Statement of Justification – Revision 2

Hoffman Falls Wind Project

Towns of Fenner, Nelson, Eaton, and Smithfield
Madison County, New York

90 State Street
Albany, New York 12207
Contact: Meg Lee
mlee@liberty-renewables.com

Table of Contents

LIST OF TABLES

LIST OF ATTACHMENTS

INTRODUCTION

This Statement of Justification is based upon the exhibits in the Application, which have been prepared by qualified experts in their fields (i.e., sound and engineering) and upon the experience of Hoffman Falls Wind. The Applicant is requesting waivers of certain sections of local laws identified below. The waivers requested are the minimum necessary and, where possible, the Applicant has limited its request for waivers to only certain portions of the Facility where those provisions are unreasonably burdensome. As applied to those portions of the Facility, these provisions impose additional costs which are unnecessary and more restrictive than the state standards that have already been determined to protect public health and the environment. The burdens imposed on the community if a waiver is granted in these limited circumstances are minor to nonexistent, and the costs of applying these provisions outweigh any benefits which may be achieved in the event that a waiver is not granted. Waiving these provisions ensures renewable energy facilities such as the proposed Facility can continue to help the state achieve its climate energy goals without the costs of these requirements.

As a general matter, Exhibits 17 and 19 of the Application provide an extensive overview of the Facility's environmental benefits, consistency with the state's energy policy, and contribution toward the Climate Leadership and Community Protection Act (CLCPA) mandates; those discussions are incorporated by reference here to support waiver of the provisions identified below. In adopting the CLCPA, the legislature characterized climate change as an existential threat to the "economic well-being, public health, natural resources, and the environment of New York" (CLCPA §1(1)). The environmental and social harms posed by global climate change have long motivated the state's aggressive clean energy policies, as have the potential economic harms, which have gained recent attention in the New York Department of Environmental Conservation's (NYSDEC's) efforts to estimate the value of carbon as part of the agency's implementation of the CLCPA. Experts estimate that air pollution and climate change cost each American on average $2,500 per year in health care, the burden of which fall disproportionately on vulnerable communities. As demonstrated in this Application, renewable energy facilities such as the Hoffman Falls Wind Project, offer significant environmental, public health, and community benefits, and will aid the state in its transition from carbon-emitting electric generation, which has negative impacts on wildlife, birds, and human health, toward a carbon-free energy future. The Facility's load profile will displace 217,320,000 kWh of fossil fuel generation in the New York Region over the course of a year (EPA, 2023). For reference, according to the EPA's AVERT Web Edition, this is equivalent to the average annual electricity consumption of 17,968 homes in the United States. See Exhibit 17 for further information regarding the proposed Facility's consistency with energy planning objectives.

Pursuant to 19 New York Codes, Rules, and Regulations (NYCRR) 900-2.25(c), an Applicant seeking a waiver of local laws must justify, with facts and analysis, that the burden imposed on the Facility by the substantive provision of local law is unreasonably burdensome. This justification requires a discussion of the degree of burden caused, why the burden should not be borne by the Applicant, that the request cannot reasonably be obviated by design changes to the Facility, that the request is the minimum necessary, and that the adverse impacts of granting the request are mitigated to the maximum extent practicable. Requests may

be based on existing technology, factors of costs or economics and/or the needs of consumers for the Facility.

Overall, as shown below, the Applicant has designed the Facility to comply with local laws to the extent practicable. However, certain local provisions are unreasonably burdensome on the Facility. To achieve the project's proposed 100 MW nameplate capacity, the Facility cannot be constructed or designed in a manner to eliminate the need for the below waiver requests.

In designing the Facility, the Applicant conducted a comprehensive site assessment starting with a preliminary screening to identify areas within the Towns with favorable wind conditions suitable for wind energy generation. Following the site assessment Hoffman Falls conducted a further feasibility assessment gathering data on wind speeds, wind direction, turbulence, and various other climactic factors over an extended period of time. Once the potential parcels within the Towns were identified Hoffman Falls initiated negotiations with landowners for the acquisition of necessary land rights through leasing or purchase agreements. Upon securing participation from a sufficient number of landowners throughout the proposed Facility Site, Hoffman Falls then proceeded to conduct a more detailed assessment of the identified parcels. Including conducting the necessary pre-application surveys and studies required by the 94-c regulations. Once the environmental site assessment was complete, Hoffman Falls began designing the Facility, positioning individual wind turbines, developing access roads, and determining location of collection lines, and other essential infrastructure. The design process was highly comprehensive, taking into account factors such as turbine spacing, terrain characteristics, the need to avoid environmentally sensitive resources, adherence to local regulations, and compliance with the stringent requirements of 94-c. It was through this process that Hoffman Falls was able to optimize a layout that would maximize energy production efficiency while balancing these other factors. See Exhibit 2 and 17 for further details on the iterative design process and the Applicant's efforts to avoid, minimize and mitigate impacts through careful Facility design.

In addition, when siting a wind facility, minimizing waking effects and turbulent airflow among turbines is a substantial priority and a constraint that dictates recommended minimum distances between turbines, depending on topography and average wind speeds, among several factors. Considering that the presence of any existing wind turbine influences the airflow both upwind and downwind of that turbine, sufficient distancing between turbines, as determined through extensive micro-siting analyses, helps lower wake-induced energy losses and promotes a longer operational lifespan for the Project. Throughout the development of the Hoffman Falls Wind Project, the Applicant worked alongside ArcVera[1] with respect to the iterative design process of all 24 proposed turbine locations. The placement for each individual turbine proposed throughout the Hoffman Falls layout were carefully considered and placed in their respective

[1] ArcVera is a reputable leading energy technical consultant, with four decades of experience globally. They have evaluated 1,300+ projects throughout North America alone, where teams of experienced atmospheric scientists, data analysts, and engineers have worked together to ensure high quality results. ArcVera is an active member of the International Electrotechnical Commission (IEC) committee, participating in the development of the IEC61400-50-3 Nacelle Mounted LiDAR Wind Measurement test standard.

locations based upon the results of completed mesoscale wind flow modeling and net energy estimates[2]. Within several turbine-specific waiver requests elaborated upon within this Statement of Justification, the Applicant describes waking and turbulence constraints that were considered in the iterative design process and informed by ArcVera's comprehensive analyses.

A statement of justification for each local substantive requirement requiring a waiver identified by the Applicant is provided below. The statements of justification demonstrate the degree of burden caused by the requirement, why the burden should not reasonably be borne by the Applicant, that the request cannot reasonably be obviated by design changes to the facility, that the request is the minimum necessary, and that the adverse impacts of granting the request are mitigated to the maximum extent practicable consistent with applicable requirements set forth in the Office of Renewable Energy Siting's (the Office's or ORES') regulations.

This Statement of Justification is based upon the exhibits in the Application, which have been prepared by qualified experts in their fields (i.e., sound, visual, and engineering) and upon the experience of Hoffman Falls Wind LLC including but not limited to the below members of the Hoffman Falls LLC team, who helped prepare this Statement of Justification.

Andy MacCallum, Managing Director, Liberty Renewables Inc.:

Mr. MacCallum has 18 years of experience in the renewable energy industry. At Liberty Renewables, Mr. MacCallum oversees wind projects in all phases of development across New York State. Prior to Liberty Renewables, he was the Vice President of Development at Natural Forces; an independent power producer who develops renewable energy projects across Canada, Ireland, and France. At Natural Forces, Mr. MacCallum was responsible for running development teams and projects across Canada. Mr. MacCallum holds a Bachelor of Science degree from Dalhousie University.

Scott Biggar, Development Director, Liberty Renewables Inc.:

Mr. Biggar has seven years of experience in the renewable energy industry and oversees the design and development of all Liberty Renewables projects across New York State. Mr. Biggar has extensive experience in design, pre-construction, and development of wind energy projects, including early and late-stage development, post-construction and operations. Prior to working at Liberty Renewables, Mr. Biggar was employed by CanAcre and Carbon Cure Technologies. Mr. Biggar holds an undergraduate degree in Creative Writing, and a master's degree of Resource and Environmental Management; both obtained from Dalhousie University.

Meg Lee, Permitting Manager, Liberty Renewables Inc.:

[2] ArcVera performed multiple iterations of Wind Energy Resource Analyses (WERAs) for this Project that helped inform the design and placement of turbines throughout the project.

Ms. Lee has nearly five years of experience in the renewable energy industry and oversees the permitting processes for all of Liberty Renewables' onshore wind projects, located across the State of New York. Ms. Lee specializes in the permitting of large-scale renewable energy projects under Section 94-c of New York States Executive Law. Prior to Ms. Lee's employment at Liberty Renewables, she worked as a Project Manager at Environmental Design and Research (EDR) where she oversaw and managed the permitting efforts of large-scale renewables energy projects across the State of New York. Ms. Lee holds a bachelor's degree in Environmental Studies and obtained a master's degree in Natural Resources from Colorado State University.

Christopher Hoyt, Senior Scientist-Acoustics, Epsilon Associates, Inc.:

Mr. Hoyt has over 10 years of experience focused on community sound level impact assessments, meteorological and sound level data collection and analyses for energy, utility, and industrial clients. Mr. Hoyt currently works as an Acoustical Senior Scientist at Epsilon Associates, Inc. where he partners with developers to successfully permit projects, such as Hoffman Falls Wind. Mr. Hoyt earned a Bachelor of Science in Meteorology, obtained from Valparaiso University, and a Master of Science in Environmental Science: Atmospheric Science, obtained from the University of Massachusetts Lowell. Mr. Hoyt is a full member of the Institute of Noise Control Engineering (INCE).

Daniel Zvirzdin, Senior Project Manager, EDR:

Mr. Zvirzdin has 12 years of experience in project development, environmental resource management, and land use planning, and currently works at EDR, where he is a Senior Project Manager. Prior to working at EDR, Mr. Zivirzdin had previous experience as a Rangeland Management Specialist with the Bureau of Land Management, where he helped manage two million acres of public land. Mr. Zvirzdin was also a Research Associate with Bringham Young University, where he oversaw a fire ecology and soil science research program. Mr. Zvirzdin earned both an undergraduate degree in Wildlife and Wildlands Conservation, as well as a Master of Science in Environmental Science, from Brigham Young University.

Gordon Perkins, Visualization Practice Leader, EDR:

Mr. Perkins is one of the leading expert consultants in visualization and visual impact assessment in the Northeast and is well known in the renewable energy industry. Mr. Perkins has 22 years of experience and extensive expertise in the technical methodologies associated with visual impact assessment, visual resource assessment, and scenic landscape assessment. As EDR's Visualization Practice Leader, Mr. Perkins' responsibilities include the ongoing evaluation and development of the technical methodologies used in visual impact assessments. Including new techniques in data collection, processing and analysis, and 3D modeling. Mr. Perkins earned his Associates of Art in Art, Design, and Ecology, from Keystone College. Additionally, Mr. Perkins attended SUNY College of Environmental Science and Forestry (ESF), where he earned his Bachelor of Science in Landscape Architecture, and later was a visiting instructor.

Scott Reynolds, Engineer and Owner, Reynolds Engineering:

Mr. Reynolds has over 20 years of experience designing transmission level power substations ranging from 13.2 kV to 345 kV. Mr. Reynolds owns his own engineering firm, Reynolds Engineering, where his skills are used to complete high-voltage power-related projects for customers, such as Liberty Renewables. Previously, Mr. Reynolds worked as the Engineering Manager at CG Power Solutions, where he was responsible for the companies' substation engineering activities. Mr. Reynolds attended Rensselaer Polytechnic Institute, where he earned a Bachelor of Science in Electrical Engineering, before attending the University of Idaho, where he earned his Master of Engineering in Electrical Engineering.

Alli Leach, Engineering Manager, Westwood Professional Services:

Ms. Leach has six years of experience in the engineering industry and currently holds the position of Engineering Manager at Westwood Professional Services, where she manages a team of more than 15 employees working in wind, solar, and battery energy storage systems (BESS). Ms. Leach is licensed in Texas as well as Oregon. Ms. Leach previously held the positions of both Site Design Lead Engineer, and Civil Project Engineer at Westwood, where she was responsible for project design, developing, and permitting. Ms. Leach earned her bachelor's degree in Civil Engineering from Texas A&M University, where she was also a teaching assistant in the Engineering Department.

The Applicant submits that the provisions identified below are unreasonably burdensome in view of the CLCPA targets and environmental benefits of the proposed Facility – some provisions would threaten the feasibility of the Project, while others impose additional costs which are unnecessary and not in line or in conflict with state standards. By contrast, the burdens imposed on the community if a waiver were granted for these provisions are minor to nonexistent, as described in detail below. Overall, the main waivers requested include waivers of local law provisions pertaining to setbacks, land use prohibitions, height limits, decommissioning, sound, lot dimensions, and construction hours. For these reasons, ORES should grant the waivers requested herein.

A. Setbacks (Eaton, Fenner, Nelson, Smithfield)

The Towns of Eaton, Fenner, Nelson and Smithfield each have adopted setback requirements that differ from setback requirements contained in the 94-c regulations.

The Applicant is seeking a waiver of the following local laws with respect to setbacks:

- Local Law No. 4 of 2023 A Local Law Amending Chapter 120 of the Town of Eaton Code to Regulate Commercial Wind Energy Facilities within the Town of Eaton Article VC, Commercial Wind Energy Facilities, Section 120-23.15(G)(a) and (b)
- Local Law No. 2001-1, A Local Law to Amend the Town of Fenner Land Use Local Law No. 1997-1, Section III. Land Use Schedule, Note (h): setback to non-participating property lines.[3]
- Local Law No. 2 of 2011, A Local Law to enact the 2011 Town of Nelson Land Use and Development Law and Zoning Map, Article V, Section 512.1(E)(1)
- Local Law No. 2 of 2023 to Amend the Town of Smithfield Building and Development Control Law to Enact a New Article Regulating Wind Energy Facilities within the Town of Smithfield, Section 1100-5(G)(a)

Below is a table of wind turbine setback requirements from each respective Town compared to the turbine setbacks required under 94-c. The setbacks highlighted in red are those setbacks that the Applicant is requesting a waiver. The setbacks highlighted in green are those setbacks that the Applicant complies with.

Table 1. Local Setback Requirements for Wind Turbines[4]

Structure Type	94-c	Eaton	Fenner	Nelson	Smithfield
Substation	1.5 Times Total Height	N/A	N/A	N/A	N/A
Above-Ground Transmission	1.5 Times Total Height	2.0 Times Total Height	1.5 Times Total Height	1.5 Times Total Height	2.0 Times Total Height
Public Roads	1.1 Times Total Height	2.0 Times Total Height	1.5 Times Total Height	1.5 Times Total Height	2.0 Times Total Height
Non-Participating Property Lines	1.1 Times Total Height	2.0 Times Total Height	1.5 Times Total Height	1.5 Times Total Height	2.0 Times Total Height
Non-Participating Non-Residential Structures	1.5 Times Total Height	N/A	N/A	N/A	N/A
Non- Participating Residences	2.0 Times Total Height from	N/A	1.5 Times Total Height	1.5 Times Total Height	N/A
Meteorological Towers	N/A	N/A	1.5 Times Total Height	1.5 Times Total Height	N/A

[3] This supersedes Local Law No. 2000-1 Section V, Land Use Scheule, Note (h).

[4] With respect to available manufacturer setbacks see Appendix 5-D.

Structure Type	94-c	Eaton	Fenner	Nelson	Smithfield
Aircraft Detection Lighting System (ADLS) Tower[1]	N/A	N/A	N/A	N/A	N/A
Other Turbines	N/A	2.0 Times Total Height	1.5 Times Total Height	1.5 Times Total Height	2.0 Times Total Height

[1] Wind turbine setbacks from ADLS Towers are not addressed in the turbine setback provisions of the local laws in the four towns that the Project is sited in.

Request

As can be seen in Table 1, the Applicant has designed the Facility to meet the majority of the setbacks required within the towns. However, for the reasons set forth below, the Applicant seeks a waiver of the non-participating property line setback requirements within each of the four towns that the Project is sited within, as well as the 2.0 times setback from public roads, specifically within the Town of Eaton. While the ultimate turbine location may be setback greater than 1.1 times the turbine height from non-participating property lines and public roads, the Applicant is requesting the ability to construct these turbines up to 1.1 times the turbine height at each location to account for final turbine selections and micro siting of the final design.

Analysis

Section 94-c requires for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) Degree of Burden

Overall, the Applicant is requesting waivers of these local setbacks as siting constraints make it such that the turbines cannot be placed in a location that complies with these local setback requirements. The turbines have been sited in the least impactful locations and achieve compliance to the maximum extent practicable. In addition, the turbine tip heights under consideration for the Project are between 600 and 643 feet. Using shorter turbines would not allow the Facility to take advantage of the available wind resource and the best most efficient turbine technology on the market for the conditions at the Facility Site. Given recent trends in onshore wind technologies, there are few to no turbine models available that are also suitable for the Facility Site conditions below 600 feet.

Waiver Requests within the Town of Fenner

The Applicant seeks a waiver from the following provision listed in Local Law No. 2001-1, A Local Law to Amend the Town of Fenner Land Use Local Law No. 1997-1, Section III. Land Use Schedule, Table 1 Note (h) for the Hoffman Falls Wind Project:

"(h) The minimum setback distance between each production line commercial wind power electricity generation unit (wind turbine tower) and: all surrounding property lines … shall be equal to no less than 1.5 times the proposed structure height plus the rotor radius."[5]

This waiver is being requested with respect to the following turbines:

Wind Turbine #1

Wind Turbine #1 is currently sited in a high wind location and has been sited to comply with 94-c setback requirements (see Figure 24-1, Sheet 1)[6]. Turbine #1 is surrounded by several non-participating parcels along South Road and Cody Road (located to the east and north, respectively) in a way that any relocation away from one non-participating parcel, to achieve local law compliance, will encroach upon another non-participating parcel, resulting in non-compliance with this local law requirement (see parcels 87.-1-23.3, and 87.-1-47 in Figure 24-1, Sheet 1). Additionally, shifting this turbine to the east or north would move the turbine closer to residences located along South Road and/or Cody Road. It is probable that shifting the turbine in either of these directions would result in an increase of sound and/or shadow flicker output experienced at residences along these two roads, in comparison to what is experienced at the turbines current location (see Figure 24-1, Sheet 1). Additionally, the Fenner-Cortland transmission line is located just southeast of Wind Turbine #1 (this line runs southwest to northeast through the Facility Site; see Figure 3-4). Shifting the turbine in this direction to pivot away from non-participating properties would result in non-compliance with the 1.5 times setback associated with this existing 115 kilovolt (kV) above-ground bulk electric system (see Table 1 in §900-2.6 of 19 NYCRR Part 900) and would still not resolve the need for a waiver from this local law provision. In summary, this turbine has been sited in the least impactful location (see Figure 24-2, Sheet 1) and achieves compliance to the maximum extent practicable. In addition, other design changes—such as using a shorter turbine—are not feasible, as to fully comply with the 1.5 times setback at this location, the turbine would have to have maximum tip height of approximately 470 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 1 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #2

Wind Turbine #2 is currently sited in a high wind location and has been sited to comply with 94-c setback requirements (see Figure 24-1, Sheet 2). While complying with the restrictions outlined in the 94-c regulations, it is not possible to relocate Wind Turbine #2 to comply with a 1.5 times setback from non-participating property lines. This turbine is surrounded by several non-participating parcels along South Road and Wyss Road (located to the east and south, respectively) in a way that any relocation away from one non-participating parcel to achieve compliance will encroach upon another non-participating parcel, resulting in non-compliance with this local law requirement (see parcels 87.-1-55.2, and in Figure 24-1, Sheet 2). In addition, the Fenner-Cortland transmission line is located just northwest of Wind Turbine #2 (this line runs southwest to northeast through the Facility Site; see Figure 3-4). Therefore, shifting this turbine

[5] Note, the Applicant has limited the waiver request to non-participating property lines as the Fenner local law allows for the reduction of the setback for participating parcels.

[6] Wind Turbine #1 will need one Good Neighbor Agreement (GNA) for a 1.1 times setback from non-participating parcels. The Applicant is currently conducting landowner negotiations for this required GNA.

away from the non-participating properties along South and Wyss Road would result in non-compliance with the 1.5 times setback associated with this existing 115 kV above-ground bulk electric system and would still not resolve the need for a waiver from this provision. In summary, this turbine has been sited in the least impactful location and achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 1). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 1.5 times setback at this location the turbine would have to have maximum tip height of approximately 562 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 1 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #4

Wind Turbine #4 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 4). This turbine is subject to landowner siting restrictions within the parcel that it is sited within, which limit its relocation options (see Appendix 5-A for details regarding landowner siting restrictions). Additionally, this turbine is sited atop a prominent hill (see Figure 3-1) and shifting it to the north to achieve compliance with the towns 1.5 times non-participating property line setback requirements (see parcels 97.-1-1.2 and 97.-1-1.3 in Figure 24-1, Sheet 4) will not only diminish its productivity, but it will also result in the turbine being located in too close proximity to Wind Turbine #3. A shift of this magnitude would cause an increase in turbulence and wake loss associated between both turbines (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 1). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 1.5 times setback at this location the turbine would have to have maximum tip height of approximately 491 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 1 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #5

Wind Turbine #5 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 5). This turbine is currently located atop a prominent hill, which slopes to the north and east (see Figure 3-1). Therefore, moving the turbine in either direction, or away from the adjacent non-participating property to the west (see parcel 88.-1-3.11 in Figure 24-1, Sheet 5), will result in a decrease of its productivity. Additionally, Wind Turbine #5 was carefully sited to maintain sufficient separation for minimizing waking effects experienced between it and Wind Turbine #6 (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location), and in a way that avoids siting this turbine within forested wetlands located between Wind Turbines #5 and #6 (see Figure 24-2, Sheet 2). Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable. In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 1.5 times setback at this location the turbine would have to have maximum tip height of approximately 502 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 3 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #6

Wind Turbine #6 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 6). This turbine is currently located atop a prominent hill, which slopes to the northeast (see Figure 3-1). The limits of disturbance associated with Wind Turbine #6 and its infrastructure were designed in a way that abut the boundaries of delineated wetlands 66-W002 (located to the east of this turbine) and 26-W001 (located to the south of this turbine) (see Appendix 14-A). Therefore, shifting Wind Turbine #6 and its associated infrastructure to the east, in an effort to achieve compliance with the towns 1.5 times setback from non-participating parcel boundaries, would result in the disturbance limits surrounding this turbine to also shift. This shift would have the potential to lead to unavoidable impacts to federally jurisdictional wetland 66-W002, which plays a role in draining water from the area (i.e., placing a turbine foundation in the middle of this wetland would result in substantive ecological and constructability issues). To meet the Town's setback and avoid blocking the flow of this wetland, the turbine would need to be shifted 400-600 feet east. Wind Turbine #6 was carefully sited in a way to both maintain sufficient separation to minimize waking effects between it and Wind Turbine #5 and Wind Turbine #8 (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). Therefore, shifting Wind Turbine #6 400-600 feet to the east would bring Wind Turbine #6 much closer to Wind Turbine #8 and would result in Wind Turbines #5 and #6 causing wake effects on Wind Turbines #6 and #8, respectively (see Figure 24-2, Sheet 2). Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable. Figure 24-4, Sheet 3 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #7

Wind Turbine #7 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 9). Wind Turbine #7 is currently sited in close proximity to a unmapped state-regulated wetland complex (see Wetland 66-W004 in Appendix 14-A). The limits of disturbance surrounding Wind Turbine #7 avoid all impacts to Wetland 66-W004 (see Figure 14-2, Sheet 8), but directly abut the boundaries of this state-protected resource. In order to achieve compliance with the towns 1.5 times setback from non-participating property boundaries, this turbine would need to shift approximately 120 feet southeast (along with its associated limits of disturbance; see parcel 88.-1-6.2 in Figure 24-1, Sheet 9), which would ultimately result in unavoidable impacts to this state-protected resource. Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 3). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 1.5 times setback at this location, the turbine would have to have maximum tip height of approximately 576 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 3 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #8

Wind Turbine #8 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 7). This turbine is currently located nearly atop a prominent hill, which quickly slopes to the west (see Figure 3-1). Therefore, moving the turbine further in this direction and away from non-

participating property lines (see parcel 88.-1-30 in Figure 24-1, Sheet 7) will quickly decrease its productivity. In its current location, Wind Turbine #8 would need to shift approximately 207 feet to the west to achieve compliance with the town's 1.5-times setback from non-participating property lines. A shift of this distance would result in this turbine being located within 1.1 times of the landowner's private driveway, which leads to a year-round veterinary practice that is regularly used by the landowner and their customers. While this driveway may not fall within the definition of a public roadway (which would require 1.1 times setback under 94-c), the Applicant has sited Wind Turbine #8 to accommodate a 1.1 times setback due to the regular traffic on this driveway. Additionally, Wind Turbine #8 was carefully sited in a way to maintain sufficient separation to minimize waking effects between it and the four nearby turbines (Wind Turbines #6, 7, 9, and 10), and shifting this turbine further to the west to achieve compliance with the towns non-participating property line setback would result in an increase of waking effects and turbulence experienced between Wind Turbines #6, #7, and #8 (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 3). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 1.5 times setback at this location, the turbine would have to have maximum tip height of approximately 504 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 3 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #9

Wind Turbine #9 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 8). This turbine is sited at the top of a very prominent hill, which quickly slopes to the north (see Figure 3-1). Therefore, shifting the turbine in this direction and away from the non-participating property to the east (see parcel 88.-1-25.2, in Figure 24-1, Sheet 8) would decrease its productivity and result in additional grading within the agricultural field that it is sited in due to the steep slopes present along this hill (see Figure 10-1). In addition, the participating landowner to the west has requested a buffer surrounding his veterinary practice, of which no turbines can be sited within in an effort to decrease sound and shadow flicker output experienced at this receptor. Therefore, turbine shifts to the west are unfeasible, as this would result in an increase in sound and shadow flicker output to the veterinary practice located approximately 1,200 feet in this direction. For these reasons, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 3). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 1.5 times setback at this location, the turbine would have to have maximum tip height of approximately 560 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 3 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #10

Wind Turbine #10 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 10). Wind Turbine #10 is sited in close proximity to a NYSDEC protected wetland complex (see Wetland 26-W019 in Appendix 14-A). The limits of disturbance surrounding Wind Turbine #10 currently abut the delineated boundaries of Wetland 26-W019 (see Figure 14-2, Sheet 11), demonstrating

complete avoidance of this state protected resource. In order to achieve compliance with the town's 1.5 times setback from non-participating property boundaries, this turbine would need to shift approximately 100 feet to the north (see parcels 88.-1-19 and 88.-1-19.1 in Figure 24-1, Sheet 10), along with its associated limits of disturbance. A shift of this magnitude would ultimately result in unavoidable impacts to this state-protected resource and would further bring mitigation requirements as described in Table 1 of the 94-c regulations. Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 3). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 1.5 times setback at this location, the turbine would have to have maximum tip height of approximately 580 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 3 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #11

Wind Turbine #11 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 11). Shifting infrastructure north to achieve compliance with the Town's 1.5 times property line setback (see parcels 97.-1-18.3 and 97.-1-27.12 in Figure 24-1, Sheet 11) would result in an increase in waking effects experienced between Wind Turbine #11 and Wind Turbine #12, whereby Wind Turbine #11 would increase obstruction of the prevailing southwest wind direction (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). Additionally, due to the steep slopes present to the north, shifting this turbine to comply with the Town's 1.5 times property line setback would result in Wind Turbine #11 being placed at a much lower elevation than where it is currently proposed (a difference of approximately 50 feet). Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 4). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 1.5 times setback at this location, the turbine would need to have a maximum tip height of approximately 470 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 4 identifies the area within which the Applicant requests a waiver from this local law provision.

Waiver Requests within the Town of Nelson

The Applicant seeks a waiver from Section 512.1 (E) of Local Law No. 2 of 2011, A Local Law to enact the 2011 Town of Nelson Land Use and Development Law and Zoning Map for the Hoffman Falls Wind Project:

> *"(1) The minimum setback distance between each production line commercial wind power electricity generation unit (wind turbine tower) and all surrounding … property lines … shall be equal to no less than 1.5 times the proposed structure height plus the rotor radius."*[7]

A waiver from this provision is being requested with respect to the following turbines:

[7] Note, the Applicant has limited the waiver request to non-participating property lines as the Nelson local law allows for the reduction of the setback for participating parcels.

Wind Turbine #13

Wind Turbine #13 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 13). Wind Turbine #13 is currently sited atop a prominent hill, that quickly slopes to the north (see Figure 3-1). Therefore, any shifts in this direction would rapidly decrease the productivity of this turbine. Additionally, this turbine is surrounded by several non-participating parcels in such a fashion that any relocation away from one non-participating parcel to achieve compliance with the local law regulation will encroach upon another non-participating parcel (see parcels 98.-2-7.2, 98.-2-8, 98.-2-13, and 110.-2-24 in Figure 24-1, Sheet 13). There is no method to site this turbine within the parcel that it is proposed in to achieve compliance with the local law setback. Further, none of the other three Facility parcels within the Town of Nelson (Parcel ID # 98.-2-11, 110.-2-25, and 110.-2-26.1, which currently host collection line or civil limits of work) are large enough to meet a 1.5 times setback from non-participating property lines if a turbine were proposed within them (see Figure 4-1, Sheets 6 and 7).[8] In addition, it is impracticable to site a turbine on any of the other three parcels leased within the Town of Nelson, as they are either: 1) smaller, non-contiguous parcels that are closer to State Route 20 and associated residences and are not large enough to host a turbine and remain compliant with established Section 94-c requirements; or 2) a parcel with a significantly reduced energy production capacity that contains environmental, cultural, or agricultural resources that have the potential to be impacted in the event that a turbine and associated infrastructure are sited on them.

For the reasons described above, Wind Turbine #13 has been sited in the least impactful location on parcels within the Applicant's control that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 6). In addition, other design changes such as using a shorter turbine are not feasible. To fully comply with the 1.5 times setback at this location, the turbine would have to have maximum tip height of approximately 491 feet, rendering it uneconomic (see discussion on turbine height in the first paragraph of the Degree of Burden in this Section. Figure 24-4, Sheet 6 identifies the area within which the Applicant requests a waiver from this local law provision.

Waiver Requests within the Town of Smithfield

The Applicant seeks a waiver from Section 1100-5 (G) of Local Law No. 2 of 2023 to Amend the Town of Smithfield Building and Development Control Law to Enact a New Article Regulating Wind Energy Facilities within the Town of Smithfield for the Hoffman Falls Wind Project:

> *"(1)(a) From property lines. A minimum distance of 2.0 times the Total Height of turbine (including blades) from any non-participant's property line, excluding adjoining lot lines of the project participants."*

A waiver from this provision is being requested with respect to the following turbines:

Wind Turbine #14

Wind Turbine #14 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 14). Wind Turbine #14 is sited nearly atop a prominent hill (see Figure 3-1) and

[8] See Section G for a further discussion on why these parcels are not suitable for hosting a wind turbine.

shifting it to the south to achieve compliance with a 2.0 times setback from non-participating property lines (see parcels 89.-1-20.12, 89.-1-20.13, and 98.-3-11.13 in Figure 24-1, Sheet 14) will not only diminish its productivity due to a decrease in topography, but will also result in the turbine being located in too close proximity to Wind Turbine #15. A shift in this direction would result in increased turbulence and wake loss experienced by both of these turbines (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). Additionally, shifting the turbine further southwest into the agricultural field is not only viewed as unfavorable by the landowner, but it would also increase the overall agricultural impacts associated with Wind Turbine #14 (see Figure 24-1, Sheet 14). The agricultural field in which Wind Turbine #14 is currently sited is utilized by the students of SUNY Morrisville in their agricultural education program. Following construction, this field is intended to continue to be utilized by this program, which would be achieved with the current placement of this turbine. Additionally, the proposed placement of Wind Turbine #14 will not only allow for this continued agricultural education, but it will also add an educational opportunity for students of SUNY Morrisville's renewable energy program. Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 4). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 2.0 times setback at this location, the turbine would have to have maximum tip height of approximately 382 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 4 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #15

Wind Turbine #15 is currently sited in a high wind location and will be sited to comply with 94-c setback requirements (see Figure 24-1, Sheet 15). Wetlands are currently located to the north, east, and west of Wind Turbine #15, with one of these wetlands falling under federal jurisdiction (see Wetland 23-W007 in Appendix 14-A). In an effort to avoid these environmental resources, the limits of disturbance associated with this turbine and its applicable infrastructure (i.e., access roads and collection lines) were designed to minimize disturbance to all delineated wetlands surrounding the turbine to the maximum extent practicable. Additionally, no impacts to the nearby federally protected wetland are proposed (see Table 14-1). In order to achieve compliance with the town's 2.0 times setback from non-participating property boundaries, this turbine would need to shift approximately 450 feet northwest, along with its associated limits of disturbance (see parcels 98.-2-14 and 98.-3-10.12 in Figure 24-1, Sheet 15). A shift of this magnitude would result in this turbine being sited in between two delineated wetlands, and given the grade present in this area, impacts to both of these wetlands would become unavoidable. In addition, Wind Turbine #15 was carefully sited in a way to maintain sufficient separation to minimize waking effects experienced between it and Wind Turbine #14 (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). Therefore, if Wind Turbine #15 was to shift north to achieve compliance with a 2.0 times non-participating property line setback, it will not only dimmish it's productivity, but it will also result in the turbine being located in too close proximity to Wind Turbine #14, resulting in an increase of turbulence and wake loss experienced by both turbines. Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 4). In addition, other design changes such as using a shorter turbine are

not feasible, as to fully comply with the 2.0 times setback at this location, the turbine would have to have maximum tip height of approximately 470 feet, rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 4 identifies the area within which the Applicant requests a waiver from this local law provision.

Waiver Requests within the Town of Eaton

The Applicant seeks a waiver from Section 120-23.15 (G)(1)(a) and (b) of Local Law No. 4 of 2023 A Local Law Amending Chapter 120 of the Town of Eaton Code to Regulate Commercial Wind Energy Facilities within the Town of Eaton Article VC, Commercial Wind Energy Facilities for the Hoffman Falls Wind Project:

> *"(1)(a) From property lines. A minimum distance of 2.0 times the Total Height of turbine (including blades) from any non-participant's property line, excluding adjoining lot lines of the project participants."*
>
> *"(1)(b) From public road and highways. A minimum distance of 2.0 times the Total Height of turbine (including blades), from any public road and highway."*

A waiver from these provisions is being requested with respect to the following turbines:

Wind Turbine #16

Wind Turbine #16 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 17). This turbine is currently sited towards the top of a prominent hill which quickly slopes to the east and north (see Figure 3-1). Therefore, shifts in the location of Wind Turbine #16 in either of these directions would be unfeasible, as this would result in a decrease of productivity of this turbine. Similarly, shifting this turbine to the south is unfeasible, as it would result in the turbine being sited within the towns 2.0 times setback from public roads, and would still not resolve in the need of a waiver from the 2.0 times non-participating property setback. In addition, due to shape of the parcel hosting Wind Turbine #16 and the non-participating parcels surrounding it, any shifts from the turbines current location would not resolve the need for a waiver from the town's 2.0 times setback from non-participating property boundaries (see parcels 110.-1-4, 110.-1-5, 110.-1-4.2, 110.-1-6.12, 110.-1-6.112, and 110.-1-9 in Figure 24-1, Sheet 17). Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 6). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 2.0 times non-participating property line setback at this location, the turbine would have to have maximum tip height of approximately 376 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 6 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #17

Wind Turbine #17 is currently sited in a high wind location and will be sited to comply with 94-c setback requirements (see Figure 24-1, Sheet 18)[9]. Wind Turbine #17 is currently sited atop a prominent hill that slopes to the west (see Figure 3-1), therefore shifting this turbine's current location to the west to comply with a 2.0 times setback from non-participating property lines (see parcels 98.-1-7, 99.-1-2.1, and 98.-4-2 in Figure 24-1, Sheet 18) will result in a decrease of productivity. In addition, due to shape of the parcel hosting Wind Turbine #17 and the non-participating parcels surrounding it, any shifts from the turbines current location would not resolve the need for a waiver from the town's setback provision from non-participating property boundaries. Additionally, Wind Turbine #17 was carefully sited in a way to maintain sufficient separation to minimize waking effects experienced between it and Wind Turbine #18 to the south, thereby making shifts to the south unfeasible (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 6). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 2.0 times non-participating property line setback at this location, the turbine would have to have maximum tip height of approximately 362 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 6 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #18

Wind Turbine #18 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 19). Wind Turbine #18 is currently sited atop a hill, which slopes to the south (see

Figure 3-1), therefore shifting the turbine to the south would not only decrease its productivity but would also result in it being within a 1.1 times setback from a public road as well as a non-participating property to the south (see Figure 24-1, Sheet 19). This turbine is surrounded by several non-participating parcels in such a fashion that any relocation away from one non-participating parcel to achieve compliance will encroach upon another non-participating parcel causing non-compliance (see parcel 111.-1-2 in Figure 24-1, Sheet 19). Additionally, Wind Turbine #18 was carefully sited in a way to maintain sufficient separation to minimize waking effects between it and Wind Turbine #17 to the north, thereby making shifts to the north unfeasible (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). To achieve compliance with the towns 2.0 times setback from non-participating property boundaries, this turbine would need to shift approximately 540 feet to the north. A shift of this size is not feasible, as it would not only increase waking effects between Wind Turbines #17 and #18, but a shift of this distance would also result in non-compliance with the towns 2.0 times setback from other WECS turbines outlined with the Town of Eaton's local law (see Section 120-23.15 (G)(1)(d) of Local Law No. 4 of 2023 A Local Law Amending Chapter 120 of the Town of Eaton Code to Regulate Commercial Wind Energy Facilities within the Town of Eaton Article VC, Commercial Wind Energy Facilities). Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 6). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 2.0 times non-participating property line setback at this location, the turbine would have to have maximum tip height of approximately 365 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 6 identifies the area within which the Applicant requests a waiver from this local law provision.

In addition to the request for a waiver from the 2.0 times non-participating property line setback within the Town of Eaton, Wind Turbine #18 will also require a waiver from the 2.0 times public road setback described within the town law (see Section 120-23.15 (G)(1)(b) of Local Law No. 4 of 2023 A Local Law Amending Chapter 120 of the Town of Eaton Code to Regulate Commercial Wind Energy Facilities within the Town of Eaton Article VC, Commercial Wind Energy Facilities). As mentioned previously, this turbine complies with all setbacks outlined in 94-c, which includes a 1.1 times setback from public roads (see Figure 24-1, Sheet 19). Additionally, as aforementioned, shifting Wind Turbine #18 to the north outside of a 2.0 times setback from public roads is unfeasible, as the turbine will be within too close proximity to Wind Turbine #17 resulting in increased waking effects experienced by both of these turbines (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). Additionally, this would result in non-compliance with the Town of Eaton's 2.0 times setback from other WECS towers (Section 120-23.15 (G)(1)(d) of Local Law No. 4 of 2023 A Local Law Amending Chapter 120 of the Town of Eaton Code to Regulate Commercial Wind Energy Facilities within the Town of Eaton Article VC, Commercial Wind Energy Facilities). In summary, there is no scenario where the location of Wind Turbine #18 can be moved in a way to comply with all setbacks described within the provisions outlined in the Town of Eaton's Commercial Wind Energy Facilities regulations. Therefore, this turbine has been sited in the least impactful location that achieves compliance

[9] Wind Turbine #17 will require one GNA for a 1.1 times non-participating parcel setback. The Applicant is currently conducting landowner negotiations for this GNA.

to the maximum extent practicable (see Figure 24-2, Sheet 6). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 2.0 times public road setback at this location, the turbine would have to have maximum tip height of approximately 437 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 6 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #19

Wind Turbine #19 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 20). Wind Turbine #19 is sited atop a prominent hill that quickly slopes to the west (see Figure 3-1). Therefore, shifting Wind Turbine #19 in this direction will decrease the productivity of this turbine and move it closer to non-participating properties and public roads, thereby making a shift in this direction unfeasible. Additionally, the northern portion of the parcel that this turbine is currently sited on is shaped in such a way that shifts in any direction are impractical, as it would still result in non-compliance with the 2.0 times non-participating parcel boundary setback (see parcels 99.-1-35.2 and in Figure 24-1, Sheet 20). Additionally, Wind Turbine #19 was carefully sited in a way to maintain sufficient separation to minimize waking effects between it and Wind Turbine #21 to the south, thereby making shifts to the south unfeasible (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 8). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 2.0 times non-participating property line setback at this location, the turbine would have to have maximum tip height of approximately 433 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 8 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #20

Wind Turbine #20 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 22). Wind Turbine #20 is located atop a prominent hill, which slopes sharply to the west and moderately to the south (see Figure 3-1). Shifting this turbine in either of these directions would decrease the turbines productivity and would not resolve the need for a GNA within the 2.0 times non-participating property line setback (see parcel 111.-1-18 in Figure 24-1, Sheet 22). Therefore, shifting this turbine either to the west or to the south is not practicable. Shifting this turbine to the north is also not practicable. This turbine was also carefully sited in a way to maintain sufficient separation to minimize waking effects experienced between it and Wind Turbine #21 to the north, thereby making shifts to the north unfeasible (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). Wind Turbine #20 could be shifted to the east without resulting in additional turbulence or waking losses; however, this would result in an increase of tree clearing within a forested area. In its current location, impacts associated with this turbine are sited just slightly within this forested block (see Figure 3-11, Sheet 8), while avoiding impacts to the maximum extent practicable. This turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 8). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 2.0 times non-participating property line setback at this location, the turbine would have to have maximum tip height of approximately 525 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 7 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #22

Wind Turbine #22 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 24). Wind Turbine #22 is sited atop a prominent hill, which quickly slopes to the north (see Figure 3-1). In order to achieve compliance with a 2.0 times setback from non-participating property lines, this turbine would need to shift approximately 500 feet to the north. A shift of this distance would decrease this turbine's elevation by about 100 feet, resulting in a less productive turbine. Additionally, this shift would locate the turbine along a steep slope, which would subsequently increase the grading associated with construction of Wind Turbine #22 and would result in more forest clearing that what is currently proposed. Further, a shift of this distance would move Wind Turbine #22 closer to Wind Turbine #23, resulting in an increase of waking and turbulence effects experienced between these two turbines (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). Shifting the location of Wind Turbine #22 to the east is also not a feasible option, as shifts in this direction to achieve compliance with non-participating parcels to the south will encroach upon other non-participating parcels causing non-compliance (see parcels 111.-1-31, and 111.-1-36 in Figure 24-1, Sheet 24). Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 8). In addition, other design changes such as using a shorter turbine are not feasible, as to fully comply with the 2.0 times setback at this location, the turbine would have to have maximum tip height of

approximately 390 feet rendering it uneconomic (see discussion on turbine height above). Figure 24-4, Sheet 7 identifies the area within which the Applicant requests a waiver from this local law provision.

Wind Turbine #23

Wind Turbine #23 is currently sited in a high wind location and complies with 94-c setback requirements (see Figure 24-1, Sheet 23). Wind Turbine #23 is sited atop a prominent hill, which quickly slopes to the north and south (see Figure 3-1). In its current location, grading surrounding this turbine is relatively minimal, as the turbine is sited atop a large plateau that provides adequate space for the required disturbance associated with the turbine pad. Therefore, shifting this turbine to the south to comply with the 2.0 times non-participating property line setback (see parcel 99.-1-44.1 in Figure 24-1, Sheet 23) will result in a significant increase of grading, which will ultimately lead to an increase of tree clearing activities due to the steep slopes in this direction (see Figure 10-1). Additionally, there is an active shale mining pit approximately 300 feet east of the current location of Wind Turbine #23, which the landowner has requested the Applicant to avoid during construction and operation activities. In the current location of Wind Turbine #23, there are no construction activities or disturbance proposed within this quarry. However, if the turbine was to shift to the east to achieve compliance with the 2.0 times non-participating property line setback, impacts to the active shale mining pit may become unavoidable. Therefore, this turbine has been sited in the least impactful location that achieves compliance to the maximum extent practicable (see Figure 24-2, Sheet 8). Figure 24-4, Sheet 8 identifies the area within which the Applicant requests a waiver from this local law provision.

2) Burden Should Not Reasonably be Borne by the Applicant

This requirement cannot reasonably be borne by the Applicant because it is technically infeasible to shift the turbines at these parcels. In the decision-making process for turbine placement, the Applicant initially conducted a comprehensive site assessment, starting with a preliminary screening to pinpoint areas within each of the four Towns that included favorable wind conditions, making them conducive to wind energy generation.

Following this initial screening, the Applicant conducted a feasibility assessment, gathering data on wind speeds, wind directions, turbulence, and various climatic factors over an extended timeframe. Once the potential parcels within each Town were identified and rigorously evaluated, the Applicant initiated negotiations with landowners for the acquisition of necessary land rights through leasing or purchase agreements.

Upon securing participation from a sufficient number of landowners throughout the Facility Site, the Applicant then proceeded to conduct a more intricate assessment of the identified parcels. This phase encompassed the positioning of individual wind turbines, development of access roads, locations of collection lines, and other essential infrastructure considerations.

The design process was highly comprehensive, taking into account factors such as turbine spacing, terrain characteristics, the need to avoid environmentally and culturally sensitive resources, adherence to local regulations, avoidance of landowner exclusion areas, avoidance of identified broadcast communication

sources, and the stringent requirements of 94-c compliance. The ultimate goal was to design an optimal layout that would maximize energy production efficiency while balancing these aforementioned factors.

At this juncture, the Applicant also identified the necessity for agreements with neighboring parcels to align with local laws. The Applicant approached adjacent landowners to ascertain their willingness to enter into these agreements. However, not every landowner agreed to participate in the Project.

In cases where such agreements could not be reached, the Applicant underwent a thorough review of the design. In some instances, they successfully adjusted turbine placements to ensure compliance with local laws. However, it is crucial to acknowledge that not every turbine could be relocated due to the diverse range of environmental and technical constraints that dictated their initial placements.

In light of these complex technical and environmental considerations, the Applicant asserts that the following local law setbacks are beyond reasonable feasibility, given the limitations inherent in the relocation of turbines within the specified parcels:

- the 1.5 times setback to non-participating parcel lot boundary lines in the Towns of Fenner and Nelson;
- the 2.0 times setback to non-participating parcel lot boundary lines within the Towns of Smithfield and Eaton; and
- the 2.0 times setback from public roads within the Town of Eaton.

As described above, a total of 20 turbines out of the proposed 24 turbines across the Project do not comply with local setback laws within each of the four towns that the Project is sited within. If these waiver requests are not granted, this would result in a loss of up to 83MW of generating power proposed across the Project. Therefore, if the setback waivers requested above across each of four towns are not granted, and the associated turbines need to be eliminated from the Project, the associated loss of the Project's annual energy production would jeopardize the economic feasibility of the Project and in-turn jeopardize clean renewable energy for the energy consumers of New York.

3) <u>Request Cannot Reasonably be Obviated by Design Changes</u>

As outlined above, this request cannot be obviated by design changes to the Facility, as many constraints must be considered in arriving at a viable turbine layout. In total, these constraints constrict the available footprint within which a turbine may be placed. In addition to physical constraints such as the shape and size of the parcels hosting turbines, terrain, wetlands and streams, participating landowner land use restrictions, the location of existing utilities and other similar limitations, sound and shadow flicker minimization at nearby receptors and parcel boundaries must also be accounted for. The turbine layout must also be optimized with respect to the available wind resource, maximizing the expected production while minimizing the effects of wind turbulence intensity and the waking effects that may occur between turbines, both of which increase the cost of turbine maintenance over the life of the Facility. Additionally, high turbulence intensity and waking adversely impact the ability for turbine suppliers to grant a turbine site suitable for consideration without onerous and uneconomic operational requirements (see introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). The overall combination of these constraints requires

that the setback to non-participating parcel boundaries within each of the four towns that the Project is sited within, and the setback to public roads specifically within the Town of Eaton be waived as the Applicant cannot reasonably design the Facility to meet these local setback requirements.

4) Request is the Minimum Necessary

As shown in Table 1, the Applicant has designed the Facility to meet the majority of the setbacks in the Towns and has limited this request to just the setbacks from non-participating property lines within each of the four towns that the Facility is sited within, and public roads within the Town of Eaton. The Applicant has therefore limited this request to the minimum necessary as the only waiver for setbacks is for public road setbacks within the Town of Eaton and non-participating parcel boundary setbacks within each of the four towns that the Facility is sited within. In addition, the Applicant endeavored to place the turbines in locations that would meet the setbacks to the maximum extent practicable given the siting constraints discussed above.

5) Adverse Impacts of Waiver Have Been Mitigated

The adverse impacts of granting this request will be mitigated to the maximum extent practicable, in no event will turbines be constructed closer than 1.1 times the turbine height to non-participating parcel lot boundary lines or public roads described above as required under 94-c (see Figure 24-2). These setbacks were based on careful consideration of the best practices for siting renewable energy projects, engineering guidelines, past precedents for Article 10 cases and other local law requirements throughout the state. The Application does not identify any unique or different circumstances in the Towns which would dictate greater setbacks to non-participating parcel lot boundary lines (See Exhibits 5 and 6 for an analysis of setbacks and public health and safety). The 94-c setbacks are sufficient to minimize and mitigate potential adverse impacts.

Conclusion

The turbines at the Facility have been sited in the least impactful location that achieves compliance to the maximum extent practicable with local and ORES setback requirements. The proposed locations and spacing of wind turbines are directly related to several factors including landowner participation, wind resource assessment, topography, existing infrastructure, accessibility, environmental resource impacts, and the consideration of zoning constraints to the extent feasible.

This request cannot be obviated by design changes to the Facility, as many constraints must be considered in arriving at a viable turbine layout. In aggregate, these constraints constrict the available footprint within which a turbine may be placed. Moreover, this requirement cannot reasonably be borne by the Applicant because if the turbines identified above are not granted setback waivers and need to be eliminated from the Project, the associated loss of the Project's annual energy production would jeopardize the economic feasibility of the Project and jeopardize clean renewable energy for the energy consumers of New York.

These constraints restrict the available footprint within which a turbine may be placed. For all the reasons discussed above, and in light of the CLCPA goals, the Applicant requests that ORES waive the non-

participating parcel boundary line setback in the Towns of Eaton, Fenner, Nelson and Smithfield, and the public road setback within the Town of Eaton.

B. Land Use Prohibition Fenner

In 2000 the Town of Fenner passed Local Law No. 2000-1 amending the Town's Land Use Regulations (Local Law 1997-1) to establish a new zoning district, District C, to define an area of the Town where commercial wind-powered electricity generation and transmission facilities may be developed (see revised Figure 3-6). In addition, Local Law 2000-1 also established standards for commercial wind power electricity generation and/or transmission facilities in the Town. District C was updated in 2001 (Local Law No. 2001-1) and again in 2005 (Local Law No. 1 of 2005) to add additional parcels.

District C corresponds directly with those parcels hosting wind turbines and associated infrastructure for the Fenner Wind Farm developed in the Town in 2001. The Hoffman Falls Facility is proposed south of the Fenner Wind Farm (south of County Route 28) in the southeast portion of the Town (See Figure 3-4). The Applicant requested that the Town of Fenner expand District C to include those parcels proposed in the Hoffman Falls Wind Project, however, the Town has not to-date expanded the district to include the currently proposed Facility parcels.

Town of Fenner Land Use Regulations (Local Law 1997-1) Sections 301.4 and 302.4 also prohibit all uses not explicitly allowed in Districts A and B, respectively. Since the Town has not expanded District C to include the Hoffman Wind project, and Districts A and B prohibit uses not enumerated as allowable uses in the districts, the Hoffman Falls Facility needs a waiver of the Town's use prohibition in Section 301.4 and 302.4 to allow the Facility to be located outside of District C. Correspondingly the Applicant seeks to apply the District C standards to the Facility, as if the Facility were located in District C. See Table 2 below for a description of Facility components, and approximate Facility acreage proposed within each of the three zoning districts within the Town of Fenner.

Table 2. Facility Infrastructure Proposed within Town of Fenner Zoning Districts[10]

Zoning District	Approximate Acreage within Facility Site	Facility Infrastructure Proposed	Approximate Length/Area of Infrastructure Proposed[1]
District A	179.9 acres	Collection Line	4,928.9 feet
		Access Road	2,749.3 feet
		Laydown Yard	13.8 acres
		O&M Facility	Entirety (0.6 acres)
		Substation and Switchyard	Entirety (2 acres)
District B	1,422.3 acres	Collection Line	37,920.3 feet
		Access Road	27,675.7 feet
		Laydown Yard	5.3 acres
		ADLS Tower	Entirety
		Wind Turbine	12 turbines and their associated turbine/crane pads (3.8 acres)
District C[2]	2.3 acres	None	--

[1]Final infrastructure length and area within each District is subject to final Facility design. Therefore, the length/area included in this table are approximate.

[2]Parcel 79.-1-3, a portion of which was added to District C in 2005, hosts the substation and switchyard proposed for the Project. However, the interconnection facilities and their associated limits of work are located entirely within 500 feet of Cody Road and are therefore within District A.

Request

Since the wind turbines and associated components proposed within the Town of Fenner are not proposed to be located in District C, the Facility is not a permissible use in the districts where it is currently proposed. Therefore, the Applicant is seeking a waiver of the use prohibition. As explained further below, the Project cannot comply with the prohibition as the prohibition would prevent the Project from being constructed. The Applicant therefore requests ORES waive the Town's use prohibition, as the prohibition is unreasonably burdensome in view of the CLCPA targets and environmental benefits of the proposed Facility.

Previous Article 10 precedent is instructive. The New York State board on Electric Generation Siting and the Environment ("Siting Board") has stated that local laws which would prevent a project from being constructed would be unreasonably burdensome *per se*, and similar prohibitions and limitations inconsistent with state law and policy have been considered unreasonably burdensome. See Application of *High River Energy Center*, Case 17-F-0597, Order Granting Certificate of Environmental Compatibility and Public Need, with Condition, Issued and Effective March 11, 2021, pg. 110; Application of *Flint Mine Solar*, Case 18-F-0087, Order Granting Certificate of Environmental Compatibility and Public Need, with Condition, Issued and Effective August 4, 2021, pg. 70; Application of *Hecate Green*, Case 17-F-0619, Order Granting

[10] See Figure 3-6 for Zoning Districts that fall within the Facility Site.

Certificate of Environmental Compatibility and Public Need, with Condition, Issued and Effective September 28, 2021, pg. 16.

In the *High River* proceeding the applicant sought eleven waivers of local laws including a local law requiring 500-foot setbacks from neighboring properties and a local law restricting development to certain districts. The Siting Board found the laws to be unreasonably burdensome and stated, "In certain respects, High River's Application Exhibit 31 goes even further, showing that local zoning requirements for setbacks would prevent the Project from being constructed, a result which would be unreasonably burdensome per se."

In the *Flint Mine Solar* proceeding, utility scale solar collector systems were only a permitted use within the Town's Commercial District and its Industrial District. Under Flint Mine's proposed layout, the Project was wholly within the Town's Residential Agricultural-2 district and therefore was not a permitted use under local law. The Siting Board found that requiring compliance with the local laws identified in the Application and the settlement materials would be unreasonably burdensome, as it would frustrate the purpose of Article 10 and the siting of renewable energy projects.

Similar to the Flint Mine proceeding, according to the Siting Board's Order in the *Hecate Green* proceeding, "[t]he Siting Board must balance the interests of the local community and the interests of the State's renewable energy goals and the benefits that will accrue to ratepayers." In *Hecate Green*, the Town of Coxsackie's Solar Energy Collection Systems law limited utility-scale solar generation facilities to the commercial and industrial districts. The Applicant requested a waiver because the Rural Residential Zoning District, in which the Facility would be located, only allowed for agricultural uses, low-density residential development, and limited rural commercial and institutional uses. In waiving the local zoning restrictions, the Siting Board stated, "we must… consider the positive contributions the renewable Facility will have on the State, how it will help achieve the goals of the Legislature in establishing renewable energy thresholds for the purpose of reducing greenhouse gas emissions in an effort to combat climate change and its adverse impacts. Achieving these renewable energy goals will benefit all ratepayers."

ORES should make a similar finding here. Reasonable local regulations are one matter, but local laws which prohibit renewable development outright, particularly in communities which host existing high-voltage transmission infrastructure near available vacant land, is per se unreasonably burdensome.

Analysis

Section 94-c requires that for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) Degree of Burden

Wind energy facilities such as the proposed Facility are not permitted outside of District C. District C already consists of the Fenner Wind Farm. Hoffman Falls Wind cannot be built on the same parcels as the currently existing Fenner project. This is in large part due to the fact that existing land leases for the Fenner project prohibit turbines from another developer on these parcels. In addition, turbines need to be spaced appropriately to minimize wake effects and turbulence. Turbines too close together will experience higher wake-induced energy losses, increased loading due to turbulent airflow, and a shorter operational lifespan (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). Placing new turbines on parcels in close proximity to the existing Fenner Wind turbines would not provide sufficient spacing to meet the site suitability requirements of most turbine manufacturers. Therefore, the Facility cannot comply with the Town's use restriction. In other words, without a waiver, the Facility cannot be built in the Town. In essence, the Town's use restriction prohibits any other wind facility from being built in the Town and amounts to a ban on new facilities.

2) Burden Should Not Reasonably be Borne by the Applicant

This requirement cannot reasonably be borne by the Applicant because it is not technically feasible to place turbines on parcels within District C. If wind turbines were precluded in the Town of Fenner, the Project would lose half of its proposed capacity (+/- 50 MW).

3) Request Cannot Reasonably be Obviated by Design Changes

As outlined above, this request cannot be obviated by design changes to the Facility, as the use restriction does not allow the Facility to be built in any districts within the Town. The Applicant did consider placing turbines within District C, however the only area of the Town where turbines are permitted already hosts the Fenner Wind Farm, where existing land leases in place by the facility owner-operator prevent another wind facility from being built on those same parcels in the Town as described above. A further consideration in siting turbines outside District C was the need to minimize waking effects and turbulent airflow among turbines, which is a constraint that dictates recommended minimum distances between turbines, depending on topography, average wind speeds, and other factors. This is because the presence of any existing wind turbine affects the airflow both upwind and downwind of that turbine. Adequate distancing between turbines controls wake-induced energy losses and promotes a longer operational lifespan for the project. In light of these constraints, there are no design changes that the Applicant can make to the Facility to comply with this law in the Town of Fenner.

4) Request is the Minimum Necessary

This request is the minimum necessary as without the waiver the Project cannot be constructed or operated in District C.

5) Adverse Impacts of Waiver Have Been Mitigated

The adverse impacts of granting this request will be mitigated to the maximum extent practicable as the Facility has been designed to avoid, minimize and mitigate environmental and cultural impacts to the

maximum extent practicable in accordance with the 94-c requirements. See Exhibit 2(a)(1); Exhibit 4(c); Exhibit 9(a)(1); Exhibit 11(c), 11(f); Exhibit 12(d); Exhibit 14(e), 14(f); Exhibit 15(a)(9).

Conclusion

As demonstrated above, the Applicant is requesting to construct Facility components within the Town of Fenner within Districts A and B, and outside of District C, which is defined as an area of the Town where commercial wind-powered electricity generation and transmission facilities may be developed. Constructing Facility components within District C is not feasible due to the fact that existing land leases for the Fenner Wind project prohibit turbines from another developer on parcels within this District. In addition, turbines need to be spaced appropriately to minimize wake effects and turbulence. Placing new turbines within District C parcels in close proximity to the existing Fenner Wind turbines would not provide sufficient spacing to meet the site suitability requirements of most turbine manufacturers. Therefore, the Facility cannot comply with the Town's use restriction and must be built within Districts A and B. In other words, without a waiver, the Facility cannot be built in the Town. In essence, the Town's current use restriction prohibits any other wind facility from being built in the Town and amounts to a ban on new facilities.

Given that the Facility cannot be built in District C and therefore cannot be constructed or operated without a waiver, for all the reasons discussed above, and considering the CLCPA goals, the Applicant requests that ORES waive the Town of Fenner's use restriction, permitting the Facility to be constructed on parcels outside of District C.

C. Minimum Road Frontage (Nelson)

Local Law No. 2 of 2011, A Local Law to enact the 2011 Town of Nelson Land Use and Development Law and Zoning Map, Section 512 regulates wind energy facilities. Commercial Wind Energy Facilities are defined as a principal land use comprised of structures and equipment for the conversion of wind energy into electricity which is transmitted directly into the State's electrical grid for commercial sale. Wind Energy System is further defined as a machine or combination of machines and appurtenant equipment that converts the kinetic energy in the wind in a usable form commonly known as a wind turbine or windmill.

Section 512.1 contains lot size, dimensions, and construction standards for commercial wind energy facilities. Section 512.1(B) of the Town of Nelson Land Use and Development Law specifically states the minimum road frontage of a parcel participating in a commercial wind energy facility shall be 450 feet.

Request

The parcel which currently hosts the proposed turbine location in the Town of Nelson does not have existing road frontage of 450 feet (see Figure 4-1 Sheet 7 of 11). Therefore, Hoffman Falls Wind is seeking a waiver from Section 512.1(B)'s road frontage requirement.

Analysis

Section 94-c requires that for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request

cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) Degree of Burden

As stated, the proposed turbine location in the Town of Nelson (Wind Turbine #13) is located on a parcel that does not have existing road frontage of 450 feet (see parcel 98.-2-9 in Figure 4-1, Sheet 7). The nearest public roadway is Roberts Road. Based on historic aerial imagery, Roberts Road previously traversed the eastern edge of parcel 98.-2-9 and served as a connection between Stone Bridge Road (located to the north) and State Route 20 (located to the south). However, the section of Roberts Road that extends from the southern boundary of parcel 98.-2-9 to Stone Bridge Road was abandoned at some point, limiting this parcel's road frontage. Approximately 50 feet of road frontage remains in the southeast corner of parcel 98.-2-9, where an existing portion of Roberts Road dead-ends at the parcel boundary (see Figure 3-11, Sheet 7). The access road proposed by the Applicant extends from the end of Roberts Road to Wind Turbine #13. This access road will provide necessary access for construction and operations activities, as well as for emergency first responders throughout the duration of the Project. The Applicant cannot meet the 450 feet minimum road frontage standard because parcel 98.-2-9 only has about 50 feet of road frontage and as outlined below, this parcel is the only parcel that is suitable to host Wind Turbine #13.

Wind Turbine #13 is the sole turbine proposed within the Town of Nelson, and in its current location, this turbine complies with all 94-c setback, noise and shadow flicker requirements (see Figure 24-1, Sheet 13). In addition to complying with state required setbacks, noise, and shadow flicker regulations, Wind Turbine #13 also complies with the Town of Nelson's 1.5 times setback from public roadways (see Table 1). Furthermore, as described earlier in this report, Wind Turbine #13 is sited in a high-wind location, atop a prominent hill (at approximately 1,663 feet of elevation) that quickly slopes to the north (see Figure 3-1, Sheet 2). For these reasons, the location of Wind Turbine #13 contributes significantly to Project energy production and is located in an area that achieves compliance with all 94-c regulations. As detailed in the analysis provided in Section G below, there is no viable location for the relocation of Wind Turbine #13 within the other three Facility parcels within the Town of Nelson. If a waiver is not granted from this provision for Wind Turbine #13, it would be eliminated from the proposed Project, which would result in an approximate loss of 4MW to 6.1MW (total MW loss would be dependent of the final turbine model selected [see Exhibit 5 for turbines currently under consideration]). However, as outlined above, it is important to note, that not only would the Project lose approximately 4MW to 6.1 MW of nameplate capacity, but this turbine in particular is in a highly productive location, meaning this turbine significantly impacts the Facility's overall production capacity, and the removal of this turbine will have a substantial effect on the Facility's net generating capacity.

Two other Facility parcels within the Town of Nelson have adequate road frontage: (Parcels 98.-2-11 and 110.-2-26.1 (see Figure 24-2 Sheet 6). However, as detailed in the extensive suitability analysis provided for these parcels in Section G below, siting a turbine within these parcels is not practicable as it would result in non-compliance with 94-c setback requirements, additional impacts to environmental resources, or significant impacts to Facility production.

Wind Turbine #13 has been sited in the least impactful location, with respect to complying with all 94-c regulations, minimizing environmental (e.g., delineated wetlands and streams, identified avian habitat, etc.) and agricultural impacts, as well as sound and shadow flicker considerations, thereby achieving compliance to the maximum extent practicable. Additionally, Wind Turbine #13 is sited in a location that maximizes production and minimizes wake loss and turbulence experienced between it and other turbines to the maximum extent practicable. Other design changes such as shifting this turbine to a nearby parcel with adequate road frontage is not feasible for the reasons described above and as described further in Section G, Scenic Overlay (Nelson).

2) Burden Should Not Reasonably be Borne by the Applicant

Adhering to the Town of Nelson's minimum road frontage standard is not practical due to the above-mentioned constraints, nor does there appear to be a substantive need. Per the Facility design, the Applicant proposes to construct an access road from Roberts Road in the southeast corner of parcel 98.-2-9, leading north to Wind Turbine #13. The Applicant has worked diligently to site this turbine location to be the least impactful and technically feasible, while also maximizing its production, in light of all land and siting constraints. Wind Turbine #13 is situated in a highly productive wind location, meaning it significantly contributes to the overall energy output of the Facility. Relocating (if even possible) or removing this turbine would therefore lead to a notable reduction in the Facility's total energy production. Moreover, this parcel's estimated 50 feet of road frontage is sufficient to construct and operate the proposed access road to Wind Turbine #13 that provides accessibility. The Application has not identified any need for 450 feet of road frontage to adequately and safely site the wind turbine or it's supporting infrastructure in this location. Given this, it would be highly burdensome to remove or relocate this turbine solely to address a local requirement for 450 feet of road frontage when this amount of road frontage is not necessary. The priority should be on maintaining the turbine's productivity and operational efficiency and minimal environmental impacts, especially in cases where the basis for the local requirement is not substantive. As detailed in the analysis provided in Section G below, there is no viable alternative location for Wind Turbine #13 within the other three Facility parcels in the Town of Nelson. If a waiver is not granted from this provision for Wind Turbine #13, it would be eliminated from the proposed Project, which would result in an approximate loss of 4.0 MW – 6.1 MW across the Project (total MW loss would be dependent of the final turbine model selected [see Exhibit 5 for turbines currently under consideration]).

3) Request Cannot Reasonably be Obviated by Design Changes

The request cannot reasonably be obviated by design changes due to the aforementioned constraints. Seeking an alternative turbine location within the Town of Nelson that has adequate existing road frontage but maintains compliance with 94-c setback requirements, minimizes additional impacts to environmental resources, and contributes significantly to Facility production is highly unlikely, if not impossible, based upon landowner participation, 94-c and Town setback requirements, and other siting considerations.

4) Request is the Minimum Necessary

This request is the minimum necessary as the Applicant is requesting a waiver because 450 feet of road frontage does not exist along the boundaries of the property; there is approximately 50 feet of road

frontage. As detailed above and in Section G, although two other Facility parcels in the Town of Nelson have adequate road frontage, siting wind turbines within these parcels is not practicable.

5) Adverse Impacts of Waiver Have Been Mitigated

The Applicant is not aware of any adverse impacts that will result from granting this request. Wind Turbine #13 is sited to adhere to all 94-c setback requirements, which are based on careful consideration of the best practices for siting renewable energy projects of this scale, current engineering guidelines, and other local law requirements throughout New York. Wind Turbine #13 meets the Town of Nelson's 1.5 times setback from public roadways (See Table 1). In addition, as explained above, the approximate 50 feet of road frontage within parcel 98.-2-9 is sufficient to construct and operate the proposed permanent access road to Wind Turbine #13. This proposed road will provide necessary access for construction and operations activities, as well as for emergency first responders throughout the duration of the Project.

Conclusion

Given that Wind Turbine #13 is located on a parcel without 450 feet of existing road frontage and would likely not be constructed or operated without a waiver, for all the reasons discussed above, and considering the CLCPA targets, the Applicant requests that ORES waive the Town of Nelson's road frontage requirement.

D. Structure Height (POI Switchyard and Project Collection Substation)

Request

Since the Interconnection Facilities are proposed to be located in the Town of Fenner, the Applicant seeks a determination that the height limitation in the Town's Local Law No. 2000-1, Section V, Table 1, Land Use Schedule of 35 feet in District C is not applicable to the structures within the Interconnection Facilities (point of interconnection switchyard, project collection substation, overhead gen-tie line between stations and associated pole structure, and the high-voltage loop-in and loop-out lines) and/or seeks a waiver of the height limit as it applies to these structures.

The Interconnection Facilities are proposed to be located on Parcel 79.-1-3 in the Town of Fenner, and the Facility components located on this parcel are located within District A. Although the components are proposed to be located in District A, the Applicant is seeking a waiver of the use prohibition for the Facility (see Section B above) and correspondingly is seeking to apply the District C standards to the Facility.[11] This is consistent with how the Town of Fenner permitted the Fenner Wind Farm when they created District C, and by creating District C specifically for wind facilities, the Town has indicated its intent for wind facilities to be subject to District C standards.

Fenner Local Law No. 2000-1 Section V includes Table 1, Land Use Schedule, sets a maximum "structure" height of 35 feet for business, professional, or industrial uses in District C.

The term structure is defined in the Town's Land Use Local Law No. 1997-1 as "A building, house, tower, office, warehouse, garage, etc." which would seem to indicate that the Town meant for the height limitations in the Land Use Schedule to apply to buildings, not to portions of utility structures as proposed here. In addition, although allowable special permit uses in all districts, the Town's Land Use Schedule does not

[11] Note, District C includes the standards from District A and District B.

include dimensions explicitly for "public utility uses"[12], which would further indicate the Town did not intend to set any height limits on the Interconnection Facilities.

In addition, the Town law defines business as "of or pertaining to purchase, sale or transaction involving the disposition of any article, substance, commodity or service; the maintenance or conduct of offices, professions or recreational or amusement enterprises conducted for profit; and also the renting or rooms, business offices and sales display rooms and premises." Land Use Local Law No. 1997-1.

The Town law defines industrial as "means and includes storage, manufacture, preparation, processing or repair of any article, substance, or commodity and the conduct of the industrial trade but shall not mean such preparation, processing or repair as are customarily applied to articles, substances, or commodities in retail businesses or trade for on-the-premises transactions." Land Use Local Law No. 1997-1.

The Town law does not explicitly define professional uses.

Given the above, the Applicant does not believe Interconnection Facilities would fall under the Town's definitions for "business, professional, or industrial uses" in the local law, and therefore that the Town's dimensional requirements do not apply to the Interconnection Facilities; however, out of an abundance of caution, the Applicant has applied the Town's Land Use Schedule dimensional requirements for "business, professional or industrial" to the Interconnection Facilities, and the Applicant seeks this waiver to ensure the Interconnection Facilities can be constructed as proposed.

Analysis

Section 94-c requires that for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) Degree of Burden

To the extent that the height limitation would apply to the structures within the Interconnection Facilities, the Applicant seeks a waiver of such height limitation, as compliance with the limitation is technically impossible and impracticable. The height requirements for these components are dictated by engineering and electrical codes and are necessary for the safety and protection of both people and equipment. The point of interconnection station, the project collection substation, overhead gen-tie line, and interconnection loop transmission lines were designed to National Grid Standards as per their standard document ST.02.00.002 - Electric Station Clearances and industry standard IEEE Std. 1427-2006 Guide for Recommended Electrical Clearances and Insulation Levels in Air Insulated Electrical Power Substations.

[12] Land Use Local Law No. 1997-1 defines public utility uses as "UTILITIES, PUBLIC AND/OR SEMI-PUBLIC: Distribution points, transmission lines and stations, sub-stations, storage yards, garages and other central buildings and/or related uses for the operation and provision of public and semi-public power, fuel, water and communications service licenses by the Public Service Commission."

Per these standards, in the point of interconnection station the minimum acceptable vertical clearance over ground for the lowest overhead conductor, after accounting for line sag on the 115kV dead-end structures, is 45 feet 6 inches. This height allows for vehicular traffic under the 115kV lines for maintenance purposes. Additional lightning protection spires are added to the top of the dead-end structures to protect the incoming line from lightning strikes per industry standard IEEE 998-2012 Guide for Direct Lightning Stroke Shielding of Substations. Two freestanding lightning protection masts taller than 35 feet are also required to provide required protection per IEEE 998-2012 for the National Grid point of interconnection station equipment. The lightning mast and any associated shield wire must extend higher than the energized conductors to provide lightning protection coverage.

The 115kV dead end structures located within the POI switchyard are 45 feet 6 inches tall. The total height (74 feet 6 inches) includes the height of the structure plus the height of the shield wire and the lightning mast. Due to the relatively steep terrain, a retaining wall will be built between the National Grid POI switchyard and the existing transmission line. The POI switchyard dead-end structure take-off points will be higher than the existing transmission line. Therefore, the new steel pole structures needed along the existing transmission line will be designed by National Grid to be tall enough to match the height of the POI switchyard dead-end conductor takeoff heights. Although these structures will ultimately undergo a final design by National Grid, the height of these structures is estimated at 95 feet, based upon National Grid's building specification history.

The single structure needed to construct the 115kV generation tie line between the POI switchyard and collection substation spans the substation access road and is designed with the lowest conductor mounting height allowed (45 feet 6 inches, as described above for the collection substation dead-ends), to facilitate vehicle traffic. The height of this structure meets the requirements of National Grid Standard document ST.02.00.002 - Electric Station Clearances and industry standard IEEE Std. 1427-2006 Guide for Recommended Electrical Clearances and Insulation Levels in Air Insulated Electrical Power Substations. The other two conductors are mounted at the required separation heights of 11 feet between phases. The pole height is therefore designed with a total height of 69 feet.

The height of the 115kV dead-end takeoff structure in the project collection station is designed to generally match the height of the lowest conductor at the single turning pole on the gen-tie line between the stations. Additional lighting mast spires mounted on the dead-end structure and two freestanding lightning protection masts taller than 35 feet are also required to provide required protection per IEEE 998-2012 for the project collection substation equipment. The lightning mast must extend higher than the energized conductors to provide lightning protection coverage. Therefore, the 115kV dead end structures are 40 feet 2 inches with an additional 15-foot lightning mast extending taller on each end. The total height is 55 feet 2 inches. A free-standing lighting mast is also required to be located inside the collection substation to protect the substation conductors from lighting strikes. The height of that mast is designed to also be 55 feet 2 inches in order to not be taller than the required height of the substation 115kV dead-end structure.

2) <u>Burden Should Not Reasonably be Borne by the Applicant</u>

This request cannot be borne by the Applicant or be avoided by design changes, as again the components must be at a height above 35 feet to comply with National Grid design standards, industry

standards for electrical clearances and lightning protection and to ensure the safety and protection of both people and components. If a waiver from this provision is not granted, then the Project will not be feasible, as certain structures within the Interconnection Facilities must be designed at a height greater than 35 feet, thereby jeopardizing clean renewable energy for the energy consumers of New York.

3) Request Cannot be Obviated by Design Changes

The Facility cannot be designed to avoid the need for this waiver, as certain structures within the Interconnection Facilities must be designed at a height above 35 feet.

4) Request is the Minimum Necessary

This request for a waiver is the minimum necessary, as it is limited to only those components which must be designed at a height above 35 feet.

5) Adverse Impacts of Waiver Have Been Mitigated

Adverse impacts associated with the request have been mitigated to the maximum extent practicable as demonstrated throughout the Application including Exhibits 5, Exhibit 8 (Visual Impacts), and Exhibit 9 (Cultural Resources). Although reducing the height of the interconnection facilities is not possible, the Applicant has designed the Facility to comply with the visual minimization and mitigation requirements in §900-2.9(d) of 19 NYCRR Part 900 by implementing visual landscape screening at the interconnection facilities, utilizing self-weathering poles and non-specular conductors, and designing lighting to avoid off-site light trespass. In addition, the Applicant has proposed the utilize black vinyl coated chain link fencing at the substation and switchyard to further minimize visual impacts (see Viewpoint 69 of Appendix D within the Revised Visual Impact Assessment [Appendix 8A of the Application]). As detailed in the Revised Archaeological Avoidance Plan (Appendix 09-I), and the Historic Resources Survey Report (Appendix 9-D), no direct impacts to cultural resources are anticipated. As discussed in the revised VIA and Historic Resources Report, no historic resources are located in proximity to the interconnection facilities and substantive indirect (e.g., visual) impacts on historic resources attributable to the interconnection facilities are not anticipated. The Applicant has demonstrated in the Application that the impacts have been minimized and mitigated to the maximum extent practicable.

Conclusion

As demonstrated above, compliance with the Town of Fenner's 35-foot height limitation is impractical or otherwise unreasonable as certain structures within the Interconnection Facilities must be designed at a height above 35 feet. This request cannot be borne by the Applicant or be avoided by design changes, as the components must be at a height above 35 feet per National Grid standards. For all the reasons discussed above, and considering the CLCPA, the Applicant requests that ORES find that the height limitation is not applicable or waive the height limitation with respect to the Interconnection Facilities.

E. Lot Dimensions and Height for ADLS

Since the ADLS structure is proposed to be located in the Town of Fenner, the Applicant seeks a determination that Fenner Local Law No. 2000-1 Section V, Table 1, Land Use Schedule is not applicable to

the ADLS structure and/or seeks a waiver of the dimensional requirements as they may be applied to the ADLS structure.

The ADLS structure is proposed to be located on Parcel 88.-1-5.22 within the Town of Fenner in District B. Although the components are proposed to be located in District B, the Applicant is seeking a waiver of the use prohibition for the Facility (see Section B above) and correspondingly is seeking to apply the District C standards to the Facility.[13] This is consistent with how the Town of Fenner permitted the Fenner Wind Farm when they created District C, and by creating District C specifically for wind facilities, the Town has indicated its intent for wind facilities to be subject to District C standards.

The Town's Land Use Schedule includes the following for "business, professional, or industrial uses" in District C:

Use Type	Lot Area	Lot Frontage	Lot Depth	Front Yard	Side Yard	Rear Yard	Max. Structure Height
Business, professional or Industrial	1 acre	200 feet	200 Feet	50 Feet	40 feet	50 Feet	35 Feet

The ADLS structure complies with the lot area, lot depth, and setbacks. However, the existing parcel only includes approximately 126.7 feet of road frontage, and the ADLS structure must be taller than 35 feet.

The Town law defines Business as "of or pertaining to purchase, sale or transaction involving the disposition of any article, substance, commodity or service; the maintenance or conduct of offices, professions or recreational or amusement enterprises conducted for profit; and also the renting or rooms, business offices and sales display rooms and premises" Land Use Local Law No. 1997-1.

The Town law defines Industrial as "means and includes storage, manufacture, preparation, processing or repair of any article, substance, or commodity and the conduct of the industrial trade but shall not mean such preparation, processing or repair as are customarily applied to articles, substances, or commodities in retail businesses or trade for on-the-premises transactions." Land Use Local Law No. 1997-1.

The Town law does not explicitly define professional uses.

The term structure is defined in the Town's Land Use Local Law No. 1997-1 as "A building, house, tower, office, warehouse, garage, etc." which would seem to indicate that the Town meant for the height limitations in the Land Use Schedule to apply to buildings, not to ADLS structures as proposed here.

Given, the above, the Applicant does not believe the ADLS structure falls under the definitions in the local law, however, given that professional use is not defined, and that the Applicant is seeking a use waiver to locate the Facility including the ADLS structure, in District B, out of an abundance of caution the Applicant

[13] Note however, that the District B and C standards are identical in this instance.

has applied the Town's Land Use Schedule dimensional requirements for District C for "business, professional or industrial" to the ADLS structure.

Request

Again, the ADLS structure meets District C's setback requirements (50-foot setback to front and rear yards, and 40-foot setback to side yards), the parcel also has a lot depth of at least 200 feet and is on a parcel greater than 1 acre. However, as outlined above the parcel does not meet the lot frontage requirement of 200 feet. In addition, the ADLS structure will be approximately 110 to 200 feet in height.[14]

Analysis

Section 94-c requires that for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) **Degree of Burden**

To the extent that the height limitation would apply to the proposed ADLS tower, the Applicant seeks a waiver of such height limitation, as compliance with the limitation is technically impossible and impracticable. The height requirements for this tower are dictated by the functional purpose of the ADLS tower, as well as engineering and electrical codes standard with ADLS towers, and are necessary for the safety and protection of both people and equipment.

Throughout the iterative design process of the Facility, the Applicant worked closely with DeTect[15] in an effort to find a suitable location for an ADLS tower that would provide sufficient coverage for proposed turbine lighting while minimizing overall environmental impacts associated with such placement. When siting an ADLS tower, radar beam blockage due to terrain, structures, and other obstacles (e.g., tree lines), light compatibility, availability of power and fiber to the radar, local aircraft activity levels, land access, and environmental impacts are all taken into account and analyzed. Additionally, the viewshed associated with each potential ADLS location is analyzed at various aircraft altitudes to ensure that aircraft are fully visible to the proposed tower. Ultimately, the tower location that was proposed as part of this Application was chosen to be the most suitable for this Project, as it meets the requirements under AC 70/7460-1 of the FAA regulations (Obstruction Marking and Lighting), avoids all wetland, cultural, and agricultural impacts, is located along an existing collection line circuit (thereby minimizing additional disturbance), and is sited approximately 1,400 feet away from the nearest public road. However, this parcel only has 125 feet of road frontage.

[14] Depending on FAA approval and final design.

[15] DeTect specializes in advanced 2D and True3D™ radar and related remote sensing technologies and systems, with Artificial Intelligence target classification technology, for aviation safety, security and surveillance, drone defense and environmental protection and renewable energy with over 600 radar systems delivered worldwide since 2003.

2) Burden Should Not Reasonably be Borne by Applicant

This request cannot be borne by the Applicant or be avoided by design changes, as the components must be at a height above 35 feet to comply with FAA standards, industry standards for ADLS towers, and to ensure the safety and protection of both people and components. In addition, the parcel, best suited for the ADLS tower only has 125 feet of existing road frontage. If a waiver from this provision is not granted, and an ADLS tower cannot be constructed, then lighting installed on all 24 proposed turbine locations must remain on throughout the night in compliance with FAA regulations.

Adhering to the Town of Fenner's minimum road frontage standard is not practical due to the above-mentioned constraints, nor does there appear to be a substantive need. Per the Facility design, the Applicant proposes to construct an access road leading to the proposed ADLS tower. The Applicant has worked diligently to site this tower in the least impactful and technically feasible location, while also maximizing its range, and accounting for all land and siting constraints.

3) Request Cannot be Obviated by Design Changes

The Facility cannot be designed to avoid the need for this waiver, as the proposed ADLS tower must be designed at a height above 35 feet.

4) Request is the Minimum Necessary

This request for a waiver from the Town of Fenner's maximum height requirement is the minimum necessary, as the ADLS structure must be designed higher than 35 feet.

This request for a waiver from the Town of Fenner's minimum road frontage requirement is the minimum necessary, as the Applicant is requesting a waiver because the parcel that the ADLS tower is currently proposed on is approximately 75 feet short of this requirement.

5) Adverse Impacts of Waiver Have Been Mitigated

Adverse impacts associated with the request have been mitigated to the maximum extent practicable as demonstrated throughout the Application, including Exhibits 5, 6, 8, 9, 11,14, and 15. The Applicant has sited the proposed ADLS tower approximately 1,440 feet from the nearest public roadway (see Sheet 3 of Figure 3-11), in an upland location that minimizes visual impacts and will not result in any impacts to cultural resources, wetlands, streams, core forest habitat, or active agricultural resource. Therefore, there are no increased environmental impacts associated with this waiver request and the Applicant has demonstrated in the Application that the impacts have been minimized and mitigated to the maximum extent practicable. Moreover, the ADLS structure mitigates visual impacts associated with the turbines, as required by ORES regulations.

F. Lot Dimensions and Subdivision Requirements for Interconnection Facilities (Fenner)

As outlined in Exhibit 24, the collection substation and point of interconnect (POI) switchyard (hereinafter referred to as the Interconnection Facilities) are proposed to be located in the Town of Fenner, District A.[16] To accommodate these Facility components, Hoffman Falls Wind intends to subdivide the parcel that contains the substation to create three separate parcels: one parcel will remain with the current landowner, one parcel will include the POI switchyard, which will be transferred to National Grid after Facility construction, and one parcel will include collection substation with the 3 breaker ring bus, which will be owned by Liberty Renewables. See Figure 24-3 attached, which shows the three proposed parcels.

As with the height limitation waiver, although the components are proposed to be located in District A, the Applicant is seeking a waiver of the use prohibition for the Facility (see Section B above) and correspondingly is seeking to apply the District C standards to the Facility.[17] This is consistent with how the Town of Fenner permitted the Fenner Wind Farm when they created District C, and by creating District C specifically for wind facilities, the Town has indicated its intent for wind facilities to be subject to District C standards, including the Interconnection Facilities.

The Town of Fenner Subdivision Regulations requires that all lots shall abut by their full frontage on roads built to the Town's road specifications (Article 6 Section 640.1), the lot size, width, depth, shape, and area shall comply with the Town's Land Use Ordinance (Article 6 Section 640.2) which for District C lots must comply with the following: minimum lot size of one acre, a minimum lot frontage of 200 feet, and minimum lot depth of 200 feet; and a 35 foot maximum structure height[18] (Section V, Table I Land Use Schedule), the provision of the Town's Land Use Ordinance shall apply regarding setback lines (Article 6 Section 640.5), which for In District C, lots must comply with the following setbacks; a minimum 50 foot front yard, 50 foot rear yard, and 40 foot side yards (Section V, Table I Land Use Schedule), and side lot lines shall be approximately at right angles to the road, or radial to curved roads (Article 6 Section 640.6). Finally, Article 6 Section 645, in addition to other requirements, requires that "[a]ll surfaces must be graded and restored within six (6) months of completion of subdivision, so no unnatural mounds or depressions are left."

Request

As can be seen on Figure 24-3 the proposed subdivided parcels will not meet the above criteria, and therefore the Applicant is requesting a waiver with respect to these requirements with respect to the Interconnection Facilities.

[16] These parcels are also within District C, however the components are located within District A which extends 500 feet of each side of the center line of Cody Road.
[17] Note, District C includes the standards from District A and District B.
[18] The Applicant is seeking a waiver of this height restriction as well, see Section D of this Statement of Justification.

Analysis

Section 94-c requires that for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) **Degree of Burden**

As can be seen in Table 3, the two proposed parcels do not meet all the Town's subdivision requirements:

Table 3. Compliance with Town of Fenner Subdivision Requirements

Town Requirement (District C)	Collection Substation	POI Switchyard
All lots shall abut by their full frontage on roads built to the Town's road specifications. (Article 6 Section 640.1)	The Collection Substation parcel fully abuts CR 28 and complies with this requirement	Due to the landowner preferences, the POI Switchyard parcel only partially abuts CR 28, and the landowner has retained a portion of his parcel to the southwest of this parcel. Therefore, the Applicant seeks a waiver of this provision as applied to the POI Switchyard.
Minimum lot size of one acre. (Article 6 Section 640.2 ; Section V, Table I Land Use Schedule)	The Collection Substation parcel is approximately 1.88 ac and complies with this requirement.	The POI Switchyard parcel is approximately 3.10 ac and complies with this requirement.
Minimum lot frontage of 200 feet. (Article 6 Section 640.2 ; Section V, Table I Land Use Schedule)	The Collection Substation parcel frontage is over 200 feet and complies with this requirement.	Under 200 feet, given the landowner retained portion, this parcel only has 92 feet of road frontage. Therefore, the Applicant seeks a waiver of this provision as applied to the POI Switchyard.
Lot depth of 200 feet. (Article 6 Section 640.2; Section V, Table I Land Use Schedule)	The Collection Substation parcel lot depth is over 200 feet and complies with this requirement.	The POI Switchyard parcel lot depth is over 200 feet and complies with this requirement.
35-foot maximum structure height. (Article 6 Section 640.2;	See Section D. The Applicant is seeking a waiver of the height limitation.	See Section D. The Applicant is seeking a waiver of the height limitation.

Town Requirement (District C)	Collection Substation	POI Switchyard
Section V, Table I Land Use Schedule)		
Minimum 50-foot front yard. (Article 6 Section 640.5; Section V, Table I Land Use Schedule)	The Collection Substation parcel front yard is 50 feet and complies with this requirement.	The POI Switchyard parcel front yard is over 50 feet and complies with this requirement.
50-foot rear yard. (Article 6 Section 640.5; Section V, Table I Land Use Schedule)	The Collection Substation parcel rear yard is over 50 feet and complies with this requirement.	The POI Switchyard parcel rear yard is over 50 feet and complies with this requirement.
40-foot side yards. (Article 6 Section 640.5; Section V, Table I Land Use Schedule)	The Collection Substation parcel side yards are under 40 feet. Given the design of the Interconnect Facilities which are required to be connected to each other and the National Grid Cortland to Fenner Wind 115 kV line, the Applicant has designed the parcels to be as closed together as possible to avoid unnecessary environmental impacts associated with larger lots and to comply with National Grid design standards. Therefore, the Applicant seeks a waiver of this provision as applied to the Collection Substation.	The POI Switchyard parcel side yards are under 40 feet. Given the design of the Interconnect Facilities which are required to be connected to each other and the National Grid Cortland to Fenner Wind 115 kV line, the Applicant has designed the parcels to be as closed together as possible to avoid unnecessary environmental impacts associated with larger lots and to comply with National Grid design standards. Therefore, the Applicant seeks a waiver of this provision as applied to the POI Switchyard.
Side lot lines shall be approximately at right angles to the road, or radial to curved roads. (Article 6 Section 640.6)	The lot lines proposed by the Applicant for the collection substation and POI switchyard are shown in Appendix 05-A, Sheet C601 and Figure 24-3. The eastern side lot line for the subdivided parcel that will contain the collection substation has been oriented to be approximately at a right angle to CR 28. However, the western side lot line is not oriented at a right angle and the Applicant is requesting a	The Applicant has created a square parcel to the extent practicable, while accommodating the request for the portion of the southwest parcel to remain with the landowner. As detailed in the discussion on the collection substation, the transmission owner requires that the POI switchyard be oriented perpendicular to the

Town Requirement (District C)	Collection Substation	POI Switchyard
	waiver of this provision. The western side lot line of this subdivided parcel cannot be placed at a right angle or radial to CR 28 due to the presence of the POI switchyard, which the transmission owner requires to be placed perpendicular to the existing transmission line. As the existing transmission line is located at roughly a 45-degree angle relative to CR 28, achieving a right angle for the western lot line for the subdivided collection substation parcel is not possible. Therefore, the Applicant seeks a waiver of this provision as applied to the Collection Substation.	transmission line. The size and shape of the parcel available to the Applicant to site the POI switchyard and collection substation, in combination with the many constraints the Applicant must address in designing these facilities, make it impossible to subdivide the parcels for the collection substation and POI switchyard in a manner that would place the side lot lines at right angles or radial to CR 28. Therefore, the Applicant seeks a waiver of this provision as applied to the POI Switchyard.

The size and shape of the proposed parcels is a function of landowner preference and the location of the Interconnection Facilities which have been sited to reduce overall environmental impacts while maintaining proximity to the National Grid Cortland to Fenner Wind 115 kV line. Moreover, the collection substation and POI switchyard need to be connected. As described in Exhibit 21(a)(2), three short 115 kV overhead lines (gen-tie and cut-in/out, with a total length of less than 500 feet), will connect the new 115/34.5 kV collection substation to the new 115 kV POI switchyard then to the existing National Grid 115 kV transmission line. Through the POI switchyard, the Facility will connect to the existing Cortland to Fenner Wind 115 kV transmission line owned and operated by National Grid, allowing power to be delivered from the Facility to the grid.

2) <u>Burden Should Not Reasonably be Borne by the Applicant</u>

This requirement cannot reasonably be borne by the Applicant because it is technically infeasible to create parcels that comply with the Subdivision Regulations. For example, meeting the setback requirements between the POI and collection substation is infeasible given that they need to be connected. Therefore, it is technically impossible to design the two components and meet the setbacks.

In addition, the Applicant is seeking a waiver of the requirement to restore and regrade the site within 6 months of the subdivision (Article 6 Section 645) as construction of the Interconnection Facilities are anticipated to take at least 7 to 10 months to complete and will be done in accordance with the 94-c Permit and conditions and may be constructed in sequence with other portions of the Facility. It will be impossible to comply with the requirement to restore the site within six months of completion of the subdivision, as

the subdivision of the parcel may be completed prior to the start of construction, and construction will take at least 7 to 10 months once commenced. Temporary erosion control measures will be applied to stabilize disturbed soils in accordance with the SPDES General Permit. Thus, any adverse impacts of granting this request are mitigated to the greatest extent possible. Furthermore, in order to facilitate the transfer of the POI switchyard and associated real property to National Grid after Facility construction, these components must be on separate parcels.

3) Request Cannot be Obviated by Design Changes

As explained above the location and configuration of the Interconnection Facilities is largely a function of the location of the existing National Grid 115 kV transmission line and the shape of the existing parcel for the placement of the components. Furthermore, design changes would not obviate the need for this request as the POI and collection substation need to be connected. In addition, the design of the Interconnection Facilities is dictated by National Grid's requirements.

In addition, the location and shape of the Interconnection Facility parcels is dictated by landowner requirements and preferences. As can be seen in Figure 24-3, the landowner wishes to retain portions of their property along County Route 28 and to the north of the Interconnection Facilities as part of his parcel's participation in the 480-a forestry program. Therefore, the Applicant designed the Interconnection Facility parcels to meet the requests of the landowner.

4) Request is the Minimum Necessary

This request for a waiver is the minimum necessary, as the Applicant has designed the Interconnection Facilities to comply with the Subdivision Regulations to the maximum extent practicable, while also considering the landowner's preferences and the design requirements for the Interconnection Facilities.

5) Adverse Impacts of Waiver Have Been Mitigated

As demonstrated throughout the Application, the Interconnection Facilities have been sited to avoid and minimize environmental impacts to the maximum extent practicable. Therefore, there are no increased environmental impacts associated with the waiver request and the Applicant has demonstrated in the Application that the impacts have been minimized and mitigated to the maximum extent practicable.

Conclusion

As demonstrated above, compliance with the Town of Fenner's Lot Dimensions and Subdivision Regulation requirements is impractical or otherwise unreasonable as the Interconnection Facilities must be located in the current configuration. This request cannot be borne by the Applicant or be avoided by design changes, as again the components must be located in proximity to the existing National Grid 115 kV transmission line. For all the reasons discussed above, and in light of the CLCPA, the Applicant requests that waive the Subdivision Requirements and Lot Dimension requirements with respect to the Interconnection Facilities.

G. Scenic Overlay (Nelson)

The turbine proposed to be located in the Town of Nelson (Wind Turbine #13) is located within the Scenic Vista I Scenic Overlay District (the Scenic Overlay District) in addition to the Rural (R) District.

While there is no explicit prohibition in the Town of Nelson Land Use Development law to turbines being located in the Scenic Vista I Scenic Overlay District, the intent and development standards for the Scenic Vista I Scenic Overlay District could effectively prohibit turbines from being developed in this Scenic Overlay District.

The stated intent of the Scenic Overlay District is to avoid "overly obtrusive development", which may result from any of the following conditions:

(a) The color of the structure(s) may not blend with the surrounding vegetation or structures;
(b) Construction materials may reflect light (e.g. large un-shaded windows, light colored and metal roofs);
(c) Decorative or other lighting that brightens otherwise dark skies;
(d) Structures that are bulky or out of scale with other background features, natural or man-made;
(e) Structures with tall elements that protrude from their surroundings and are difficult to hide;
(f) Landscaping that is inadequate to mute the visual impact of the structure(s);
(g) Construction of buildings and/or structures that impair the view of a scenic vista from a scenic public highway.

Given that turbines are tall white structures, and cannot be screened by landscaping, wind turbines could be considered an overly obtrusive development given the town of Nelson's standards. Moreover, the development standards set for the Scenic Overlay District state that structures can "not have a substantial adverse effect upon the scenic vista as viewed from any public highway" (Section 404.4(a)). As explained in the Visual Impact Assessment (VIA; see Appendix 8-A), Wind Turbine #13 will be viewable from State Route 20 (see Section 5.2.2 of the VIA; see also Viewpoints 40, 84, 86, 87, and 88 in Attachment D and Attachment D1 of the VIA). The viewpoints referenced show several photo simulations along Route 20 in the Town of Nelson and the Town of Eaton, which depict Wind Turbine #13 (located in the Town of Nelson), as well as surrounding turbines that will be visible along State Route 20 in the Towns of Nelson and Eaton.

Finally, Section 512.2(D) of the Town of Nelson Wind Energy Facilities regulations states, "No individual tower facility shall be installed in any location that would substantially detract from or block view of a portion of a recognized scenic viewshed, as viewed from any public road right-of-way or publicly owned land within the Town of Nelson, or that extends beyond the border of the Town of Nelson." Again, Wind Turbine #13 is located in the Scenic Vista I Scenic Overlay District and will be viewable from State Route 20. As discussed in Section 5.2.2 of the revised VIA and as illustrated in the supplemental photosimulations from Viewpoints 84, 86, 87, and 88 (see Appendix 08-A, Attachment D1), which cover a 5-mile stretch of State Route 20 and the Town of Nelson Scenic Overlay District, turbine visibility will be highly variable due to the topography, vegetation, and long, sweeping curves along this highway. It is anticipated that drivers will experience views of multiple turbines at variable distances for a moment, followed by partial or complete screening as the viewer travels down the highway. As illustrated in the supplemental photosimulations, Wind Turbine #13 does not contribute disproportionately to the visual contrast presented by the Facility along State Route 20. Several other Facility turbines will be similarly visible and overall, the Facility is

anticipated to present limited visual contrast, or otherwise not significantly detract from the scenic quality of the view from State Route 20 within the Town of Nelson.[19] Although the results of the visual impact assessment do not indicate that this one turbine substantially affects the scenic view, nevertheless, the Applicant seeks a waiver of this provision given its ambiguity and subjective nature.

In summary, the Town of Nelson prohibits "overly obtrusive development" which has "a substantial adverse effect upon the scenic vista as viewed from any public highway" (Section 404.4(a)), and further prohibits turbines in locations that "would substantially detract from or block view of a portion of a recognized scenic viewshed, as viewed from any public road right-of-way or publicly owned land" (Section 512.2(D)). These requirements could prohibit the location of Wind Turbine #13, which is visible from State Route 20. Therefore, the Applicant is seeking a waiver of the development standards in Section 404.4(a) and Section 512.2(D) to the extent ORES determines that the Facility does not already comply with these standards.

Request

Although the VIA conducted by the Applicant indicates that Wind Turbine #13 will have an insignificant to moderate contrast with the existing landscape, depending on the location of the viewer, given the subjective language of the Town's standards and the intent of the Scenic Vista I Scenic Overlay District, the Applicant is seeking a waiver of Local Law No. 2 of 2011, A Local Law to Enact the 2011 Town of Nelson Land Use and Development Law and Zoning Map Article IV, Section 404.4(a) and Article V Section 512.2(D) to the extent that they would prohibit the construction of Wind Turbine #13 as proposed. The potential visibility and visual effects associated with the Facility are summarized in Section 5.2.2 and 5.2.3 of the revised VIA (Appendix 8-A).

Analysis

Section 94-c requires that for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) Degree of Burden

The Nelson Scenic Vista I Scenic Overlay District was created in 2011 and includes parcels along Route 20 as well as other similar high-elevation areas within the town that have long-distance views (see Figure 3-6). Wind Turbine #13 is located on parcel 98.-2-9, which is within the Scenic Vista I Scenic Overlay District along State Route 20. Relocating Wind Turbine #13 to another location outside of the Scenic Overlay District would not be feasible, as the Applicant does not have the required land control of any parcels outside the Scenic Overlay District that would be suitable. The one parcel included within the Facility Site (parcel 98.-2-11) that is outside the Scenic Overlay District in the Town of Nelson lacks the required elevation to host a productive turbine, is largely dominated by steep slopes, has a Class II NYSDEC protected wetland sited

[22] See Section 5.2.2 and 5.2.3 of the revised VIA (Appendix 08-A) for a further discussion on this point.

within it, and is located in too close proximity to the proposed MET tower and Wind Turbine #15 (see introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location).

Wind Turbine #13 is one of the more productive turbines proposed within the Facility. Although its elevation is average compared to that of other turbines proposed throughout the Facility Site, this turbine is located in a high wind area that would not be affected by waking or turbulence from other Facility turbines, and its windward position on the western edge of a ridge substantially improves its generation capacity. Wind Turbine #13 also meets all Section 94-c setback requirements, (see §900-2.6(b) of 19 NYCRR Part 900) and the analyses completed by the Applicant indicate this turbine complies with all applicable Section 94-c requirements with respect to sound and shadow flicker without the need for curtailment (see Exhibit 7 and Attachment A to Appendix 08-B). Wind Turbine #13 has also been sited in a location that requires little grading or soil disturbance and avoids all impacts to delineated wetlands and streams, identified occupied habitat for rare, threatened, and endangered species, and agricultural land.

In addition to the above, moving this turbine onto one of the other three participating parcels within the Town of Nelson (Parcels ID# 98.-2-11, 110.-2-25, and 110.-2-26.1; see Figure 4-1, Sheets 6 and 7) is not practicable for the reasons listed below.

Parcel 98.-2-11, located north of the current Wind Turbine #13 location, was previously considered to host a turbine. However, a large Class II NYSDEC protected wetland runs west to east through the portions of this parcel located south of Stone Bridge Road (see Figure 14-1, Sheet 5). If a turbine were to be proposed on this portion of parcel 98.-2-11, it would need to be sited south of this state protected resource in order to achieve a 1.1x setback from public roads (as described in 19 NYCRR 900). Therefore, if the southern portion of this parcel were to host a turbine, an access road would need to be constructed through this state protected wetland in order to provide access to the turbine. Additionally, the highest elevation on this portion of parcel 98.-2-11 is approximately 1,460 feet, which is approximately 200 feet less than the elevation of the proposed location of Wind Turbine #13. For these reasons, it was determined that siting a turbine on this portion of parcel 98.-2-11 would result in a significant decrease of productivity, and an increase in environmental impacts as compared to the currently proposed location of Wind Turbine #13.

Similarly, the portion of parcel 98.-2-11 that falls north of Stone Bridge Road was also considered to host a turbine. In order to achieve compliance with a 2.0 times setback from non-participating residences (as described in 19 NYCRR 900), Wind Turbine #13 would be located at a maximum distance of 1,590 feet from Wind Turbine #15 and would sit at an elevation of approximately 1,500 feet. Shifting Wind Turbine #13 to this location would bring it in close proximity to Wind Turbines #14 and #15, which would result in an increase of wake loss and turbulence experienced between these three turbines (see Introduction language above for further elaboration on the impact of turbulence and wake loss in determining the optimal siting for each proposed turbine location). Additionally, siting a turbine in this location would bring Wind Turbine #13 closer to the year-round residences located along Stone Bridge Road to the south and Pleasant Valley Road to the west, which would likely increase the sound and shadow flicker levels experienced at these residences. Further, this portion of parcel 98.2-11 is located in a valley bottom—the areas that would meet

state setback requirements are more than 150 feet lower in elevation than the current location of Wind Turbine #13 or are located too close to other Facility turbines. In its current location, Wind Turbine #13 does not experience wake loss or turbulence from any other turbines proposed throughout the Project. Any turbine sited within parcel 98.-2-11 would have greater environmental impacts and would produce significantly less power than the current location of Wind Turbine #13. For these reasons, parcel 98.-2-11 is not suitable to host Wind Turbine #13, given the proposed layout of the Facility.

Parcel 110.-2-25, located south of the current Wind Turbine #13, was eliminated from consideration to host a turbine for several reasons. Accounting for the space needed to deliver components to and construct a turbine within this parcel,[20] if the turbine were set in the furthest northeast corner of the parcel, it would be located approximately 635 feet from the end of Roberts Road. Siting a turbine 635 feet from a public road would not be in compliance with the Section 94-c setback requirements in 19 NYCRR 900-2.6(b). For this reason, there is no suitable location within this parcel to site a wind turbine.

Parcel 110.-2-26.1 is also located southeast of the current Wind Turbine #13 and not a feasible candidate for hosting a turbine. Any turbine located on this parcel would be located approximately 900 feet closer to State Route 20. If the turbine were to be placed as far from State Route 20 as possible, in the northeast corner of this parcel,[21] the average distance between Wind Turbine #13 and the three nearest residences would drop from approximately 1,900 feet to 1,100 feet. Therefore, not only would Wind Turbine #13 be more visible along State Route 20, but sound and shadow flicker levels experienced at non-participating residences located along this highway would also increase as this turbine would be located almost 1,000 feet closer to several non-participating residences. For these reasons, parcel 110.-2-26.1 was deemed unsuitable to host Wind Turbine #13, given the proposed layout of the Facility.

Wind Turbine #13 is a high performing turbine that avoids environmental impacts and complies with regulations set forth in 19 NYCRR 900. This wind turbine does not contribute disproportionately to the visual contrast presented by the Facility along State Route 20 and the Applicant does not believe that this wind turbine will have a substantial adverse effect upon the scenic vista or substantially detract from or block view of a portion of a recognized scenic viewshed, as viewed from any public road right-of-way or publicly owned land. However, given the ambiguity and subjective nature of this provision, the Applicant is seeking a waiver of these requirements, to the extent the Town or ORES find that the turbine does not comply with the intent of the Town's Scenic Vista I Scenic Overlay District.

2) <u>Burden Should Not Reasonably be Borne by the Applicant</u>

If Wind Turbine #13 does not comply with the intent of standards of the Scenic Vista I Scenic Overlay District (as described in Section 404.2 of the Town of Nelson's Land Use and Development Law) and the development standards in Section 404.4(a) and Section 512.2(D) given its visual impact, the Applicant will

[20] A general assumption utilizing by Westwood Engineering Services for the Facility and the turbine models proposed, is that the LOD for a turbine will generally extend 250 feet from the base of the turbine, once space for the foundation, crane pad, and the delivery of Facility components are accounted for.

[21] A general assumption utilizing by Westwood Engineering Services for the Facility and the turbine models proposed, is that the LOD for a turbine will generally extend 250 feet from the base of the turbine, once space for the foundation, crane pad, and the delivery of Facility components are accounted for.

be required to remove the wind turbine location from the Facility (see above analysis on relocating the turbine). The removal of Wind Turbine #13 from the Facility will impact the Applicant's ability to meet its proposed 100 MW design goal, as it is a highly productive turbine with minimal wake loss and meets all 94-c setback, noise, and shadow flicker requirements in its current location (see Figure 24-2, Sheet 13). In addition, Wind Turbine #13 has limited environmental impacts as it has one of the shortest access roads proposed and has favorable topography for a wind turbine resulting in minimal grading (see Figure 3-1). Additionally, this wind turbine avoids all impacts to state-regulated wetlands and streams and will result in only 0.05 acres of impacts to one non-jurisdictional wetland. Further, Wind Turbine #13 is sited in an area that was not found to contain any threatened and/or endangered species habitats. As noted in the revised VIA, Wind Turbine #13 will only have a minimal to moderate contrast with the existing landscape, therefore the Applicant should not be forced to remove a highly productive turbine that has minimal environmental impacts just because the turbine can be seen from a public highway. If a waiver from these provisions is not granted, then Wind Turbine #13 will not be constructed, resulting in the loss of 4.0MW – 6.1MW across the Project (total MW lost is dependent on the final turbine model selected).

3) Request Cannot Reasonably be Obviated by Design Change

The request cannot be obviated by design changes as the height of the wind turbines will make it visible regardless of the Facility design. The Applicant cannot place Wind Turbine #13 in a location on the proposed parcel where the turbine will not be visible from State Route 20. In addition, of the four parcels that are included in the proposed Facility Site within the Town of Nelson, none are large enough to meet the Town of Nelson's 1.5 times setback from non-participating property lines. In addition, as discussed in detail above, it is impracticable to site a turbine on any of the other three Facility parcels within the Town of Nelson, as they are either: 1) smaller, non-contiguous parcels that are closer to State Route 20 and associated residences and are not large enough to host a turbine and remain compliant with established Section 94-c requirements; or 2) a parcel with a significantly reduced energy production capacity that contains environmental, cultural, or agricultural resources that have the potential to be impacted in the event that a turbine and associated infrastructure are sited on them.

Overall, the Facility has been sited in windy locations to take advantage of the energy production potential. There are a limited number of suitable alternative locations for wind turbines to allow for the energy production goals of the Facility to be met while also accommodating other environmental and design constraints (see Exhibit 2 for additional information on environmental and landowner constraints). Options to relocate/rearrange individual Facility components are unlikely to significantly reduce the overall visual impacts of the Facility, including those associated with Wind Turbine #13.

4) Request is the Minimum Necessary

The Facility was designed to reduce visual impacts to the maximum extent practicable. The Applicant maintains that Wind Turbine #13 will not have a substantial adverse effect upon the scenic vista as viewed from any public highway, nor will it substantially detract from or block view of a portion of a recognized scenic viewshed, as viewed from any public road right-of-way or publicly owned land (see Sections 5.2.2 and 5.2.3 of the revised VIA) The Applicant is limiting this request to waive these provisions only to the extent the standards would prohibit the placement of Wind Turbine #13 as proposed.

5) Adverse Impacts of Waiver Have Been Mitigated

The Applicant has prepared a Visual Impact Minimization and Mitigation Plan (VIMMP; see Appendix 8-B) which has been designed to minimize and mitigate visual impacts to the maximum extent practicable in compliance with §900-2.9(d) of Section 94-c.

Conclusion

As described above, the intent and development standards for the Scenic Vista I Scenic Overlay District including Section 404.4(a) and Section 512.2(D) could effectively prohibit turbines from being developed in the Scenic Overlay District, and this would require that the Applicant remove a highly productive turbine with limited environmental impacts from the array, just because of visibility of the turbine from State Route 20. In addition, the removal of Wind Turbine #13 would not result in the absence of wind turbines that could be viewed along State Route 20, as turbines proposed within the Towns of Fenner, Smithfield, and Eaton would still be within the viewshed along portions of this scenic highway that fall within the Town of Nelson. Therefore, Wind Turbine #13 should not be required to be removed from the Facility, as the inclusion of this turbine will only have a minimal to moderate contrast with the existing landscape (see Appendix 8-A), and the removal of Wind Turbine #13 would not result in the removal of additional wind turbines within the viewshed of State Route 20 within the Town of Nelson.

The Facility has been carefully designed to minimize and mitigate visual impacts to the maximum extent practicable in compliance with §900-2.9(d) of Section 94-c and requiring the removal of Wind Turbine #13 would be contrary to the goals of the CLCPA and the needs of consumers, who demand clean renewable energy.

H. Sound Limits (Fenner and Nelson)

The Towns of Fenner and Nelson each require that "Individual wind turbine towers shall be located with relation to property lines so that the level of noise produced during wind turbine operation shall not exceed 50 dBA, measured at the boundaries of all the closest parcels that are owned by non-site owners and that abut either the site parcel(s) or any other parcels adjacent to the site parcel held in common by the owner of the site parcel as those boundaries exist at the time of special use permit application." See Town of Fenner Land Use Regulations as amended by Local Law No. 2000-1 Section VII. 606.31(E) and Local Law No. 2 of 2011, A Local Law to enact the 2011 Town of Nelson Land Use and Development Law and Zoning Map, Article V, Section 512.2 (D).

Request

These local laws by the Towns of Fenner and Nelson set a do not exceed limit and fail to specify a metric or averaging time for the sound level limit. Moreover, monitoring and measuring sound at parcel boundaries is incredibly difficult and costly, which is recognized by the 94-c regulations which only requires that properly line limits be demonstrated through the filing of noise contour drawings and sound levels at the worse-case discrete locations (See 900-2.8(b)(1)(vi)). Therefore, the Applicant is requesting a waiver of this provision as compliance with such a requirement is unreasonably burdensome given the technical

difficulties with implementing and monitoring such a requirement. A waiver is necessary due to the ambiguous and restrictive nature of this local law in the Towns of Fenner and Nelson.

Analysis

Section 94-c requires that for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) Degree of Burden

The 94-c regulations already set a reasonable design limit of 55 dBA Leq (8-hour) across any portion of a nonparticipating property except for portions delineated as NYS-regulated wetlands and utility ROW limits at non-participating and participating residences, which the Applicant will comply with. This limit is to be demonstrated through contour drawings, not sound monitoring, as compared with the Towns' laws which require sound be measured at the boundaries of all the closest parcels. Moreover, 94-c also sets limits for non-participating and participating residences which will serve to protect specific locations where people reside in proximity to the turbines.

Imposing an additional property line limit of 50 dBA which is set as a "shall not exceed" and is not further defined is unnecessary. Setting monitoring limits at property lines where it is unlikely that people will actually reside does not protect against potential health impacts associated with sound impacts. If the Applicant were forced to comply with a not to exceed the 50 dBA limit at non-participating property lines, then the Applicant would need to remove all the turbines located in Fenner and Nelson. The term "not to exceed" is not a sound level metric, it only indicates that any metric applied shall not exceed that value. If the not to exceed language is interpreted to mean Lmax sound level metric, then most or all of the proposed wind turbines would not be able to be constructed. The Lmax is the maximum instantaneous sound level. Lmax is not typically used for evaluating sound regulations for several reasons including:

- Wind turbine manufacturers do not present sound level data using the Lmax metric. Wind turbine sound level data is presented in terms of Leq.
- The Lmax is a highly variable sound level metric that results in poor repeatability even when measured with laboratory calibrated instruments.
- The Lmax is a statistical anomaly that is not representative of long-term sound exposure. Background sound levels (produced by non-wind turbine sources) cannot be subtracted out of Lmax measured values because the Lmax is not an equivalent average sound level.

2) Burden Should Not Reasonably be Borne by the Applicant

Sound monitoring equipment needs to be placed at discrete locations to measure sound and cannot be placed across all portions of a property line. It would take several dozen monitors to adequately monitor across all non-participating property boundaries in the Facility Site. In addition, sound monitoring equipment needs to be calibrated and maintained regularly to ensure accurate measurements, placing

dozens of monitors across the site would result in costly and frequent site visits to ensure the equipment was working properly, assuming the Applicant could even find enough sound monitors to comply with this onerous requirement. A monitoring program of this scale would be extremely difficult to implement, and results of the monitoring would likely be inconclusive if the Lmax metric was utilized. Moreover, as described above depending on the metric used up to 13 turbines would need to be removed from the Facility to comply with this requirement (totaling a loss of approximately 52MW to 79MW depending on the turbine model selected), which does not provide any additional health or safety benefit as compared with the requirements under 94-c.

3) Request Cannot Reasonably be Obviated by Design Change

As outlined above the Towns' laws are ambiguous and onerous. Redesigning the Facility to comply with a 50 dBA sound limit that is set as a not to exceed limit is incredibly difficult. Even if it is assumed that the metric is the same as required by 94-c (Leq 8 hour) moving the turbines in the Towns of Fenner and Nelson to comply with this requirement is not possible given the siting constraints on the turbine parcels. Furthermore, moving the turbines does not address the difficulties with measuring sound limits at property boundaries as described above, and could lead to increased sound impacts at residences.

4) Request is the Minimum Necessary

The sound from the Facility will meet the 94-c requirements and will adequately minimize noise on adjacent properties. The Facility was designed to reduce sound impacts and the request to waive the Towns' local laws is the minimum necessary to ensure sound impacts are minimized and mitigated to the maximum extent practicable. See Exhibit 7 of the Application.

5) Adverse Impacts of Waiver Have Been Mitigated

The sound from the Facility will meet the 94-c requirements and will adequately minimize noise on adjacent properties and at specific locations where people reside. The Facility was designed to reduce sound impacts. See Exhibit 7 of the Application.

Conclusion

Considering the Towns' laws are ambiguous and do not define the metric needed to determine compliance, that the Facility has been designed in compliance with the noise thresholds established in Section 900-2.8(b)(2), that the Facility will minimize sound impacts, and that determining compliance with the Towns' laws is not feasible, the Applicant request ORES waive strict compliance with the Towns' 50 dBA property line limit. The property line design requirements in 94-c adequately minimize noise impacts from the Facility.

The Uniform Standards and Conditions (USCs) are designed to avoid or minimize, to the maximum extent practicable, any potential significant adverse environmental impacts related to the siting, design, construction, and operation of the Facility, including sound. ORES has already determined appropriate noise levels for wind facilities and there is no benefit to applying the local laws, considering the Facility complies with the design goals already contained in 94-c, and the fact that the local law applies to property lines not residences or other sensitive receptors where people are likely to be present. There is no basis to impose additional property line sound limits on the Facility, which ORES has already adjudged to be unnecessary.

Moreover, applying local laws which conflict with the standards under 94-c creates unnecessary uncertainty for developers of renewable energy facilities and works to undermine the standards and conditions promulgated under the regulations, which is contrary to the goals of the CLCPA and the needs of consumers.

I. Construction Hours (Smithfield and Eaton)

Local Law No. 2 of 2023 to Amend the Town of Smithfield Building and Development Control Law to Enact a New Article Regulating Wind Energy Facilities within the Town of Smithfield Section 1100-5(D)(16) and Local Law No. 4 of 2023 A Local Law Amending Chapter 120 of the Town of Eaton Code to Regulate Commercial Wind Energy Facilities within the Town of Eaton Article VC, Commercial Wind Energy Facilities Section 120-23.15(D)(16) limits construction hours for wind facilities from 7 am to 7 pm Monday through Friday. This restriction precludes construction on weekends and does not contain any provisions for exceptions to these restrictions, which are necessary especially for wind turbine erection activities.

Request

The Applicant is seeking to have the construction hour limits outlined under 94-c applied across all Towns. Additionally, the Applicant seeks to allow construction and delivery activities, to occur during extended hours beyond this schedule on an as-needed basis consistent with 19 NYCRR 900-6.4(a)(ii).

This request is consistent with construction hour waivers granted in prior Article 10 proceedings including Cassadaga Wind (Case No. 14-F-0490) and Baron Winds (Case No. 15-F-0122). The Applicant is seeking to have uniform construction hours applied across all the host Towns and is requesting that ORES waive any construction hour limits to the extent they unreasonably restrict construction and conflict with the construction hour limits in 19 NYCRR § 900-6.4(a). In both the Cassadaga Wind and Baron Winds case the applicants requested waivers of local law construction hour limits. In Cassadaga, the Siting Board granted a limited waiver which allowed for construction work hour between 7:00 a.m. to 8:00 p.m., on Monday through Saturday, and 8 a.m. to 8 p.m. on Sunday apart from wind turbine construction activities which may need to occur during extended hours beyond this schedule on an as-needed basis to address unusual circumstances.[22] These hours helped set a standard of the construction hours outlined in the Uniform Standards and Conditions under Section 94-c. In Baron Winds, also located in Steuben County, the Siting Board found that Baron met its burden of demonstrating that local construction hours were unreasonably burdensome[23], finding that the burdens associated with enforcement of the law and the resulting construction delays are: increased project cost; extension of the overall construction schedule; and delay in the benefits associated with production of renewable, non-emitting power to be produced by the Facility.[24] Further, the Siting Board found that application of the local law would have limited benefits and will likely increase overall impacts both inside of the Town and the surrounding community. Enforcement of the local

[22] Application of Cassadaga Wind, Case No. 14-F-0490, Order Granting Certificate of Environmental Compatibility and Public Need, with Conditions, pg. 91.
[23] Application of Baron Winds, Case No 15-F-0122, Order Granting Certificate of Environmental Compatibility and Public Need, with Conditions pg. 153-154.
[24] Baron Winds Order Granting Certificate pg. 154.

law will also detract from the benefits of the facility by delaying its operational date.[25] Therefore, the Local Law was found to be unreasonably burdensome, and a waiver of the law was found to likely result in earlier operation of the facility, which was found to be in the public interest.[26] In addition, ORES recently granted a similar waiver request in the Prattsburgh Wind proceeding, Matter No. 21-00749, Draft Permit issued December 29, 2023. Consistent with this prior precedent, the Applicant is requesting that the construction hour limits in 19 NYCRR § 900-6.4(a) be applied uniformly across all of the host municipalities for the Facility. 19 NYCRR § 900-6.4(a) states:

> a) *Construction Hours*. Construction and routine maintenance activities on the facility shall be limited to 7 a.m. to 8 p.m. Monday through Saturday and 8 a.m. to 8 p.m. on Sunday and national holidays, with the exception of construction and delivery activities, which may occur during extended hours beyond this schedule on an as-needed basis.
>
> > 1. Construction work hour limits apply to facility construction, maintenance, and to construction- related activities, including maintenance and repairs of construction equipment at outdoor locations, large vehicles idling for extended periods at roadside locations, and related disturbances. This condition shall not apply to vehicles used for transporting construction or maintenance workers, small equipment, and tools used at the facility site for construction or maintenance activities.
> >
> > 2. If, due to safety or continuous operation requirements, construction activities are required to occur beyond the allowable work hours, the permittee shall notify the NYSDPS, ORES, affected landowners and the municipalities. Such notice shall be given at least twenty-four (24) hours in advance, unless such construction activities are required to address emergency situations threatening personal injury, property, or severe adverse environmental impact that arise less than twenty-four (24) hours in advance. In such cases, as much advance notice as is practical shall be provided.

Analysis

Section 94-c requires that for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) Degree of Burden

Restricting the timing of construction activities to less than allowed under 94-c is unreasonably burdensome as it will delay construction, cause the construction of the Facility to disrupt the community for longer and may ultimately impact the Facility's ability to provide the energy needs of consumers. It is typical in the industry to conduct construction work at turbine sites during early morning and night hours to take

[25] Baron Winds Order Granting Certificate pg. 154.
[26] Baron Winds Order Granting Certificate pg. 154.

advantage of cooler temperatures and low wind speeds. The low wind speeds are especially important when performing wind turbine erection activities (i.e., tower section, nacelle/hub, and blade installation) because, due to safety concerns, tower sections and blades cannot be installed during high wind conditions. In addition, pouring concrete is dependent on temperature, so this activity could be shifted to early morning depending on forecasted temperatures.

As required under Section 94-c (19 NYCRR § 900-6.4(a)), if such activities must occur outside the construction hours, the Applicant would notify the New York State Department of Public Service (NYSDPS), ORES, affected landowners, and the town(s) at least 24 hours in advance of such activities. As indicated above, the Towns of Eaton and Smithfield do not allow construction on weekends, which eliminates two workdays out of each week of construction. Projects such as Hoffman Falls can take 18 to 24 months to construct with 7 days a week of construction. Eliminating 2 days of construction could expand construction by approximately 9 months. This prohibition will unnecessarily create delays in construction activity not just in Smithfield and Eaton but in the adjoining towns as well. Delays in completing one stage of construction, such as delivery of turbine components, foundation installation or turbine erection, can delay not only the installation of that component, but also for the remainder of the Project, creating a cascading delay. The longer the construction schedule, the longer construction related impacts will occur within the communities, including transportation impacts and construction noise impacts.

In addition, construction of wind energy projects is driven largely by the logistics associated with delivering materials and the turbine components to the Facility. Having consistent delivery availability (7 a.m. to 8 p.m. Monday through Saturday and 8 a.m. to 8 p.m. on Sunday and national holidays) across each Town will alleviate logistical confusion during high-volume delivery periods and ensure that turbine and material delivery can occur on schedule without the need for materials to be re-routed or delayed due to scheduling conflicts.

Wind turbine components cannot travel in New York between 7 a.m. and 9 a.m., as well as between 4 p.m. and 6 p.m. while crossing large cities. For this reason, they often sit mid-journey in rest areas, exit ramps and alike. This limits the workday of travel to 8 hours with one stop in the afternoon during curfew. Therefore, it is highly likely trucks will arrive at the Facility Site in the late hours of the afternoon. Travel within the site to the laydown or access roads/pads is critical and cannot be restricted by a township ordinance or the truck will not make it until the next day.

In addition, turbine components are usually spread out roughly 1 hour apart, this already constrains the amount of equipment on the road at any given time of the day. Rarely will a site ever have more than two to three trucks in total travelling in different sections of the site. Being able to work until 8 p.m. is of paramount importance to keep to a schedule. In addition, Sundays tend to be the days with the least amount of traffic overall (i.e., safest). Therefore, in a project like Hoffman Falls Wind, where there are long on-site distances that must be travelled at very low speeds, the use of Sundays should be available. Sunday availability would also allow trucks on site to position so come Monday morning they are where they need to be for work to resume without delay. Turbine component trucks are long, wide, tall, and heavy. As a result, there are very few places for these pieces of equipment to stop and idle without disturbing residents. The purpose of these trucks is to haul from one point to another, non-stop.

As demonstrated above, compliance with Towns' construction hour limits is impractical or otherwise unreasonable as it would cause unnecessary delays in construction activities, including complicating scheduling of work for wind turbine delivery and erection for the Facility.

2) Burden Should Not Reasonably be Borne by the Applicant

This request should not be borne by the Applicant as it has environmental (i.e., transportation impacts and noise impacts), scheduling, and timing implications which will prolong project construction and delay the Project from reaching commercial operations in a timely manner. Prolonging construction would unnecessarily delay renewable energy generation, and having differing construction hours limitations across the Project could cause difficulties with coordinating with turbine vendors and delivering turbines throughout the Facility. Having consistent delivery availability across each Town included in the Project will alleviate logistical confusion during high-volume delivery periods and ensure that turbine and material delivery can occur on schedule without the need for materials to be re-routed or delayed due to scheduling conflicts.

Through robust consultation efforts with the Towns of Eaton and Smithfield, the Applicant made an effort to explain the concerns detailed above, i.e., the downsides of the current Town restrictions on construction hours as applied to a project of this scale and complexity as well as the benefit of establishing uniform construction hours for the Facility as a whole. Specifically, the Applicant authored two letters addressing this topic, dated September 12, 2023 for the Town of Smithfield and December 12, 2023 for the Town of Eaton (see Appendix 2-B). Within the larger local law analysis comprised in these letters, Town construction hours were compared to those included under 94-c. An explanation was provided as to why the local restriction would represent an undue burden to the Project with respect to significant construction delays that would ultimately impact the community and the Facility's ability to provide the energy needs of consumers. The Applicant addressed this topic during in-person discussions with each respective Town on October 10, 2023, and again with the Town of Eaton on December 12, 2023 (see Appendix 2-A). Ultimately, the host municipalities did not choose to align their construction hours provisions to support the described Project needs.

3) Request Cannot Reasonably be Obviated by Design Changes

The request cannot be obviated by design changes as the project design is not dependent on construction hours.

4) Request is the Minimum Necessary

The request is the minimum necessary as the Applicant is requesting to follow the limits set forth in the 94-c regulations and is not seeking to extend construction hours beyond those limits. The Applicant considers the limits set forth in the 94-c regulations reasonably protective and will make every effort to avoid, minimize and mitigate potential adverse impacts from the proposed relief to the maximum extent practicable. As demonstrated above, the request is necessary to ensure project construction can proceed in a timely manner and turbine components can be delivered on schedule and efficiently.

5) Adverse Impacts of Waiver Have Been Mitigated

The adverse impacts of granting the request are mitigated to the maximum extent practicable as the Applicant will abide by the construction hour limits in 19 NYCRR § 900-6.4(a). The construction hour limits in 94-c are sufficient and reasonable to facilitate construction and set forth reasonable procedures for work beyond the established work hours if required due to safety or continuous work that requires work outside the established hours. The 94-c construction hour limits are typical for wind project development throughout the state and there is nothing unique about the Towns in this instance to require more restrictive construction hours. The construction hours set forth in 900-6.4(a) adequately mitigate impacts to the Towns and waiving the construction hour limitations reduces impacts on the community associated with a lengthier construction schedule and ensures the Project can timely provide the benefits of renewable energy generation to New York State energy consumers. In addition, the Applicant will have a complaint management plan, that will address and respond to complaints during construction. 19 NYCRR 900-10.2(e)(7).

Conclusion

As demonstrated above, compliance with Towns' construction hour limits is impractical or otherwise unreasonable as it would cause unnecessary delays in construction activities, including complicating scheduling of work for wind turbine delivery and erection for the Facility. This request should not be borne by the Applicant as it has environmental, scheduling, and timing implications which will prolong project construction and delay the Project from reaching commercial operations in a timely manner. In addition, the request cannot be obviated by design changes as the project design is not dependent on construction hours. Adverse impacts of granting the request are mitigated to the maximum extent practicable as the Applicant will abide by the construction hour limits in 19 NYCRR § 900-6.4(a), and the request is the minimum necessary as the Applicant is requesting to follow the construction limits set forth in the regulations. For the reasons set forth above, the Applicant is seeking a waiver of local construction hour limitations to the extent such limitations conflict with the construction hour limits in 19 NYCRR § 900-6.4(a).

J. Decommissioning Security (Smithfield and Eaton)

Local Law No. 2 of 2023 to Amend the Town of Smithfield Building and Development Control Law to Enact a New Article Regulating Wind Energy Facilities within the Town of Smithfield Section 1100-5(I)(3)(d) and Local Law No. 4 of 2023 A Local Law Amending Chapter 120 of the Town of Eaton Code to Regulate Commercial Wind Energy Facilities within the Town of Eaton Article VC, Commercial Wind Energy Facilities Section 120-23.15(I)(3)(d)) requires the financial security for decommissioning to "be no less than 150% of the cost of full decommissioning (including salvage value) and restoration". This exceeds the ORES requirement for decommissioning contingency security by 35%, a costly difference over the life of the Facility for which the Applicant seeks a waiver. Imposition of this higher contingency would add approximately $755,302 in additional contingency requirements to the Project (see Exhibit 23, Appendix 23-A, Decommissioning Costs Analysis Report). ORES has determined that "a 15% contingency is reasonable based on careful consideration of the best practices for siting renewable energy projects."[27] There is no

[27] ORES Assessment of Public Comments on Title 19 of NYCRR Part 900 at page 102

basis to require more for this Project. In addition, this requirement does not allow an offset for salvage value, however it is common industry practice to offset decommissioning with salvage value, as history shows that scrap metal always maintains some value. If the offset for salvage value was prohibited in the cost of decommissioning, then approximately $1.07 million would be added to the Applicant's decommissioning costs between the towns of Smithfield and Eaton.

Analysis

Section 94-c requires that for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) Degree of Burden

With respect to salvage value, many wind turbine and substation components of wind facilities have salvage and resale value and parts may be sold in the secondary market to other wind facilities for spare parts. Salvage materials involved in wind facility projects (including but not limited to steel, copper, and aluminum wiring) have historically trended upwards and these materials have long been reused, reclaimed and repurposed in the salvage industry. Additionally, innovation in recycling and recovery technologies as well as innovative applications for use of composite waste are accelerating wind turbine blade circularity. For example, on average, nearly 90% of blade material, by weight can be reused as a repurposed engineered material for cement production, which enables a 27% net reduction in carbon dioxide emissions from cement production. Based on historical salvageability of certain component materials, and improvements in innovation and technology and applications of composite materials, there is no evidence to suggest that wind facility component materials will not be salvageable at the time of decommissioning.

Accounting for salvage value of materials is standard decommissioning practice across the industry. Furthermore, some of these materials are relatively easy to decommission, meaning the cost to decommission the materials and obtain value is not an impediment to realizing their value, and as sustainable processes for recycling composite materials in wind turbines continue to improve, recycling processes will improve in their cost competitiveness and availability. Since ORES has already determined that an offset for salvage value is appropriate, it is unclear to the Applicant what benefit compliance with this local law provision would produce, if any. Rather, it would result in an overestimate of decommissioning costs, which would cause the Applicant to incur additional financial costs for the Project which acts as a financial disincentive with no actual proven benefit to the host community. It should also be noted that the Applicant's net decommissioning/site restoration estimate, which pursuant to the ORES regulations, includes a 15% contingency, will be periodically reviewed to adjust for any estimated decommissioning cost increases and/or salvage value decreases. In addition, as mentioned above, many of the wind turbine and substation components will likely be sold in the secondary market upon Project decommissioning. The net resale value of these components is currently estimated to be almost $1.07 million between the towns of Smithfield and Eaton. Therefore, this contingency is more than sufficient to address any uncertainties related

to future costs, including composite recycling costs. Applying these local law provisions, which conflicts with the standard set pursuant to Section 94-c (19 NYCRR §§ 900-6.6 and 900-2.24(c)), creates an unnecessary and unjustified financial hardship for developers of renewable energy facilities, and undermines the standards set in the regulations, effectively frustrating the achievement of the CLCPA goals.

The Decommissioning and Site Restoration Plan (see Appendix 23-A) demonstrates the costs between the local decommissioning requirements and ORES' decommissioning requirements and demonstrates that the Town's decommissioning requirements are overly conservative.

2) <u>Burden Should Not Reasonably be Borne by the Applicant</u>

The likelihood of the Towns of Smithfield and Eaton having to carry out decommissioning activities at the Facility are very low. Projects like Hoffman Falls are closely regulated by ORES and the NYSDPS. For example, the transfer of projects like Hoffman Falls to another entity requires thorough review under Section 94-c (19 NYCRR § 900-11.2). In addition, prior to construction and operation, Hoffman Falls must obtain a Certificate of Public Convenience and Necessity from the Public Service Commission, as outlined in Section 68 of the Public Service Law. Subsequent transfers of the Facility may also be subject to Section 70 review under the Public Service Law. These various requirements and reviews are in place to ensure that the Applicant possesses the necessary expertise to ensure that the Facility remains competitive and financially viable throughout its lifespan. In essence, the combination of regulatory scrutiny, permit and certification requirements, and ongoing reviews helps to mitigate the risk of the Town having to undertake decommissioning activities, as these measures are designed to ensure the responsible management of large-scale projects like Hoffman Falls. Given that it is unlikely that the Towns will have to carry out any decommissioning activities, it is unreasonable for the Applicant to have to carry the costs of the decommissioning security at levels that are higher than it is likely to cost to decommission the Facility. Imposing high decommissioning security requirements places an undue burden on the Applicant, creating a financial obligation that surpasses the actual foreseeable costs associated with decommissioning activities.

Accounting for salvage value of materials is standard decommissioning practice across the industry. Excluding salvage value would result in an overestimate of decommissioning costs, which would cause the Applicant to incur additional financial costs for the Project which acts as a financial disincentive with no actual proven benefit to the host community. In addition, a 50% contingency is excessive. Typical industry practice is a 5 to 10% contingency, and ORES requires 15%. As outlined above, see Appendix 23-A for further demonstration that the Town's decommissioning estimates are overly conservative and burdensome to the Project.

Given that ORES has already determined a reduction in salvage value and 15% contingency is appropriate, the benefits of applying these provisions are negligible, and should therefore not be borne by the Applicant or the State's energy consumers.

3) <u>Request Cannot Reasonably be Obviated by Design Changes</u>

The request cannot be obviated by design changes as the project design is not dependent on decommissioning costs.

4) Request is the Minimum Necessary

The request is the minimum necessary as the Applicant is requesting to follow the decommissioning requirements set forth in 94-c and there is no basis to require more than what the regulations set forth.

5) Adverse Impacts of Waiver Have Been Mitigated

The adverse impacts of granting the request are mitigated to the maximum extent practicable as the Applicant will follow the decommissioning requirements set forth in 94-c. The Applicant will be required to provide over $1.99 million in decommissioning financial security to protect the Towns in the very unlikely event that the Facility owner does not conduct decommissioning and site restoration on its own. In the very unlikely event that the Applicant does not decommission the Facility and the Towns must carry out decommissioning of the Facility, the Applicant would forfeit its Facility equipment and the Towns could use the value to offset decommissioning costs. Finally, the security will be reviewed by the Office and will be updated after one year of operation and every fifth year thereafter per §900-10.2(b)(2).

Conclusion

Overall, the cost of applying unnecessarily and unreasonably high decommissioning requirements will translate into higher energy costs for consumers as they will drive up the costs of building and operating renewable energy facilities over their lifetimes. Given that ORES has already determined a reduction in salvage value and a 15% contingency is appropriate, the benefits of applying stricter provisions are negligible, and should therefore not be borne by the applicant or in turn the state's energy consumers. This is not the type of requirement which could be accommodated by design change to the Facility, nor is there a particular adverse effect of waiving this requirement on the community, as the Applicant will already be required to provide over $1.99 million in decommissioning financial security to protect the Towns in the event that the Facility owner does not conduct decommissioning and site restoration on its own, a contingency which is itself unlikely. In the very unlikely event that the Applicant does not decommission the Facility and the Towns must carry out decommissioning of the Facility, the Applicant would forfeit its facility equipment and the Towns could use this value to offset decommissioning costs. Furthermore, the security will be reviewed by the Office and will be updated after one year of operation and every fifth year thereafter. There is no basis to impose additional financial burdens on the Project by requiring more financial security, which ORES has already judged to be unnecessary. For the reasons set forth above, the Applicant is seeking a waiver of the Town of Smithfield's and the Town of Eaton's decommissioning security requirements to the extent it disallows salvage value and requires more than a 15% contingency.

K. Decommissioning Timing Requirements (Smithfield and Eaton)

Local Law No. 2 of 2023 to Amend the Town of Smithfield Building and Development Control Law to Enact a New Article Regulating Wind Energy Facilities within the Town of Smithfield Section 1100-5(I)(3) (b) and Local Law No. 4 of 2023 A Local Law Amending Chapter 120 of the Town of Eaton Code to Regulate Commercial Wind Energy Facilities within the Town of Eaton Article VC, Commercial Wind Energy Facilities Section 120-23.15 (I)(3) (b) states that "The WECS shall be deemed abandoned if its operation is ceased for 12 consecutive months."

The Applicant respectfully requests that these local law requirements be waived, to the extent that the local laws do not allow for continued operations with good cause after 12 months as such requirements are unreasonably burdensome considering the various circumstances that turbines could become inoperative and the time it takes to coordinate and ensure proper and safe removal of an inoperative turbine.

Analysis

Section 94-c requires that for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) Degree of Burden

The Towns' removal requirements are unnecessarily restrictive as they do not account for the various circumstances under which a wind turbine may become inoperative and does not allow for continued operations with good cause.

12-Month Timeline

There may be various valid reasons a turbine remains inoperable after 12 months, and the Applicant should be provided an opportunity to explain any delays and not be forced to remove a turbine that the Applicant intends to keep operational. For example, the New York State Independent System Operator or interconnecting utility could require the Applicant to suspend Facility operation for any given period to address any technical problems or for upgrades elsewhere in the electric system. Another similar example could include government-imposed curtailment regimes which could result in non-operation to address impacts to threatened and endangered species. A technical system wide failure, individual component failure, or severe weather event such as a lightning strike, could also render a turbine or turbine(s) within the Facility inoperable, and the necessary repairs and/or replacements could be delayed for a variety of reasons. These include, but are not limited to, delays in replacement component deliveries as a result of supply chain imbalances like cost inflation in components and logistics, shortages of materials, shipping delays, manufacturing delays and other related procurement issues. These types of delays have been exacerbated by recent shifts in freight and raw material costs. Repairing a wind turbine involves a complex logistical chain, from sourcing parts to coordinating skilled technicians. Efficiently managing the scheduling of personnel, equipment (e.g., cranes), and transportation can lead to delays, especially when dealing with unforeseen issues that can cascade down the repair timeline. The Applicant could also have a turbine, or turbines, shut down for a given period of time to attempt to address a complaint or resolve impacts or disputes with a neighboring landowner regarding television service interference, noise, or other problems, which may take time to resolve before operation of the turbine or turbines can be resumed. Given the various factors that could impact turbine operation, the Applicant requests that the 12-month timeline include the ability for the Applicant to extend that timeframe for good cause.

2) Burden Should Not Reasonably be Borne by the Applicant

This request should not be borne by the Applicant or consumers who demand renewable energy. As demonstrated above, this request could unreasonably require the site to be decommissioned through no fault of the Applicant, and when the Facility could remain in operation.

3) Request Cannot Reasonably be Obviated by Design Changes

The request cannot be obviated by design changes as the project design is not dependent on decommissioning costs.

4) Request is the Minimum Necessary

The request is the minimum necessary as the Applicant is requesting to follow the decommissioning requirements set forth in 94-c and there is no basis to require more than what the regulations set forth. Allowing the Facility to continue operating when the operator can demonstrate good cause for the delay of maintenance or repairs, prevents unnecessary environmental impacts associated with decommissioning an operable turbine and ensures the State is not losing renewable energy generation needlessly.

5) Adverse Impacts of Waiver Have Been Mitigated

The adverse impacts of granting the request are mitigated to the maximum extent practicable as the request would only extend the abandonment timeline for good cause, and the Applicant will follow the decommissioning requirements set forth in 94-c.

Conclusion

As demonstrated above the timeline requirements are unreasonably burdensome considering the various circumstances that turbines could become inoperative and the time it takes to coordinate and ensure proper and safe removal of an inoperative turbine. For these reasons and as further explained above, the Towns' requirement should be waived.

L. Decommissioning Removal Requirements (Smithfield and Eaton)

Local Law No. 2 of 2023 to Amend the Town of Smithfield Building and Development Control Law to Enact a New Article Regulating Wind Energy Facilities within the Town of Smithfield Section 1100-5 I. (3)(f)(i) and Local Law No. 4 of 2023 A Local Law Amending Chapter 120 of the Town of Eaton Code to Regulate Commercial Wind Energy Facilities within the Town of Eaton Article VC, Commercial Wind Energy Facilities Section 120-23.15 (I) (3)(f)(i) requires "Any non-functional or inoperative WECS, or any WECS for which the Permit has been revoked, shall be removed from the site and the site restored in accordance with the approved decommissioning and site restoration plan within 120 days of the date on which the facility becomes non-functional or inoperative, as defined above, and weather permitting, or of the revocation of the permit." Therefore, any turbine that is not in operation for 12 consecutive months must be removed and restored within 120 days.

The Applicant respectfully requests that these local law requirements be waived, to the extent that turbines must be removed and restored within 120 days, as such requirements are unreasonably burdensome

considering the various circumstances that turbines could become inoperative and the time it takes to coordinate and ensure proper and safe removal of an inoperative turbine.

Analysis

Section 94-c requires that for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) Degree of Burden

The Towns' removal requirements are unnecessarily restrictive as they do not account for the various circumstances under which a wind turbine may become inoperative and how long it takes to remove a turbine, many of which include circumstances outside of the Applicant's control.

Removal and Restoration

The Towns' law requires removal and restoration to be completed within 120 days. This period is unreasonably brief and may be infeasible or impossible to achieve, particularly depending upon the seasonal timing of decommissioning and site restoration activities. Although the local law states the deadline is "weather permitting" it is unclear exactly what is meant by this qualification and if it allows for decommissioning and site restoration activities to occur during the appropriate growing season. Moreover, 120 days is unreasonably short as it can take up to 18 months to decommission and restore a wind facility of this size.

As noted in Exhibit 23 and Appendix 23-A to this Application, the major portions of the decommissioning process are anticipated to take approximately up to 18 months, but this does not include the pre-decommissioning planning and logistical time frame and assumes there are no logistical challenges impacting the 18-month timeline. As outlined in Exhibit 23 and Appendix 23-A, the Applicant will carefully coordinate decommissioning activities to ensure proper environmental protections are in place (i.e. SWPPP/SPDES coverage), ensure appropriate weather conditions for removal and restoration (i.e., appropriate growing season for restoration), coordinate with transportation companies and salvage yards to ensure components can be safely transported and disposed of, coordinating with specialized contractors for decommissioning activities (i.e., crane operators), and coordinating with landowners to ensure work can proceed safely on their property. All this work must occur prior to full decommissioning activities commencing and can take several months in and of themselves to coordinate and complete.

2) Burden Should Not Reasonably be Borne by the Applicant

This request should not be borne by the Applicant or consumers who demand renewable energy. As demonstrated above, the timelines in the local law are unreasonably short and the Facility cannot be decommissioned and restored in 120 days. Such a requirement would be an impossible requirement to

meet. Additional facts and analyses to support this claim are contained within the Applicant's Decommissioning Plan, which includes a detailed decommissioning schedule (see Appendix 23-A).

3) Request Cannot Reasonably be Obviated by Design Changes

The request cannot be obviated by design changes as the project design is not dependent on decommissioning timelines.

4) Request is the Minimum Necessary

The request is the minimum necessary as the Applicant is requesting to follow the decommissioning requirements set forth in 94-c and there is no basis to require more than what the regulations set forth.

5) Adverse Impacts of Waiver Have Been Mitigated

The adverse impacts of granting the request are mitigated to the maximum extent practicable as the Applicant will follow the decommissioning schedule and requirements set forth in 94-c and decommission the Facility in a timely manner once decommissioning activities are commenced.

Conclusion

As demonstrated above the timeline requirements are unreasonably burdensome considering the time it takes to coordinate and ensure proper and safe removal of an inoperative turbine. For these reasons and as further explained above the Towns' requirement should be waived.

M. Made in America (Smithfield and Eaton)

Request

Local Law No. 2 of 2023 to Amend the Town of Smithfield Building and Development Control Law to Enact a New Article Regulating Wind Energy Facilities within the Town of Smithfield Section 1100-5(S) and Local Law No. 4 of 2023 A Local Law Amending Chapter 120 of the Town of Eaton Code to Regulate Commercial Wind Energy Facilities within the Town of Eaton Article VC, Commercial Wind Energy Facilities Section 120-23.15(S) requires "all WECS shall be required to utilize components and materials made and manufactured in the United States of America." Although this local requirement does not specify that 100% of the components and materials must be made and manufactured in America, the Applicant seeks a waiver of this provision out of an abundance of caution, because as outlined below, such a requirement would be unreasonably burdensome in view of the CLCPA targets and environmental benefits of the proposed Facility, would undoubtedly increase costs to the state's energy consumers, and is technically infeasible. In addition, there are no turbines available in the United States that would be considered 100% Made in America. It would be extremely difficult, if not impossible, to procure and construct a turbine entirely made in America. All turbines, even those that have manufacturing facilities located in the United States, rely on global supply chains and depend upon certain components of wind turbines to be manufactured in countries outside of North America. Requiring the renewable energy facility to utilize parts made in America, without limitation, would be extremely burdensome on the Applicant and at the time of this project, it is impossible. Therefore, the Applicant respectfully requests that this local law requirement be waived.

Analysis

Section 94-c requires that for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) Degree of Burden

The Towns of Smithfield and Eaton local laws require that turbines be made in America. There is no definition of what components *must* be made in America, and it is therefore assumed that all components of the wind turbine, including but not limited to the turbine tower, turbine foundation, nacelle, hub, rotor blades, transformer, power and braking systems, and all electrical equipment, must utilize parts made in America.

In 2022, NYSERDA conducted a preliminary assessment as to whether requiring U.S. structural iron and steel at renewable energy projects would be in the public interest. Public Service Law (PSL) § 66-r (the New York "Buy-American" law) requires that certain iron and steel used in certain state-supported renewable energy facilities be sourced domestically unless the head of the applicable state entity concludes that the requirement is not in the public interest for a particular procurement.[28] This initial NYSERDA study considered the implications of requiring turbine towers and foundations to be "made in America" and found that imposing this requirement would in turn lead to incremental capital expenditure costs ranging from $55,000/MW to $221,000/MW for onshore wind. These incremental costs would ultimately be borne by the ratepayers of the State of New York. These costs also did not include the risk that proposers would be expected to add into their bids given the uncertainty of future pricing in a limited market or how developers would amortize these costs over the project's life. Notably, NYSERDA's initial study showed significant price volatility in both the U.S. and global steel markets, highlighting great uncertainty regarding future steel prices and the ultimate impact of mandating the use of domestic steel. The costs associated with this additional capital expenditure and risk premium would be passed on to New York State ratepayers through higher REC prices. The study further found that due to limited manufacturing and increased demand, cutting off access to global markets would potentially jeopardize the viability of future renewable energy projects in New York, and potentially New York's nation leading CLCPA clean energy targets.[29]

Nevertheless, NYSERDA proposed the establishment of a minimum dollar requirement related to the use of U.S. iron and steel in the construction of renewable energy systems selling RECs to NYSERDA. For RESRFP22-1 this amounted to $54,000/MWac nameplate capacity for onshore wind. In addition, NYSERDA requires that developers use commercially reasonable efforts to (a) source and procure components, materials, equipment, spare parts and other items necessary to construct the Facility from manufacturing

[28] ORECRFP22-1 Preliminary Determination Memorandum Public Service Law (PSL) § 66-r (the New York "Buy-American" law); NYSERDA Buy American Supplemental Study Onshore Wind, and Utility-Solar Component Analysis, September 2022, available at https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Clean-Energy-Standard/NYSERDA-Buy-American-Supplemental-Study-Onshore-Wind-UtilityScale-Solar.pdf

[29] Appendix 3. RESRFI22-1 Preliminary Determination Memorandum Public Service Law (PSL) § 66-r (the New York "Buy-American" law)

facilities located in New York State, and (b) utilize materials and equipment that uses iron and steel produced by steel mills within the United States.

The Applicant agrees that the NYSERDA requirements are reasonable and that following the NYSERDA requirements would be feasible for the Facility. If the local law does not require 100% of the materials to be made in America than the Applicant believes this will satisfy the local law. However, if the local law does require that all components of the wind turbine including but not limited to the turbine tower, turbine foundation, nacelle, hub, rotor blades, transformer, power and braking systems, and all electrical equipment, must exclusively utilize parts made in America, then such requirement is extremely burdensome.

2) <u>Burden Should Not Reasonably be Borne by the Applicant</u>

As outlined above, requiring renewable energy facilities to utilize parts made in America, without limitation, would be extremely burdensome on the Applicant, state energy consumers and the State's CLCPA goals. The wind turbine industry relies on a global supply chain for components such as wind turbine blades, generators, and control systems. While some major components may be manufactured in the United States, such as nacelles and towers, many other components are specialized and require advanced manufacturing processes that are only available outside of the United States. As of 2022, only one of the top ten wind turbine manufacturers in the world was headquartered in the United States, while the remaining nine are located throughout Europe and China. China specifically has by far the world's biggest wind turbine production capacity, owning around 60 percent of 163 gigawatts in 2023, according to the Global Wind Energy Council. GE, which is headquartered in Boston, Massachusetts, relies on parts manufactured in other countries, and the choice of component origin is ultimately a manufacturer decision, not a decision made by the developer.

In some mark of progress in this area, as of November 2023, GE Verona's Onshore Wind business announced the completion of its first onshore wind turbine produced on a new wind manufacturing assembly line in Schenectady, New York, this being specific to their 6.1-158 machine. The company already assembles wind turbine components for its other onshore wind turbine, the 3MW platform, at a facility located in Pensacola, Florida. Similarly, Vestas announced in July 2023 plans for their newest turbine for the U.S. market, the V163-4.5 MW, to eventually be manufactured in its Brighton Nacelles and Windsor Blades factories in Colorado. Nordex too has considered revamping a production site in West Branch, Iowa to meet demand for wind turbine manufacturing in the United States. While several manufacturers continue to invest in bringing some production efforts to the United States, which the Applicant will continue to monitor, in practice, capacity is still limited, and specific commitments as to which components are being manufactured in the United States versus internationally for different models remains unclear and changing.

Despite a growing domestic wind industry supply chain, the U.S. wind sector remains reliant on imports. It would be extremely difficult, if not impossible, to procure and construct a turbine entirely made in America. Moreover, the decision on where to precure parts is not a decision made by the Applicant but will be made by the turbine manufacturer. The Applicant cannot control the manufacturing process and must rely on the turbine manufacturers for supply chain decisions.

3) Request Cannot be Obviated by Design Changes

The request cannot be obviated by design changes as the project design is not dependent on where turbine components are manufactured.

4) Request is the Minimum Necessary

The Applicant agrees to follow any NYSERDA requirements related to utilizing materials and equipment manufactured in the United States, and the Applicant agrees to use commercially reasonable efforts to source and procure components, materials, equipment, spare parts and other items necessary to construct the Facility from manufacturing facilities located within the United States.

5) Adverse Impacts of Waiver Have Been Mitigated

There are no adverse environmental impacts associated with the Town's requirement or the Applicant's request for a waiver which could be mitigated, as the location of where Facility components are manufactured does not have a direct impact on environmental impacts associated with the Facility. Nevertheless, given that the Applicant agrees to follow any NYSERDA requirements related to utilizing materials and equipment manufactured in the United States, and the Applicant agrees to use commercially reasonable efforts to source and procure components, materials, equipment, spare parts and other items necessary to construct the Facility from manufacturing facilities located within the United States, the Applicant has mitigated the impacts of the waiver request.

Conclusion

The Towns' requirement that components of the wind turbine including but not limited to the turbine tower, turbine foundation, nacelle, hub, rotor blades, transformer, power and braking systems, and all electrical equipment, must utilize parts made in America is unreasonably burdensome and would threaten the Facility and the State's CLCPA goals. As NYSERDA found, due to limited manufacturing and increased demand, cutting off access to global markets would jeopardize the viability of renewable energy projects in New York like the Facility, and potentially New York's nation leading CLCPA clean energy targets. For these reasons, and as further explained above, the Towns' requirement should be waived.

N. Waiver of Fenner Fence Height Requirements

Request

The Applicant seeks a waiver of the Town's fencing requirements for the Interconnection Facilities and ADLS structure. Local Law No. 1 of 2017, which added Section 409 to the Town of Fenner Land Use Regulations states" Maximum fence height from grade to the top of the fence shall be six feet in any front yard, and eight feet in any side or rear yard". Section 409(B)(1) The National Electrical Code (NEC) requires a seven-foot height fence or more around electrical equipment. This is consistent with the 94-c regulations, which also require a seven-foot height fence.

Analysis

Section 94-c requires that for each request that the Applicant show (1) the degree of burden caused by the requirement, (2) why the burden should not reasonably be borne by the applicant, (3) that the request

cannot reasonably be obviated by design changes to the facility, (4) that the request is the minimum necessary, and (5) that the adverse impacts of granting the request shall be mitigated to the maximum extent practicable consistent with applicable requirements set forth 94-c.

1) Degree of Burden

To the extent that the fence height limitation would apply to the Interconnection Facility, the Applicant seeks a waiver of such height limitation, as compliance with the limitation is technically impossible and impracticable. The height requirements for these components are dictated by engineering and electrical codes and are necessary for the safety and protection of both people and equipment. Per the standards in the NFPA 70 (2023 edition) – National Electrical Code (NEC), Chapter 1 – General, Article 110 – General Requirements for Electrical Installations, Section 110.31, a fence shall enclose all outdoor electrical installations to deter access by persons who are not qualified to access the equipment. Such fence shall not be less than 7 feet in height or a combination of 6 feet with 1 foot of barbed wire or equivalent. At the substation, fencing will consist of 8 feet tall chain link installations with 1 foot of three barbed wires on top of the fence pushing the combined height to 9 feet. The switchyard will consist of 7 feet tall chain link installations with 1 foot of three barbed wires on top of the fence pushing the combined height to 8 feet.

2) Burden Should Not Reasonably be Borne by the Applicant

This request cannot be borne by the Applicant or be avoided by design changes, as again the substation fence must be at 7 feet to comply with National Electrical Code design standards to ensure the safety and protection of both people and components and the switchyard fence must be at 8 feet to comply with National Grid standards.

3) Request Cannot Reasonably be Obviated by Design Changes

The Facility cannot be designed to avoid the need for this waiver, as the substation fence must be a minimum of 7 feet, the switchyard fence must be a minimum of 8 feet and the local law limits the fence height to 6 feet.

4) Request is the Minimum Necessary

This request for a waiver is the minimum necessary, as the Applicant is seeking authorization to build the fence to a height allowable under the NEC and/or National Grid which also protect the health and safety of people and components.

5) Adverse Impacts of Wavier Have Been Mitigated

Adverse impacts associated with the request have been mitigated to the maximum extent practicable as demonstrated throughout the Application including Exhibits 5, 6, 8, and 9. In addition, the Applicant has proposed the utilize black vinyl coated chain link fencing at the substation and switchyard to further minimize visual impacts associated with the fence (see Viewpoint 69 of Appendix D within the Revised Visual Impact Assessment [Appendix 8A of the Application]). Therefore, there are no increased environmental impacts associated with the waiver request and the Applicant has demonstrated in the Application that the impacts have been minimized and mitigated to the maximum extent practicable.