

STATE OF NEW YORK  
OFFICE OF RENEWABLE ENERGY SITING

ORES DMM Matter Number 21-00026 - Application of HERITAGE WIND, LLC, for a Siting Permit for a Major Renewable Energy Facility Pursuant to Section 94-c of the New York State Executive Law to Develop, Design, Construct, Operate, Maintain, and Decommission a 184.8 MW Wind Energy Facility Located in the Town of Barre, Orleans County.

DECISION OF THE EXECUTIVE DIRECTOR

(Issued January 13, 2022)

HOUTAN MOAVENI, Executive Director:

I. Introduction

By this decision, the New York State Office of Renewable Energy Siting (Office or ORES) grants to applicant Heritage Wind, LLC (applicant or Heritage Wind), a siting permit to develop, design, construct, operate, maintain, and decommission an up to 184.8 megawatt (MW) wind energy facility consisting of up to 33 wind turbines in the Town of Barre, Orleans County (facility or project). With the final siting permit attached to and made a part of this decision, it is determined that the facility will meet all statutory and regulatory requirements for a siting permit pursuant to Executive Law § 94-c.

The entire record of this proceeding, including all information submitted with respect to the Public Service Law (PSL) article 10 application (DPS Case 16-F-0546), as supplemented by the ORES transfer application (DMM Matter No. 21-00026), by or on

behalf of municipalities and local agencies, members of the public and other participants, as well as ORES and other State agencies and authorities, the record of the issues determination procedure, and the evidentiary hearing record support this decision to grant the siting permit. The recommended decision and hearing report (recommended decision)<sup>1</sup> of the assigned Administrative Law Judges (ALJs) Richard A. Sherman, New York State Department of Environmental Conservation, and Ashley Moreno, New York State Department of Public Service, also supports this decision. I adopt the recommended decision in part as my decision in this matter, subject to the modifications discussed below.

## II. Background and Proceedings

This decision does not repeat the description of the proposed facility and procedural background, but instead refers to the recommended decision and other rulings and decisions in this matter.<sup>2</sup> For purposes of this decision, a summary of the factual and procedural background of this matter is as follows.

On January 13, 2021, applicant filed a siting permit application pursuant to Executive Law § 94-c to transfer a pending PSL article 10 application (Case 16-F-0546) to the Office for a siting permit to develop, design, construct, operate, maintain, and decommission an up to 184.8 MW wind energy facility in the

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<sup>1</sup> DMM Item No. 89, Recommended Decision and Hearing Report, Dec. 9, 2021 (RD).

<sup>2</sup> See RD at 2-7; DMM Item No. 58, Interim Decision of the Executive Director, Sept. 27, 2021, at 2-4; DMM Item No. 47, Ruling of the Administrative Law Judges on Issues and Party Status, July 8, 2021 (Issues Ruling), at 1-5.

Town of Barre, Orleans County. Because an application completeness determination had previously been issued in the PSL article 10 proceeding, the transfer application was deemed complete upon filing pursuant to Executive Law § 94-c(4)(f)(i). The facility would consist of up to 33 wind turbines and would include approximately 12 miles of access roads, two permanent meteorological towers, approximately 36 miles of collection lines from the wind turbines to the collection substation, a temporary construction laydown yard of approximately 13 acres, an operations and maintenance facility consisting of two buildings totaling approximately 4,000 square feet, and other components. The turbines proposed for the facility would have a maximum blade tip height of 206 meters (about 675 feet), and each turbine would generate up to 5.6 MW per year.

On March 15, 2021, the Office issued a draft siting permit for public comment.<sup>3</sup> Because the facility is proposed to be located near an approximately 19,000-acre wildlife management area consisting of the federally-managed Iroquois National Wildlife Refuge and the State-managed Oak Orchard and Tonawanda Wildlife Management Areas (collectively, the Iroquois complex), the draft siting permit included a site specific condition requiring applicant to submit a post-construction avian and bat monitoring plan to address potential impacts to migratory birds resulting from the project's proximity to the Iroquois complex.<sup>4</sup>

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<sup>3</sup> See hearing exhibit 13, draft siting permit for a major renewable energy facility in the Town of Barre, Orleans County, issued to Heritage Wind, LLC.

<sup>4</sup> See id. at 45, site specific condition 6(b)(ii).

The draft siting permit also required applicant to submit as a pre-construction compliance filing an additional net conservation benefit plan (NCBP) to achieve a net conservation benefit for the wintering habitat of two threatened or endangered (T&E) grassland bird species, the short-eared owl and northern harrier, impacted within the facility site.<sup>5</sup>

By notice issued March 15, 2021, the assigned ALJs commenced the issues determination procedure pursuant to 19 NYCRR 900-8.3(b) to determine which issues, if any, regarding the draft siting permit required adjudication.<sup>6</sup> The public comment hearing was convened as noticed on May 20, 2021, and 26 attendees provided oral comments. The Office received approximately 141 written comments by the close of the public comment period on May 21, 2021.

On May 21, 2021, the United States Fish and Wildlife Service (USFWS) submitted a comment letter raising concerns about the proposed facility.<sup>7</sup> The USFWS asserted that the proposed facility did not conform to its recommendations in the U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines. The USFWS further indicated that the proposed project site presents "an elevated risk to flying animals, especially the turbines closest to the important habitat" and recommended that the Office deny approval for the six turbines closest to the Iroquois National

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<sup>5</sup> See id. at 45, site specific condition 6(b)(i).

<sup>6</sup> See DMM Item No. 24, combined notice of availability of draft permit conditions, public comment period and public comment hearing, and commencement of issues determination procedure.

<sup>7</sup> See hearing exhibit 72, DMM Comment No. 133, United States Fish and Wildlife Service (USFWS) comments on Heritage Wind at 8-9.

Wildlife Refuge and State wildlife management areas.<sup>8</sup> If the six turbines are permitted in their current location, the USFWS recommended that the facility site be monitored for impacts to wildlife following construction and during turbine operation.<sup>9</sup>

In a July 8, 2021, ruling on issues and party status, the ALJs held, among other things, that applicant raised an adjudicable issue regarding the factual basis for the site specific condition requiring applicant to submit a NCBP for the T&E grassland bird wintering habitat impacted by the project.<sup>10</sup> The ALJs otherwise held that the remaining issue raised by applicant, and the issues raised by full-party status petitioners Clear Skies Above Barre, Inc. (CSAB), Save Ontario Shores, Inc. (SOS), and the Town of Barre and Orleans County, jointly (Municipalities), did not meet the standards for adjudication. Accordingly, the ALJs denied CSAB, SOS, and the Municipalities' petitions.<sup>11</sup>

On September 27, 2021, in response to appeals from the issues ruling by CSAB and SOS,<sup>12</sup> and considering the USFWS's comment, the Executive Director issued an interim decision that modified the issues ruling and, as modified, affirmed. In modifying the issues ruling, the interim decision joined two more issues for adjudication: (1) the need for and scope of a minimum setback for the six turbines proposed to be located within two

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<sup>8</sup> Id. at 7-9.

<sup>9</sup> See id.

<sup>10</sup> See Issues Ruling at 43.

<sup>11</sup> See id. at 37, 41, 71.

<sup>12</sup> The Municipalities did not appeal from the issues ruling.

miles of the Iroquois complex to avoid, minimize, or mitigate to the maximum extent practicable potential environmental impacts to wildlife using the complex, and (2) the key elements of a post-construction avian and bat monitoring plan and an adaptive management program for the facility to be implemented in the event that post-construction monitoring reveals that impacts to bird and bat species are not avoided, minimized, or mitigated as anticipated during facility operation.<sup>13</sup>

On October 27, 2021, the ALJs held an evidentiary hearing to address the three issues identified in the issues ruling and interim decision. Office staff and applicant participated in the hearing as full parties. Pursuant to a ruling of the ALJs, CSAB participated in the hearing as an amicus party.<sup>14</sup>

After the close of the hearing record, the ALJs issued a recommended decision pursuant to 19 NYCRR 900-8.12(a)(2) on December 9, 2021. In the recommended decision, the ALJs noted that applicant filed a proposed stipulation executed by Office staff and applicant to resolve the T&E grassland bird habitat issue. At the hearing, Office staff and applicant confirmed that the settlement proposal resolved the issue and, therefore, no adjudication was necessary.<sup>15</sup>

With respect to the six turbines proposed to be located within two miles of the Iroquois complex, the ALJs held that applicant met its burden of proving that the setbacks in the

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<sup>13</sup> See Interim Decision at 26, 28.

<sup>14</sup> See DMM Item No. 76, Ruling on Late-Filed Petitions for Amicus Status, Oct. 22, 2021.

<sup>15</sup> See RD at 5-6.

application avoid, minimize, or mitigate to the maximum extent practicable any potential significant adverse environmental impacts to wildlife using the Iroquois complex.<sup>16</sup> Accordingly, the ALJs recommended that draft siting permit condition 6(b)(ii) issued by Office staff be adopted as written, that is, with no additional setbacks from the Iroquois complex beyond those in the application.<sup>17</sup>

With respect to the key elements of a post-construction monitoring and adaptive management program for the facility, the ALJs recommended that the revised post-construction monitoring plan and adaptive management program (revised PCMP)<sup>18</sup> proposed by applicant for the project with the six turbines be adopted, provided that the revised PCMP include the industry average avian fatality rate of two birds/MW/year as a trigger for adaptive management measures, and monitoring for two years after the implementation of any adaptive management measures.<sup>19</sup> In making their recommendation, the ALJs rejected Office staff's argument that the revised PCMP include a provision requiring turbine decommissioning and removal if adaptive management measures fail to reduce avian fatalities to the industry average over a two-year period by year ten.<sup>20</sup> The ALJs also rejected CSAB's

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<sup>16</sup> See id. at 25, 33-34.

<sup>17</sup> See id. at 34.

<sup>18</sup> See hearing exhibit 60, applicant exhibit AP-R11, Proposed Expanded Post-Construction Monitoring Plan, Oct. 21, 2021 (revised PCMP).

<sup>19</sup> See RD at 33-34.

<sup>20</sup> See id. at 30-32.

recommendations about a revised PCMP without prejudice to their consideration by Office staff and applicant in finalizing the PCMP.<sup>21</sup>

On December 23, 2021, Office staff, applicant, and CSAB submitted comments on the recommended decision.<sup>22</sup>

On December 30, 2021, Office staff submitted a written summary and assessment of public comments received during the public comment period.<sup>23</sup>

### III. Standards of Review

#### A. Statutory Findings

A siting permit may only be issued if the Office makes a finding that the proposed project, together with any applicable provisions of the uniform standards and conditions (USCs), necessary site-specific conditions, and applicable compliance filings:

- 1) complies with Executive Law § 94-c and applicable provisions of the Office's regulations at 19 NYCRR part 900;

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<sup>21</sup> See id. at 33.

<sup>22</sup> On January 7, 2022, applicant submitted a response to Office staff's comments on the recommended decision. Applicant's submission was not authorized and, therefore, has not been considered (see 19 NYCRR 900-8.12[a][2]).

<sup>23</sup> Several written public comments were submitted after the close of the public comment period in this matter. Those comments are addressed by this decision, or by responses to similar comments provided in Office staff's assessment of public comments.



- 2) complies with substantive provisions of applicable State laws and regulations;
- 3) complies with substantive provisions of applicable local laws and ordinances, except those provisions the Office has elected not to apply based on a finding that they are unreasonably burdensome in view of the Climate Leadership and Community Protection Act (CLCPA) targets and the environmental benefits of the facility;
- 4) avoids, minimizes, or mitigates to the maximum extent practicable potential significant adverse environmental impacts of the facility; and
- 5) achieves a net conservation benefit with respect to any impacted threatened or endangered species.

In making the required finding, the Office is directed to consider New York's Climate Leadership and Community Protection Act (CLCPA) targets and the environmental benefits of the proposed major renewable energy facility.<sup>24</sup>

#### B. Burdens of Proof

The applicant for a siting permit pursuant to Executive Law § 94-c has the burden of proof to demonstrate that its proposal would comply with all applicable laws and regulations administered by the Office.<sup>25</sup> Whenever factual matters are involved, the applicant must sustain its burden by a preponderance of the

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<sup>24</sup> See Executive Law § 94-c(3)(b)-(d), (5)(e); see also Climate Leadership and Community Protection Act (CLCPA), L 2019, ch 106, § 7.

<sup>25</sup> See 19 NYCRR 900-8.8(b)(1).

credible evidence, unless a higher standard has been established by statute or regulation.<sup>26</sup>

At the hearing, applicant argued that because Office staff proposes modifications to the draft siting permit, staff carries the burden of proof on those modification pursuant to 19 NYCRR 900-8.8(b)(2). In the recommended decision, the ALJs rejected applicant's argument; that holding is affirmed.<sup>27</sup> Section 900-8.8(b)(2) applies where Office staff initiates a proceeding to modify an existing final siting permit. It does not apply in circumstances where, as here, staff seeks modifications to a draft siting permit issued in a proceeding on an application for a new permit. At most, Office staff carries a burden of production on its proposed modifications.<sup>28</sup> Applicant, however, bears the ultimate burden of persuasion to demonstrate that its proposal would comply with all applicable laws and regulations administered by the Office.

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<sup>26</sup> See id. 900-8.8(c).

<sup>27</sup> See RD at 9-11.

<sup>28</sup> See Matter of Entergy Nuclear Indian Point 2, LLC, Interim Decision of the Assistant Commissioner, Aug. 13, 2008, at 51 (NYSDEC). As was held in the interim decision in this proceeding, administrative decisions by the Commissioner of Environmental Conservation interpreting corollary provisions of 6 NYCRR part 624 provide persuasive authority for the interpretation of 19 NYCRR subpart 900-8 (see Interim Decision at 8).

C. Standards on Review of a Recommended Decision

With respect to administrative review of the ALJs' recommended decision, the Executive Director's review is de novo.<sup>29</sup> On factual issues, the Executive Director is not bound by the factual findings of the ALJs.<sup>30</sup> Instead, the Executive Director independently weighs conflicting evidence and applies the preponderance of evidence standard to resolve factual disputes.<sup>31</sup> The resolution of legal issues by the ALJs are reviewed for an error of law. Discretionary determinations are reviewed for an abuse of discretion.

IV. Findings of Fact

Based on my weighing of the conflicting record evidence, the ALJs' findings of fact are adopted as modified here.<sup>32</sup>

1. On January 13, 2021, applicant transferred its pending PSL article 10 application with completeness determination from the New York State Board on Electric Generation Siting and the

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<sup>29</sup> See Matter of Universal Waste, Inc., Decision of the Commissioner, Oct. 15, 2011, at 16 (NYSDEC), confirmed sub nom Matter of ELG Utica Alloys, Inc. v Department of Env'tl. Conservation, 116 AD3d 1200 (3d Dept), appeal dismissed 24 NY3d 929 (2014).

<sup>30</sup> See Matter of Supreme Energy, LLC v Martens, 145 AD3d 1147, 1148 (3d Dept 2016); Matter of ELG Utica Alloys, 116 AD3d at 1204-1205; Matter of Jackson's Marina v Jorling, 193 AD2d 863, 866 (3d Dept 1993).

<sup>31</sup> See Matter of Supreme Energy, LLC, 145 AD3d at 1148; Matter of ELG Utica Alloys, 116 AD3d at 1204-1205; Matter of Universal Waste, Decision at 16.

<sup>32</sup> See RD at 7-8.

Environment (the Siting Board) along with supplemental materials to the Executive Law § 94-c process. The transfer application was deemed complete upon filing pursuant to Executive Law § 94-c(4)(f)(i). On March 3, 2021, the Office adopted regulations providing uniform standards and conditions and other requirements at 19 NYCRR part 900, as required by Executive Law § 94-c.

2. Applicant's proposed wind energy facility would contribute to New York's CLCPA targets by providing up to an additional 184.8 MW of renewable energy, and provide the environmental benefits of offsetting up to 112,000 tons of CO<sub>2</sub> emissions per year.<sup>33</sup> The facility would also contribute to the reduction of greenhouse gas emissions and thereby contribute to the State's effort to address climate change, the effects of which may threaten up to two-thirds of North American bird species with extinction if not reversed.<sup>34</sup>

3. Applicant's proposed facility would contribute approximately \$54 million in host community benefits and payments in lieu of taxes (PILOT) to the Town of Barre, Orleans County, and local schools over the course of 25 years.<sup>35</sup>

4. Applicant's proposed wind energy facility would consist of up to 33 wind turbines and other project components.<sup>36</sup> The

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<sup>33</sup> See hearing exhibit 11, application exhibit 8, Electric System Production Modeling at 1-2.

<sup>34</sup> See hearing exhibit 4, application appendix 22-G, Cumulative Impacts Assessment at 4.

<sup>35</sup> See hearing exhibit 11, application exhibit 27, Socioeconomic Effects at 17.

<sup>36</sup> See RD at 2-3.

turbines proposed for the facility would have a maximum blade tip height of 206 meters or 675.9 feet, and each turbine would generate up to 5.6 MW/year.<sup>37</sup> The turbines proposed by applicant are among the largest land-based wind turbines ever proposed in New York State, and are nearly twice the height of the turbines analyzed by applicant (117 to 125 meters or 383.9 to 410.1 feet tall).<sup>38</sup>

5. Applicant proposes to locate the facility to the east-northeast of an approximately 19,000-acre wildlife management area collectively referred to as the Iroquois complex.<sup>39</sup> The Iroquois complex consists of the federally-managed Iroquois National Wildlife Refuge, and two State-managed wildlife management areas, the Tonawanda Wildlife Management Area (WMA) and the Oak Orchard WMA. The Tonawanda WMA is the westernmost component of the Iroquois complex and is the most remote from the proposed facility. At nearly 11,000 acres, the Iroquois National Wildlife Refuge is the largest component of the Iroquois complex and is centered between the Tonawanda and Oak Orchard WMAs.<sup>40</sup> The approximately 2,500-acre Oak Orchard WMA is the easternmost component of the Iroquois complex and is the closest to the proposed facility.<sup>41</sup>

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<sup>37</sup> See id. at 8 (finding of fact no. 11).

<sup>38</sup> Id. at 8 (finding of fact no. 11), 17; hearing exhibit 79, rebuttal testimony of Rosenblatt and Kennedy (ORES avian panel rebuttal test) at 3-5; DMM Item No. 84, Office staff initial post-hearing brief at 7 n 2.

<sup>39</sup> See RD at 7 (finding of fact no. 1).

<sup>40</sup> See hearing exhibit 76, direct testimony of Rosenblatt and Kennedy (ORES avian panel direct test) at 19-21.

<sup>41</sup> See RD at 7-8 (findings of fact nos. 1, 3, 5, 7, 10).

The New York State Department of Environmental Conservation (NYSDEC) manages both the Oak Orchard and Tonawanda WMAs.<sup>42</sup>

6. Six of the facility's 33 wind turbines are proposed to be located within two miles of the nearest boundary of the Oak Orchard WMA. The six turbines are proposed to be located 1.0 mile (turbine T1), 0.8 mile (turbine T2), 1.1 miles (turbine T3), 1.3 miles (turbine T4), 1.5 miles (turbine T5), and 1.8 miles (turbine T6), respectively, from Oak Orchard WMA's boundary.<sup>43</sup> No turbines are proposed to be located within three miles of the nearest boundary of the Iroquois National Wildlife Refuge or within seven miles of the nearest boundary of the Tonawanda WMA.<sup>44</sup>

7. The Iroquois complex provides important habitat for a large number and variety of migratory bird species including raptors, songbirds, waterfowl, shorebirds, and waterbirds, many of which are State-listed species or species of greatest conservation need.<sup>45</sup> The complex was established and is managed by the USFWS and NYSDEC to conserve and protect an important stopover site for birds migrating through the Great Lakes Region along the Atlantic Flyway -- one of the four major flyways in North America.<sup>46</sup> The complex is composed of significant, extensive, and diverse avian

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<sup>42</sup> See ORES avian panel direct test at 18.

<sup>43</sup> See RD at 8 (finding of fact no. 8); see also hearing exhibit 27, applicant's exhibit Avian-3, Heritage Wind Technical Memorandum, attachment 2 (map depicting location of proposed wind turbine T1 to T6).

<sup>44</sup> See RD at 7-8 (findings of fact nos. 4, 6).

<sup>45</sup> See ORES avian panel direct test at 14-16, 27, 33-34.

<sup>46</sup> See id. at 19.

breeding, wintering, and migratory bird habitat surrounded primarily by intense agriculture and other development.<sup>47</sup>

8. The Iroquois complex is an "island" of high-quality habitat surrounded by agriculture and other development, which attracts and concentrates migrating and breeding birds.<sup>48</sup> The complex is heavily used by waterfowl during migration and by bald eagles.<sup>49</sup> It supports abundant wildlife, including migrating and nesting birds.<sup>50</sup> Migrating birds use the complex area as an important stopover before and after they cross the large expanse of Lake Ontario to rest, feed, and wait for appropriate conditions to continue traveling.<sup>51</sup>

9. Migratory bird movement in the Great Lakes Region during the spring is generally to the northeast.<sup>52</sup> During migration periods, considerable numbers of birds move into and out of the Iroquois complex, particularly at night.<sup>53</sup> Migrating birds tend to ascend and descend into and out of the complex at dawn and dusk, when visibility is poor.

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<sup>47</sup> See id. at 28-29.

<sup>48</sup> See id.

<sup>49</sup> See id. at 27.

<sup>50</sup> See hearing exhibit 4, application appendix 22-F, Avian Risk Assessment for the Heritage Wind Project (Avian Risk Assessment) at 9-10.

<sup>51</sup> See RD at 7 (finding of fact no. 2); ORES avian panel direct test at 15-17, 19, 27-31.

<sup>52</sup> See ORES avian panel direct test at 34; ORES avian panel rebuttal test at 4.

<sup>53</sup> See ORES avian panel direct test at 15-16, 33-35.

10. In general, the mean flight height for birds migrating through New York ranges from 355 meters to 861 meters.<sup>54</sup> However, studies conducted in the vicinity of the Iroquois complex documented nighttime passage heights by passerine and other avian species within the 50 to 200-meter altitude bands, with the 100 to 150-meter bands being the most heavily used.<sup>55</sup>

11. Because the six turbines are located to the northeast of the eastern portion of the Oak Orchard WMA and align with the general direction of migration in the area, during spring migration, birds initiating flight from that location and following the general direction of migration at the altitudes documented in the area would potentially impact the turbines as they pass through their rotor swept zone before reaching 231 meters of altitude. Similarly, birds descending into the Oak Orchard WMA portion of the Iroquois complex during fall migration could impact the turbines as they pass through the same rotor swept zone. Accordingly, the proposed placement of the six turbines within two miles of the Oak Orchard WMA poses a significant elevated risk of avian fatalities for birds migrating into and out of the WMA during the spring and fall migrations.<sup>56</sup>

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<sup>54</sup> See id. at 24.

<sup>55</sup> See ORES avian panel rebuttal test at 5-6.

<sup>56</sup> See RD at 8 (finding of fact no. 9); ORES avian panel direct test at 23-27, 33-36; tr at 57-58.



V. Discussion

A. Net Conservation Benefit for T&E Grassland Bird Habitat

As noted above, the issues ruling and interim decision joined for adjudication the issue of the factual basis for the requirement in draft permit condition 6(b)(i) for a NCBP for T&E grassland bird habitat impacted by the project. In the recommended decision, the ALJs noted that Office staff and applicant executed a settlement proposal that resolved the issue.<sup>57</sup> Accordingly, based on the record of this proceeding and the settlement agreement of the parties, I conclude that, with respect to impacts to T&E grassland bird habitat, the proposed facility will comply with the State Endangered Species Act and regulations. The project will also provide a net conservation benefit for the impacted T&E grassland bird species.<sup>58</sup>

B. Need for Setbacks

The next issue joined for adjudication concerned the need for and scope of a minimum setback for the six turbines proposed to be located within two miles of the Oak Orchard WMA to avoid, minimize, or mitigate to the maximum extent practicable potential environmental impacts to wildlife using the Iroquois complex.<sup>59</sup> In its comments on the recommended decision, Office staff disagrees with the ALJs' conclusion that applicant met its burden of demonstrating by a preponderance of the evidence that

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<sup>57</sup> See RD at 5-6.

<sup>58</sup> See ECL 11-0535; 6 NYCRR part 182.

<sup>59</sup> See Interim Decision at 26.

the imposition of a two-mile setback is not necessary to avoid, minimize, or mitigate to the maximum extent practicable potential significant adverse environmental impacts to wildlife using the Iroquois complex. Office staff argues that the recommended decision failed to hold applicant to the preponderance of evidence standard. Office staff notes that although the recommended decision concluded that the facilities and configurations cited by applicant in support of its testimony are not comparable to the proposed facility, the recommended decision nonetheless held that the studies and testimony of applicant's avian panel supported applicant's assertion that proximity to wildlife areas is not correlated with significant increases in avian fatalities, stating that "applicant cannot produce what does not exist."<sup>60</sup> Office staff argues that the recommended decision erred because the lack of evidence does not benefit applicant, who carries the burden of proof under the preponderance of evidence standard at all stages of the proceeding. In addition, Office staff argues that when evaluating the weight of evidence, it is the quality of evidence, rather than the quantity, that governs.<sup>61</sup>

On the merits, Office staff further argues that the recommended decision overlooks significant deficiencies in applicant's proof. For example, Office staff argues that applicant failed to present site-specific or project-specific studies addressing potential nighttime migrating bird mortality from wind turbines. Further, applicant did not present studies with turbines of similar sizes or similar distances to a significant wildlife

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<sup>60</sup> RD at 19.

<sup>61</sup> See DMM Item No. 94, Office staff comments on rd at 4.

management area. Office staff also identifies factual errors in applicant's avian impact assessment and the recommended decision's description of staff's arguments.

In contrast, Office staff argues its evidence is based on the best available radar studies and wind turbine setback modeling, and that the recommended decision erred in accepting applicant's attempts to discredit those studies and modeling. Office staff argues that the record supports the need for setbacks for turbines T1 to T6 from the Iroquois National Wildlife Refuge and State wildlife management areas to avoid, minimize, or mitigate to the maximum extent practicable potential elevated adverse environmental impacts to wildlife using those resources. Accordingly, staff argues the scope of a potential minimum setback of two miles must be considered along with any other options in any final permit decision for the project.<sup>62</sup>

In its comments on the recommended decision, CSAB also makes arguments regarding the relative weight of evidence. In addition, CSAB asserts that any setbacks should be measured from habitat boundaries, not administrative boundaries.<sup>63</sup>

In its comments on the recommended decision, applicant asserts that the ALJs carefully weighed the evidence and correctly concluded that applicant met its burden of demonstrating that it had avoided, minimized, and mitigated potential adverse environmental impacts to wildlife, and that no additional setback was warranted. Applicant further argues that removal of turbines T1 through T6 from the project would be a drastic, unprecedented,

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<sup>62</sup> See id. at 5-13.

<sup>63</sup> See DMM Item No. 93, CSAB comments on rd at 10-11.

and arbitrary move unsupported by the record and in direct contravention of the CLCPA and State energy policy.<sup>64</sup>

#### Analysis

In a proceeding such as this, governed by the preponderance of evidence standard, the party with the burden of proof must establish by a fair preponderance of the credible evidence that the claim it makes is true. The credible evidence means the testimony and exhibits the trier of fact finds believable and reliable. The preponderance of evidence means that an asserted fact is more likely true than not true.<sup>65</sup>

The preponderance of evidence refers to the quality of the evidence, rather than the quantity of witnesses or the length of their testimony.<sup>66</sup> For the party with the burden of proof to prevail on its claim, the evidence that supports the claim must appeal to the trier of fact as more nearly representing what took place than the evidence opposed to the claim. If the evidence does not, or if it weighs so evenly that the trier of fact is unable to conclude there is a preponderance on any side, the claim must be decided against the party with the burden of proof.<sup>67</sup>

With respect to expert testimony, the weight to be accorded an expert's testimony is for the trier of fact to

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<sup>64</sup> See DMM Item No. 92, applicant comments on rd.

<sup>65</sup> See Rinaldi & Sons v Wells Fargo Alarm Serv., 39 NY2d 191, 196 (1976); PJI 1:23.

<sup>66</sup> See Matter of Caltabiano v New York State Employees' Retirement Sys., 135 AD2d 113, 115-116 (3d Dept 1988); Torem v 564 Cent. Ave. Rest., 133 AD2d 25, 26 (1st Dept 1987).

<sup>67</sup> See Rinaldi & Sons, 39 NY2d at 196; Matter of Caltabiano, 135 AD2d at 115-116; PJI 1:23.

determine.<sup>68</sup> The trier of fact may consider the nature and extent of an expert's qualifications in determining the weight to be given the testimony.<sup>69</sup> In addition, any defects in the expert's opinion or its foundation, or any apparent discrepancy between an expert's testimony and other evidence in the case also go to the weight of that testimony.<sup>70</sup>

Resolving conflicts in the testimony of experts is solely the responsibility of the trier of fact, who may accept the theory it believes best explains the issue and is supported by the evidence.<sup>71</sup> A trier of fact is not required to accept an expert's opinion to the exclusion of facts and circumstances disclosed by other testimony, cross-examination, or both. A trier of fact may reject an expert's opinion if it finds the facts to be different from those that formed the basis for the opinion or if, after careful consideration of all evidence, it disagrees with the opinion.<sup>72</sup>

Finally, as noted above, the Executive Director's review of a recommended decision is de novo.<sup>73</sup> On factual issues, the Executive Director is not bound by the factual findings of the

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<sup>68</sup> See Topel v Long Is. Jewish Med. Ctr., 76 AD2d 862, 862 (2d Dept 1980).

<sup>69</sup> See Meiselman v Crown Hgts. Hosp., 285 NY 389, 398 (1941).

<sup>70</sup> See Sadek v Wesley, 27 NY3d 982, 984 (2016); Rivera v City of New York, 212 AD2d 403, 404 (1st Dept 1995).

<sup>71</sup> See Mazella v Beals, 27 NY3d 694, 708 (2016).

<sup>72</sup> See Curry v Hudson Val. Hosp. Ctr., 104 AD3d 898, 900-901 (2d Dept 2013); PJI 1:90.

<sup>73</sup> See Matter of Universal Waste, Inc., Decision at 16.

ALJs. Instead, the Executive Director independently weighs conflicting evidence and applies the preponderance of evidence standard to resolve factual disputes.<sup>74</sup>

As stated above, to issue a siting permit, the Office must find that the proposed facility avoids, minimizes, or mitigates to the maximum extent practicable potential significant adverse environmental impacts. In making the required finding, the Office considers the CLCPA targets and the environmental benefits of the proposed facility. On the specific issue presented here, applicant has the burden of proving that the siting of turbines T1 through T6 would avoid, minimize, or mitigate to the maximum extent practicable potential significant adverse environmental impacts to wildlife using the Iroquois complex.<sup>75</sup> Under this standard, an applicant must first demonstrate full avoidance of the potential significant adverse environmental impacts of a proposed facility. If an applicant demonstrates, however, that full avoidance is impracticable, the applicant must develop and implement measures that minimize or mitigate the potential significant adverse environmental impacts to the maximum extent practicable.<sup>76</sup> Full avoidance is impracticable where an

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<sup>74</sup> See Matter of Supreme Energy, LLC, 145 AD3d at 1148; Matter of ELG Utica Alloys, 116 AD3d at 1204-1205; Matter of Universal Waste, Decision at 16.

<sup>75</sup> See Executive Law § 94-c(3)(c), (d); 19 NYCRR 900-3.2(a)(2) and 900-8.8(b), (c).

<sup>76</sup> See e.g. DPS Case 16-F-0205, Matter of Canisteo Wind Energy, LLC, Order Granting Certificate of Environmental Compatibility and Public Need, with Conditions, March 13, 2020, at 27-28, 33-34 (NYS Siting Board); DPS Case 16-F-0559, Matter of Bluestone Wind, LLC, Recommended Decision at 60 (NYS Siting

applicant demonstrates that the viability of a proposed facility would be jeopardized by the measures necessary to achieve full avoidance.<sup>77</sup>

Based on my review of the weight of the credible record evidence, I disagree with the recommended decision's conclusion that applicant carried its burden of proof on this issue. To the contrary, I conclude that the weight of record evidence supports a finding that the location of the turbines T1 through T6 poses a potential significant elevated risk of fatality to nighttime migrating birds flying into and out of the Iroquois complex.

I conclude that Office staff's testimony is supported by the best available evidence relative to the issues and, therefore, outweighs the evidence in support of applicant's case. Office staff established the national significance of the Iroquois complex as a refuge for a significant number and variety of birds migrating along the Atlantic Flyway and through the Great Lakes with testimony of experts with direct knowledge of the resource. Migratory birds use the Iroquois complex as an important stopover site that offers much needed food resources and shelter prior to and after crossing the Great Lakes. Applicant's own avian risk assessment for the project corroborates staff's assessment of the

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Board); Matter of Herbert S. Ellis/Aquatic Develop. Group, Rulings of the Administrative Law Judge on Issues, March 3, 1998, at 10-11, 14 (NYSDEC); Memorandum of Agreement between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation under the Clean Water Act Section 404(b)(1) Guidelines (Feb. 7, 1990) at 3, <https://www.epa.gov/cwa-404/memorandum-agreement-regarding-mitigation-under-cwa-section-404b1-guidelines-signed-0>.

<sup>77</sup> See e.g. Canisteo Wind Energy, Order at 27-28, 33-34.

significance of the Iroquois complex and its importance on the landscape.<sup>78</sup>

The radar study conducted by the USFWS documents the direction and altitude at which large numbers of migrating birds travel through the area of the Iroquois complex and the project.<sup>79</sup> It is the best available data about avian behavior in the area.<sup>80</sup> Given the alignment of the six turbines and the direction of migration, this evidence supports the potential for large numbers of migrating birds flying through the rotor swept zones of the project's turbine field, particularly at night when visibility is poor.

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<sup>78</sup> See hearing exhibit 4, application appendix 22-F, Avian Risk Assessment of the Heritage Wind Project at 9-10.

<sup>79</sup> See hearing exhibit 51, applicant exhibit AP-R2, Rathbun et al. (2016); ORES avian panel rebuttal test at 5-6, citing Rathbun et al. (2016).

<sup>80</sup> The recommended decision discredits the USFWS study on the ground that it does not inform the record regarding whether birds ascending from avian concentration areas are more likely to fly through the rotor swept zone of a wind turbine. Additionally, the recommended decision points to an apparent discrepancy between the study's conclusions regarding the mean flight height of migrating birds and the results of 27 other radar studies in New York and asserted that the discrepancy remains unexplained (see RD at 22). However, the USFWS study focused not on ascent rates, but on nighttime migrant passage rates. It thus indicates the density and altitude at which birds fly near the proposed site, notwithstanding the average in New York State generally. Moreover, the USFWS study is the best available evidence regarding the number and flight behavior of birds migrating over agricultural lands in the project area. Therefore, I afford the study greater weight than recommended by the recommended decision.



Office staff also presented a model that is based on the best available evidence on the ascent rates of passerine species. The modeling indicates that migrating passerine species could require a mean distance of between 1.88 and 2.47 miles to ascend to 231 meters and thereby clear the rotor swept zone of the 206-meter-high proposed turbines.<sup>81</sup> This evidence supports Office staff's testimony that the six turbines proposed within two miles of the Oak Orchard WMA must be removed or relocated to fully avoid any potential elevated fatality risk for nighttime migrating birds flying into and out of the Iroquois complex.

In contrast, applicant's evidence is based on studies of projects that are not comparable in terms of the significance of the natural resource at issue here, the height of the turbines proposed, the distance of those turbines from the resource, or the behavior of the nighttime migratory bird species of concern. Accordingly, the lack of comparability diminishes the weight of applicant's evidence. Applicant cites the study of the wind energy facility sited near the Horicon Marsh in Wisconsin to argue that no correlation exists between the distance from a turbine and increased avian fatalities. However, the study is distinguishable in several ways: the turbines at issue were only 117 meters tall, and the turbine field was not aligned with the migratory path in that case. Most significantly, none of the turbines in the facility were within two miles of the Horicon Marsh due to an order

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<sup>81</sup> See ORES avian panel direct test at 25-26; tr at 57-58.

of the Wisconsin Public Service Commission.<sup>82</sup> Thus, while the study supports applicant's assertion that turbines sited two miles beyond a wildlife management area do not present an elevated risk, the study provides no information about the potential impacts of turbines as tall as the turbines proposed here located within two miles of a significant wildlife refuge.

The other evidence supporting applicant's case has similar defects. Applicant's reference to the study of the wind energy facility near the Suisun Marsh in California suffers from some of the same defects as the Horicon Marsh example.<sup>83</sup> Applicant's analysis of the five wind energy facilities in New York, and its regional study by WEST both lack comparability with respect to the significance of the wildlife resources involved and the height of turbines.<sup>84</sup> Although applicant discounts it, applicant's own evidence of wind energy facilities in New York shows annual avian fatality rates of 3.15 birds/MW/year at projects located within two miles of an important bird area,<sup>85</sup> which is above the industry average of two birds/MW/year referenced on this record.

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<sup>82</sup> See Case 9300-CE-100, Matter of Forward Energy LLC, Final Decision, July 14, 2005, at 19 (Wisconsin Public Service Commission).

<sup>83</sup> See RD at 18; hearing exhibit 38, applicant exhibit Avian-14, Johnston et al Bird and Bat Movement and Mortality at Montezuma Hills at 4 (using a radar study to assess bird and bat passage and noting that "local habitat factors might influence the risk of collision fatality for both birds and bats").

<sup>84</sup> See RD at 18.

<sup>85</sup> See hearing exhibit 27, applicant exhibit Avian-3, Heritage Wind Avian Technical Memorandum at tenth unnumbered page.

Applicant's avian risk assessment is also insufficient to demonstrate that siting turbine T1 through T6 will avoid, minimize, or mitigate potential adverse environmental impacts to wildlife using the Iroquois complex.<sup>86</sup> The assessment did not include information about nighttime migratory birds ascending from and descending into the habitat areas adjacent to the proposed locations of turbines T1 through T6.<sup>87</sup> Indeed, the assessment acknowledged that due to the height of the proposed turbines, they may impact a greater number of night-migrating songbirds, but that there are no fatality studies for such turbines.<sup>88</sup>

Applicant's reliance on the setback modeling by the United States Geological Survey (USGS) for the southwestern shoreline of Lake Erie is unpersuasive.<sup>89</sup> The modeling does not

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<sup>86</sup> See hearing exhibit 4, application appendix 22-F, Avian Risk Assessment for the Heritage Wind Project (Avian Risk Assessment) at 10; see also hearing exhibit 72, DMM Comment No. 133, USFWS comments on Heritage Wind at 7-9 (explaining deficiencies).

<sup>87</sup> See Avian Risk Assessment at 11-12.

<sup>88</sup> See Avian Risk Assessment at 27-28. Applicant's avian risk assessment also contains inaccuracies regarding the proximity of turbines to the Iroquois complex. The assessment inaccurately stated that no turbines would be sited within one mile of, and only one turbine would be sited within two miles of the Oak Orchard WMA (see id. at 10; see also hearing exhibit 19, Heritage public comment response matrix - written comments and responses, comment 4 [same representation]). Applicant's subsequent filings indicate that turbine T1 through T6 would be significantly closer than indicated in the assessment.

<sup>89</sup> See hearing exhibit 50, applicant exhibit AP-R1, Migratory Bird Twilight Ascent and Descent Rates Land Imaging Report.

specify the avian species involved, so its relevance to the ascent rate for migratory birds, particularly passerine avian species, cannot be evaluated. Accordingly, unlike the recommended decision, I give this evidence little weight.<sup>90</sup>

I agree with the recommended decision regarding other defects in applicant's proof. The ALJs agree that applicant's evidence is not based on projects using 206 meter tall turbines, or involving projects in the same "landscape context; habitat types, diversity and size; species composition and presence of listed species; relative position in relation to migratory bird pathways; prominence of the [wildlife management] area as a natural resource; and conservation management strategy for the resource and targeted species." <sup>91</sup> I also agree that there is an absence of publicly available studies for existing wind energy facilities that are directly comparable to the proposed project.<sup>92</sup> I disagree with the recommended decision, however, that the lack of comparable evidence weighs in applicant's favor. Applicant must show that the proposed facility will avoid, minimize, or mitigate adverse environmental impacts to the maximum extent practicable. The lack of comparable evidence does not relieve applicant of its burden to establish its case. Based on my weighing of the credible record evidence, I conclude applicant has not carried its burden by a preponderance of evidence.

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<sup>90</sup> See RD at 23-24.

<sup>91</sup> Id. at 19, quoting Office staff initial closing brief at 13-14.

<sup>92</sup> See id.

In sum, the weight of record evidence supports the conclusion that applicant failed to satisfy its burden of proof, by a preponderance of evidence, that siting turbines T1 through T6 as proposed will avoid, minimize, or mitigate to the maximum extent practicable potential adverse environmental impacts to wildlife using the Iroquois complex, considering the significance of the Iroquois complex, how nighttime migratory birds use the Iroquois complex as an important stopover in their migration, their direction and altitude of travel, and the height of the proposed turbines.<sup>93</sup>

The record further supports the conclusion that removing or relocating turbines T1 through T6 from locations within two miles of the Oak Orchard WMA would fully avoid the potential adverse environmental impacts to wildlife using the Iroquois complex. Applicant argued, and the recommended decision agreed, however, that use of a two-mile setback from the Iroquois complex would be unprecedented in New York. Applicant also argued, and the recommended decision also agreed, that the potential reduction of the project by 33.6 MW per year due to the removal of the six turbines is inconsistent with the goals of the CLCPA. The project, however, is an unprecedented proposal to site a facility with one of the tallest land-based wind turbines adjacent to one of the

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<sup>93</sup> The issue whether any of the remaining 27 turbines should be setback from the Iroquois complex was not litigated in the proceeding (see Office staff reply brief at 8 [stating that Office staff, in consultation with NYSDEC, agrees that the remaining 27 turbines are permissible based upon the record and a consensus view of State and federal officials to focus only on the six turbines located within two miles of the Oak Orchard WMA]).

most significant wildlife refuges in North America and in the flight path of one of North America's most significant migratory pathways, without necessary site- or project-specific studies demonstrating that such siting would avoid, minimize, or mitigate to the maximum extent practicable potential environmental impacts to nighttime migratory avian species using the Iroquois complex. While it is true that Executive Law § 94-c requires the Office to consider the CLCPA targets and the environmental benefits of the proposed facility in its permitting decision, the Office is also tasked with protecting the environment and considering all pertinent social, economic, and environmental factors in the decision to permit a major renewable energy facility.<sup>94</sup> Accordingly, requiring appropriate avoidance measures to protect a significant natural resource such as the Iroquois complex as well as the migratory avian species using the complex is consistent with the law and policy.<sup>95</sup>

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<sup>94</sup> See Executive Law § 94-c(1).

<sup>95</sup> In addition, this case does not represent the first case in New York where the siting of a renewable energy project was limited to avoid impacts to a significant natural resource. For example, in Matter of Canisteo Wind Energy, the PSL article 10 Siting Board ordered the removal of wind turbines to avoid impacts to the occupied habitat of threatened or endangered species (see Matter of Canisteo Wind Energy, Order at 33-34). Here, the removal of wind turbines from within two miles of the Oak Orchard WMA is necessary to avoid impacts to a similarly significant natural resource, the Iroquois complex.

With respect to CSAB's comments regarding the appropriate boundary from which any setback should be measured, CSAB did not raise its issue during the issues determination portion of this proceeding, nor was the issue joined for adjudication. Accordingly, no record was developed on the point. In any

Under the applicable standard in the case as noted above, if an applicant can demonstrate that full avoidance is impracticable, the applicant must develop and implement measures that minimize or mitigate the potential significant adverse environmental impacts to the maximum extent practicable.<sup>96</sup> Consistent with this standard, Office staff, in consultation with NYSDEC, proposes an alternative to turbine removal and relocation that would not reduce the project's system size.<sup>97</sup> Staff proposes that if removal or relocation of turbines T1 through T6 is impracticable, applicant should be required to conduct an expanded post-construction monitoring plan and adaptive management program for the project, including additional site- and project-specific post-construction studies, in accordance with NYSDEC and USFWS guidelines.<sup>98</sup>

On that point, applicant has argued that removal of the six turbines is not practicable. Applicant asserted that removal of the six turbines is likely to make the project uneconomical and unfinanceable, and that redesigning the facility at this late stage

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event, review of the record reveals that the habitat boundaries are roughly coterminous with the wildlife management area boundaries (see e.g. hearing exhibit 4, applicant exhibit 4, figure 4-1: Existing Land Uses, sheet 3 of 4).

<sup>96</sup> See e.g. Canisteo Wind Energy, Order at 27-28, 33-34.

<sup>97</sup> See Office staff comments on rd at 15; DMM Item No. 86, Office staff reply brief at 8-9.

<sup>98</sup> See e.g. Office staff avian panel direct at 39; Office staff initial post-hearing brief at 19; Office staff reply brief at 8.

is not practicable.<sup>99</sup> I agree with Office staff, however, that the record does not contain sufficient project-specific, market-specific information to make a determination whether removal or relocation of the six turbines is impracticable.<sup>100</sup>

Notwithstanding applicant's failure to demonstrate that avoidance is impracticable on this record, considering the CLCPA targets and the environmental benefits of the project, as well as the context of this transfer application, Office staff should be provided with the information necessary to determine impracticability of removal or relocation of any or all of the six turbines. In a proceeding on a transfer application for which a completeness determination has been issued pursuant to PSL article 10, the Office may require any additional information needed to enable the Office to make the findings and determinations required by Executive Law § 94-c and its implementing regulations, and to require additional compliance filings beyond those set forth in the regulations.<sup>101</sup> Applicant's proposed wind energy facility would contribute to New York's CLCPA targets by providing up to an additional 184.8 MW of renewable energy, and provide the environmental benefits of offsetting up to 112,000 tons of CO<sub>2</sub> emissions per year.<sup>102</sup> The facility would also contribute to the

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<sup>99</sup> See e.g. hearing exhibit 78, applicant company panel rebuttal test at 7, 10-12.

<sup>100</sup> See e.g. Office staff reply brief at 9.

<sup>101</sup> See 19 NYCRR 900-3.2(a)(1)(vi), (2); see also Canisteo Wind Energy, Order at 29-30, 33-34.

<sup>102</sup> See hearing exhibit 11, application exhibit 8, Electric System Production Modeling at 1-2.



reduction of greenhouse gas emissions and thereby contribute to the State's effort to address climate change, the effects of which may threaten up to two-thirds of North American bird species with extinction if not reversed.<sup>103</sup> Applicant's proposed facility would contribute approximately \$54 million in host community benefits and PILOT to the Town, County, and local schools over the course of 25 years.<sup>104</sup> These factors warrant allowing applicant to use the compliance phase of this proceeding to make the required showing that full avoidance is impracticable, and to develop measures that would minimize and mitigate project impacts to the maximum extent practicable.

Accordingly, the draft siting permit is modified to provide applicant the option to demonstrate in the compliance phase that the removal or relocation of any or all of the six turbines would be impracticable. If applicant makes the showing to Office staff's satisfaction, applicant shall in consultation with Office staff, NYSDEC, and USFWS finalize and file as a compliance filing an expanded post-construction monitoring plan and adaptive management program for the facility consistent with NYSDEC and USFWS guidelines, as discussed further below.

C. Avian and Bat Monitoring Plan and Adaptive Management Program for the Facility

The final issue joined for adjudication concerned the key elements of a post-construction avian and bat monitoring plan

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<sup>103</sup> See hearing exhibit 4, application appendix 22-G, Cumulative Impacts Assessment at 4.

<sup>104</sup> See hearing exhibit 11, application exhibit 27, Socioeconomic Effects at 17.

and adaptive management program for the facility to be implemented in the event that post-construction monitoring reveals that impacts to bird and bat species are not avoided, minimized, or mitigated as anticipated during facility operation.<sup>105</sup> The recommended decision recommends that if the six turbines are sited within two miles of the Oak Orchard WMA, applicant's revised PCMP should be adopted. Further, the PCMP should include the industry average avian fatality rate of two birds/MW/year as a trigger for adaptive management measures, and monitoring for two years after the implementation of any adaptive management measures.<sup>106</sup> The recommended decision, however, rejected Office staff's recommendation that the PCMP include a provision requiring turbine decommissioning and removal in the event that adaptive management measures fail to reduce avian fatalities to the industry average over a two-year period by year ten.<sup>107</sup> The recommended decision also rejected Office staff's recommendation that post-construction radar studies be performed in conjunction with the monitoring program to help quantify the relationship between bird flight behavior, turbine height, and the distance of the six turbines from the Iroquois complex.<sup>108</sup> The recommended decision also rejected CSAB's recommendations regarding a revised PCMP without

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<sup>105</sup> See Interim Decision at 28.

<sup>106</sup> See RD at 33-34.

<sup>107</sup> See id. at 30-32.

<sup>108</sup> See id. at 28-29.

prejudice to their consideration by Office staff and applicant in finalizing the PCMP.<sup>109</sup>

In its comments on the recommended decision, Office staff argues that the recommended decision erred in determining that the revised PCMP for the facility need not include a setback for the six turbines or removal of those turbines in cases where avian fatalities exceed industry-standard levels and cannot be reduced to appropriate levels, despite good faith efforts by applicant and the agencies involved. Office staff asserts that the setback or removal of turbines if adaptive management measures prove ineffective is necessary to assure the facility would avoid, minimize, or mitigate potential avian fatalities in compliance with Executive Law § 94-c(3)(d). Office staff also objects to the recommended decision's recommendation regarding post-construction radar studies on the ground that such studies are effective in demonstrating whether there is a site-specific concern about passage rates through a project's rotor swept zone.<sup>110</sup>

Accordingly, in the absence of available data, Office staff recommends that no turbines be located within two miles of the Iroquois complex. If turbines T1 through T6 are permitted in their current location, Office staff recommends that the revised monitoring plan be finalized by applicant and the Office, in consultation with NYSDEC and USFWS, for the entire facility. Office staff further recommends that turbine removal or relocation be considered as a required PCMP term along with all other potential options for turbines T1 through T6 only, to avoid,

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<sup>109</sup> See id. at 33.

<sup>110</sup> See Office staff comments on rd at 14-15.

minimize, or mitigate potential avian fatalities due to turbine location and size.<sup>111</sup>

In its comments on the recommended decision, CSAB argues that the revised PCMP is fundamentally flawed and should be revised to include a variety of measures to ensure avoidance or mitigation of avian impacts.<sup>112</sup> In its comments on the recommended decision, applicant does not specifically address issues regarding its revised PCMP other than to state that removal of the six turbines would be an unprecedented move by the Office, and that its project, as further addressed through its enhanced PCMP, has avoided, minimized, and mitigated impacts to migrating avian species and the nearby wildlife management areas to the maximum extent practicable.<sup>113</sup>

#### Analysis

Applicant and Office staff are largely in agreement regarding the contents of a final post-construction monitoring plan and adaptive management program. However, based on my review of the record, I conclude that several of Office staff's recommendations regarding additional requirements for the final post-construction monitoring plan and adaptive management program are supported by the record and warranted for this project.

Accordingly, if no turbines are located within two miles of the Oak Orchard WMA, only a standard monitoring plan and adaptive management program consistent with NYSDEC and USFWS guidelines would be required for the remaining 27 project

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<sup>111</sup> See id. at 14-15.

<sup>112</sup> See CSAB comments on rd at 13-24.

<sup>113</sup> See applicant comments on rd.

turbines.<sup>114</sup> However, if any turbines are sited within two miles of the Oak Orchard Wildlife Management Area, an expanded post-construction monitoring plan and adaptive management program consistent with NYSDEC and USFWS guidelines and Office staff's testimony would be required for the entire project.<sup>115</sup> The expanded post-construction monitoring plan, at a minimum, shall include post-construction radar studies consistent with NYSDEC and USFWS guidelines to help quantify the relationship between bird flight behavior, turbine height, and the distance of the turbines to the Iroquois complex.<sup>116</sup> In requiring radar studies in an expanded post-construction monitoring plan, I accept Office staff's testimony regarding their utility and efficacy.<sup>117</sup>

Applicant shall develop the appropriate post-construction monitoring plan and adaptive management program with Office staff, in consultation with NYSDEC and USFWS, and submit the program to Office staff for approval. The adaptive management program, at a minimum, shall include measures such as shutting down turbines during conditions when mortality events have been documented (e.g., curtailments during certain times of year, times of day, weather events) or the implementation of technologies that

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<sup>114</sup> See ORES avian panel direct test at 36.

<sup>115</sup> See id. at 37-38.

<sup>116</sup> See NYSDEC Guidelines at 19-20; ORES avian panel rebuttal test at 11-12.

<sup>117</sup> See ORES avian panel rebuttal test at 9.

can otherwise reduce the likelihood of bird strikes, or some combination of the two.<sup>118</sup>

The standard or expanded post-construction monitoring plan shall be implemented for a minimum of two consecutive years beginning in the first year of operation. No adaptive management program would be necessary if the results of post-construction monitoring indicate that none of the turbines exceed the industry average.<sup>119</sup>

If the results of post-construction monitoring indicate that mortality at any turbine exceeds the industry average of two birds/MW/year, the adaptive management program must be implemented at those turbines. If monitoring demonstrates that mortality is reduced to the industry average of two birds/MW/year, no additional monitoring would be required provided the adaptive measures remain in place. If adaptive measures are not shown to reduce mortality rates down to the industry average of two birds/MW/year, additional actions to reduce fatalities shall be implemented and post-construction monitoring at those turbines must continue until such time as mortality rates are demonstrated to have been reduced to the industry average.<sup>120</sup>

Accordingly, the final post-construction monitoring plan and adaptive management program for the project should include provisions for a standard post-construction monitoring plan and adaptive management program in the event the six turbines are removed or relocated from the facility site. The final post-

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<sup>118</sup> See ORES avian panel direct test at 38.

<sup>119</sup> See id. at 37.

<sup>120</sup> See id. at 38.

construction monitoring plan and adaptive management program should also include provisions for the expanded post-construction monitoring and adaptive management program as described above in the event any of the six turbines are included in the project. All project turbines, including the remaining 27 turbines, must be included in the expanded post-construction monitoring and adaptive management program.<sup>121</sup>

With respect to staff's recommendation that the final post-construction monitoring plan and adaptive management program include turbine decommissioning if all good faith efforts to reduce impacts to the industry average are unsuccessful, I conclude that the recommendation is not supported by the record in this proceeding or the NYSDEC guidelines, which do not contemplate decommissioning and removal as part of a post-construction monitoring and adaptive management program.<sup>122</sup> Accordingly, I do not adopt staff's recommendation.<sup>123</sup>

Finally, I agree with the recommended decision that the parties should consider CSAB's recommendations in finalizing the post-construction monitoring plan and adaptive management program.

Accordingly, based upon the record, draft siting permit condition 6(b)(ii) is modified to require submission for approval as a pre-construction compliance filing a final post-construction monitoring plan and adaptive management program, developed in

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<sup>121</sup> See id. at 36-38.

<sup>122</sup> See NYSDEC Guidelines at 15-20.

<sup>123</sup> In reaching this conclusion, I do not adopt the rationale of the RD (see RD at 32). This conclusion is limited to the record developed in this case.

consultation with Office staff, NYSDEC, and USFWS, containing the provisions described above.<sup>124</sup>

Based on the foregoing and the record of this proceeding, I conclude that the project as conditioned will avoid, minimize, or mitigate adverse impacts to wildlife to the maximum extent practicable as required by Executive Law § 94-c(3)(d).

#### VI. Conclusion and Findings

Based upon the foregoing and the record of this proceeding, including the attached final siting permit as modified by this decision, I find that the proposed facility, together with applicable provisions of the uniform standards and conditions, necessary site-specific conditions, and applicable compliance filings:

- 1) complies with Executive Law § 94-c and applicable provisions of the Office's regulations at 19 NYCRR part 900;
- 2) complies with substantive provisions of applicable State laws and regulations;
- 3) complies with substantive provisions of applicable local laws and ordinances, except those provisions the Office has elected not to apply based on a finding that they are unreasonably burdensome in view of the CLCPA targets and the environmental benefits of the facility;
- 4) avoids, minimizes, or mitigates to the maximum extent practicable potential significant adverse environmental impacts of the facility;

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<sup>124</sup> See 19 NYCRR 900-10.1(a).



- 5) achieves a net conservation benefit with respect to any impacted threatened or endangered species; and
- 6) contributes to New York's CLCPA targets by providing up to an additional 184.8 MW of renewable energy, and provides the environmental benefits of offsetting up to 112,000 tons of CO<sub>2</sub> emissions per year.

Accordingly, Heritage Wind, LLC's application, as conditioned by the attached final siting permit, is granted as modified.

*Houtan Moaveni*

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Houtan Moaveni  
Executive Director  
New York State Office of Renewable Energy Siting

Dated: January 13, 2022

Attachment

cc: Party List - ORES DMM Matter No. 21-00026