Attachment C

BEFORE THE PUBLIC SERVICE COMMISSION
OF MARYLAND

THE APPLICATION OF DAN'S MOUNTAIN	*	
WIND FORCE, LLC FOR A CERTIFICATE OF	*	
PUBLIC CONVENIENCE AND NECESSITY	*	**Case No. _____**
TO CONSTRUCT A 59.5 MW WIND	*	
ENERGY GENERATING FACILITY IN	*	
ALLEGANY COUNTY, MARYLAND	*	
	*	

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DIRECT TESTIMONY OF ALLISON HARAMINAC

ON BEHALF OF

DAN'S MOUNTAIN WIND FORCE, LLC

January 14, 2016

Direct Testimony of Allison Haraminac

INTRODUCTION AND PURPOSE OF TESTIMONY

Q. WHAT IS YOUR NAME AND BUSINESS ADDRESS?

A. My name is Allison Haraminac. My business address is 9100 West Jewell Avenue, Lakewood, CO 80232.

Q. WHAT IS YOUR CURRENT EMPLOYER AND POSITION?

A. I work for Pinyon Environmental, Inc. in Lakewood, Colorado as an Environmental Scientist.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I have a Bachelor of Science Degree in Biology from the University of Michigan and a Master of Science Degree in Ecology & Evolutionary Biology from the University of Michigan.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND AND EXPERIENCE.

A. I have 8 years of experience providing environmental planning and permitting services to clients in a variety of industry sectors including renewable energy, mining, oil and gas, and federal projects across the U.S. I have extensive experience planning and permitting wind energy projects, both with and without a federal nexus. I specialize in biological resources, primarily migratory birds, bats, and threatened, endangered, and sensitive species. I have been a biological resources specialist for many National Environmental Policy Act (NEPA) projects and prepared supporting NEPA documentation such as Biological Assessments and Biological Evaluations.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A. No.

Q. WHAT IS YOUR ROLE WITH RESPECT TO THE PRESENT APPLICATION?

A. I was primarily responsible for the development of the Environmental Review Document in Support of an Application for a Certificate of Public Convenience and Necessity ("CPCN") to construct the Dan's Mountain Wind Project (the "Project").

Q. PLEASE STATE THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING.

A. The purpose of my testimony is to introduce the Environmental Review Document and provide an overview of the conclusions of the Environmental Review Document regarding the impacts associated with the Dan's Mountain Wind Project.

Q. PLEASE PROVIDE A BASIC SUMMARY OF THE PROJECT.

A. The Dan's Mountain Wind Project consists of the construction and operation of up to a 59.5 MW (nominal) wind energy generating facility proposed to be located 3 to 4 miles southeast of the City of Frostburg and approximately 7 miles southwest of the City of Cumberland in Allegany County, Maryland. The proposed wind energy facility will consist of 17 utility-scale turbines, each mounted on a free-standing tubular tower to achieve the optimal high wind speed and capacity factor, and connected to a pad-mounted transformer at its base. While the Project is currently planned with 3 - GE 1.79-100 turbines plus 14 - GE 2.4-107 turbines (for a nominal capacity of 39 MW), the Project could be constructed with 3.5 MW turbines in the same locations for a total of up to 59.5 MW of capacity. Other than access roads, the turbines and turbine pads, a new on-site substation, and electric lines/equipment, no permanent building, utility, or infrastructure construction is planned as part of the Project.

INTRODUCTION OF THE ENVIRONMENTAL REVIEW DOCUMENT

Q. WAS THE ENVIRONMENTAL REVIEW DOCUMENT PREPARED BY YOU OR UNDER YOUR DIRECTION?

A. Yes, the Environmental Review Document describing the activities that are the subject of the Application was prepared by me or by technical staff under my supervision.

Q. WHAT IS THE PURPOSE OF THE ENVIRONMENTAL REVIEW DOCUMENT?

A. The Environmental Review Document presents analysis and discussion of the Dan's Mountain Wind Project with respect to various subject matter required by the Maryland Public Service Commission's ("Commission") regulations to be addressed in an application for a CPCN, including the environmental information required by COMAR 20.79.03.02.

Q. PLEASE SUMMARIZE THE CONCLUSIONS SUPPORTED BY THE ENVIRONMENTAL REVIEW DOCUMENT REGARDING THE PROJECT'S IMPACTS.

A. The Dan's Mountain Wind Project will comply with applicable environmental requirements. It has been designed to minimize any negative environmental impacts, including by utilizing previously-disturbed areas including associated with strip-mining and logging operations. Overall, the Project will provide an environmental benefit to Maryland and the region and positive impacts on Maryland's economy and the local economy.

Q. THE ERD REFERS TO THE PROJECT SIZE AS 17 TURBINES FOR A NOMINAL 39 MW PROJECT. WOULD ANY CONCLUSIONS IN THE ERD, OR YOUR ABOVE CONCLUSIONS, CHANGE FOR A 59.5 MW PROJECT SIZE,

ASSUMING THE SAME NUMBER OF TURBINES, SAME APPROXIMATE LOCATIONS, AND SAME APPROXIMATE TURBINE HEIGHT?

A. No. All of those conclusions remain true of a 59.5 MW version of the Project, assuming the same number of turbines, same approximate locations, and same approximate turbine height.

DISCUSSION OF IMPACTS ASSOCIATED WITH THE PROJECT

Q. PLEASE DESCRIBE THE POTENTIAL IMPACTS TO AIR EMISSIONS AND AIR QUALITY RELATED TO THE DAN'S MOUNTAIN WIND PROJECT.

A. The Dan's Mountain Wind Project will have an overall positive effect on air quality by creating a new emissions-free source of power generation that can be used in the region, and potentially offset the use of emissions-generating power sources. As a wind generation facility, the Project will emit no pollutants, and will therefore be in compliance with federal and state air quality standards. The Project is not considered a Title V major source under the Clean Air Act, and does not require a state or federal air permit to operate.

Q. PLEASE DESCRIBE ANY AIR QUALITY IMPACTS ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT ARE PART OF THE DAN'S MOUNTAIN WIND PROJECT.

A. Any emissions from construction activities will be short in duration and are anticipated to have little impact on air quality. The primary air quality issue during construction will be fugitive dust, which is dust from non-point sources such as earthwork and construction traffic on unpaved roads. Dust control measures such as watering or applying a chemical stabilizer to roads will be used to minimize impacts from fugitive dust, if determined to be necessary. Other potential sources of pollutants during construction are mobile internal

combustion engines from earthwork equipment and an increase in vehicle traffic by workers. Any potential emissions are expected to be well below any applicable ambient air quality standards.

Q. PLEASE DESCRIBE ANY IMPACTS TO SURFACE WATER AND GROUNDWATER RESOURCES ASSOCIATED WITH THE DAN'S MOUNTAIN WIND PROJECT.

A. As a standalone unmanned facility, there will be limited water and no sewer requirements for the Project. The Project will not require surface or groundwater for construction or operation. Water tanks may be used to manage dust during construction. If needed, this water would be brought in from an off-site source.

Q. WILL THE PROJECT GENERATE A SIGNIFICANT AMOUNT OF SOLID WASTE OR HAZARDOUS WASTE?

A. The Project will not produce significant amounts of solid waste during construction or operation. During construction, waste material will primarily consist of packaging materials from the wind turbines and electrical equipment. Any demolition or construction waste materials will be removed from the site in their entirety and taken to an approved disposal area. Portable restroom facilities will be provided for construction workers and no onsite sewer facilities will be needed.

During operation, there will be little or no waste material generated at the site. Any waste that is generated from maintenance and/or repair operations will be removed from the site and recycled or disposed of at an approved waste handling facility. There will be no sanitary sewer waste generated at the site.

Q. DURING CONSTRUCTION, WHAT NOISE IMPACTS ARE EXPECTED?

A. During Project construction, noise will be maintained below the average daily 90 dB rating at the property lines, in accordance with COMAR 26.02.03.

Q. DURING OPERATION, WHAT NOISE IMPACTS ARE EXPECTED?

A. To evaluate noise impacts from operation of the current wind turbine layout, Tech Environmental conducted an acoustic modeling study in 2016 (noise analyses had previously been conducted by Acentech in 2008 and Tech Environmental in 2014 and 2015 for earlier turbine layouts). A summary of the 2016 Tech Environmental modeling and results is in Section 6.1.2.3 of the Environmental Review Document. All property line sound levels comply with the most restrictive Maryland State Noise Regulation, which limits the nighttime sound level to 55 dBA on the property line of a residential or vacant parcel. Therefore, the Project will comply with the Maryland State Noise Regulation and is not anticipated to have significant noise impacts.

Q. PLEASE DISCUSS ANY ANTICIPATED IMPACTS TO FLORA AND FAUNA ASSOCIATED WITH THE DAN'S MOUNTAIN WIND PROJECT.

A. Based on feedback from the Maryland Department of Natural Resources and United States Fish and Wildlife Service, and with the implementation of the conservation measures in the Bird and Bat Conservation Strategy (BBCS) developed for the Project, the Project is anticipated to have minimal impacts on flora and fauna, including threatened, endangered, and rare species.

Potential impacts to wildlife resulting from the Project include approximately 151 acres of habitat removal (much of which would be temporary removal of habitats that have already

been degraded by past mining and logging), wildlife avoidance of disturbed areas, and collisions of birds and bats with operating wind turbines. The Project is designed to limit the disturbance and cutting of trees to the greatest extent possible, which will help limit direct and indirect impacts to wildlife habitat. Sensitive wildlife habitat areas were accounted for in Project design and will be avoided.

The Applicant voluntarily developed a BBCS (provided at Appendix E of the Environmental Review Document) for the Project with the goal of avoiding impacts to avian and bat species to the greatest extent possible, including species protected under the Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and Endangered Species Act. The BBCS is structured around careful Project planning, siting, and construction and represents a good faith effort on behalf of the Applicant to avoid impacts to birds and bats that may result from construction, operation, and decommissioning of the Project. The BBCS includes design and construction measures that will be used to avoid and minimize impacts to birds and bats to the extent practicable. These measures are discussed in Section 6.1.2.2 of the Environmental Review Document. The BBCS also includes measures specifically targeted to avoid and minimize impacts to Maryland-listed wildlife, and describes the post-construction avian and bat mortality monitoring program that will be implemented once the Project is operational.

Q. HOW WOULD YOU CHARACTERIZE THE OVERALL ENVIRONMENTAL IMPACT OF THE DAN'S MOUNTAIN WIND PROJECT?

A. Overall, I would characterize the environmental impact of the Project as beneficial, because it is a source of clean, renewable energy that can be produced with minimal environmental impacts.

Q. ARE THERE ANY ANTICIPATED VISUAL IMPACTS ASSOCIATED WITH THE DAN'S MOUNTAIN WIND PROJECT?

A. Overall, visual impacts associated with the Project are expected to be minimal. A Visual Impact Assessment of the Project was conducted in 2015, which included a viewshed analysis and visual simulations of the Project's current wind turbine layout. Simulations were created for viewpoints on all sides of the Project, at various distances from Project turbines, and in a diversity of environments. The intent of these simulations was to demonstrate typical views of the Project from locations frequented by area residents and travelers through the region.

The results of the viewshed analysis indicate that, in most areas in and around the Project site, turbines will not be visible as a result of screening effects associated with topography and vegetation, notably due to dense tree cover in much of the vicinity of the Project. In areas where significant numbers of turbines are expected to be visible, such as the communities of Bel Air and Frostburg, the built environment and vegetation are likely to reduce the visibility of the Project.

The visual simulations demonstrate how the turbines will appear from various viewpoints, and the way that distance, topography, and obstacles impact the view of the turbines. In most of the simulations from typical viewpoints, turbines appear small and form a minor additional element in the landscape. Overall, the Project is not anticipated to have significant visual impacts to any sensitive receptors due to the presence of existing infrastructure as well as factors such as vegetation and topography that limit views of the site.

Q. WILL THERE BE ANY IMPACTS TO STATE ECONOMICS ASSOCIATED WITH THE DAN'S MOUNTAIN WIND PROJECT?

A. There will be significant economic benefits resulting from the Project to include a capital cost of approximately $90 million. The tax base in Allegany County would increase as a result of the proposed facilities, and the Project is anticipated to initially generate approximately $1 million per year in property tax revenue to the county. A construction workforce of up to 150 personnel would also benefit the local economy through spending and sales taxes during the construction phase.

Q. ARE THERE ANY IMPACTS ON HISTORIC RESOURCES ASSOCIATED WITH THE DAN'S MOUNTAIN WIND PROJECT?

A. No. In 2014, after the proposed wind turbine layout was changed to the current layout, R. Christopher Goodwin and Associates, Inc. conducted a supplemental file search for historic properties within 5,000 feet of the wind turbines. The search concluded that no National Register of Historic Places properties are located within 5,000 feet of the current wind turbine locations. As such, no adverse effects on historic properties are anticipated as a result of the Project.

To further minimize potential impacts on cultural resources, the Applicant will prepare and implement an Unanticipated Discovery Plan (UDP) that addresses the steps that will be taken if archeological resources or human remains are unexpectedly encountered during Project construction. The UDP will contain provisions such that workers will be trained on how to recognize potential archeological resources and human remains. Site personnel will be instructed to stop work until the resources can be further evaluated by an archeologist.

With these measures in place, no impacts to cultural or archeological resources are anticipated.

Q. ARE THERE ANY IMPACTS ON AVIATION ASSOCIATED WITH THE DAN'S MOUNTAIN WIND PROJECT?

A. In accordance with COMAR 11.03.05.05, the Maryland Department of Transportation ("MDOT") must be notified at least 30 days prior to any construction or alteration of any structure more than 200 feet above ground level. Notice of the proposed construction, alteration, or placement can be given to MDOT by providing a copy of the completed Federal Aviation Administration ("FAA") Form 7460-1 as required by Part 77 of the Federal Air Regulations. An FAA Form 7460-1 was submitted for each of the proposed wind turbines in the current layout on September 14, 2015, and responses from FAA and MDOT are pending.

Q. WILL THE DAN'S MOUNTAIN WIND PROJECT IMPACT THE STABILITY AND RELIABILITY OF THE ELECTRIC SYSTEM?

A. PJM evaluated the Project for compliance with reliability criteria and potential network impacts. This evaluation is documented in PJM's System Impact Study Report for Dan's Mountain dated May 2013, which is attached to the Environmental Review Document as Appendix A. No potential network impacts were identified.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.