

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Emmons-Logan Wind, LLC
Emmons-Logan Wind Energy Center – Emmons & Logan Counties
Siting Application**

PU-18-280

**CERTIFICATION RELATING TO MODIFICATION OF
ENERGY CONVERSION FACILITY AND SITE PLAN PURSUANT TO
CERTIFICATION RELATING TO ORDER PROVISION NO. 38(A)**

STATE OF FLORIDA)
) ss.
COUNTY OF PALM BEACH)

Pursuant to Certification Relating to Order Provision No. 38, the undersigned, John Di Donato, Vice President Development & Origination, an authorized representative of Emmons-Logan Wind, LLC (“Emmons-Logan Wind”), with the authority to bind Emmons-Logan Wind to the following, hereby certifies as follows:

I. Procedural Siting History

1. On July 19, 2018, in Case No. PU-18-280, Emmons-Logan Wind filed an Application for a Certificate of Site Compatibility (“Application”) for the construction and operation of the Emmons-Logan Wind Energy Center (the “Project”), consisting of up to 123 turbines in Emmons and Logan Counties, North Dakota.
2. On February 6, 2019, the North Dakota Public Service Commission (“Commission”) issued Findings of Fact, Conclusions of Law and Order (“Feb. 6 Order”) granting Emmons-Logan Wind Certificate of Site Compatibility No. 57 for the construction and operation of the Project.
3. In Finding of Fact No. 4 of the Feb. 6 Order, the Commission found that the Project will consist of up to 123 turbines and have a nameplate capacity of up to 298.1 megawatts (“MW”).
4. On May 2, 2019, in Case No. PU-18-280, Emmons-Logan Wind filed a Certification Relating to Modification of Energy Conversion Facility and Site Plan Pursuant to Certification Relating to Order Provision No. 38(A) (“May 2 Certification Filing”).
5. In this filing, Emmons-Logan Wind notified the Commission that it had updated turbine technologies at certain locations in its originally filed site plan. Specifically, Emmons-Logan Wind notified the Commission that it was originally expecting to use 111 General Electric (“GE”) 2.5 MW turbines and 12 GE 1.715 MW turbines, but that it had updated

this alignment to use 88 GE 2.72 MW turbines and 35 GE 1.715 MW turbines. This change would result in a slight increase in the total nameplate capacity of the Project, from 298.1 MW to 299.4 MW.

6. Accordingly, Emmons-Logan Wind requested that the Commission amend the Project's nameplate capacity as designated in Feb. 6 Order Finding of Fact No. 4 from up to 298.1 MW to up to 299.4 MW.
7. On August 6, 2019, the Commission issued an amended Order ("Aug. 6 Order") that amended Findings of Fact paragraphs 4 and 5 to reflect the revised GE 2.72 MW and GE 1.715 MW turbine models and resulting capacity increase.

II. Modification Pursuant to Certification Provision No. 38

8. Pursuant to Certification Provision No. 38, Emmons-Logan Wind proposes to make certain modifications to the Project and within the designated site, as described in further detail in this Certification and supporting documentation. *See* Memorandum.
9. Subsequent to the Commission's issuance of the Aug. 6 Order, Emmons-Logan Wind received updated network upgrade cost estimates from the Midcontinent Independent System Operator ("MISO") that significantly exceeded Emmons-Logan Wind's expectations. Emmons-Logan Wind determined to delay construction of 21 of the originally planned 123 turbines and to revise the mix of turbine technologies that were included in the May 2 Certification Filing. *See* May 2 Certification Filing, Memorandum and Attachments 1-4.
10. The Project's turbine technology remains unchanged and is consistent with the Aug. 6 Order. Specifically, Emmons-Logan Wind now proposes to use 61 GE 1.715 MW turbines and 41 GE 2.72 MW turbines in lieu of the 35 GE 1.715 MW turbines and 88 GE 2.72 MW turbines proposed in the May 2 Certification Filing. Emmons-Logan Wind is not moving or adjusting any turbine locations to implement these changes; rather, Emmons-Logan Wind is simply adjusting the turbine models assigned at certain locations within the approved Project site plan. The updated turbine number and model assignments are provided in the attached Memorandum and Attachment 2.
11. As a result of the reassignment of turbine technology, the Project's as-built nameplate capacity will be approximately 216 MW. Emmons-Logan Wind is evaluating its future construction plans for the Project's permitted and remaining approximately 83 MW as set forth in the Aug. 6 Order, and reserves its right to construct the additional nameplate capacity pursuant to its Certificate of Site Compatibility.

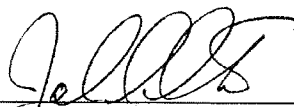
12. The maximum turbine tip height used for setbacks is either unchanged or less because the turbine technology utilized remains consistent with the May 2 Certification Filing and Aug. 6 Order thus there continues to be no exceedances of the applicable setbacks.¹
13. To analyze the turbine model modifications on sound and shadow flicker, Emmons-Logan Wind conducted a new sound level assessment and shadow flicker analysis at inhabited residences and community buildings (collectively, “receptor”). See Attachments 5-9.
14. With respect to sound levels, and in accordance with Ordering Paragraph No. 8 in the Feb. 6 Order, Emmons-Logan Wind contracted AECOM to update the acoustic assessment as a result of the turbine model modifications. AECOM utilized the same methodology outlined in the Project’s November 2018 Acoustic Assessment (Docket No. 60) and May 2019 Acoustic Assessment (Docket No. 111). The predicted operational acoustic modeling demonstrates that the Project will not generate exceedances of the Commission’s sound threshold at any occupied receptors. This updated sound assessment is provided in the Memorandum and Attachments 5-6.
15. With respect to shadow flicker, and in accordance with Ordering Paragraph No. 9, Emmons-Logan Wind contracted AECOM to update the shadow flicker assessment as a result of the turbine model modifications. AECOM utilized the same methodology outlined in the Project’s November 2018 Shadow Flicker Assessment (Docket No. 62) and May 2019 Shadow Flicker Assessment (Docket No. 111). Model results from the May 2019 Shadow Flicker Assessment demonstrated that four participating occupied residences may exceed the Commission’s recognized 30 hours per year limit. Signed waivers for shadow flicker exceedances for these landowners were previously filed with the Commission (Docket No. 35). With the turbine model modifications, one of these four residences will experience a decrease in shadow flicker impacts and the other three residences will experience the same amount of shadow flicker impacts. There will be no new additional residences with shadow flicker impacts over 30 hours per year. The updated shadow flicker assessment is provided in the Memorandum and Attachments 7-9.
16. All turbine model modifications occur within the previously permitted Project Site Plan and turbine locations identified in Late-Filed Exhibit 2 (Docket No. 94). However, as a result of the modification in turbine technology, changes have occurred to the turbines’ designations (*i.e.*, which turbine technology is assigned to which location). Attachments 1-4 identify existing turbine locations and describe updated designations.
17. Turbine model modifications occur in areas previously surveyed for Exclusion and Avoidance Areas, including wildlife, wetlands, cultural, and tribal resources, as described

¹ See Docket No. 111. Consistent with the May 2 Certification Filing, the GE 1.715 MW turbines will continue to have a turbine height of 431.5 feet, and the GE 2.72 MW turbines will continue to have a turbine height of either 485.5 feet or 452.5 feet dependent upon hub height.

in further detail in the attached Memorandum. The turbine model modifications will require the reconfiguration of certain collection lines. No additional surveys were required, and no additional impacts are anticipated since Project infrastructure will remain in previously surveyed areas. Emmons-Logan Wind is not proposing to add any additional facilities to implement these turbine model modifications.

18. Activities associated with the Project's turbine model modifications will not affect any known Exclusion or Avoidance areas. *See* Certification Provision No. 38(A)(1).
19. Project construction will occur wholly within the geographic location for which Emmons-Logan Wind previously obtained a site certificate. Maps and GIS shapefiles of the site modifications are enclosed. *See* Certification Provision No. 38(A)(2).
20. Emmons-Logan Wind will continue to comply with all applicable conditions and protections in the siting laws and rules and the Order previously issued for the Project. *See* Certification Provision No. 38(A)(3).
21. Construction of the Project is ongoing. Emmons-Logan Wind anticipates the installation of the turbines to be completed by November 15, 2019 and expects the Project to be in service by mid-December 2019.

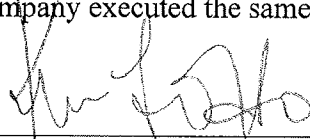
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John Di Donato
Vice President Development &
Origination
Authorized Representative of
Emmons-Logan Wind, LLC

STATE OF FLORIDA)
) ss.
COUNTY OF PALM BEACH)

On this 14 day of October, 2019, before me personally appeared John Di Donato, known to me to be the Vice President Development & Origination and an authorized representative of the limited liability company that is described in and that executed the within instrument, and acknowledged to me that such limited liability company executed the same.



Notary Public

