

## PROFESSIONAL SUMMARY

---

Tricia Pellerin is a Senior Acoustic Engineer and Project Manager with the Boston office with a background in chemical and biochemical engineering. With more than 15 years of consulting experience, Ms. Pellerin has been involved in the planning and permitting of many small and large-scale environmental impact statements, noise impact assessments, and air quality impact assessments. Ms. Pellerin has extensive experience in assessing potential noise impacts, performing pre- and post-construction field studies, conducting acoustic modeling analyses, and performing regulatory compliance determinations for both conventional (transmission line, gas pipeline, peaking facilities, LNG terminals, upgraders, etc.) and renewable energy projects (wind energy, solar) throughout the United States, Canada and internationally. She has also been involved with conducting underwater acoustic modeling and impacts assessments for offshore wind energy projects and meteorological data collection towers with the purpose of assessing potential impacts on sensitive marine species.

## EDUCATION

---

- Environmental Science Graduate Program, The University of Western Ontario, 2005
- MEng, Chemical and Biochemical Engineering, The University of Western Ontario, 2005
- BEng, Chemical and Biochemical Engineering, The University of Western Ontario, 2002

## SELECTED PROJECT EXPERIENCE

---

### **Acoustic Engineer, ENGIE North America Inc., Meridian Wind Project, SD**

Ms. Pellerin assisted with the acoustic modeling analysis of the Meridian Wind Project, which is proposed near the Triple H Wind Farm in Hyde County, SD. Wind turbine design and layout modifications were evaluated as needed to evaluate compliance with the County noise ordinance at nearby noise sensitive receptors. An acoustic assessment report describing the findings of that analysis was prepared for permitting purposes.

### **Acoustic Engineer, ENGIE North America Inc., Triple H Wind Farm, SD**

Ms. Pellerin assisted with permitting the Triple H Wind Farm in Hyde County, SD. She completed the acoustic modeling analysis and compliance assessment for the project, compiling the results in the form of a permitting document that was submitted to agencies for review. Ms. Pellerin also prepared testimony and attended the public hearing held to discuss the project and address public concerns. Assistance was also provided regarding the development of the site certificate conditions drafted by the PUC for the project.

### **Acoustic Engineer, Algonquin Power Co., Odell Wind Farm, MN**

Ms. Pellerin drafted a protocol and conducted an operational sound survey for the Odell Wind Farm in Cottonwood, Jackson, Martin, and Watonwan counties, Minnesota. The protocol detailed the proposed survey methodology to satisfy site permit requirements issued by the Minnesota Public Utilities Commission (Commission) and the Minnesota Department of Commerce, *Energy Facility Permitting Guidance for Large Wind Energy Conversion System Noise Study Protocol and Report*. The survey included six monitoring locations, collecting a combination of sound and weather data. Extensive analysis of both A-weighted and C-weighted sound levels was completed relative to a variety of meteorological parameters and compliance was assessed.

### **Acoustic Engineer, Confidential Client, Confidential Project, IA**

Ms. Pellerin assisted in the preparation of the environmental noise study for a wind energy facility proposed for Story County, Iowa. Potential sound sources and site-specific sound propagation was established throughout the study area and sound levels resulting from Project operations were modeled. The predicted sound levels were then compared to appropriate noise impact criteria, which were the Story County Land Use Bylaws and the US EPA guidelines given it is Landmark 1974 Report on the Effects of Noise. Noise contour maps were generated to represent the potential noise impacts on residential receptors and an additional analysis was completed to calculate the critical source-receptor separation distance required.

**Acoustic Engineer, Confidential Client, Confidential Project, OR**

Ms. Pellerin conducted the acoustic modeling analysis for a wind energy facility proposed in Morrow County, OR. Modeling iterations were completed to optimize the wind turbine site layout and eliminate potential exceedances of the Oregon Department of Energy (ODOE) noise criterion. Ms. Pellerin also supported submittal of Exhibit X and requests for additional information issued by the ODOE subsequent to Exhibit X submittal.

**Acoustic Engineer, Confidential Client, Confidential Project, ND**

Ms. Pellerin conducted the acoustic modeling analysis and assessment for the two wind energy facilities in Dickinson and Hettinger Counties, North Dakota. Several modeling iterations were conducted to analyze potential noise impacts associated with different project site layout configurations and wind turbine models. Other supplemental studies and exhibits were also prepared for both internal purposes (e.g., property line noise analysis) and for exhibits at the ND PSC hearing. Ms. Pellerin attended the ND PSC hearings as a witness to provide expert testimony about noise. Subsequent to Project operation, Ms. Pellerin also organized and led an operational sound survey to document operational sound levels.

**Acoustic Engineer, BP Wind Energy, Mehoopany Wind Project, PA**

BP's Mehoopany Wind Project is a 141 MW wind farm consisting of 88 GE wind turbines currently operating in Wyoming County, Pennsylvania. Ms. Pellerin conducted a post-construction operational sound survey for the project consistent with its permitting requirements. The objectives of the study were to verify compliance with the Eaton absolute regulatory limit at non-participating residences, identify the incremental increase in area ambient noise attributable to the wind turbines and verify, to the extent possible, that the wind turbine source levels are within acceptable tolerances as compared to the level and spectra furnished by the manufacturer's specifications and used in the acoustic modeling calculations.

**Acoustic Engineer, EDP Renewables, Top Crop Wind Energy Conversion Project, IL**

Ms. Pellerin was involved as an acoustical engineer for the Top Crop Wind Energy Conversion Project proposed to be constructed in Livingston, LaSalle, and

Grundy Counties, Illinois. Initially, a screening level environmental noise impact assessment was conducted in adherence to the daytime/nighttime octave band noise level regulations set by the Illinois Pollution Control Board. After the screening analysis was submitted, the preferred wind turbine generator model was identified and a full CadnaA acoustic modeling analysis was completed. The critical octave band frequency was determined in terms of potential noise impacts at residential receptors and the wind turbine array was consequently reconfigured to eliminate these issues.

**Acoustic Engineer, EDP Renewables, Timber Road I, II, III, and IV Wind Farms, OH**

Ms. Pellerin managed the acoustic analyses required for the Timber Road I, II, and III Wind Farms, all located in Paulding County, Ohio. A baseline sound survey was conducted for the combined Project areas and separate noise impact assessments were prepared in support of Project permitting, each analyzing several potential wind turbine models and project layout configurations in CadnaA. Ms. Pellerin also attended public meetings in support of the project and negotiated directly with the Ohio Power Siting Board regarding the noise-related certificate conditions proposed for the project. Supplementary analyses were completed as necessary at the request of the OPSB.

**Acoustic Engineer, Capital Power, New Frontier Wind Project, ND**

Capital Power proposes to construct and operate the New Frontier Energy Project in McHenry County, North Dakota. The Project is expected to have an up to nominal 100.8 MW power output capacity using 49 wind turbine locations, which were previously permitted by the ND PSC. The acoustic modeling analysis and compliance assessment report analyzed four different turbine models and their associated potential noise impacts at nearby noise sensitive receptors. Ms. Pellerin drafted anticipated questions for the ND PSC hearing and participated in hearing preparation the hearing itself by phone.

**Acoustic Engineer, Juwi Wind LLC, Prairie Breeze Wind Farm Project, IN**

Juwi Wind LLC proposed to construct and operate the Prairie Breeze Wind Farm in Tipton County, Indiana. Ms. Pellerin conducted acoustic assessments for several different wind turbine layouts considering different GE, Vestas and Nordex wind turbine models.

The total potential power output capacity of the project is approximately 150 MW. Project compliance was assessed against the Tipton County Zoning Ordinance. Ms. Pellerin was also directly involved in post-application submittal activities including the public open house held for community members and presenting and providing testimony for the project Board of Zoning Appeals hearing.

**Acoustic Engineer, EDP Renewables, Quilt Block Wind Farm, WI**

Ms. Pellerin conducted a baseline sound survey and acoustic assessment for the Quilt Block Wind Farm in Lafayette County, WI. Long-term measurements were collected at residences to assess the existing ambient acoustic environment and an acoustic modeling analysis was completed to assess potential impacts. Results were evaluated relative to a not-to-exceed limit determined through a development agreement with the Lafayette Board of Supervisors.

**Acoustic Engineer, Geronimo Energy, Courtenay Wind Farm, ND**

Ms. Pellerin conducted a baseline sound survey and acoustic assessment for the Courtenay Wind Farm in Stutsman County, North Dakota. Compliance was assessment relative to the North Dakota PSC requirements and Stutsman County Zoning Ordinance. Several wind turbine site layouts and wind turbine models were analyzed as part of the study. Ms. Pellerin also attended the PSC hearing to provide expert testimony in support of project permitting. She responded to questions from both the PSC and the public on the subject of the project acoustic analysis.

**Acoustic Engineer, Deepwater Wind Block Island LLC, Block Island Wind Farm and Transmission System, RI**

Deepwater is proposing to develop the Block Island Wind Farm, a 30 MW offshore wind energy facility off the coast of Block Island, Rhode Island. In connection with the wind farm, the Block Island Transmission System will also be developed. Noise would be generated during project construction and operation in-air and underwater. Ms. Pellerin was involved in the assessment of both potential in-air acoustic impacts on nearby residences as well as potential underwater acoustic impacts on marine species (e.g., marine mammals, sea turtles, etc.). In-air modeling was conducted using CadnaA and underwater modeling was conducted using the Range Dependent Acoustic

Model (RAM) in Matlab. Mitigation measures were investigated where applicable. Ms. Pellerin also engaged in agency consultation in support of project permitting.

**Acoustic Engineer, Patriot Renewables, LLC, Spruce Mountain Wind Project, ME**

Ms. Pellerin provided noise permitting support for the Spruce Mountain Wind Project by first conducting the initial acoustic modeling assessment filed with Maine Department of Environment Protection Site Location Development Act permit application, which demonstrated compliance. Ms. Pellerin engaged in direct consultation with the DEP and their third-party noise expert. Subsequent acoustic modeling iterations were conducted, which included restricting a number of Project wind turbine to operate in noise reduced operation mode. The Department's draft Finding of Fact and Order for the Project was released on followed by a public review and comment period. Tetra Tech assisted in responding to noise related public comments during this comment period. As a result of the appeal to the Department's Order, a hearing before the Maine Board of Environmental Protection (BEP) was held. Ms. Pellerin was involved in providing BEP hearing testimony.

**Acoustic Engineer, Champlin/GEI Wind Holdings, LLC, Na Pua Makani Wind Farm, HI**

Champlin/GEI Wind Holdings, LLC is proposing to construct and operate the Na Pua Makani Wind Energy Project in Honolulu County, Hawaii. Ms. Pellerin was involved in an extensive baseline sound survey in support of the project, which included measurement of low frequency noise data. CadnaA was used to model project operation and compliance was assessed relative to the Hawaii Administrative Rule requirements as well as low frequency and infrasound guidelines given by the American National Standards Institute and the United Kingdom Department of Environment, Food, and Rural Affairs. A construction noise assessment was also completed and a standalone noise impact assessment report was produced.