluid and summary of cleanup efforts shall be submitted within 48 hours of the occurrence.

- j) To minimize risk to aquatic species in the event of a frac-out, drilling fluids shall be biodegradable.

117. During periods of work activity, flow immediately downstream of the work site shall equal flow immediately upstream of the work site.

118. Any in-stream work or restoration authorized by this Certificate, including the installation of structures, and bed material, shall not result in an impediment to aquatic organisms. Any in-stream work (excluding dewatering practices associated with dry trench crossings) and restoration shall be constructed in a manner which maintains low flow conditions and preserves water depths and velocities similar to undisturbed upstream and downstream reaches necessary to sustain the movement of native aquatic organisms. Any in-stream structures placed in a stream must not create a drop height greater than 6 inches.

119. One Time and Temporary Stream Crossings:

- a) If a one-time crossing of a stream occurs as part of an installation of a temporary bridge and a tire mat is used, the following restrictions apply:
  - (i) The mat must follow the contour of the streambed and allow for a low flow channel and not change the flow path of the stream thalweg.
  - (ii) The mat shall be removed immediately after the crossing of the stream occurs.
- b) Certificate holder shall utilize free span temporary equipment bridges to cross all streams with flow at the time of the proposed crossing with a classification of A, AA, A-S, B or C, with or without a standard of (T) or (TS). Temporary stream crossings are not authorized at waterbodies utilizing trenchless pipeline installation techniques. All structures must

be placed at bankfull elevation or higher and be able to pass no less than a Q5 flow interval and be capable of withstanding any higher flow intervals likely to be experienced within a specific waterbody without causing damage to the stream bed or banks. Bridges may not be dragged through the stream and must be suitably anchored to prevent downstream transport during a flood. Fill may not be placed within the stream channel below bankfull elevation and placement of abutments or fill is authorized only above and outside bankfull boundaries. Geotextile fabric must be placed below and extending onto the bank and suitable side rails built into the bridges to prevent sediment from entering the waterbody. Bridges with a total length of 20' or less must be installed only from one side of the stream. Bridges greater than 20' long may be installed with equipment from both sides of the stream. Under such scenarios, only one piece of equipment may cross the stream one time only via a ford located directly over the centerline of the installed pipeline path. Center supports may be used on bridges 30' or greater and placed no closer than 15' to one another and may use solid materials or a single round culvert.

120. Stream Construction - Water Control Devices: All temporary water control devices/cofferdams must adhere to the following:

- a) Any temporary cofferdam shall be constructed of clean materials such as sheet piling, jersey barriers, inflatable dams, or sandbags that will not contribute to turbidity or siltation of the waterbody or wetland, and non-erodible materials, so that failure will not occur at Q10 or lower flow conditions. Where practicable, an upstream or interior membrane shall be installed to control percolation and erosion. Sandbags shall be of the filter fabric type, double bagged and individually tied to prevent sand leakage and only clean sand (e.g. free of debris, silt, fine particles or other foreign substance) shall be used as fill. They shall be placed and removed manually to prevent spillage. Straw bale sediment control basins are prohibited.



- b) Fill materials must not come from the waterbody or wetland.
- c) The water control structure/cofferdam shall not impair downstream water flow in the waterbody or water flow into and/or out of a wetland.
- d) During periods of work activity, flow immediately downstream of the work site shall equal flow immediately upstream of the work site. Sufficient flow of water shall be maintained at all times to sustain aquatic life downstream. At no time shall more than one half the stream be blocked off.
- e) If exposed for an extended period of time, excavated or temporarily stockpiled soils or other materials should be covered and protected to reduce runoff of fines which may cause a turbidity problem and to prevent rainwater from soaking the materials and rendering them unsuitable for backfill.
- f) The work area shall remain isolated from the rest of the stream or wetland until all work in the streambed or bank, or wetland is completed, concrete is thoroughly set and the water clarity in the coffered area matches that of the open water.
- g) If a dam and pump diversion is used as part of a dry open-cut crossing, the pump and diversion must be monitored continuously from time of installation until crossing is completed, streambed restored, and diversion is removed.
- h) Dewatered sections of stream cannot exceed 50 linear feet (measured from the inside edges of the cofferdams) for each stream crossing unless the Certificate Holder has prior written approval from the DEC Region 6 Supervisor of Natural Resources, which approval shall not be unreasonably delayed, conditioned or withheld and shall be subject to the terms of the dispute resolution procedures contained in this Certificate.

- i) All temporary water control structures shall be removed in their entirety upon completion.
  - j) All fish trapped within the cofferdam shall be netted and returned, alive and unharmed, to the water outside the confines of the cofferdam, in the same stream, before the dewatering process.
  - k) Dewatering within the coffer(s) shall be performed so as to minimize siltation and turbidity. Water taken from the coffered area will be passed through settling basins, filter bag, or well-vegetated upland areas more than 100 feet from the stream bank to prevent the discharge of turbid water into any wetland, stream or river. The pump discharge must be directed against a solid object (concrete slab, stone or steel container), or other effective method to prevent erosion by dissipating energy.
121. In consultation with DEC Staff, the Certificate Holder shall develop and file as a Compliance Filing the following plans:
- a. A "Stream Crossing Plan (Bridges & Culverts)" must include detailed site-specific plans that describe and illustrate the layout and alignment of each crossing, and the proposed crossing method. At a minimum, the plan must include:
    - (i) the alignment of roads, bridges, and culverts;
    - (ii) a detailed description of how the crossing will pass the 1% chance storm event and assure both downstream and upstream passage of aquatic organisms;
    - (iii) construction details for meeting all requirements contained in these Certificate Conditions, including elevation details for culverts and the adjoining streambed;
    - (iv) drainage area and flow calculations for the crossing location;

- (v) the location, quantity, and type of any fill associated with construction; the location and installation details of any dewatering measures; and
  - (vi) a description of the dry crossing methods that will be used to install the crossing.
  - (vii) Clearing of natural vegetation shall be limited to that material which poses a hazard or hindrance to the construction activity. Snags which provide shelter in streams for fish shall not be disturbed unless they cause serious obstructions, scouring or erosion. Trees shall not be felled into any stream or onto the immediate stream bank.
- b. A "Stream Crossing Plan (Underground Cables)" that includes a site-specific plan for each underground cable crossing of a stream that includes the following:
- (i) site-specific assessment of constructability for all crossings that cannot use trenchless construction methods. This assessment shall be conducted by an experienced and qualified, professional engineer licensed in New York State and shall include a detailed analysis of the site-specific conditions that lead to the conclusion that all trenchless crossing methods are not constructible or not feasible at the particular stream crossing.
  - (ii) site-specific "Exposure of Cable by Stream Report" that includes a Vertical Adjustment Potential (VAP) analysis and a Lateral Adjustment Potential (LAP) analysis for each underground stream crossing to determine that the separation between the top of the buried interconnect and the stream bed is sufficient to prevent exposure of the line from stream erosion both vertically and horizontally. The "Exposure of Cable by Stream Report" shall be conducted and certified by a qualified engineer licensed to work in New York and must include all

calculations associated with the VAP and LAP analysis as well as a definitive statement by the engineer that the separation will prevent exposure of the line at each stream crossing as a result of stream erosion. Stream crossings may only be started after NYSDEC and NYSDPS provide written approval of the report.

(iii) detailed description of the crossing method of each stream that describes the following:

- the alignment of the cable crossings, and extent of clearing and disturbance;
- the location and installation details of any dewatering measures;
- a description of the dry crossing methods that will be used to install the crossing; and
- construction details for meeting all requirements contained in these Certificate Conditions.

(iv) Trenches shall be opened for the installation and backfilled in one continuous operation.

c. A "Wetland Crossing Plan (Underground Cables)" that includes a site-specific plan for each underground wetland crossing. At a minimum, the "Wetland Crossing Plan (Underground Cables)" shall include the following information:

- (i) a site-specific assessment of constructability for all crossings that cannot use trenchless methods. The assessment shall be conducted by an experienced and qualified, professional engineer licensed in New York State and shall include a detailed analysis of the site-specific conditions that lead to the conclusion that all trenchless crossing methods are not constructible or not feasible at the particular wetland crossing;

- (ii) a detailed description of the crossing method of each wetland that describes the following:
  - specific plans with the alignment for each wetland crossing and the extent of clearing and ground disturbance; and
  - construction details for meeting all requirements contained in these proposed certificate conditions.
- d. A "Wetland Crossing Plan (Aboveground Cables)" that includes a site-specific plan for each above ground wetland crossing. At a minimum, the "Wetland Crossing Plan (Above Ground Cables)" shall include the following information:
  - (i) Specific plans with the alignment for each wetland crossing and the extent of clearing and ground disturbance;
  - (ii) Proposed location of temporary access roads;
  - (iii) Description of methods used to minimize soil compactions; and
  - (iv) Construction details for meeting all requirements contained in these Certificate Conditions.
- e. A "Wetland Mitigation Plan" for impacts that cannot be avoided or further minimized must be prepared that meets all State and federal requirements. At a minimum, the "Wetland Mitigation Plan" shall include the following:
  - (i) the creation of compensatory wetlands at a ratio that is consistent with State and federal regulations;
  - (ii) a project construction timeline;

- (iii) construction details for meeting all requirements contained in these proposed certificate conditions;
  - (iv) performance standards that meet State and federal requirements for determining wetland mitigation success;
  - (v) specifications for post construction monitoring for at least 5 years after completion of the wetland mitigation;
  - (vi) after each monitoring period the Certificate Holder shall take corrective action for any areas that do not meet the above referenced performance standards to increase the likelihood of meeting the performance standards after 5 years;
  - (vii) if, after 5 years, monitoring demonstrates that the wetland mitigation is still not meeting the established performance standards, the Certificate Holder must submit a "Wetland Mitigation Remedial Plan." The remedial plan must evaluate the likely reasons for not achieving performance standards, describe the actions necessary to correct the situation to ensure a successful mitigation, and the schedule for conducting the remedial work. Once approved, the "Wetland Mitigation Remedial Plan" will be implemented according to an approved schedule.
- f. A "Frac-Out Risk Assessment and Contingency Plan" shall be prepared that addresses the inadvertent drilling fluids surface returns in or within 100 feet of any environmentally sensitive area (i.e. wetlands and water bodies). The Certificate Holder will maintain a horizontal directional drilling spill response plan and the necessary response equipment will be kept on-site for the duration of the drilling. In the event a "frac-out" does occur, the returns shall be monitored and documented as described in the "Frac-Out Risk Assessment and Contingency Plan." Drilling operations must be suspended if the surface

returns pose a threat to environmentally sensitive areas or to public health and safety. Removal of released fluids from environmentally sensitive areas will take place only if the removal does not cause additional adverse impacts to the resource. If inadvertent drilling fluids surface returns occur in an environmentally sensitive area, the DEC Region 6 Supervisor of Natural Resources and DPS Staff shall be notified immediately (or as soon as practicable considering internet and cell phone coverage in the area) and a monitoring report summarizing the location of surface returns, estimated quantity of fluid and summary of cleanup efforts shall be submitted within 48 hours of the occurrence.

122. In the event that, after a period of five years following construction of the Facility and the implementation of the Wetland Mitigation Plan, all wetland performance standards have not been achieved, the Certificate Holder shall develop a "Wetland Mitigation Remedial Plan" in coordination with DEC, DPS Staff, and the Corps (if applicable), and submit it to the Siting Board for approval. The "Wetland Mitigation Remedial Plan" must describe the likely reasons for not achieving performance standards, describe the actions necessary to correct the situation to ensure a successful mitigation, and the schedule for conducting the remedial work. Once approved, the "Wetland Mitigation Remedial Plan" will be implemented according to the approved schedule.

## **VII. Facility Operation**

123. Good Utility Practices:

a) The Certificate Holder shall abide by Good Utility Practice, which shall include, but not be limited to, NERC, NPCC, NYSRC, and NYISO criteria, rules, guidelines and standards, including the rules, guidelines and criteria of any successor organization to the foregoing entities.

b) When applied to the Certificate Holder, the term Good Utility Practice shall also include standards applicable to an independent power producer connecting to the distribution or transmission facilities or system of a utility.

c) Except for periods during which the authorized facilities are unable to safely and reliably convey electrical energy to the New York transmission system (e.g., because of problems with the authorized facilities themselves or upstream electrical equipment), the Facility shall be exclusively connected to the New York transmission system via the facilities identified and authorized in these conditions.

124. [Intentionally omitted.]

125. Transmission Related Incidents:

a) The Certificate Holder shall call the DPS Bulk Electric System Section within one hour to report any transmission related incident that affects the operation of the Facility.

b) The Certificate Holder shall file with the Secretary a report on any such incident within seven days and provide a copy of the report to National Grid. The report shall contain, when available, copies of applicable drawings, descriptions of the equipment involved, a description of the incident and a discussion of how future occurrences will be prevented.

c) The Certificate Holder shall work cooperatively with DPS, National Grid, NYISO, NYSRC, NERC and the NPCC to prevent any future occurrences.

126. [Intentionally omitted.]

127. [Intentionally omitted.]

128. [Intentionally omitted.]

129. In the event of a blade failure, fire or other catastrophic event involving a wind turbine and its associated equipment, the DPS Chief of Bulk Systems shall be notified no later than 12 hours following such an event.

130. The Certificate Holder shall have an inspection program for the wind turbine blades and other turbine components.



Reports shall be filed annually with the Secretary identifying any major damage, defects or any other problems with the wind turbine, or indicating that no such damage, defect or problem was found. The annual report shall summarize maintenance and inspection activities performed and include any photographs of the area in question, and the repairs undertaken.

131. If the Certificate Holder elects to construct the new POI station and transfer ownership to the Transmission Owner, National Grid, such ownership shall be transferred to National Grid in accordance with the Interconnection Agreement, on mutually agreeable terms, and in a manner consistent with the Public Service Law and the regulations of the Public Service Commission. After the transfer of any assets from the Certificate Holder to National Grid, the evaluation and remediation responsibilities, as well as all monitoring duties, relating to the point of interconnection substation shall be conducted by National Grid, and the Certificate Holder shall reimburse National Grid for all costs associated therewith.
132. After commencement of construction of the point of interconnection substation, the Certificate Holder shall file with the Secretary and provide to National Grid a monthly report on the progress of construction of the point of interconnection substation and an update of the construction schedule, and shall file copies of current construction progress reports during all phases of construction. In the event the Siting Board or the Commission if the Siting Board's jurisdiction has ceased determines that construction is not proceeding at a pace that is consistent with the Interconnection Agreement between National Grid and the Certificate Holder, and that a modification, revocation, or suspension of the Certificate may therefore be warranted, the Siting Board may issue a show cause order requiring the Certificate Holder to explain why construction is behind schedule and to describe such measures as are being taken to get back on schedule.
133. The Certificate Holder shall invite National Grid to all pre-construction meeting(s); and at least 14 days before the commencement of construction activities affecting facilities owned or to be owned by National Grid, the Certificate Holder shall hold a pre-construction meeting

with National Grid, and the BOP construction contractor and the environmental compliance monitor shall be required to attend such meeting. The Certificate Holder shall notify DPS Staff of meetings related to the electrical interconnection of the project to the National Grid transmission system and provide the opportunity for DPS Staff to attend those meetings.

134. The Certificate Holder shall operate the Facility in accordance with the Interconnection Agreement, approved tariffs and applicable rules and protocols of National Grid, NYISO, NYSRC, NPCC, NERC and successor organizations.
135. The Certificate Holder shall operate the Facility in full compliance with the applicable reliability criteria of National Grid, NYISO, NPCC, NYSRC, NERC and successors. If it fails to meet the reliability criteria at any time, the Certificate Holder shall notify the NYISO immediately, in accordance with NYISO requirements, and shall simultaneously provide the Board, or the Commission after the Board's jurisdiction has ceased, by filing with the Secretary and National Grid with a copy of the NYISO notice.
136. The Certificate Holder shall obey unit commitment and dispatch instructions issued by NYISO, or its successor, in order to maintain the reliability of the transmission system. In the event that the NYISO System Operator encounters communication difficulties, the Certificate Holder shall obey dispatch instructions issued by the National Grid Control Center, or its successor, in order to maintain the reliability of the transmission system.
137. The Certificate Holder shall work with National Grid engineers and safety personnel on testing and energizing equipment in the authorized interconnection and collection substations. If National Grid's testing protocol is not used, a testing protocol shall be developed and provided to National Grid for review and acceptance. The Certificate Holder shall file with the Secretary a copy of the final testing design protocol within 30 days of National Grid acceptance.
138. If National Grid or the NYISO bring concerns to the Commission, the Certificate Holder shall be obligated to

address those concerns, and shall make any necessary modifications to its Interconnection Facility if the NYISO or National Grid find such facilities are causing, or have caused, reliability problems to the New York State Transmission System.

**Attachment A - Required Filings****Description of Required Filings****1. Site Plans**

Compliance Filing. Must be approved before starting grading for the facilities shown on the plans.

Required contents:

- a. WTG Site Plans. One map per wind turbine. Shows assembly area with crane pad and temporary laydown areas. Prepared on GIS or CAD, with aerial background. 11x17 sheets or larger. Plans shall indicate blade installation procedure to be used for each turbine.
- b. Access Roads Plans. Plan and profile drawings done with CAD. Typical cross section. Plans should show final road widths and expected grading limits during construction.
- c. Temporary Facility Plans. Unless previously approved, site plans for the construction laydown yard and batch plant, if any, showing grading limits, exterior lighting, driveways, and applicable local setbacks. Construction laydown yard plan shall also show planned areas for trailers, parking, and storage. Batch plant plan shall also show planned areas for parking, material stockpiles, conveyors, mixer(s), water supply, arrows showing direction of material flow, and truck loading.

WTG and access road site plans will be drawn at a scale of 1"=200' or smaller. All site plans will show:

- a. pre-construction topographic contours, if applicant determines that these can be shown without obscuring other required information,
- b. locations of known archaeological sites within 100 feet of the planned limits of disturbance,
- c. locations of buried utilities based on ALTA surveys,
- d. crossing methods for any areas where Project access roads or electric lines cross a stream or wetland,
- e. planned locations where new fences or gates will be installed,

- f. agricultural classification and protection measures, or cross reference to map in Agriculture package.

## **2. Electrical Collection System (ECS) Package**

Compliance Filing. Must be approved before starting ECS cable installation. Required contents:

- a. Plans showing routes of individual ECS circuits, including identification of any areas where overhead circuits are planned.
- b. For underground circuits, schedule of cable sizes, typical cross section drawing(s), planned circuit spacing for right-of-ways with multiple circuits, junction boxes, and a list of locations to be installed with horizontal directional drilling (HDD) and a typical crossing detail.
- c. Frac-out Plan, describing contingency plans to be implemented in the case of a leak of drilling fluid during horizontal directional drilling.
- d. For overhead circuits (if any), structure drawings, plan and profile drawings, specification of conductor types.

## **3. Collection Substation Package**

Compliance Filing. Must be approved before starting grading at Collection Substation site. Required contents:

- a. One-line drawing,
- b. General arrangement (site plan),
- c. Plan and profile drawings,
- d. Site plan showing fences and driveways.

## **4. Transmission Line Package**

Compliance Filing. Must be approved before starting earthwork for transmission line structures or grading of access roads.

Required contents:

- a. Plan and profile drawings including temporary access plan and work areas,

- b. Structure drawings and specifications, indicating types, heights, finish and foundation type for each,
- c. Foundation drawings,
- d. Underground details, including road crossing details,
- e. Conductors and insulator specifications.

Transmission line plans will be drawn at a scale of 1"=200' or smaller. All plans will show:

- a. pre-construction topographic contours, if applicant determines that these can be shown without obscuring other required information,
- b. locations of known archaeological sites within 100 feet of the planned limits of disturbance,
- c. locations of buried utilities based on ALTA surveys,
- d. crossing methods for any areas where the transmission line crosses a stream or wetland,
- e. planned locations where new fences or gates will be installed, if any,
- f. agricultural classification and protection measures, or cross reference to map in Agriculture package.

## **5. Foundation Design Package**

Compliance Filing. Must be approved before pouring concrete for any WTG foundations. Required contents:

- a. Geotech report, including (i) verification if subsurface conditions for every site where a wind turbine will be built; (ii) identification of turbine sites with karst features, highly corrosive soils, high frost risk, high shrink/swell potential, and where blasting is likely to be required; (iii) characterization of subsurface conditions at sites where HDD is planned; and (iv) if karst features are deemed to be likely at the site, recommendations on mitigation measures including any proposed limits on blasting to address risk from karst features.

- b. Turbine foundation design drawings, with plan and elevation views, stamped by New York- licensed PE, for every type of foundation to be used;
- c. List of foundation type and elevation for each WTG site in tabular format.

**6. Wind Turbine Information Package**

Information Report. Must be filed before pouring concrete for any WTG foundation, except that item (a) must be filed prior to the commercial operation date. Required contents:

- a. Design verification, verifying that the wind turbines were designed in accordance with International Electrotechnical Commission (IEC) 61400.
- b. Site suitability analysis, completed by a third-party and demonstrating that the selected wind turbine model(s) are suitable for the site conditions. A mechanical load analysis by the wind turbine vendor to determine applicability of the warranties is an appropriate analysis for this purpose. An analysis by an independent engineer evaluating the technical risks of the project for potential investors shall also serve this purpose.
- c. Weights and dimensions.
- d. Blade installation method, a general description is sufficient.

Information to be standard information available to developers purchasing equipment from the manufacturer.

**7. Land Rights Package**

Information Report. Items a. and b.(i) must be filed before starting clearing at the Facility Site; item b.(ii) must be filed before WTG foundations may be poured; and b.(iii) must be filed before the Commercial Operation Date.

Required contents:

- a. Map of survey of Facility Site properties with property lines based on meets and bounds survey,

- b. Notarized memos or similar proof of agreement for every (i) Facility Site property, (ii) any properties outside of the Facility Site whose owner has agreed to allow wind turbines to be located closer to their boundary than allowed by local law ("Setback Properties"), and (iii) any other property whose owner has signed a participation agreement or other type of agreement including a waiver of noise and/or shadow impacts.

## **8. Stormwater Package**

Compliance Filing. Must be approved before grading at the Facility Site. Required contents:

- a. Cross reference to approved stormwater pollution prevention plan (SWPPP) provided in the information report in the State Permit Package (Section 21.a).
- b. Additional erosion and sedimentation (E&S) drawings beyond those included in the SWPPP, if required, showing final topographic lines, boundaries of delineated wetlands, areas of cut and fill, locations of temporary E&S control measures, locations of permanent erosion and sedimentation control measures, sizes and locations of culverts.
- c. Typical details for E&S measures, including trench breakers for construction of underground facilities perpendicular to steep slopes and specifications on selecting locations for concrete washouts.

## **9. Noise Package**

Compliance Filing. Must be approved before start of construction.

Required contents:

- a. List of expected sound levels (ESLs) from Project operation at all residences within 1 mile of planned wind turbines (Noise Receptors), calculated for a facility configuration that can be reasonably be shown to bound sound from the as-built configuration.
- b. Noise contour map showing ESL contours Noise Receptors for areas within 1 mile of planned wind turbines.



- c. Complaint management plan for project operation.
- d. Noise emission specifications from the wind turbine manufacturer.
- e. Noise emission specifications from the manufacturers of main transformer(s) to be installed in the Collection Substation.
- f. Post-Construction Noise Monitoring Plan.

**10. [Intentionally omitted.]**

**11. FAA and Exterior Lighting Package**

Compliance Filing. Must be approved before backfeed.

Required contents: Locations (fixture type and heights and elevations) and manufacturers cut sheets, for all exterior lights to be installed as part of the project, including those to be installed at:

- a. on wind turbines in compliance with FAA requirements (including any information on aircraft detection systems that may be integrated with the FAA lights),
- b. near WTG entry doors,
- c. at the O&M Building,
- d. at any exterior storage yards, whether located at the O&M Building site or elsewhere,
- e. the Collection Substation, and
- f. the POI Switchyard.

**12. Wetland and Stream Package - Construction**

Compliance Filing. Must be approved before start of grading activities in wetland areas or streams. Required contents:

- a. Wetland and stream drawings, showing areas where roads, electric collection lines, or transmission lines cross wetlands or streams, indicating topographic contours, delineated wetlands and streams, and specifying access and construction measures and crossing method (e.g., culvert or bridge; trenchless or trenched installation, etc.); and any designated

streamside "protective or buffer zones" in which construction activities will be restricted. 1"=50' scale.

- b. Tables listing wetland and stream impacts, with the following for each impact: area, type of wetland.
- c. A State Wetland Mitigation Plan for Impacts to State wetlands, addressing impacts to wetland benefits described in ECL §24-0105(7).
- d. Map showing where HDD is planned for installation of buried cables under wetlands or streams.

### **13. O&M Building Package**

Compliance Filing. Site plan and architectural drawings must be approved before pouring O&M Building foundation.

Required contents:

- a. Site Plans, including local zoning designation of the site, lines showing setback requirements of local laws, planned locations for building(s), fence(s), parking, driveway(s), septic system.
- b. Architectural drawings, including plan and elevation views of the building.
- c. Cross-references to lighting plan and other packages containing specific information relevant to the O&M building.

### **14. [Intentionally omitted.]**

### **15. Water Wells Package**

Compliance Filing. Must be approved before the Commencement of Construction. Required contents:

- a. A statement confirming that no Facility wind turbine will be located and no pesticides will be used within 100 feet of any active water supply well, or a water supply intake for a municipal water system.
- b. Maps showing the locations of, and a statement confirming that the Certificate Holder offered pre- and post-construction potability testing for, the following drinking water facilities:

1. all existing and active drinking water wells within 100 feet of collection lines, transmission lines and access roads; and
  2. all existing and active drinking water wells on non-participating parcels within 1,000 feet of turbine locations.
- c. Identification of the wells for which the Applicant has performed, or agreed to perform, pre- and post-construction water well testing.
  - d. The identity and qualifications of the third-party that will perform pre- and post-construction well testing. A list of the parameters, developed in consultation with DPS Staff, for which testing will be performed to compare pre- and post-construction potability of drinking water at well locations.

**16. Roads and Equipment Delivery Package**

Information report. Must be filed before or within 5 days of the start of wind turbine component deliveries.

Required contents:

- a. Delivery route maps, showing routes on New York state, county, and town roads to be followed for oversize or overweight vehicles delivering wind turbine components to the Facility Site (WTG Deliveries). These route maps shall also identify any weight-limited bridges along the route that are to be avoided.
- b. Road Modification Plans, showing modifications to New York state, county, and town roads planned to accommodate the WTG Deliveries.
- c. Points of contact for NYS DOT, NYS Police Barracks, and county highway departments that can verify their department's awareness of the plans for WTG Deliveries.
- d. Road use agreements between NTW and towns or counties.

**17. Construction Management Package**

Compliance Filing. Must be approved before start of construction. Portions of plans that present contact information shall be considered information reports.

Required contents:

- a. QA/QC Plan.
- b. Project Communications Plan, describing the Certificate Holder's construction organizational structure, names and contact information for all individuals responsible for Project oversight, and protocol for communication between parties. The individuals identified shall include those serving as the environmental monitor, construction supervisor, and agricultural inspector.
- c. Environmental Monitoring Plan, including names and qualifications of companies that will serve as environmental monitors. Requirements from federal, State, and local permits will be attached as an appendix to this plan as information reports.
- d. Traffic control plans.
- e. Cross reference to the Spill Prevention, Containment, and Countermeasures (SPCC) Plan, describing procedures to minimize the potential for unintended releases, that is contained within the SWPPP.
- f. Concrete Requirements Plan, specifying the ACI and/or other standards with which batch plant or redi-mix concrete will be required to comply, plans for monitoring and testing to ensure the applicable standards are met.
- g. Dust Control Plan, specifying measures to be used to minimize fugitive dust and airborne debris from construction activity.
- h. Emergency Response Plan, with contacts for Project construction.

1. Demolition plan, identifying any buildings to be demolished or moved, if any, and plans for containment of dust and disposal of waste materials.

#### **18. Agricultural Package**

Compliance Filing. Must be approved before grading in any field in active agricultural use.

Required contents:

- a. Signed statement from Certificate Holder's main civil contractor acknowledging requirements to comply with NYS Department of Agriculture and Markets Guidelines on construction of windpower facilities in active agricultural lands.
- b. Mapping of agricultural uses in the Facility Site, including shading or other codes to indicate (i) fields known to be in active agriculture use, (ii) areas of special agriculture operations (sugar bush, grapes, orchards, etc.), and (iii) fields known to contain drain tiles, buried water lines, or other special agricultural facilities.

#### **19. SHPO Package**

Information Report(s). Must be filed prior to start of construction.

Required contents:

- a. A statement by SHPO confirming that the pre-construction cultural resource surveys provide acceptable coverage of the expected limits of disturbance.
- b. Unanticipated Discovery Plan approved by SHPO, establishing procedures in the event resources of cultural, historical, or archaeological importance are encountered during construction.
- c. Cultural Resources Mitigation and Offset Plan approved by SHPO.

**20. Federal Permits**

Information Report(s). Must be filed within 14 days of receipt. For each permit, provide cross references to relevant packages that have already been filed.

Required contents:

- a. US Army Corps of Engineers wetlands permit, with a wetland mitigation plan, if any.
- b. FAA determinations of no hazard to air navigation and notices of actual construction.
- c. US Fish and Wildlife Service Permits, if any.

**21. State Permits**

Information Report(s). Must be filed within 14 days of receipt. Only required if not issued with the Certificate. For each permit, provide cross references to relevant packages that have already been filed.

Required contents:

- a. Acknowledgement of coverage under General Stormwater permit and a copy of the approved SWPPP.
- b. NYSDOT permits required for oversize or overweight vehicles.
- c. NYSDOT highway work permits and use/occupancy permits for intersection modifications, access road driveways, buried cable crossings, or overhead electric crossings.

**22. Local Permits**

Information Report(s). Must be filed within 14 days of receipt. For each permit, provide cross references to relevant packages that have already been filed.

Required contents:

- a. Building permits, if any.
- b. Driveway I access road entrance permits, if any.

**23. NYISO Package**

Information Report(s). Must be filed within 14 days of receipt.

Required contents:

- a. Interconnection Agreement.
- b. Facility Study.

**24. Environmental Package - Operation**

Compliance Filing. Must be approved before COD or additional curtailment will be required pursuant to Certificate Condition 62.

Required contents:

- a. Net Conservation Benefit Plan for Listed Bats pursuant to Certificate Condition 62.
- b. If deemed to be required by the Siting Board, Net Conservation Benefit Plan for Listed Grassland Birds, including a demonstration that the plan results in a net positive benefit on listed grassland birds.
- c. Post-Construction Bird and Bat Monitoring Plan acceptable to DEC (or in the absence of DEC concurrence, submitted to the Siting Board or PSC for resolution of matters in dispute), which shall identify the types of studies to be performed, the number of years that they will be performed, and details such as the start date, number and frequency of turbine searches, and search areas.

**25. Operations Package**

Compliance Filing. Must be approved before COD. Portions of plans that present contact information shall be considered information reports.

Required contents:

- a. Operations and Maintenance Plan.
- b. Decommissioning Plan, including proof of required security, or plans to have security in place by the date required in the plan.

- c. Emergency Response Plan, with contacts for Project operation.
- d. Complaint Management Plan, with procedures applicable to project operation.
- e. Site Security Plan for Facility Operation.
- f. Facility and Corridors Vegetation Management Plan, specifying plans for managing vegetation along any overhead transmission facilities, and corridors with buried cables and/or access roads, around wind turbine sites, at the O&M building, and at the Collection Substation. The plan shall discuss inspection and target treatment schedules, use of herbicides, and landowner notifications.

## **26. As-Built Package**

Information Report. Must be filed within six months of COD.

Required contents:

- a. GIS shape files for as-built locations of wind turbine centers, meteorological tower centers, transmission line pole locations and permanent right of way, ECS circuits, access road edge lines, Collection Substation fence and final grading, POI Switchyard fence and final grading, and O&M building location and final grading.
- b. Prints of maps showing information in the GIS shape files and names of access roads.
- c. Signed statement that ECS system was installed in accordance with design specifications.
- d. As-Built Plans and details for locations where access roads or ECS circuits cross or are co-located with high pressure natural gas pipelines (if any) showing location, cover, separation distances, and any protection measures installed.



**27. Economic Benefits Report**

Information Report. Must be filed within the earlier of (i) 42 months from COD or (ii) filing of an economic benefits report filed to NYSERDA.

Required contents: Copy of a NYSERDA report verifying the Project's economic benefits to New York or a similar report documenting the following:

- a. Project payments for local taxes, PILOT agreements, and host community agreements;
- b. Direct construction jobs and spending with companies based in New York;
- c. Direct permanent jobs created as a result of the Project.

**28. Setbacks and GIS Package**

Compliance filing. Must be approved before commencement of construction.

Required contents:

- a. Setback map, generated with GIS, and showing parcel boundaries, parcel ID's, parcel participation status, WTG center points, setback circles around WTG. This map shall also show locations of any of the following items within 1.5 times the wind turbine tip height: residences and other buildings regularly or occasionally occupied by people, public roads railways, airfields, and major telecommunication towers. [Note: There are no oil or gas wells, gas pipelines, oil pipelines, or gas compressor and regulating stations in the vicinity of Number Three Wind].
- b. GIS shape files for wind turbine centers, meteorological tower centers, transmission lines, ECS circuits, access road centerlines and road edges, limits of disturbance, forest areas to be cleared, Collection Substation location, POI Switchyard location, construction laydown yard, and O&M building location.

GIS files shall be submitted as confidential information for use by State agencies.

**29. Visual Impact Mitigation Package**

Compliance filing. Must be approved within one year of COD.

Required contents: maps, descriptions, and schedule for visual impact mitigation features, such as earthwork or plantings, if any, to be installed by the Certificate Holder to mitigate visual impacts of the Facility.

**30. LNTP (Limited Notice to Proceed) - Clearing Package**

Compliance Filing. Must be approved before start of clearing activities. Note: Approval of this package does not authorize stump removal and grading activities.

Required contents:

- a. Maps or site plans showing the limits of disturbance (LOD), forested areas to be cleared, forested wetlands inside the LOD, unforested wetlands inside the LOD, roost trees or other trees to be protected from clearing activities, clearing methods, planned access routes, including matting for heavy equipment where applicable, and agricultural classification and protection measures, or cross reference to map in Agriculture package. The maps or site plans will be drawn at a scale of 1"=200' and will depict the planned location of project infrastructure associated with the clearing for reference. The site plans in Compliance Filing Packages 1-4 and 13 will provide the project infrastructure locations for Siting Board approval.
- b. Descriptions of clearing and stump treatment methods to be used in forested areas and forested wetlands.
- c. Description of planned methods for vegetation disposal.
- d. Description of methods to protect select trees, if any.

- e. Complaint Management Plan, with procedures applicable to overall project construction activities.
- f. Invasive Species Management Plan, describing methods to be used to minimize the introduction and spread of invasive species.
- g. Pre-construction mapping of invasive species, as required by ISMP section 4.
- h. If temporary construction entrances are proposed, entrance details and grading, proof of filing of NOI for coverage under General Stormwater permit, a copy of the submitted SWPPP, and traffic control plans.
- i. Land Rights package items a. and b.(i) for parcels where clearing is proposed, and related access to forest areas.
- j. Plans for notification and preconstruction meeting, environmental monitoring, spill prevention methods to be employed by clearing contractors, including bulk storage if proposed, to be implemented during the scope of work authorized by this package. These may be more limited than the full plans required as part of other packages that must be approved prior to full construction activities.

**31. LNTP (Limited Notice to Proceed)- Construction Laydown Yard Package**

Compliance Filing. Must be approved before commencement of construction<sup>1</sup> of the laydown yard and O&M Building if adjacent. Note: approval of this package does not authorize construction of permanent structures.

Required contents:

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<sup>1</sup> Commencement of Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP.

- a. Site plan of the construction laydown yard,
- b. Proof of filing of NOI for coverage under General Stormwater permit, including a copy of the submitted SWPPP,
- c. Temporary lighting locations (fixture type and heights and elevations) and manufacturers cut sheets,
- d. Land Rights package items a. and b.(i) for parcel(s) where the construction laydown yard is proposed,
- e. Plans for notification and preconstruction meeting, environmental monitoring, spill prevention to be implemented during the scope of work authorized by this package. These may be more limited than the full plans required as part of other packages that must be approved prior to full construction activities,
- f. Cross-reference to the Complaint Management Plan and Invasive Species Management Plan submitted with the LNTP - Clearing Package.

**32. LNTP (Limited Notice to Proceed) - POI Switchyard Package**

Compliance Filing. Must be approved before start of grading of the POI Switchyard.

Required contents:

- a. Site plan of the POI Switchyard including access routes/roads,
- b. Proof of filing of NOI for coverage under General Stormwater permit, including a copy of the submitted SWPPP,
- c. Land Rights package items a. and b.(i) for parcel(s) where the POI Switchyard is proposed,
- d. Plans for notification and preconstruction meeting, environmental monitoring, spill prevention and invasive species management to be implemented during the scope of work authorized by this package. These may be more limited than the full plans required as part of other packages that must be approved prior to full construction activities,

- e. Cross-reference to the Complaint Management Plan and Invasive Species Management Plan submitted with the LNTP - Clearing Package.

**Notes**

1. Unless noted otherwise, approvals must be made by the Siting Board or Public Service Commission.
2. At Certificate Holder's option, it may meet the non-site plan mapping requirements by presenting the required information on either the site plans or maps.

## APPENDIX B

Site Engineering and Environmental Plans (SEEP)

## **REQUIREMENTS FOR THE DEVELOPMENT OF SITE ENGINEERING AND ENVIRONMENTAL PLAN COMPLIANCE FILINGS FOR THE NUMBER THREE WIND PROJECT (CASE NO. 16-F-0328)**

### **Reference 16 NYCRR Section 1002.3**

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Section 1002.3 of Title 16 of the Official Compilation of Codes, Rules and Regulations of the State of New York indicates compliance filing procedures and requires that compliance filings provide:

- (a) A description of and citation to the requirement in a certificate or an order for which compliance is to be demonstrated;
- (b) A description of how the applicant will comply with the requirements of the certificate or order; and
- (c) Final maps, plans, diagrams, drawings, studies, reports or other documents demonstrating compliance.

Section A of the following Site Engineering and Environmental Plan (SEEP) specifications addresses the minimum requirements for development of Facility final engineering details; site plans for construction, restoration, and environmental control measures applicable; plan and profile drawings of the development site and all Facility components; and maps of Facility site and the overall Facility settings as appropriate to demonstrate compliance with applicable regulations and conditions of a Certificate of Environmental Compatibility and Public Need.

Section B addresses the description and statement of objectives, techniques, procedures, and requirements, i.e. the narrative portion of the SEEP compliance filing. In this portion, the filing requirements of §1002.3 will be addressed. Chapters or sections of the document shall identify whether it is addressing a specific certificate condition. If any particular requirement of these specifications is not applicable, so indicate and briefly explain.

#### **A. *SEEP COMPLIANCE FILING: SITE PLAN AND PROFILE DRAWINGS AND MAPS***

Plan sheets will be submitted showing the site and details of Facility location and design for all components of the Facility, including, as applicable: linear facilities such as electric collection lines, transmission lines and associated access roads, communications lines, fuel gas lines, water and

wastewater or sewer interconnection lines; and all temporary and permanent access roads. Plans shall also indicate sites of all major structures, features and buildings including, as applicable, generation sites, wind turbines, permanent meteorological towers, substations, switchyards and point-of-interconnection locations, associated access roads and the limits of disturbance for work areas associated with any component of the Facility. The Compliance Filing shall include plan-view drawings or photo-strip maps, and illustrations including but not limited to all of the following information:

## **1. Plan and Profile Details**

### **Wind Turbines and Related Non-Linear Components:**

For all proposed wind turbine models and other Facility components, excluding linear facilities, the Certificate Holder shall provide site plans, profiles, and detail drawings, profiles, and site plans (scale minimum 1 inch = 200 feet)<sup>1</sup> showing:

- a. A copy of the American Land Title Association (ALTA) survey showing locations of existing utility infrastructure.
- b. Details and specifications of the selected turbine model(s) (including cut sheets and blade details such as length and thickness).
- c. Foundation drawings including plan, elevation, and section details for each foundation type proposed; if multiple foundation designs are to be utilized for a Project, the foundation type at each turbine location shall be specified on site plans; applicable criteria regarding foundation design shall be listed and described in the drawings and details.
- d. Description of the wind turbine blade installation process will be included as a general note on the site plans, identifying the anticipated installation method for each wind turbine and indicating which wind turbine site locations will require the use of the entire rotor laydown area.
- e. Details showing limits of clearing, temporary and permanent grading, and laydown space required for wind turbine installation; details of the Storm Water Pollution Prevention Plan (SWPPP) should be indicated.

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<sup>1</sup> Contour lines at appropriate scale are desirable on the plan view or photostrip map if they can be added without obscuring the required information.



- f. The location and boundaries of any areas proposed to be used for fabrication, designated equipment parking, staging, access, lay-down, conductor pulling and splicing; concrete batch plant or other materials preparation or processing sites; operations and maintenance buildings, yards and equipment storage areas. Indicate any planned fencing, surface improvements or screening of storage and staging areas. Demonstrate setback distances appropriate to Facility design; and conformance with applicable requirements of the Certificate or local requirements.
- g. If an on-site concrete batch plant will be utilized during construction, the Certificate Holder shall provide the following (information required per subpart “iv” below shall be provided for any concrete that will be used for the Project, regardless of whether a concrete batch plant is proposed):
  - i. final details and site plan of the concrete batch plant location, access, and layout, at a reasonable scale to show all components (including, as applicable, conveyor layout, equipment, tanks, drainage system, settlement, catchment pits, flush systems, and stockpile areas) and proximity of its location to other Facility components and existing features;
  - ii. final layouts showing all proposed components of the concrete batch plant drainage system, including arrows representing potential water flow to any proposed catchment pits, etc.;
  - iii. temporary lighting that avoids offsite light trespass; and
  - iv. general concrete testing procedures, including a plan outlining the Certificate Holder’s monitoring and testing of concrete procedures in conformance with the Building Code of New York State, ACI, ASTM, and any other applicable specifications.
- h. The locations or description of locations for concrete chute washout and any other cleaning activities (e.g., equipment cleaning for control of invasive species).
- i. Maps showing the location selected for the operations and maintenance (O&M) building. If an existing building is not utilized, the Certificate Holder shall provide the final O&M building details and construction drawings. Plans for the O&M building property indicating: zoning designation; compliance with use and area requirements, and setbacks to property lines; access, employee parking, building details, exterior lighting

details; any outdoor storage areas, fencing and signage; water source and sewage disposal facilities; and related site development information.

### Linear Facility Components:

For all linear Facility components including: electric transmission lines, electric collection or distribution lines, and access roads, site plan and profile figures shall include profile drawings of Facility centerline; for electric lines (whether above ground or underground) plans shall include the Line<sup>2</sup> Profile (at an appropriate scale) and plan drawings (scale minimum 1 inch = 200 feet) showing:

- j. *Collection System Circuits Map* for the collection substation and collection line circuits' configuration and location, indicating locations of all overhead and underground installations and the number of required circuits per circuit-run.
- k. Final design and details of single and multiple electric circuit underground collection lines. Each Project circuit layout (single, double, triple, etc.) shall include a cross-section and clearing and ROW widths needed for accommodating circuit installations.
- l. Final details of single and multiple-circuit overhead 34.5 kV electric collection line layouts. Each Project circuit layout (single, double, triple, etc.) shall include typicals for all overhead structures, proposed guying, and associated clearing.
- m. The boundaries of any new, existing, and/or expanded utility right-of-way or road boundaries, and where linear Facility lines or cables are to be constructed overhead or underground; plus, any areas contiguous to the Facility site or street within which the Certificate Holder will obtain additional rights.
- n. The location of each Facility structure (showing its height, material, finish and color, and type), structural foundation type (e.g., concrete, direct bury) and dimensions, fence, gate, down-guy anchor, and any counterpoise required for the Facility (typical counterpoise drawings will suffice recognizing that before field testing of installed structures the Certificate Holder may be unable to determine the specific location of all required counterpoise), conductors, insulators, splices, and static wires and other components attached to Facility structures.

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<sup>2</sup> The lowest conductor of an overhead electric transmission, collection or distribution facility design shall be shown in relation to ground elevation at the maximum permissible conductor temperature for which the line is designed to operate, i.e., normally the short-time emergency loading temperature specified by the New York ISO. If a lesser conductor temperature is used for the line profile, the maximum sag increase between the conductor temperature and the maximum conductor temperature shall be indicated for each ruling span. For underground Project design, show relation of Project to final surface grade, indicating design depth-of-cover.

- o. Each Facility site access road will be identified by a unique name designation. Each temporary and permanent access road will be shown on a scaled drawing indicating the width used during construction and cut and fill contours for each road shall also be shown at two-foot contours. Access controls such as gates shall be indicated, with typical or specific design indicated as applicable to individual sites.
- p. Existing utility and non-utility structures on or adjoining the Facility site, indicating those to be removed or relocated (include circuit arrangements where new structures will accommodate existing circuits, indicate methods of removal of existing facilities, and show the new locations, types and configurations of relocated facilities). Depict each Facility conductor's clearance from the nearest overhead electric transmission or distribution lines and communications lines.
- q. Existing underground utility or non-utility structures including but not limited to gas, water, telecommunication or electric cable, or pipeline. The relationship of the Facility to nearby fence lines; roads; railways; airfields; property lines; hedgerows; fresh surface waters; wetlands; other water bodies; significant habitats; associated facilities; water springs; nearby buildings; water wells; or structures; major antennas; oil or gas wells, pipeline facilities, and compressor and pressure-limiting and regulating stations. Regarding co-location and crossing of existing utilities by Project components, the following additional information shall be provided:
  - i. Results of any cathodic protection impact studies;
  - ii. Approval documentation (including a statement that Project installations meet existing utility owner technical and safety requirements and copies of all relevant technical and safety manuals) from each existing utility that will be co-located with or that will be crossed by Proposed Project components (including Project construction equipment crossings of existing utilities). Approvals shall be required for each co- location and crossing of existing utility location;
  - iii. Details of existing utility owner approved crossing plans (crossed by Project components) showing methods, separation of existing utility and Project components, cover, installation of protection measures, and workspace, including any bore pits or similar features;
  - iv. Details of existing utility owner approved co-location installations (with Project components) showing separation distances of existing utilities and Project components and any required or recommended protection measures; and

- v. Details and descriptions of existing utility owner approved methods regarding Project construction equipment crossing of existing utilities approved by each existing utility owner;
- r. The location and design details, site plan and architectural configuration of any proposed Facility components, generator sites, collection station, control building, new or expanded switching station, substation, or other terminal or associated utility or non-utility structure (attach plan<sup>3</sup> - plot, grading, drainage, and electrical - and elevation views with architectural details at appropriate scales). Indicate the type of outdoor lighting, including design features to avoid off- site illumination and minimize glare; the color and finish of all structures; the locations of temporary or permanent access roads, parking areas, construction contract limit lines, property lines, designated floodways and flood-hazard area limits, buildings, sheds, relocated structures, and details of any plans for water service and sewage and waste disposal.

## **2. Stormwater Pollution Prevention**

The Compliance Filing plan drawings will include the acknowledged Storm Water Pollution Prevention Plan (SWPPP) plans (and approved MS-4 SWPPP plans if applicable) and drawings, and indicate the locations and details of soil erosion and sediment control measures and any proposed permanent stormwater management controls developed in accordance with the latest version of the New York Standards and Specifications for Erosion and Sediment Control (e.g., stabilized construction entrances, drainage ditches, silt fences, check dams, and sediment traps).

## **3. Vegetation Clearing and Disposal Methods**

Identify on the plan and profile drawings:

- a. the locations of sites requiring trimming or clearing of vegetation including both above and below ground (i.e., stumps) and the geographic limits of such trimming or clearing;
- b. the specific type and manner of cutting, disposition or disposal method for vegetation (e.g., chip; cut and pile; salvage merchantable timber, etc.);
- c. the disposal locations of all vegetation (including stumps) to be cut or removed from each site;

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<sup>3</sup> Preferably 1" = 50' scale with 2-foot contour lines.

- d. any geographical area bounded by distinctly different cover types requiring different cut-vegetation management methods;
- e. any geographical area bounded at each end by areas requiring distinctly different cut-vegetation methods due to site conditions such as land use differences, population density, habitat or site protection, soil or terrain conditions, fire hazards, or other factors;
- f. site specific vegetation treatment or disposal methods, including any property-owner required details such as log storage or wood chip piling areas, or “no-herbicide” zones;
- g. areas requiring “danger tree” removal; and
- h. the location and details of any areas where specific vegetation protection measures will be employed including those measures to avoid damage to specimen tree stands of desirable species, important screening trees, hedgerows etc.

#### **4. Building and Structure Removal**

Indicate the locations of any buildings or structures to be acquired, demolished, moved, or removed. Provide plans for site access; and plans and standards for control of dust, runoff and containment of any debris or other waste materials related to removals.

#### **5. Waterbodies**

- a. Indicate the name, water quality classification, and location of all rivers and streams, (whether perennial and intermittent) and drainages within the construction area or crossed by any proposed linear Facility site or access road constructed, improved or maintained for the Facility. On the plan and profile drawings, indicate:
  - i. stream crossing method and delineate any designated streamside “protective or buffer zone” in which construction activities will be restricted to the extent necessary to minimize impacts on rivers and streams;
  - ii. the activities to be restricted in such zones; and,
  - iii. identify any designated floodways or flood hazard areas within the site of the Facility, or otherwise used for Facility construction or the site of associated facilities. Provide topographic and flood hazard area elevations (if determined by engineering study); and specifications for facilities to be located within designated flood hazard or

floodway zones; and design engineering and construction measures to demonstrate conformance with local ordinances, avoid damage to facilities, or avoid increasing flood elevation at any other location due to Facility installation and operation.

- b. Show the location of all potable water sources, including springs and wells on or within 100 feet of the Facility site, indicating on a site-by-site basis, precautionary measures to be taken to protect each water source.

## **6. Wetlands**

- a. All Federal and State regulated wetlands and wetland 100-foot adjacent areas (“adjacent areas”) located within the Facility Area or crossed by or adjacent to any access road to be constructed, improved, used or maintained for the Facility shall be depicted on plan drawings. Each wetland will be identified by a project identification number and by the NYSDEC designation as appropriate.
- b. Indicate the location and type (i.e., identification code for regulated town, state, or federal wetlands) of any wetland (e.g., marsh, meadow, bog, or scrub-shrub or forested swamp) within or adjoining the Facility site or any temporary access road, as determined by site investigation and delineation.
- c. Indicate type and location of measures (e.g., mats) to be taken to protect all wetlands, associated drainage patterns and wetland functions.

## **7. Land Uses**

- a. Agricultural Areas:
  - i. Indicate the locations of sites under cultivation or in active agricultural use including rotational pasture, pasture, hayland, and cropland. Designations and descriptions will be those in current use by the NYS Department of Agriculture and Markets (Ag&Mkts.)
  - ii. Indicate the location of any unique agricultural lands including maple sugarbush sites, organic muckland, and permanent irrigation systems, as well as areas used to produce specialty crops such as vegetables, berries, apples, or grapes.
  - iii. Indicate the location of vulnerable soils in agricultural areas that are more sensitive than other agricultural soils to construction disturbance due to factors such as slope,

soil wetness, or shallow depth to bedrock.

- iv. Indicate the location of all land and water management features including subsurface drainage, surface drainage, diversion terraces, buried water lines, and water supplies.
- v. Designate the site-specific techniques to be implemented to minimize or avoid construction-related impacts to agricultural resources.

b. Sensitive Land Uses and Resources:

Identify and indicate the location of sensitive land uses and resources that may be affected by construction or maintenance of the Facility or by construction-related traffic (e.g., hospitals, emergency services, sanctuaries, schools, and residential areas).

c. Geologic, Historic, and Scenic or Park Resources:

Indicate the locations of nearby geologic, historic, and existing or planned scenic or park resources and specify measures to minimize impacts to these resources (e.g., specified setback distances, vegetation protection, fencing, signs).

d. Recreational Areas:

Indicate the locations where existing or planned recreational use areas, designated trails, trailhead parking areas or associated access driveways would affect or be affected by the Facility location, site clearing, construction, operation or management of the Facility,

**8. Access Roads, Lay-down Areas and Workpads**

- a. Indicate the locations of temporary and permanent access roads, lay-down areas and work-pads.
- b. Provide construction type, material, and dimensions and their associated limits of disturbances.
- c. Indicate provisions for upgrading any existing access roads.

**9. Noise-Sensitive Sites**

Show the locations of noise-sensitive areas adjacent to the Facility site. Identify locations and specifications of measures to mitigate construction noise as required by the Certificate of Environmental Compatibility and Public Need (Certificate).

**10. Ecologically and Environmentally Sensitive Areas**

- a. Indicate the general locations of any known ecologically and environmentally sensitive sites (e.g., archaeological sites; fish and wildlife habitat; rare, threatened, and endangered species or habitats; forest and vegetation; open space; areas of important aesthetic or scenic quality; deer winter yards, etc.), within or nearby the Facility site or along the general alignment of any access roads to be constructed, improved or maintained for the Facility. Specify the measures that will be taken to protect these resources (e.g., fencing, flagging, signs “Sensitive Environmental Areas, No Access”).
- b. Measures for avoidance of archaeological sites identified within the Facility site shall be indicated on the final site plans. The mapped locations of all identified archaeological sites within 100 feet of proposed Facility-related impacts shall be identified as “Environmentally Sensitive Areas” or similar on the final Facility construction drawings and marked in the field by construction fencing with signs that restrict access.

**11. Invasive Species of Special Concern**

Identify the location(s) of Invasive Species of Special Concern (based on the site invasive species survey as required by the Certificate) and the prescribed method to control the spread of the identified species on the site during construction.

**12. Vegetation Controls and Herbicides**

Indicate areas where herbicides will be used, and prescribed treatment methods for specific vegetation control, on the site plans and construction drawings.

***B. DESCRIPTION AND STATEMENT OF OBJECTIVES, TECHNIQUES, PROCEDURES AND REQUIREMENTS***

The narrative portion of the SEEP Compliance Filing for the Facility shall include, but need not be limited to, all of the following information:

**1. Facility Location and Description**

Describe the location and limits of the Facility and explain the need for any additional rights.



For each wind turbine structure type, provide manufacturer's specifications applicable to final design of the Facility. For each Facility structure type, indicate the GSA—595A Federal standard color designation or manufacturer's color specification to be used for painted structures. State any objections raised by Federal, State or local transportation (highways, waterways, or aviation) officials to the final location or manner of installation of, or access to, the certified Facility site(s).

## **2. Stormwater Pollution Prevention**

- a. The acknowledged SWPPP and any MS-4 review.
- b. In any areas of coastal erosion hazard, include plans to demonstrate compliance with the standards for coastal erosion hazard protection as required by 6 NYCRR Part 505 - Coastal Erosion Management.
- c. In locations where electric collection lines and transmission lines will be installed by open trenching, particularly along or across areas of steep slopes, describe measures to address temporary (including stormwater events with open trench) and permanent (including "piping" erosion after backfilling of the trench for the life of the Facility) erosion. Related subsurface drainage to relieve hydraulic pressure behind trench plugs or breakers for the life of the Facility should also be addressed.

The following measures to address in-trench erosion are recommended:

- i. Trench Plugs:

Temporary trench plugs will be placed in the excavated trench to impede the flow of water down the trench. Hard plugs (unexcavated earth segments of the ditch line) will be maintained adjacent to streams and wetlands to protect those resources until cable installation activities occur. Soft plugs (replaced trench spoil, fill, sandbags) will be spaced in the trench in sloping areas to reduce erosion and trench slumping. Hay or straw bales will not be used as material for temporary trench plugs.

After cable installation, permanent sandbag or alternative trench breakers will be installed and spaced according to Appendix 1 "Trench Breaker Spacing" before backfilling. At the request of landowners or at the discretion of the environmental inspector or construction supervisor, undisturbed areas ("hard plugs") will be left in place until cable installation commences, to accommodate equipment crossings.

Hard plugs should be a minimum of 50 feet in length for areas where cable splices will occur. For animal and vehicle crossings of the trenchline area, a plug 25 to 30 feet in length should suffice.

ii. Trench Breakers:

Trench breakers may be constructed of sandbags or alternative materials. Impervious materials may be used to retain water in the wetlands. Trench breakers should be installed at all wetland edges. The location of these impervious trench breakers will be determined in the field based on locations identified in the construction plan documents. Trench breakers should also be installed at the top of bank of each waterbody crossing.

iii. Backfill:

Backfill operations will commence immediately after cable installation operations and will continue until completed. When backfilling the trench, the following will apply:

- (a) Only on-site, native material should be used in backfill operations unless the native material does not meet specifications, or ledge rock is encountered in the trench. Imported material may be brought in to protect the cables and achieve depth-of-cover requirements. Imported backfill must be free of invasive species pursuant to Invasive Species Control Plan.
- (b) Where topsoil has been segregated from trench spoil, backfill will be done in reverse order with trench spoil returned first.
- (c) Excess spoil will be removed. Under no circumstances will excess spoil be spread along the ROW or stockpiled in a manner that permanently changes the soil profile.
- (d) Trench breakers made of foam, sandbags, or other impervious materials shall be installed at the edge of all wetlands. For those areas where conditions and topography warrant, and the Certificate Holder identifies prior to the start of construction, the installation of trench breakers at the upland/wetland boundaries is appropriate to minimize changes to hydrologic regime in the wetlands such as drainage from the wetland.

**3. Vegetation Clearing and Disposal Methods**

- a. Describe the specific methods and rationale for the type and manner of cutting and disposition or disposal methods for cut vegetation.
- b. Detail specific measures employed to avoid damage to: specimen tree stands of desirable vegetation; rare, threatened and endangered species and significant habitat areas; important screening trees, and hedgerows. Provide additional site-specific plan details as-needed to demonstrate work-area limits and protection measures that will be applied during construction and maintenance of the Facility.
- c. Provide vegetation specifications and resource protection measures associated with vegetation removal during site clearing or restoration.
- d. Indicate specifications and standards applicable to salvage, stockpiling or removal of material.
- e. Identify ownership of cleared vegetation based on landowner agreements (as applicable).
- f. Describe methods of compliance with 6 NYCRR Part 192 – Forest Insect and Disease Control, any applicable DEC quarantine orders, and Ag&Mkts regulations.

**4. Building and Structure Removal**

Indicate the locations of any buildings or structures to be acquired, demolished, moved, or removed. Provide the rationale for the acquisition and removal of buildings or structures. Provide copies of approvals, demolition permits needed, control measures and standards for restoration, handling of hazardous or flammable materials, and environmental controls.

**5. Waterbodies**

- a. Describe the measures to be taken to protect stream bank stability, stream habitat, and water quality including, but not limited to: crossing technique; crossing structure type; timing restrictions for in-stream work; stream bed and bank restoration measures; vegetation restoration measures; and other site-specific measures to minimize impacts, protect resources, and manage Facility construction.
- b. Indicate the procedures that were followed to inventory such resources and provide copies of any resulting data sheets and summary reports.
- c. Provide a table listing all waterbodies located on or adjacent to the Facility site and include:

Town (location), Facility site location (site plan and profile drawing sheet number and reference location); Stream Name, Field/Map Identification Name, Perennial or Intermittent, New York Stream Classification, Water Index Number, Fishery Type, specific construction activities or crossing method specifying the distance of crossing across or to the Facility construction area; also provide GPS survey coordinates.

## 6. **Wetlands**

- a. For each State-regulated wetland, federal §404 wetland and tidal wetlands within or adjacent to the construction limits of the facility site, provide a table to indicate the following: town (location); Facility site location (site plan and profile drawing sheet number and reference location); wetland field designation; NYSDEC classification code; wetland type; total area of temporary disturbance/impact; total area of permanent disturbance (sq. ft.); by Facility (sq. ft.) and the nature of the said disturbance; and conversion of State-regulated forested wetlands (sq. ft.).
- b. Describe all activities that will occur within §404 wetland, tidal wetland and State wetlands. For each State-regulated wetland or associated adjacent areas, indicate the type of activity (e.g., construction, filling, grading, vegetation clearing, and excavation) and summarize how the activity is consistent with the weighing standards set forth in 6 NYCRR 663.5(e) and (f). Describe how impacts to wetlands, adjacent areas, associated drainage patterns and wetland functions will be avoided, and how impacts will be minimized. For §404 wetlands provide individual or nationwide permits with a discussion of the site-specific avoidance and minimization measures used to protect wetlands.
- c. Describe the precautions or measures to be taken to protect all other wetlands (e.g., town or federal wetlands) associated drainage patterns, and wetland functions.
- d. Provide a copy of the final Wetlands Mitigation Plan, developed in coordination with DEC, DPS Staff, and the Army Corps of Engineers, addressing permanent impacts to federal and State-regulated wetlands.

## 7. **Horizontal Directional Drilling**

Provide a *Frac-Out Risk Assessment and Contingency Plan* showing all locations where horizontal directional drilling (HDD) is proposed. The plan shall assess potential impacts from frac-outs at the proposed drilling locations and require the following:

- a. Biodegradable drilling solutions shall be used to minimize harm to aquatic species in the event of a drilling frac-out.
- b. Exit and entry points shall be located a minimum of 20 feet from the edge of the stream or wetland to minimize disturbance to the extent practicable.
- c. All equipment and provisions of the plan shall be readily accessible at the locations where HDD technology is used during construction.
- d. If inadvertent drilling fluid surface returns occur in wetlands or streams, the DEC and DPS Staff shall be notified immediately and a written monitoring report describing the location, estimated volume, and cleanup efforts shall be submitted within 24 hours of the occurrence.

## **8. Land Uses**

### **a. Agricultural Areas:**

- i. Describe programs, policies, and procedures to mitigate agricultural impacts such as soil compaction. Explain how construction plans either avoid or minimize crop production losses and impacts to vulnerable soils. Provide standards for exclusion of livestock grazing from Facility site until appropriate site stabilization and restoration have been demonstrated.
- ii. Indicate specific techniques and references to appropriate agricultural protection measures recommended by Ag&Mkts.

### **b. Sensitive Land Uses:**

Describe the sensitive land uses (e.g., hospitals, emergency services, sanctuaries, schools, residential areas, as applicable to Facility site) that may be affected by construction of the Facility and associated sites, or by construction-related traffic, and specify measures to minimize the impacts on these land uses.

### **c. Geologic, Historic and Scenic or Park Resources:**

Describe the geologic, historic, and scenic or park resources that may be affected by construction of the Facility or by construction-related traffic and specify measures to minimize impacts on these resources. Indicate the procedures that were followed to identify such resources and specify the measures that will be taken to protect or preserve these resources. Reports prepared to identify and analyze such sites that are not included in the description shall be made available to Staff upon request.

### **d. Recreation Areas:**

Explain how proposed or existing recreation areas will be avoided or accommodated during construction, operation, and maintenance of the Facility.

**9. Access Roads, Lay-down Areas and Workpads**

- a. Discuss the necessity for access to and within the Facility site, including the areas where temporary or permanent access is required; and the nature of access improvements based on natural features, equipment constraints, and vehicles to be used for construction and maintenance, and the duration of access needs through restoration and the maintenance of the Facility.
- b. Discuss the types of access roads or paths that will be used and the rationale for employing that type of access including consideration of:
  - i. temporary installations (e.g., corduroy, mat, fill, earthen road, geotextile under-layment, gravel surface, etc.);
  - ii. permanent installations (e.g., cut and fill earthen road, geotextile under-layment, gravel surface, paved surface, etc.);
  - iii. use of existing roads, driveways, farm lanes, rail beds, etc.; and,
  - iv. other access, (e.g., helicopter or barge placement).
- c. For each temporary and permanent access type, provide a figure or diagram showing a typical installation (include plan view, cross section and side view with appropriate distances and dimension and identification of material). Where existing access ways will be used, indicate provisions for upgrading for Facility construction. Demonstrate accommodation of planned or proposed future access to sites and lands within or adjacent to the facilities locations and landowner requested improvements (e.g., access roads across linear facilities such as wires, pipes, or conduits).
- d. Indicate the associated drainage and erosion control features to be used for access road construction and maintenance. Provide re-vegetation materials specifications. Provide diagrams and specifications (include plan and side views with appropriate typical dimensions) for each erosion control feature to be used, such as:
  - i. check dam (for ditches or stabilization of topsoil);
  - ii. broad-based dip or berm (for water diversion across the access road);
  - iii. roadside ditch with turnout and sediment trap;

- iv. French drain;
  - v. diversion ditch (water bar);
  - vi. culvert (including headwalls, aprons, etc.);
  - vii. sediment retention basin (for diverting out-fall of culvert or side ditch); and,
  - viii. silt fencing.
- e. Indicate the type(s) of stream crossing method(s) to be used in conjunction with temporary and permanent access road construction. Provide diagrams and specifications (include plan and side view with appropriate dimensions) for each crossing device and rationale for their use. Stream crossing methods and design may include but not be limited to:
- i. timber mat;
  - ii. culverts including headwalls;
  - iii. bridges (either temporary or permanent); and,
  - iv. fords.
- f. All diagrams and specifications should include material type and size to be placed in streams and on stream approaches.
- g. If access and work-pad areas cannot be limited to upland areas, provide justification for any access and work-pad areas which are proposed to be located in a wetland or stream or waterbody.
- h. Provide a traffic control plan that identifies the delivery route(s) for oversize or over length equipment or materials and the route(s) for delivery of earthen materials and concrete. The plan shall describe the delivery of materials to the facilities site. This plan will demonstrate that all municipalities, NYS Department of Transportation, NYS State Police Barracks, County Department of Public Works, County Sheriffs and local police department have been contacted. The plan shall identify weight limited bridges in the area to be avoided. The plan shall indicate mitigation measures to manage traffic during construction and operation. Copies of all permits associated with the delivery of such equipment and materials shall be provided.

## **10. Noise-Sensitive Sites**

Specify procedures to be followed to minimize noise impacts related to Facility site clearing, construction, and operation of the Facility. Indicate the types of major equipment to be used in

construction and Facility operation; sound levels at which that equipment operates; days of the week and hours of the day during which that equipment will normally be operated; any exceptions to these schedules; and any measures to be taken to reduce audible noise levels caused by either construction equipment or Facility operation.

**11. Ecologically and Environmentally Sensitive Sites**

- a. Indicate the procedures that were followed to identify ecological and environmental resources (e.g., archaeological sites; fish and wildlife habitat; rare, threatened, and endangered species (RTE) or habitats; forest and vegetation; open space; areas of important aesthetic or scenic quality; deer winter yards) and specify the measures that will be taken to protect or preserve these resources. Reports prepared to identify and analyze sites involving RTE shall be marked confidential and submitted for confidential handling.
- b. Provide a Final Unanticipated Discovery Plan, establishing procedures to be implemented in the event that resources of cultural, historical, or archaeological importance are encountered during Facility construction. The plan will include a provision for immediate work stoppage upon the discovery of possible archaeological or human remains. Evaluation of such discoveries, if warranted, shall be conducted by a professional archaeologist, qualified according to New York Archaeological Council Standards. Work shall not resume in the area of such remains until written permission is received from the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP).
- c. If complete avoidance of archaeological sites is not possible, the Certificate Holder shall consult with NYSOPRHP and DPS Staff to determine if Phase II investigations or mitigation is warranted. The results of any Phase II investigations and/or identification of proposed mitigation measures where complete avoidance of archaeological sites cannot be achieved, based on consultations with NYSOPRHP and DPS Staff.

**12. Invasive Species of Special Concern**

Provide an *Invasive Species Prevention and Management Plan (ISPMP)*, prepared in consultation with DPS, DEC and Ag&Mkts, based on the pre-construction invasive species survey of invasive species within the Project area.

- a. The ISPMP shall include measures that will be implemented to minimize the introduction of



Invasive Species of Special Concern and control the spread of existing invasive species of special concern during construction (e.g., soil disturbance, vegetation clearing, transportation of materials and equipment, and landscaping/re-vegetation).

- b. Control measures shall include construction materials inspection and sanitation, invasive species treatment and removal, and site restoration.
- c. A post-construction monitoring program (MP) shall be conducted in year 1 and year 2 following completion of construction and restoration. The MP shall collect information to facilitate evaluation of ISPMP effectiveness.
- d. At the conclusion of the MP, a report shall be submitted to DPS Staff, Ag&Mkts, and DEC, and filed with the Secretary, that assesses how effective the ISPMP was during construction.
- e. In the event that the report concludes that ISPMP goals are not met, the Certificate Holder shall meet with DPS Staff, Ag&Mkts, and DEC to consider why initial control measures were ineffective and the probability of successful additional treatment measures without the need for perpetual treatments.

### **13. Herbicides**

Include a Facility vegetation management and herbicide use plan for all vegetation clearing that:

- a. Specifies the locations where herbicides are to be applied. Provide a general discussion of the site conditions (e.g., land use, target and non-target vegetation species composition, height and density) and the choice of herbicide, formulation, application method and timing.
- b. Provides lists of desirable and undesirable vegetation species.
- c. Describes the procedures that will be followed during chemical application to protect non-target vegetation, streams, wetlands, potable waters and other water bodies, and residential areas and recreational users on or near the ROW.

### **14. Fugitive Dust Control**

Specify appropriate measures that will be used to minimize fugitive dust and airborne debris from construction activity.

**15. Petroleum and Chemical Handling Procedures**

Provide a final *Spill Prevention, Control and Countermeasures (SPCC) Plan* to minimize the potential for unintended releases of petroleum and other hazardous chemicals during Facility construction and operation. The SPCC Plan shall be applied to all relevant construction activities and address the following:

- a. Information about water bodies, procedures for loading and unloading of oil, discharge or drainage controls, procedures in the event of discharge discovery, a discharge response procedure, a list of spill response equipment to be maintained on-site (including a fire extinguisher, shovel, tank patch kit, and oil-absorbent materials), methods of disposal of contaminated materials in the event of a discharge, and spill reporting information. Any spills shall be reported in accordance with State and/or federal regulations.
- b. Storage, handling, transportation, and disposal of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances which may be used during, or in connection with, the construction, operation, or maintenance of the Facility.
- c. Avoiding spills and improper storage or application in the vicinity of any wetland, river, creek, stream, lake, reservoir, spring, well, or other ecologically sensitive site, or existing recreational area along the ROW and access roads.
- d. Reporting, responding to and remediating the effects of any spill of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances in accordance with applicable State and Federal laws, regulations, and guidance, and include proposed methods of handling spills of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances which may be stored or utilized during the construction and site restoration, operation, and maintenance of the Facility.

**16. Health, Safety, and Security**

Copies of the following final plans shall be included in the narrative, or otherwise appended to, the SEEP compliance filing:

- a. The *Final Emergency Action Plan* that shall be implemented during Facility construction, operation, and decommissioning. Copies of the final plan shall be provided to DPS Staff, the NYS Division of Homeland Security and Emergency Services, and local

emergency responders that serve the Facility.

- b. The *Final Site Security Plan* for Facility Construction and Operations. Copies of the final plan shall be provided to DPS Staff, NYS Division of Homeland Security and Emergency Services and local emergency responders that serve the Facility. The plan shall include, but not be limited to, the following:
  - i. posting signs at the edges of the ROW in those locations where the collection lines intersect public roads;
  - ii. working with local law enforcement officials in an effort to prevent trespassing;
  - iii. identifying construction and material details of gates and berms; and
  - iv. identifying existing and proposed gate locations on the Plan and Profile drawings.

Final determination of locations of gates and berms shall be made during a post-construction assessment of the Project, in consultation with DPS Staff.

- c. The *Final Health and Safety Plan* that shall be implemented during Facility construction, operation, and decommissioning.
- d. A final site-specific construction *Quality Assurance and Quality Control Plan* (QA/QC Plan), to be developed in coordination with the selected Balance of Plant (BOP) contractor.

## 17. **Environmental Supervision**

- a. Describe protocols for supervising demolition, vegetation clearing, use of herbicides, construction, and site restoration activities to ensure minimization of environmental impact and compliance with the environmental protection provisions specified by the Certificate.
- b. Specify the titles and qualifications of personnel proposed to be responsible for ensuring minimization of environmental impact throughout the demolition, clearing, construction and restoration phases, and for enforcing compliance with environmental protection provisions of the Certificate and the compliance filings. Indicate the amount of time each supervisor is expected to devote to the project.
- c. Specify responsibilities for personnel monitoring all construction activities, such as clearing, sensitive resource protection, site compliance, change notices, etc.
- d. Explain how all environmental protection provisions will be incorporated into contractual

specifications and communicated to those employees or contractors engaged in demolition, clearing, construction, and restoration.

- e. Describe the procedures to “stop work” in the event of a Certificate violation.
- f. Identify the company’s designated contact including 24/7 emergency phone number, for assuring overall compliance with Certificate conditions.

#### **18. Clean-up and Restoration**

Describe the Certificate Holder’s program for clean-up and restoration, including:

- a. the removal and restoration of any temporary roads, lay-down or staging areas; the finish grading of any scarified or rutted areas; the removal of waste (e.g., excess concrete), scrap metals, surplus or extraneous materials or equipment used; and
- b. plans, standards and a schedule for the restoration of vegetative cover, including but not limited to, specifications indicating:
  - i. design standards for ground cover, including:
    - (a) species mixes and application rates by site;
    - (b) site preparation requirements (soil amendments, stone removal, subsoil treatment, or drainage measures); and
    - (c) acceptable final cover percent by cover type.
  - ii. planting installation specifications and follow-up responsibilities;
  - iii. a schedule or projected dates of any seeding and/or planting; and,
  - iv. plans to prevent unauthorized access to and along the Facility site.

#### **19. Visual Impact Mitigation**

Provide details of screening or landscape plans prescribed at roadsides, storage areas, or other specified locations, and for participating, adjacent or nearby property owners. Discuss existing or proposed landscape planting, earthwork, or installed features to screen or landscape substations and other Facility components.

#### **20. ROW Encroachment Plan**

Provide plans and procedures for identifying and resolving land use or development encroachments at or adjoining the Facility site.

## Appendix 1 - Trench Breaker Spacing

