BEFORE THE NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Brady Wind, LLC **Brady Wind Energy Center** **Stark County**	**Case No. PU-15-690**
Brady Wind II, LLC **Brady II Wind Energy Center** **Hettinger & Stark Counties**	**Case No. PU-16-042**

STATE OF FLORIDA)
) ss. **AFFIDAVIT OF DANIEL GERARD**
COUNTY OF PALM BEACH)

I, Daniel Gerard, being first duly sworn, state as follows:

1. I am the Vice President of Brady Wind, LLC and the Vice President of Brady Wind II, LLC (collectively "Brady I & II") and affirm the following facts are true and correct to the best of my knowledge and belief.

2. I provide this affidavit to set forth the history and timeline of Brady I & II's efforts to install an Aircraft Detection Lighting System ("ADLS") at the Brady Wind Energy Center and Brady II Wind Energy Center (collectively, the "Facilities"), and in response to the Notices of Noncompliance filed by North Dakota Public Service Commission ("Commission") Staff ("Staff") in Case No. PU-15-690 (Docket No. 187) and Case No. PU-16-042 (Docket No. 136).

3. On June 16, 2016, the North Dakota Public Service Commission adopted an Order granting Brady Wind, LLC Certificate of Site Compatibility No. 48 for the construction, operation, and maintenance of the 150 megawatt ("MW") Brady Wind Energy Center located in Stark County (Case No. PU-15-690).

4. On July 6, 2016, the Commission adopted an Order granting Brady Wind II, LLC Certificate of Site Compatibility No. 50 for the construction, operation, and maintenance of the 150 MW Brady II Wind Energy Center located in Stark and Hettinger Counties (Case No. PU-16-042).

5. The Orders provided that, subject to receipt of Federal Aviation Administration ("FAA") approval, Brady I & II will use commercially reasonable efforts to install ADLS or other suitable lighting mitigating technology by December 31, 2018. *See*, Brady I Case No. PU-15-690, Docket No. 122, Finding of Fact No. 46; Brady II Case No. PU-16-042, Docket No. 72, Finding of Fact

No. 46. (As of December 31, 2018, site-specific authorizations for installation of ADLS were still pending before the FAA).

6. At the time of the Orders' issuance, the FAA had not approved any vendor's light-mitigating technology. For light-mitigating technology to be approved and installed at a facility, the technology must obtain the following approvals from the FAA: (1) the FAA must issue a technical note approving the vendor's light-mitigating technology; and (2) the FAA must approve the site-specific plan for installation and operation of the system at a particular site.

7. Subsequent to issuance of the Commission's Orders, N.D.C.C. § 49-22-16.4 was enacted and became effective on August 1, 2017. Section 49-22-16.4 established a new compliance deadline, requiring that facilities permitted by the Commission after June 5, 2016 be "equipped with a functioning light-mitigating technology system" by December 31, 2019.

8. On July 10, 2018, the FAA issued a technical note to an ADLS vendor (DeTect). Brady I & II contracted with DeTect shortly thereafter to procure ADLS.

9. On July 26, 2018, Brady I & II submitted a request for site-specific approvals to the FAA. Due to their proximity in location, the Facilities utilize a single ADLS, which consists of three separate radar towers.

10. Up until this time, Brady I & II had been communicating with Commission staff and counsel informally regarding the status of ADLS permitting and installation. In accordance with their recommendations and request, Brady I & II began filing periodic updates with the Commission, which began in October 2018.

11. On January 28, 2019, the FAA issued the site-specific approval to Brady I & II to utilize ADLS. The FAA's approval required conventional obstruction lighting (*i.e.*, lights not controlled by the ADLS) to remain on five turbines (one at the Brady Wind Energy Center and four at the Brady II Wind Energy Center).

12. Subsequently, Brady I & II continued engaging with the FAA to reduce the number of lights that the FAA required to maintain conventional lighting. This required Brady I & II to reconfigure portions of the ADLS design and obtain additional authorization from the FAA.

13. In early July 2019, Brady I & II commenced construction on the Facilities' ADLS. Based on its estimated timeframe for construction, Brady I & II believed this was more than sufficient time to install the ADLS by the end of the year.

14. The installation process included the following activities: site mobilization; installation of FAA control boxes on 129 turbines; construction of three radar towers; construction of three

access roads; trenching work and cable pulls; installation of radar generator sets; and installation of the radar units on the radar towers.

15. During the ADLS construction process, Brady I & II experienced certain critical delays including the delivery of the radar units to the site.

16. In August 2019, Brady I & II's ADLS vendor was originally scheduled to deliver the radar units to the sites. However, the vendor's overseas supplier experienced significant delays in manufacturing the radar units which impacted the timing of their delivery. As a result, the radar units were not delivered to the Facilities until mid-December.

17. On December 11, 2019, Staff inquired as to the status of light-mitigating technology at the Facilities, requesting information to be provided by December 31, 2019.

18. On December 19, 2019, the radar units were delivered to the Facilities. Despite the delay in delivery, Brady I & II continued to believe that it was feasible to complete installation of the ADLS by December 31, 2019.

19. On December 27, 2019, all construction items were completed. Brady I & II immediately began to work with their ADLS vendor to test the system.

20. The FAA requires certain testing before an ADLS can be fully implemented and traditional obstruction lighting can be switched off.

21. On December 28, Brady I & II first activated the ADLS and the system detected its first aircraft on December 29.

22. On December 31, Brady I & II filed an update with the Commission indicating that test flights and final software tuning were occurring that afternoon. Following initial testing, local pilots conducted test flights over the sites on December 31. During these flights, the ADLS fully tracked the aircraft and operated the lights as expected. Following these test flights, the ADLS was capable of fully functioning in accordance with FAA requirements. Attached hereto as Exhibit 1 is a copy of Brady I & II's ADLS vendor's Commissioning Certificate that certifies ADLS installation and commissioning was complete as of December 31, 2019.

23. In an abundance of caution, Brady I & II's ADLS vendor recommended some additional further testing and fine-tuning of software to establish a redundant communications path (referred to as a "heart beat" signal) to provide a secondary means of ensuring that the turbine communications systems were fully engaged. Brady I & II sought to take extra precautionary measures to ensure the system was operating to control the turbine lights.

24. On December 31, Brady I & II elected to manually deactivate the ADLS until the heart beat signal could be established and an additional round of test flights could be completed.

25. On January 2, 2020, Brady I & II notified the Commission that it was completing additional fine-tuning of the ADLS to ensure the system's functionality. The additional testing did not stem from issues identified during the December 31 test flights. Brady I & II voluntarily undertook additional testing out of an abundance of caution and as a redundant safety measure. Brady I & II established the heart beat signal and completed these additional test flights on January 2. Later this day, Brady I & II left the ADLS fully activated following these flights.

26. On January 2, 2020, the Commission held a work session to discuss the status of ADLS compliance at the Facilities.

27. On January 3, 2020, Brady I & II notified the Commission that ADLS had been fully activated at the Facilities on January 2.

28. On January 3, Staff issued the Notices to Brady I & II alleging noncompliance with the provisions of N.D.C.C. § 49-22-16.4(2) and N.D. Admin Code § 69-06-11-02(1).

Dated this 7 day of February, 2020.

Daniel Gerard
Brady Wind, LLC – Vice President
Brady Wind II, LLC – Vice President

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

This instrument was signed and attested before me on February, 7, 2020, by Daniel Gerard, Vice President, Brady Wind, LLC and Vice President, Brady Wind II, LLC, on behalf of said corporations.

SEAL

Notary Public

LISA R. TAUBE
Commission # GG 041742
Expires November 8, 2020
Bonded Thru Troy Fain Insurance 800-385-7019

DeTect INTELLIGENT RADAR

Project: Brady I & II - HARRIER Aircraft Detection Lighting System

COMMISSIONING CERTIFICATE

SUPPLIER: **DeTect, Inc.**

CLIENT: **Brady Wind LLC & Brady Wind II LLC**

MILESTONE DESCRIPTION: Completion of Installation & Commissioning

This certificate confirms that all system components have been supplied, assembled, configured, and tested in accordance with the scope per Purchase Orders: 2000221428 and 2000221452

Delivery of all components was supplied by: DeTect, Inc

HARRIER Aircraft Detection Lighting System ("ADLS") with propane backup generators. The Aircraft Detection Lighting System was tested with aircraft flights in coordination with NexTera in an effort to demonstrate aircraft activating the lights per the FAA ADLS standards.

To: Brady I and Brady II

5206 109th Ave SW
Dickinson, ND 58601
POC: Chase Dauenhauer or Perry Oberg

SIGNED ON BEHALF OF Brady I and Brady II:
Chase Dauenhauer

SIGNED ON BEHALF OF DeTect, Inc:
Jesse Lewis

DATE: 12/31/2019