

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE)
APPLICATION BY CROCKER WIND)
FARM, LLC FOR A PERMIT OF A)
WIND ENERGY FACILITY AND A 345)
KV TRANSMISSION LINE IN CLARK)
COUNTY, SOUTH DAKOTA, FOR)
CROCKER WIND FARM)

EL 17-028

DIRECT TESTIMONY OF

PATRICK SMITH

ON BEHALF OF

CROCKER WIND FARM, LLC

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1 **Q. Please state your name and business address for the record.**

2 A. My name is Patrick Smith and I work for Geronimo Energy, LLC the developer and sole
3 owner of Crocker Wind Farm, LLC. Our offices are located at 7650 Edinborough Way, Suite
4 725, Edina Minnesota 55435

5 **Q. Can you briefly describe your education and experience?**

6 A. I hold a Bachelor of Arts from the University of Minnesota, Morris in Cultural Anthropology
7 and a Masters of Urban and Regional Planning from the University of Minnesota Humphrey
8 Institute of Public Policy. I have been working on large renewable energy projects since 2008.
9 My experience in renewable energy includes permitting, environmental review, engineering,
10 community relations, energy estimation and financial modeling. My current role with Geronimo
11 Energy is as the Senior Director of Environmental Planning. In that role I manage the permitting
12 and environmental review activities that Geronimo engages in. That includes ensuring
13 compliance with state and federal laws. I have received a number of wind energy specific
14 trainings including training from the FAA on their processes and procedures.

15 **Q. Have you attached a resume or CV.**

16 A. I have included a copy of my CV.

17 **Q. Have you previously submitted or prepared testimony in this proceeding in South
18 Dakota?**

19 A. I have not.

20 **Q. What is the purpose of your direct testimony?**

21 I'm providing testimony on airspace, and compliance with the Federal Aviation Administration's
22 (FAA's) regulations.

23 **Q. Which sections of the application are you responsible for?**

24 A. 20.1.3.2 and 20.2.4.2

25 **Q. Please describe the permits in addition to the one sought in this application which**
26 **will be required for construction and operation.**

27 A. There are many permits that will be required. Specific to my testimony are those
28 approvals associated with the FAA's Obstruction Evaluation (OE) process.

29 **Q. Please give us an overview of the proposed project.**

30 A. The project is located in Northern Clark County Approximately 6 ½ miles north of the
31 Clark Airport.

32 **Q. Has the project been reviewed by the FAA?**

33 A. We have received Determinations of No Hazard from the FAA for the project area.

34 **Q. What does that mean for the project?**

35 A. It means that the FAA has reviewed the structure locations and determined that they do
36 not pose a hazard to air navigation associated with procedures around airports, flight corridors,
37 and with radar and department of defense activities. When a project is filed with the FAA it
38 circulates widely through the FAA's departments as well as military offices and weather radar
39 operators. These offices get to review the project and determine if it will interfere with their
40 operations. If it does interfere the FAA issues a Notice of Presumed Hazard and initiates a
41 process for the proposer to work out the issues with the FAA or other party and hopefully come to
42 a positive resolution. In this case no issues were raised and we moved through the review
43 quickly.

44 **Q. What does this mean for private aviation?**

45 The FAA's rules and regulations govern safety for commercial and private aviation
46 including pilot licensing, air traffic control, and lighting for the wind turbines. All of these are

47 regulations that increase air safety and create a consistent system for owners and operators of
48 towers and other tall structures of any sort as well as the aviation community. Private pilots fly
49 at their own discretion and need to make their own safety determinations with regards to the
50 things they are flying around, atmospheric conditions, and their own skills.

51 **Q. Are these Determinations of No Hazard still in effect?**

52 No, as part of the Clark County conditional use permit process the County required that Crocker
53 provide a study of the installation of an Aircraft Detection Lighting System (ADLS). To study
54 the ADLS Crocker needs to refile the project with the FAA. When a project is refiled with the
55 FAA the FAA deletes the previous determinations because they prohibit cumulative evaluation
56 of radar impacts. The ADLS review is ongoing.

57 **Q. What does ADLS do?**

58 A. ADLS is a radar system that monitors for aviation activity in and around the project. If
59 the radars detect an airplane they send a signal to the lighting on the turbines to turn on. Once
60 the aviation moves a safe distance from the project the lighting then turns back off. In this way
61 the project is able to keep the night dark more often.

62 **Q. How long will the study take and what is included in it?**

63 A. The study could take months, the FAA has no timeline to complete their reviews. We are
64 evaluating a number of issues including installation requirements which include a few additional
65 lattice towers to mount the radars on and if we have acceptable terrain to get good radar
66 coverage. We have been working with multiple technology vendors to determine the suitability
67 of the technology. Once our study is complete we will provide the analysis to the County for
68 their review.

69 **Q. Were there any other changes made in the County permitting process for airspace?**

70 A. Yes, we voluntarily removed Turbine 58 and moved turbine 56 north to protect to
71 provide a clearance of 1.5 miles for the Lone Tree Airstrip owned by Sheldon Stevens. This
72 private airstrip is located south central from the project. Making those moves we had to evaluate
73 if they worked for the project and we also discussed the private property interests with our
74 landowner.

75 **Q. Were you aware of the airstrip in question before you selected land for the project**
76 **boundary?**

77 A. No, we were not aware of it when we selected the boundary. We look to the FAA's
78 databases on airstrips and airports to screen for facilities like this but there is no requirement for
79 owners of small airstrips to register them with the FAA. Apparently Mr. Stevens had chosen not
80 to register the airstrip with the FAA until 2016 when Clark County was reviewing our
81 Conditional Use Application. It is unfortunate that he hadn't registered it earlier because we
82 would have identified the issue and begun working with him sooner.

83 **Q. What do you mean "working with him"?**

84 A. It is our practice to work with neighboring pilots to the best of our abilities, we have
85 come up with a number of different remedies tailored to the particulars of their situation to make
86 sure they feel safe flying around the project.

87 **Q. Doesn't the FAA protect their airstrips?**

88 A. The FAA protects public facilities, it also provides information to pilots where there
89 might be tall structures or other topographic features they should be aware of. Private use
90 facilities are not protected by the FAA. If they were it would create an extremely complicated
91 regulatory burden it would be like having the federal highway administration regulate a private
92 driveway. Private pilots on private facilities are flying out of them at their own risk and need to

93 make their own safety decisions.

94 **Q. Are you aware of the fatal crash that happened here in South Dakota between a**
95 **private pilot and do you know what happened in that incident?**

96 A. I am aware of this incident. The only account that I know is the National Transportation
97 Safety Board's investigation into it. In their summary they identified inclement weather, flying
98 below the 500' floor (500' above ground level is the lowest limit of the national airspace) so they
99 were effectly trespassing on other people's land, lastly there were some lighting issues at the
100 wind farm. I've attached a copy of the report for reference.

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103 [=1&RType=Final&IType=FA](https://app.nts.gov/pdfgenerator/ReportGeneratorFile.ashx?EventID=20140428X10808&AKey=1&RType=Final&IType=FA)

104 **Q. Does this conclude your written pre-filed direct testimony?**

105 A. Yes

106 Dated this 27th day of September, 2017.

107 

108

109 _____
Patrick Smith