

**NEW YORK STATE BOARD ON ELECTRIC GENERATION  
SITING AND THE ENVIRONMENT**

---

In the Matter of the Application of

North Side Energy Center, LLC

Case No.: 17-F-0598

for a Certificate of Environmental Compatibility  
and Public Need Pursuant to Article 10 for a  
Proposed Solar Electric Generating Facility

---

**DIRECT TESTIMONY OF  
CHRISTOPHER BALK AND MATTHEW WALTER**

Division of Fish and Wildlife  
New York State Department of Environmental Conservation

November 19, 2021

**WITNESS INTRODUCTION**

1

2 **Q. Will the first witness please state your name, employer, title, and business location?**3 A. My name is Christopher Balk. I am employed by the New York State Department of  
4 Environmental Conservation (NYSDEC or Department), Division of Fish and Wildlife, as a  
5 Biologist 2 (Ecology) and serve as the regional program manager for the Bureau of Ecosystem  
6 Health in the NYSDEC Region 6 Office, Watertown, New York.7 **Q. Will you please describe your educational background and professional**  
8 **certifications?**

9 A. Please see a copy of my resume marked as NYSDEC-BW-1.

10 **Q. What are your responsibilities in your position at the Department?**11 A. In my position, I am responsible for programmatic oversight of the State's statutory and  
12 regulatory Freshwater Wetland Protection and the Protection of Waters programs in Region 6,  
13 which includes Herkimer, Jefferson, Lewis, Oneida and St. Lawrence counties. In this capacity, I  
14 oversee the implementation of Article 15 of the Environmental Conservation Law (ECL)  
15 (Article 15) and associated State regulations, Article 24 of the ECL (Article 24) and associated  
16 State regulations, and, as applicable, State water quality standards applicable to Section 401 of the  
17 Federal Water Pollution Control Act (CWA) and associated State regulations. Included in this  
18 oversight is my responsibility to review Article 15, Article 24, and CWA permit applications,  
19 including State water quality certificates, for projects that involve potential impacts to protected  
20 waters and wetlands of the State as well as ensuring proper delineation of State-regulated wetland  
21 boundaries and identification of State waters.22 **Q. Will you please summarize your experience regarding wetlands and review of**  
23 **proposed solar projects?**

24 A. I have 16 years of experience working in the Bureau of Ecosystem Health and have

1 delineated and/or verified many delineations of wetlands. I review permit applications for activities  
2 in and near wetlands, including wetlands associated with various energy projects and other  
3 development activities. I conduct stream surveys and review permit applications for activities  
4 proposed in and near streams. I have reviewed numerous energy projects that required Article 15,  
5 Article 24, and State water quality certificates, or must meet the corresponding statutory and  
6 regulatory standards, in order to be constructed. These projects include those subject to Article 10  
7 of the Public Service Law (PSL) (Article 10), such as the North Side Energy Center project (the  
8 Project), and those which were reviewed pursuant to the State Environmental Quality Review Act.

9 **Q. Will the second witness please state your name, employer, title, and business location?**

10 A. My name is Matthew Walter. I am employed by the NYSDEC, Division of Fish and  
11 Wildlife, as the State Freshwater Wetlands Program Manager. I am a Biologist 2 (Ecology) in the  
12 Bureau of Ecosystem Health, NYSDEC Central Office, Albany, New York.

13 **Q. Will you please describe your educational background and professional**  
14 **certifications?**

15 A. Please see a copy of my resume marked as NYSDEC-BW-2.

16 **Q. What are your responsibilities in your position at the Department?**

17 A. I am responsible for programmatic oversight of the State's statutory and regulatory  
18 Freshwater Wetlands Protection program. I oversee the implementation of Article 24 and  
19 associated State regulations. In doing so, I collaborate with regional biologists in identifying the  
20 location and extent of freshwater wetlands and assessing potential impacts associated with project  
21 proposals that include development within and adjacent to wetland resources.

22 **Q. Will you please summarize your experience regarding wetlands and review of**  
23 **proposed solar projects?**

24 A. I have delineated portions of numerous wetlands, performed many wetland delineation

1 verifications, initiated Article 24 enforcement cases, and overseen required wetland restoration. In  
2 addition, I have reviewed numerous Article 24 permit applications associated with individual  
3 landowner and larger-scale industrial development and environmental remediation projects. I am  
4 currently engaged in the review of a number of solar projects that, just like the Project, will need  
5 to meet Article 24 permit issuance standards to obtain a Certificate of Environmental Compatibility  
6 and Public Need (Certificate) under Article 10.

7 **Q. What is the purpose of your testimony today?**

8 A. The purpose of our testimony is to provide an overview of the Department's  
9 implementation of Article 15, Article 24, and the State water quality program pursuant to Section  
10 401 of the CWA, including the associated regulations found in Title 6 of the Official Compilation  
11 of Codes, Rules, and Regulations of the State of New York (6 NYCRR) Parts 608, 663, 664, 701,  
12 702, 703, 704, and 750. In that context, we will discuss: (1) the factors the Department considers  
13 in making regulatory determinations pursuant to the applicable statutes and regulations, (2) how  
14 these factors apply to the Project, and (3) whether the Project has met the applicable State statutory  
15 and regulatory standards. We are advised by Department Counsel that the wetlands and protection  
16 of waters programs, with their attendant statutory and regulatory authority, as well as State water  
17 quality standards, apply to the Project, as proposed, and to the deliberations by the New York State  
18 Board on Electric Generation Siting and the Environment (Siting Board) pursuant to Article 10.  
19 Accordingly, our testimony discusses how the Siting Board should apply the statutory and  
20 regulatory programs outlined above to its deliberations and required findings under Article 10 to  
21 ensure the Project's compliance therewith, should it decide to approve the Project.

22 **Q. What information provides the basis of your testimony?**

23 A. Our testimony is based on the Project application, submitted by North Side Energy Center,  
24 LLC (Applicant) on February 19, 2021, specifically Exhibits 22 and 23 and corresponding

1 Appendices, together with the supplemental filings filed on May 27, 2021 and October 8, 2021  
2 (collectively, “Application”), the North Side Energy Center Proposed Certificate Conditions dated  
3 and filed November 18, 2021 (Proposed Certificate Conditions), the Proposed Site Engineering  
4 and Environmental Plan (SEEP) Guide dated and filed on November 18, 2021, and the Applicant’s  
5 responses to DEC’s Information Request/Interrogatory (IR) DEC-1 and DEC-4 (marked as  
6 NYSDEC-BW-3 and NYSDEC-BW-4, respectively). Department staff also conducted a Project  
7 site visit on November 17-18, 2020 and May 19, 2021. All of the above-referenced materials have  
8 been reviewed in the context of compliance with relevant statutory and regulatory programs.

9 **ECL ARTICLE 24 AND ITS APPLICATION TO THE PROJECT**

10 **Q. Can you describe the Department’s policy with respect to freshwater wetlands?**

11 A. As articulated in Article 24, the State’s policy regarding wetlands is to preserve, protect, and  
12 conserve freshwater wetlands and the benefits that wetlands provide, to prevent the despoliation  
13 and destruction of freshwater wetlands, and to regulate use and development of such wetlands to  
14 secure the natural benefits of freshwater wetlands, consistent with the general welfare and  
15 beneficial economic, social, and agricultural development of the State. The Department must take  
16 this public policy into consideration with respect to any proposed project that may impact regulated  
17 freshwater wetlands, or the associated regulated adjacent areas (being the area within 100 feet  
18 of a State-regulated wetland). Accordingly, if the Department determines that a project with  
19 potential adverse impacts to freshwater wetlands or their adjacent areas does not satisfy an  
20 economic or social need and does not meet specific permit issuance standards including sufficient  
21 efforts to avoid, minimize, and/or mitigate wetland impacts, the Department may find that the  
22 project does not meet statutory and regulatory standards.

23 **Q. As referenced herein, what are considered Article 24-regulated wetlands?**

24 A. These are delineated wetlands that are included on the Department’s freshwater wetland

1 maps, including delineated, contiguous wetland expanses that extend beyond the mapped wetland  
2 boundaries.

3 **Q. As referenced herein, what are considered Article 24-jurisdictional wetlands?**

4 A. These are delineated wetlands that meet State criteria for jurisdiction but have not yet been  
5 added to the Department's freshwater wetlands maps through a wetland map amendment.

6 **Q. As referenced herein, what are considered protected wetlands?**

7 A. These include a combination of Article 24-regulated, Article 24-jurisdictional, and other  
8 waters of the United States regulated pursuant to Section 401 of the CWA, including federally  
9 regulated wetlands that are jurisdictional under Section 404 of the CWA.

10 **Q. How is Article 24 implemented?**

11 A. The Department's regulations contain the standards that implement the Freshwater  
12 Wetlands Act (see, e.g., 6 NYCRR Parts 663 and 664). Through Part 663, the Department has  
13 established procedures and standards to guide the review of permit applications for projects  
14 which propose to construct within, or adjacent to, freshwater wetlands. Part 664 contains the  
15 mapping procedures and classification standards for all wetlands protected under Article 24.

16 **Q. How is a regulatory review of proposed activities within a protected wetland, or  
17 the associated adjacent area, conducted under Parts 663 and 664?**

18 A. The burden is on an applicant to demonstrate that any proposed activity within protected  
19 wetlands, and their associated adjacent areas, will comply with implementing regulations, and all  
20 other applicable laws and regulations (e.g., 6 NYCRR 663.5(a)).

21 **Q. In being consistent with the State's freshwater wetlands program, what information  
22 must an applicant provide for the Siting Board to conduct its review?**

23 A. We have been advised by Department Counsel that activities regulated by Article 10 do not  
24 require an Article 24 freshwater wetlands permit. However, the standards for Article 24 permit

1 issuance, including those found in 6 NYCRR 663.5(e), must be applied by the Siting Board in  
2 determining whether to issue a Certificate pursuant to Article 10. In order for the Department to  
3 conduct a technical review of any project that will occur, in part or in its entirety, within a State-  
4 regulated wetland, or its respective adjacent area, an applicant must provide detailed project plans  
5 of sufficient scale, including, at minimum: (1) a delineated boundary for all wetlands on or near  
6 the project site; (2) the precise location of all temporary and permanent structures; (3) the extent  
7 of all temporary and permanent disturbances, including clearing and grading areas; and (4) an  
8 analysis of how the applicant has avoided and/or minimized impacts to any portion of the  
9 regulated areas (wetland/ 100-foot adjacent area). This information is not exhaustive - on a case-  
10 by-case basis, additional project information may be required for the Siting Board, as well as the  
11 Department, to complete their respective reviews and make regulatory determinations, including  
12 whether the project has met State statutory and regulatory standards.

13 Under the Department's review process, once all required project design information has  
14 been submitted, our examination of the project begins with a consultation of the Department's  
15 mapped regulatory wetlands and identification of delineated yet unmapped wetlands that meet State  
16 criteria for jurisdictional protections under Article 24. Once all Article 24-regulated and Article  
17 24-jurisdictional wetlands, including previously mapped and recently delineated wetlands meeting  
18 state criteria for protection, have been identified, we review Project GIS data to determine if  
19 protected wetlands are located within 100 feet of the proposed project components and  
20 infrastructure. If a protected wetland or its adjacent area is likely located within or near the project  
21 area, the Department then considers the proposed activities associated with the project in relation  
22 to the delineated and mapped boundary of the wetlands, the Procedural Requirements for Various  
23 Activities listed in 6 NYCRR 663.4(d), and the Standards for Permit Issuance set forth in 6  
24 NYCRR 663.5(e), before making a final determination whether the project, as proposed, meets

1 statutory and regulatory standards.

2 **Q. Why is an applicant required to delineate wetland boundaries in and around project**  
3 **sites rather than rely on the Freshwater Wetlands Map boundaries?**

4 A. Applicants for projects subject to review under Article 10 are required to delineate wetland  
5 boundaries in and around project sites because, as set forth in ECL Section 24-0301, the regulatory  
6 Freshwater Wetlands maps were developed using 1970s-era aerial photography and were not  
7 meant to be precise enough to accurately depict the actual extent of wetlands in-situ. To do that, a  
8 Department-verified field delineation must be performed by trained personnel following  
9 established methodologies as set forth in the Department's Freshwater Wetlands Delineation  
10 Manual (last revised in July 1995). A properly performed delineation allows for the true extent of  
11 wetlands to be identified and enables an applicant, through careful design and planning, to avoid  
12 and minimize any impacts to delineated wetlands and their adjacent areas.

13 **Q. In general, what Part 663 regulatory standards apply to proposed project activities**  
14 **within protected wetlands and their regulated adjacent areas?**

15 A. The Standards for Permit Issuance set forth in 6 NYCRR 663.5(e) apply toward  
16 determining if the proposed project meets regulatory standards for development within protected  
17 wetlands and their adjacent areas. The first step in determining the applicable standards is to  
18 identify which activity, or activities, apply to the proposed project as we compare them with the  
19 activities list in 6 NYCRR 663.4(d). This step, in turn, serves to determine which permit issuance  
20 standards are applicable in our review of a project.

21 **Q. How did Department staff begin to evaluate the Project activities under 6 NYCRR**  
22 **663.4(d)?**

23 A. Whenever an activity is proposed that will impact a wetland or wetland adjacent area  
24 subject to protection under Article 24, Department staff must evaluate whether a permit will be



1 required (or if the application of the relevant Article 24 standards is required, as in projects subject  
2 to Article 10). 6 NYCRR § 663.4(d). This evaluation begins with determining the compatibility of  
3 the proposed activity with the wetland and its functions and benefits. Part 663 sets forth an  
4 Activities Chart outlining the compatibility of various activities. Department staff conducts its  
5 compatibility evaluation based on site-specific and project-specific details. If the project fails any  
6 of the tests of compatibility, the weighing standards set forth in 6 NYCRR § 663.5(d) must then  
7 be considered. In promulgating Part 663 and implementing the Legislature's directives under  
8 Article 24, the Department determined that certain activities, as set forth in the Activities Chart,  
9 were always incompatible with a wetland and its functions and benefits and, thus, require the most  
10 stringent evaluation when using the weighing standards.

11 When evaluating the compatibility of a project that is comprised of multiple underlying  
12 activities (see Part 663.4), Department staff do not evaluate each activity separately as individual  
13 activities. Rather, Department staff evaluate all the various underlying activities and apply the  
14 most restrictive level of compatibility to the entire project before progressing to the appropriate  
15 procedural requirements under Part 663.5.

16 Here, the most restrictive level of compatibility with respect to the Project involves the  
17 construction of an "industrial use facility" which is defined as "any building or *facility*  
18 *associated with the* manufacturing, production, processing or assembly of goods or materials, or the  
19 *production of power*" (6 NYCRR 663.2(q) (emphasis added)). "Industrial use facilities," as defined  
20 under 6 NYCRR Part 663, are considered incompatible with wetlands and their functions and  
21 benefits whether components are sited within wetlands or their 100-foot adjacent areas (6  
22 NYCRR 663.4(d)(43)). Thus, pursuant to 6 NYCRR § 663.5(e), this Project must be reviewed in  
23 accordance with the weighing standards set forth in 6 NYCRR § 663.5(e)(2).

24 **Q. Can you describe the weighing standards as set forth in 6 NYCRR § 663.5(d)?**

1 A. In general terms, the weighing standards require an applicant to first demonstrate that any  
2 activities proposed within protected wetlands or their adjacent areas cannot be avoided  
3 entirely. If full avoidance is not possible, impacts to the functions or benefits of wetlands must then  
4 be minimized. Finally, any remaining loss of wetland acreage or function must be mitigated for,  
5 unless it can be shown that the losses are inconsequential or that, on balance, economic or social  
6 need for the project outweighs the loss.

7 The degree of balancing required is commensurate with the classification of affected  
8 wetlands and the severity of the remaining impacts to their functions. The higher the class of  
9 wetlands, or the greater the impacts to wetlands or their adjacent areas, the greater the burden  
10 upon the applicant to demonstrate an over-riding need and justify not fully compensating for  
11 unavoidable impacts.

12 More specifically, the standards are organized into two tiers, varying according to the class  
13 of the wetland. The first tier requires avoidance and minimization of impacts. For wetland Classes  
14 I, II, III and IV, the proposed activity must be compatible with the public health and welfare, be  
15 the only practicable alternative that could accomplish the applicant's objectives and have no  
16 practicable alternative on a site that is not a freshwater wetland or adjacent area. For wetland  
17 Classes I, II, and III, the proposed activity must minimize degradation to, or loss of, any part  
18 of the wetlands or adjacent areas and must minimize any adverse impacts on the functions and  
19 benefits that the wetland provides. For wetland Class IV, the proposed activity must make a  
20 reasonable effort to minimize degradation to, or loss of, any part of the wetland or its adjacent area.

21 The second tier of conditions only applies once the first tier of conditions has been satisfied.  
22 These conditions vary with the class of wetlands as follows:

23 Class I Wetlands: Class I wetlands provide the State's most critical wetland benefits.  
24 Alteration of a Class I wetland is acceptable only in the most unusual circumstances – only if a

1 determination is made that the proposed activity satisfies a compelling economic or social need  
2 that clearly and substantially outweighs the loss of or detriment to the wetland benefits. (See 6  
3 NYCRR 663.5(e)(2)).

4 Class II Wetlands: Class II Wetlands provide important benefits. An alteration of a Class  
5 II wetland is acceptable only in limited circumstances. If a proposed activity meets applicable  
6 standards, the Department would only issue a permit if the Department determines that the  
7 proposed activity satisfies a pressing economic or social need that clearly outweighs the loss  
8 of or detriment to the wetland benefits. (See 6 NYCRR 663.5(e)(2)).

9 Class III Wetlands: Class III Wetlands supply wetland benefits. An alteration of a Class III  
10 wetland is acceptable only after the exercise of caution and discernment. If a proposed activity  
11 meets applicable standards, the Department would only issue a permit if the Department  
12 determines that the proposed activity satisfies a pressing economic or social need that outweighs  
13 the loss of or detriment to the wetland benefits. (See 6 NYCRR 663.5(e)(2)).

14 Class IV Wetlands: Class IV Wetlands provide some wildlife and open space benefits and  
15 may provide other benefits cited in the Freshwater Wetlands Act. Therefore, wanton or  
16 uncontrolled degradation or loss of Class IV wetlands is unacceptable. If a proposed activity meets  
17 applicable standards, the Department would only issue a permit if the Department determines that  
18 the activity is the only practicable alternative which could accomplish the applicant's objectives.  
19 (See 6 NYCRR 663.5(e)(2)).

20 **Q. Can you describe the criteria upon which the Department bases its decisions as to  
21 whether a project meets wetland-related statutory and regulatory standards?**

22 A. The regulations (Part 663) provide a step by step process that requires projects to:

23 1) avoid wetland impacts by keeping all regulated activities landward of wetlands and  
24 their regulated adjacent areas;

1           2)     minimize impacts by maximizing wetland setbacks if they should fall within  
2           regulated adjacent areas; and

3           3)     provide mitigation for all unavoidable impacts to wetlands and adjacent areas.

4     Once the Department reviews its Freshwater Wetlands Maps and identifies unmapped wetlands  
5     within the project area that meet jurisdictional criteria for protection under Article 24, the official  
6     Freshwater Wetland Maps are reviewed in relation to 6 NYCRR Part 664: Freshwater Wetlands  
7     Mapping and Classification Regulations criteria to determine whether wetlands in the project area  
8     are Class I, II, III, or IV. Based on the wetland class, or classes, identified within the project area,  
9     the Department uses the appropriate weighing standards to determine whether a proposed project  
10    or activity meets applicable standards to issue a permit. In the case of projects subject to review  
11    under Article 10, the same standards apply for the Siting Board in ensuring compliance with  
12    applicable statutory and regulatory standards and in determining whether to issue a Certificate for  
13    a proposed project.

14    **Q.     If it is determined that impacts to wetlands are unavoidable, what information must**  
15    **the Applicant provide regarding wetland mitigation to demonstrate compliance with 6**  
16    **NYCRR 663.5(g) and the Department’s Guidelines on Compensatory Mitigation?**

17    A.     The Applicant must provide a mitigation plan that meets the regulatory requirements  
18    of 6 NYCRR 663.5(g) and the Department’s Guidelines on Compensatory Mitigation. For  
19    example, the plan must include the following details:

- 20       • a detailed mitigation site relative to proposed wetland impact areas and other state-  
21       jurisdictional freshwater wetlands;
- 22       • a project construction timeline;
- 23       • documentation of ownership of the mitigation site, or a conservation easement with  
24       participating landowners unless such an agreement can be shown to not be practical, in which

1 case, a deed restriction may be employed;

- 2 • a monitoring plan including at least five years of monitoring, quarterly the first year and  
3 twice per year thereafter. The monitoring may need to be extended if problems arise;
- 4 • a commitment to maintain an 85% survival rate of tree and shrub plantings with  
5 replacements in kind when the survival rate is not met; and
- 6 • an invasive species management plan.

7 **Q. You previously referenced the need to delineate the wetland boundary - what is**  
8 **considered a “delineated boundary” of a wetland?**

9 A. A “delineated boundary” is a wetland boundary that the Department has verified to be an  
10 accurate representation of the actual location and extent of wetlands within a prescribed area. This  
11 should not be confused with the extent of wetlands as depicted on the Department’s Freshwater  
12 Wetlands Maps, or on the National Wetlands Inventory Maps, which is a comprehensive master  
13 geodatabase of the nation’s wetlands maintained by the United States Fish and Wildlife Service.  
14 The Department’s Freshwater Wetlands Maps approximate the extent of wetlands to inform  
15 landowners, potential applicants, and other members of the public of the approximate location and  
16 extent of wetlands regulated under Article 24. It is important to note that, pursuant to ECL Section  
17 24-0301, the State Regulatory Freshwater Wetlands maps were developed using 1970s-era aerial  
18 photography and were not intended to depict actual wetland boundaries with the precision that  
19 may only be attained through on-site inspections or delineations. In fact, in performing site  
20 inspections or field delineations, Department staff often find that the actual extent of wetlands has  
21 been dramatically underestimated by the Freshwater Wetlands maps. For this reason, field  
22 inspections are always required for projects such as this so that the Department may refine the  
23 approximations portrayed on the Freshwater Wetlands maps and accurately determine the extent of  
24 wetlands near and within the limits of disturbance of proposed projects.

1           Once field delineations of wetlands in the vicinity of the project area are complete, their  
2 boundaries must be surveyed to ensure their precise locations are depicted on project plans.  
3 Without precise mapping of wetlands, the Department cannot determine the full extent of proposed  
4 project impacts on protected wetlands or their 100-foot regulated adjacent areas.

5 **Q. Did the Applicant complete a wetland delineation for the Project?**

6 A. Yes.

7 **Q. Has Department staff verified this wetland delineation?**

8 A. Yes, on November 17-18, 2020 and May 19, 2021.

9 **Q. Per the Applicant's delineation, does the Project impact any Article 24 protected**  
10 **wetlands (as defined above) or the associated adjacent areas?**

11 A. Yes.

12 **Q. Are any Article 24-regulated wetlands located within the Project's proposed**  
13 **boundary?**

14 A. Yes. Based on the Applicant's own delineation, as confirmed using a desktop review of the  
15 Application using the Department's GIS and the site visits conducted on November 17-18, 2020  
16 and May 19, 2021, the wetlands set forth in NYSDEC-BW-5 and NYSDEC-BW-6 have been  
17 determined to be Article 24-regulated wetlands within the Project area.

18 **Q. Are any Article 24-jurisdictional wetlands located within the Project's proposed**  
19 **boundary?**

20 A. Yes. Based on the Applicant's own delineation, as confirmed using a desktop review of the  
21 Application using the Department's GIS and the site visits conducted on November 17-18, 2020  
22 and May 19, 2021, the following Article 24-jurisdictional wetlands were determined to be within  
23 the Project area. *See* NYSDEC-BW-5 and NYSDEC-BW-6.

24       • Applicant delineated wetland W-JJB-1

- 1       • That portion of Applicant delineated wetland W-FCA-8 that is South of Brouse Road  
2       • Applicant delineated wetland W-FCA-7

3       **Q. Please describe the current classification for these wetlands.**

4       A. It is important to note that nearly all of the wetlands in the Project area are contiguous. In  
5 fact, our field inspections revealed that ten different NYSDEC mapped wetlands are actually all  
6 part of the same wetland complex. Here, the wetlands located between the mapped wetlands are  
7 indistinguishable as a result of their contiguity. As a result, while the mapped wetlands that  
8 comprise this complex are designated Class II and III wetlands, due to their contiguity and pursuant  
9 to 6 NYCRR § 664.4(b) the Department assigns the entire complex as a Class II for the purposes  
10 of applying the weighing standards.

11       **Q. What are the functions and benefits of the impacted wetlands and adjacent areas?**

12       A. Freshwater wetlands will be impacted by new construction and ongoing operational and  
13 maintenance activities that will take place in the protected wetlands and their adjacent areas.  
14 Fertilizers, herbicides, other chemicals, and loose soil in these areas can wash into wetlands during  
15 storm events, excavation and fill upland of wetlands can dramatically impact the wetland's  
16 hydrology that will diminish the wetland's stormwater attenuation and treatment functions, and  
17 fencing can block wildlife migration corridors between associated wetlands and exclude wildlife  
18 from using that space. An ecologically intact adjacent area buffers the wetland from chemical and  
19 physical disturbances and helps maintain the hydrologic cycle that developed and maintains the  
20 wetland proper. The installation of panels and fencing along with the associated fill, grading, and  
21 vegetation maintenance in the wetlands and their adjacent areas will significantly and permanently  
22 degrade these wetlands' functions and benefits.

23       **Q. Is there any other information pertinent to your review of the impacts to the protected**  
24 **wetlands identified above?**

1 A. Yes. The Application includes survey data that shows the presence of a multitude of State  
2 threatened and endangered (T&E) species within these protected wetlands. Those species are  
3 discussed in detail in testimony contemporaneously submitted on behalf of the Department.

4 **Q. Does the presence of T&E species within these protected wetlands impact their**  
5 **classification?**

6 A. Yes. Pursuant to 6 NYCRR Part 664, the presence of these T&E species qualifies the entire  
7 connected wetland complex for Class I protections. As noted above, while the wetland complex at  
8 issue is currently classified as Class II, Department staff asserts that these wetlands qualify for  
9 treatment as a Class I wetland in this proceeding. Indeed, this resource is of such value, Department  
10 staffs are now pursuing a regulatory map amendment that includes reclassification of these  
11 wetlands to account for the presence of these T&E species.

12 **Q. What are considered wetland conversion impacts?**

13 A. The clearing of forested wetlands that results in conversion of cover type is considered a  
14 permanent impact that, if avoidance and minimization are found to be impracticable, requires  
15 mitigation. This is also the case for any other wetland cover type that is mowed to stop succession  
16 and maintained as a degraded palustrine emergent wetland cover type to keep vegetation from  
17 shading PV modules. Clearing and regularly mowing adjacent areas also impacts hydrology,  
18 vegetation, and wildlife use of the adjacent wetland.

19 **Q. Will the Project result in any conversion impacts?**

20 A. Yes. Based on the Department's calculation and the Applicant's responses to IRs DEC-1  
21 and DEC-4 (NYSDEC-BW-3 and NYSDEC-BW-4, respectively), the entire Project will result in  
22 conversion impacts as follows:

- 23 - 607 acres of disturbance to Article 24-regulated wetland proper;  
24 - 132 acres of disturbance to the Article 24-regulated adjacent areas;



- 1 - 14 acres of disturbance to Article 24-jurisdictional wetland proper; and  
2 - 4 acres of disturbance to Article 24-jurisdictional adjacent areas.

3 These figures account for all areas within the perimeter fencing and any areas that would  
4 potentially shade the panels over time would not be allowed to grow into forest. In addition, these  
5 figures account for the Applicant's proposal to convert wetlands being impacted by agricultural  
6 uses (an exempt activity under Article 24) to wetlands impacted by industrial activities, including  
7 filling, construction of panels, shading, and manipulation of wetland vegetation (and subsequently  
8 hydrology and soils). A palustrine emergent wetland that is mowed regularly is considered a  
9 severely degraded wetland. This would also be considered a conversion impact as it would be  
10 mowed regularly and not allowed to advance in succession.

11 **Q. Has the Applicant accounted for all impacts (including conversion) to these protected**  
12 **wetlands?**

13 A. No. In the response to DEC IR-1 (NYSDEC-BW-3), the Applicant only identified 151.59  
14 acres of conversion impacts to protected wetlands and 32.13 acres of conversion impacts to  
15 regulated adjacent areas.

16 **Q. Did the Department provide notification to the Applicant regarding the extent of the**  
17 **protected wetlands that would be impacted by the Project?**

18 A. Yes. NYSDEC on November 18, 2020 the Applicant presented its wetland delineation to  
19 NYSDEC staff and, in turn, NYSDEC staff advised that that substantial mitigation would be  
20 required based on said delineation. Staff then sent a preliminary wetlands assessment to the  
21 Applicant on February 4, 2021. *See* NYSDEC-BW-5. This assessment was confirmed upon  
22 NYSDEC staff's May 19, 2021 site visit.

23 **Q. Has the Applicant addressed the impacts identified in the jurisdictional**  
24 **determination?**

1 A. No. As noted above, the Applicant identified only 151.59 acres of conversion impacts to  
2 protected wetlands and 32.13 acres of conversion impacts to regulated adjacent areas, as compared  
3 to the greater acres of disturbance from the Project calculated by Department staff. Even for the  
4 wetland impacts acknowledged by the Applicant, the Applicant has not justified avoidance and  
5 minimization of Project impacts to the Department's satisfaction, nor have they proposed a  
6 mitigation plan for unavoidable impacts at this time. Thus, overall, the Applicant has not fully  
7 addressed the impacts identified in the jurisdictional determination.

8 **Q. Will the Project, as proposed, entirely avoid protected wetlands and the associated**  
9 **adjacent areas?**

10 A. No. There are significant portions of the Project layout that have components sited entirely  
11 within protected wetlands and their adjacent areas that would result in acres of direct wetland  
12 impact. Department staff have calculated that the Project, as currently proposed, will result in 621  
13 acres of direct impacts to protected wetlands and 136 acres of impacts to the associated adjacent  
14 areas.

15 **Q. Has the Applicant demonstrated that impacts to all protected wetlands and adjacent**  
16 **areas cannot be avoided and/or minimized?**

17 A. No. Further avoidance and minimization should be explored for impacts to all protected  
18 wetlands and associated adjacent areas, and the record of this proceeding supplemented  
19 accordingly to identify which methods were reviewed, and if applicable, why such method was  
20 not selected. For example:

- 21 • Additional opportunities for minimizing impacts by boring/horizontal directional drilling  
22 (HDD) under Article 24-jurisdictional wetlands and the associated adjacent areas, should  
23 be evaluated.
- 24 • Additional opportunities for reconfiguring Project layout to avoid and minimize impacts to

1           protected wetlands and the associated adjacent areas, should be evaluated.

2   **Q.    In the event that the impacts to protected wetlands are satisfactorily shown to be**  
3 **unavoidable and appropriately minimized, has the Applicant demonstrated that these**  
4 **impacts will be fully mitigated?**

5   A.    No. The Applicant has not submitted a wetland mitigation plan. Instead, the Applicant  
6 merely proposed that if NYSDEC or the Siting Board require wetland mitigation, they will develop  
7 a plan in consultation with the agencies. Without a robust mitigation plan, there would be no  
8 compensation for unavoidable Project impacts to wetlands and, therefore, there would be  
9 unacceptable losses of wetland benefits and functions, many of which are becoming increasingly  
10 critical in the face of ongoing climate change, such as maintaining and improving water quality,  
11 retaining flood water, and providing fish and wildlife (including threatened and endangered  
12 wildlife) habitat. Moreover, lack of mitigation for unavoidable impacts would result in the  
13 Project's noncompliance with the requirements of Article 24.

14 **Q.    How would the weighing standards discussed above affect the mitigation required**  
15 **should the Siting Board ultimately certify this Project, as proposed?**

16   A.    Department staff review and consider the weighing standards on a case-by-case basis. For  
17 the purposes of this Project, we have been advised by Department counsel that, separate from  
18 Article 24 and Part 663, standards are set forth in certain regulations promulgated by the Office of  
19 Renewable Energy Siting (ORES) pursuant to the Accelerated Renewable Energy Growth and  
20 Community Benefit Act (New York State Executive Law Section 94-c) (19 NYCRR Part 900).  
21 While these ORES standards do not specifically apply to the Project, such standards could be  
22 applied in this instance or could be useful for informational purposes. Specifically, 19 NYCRR  
23 Section 900-2.15 sets forth the mitigation requirements for wetland impacts (after being adequately  
24 avoided and minimized) for large scale renewable energy projects reviewed by ORES. We are

1 advised that these ORES requirements take into account the need to balance economic or social  
2 need of large-scale renewable energy projects, including related to climate change, with the loss  
3 of function and benefit. A copy of this Section of the ORES regulations is attached as NYSDEC-  
4 BW-7.

5 Consistent with the application of the weighing standards in 19 NYCRR Section 900-2.15,  
6 here, if the Siting Board ultimately concurs with the Department's position that the protected  
7 wetlands are entitled to Class I protections, then certain Project components would be prohibited  
8 from being sited within the wetlands. If, however, the Siting Board finds that the protected  
9 wetlands should be treated in this proceeding as they are currently classified (Class II), then the  
10 Applicant must develop a wetlands mitigation plan consistent 6 NYCRR 663.5(g) and the  
11 Department's Guidelines on Compensatory Mitigation that is acceptable to the Department. In this  
12 instance, Department staff would likely accept the mitigation standards set forth in 19 NYCRR  
13 Section 900-2.15 in terms of the amount of mitigation required, so long as the other components  
14 of the mitigation plan meet applicable standards. But because the Applicant did not propose a  
15 wetland mitigation plan, nor adequately assess wetland impacts from the Project, we are currently  
16 unable to determine the sufficiency of wetland mitigation for the Project.

17 It should be noted that the if Project components are permitted to be constructed within  
18 these protected wetlands, the Applicant will also be required to mitigate for any T&E species  
19 impacts. Such requirements are addressed in the previously referenced Department testimony  
20 contemporaneously filed with this testimony,

21 **Q. Does the Project, as proposed, meet its statutory and regulatory burden under Article**  
22 **24 and Part 663?**

23 A. No, as set forth in the previous questions and answers, due to the Applicant's failure to (1)  
24 properly characterize the extent of impacts to wetlands and adjacent areas; (2) consider any

1 avoidance and minimization measures; and (3) propose any mitigation for unavoidable impacts,  
2 the Project currently does not meet Article 24 and Part 663 standards.

3 **Q. What must the Applicant provide to demonstrate compliance with Article 24 and**  
4 **Part 663?**

5 A. The Applicant is required to demonstrate that impacts to Article 24 protected wetlands and  
6 their adjacent areas, as determined by Department staff, cannot be avoided and minimized through  
7 re-configuration of components or by other possible means. Based on review of the Project  
8 application and GIS shapefiles provided by the Applicant, opportunities to reconfigure the Project  
9 layout to completely avoid permanent impacts to protected adjacent areas do not appear to have  
10 been fully explored and exercised.

11 If the Applicant can demonstrate that impacts to all protected wetlands and their adjacent  
12 areas have been avoided and minimized to the maximum extent practicable, then for any remaining  
13 unavoidable impacts to protected wetlands and adjacent areas, the Applicant must provide  
14 adequate mitigation for all unavoidable impacts to protected wetlands and adjacent areas. The  
15 Applicant must submit a conceptual mitigation plan for NYSDEC review, comment, and  
16 acceptance. The conceptual mitigation plan must meet the requirements of ECL and Article 24,  
17 the regulatory requirements of 6 NYCRR 663.5(g), and the Department's Guidelines on  
18 Compensatory Mitigation.

19 **ECL ARTICLE 15 AND ITS APPLICATION TO THIS PROJECT**

20 **Q. Can you describe the Department's policy with respect to protection of the State's**  
21 **waters?**

22 A. The policy of New York State, set forth in Article 15, recognizes that New York State is  
23 rich with valuable water resources, and directs the Department as stewards of the environment to  
24 preserve and protect certain lakes, rivers, streams, and ponds. These rivers, streams, lakes, and

1 ponds are necessary for fish and wildlife habitat; drinking and bathing; and agricultural,  
2 commercial, and industrial uses. In addition, New York State's waterways provide opportunities  
3 for recreation; education and research; and aesthetic appreciation. Certain human activities can  
4 adversely affect, even destroy, the delicate ecological balance of these important areas, thereby  
5 impairing the uses of these waters.

6 **Q. How is Article 15 implemented with respect to stream protection?**

7 A. To implement this policy, NYSDEC created the Protection of Waters Program (see 6  
8 NYCRR Part 608) to prevent undesirable activities on waterbodies by establishing and enforcing  
9 regulations that: (1) are compatible with the preservation, protection, and enhancement of the  
10 present and potential values of the water resources; (2) protect the public health and welfare; and  
11 (3) are consistent with the reasonable economic and social development of the State. The  
12 objectives of the Department's Protection of Waters Program are to (i) minimize the disturbance  
13 of streams and waterbodies and (ii) prevent unreasonable erosion of soil; increased turbidity of the  
14 water; irregular variations in velocity; temperature and level of waters; the loss of fish and aquatic  
15 wildlife; the destruction of natural habitat; and the danger of flood or pollution. The activities  
16 regulated under this Program include but are not limited to: modification or disturbance of the bed  
17 or banks of "protected streams" (6 NYCRR § 608.2) and excavation and fill in navigable waters  
18 or wetlands adjacent to and contiguous to the navigable waters (6 NYCRR § 608.5).

19 **Q. What are considered protected streams?**

20 A. Protected streams are defined in 6 NYCRR 608.1(aa) as streams or portions of streams that  
21 have any of the following water quality classifications or standards (in declining order of water  
22 quality): AA, AA(T), A, A(T), A(TS), B, B(T), B(TS), C(T), or C(TS). The designation of "T"  
23 means that the waters provide habitat in which trout can survive and grow; "TS" (trout spawning)  
24 means that the waters provide conditions in which trout eggs can be deposited, fertilized, develop,

1 hatch, and grow.

2 **Q. Are streams other than those defined as protected under 6 NYCRR 608.1(aa)**  
3 **regulated?**

4 A. Yes, Article 15 also regulates excavation from, or the placement of fill in, any navigable  
5 waters of the State (as defined in 6 NYCRR 608.1(u)).

6 **Q. Are there waterbodies within the proposed Project site?**

7 A. Yes. Eleven streams were identified by the Applicant within the Project site, including  
8 seven NYSDEC-designated Streams: three streams tributary to a NYSDEC Class C stream with  
9 regulatory number 910-453 (Earl's Creek), and NYSDEC Class C stream 910-452 (Squeak Brook)  
10 with one Class D tributary stream.

11 **Q. Will the Project have any negative impacts on these waterbodies?**

12 A. Based on the Application and provided Project shapefiles, no impacts are proposed to any  
13 streams within the Project site. HDD is proposed for collection line stream crossings. Per the  
14 proposed SEEP Guide, the Applicant shall prepare an Inadvertent Return Plan describing the steps  
15 that will be taken in the event that an inadvertent return of drilling fluid occurs. Existing road  
16 crossings will be used for Project construction and maintenance, and the Project Stormwater  
17 Pollution Prevention Plan will include an Erosion and Sediment Control Plan.

18 **Q. Has the Applicant demonstrated that the Project, as proposed, meets the applicable**  
19 **Article 15 standards?**

20 A. Yes, so long as the Proposed Certificate Conditions referenced below are included in any  
21 Article 10 Certificate ultimately issued by the Siting Board for the Project.

22 **OTHER APPLICABLE STATUTORY STANDARDS**

23 **Q. Are there any other applicable standards related to wetlands that would apply to the**  
24 **Project?**

1 A. Yes. The Project will require a Water Quality Certification (WQC) pursuant to Section  
2 401 of the CWA. State water quality standards are set forth in 6 NYCRR § 608.9, with related  
3 regulations at 6 NYCRR Parts 701, 702, 703, 704 (Qualifications and Standards), and 750 (State  
4 Pollutant Discharge Elimination System (SPDES) Permits).

5 **Q. What are the standards for issuing a Section 401 WQC?**

6 A. The CWA requires that any applicant for a federal license or permit to conduct an activity  
7 that may result in a discharge into navigable waters must obtain a WQC from the State where the  
8 activity occurs. The standards for issuing a WQC are contained in 6 NYCRR § 608.9, with the  
9 burden placed on the applicant to demonstrate compliance with the following:

- 10 1) New York State effluent limitations and standards,
- 11 2) New York State water quality standards and thermal discharge criteria,
- 12 3) New York State new source standards,
- 13 4) New York State prohibited discharges, and
- 14 5) other New York State regulations and criteria otherwise applicable.

15 These standards mandate that the certifying agency require compliance with the Department's  
16 water quality regulations set forth at 6 NYCRR Parts 701, 702, 703, 704, and applicable provisions  
17 of Part 750.

18 **Q. Does the Invasive Species Management Plan, Appendix 22-7 submitted by the**  
19 **Applicant on February 19, 2021 meet the standards of ECL Article 9 and implementing**  
20 **regulations set forth in 6 NYCRR Part 575?**

21 A. Yes.

22 **PROPOSED CERTIFICATE CONDITIONS**

23 **Q. Does the panel have any recommended Proposed Certificate Conditions with respect**  
24 **to compliance with ECL Article 15, Article 24, and State water quality standards?**



1 A. Based on the foregoing, to ensure compliance with the applicable State statutory and  
2 regulatory standards, and subject to Applicant avoiding and minimizing impacts to the maximum  
3 extent practicable as described above, Department staff recommends the proposed Certificate  
4 Conditions attached as NYSDEC-BW-8 related to freshwater wetlands and State water quality  
5 standards be included in any Article 10 Certificate ultimately issued by the Siting Board.

6 **Q. Has the Applicant proposed any certificate conditions to be included in an Article 10**  
7 **Certificate ultimately issued by the Siting Board?**

8 A. Yes.

9 **Q. Do the Applicant's proposed certificate conditions adequately capture all of**  
10 **Department staff's recommendations?**

11 A. No. A comparison of the Applicant's proposed certificate conditions and our recommended  
12 conditions are attached as NYSDEC-BW-8, including an indication which of the Applicant's  
13 proposed certificate conditions, if any, are acceptable to the Department.

14 **Q. Is Department staff commenting on the SEEP Guide as it related to wetlands and**  
15 **waterbodies?**

16 A. No. Department staff's proposed certificate conditions differ from the Applicant's in such  
17 a manner that review of the SEEP Guide as it relates to wetlands and waterbodies would not result  
18 in any meaningful comments from staff.

19 **Q. Do you hold your opinions to a reasonable degree of scientific certainty?**

20 A. Yes, we do.

21 **Q. Does this conclude your direct testimony on these topics at this time?**

22 A. Yes, it does.