

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA**

**IN THE MATTER OF THE APPLICATION BY DEUEL HARVEST WIND ENERGY LLC
FOR ENERGY FACILITY PERMITS OF A WIND ENERGY FACILITY AND A
345-KV TRANSMISSION LINE IN DEUEL COUNTY, SOUTH DAKOTA FOR THE
DEUEL HARVEST NORTH WIND FARM**

SD PUC DOCKET EL18-053

**PRE-FILED REBUTTAL TESTIMONY OF MICHAEL SVEDEMAN
ON BEHALF OF DEUEL HARVEST WIND ENERGY LLC**

April 1, 2019

1 **I. INTRODUCTION**

2

3 **Q. Please state your name.**

4 A. My name is Michael Svedeman.

5

6 **Q. Have you previously provided testimony in this docket?**

7 A. Yes. I provided pre-filed Direct Testimony and pre-field Supplemental Direct
8 Testimony.

9

10 **II. PURPOSE OF TESTIMONY**

11

12 **Q. What is the purpose of your Rebuttal Testimony?**

13 A. In my Rebuttal Testimony, I will respond to the direct testimonies of the following
14 witnesses:

- 15 • Jon Thurber, Staff Analyst, Public Utilities Commission Staff (“Staff”).
- 16 • Paige Olson, State Historic Preservation Officer, State Historic Preservation
17 Office (“SHPO”).
- 18 • Dean Pawlowski, Senior Engineer, Otter Tail Power Company (“OTP”).
- 19 • Intervenor John Homan.
- 20 • Intervenor Garrett Homan.
- 21 • Intervenor Heath Stone.
- 22 • Intervenor Christina Kilby.

23

24 **Q. What exhibits are attached to your Rebuttal Testimony?**

25 A. The following exhibits are attached to my Rebuttal Testimony:

- 26 • Exhibit 1: Updated Project Layout
- 27 • Exhibit 2: Deuel County Official Zoning Map
- 28 • Exhibit 3: Deuel County Commissioners Meeting Minutes (March 28, 2017)¹

¹ Available at: https://docs.wixstatic.com/ugd/1bce45_088cd8a16b4247639c4f122f95b96f5c.pdf.

- 29 • Exhibit 4: Deuel Harvest Cultural Resources Study Plan, March 22, 2019
30 • Exhibit 5: SHPO Concurrence Letter, March 26, 2019
31 • Exhibit 6: Homan Airstrip and New Residence
32 • Exhibit 7: Figure of Removed Turbine Locations since December 2017
33

34 **III. RESPONSE TO THURBER DIRECT TESTIMONY**
35

36 **Q. On pages 5-7 of his testimony, Mr. Thurber describes the appeal in Case No.**
37 **19CIV18-19 involving Deuel County’s grant of an SEP for the Project. Had a**
38 **decision in the case been issued at the time of your Supplemental Direct**
39 **Testimony?**

40 A. No. The appeal, brought by 12 individuals, including Intervenors John Homan, Will
41 Stone, and Heath Stone,² was pending at the time of my Supplemental Direct
42 Testimony. However, the Circuit Court had not rendered a decision. In March 2018,
43 by a 5-0 vote, the BOA issued an SEP for the Project. On March 27, 2019, Judge
44 Dawn M. Elshere issued Findings of Fact and Conclusions of Law invalidating two of
45 those votes, and thus the SEP granted for the Project, based on her earlier issued
46 Memorandum Decision dated January 25, 2019 and Addendum dated February 22,
47 2019.
48

49 **Q. What is your understanding of the basis for her decision?**

50 A. Judge Elshere concluded that two BOA members, Kevin DeBoer and Mike Dahl,
51 were disqualified from voting on the SEPs because they previously had lease
52 agreements with the Deuel Harvest entities and each received lease payments prior
53 to the lease terminations. The leases had been terminated before Deuel Harvest
54 applied for its SEP.
55

² The appellants are represented by Reece Almond of the Davenport, Evans, Hurwitz & Smith law firm and Intervenor Christina Kilby who was admitted pro hac vice. George Holborn and Rudy Holborn are also parties to the appeal; they withdrew their party status in this docket.

56 The judge also reviewed and rejected other claims by the appellants, including due
57 process challenges and claims that Chairman Dennis Kanengieter and Paul Brandt
58 had disqualifying interests. The appellants had argued that Chairman Kanengieter
59 was disqualified because his employer had a wind lease agreement with Deuel
60 Harvest, he had a transmission line agreement with another developer, Flying Cow
61 Wind, and because he was advocating generally for wind development in the county.
62 The appellants claimed BOA member Brandt should be disqualified because he has
63 an interest in a company that has a 12-year old agreement with another energy
64 developer. The appellants also argued that he has an interest in a company that,
65 among other things, provides fiberglass to a company that makes wind turbine
66 blades. The judge did not find any of the allegations against Chairman Kanengieter
67 and BOA member Brandt persuasive.

68

69 This left a vote of 3-0 in favor of issuing the SEP. South Dakota, however, requires
70 a vote of 2/3rds of the entire membership of the BOA, or four of five votes, to issue
71 an SEP. That is why, even though a majority of the BOA approved the Project, the
72 Project's SEP was invalidated.

73

74 **Q. Do you agree with Mr. Thurber's analysis that the Project can receive a state**
75 **permit without having a county permit?**

76 A. Yes. My understanding is that Deuel Harvest will be required to obtain all required
77 federal, state and local permits prior to construction, but those permits do not need
78 to be issued prior to receipt of a facility permit.

79

80 **Q. On page 8 of his testimony, Mr. Thurber requested an update relating to the**
81 **SEP process in Deuel Harvest. What steps is Deuel Harvest taking in**
82 **response to the Circuit Court's decision?**

83 A. Deuel Harvest intends to appeal the Circuit Court's decision to the Supreme Court
84 because we believe Judge Elshere incorrectly found that two commissioners were
85 disqualified. As noted in my Supplemental Direct Testimony, we are also submitting

86 a new application to Deuel County for an SEP for the Project and expect to make
87 that filing in April 2019.

88

89 **Q. On pages 9-10 of his testimony, Mr. Thurber recommends that the**
90 **Commission adopt the following condition regarding the use of Aircraft**
91 **Detection Lighting System (“ADLS”) for the Project: “Applicant shall utilize an**
92 **Aircraft Detection Lighting System if approved by the Federal Aviation**
93 **Administration.” Is that condition acceptable to Deuel Harvest?**

94 A. Yes. Deuel Harvest will utilize ADLS for the Project provided Federal Aviation
95 Administration (“FAA”) approval is obtained. As noted by Mr. Thurber, if there are
96 availability issues that preclude implementation at the commencement of
97 commercial operation, the system could be installed at a later date.

98

99 **Q. On page 10 of his testimony, Mr. Thurber discusses the road bond**
100 **requirement in SDCL 49-41B-38 for damage to roads and bridges caused by**
101 **Project construction. He testified that Deuel Harvest proposes a bond in the**
102 **amount of \$100,000. Is that correct?**

103 A. Yes. Deuel Harvest proposes a bond in the amount of \$100,000 given the short
104 length of the proposed transmission line. I note that the final location of the Project
105 Substation and Interconnection Substation may change based on OTP’s selection of
106 a final site for the Interconnection Substation, but we anticipate that the distance
107 between the two substations will be comparable. Should the length of the
108 transmission line materially increase, Deuel Harvest will notify the Commission and
109 work with Staff to ensure the bond amount is adequate.

110

111 **Q. On page 11 of his testimony, Mr. Thurber testifies that Deuel Harvest was**
112 **reviewing the locations of two new residences and the impact on the layout for**
113 **the Project. Where are the two new residences?**

114 A. One is on property owned by Eugene Lorenzen near turbine locations A74, A75 and
115 A76. The other is on property owned by Toben LP, near turbine locations 34 and

116 19. Both residences were permitted and constructed after Deuel Harvest obtained a
117 SEP in March 2018.

118

119 **Q. What did Deuel Harvest conclude in its analysis of the two new residences?**

120 A. All five turbine locations had to be removed to meet setback, noise, and shadow
121 flicker requirements. The Project layout has been updated to reflect that these five
122 turbine locations are no longer under consideration. An updated layout showing that
123 these turbine locations have been removed is attached as Exhibit 1.

124

125 **Q. Ms. Andrea Giampoli’s Supplemental Direct Testimony also referenced**
126 **adjusting the locations of two turbines to meet a half-mile setback from the**
127 **eagle nest located near Lake Alice. Please describe the status of those**
128 **adjustments.**

129 A. Deuel Harvest is continuing to review the adjustments of turbine locations 40 and 41
130 that would be required to meet the half-mile setback. The moves are expected to be
131 less than 150 feet, and we will provide additional information when we conclude our
132 analysis.

133

134 **Q. On page 23 of his testimony, Mr. Thurber addresses errors in the Application**
135 **regarding the distance of turbines from lakes and other listed resources.**
136 **Could you address his comments?**

137 A. There are inadvertent inaccuracies in the Draft Bird and Bat Conservation Strategy
138 (“Draft BBCS”) for the Project that were then incorporated into the Application; a
139 BBCS is a “living” document that is periodically updated to reflect Project changes
140 and, after operations, the results of monitoring.³ The distances of turbines from
141 lakes and other specified resources on page 37 (Section 4.1.1) of the Draft BBSC
142 were intended to be factual statements of the minimum distance to each resource,
143 and not setbacks from each resource. However, the distances in the BBCS were

³ Application Appendix O (Draft BBCS) on page 5, section 1.2.

144 inaccurate, and those inaccuracies were transferred to the Application (see Section
145 13.3.4.4). Deuel Harvest regrets the error was made, and hereby supplements its
146 Application in Section 13.3.4.4 to include the following correct distances:

- 147 • All turbines will be sited away from Lake Alice; the nearest turbine will be
148 1.19 km (0.74 mi) from the lake.
- 149 • All turbines will be sited away from Lone Tree Lake, Lake Francis, and
150 Rush Lake; the nearest turbine will be 0.85 km (0.53 mi), 0.41 km (0.26
151 mi), and 0.21 (0.13 mi), respectively.
- 152 • All turbines will be sited away from the “Avoidance Areas” identified by
153 South Dakota Game, Fish and Parks (“SDGFP”).
- 154 • All turbines will be sited away from all U.S. Fish and Wildlife Service
155 (“USFWS”) Waterfowl Protection Areas and SDGFP Game Production
156 Areas; the nearest turbine will be 442 m (0.27 mi), and 245 m (0.15 mi)
157 from these areas, respectively.

158 Deuel Harvest also is submitting a revised BBCS that includes the same updates,
159 and is attached to and described in the Rebuttal Testimony of Andrea Giampoli.

160

161 **Q. Is Deuel Harvest agreeable to Mr. Thurber’s proposed conditions on page 7 of**
162 **his testimony, lines 26-33?**

163 A. Yes, and I note that the supplement to the Application in my testimony and the BBCS
164 would be consistent with the proposed condition.

165

166 **Q. On pages 22-23 of his testimony, Mr. Thurber addresses claims by Ms. Kilby**
167 **and Mr. Stone that Deuel County requires a two-mile setback from Lake Alice.**
168 **Do you agree with his analysis and conclusion that the setback is from the**
169 **Lake Park District, and not Lake Alice itself?**

170 A. Yes. The setback is from the Lake Park District at Lake Alice, not the lake itself. I
171 was present at the meetings before the Planning and Zoning Board and the Deuel
172 County Board of Commissioners regarding the proposed amendments to the Wind
173 Energy System Provisions in the Zoning Ordinance. The concerns expressed were
174 to provide an additional distance between residential development in the Lake Park

175 District zoning districts and wind turbines. At Lake Cochrane, there is development
176 all around the lake and the County has designated the entire boundary of the lake as
177 the Lake Park District. In contrast, at Lake Alice and Bullhead Lake, the residential
178 development areas are more limited and as a result, the Lake Park District
179 associated with each lake is designated to specific areas. The Lake Park District for
180 Lake Alice and the Lake Park District for Lake Cochrane are shown on Deuel
181 County’s official zoning map, Exhibit 2. The minutes from the County Board of
182 Commissioners’ meeting reflects the debate regarding the appropriate setback
183 distance from the Lake Park Districts, including 2 miles from the Lake Park District at
184 Lake Alice, Exhibit 3. The County Board of Commissioners also voted to proceed
185 with the first reading of the Ordinance on April 4, 2018, and at the second reading on
186 April 25, 2018, the County Board of Commissioners sought feedback regarding
187 “setbacks at Lake Park Districts”⁴

188
189 The County zoning officer, who has authority to interpret the zoning ordinance
190 provisions under the Zoning Ordinance Article VI, has confirmed that the Ordinance
191 requires a setback from the Lake Alice Lake Park District. The Project’s proposed
192 layout meets this requirement.

193
194 **Q. On page 27 of his testimony, Mr. Thurber discusses the turbine setbacks from**
195 **non-participating residences. His Table 1 shows the setbacks for the past five**
196 **wind farms. How do the setbacks of the Project compare?**

197 A. The table shows that the Project’s setbacks from non-participating residences are
198 conservative. The Project’s setbacks from residences are approximately double the
199 setbacks for several of the counties listed.

200

⁴ Deuel County Commissioners Meeting Minutes (April 4, 2018), available at https://docs.wixstatic.com/ugd/1bce45_c3db4d623eb7438aae7a71709f583522.pdf and Deuel County Commissioners Meeting Minutes (April 25, 2018), available at https://docs.wixstatic.com/ugd/1bce45_60c1bc5d713b453bb4f472828230890e.pdf

201 **Q. Mr. Thurber also testifies regarding the possibility of applying a minimum half-**
202 **mile setback from non-participating residences. What is your response?**

203 A. As Mr. Thurber notes, there are two turbine locations, Nos. 1 and A99, that are less
204 than a half-mile from a non-participating residence. It is Deuel Harvest's
205 understanding that the request to explore a greater setback is based on Staff's
206 inquiry only and not due to an affected landowner's preference.

207

208 **Q. What would be required to establish a half-mile setback from non-participating**
209 **residences with turbine location No. 1?**

210 A. Turbine 1 would need to be shifted up to 250 feet to be a half-mile away from the
211 closest non-participating residence. Applicable setbacks could be met, but
212 additional analysis is required to determine if all applicable requirements could be
213 satisfied. We are currently evaluating the new location for compliance with Deuel
214 County noise and shadow flicker requirements; potential cultural resource impacts
215 have not yet been evaluated as the new location is outside of the survey corridors of
216 the Level III Intensive Cultural Resource Survey; and wetland impacts have not yet
217 been evaluated as the new location is outside of the survey corridors evaluated in
218 the Wetland Delineation Report. In addition, FAA determinations of no hazard would
219 need to be resubmitted.

220

221 **Q. Mr. Thurber suggests that turbine location No. A99 could be removed to meet**
222 **a half-mile setback because it is an alternate. What is Deuel Harvest's**
223 **response?**

224 A. Deuel Harvest responded to this suggestion in response to Staff DR3-15:

225 Deuel Harvest is currently unwilling to eliminate the
226 alternative turbine from consideration. This turbine location is
227 already more than 2,400 feet from Mr. Lynde's residence,
228 which exceeds applicable setback requirements by about
229 20%. Alternate turbine locations are proposed to provide
230 optionality during final micro siting (to address, for example,
231 site-specific considerations including geotechnical results) or

232 a change in the nameplate capacity of the turbine.
233 Furthermore, these additional locations provide layout
234 flexibility to hedge against potential capacity factor
235 reductions in cases where a necessary turbine shift within
236 250 feet of its original location lowers the capacity factor
237 greater than activating an alternate location. Alternate
238 turbine locations also help prevent unforeseen findings from
239 reducing the size of the Project or from significantly injuring
240 the productivity of the Project.

241
242 I note also that five turbine locations have already had to be removed to meet
243 setback and other requirements, leaving 119 remaining locations.
244

245 **Q. What would be required to relocate turbine location No. A99?**

246 A. A shift of turbine No. A99 to be a half-mile away from the nearest residence would
247 require shifting the turbine off the current landowner's property, resulting in lost
248 benefits to the landowner the turbine is currently sited on, and would require moving
249 the turbine approximately 1,350 feet to the south to meet applicable setbacks.
250 Additional analysis would also be required to determine if all other requirements
251 could be met.

252
253 **Q. What additional analysis would be required to confirm that the new location is**
254 **workable?**

255 A. As with turbine location No. 1, the Applicant is currently evaluating a new location for
256 compliance with County noise and shadow flicker requirements; potential cultural
257 resource impacts have not yet been evaluated as the new location is outside of the
258 survey corridors of the Level III Intensive Cultural Resource Survey; and wetland
259 impacts have not yet been evaluated as the new location is outside of the survey
260 corridors evaluated in the Wetland Delineation Report. In addition, FAA
261 determinations of no hazard would need to be resubmitted.
262

263 **IV. RESPONSE TO MS. OLSON DIRECT TESTIMONY**

264

265 **Q. On page 3 of her testimony, Ms. Olson states that she consulted with Deuel**
266 **Harvest’s contractor, Burns and McDonnell (“B&M”), concerning her**
267 **recommendations regarding the scope of archeological studies. She further**
268 **states that Deuel Harvest did not follow those recommendations. How do you**
269 **respond?**

270 A. After reviewing her testimony, my first reaction was that Deuel Harvest needed to
271 fully respond to Ms. Olson’s concerns. Accordingly, I contacted B&M and directed
272 the team to first contact Ms. Olson to further explain the basis for the High
273 Probability Area (“HPA”) methodology which was done on a phone call on February
274 20, 2019 and email follow up on March 12, 2019.

275

276 Upon further consultation with B&M, and at Ms. Olson’s suggestion, I directed the
277 team to conduct additional Level III surveys so that the entire Component Footprint,
278 including buffer areas, would be evaluated prior to construction. B&M sent a letter to
279 Ms. Olson on March 25, 2019 detailing the methodology and timeframe for the
280 additional survey work. These surveys are scheduled to begin April 1, 2019, with a
281 report submitted to Deuel Harvest by July 10, 2019.

282

283 **Q. Has Ms. Olson reviewed this plan?**

284 A. Yes. B&M sent a letter to Ms. Olson outlining the proposed additional survey plan
285 on March 25, 2019. See Exhibit 4. Ms. Olson responded on March 26, 2019 stating
286 that the planned survey approach was acceptable. See Exhibit 5.

287

288 **Q. What is Deuel Harvest proposing to do with respect to additional surveying?**

289 A. B&M has completed a Level III intensive field survey of approximately 15% of the
290 Component Footprint, focusing on identified High Priority Areas as identified in
291 Appendix E of the Application. Starting April 1, 2019, B&M will conduct Level III
292 intensive field survey of the remaining 85% of the Component Footprint. Field
293 efforts will focus on proposed turbine locations as the initial priority, with related

294 Project infrastructure evaluated while in-route to turbine locations. Once turbine
295 locations are surveyed, Project infrastructure not associated with the direct access of
296 a turbine will be evaluated.

297

298 **Q. Do you agree with Ms. Olson’s testimony at pages 4-5 that the survey data**
299 **provided in the Application was insufficient to assess the Project’s potential**
300 **impacts on cultural resources?**

301 A. No. B&M implemented a survey methodology that identified HPAs based on the
302 results of previous investigations, and local and regional proximity to water sources,
303 with consideration of water resource types, topography and land usage. Based on
304 that analysis, B&M identified an area comprising 15% of the Project Component
305 Footprint that was then surveyed by professional archeologists. Through that survey
306 effort, no intact prehistoric archeological sites were identified. I note that the Dakota
307 Range III Wind Farm did an HPA analysis, supporting the HPA approach for wind
308 farm evaluation.

309

310 Nevertheless, we agree that surveying of the remaining 85% of the Project
311 Component Footprint will provide additional assurance that archaeological resources
312 will not be impacted, and Deuel Harvest is committed to completing that survey
313 work.

314

315 **Q. On page 5 of her testimony, Ms. Olson disagrees with the determination of**
316 **eligibility made in the Level III survey report for newly recorded property**
317 **39DE0128. What is your response?**

318 A. The field archaeologist has a difference of opinion with Ms. Olson’s determination
319 due to his own experience in the region; however, Deuel Harvest is committing to
320 avoiding feature 39DE0128, and Project impacts will be adjusted to avoid the site
321 boundary.

322

323 **Q. Ms. Olson notes on pages 7 and 8 of her testimony that the Crocker Wind**
324 **Farm, Dakota Range I and II Wind Farm, Dakota Range III Wind Farm and the**

325 **Crowned Ridge Transmission Line coordinated with tribes. What is your**
326 **response?**

327 A. As noted, the Crocker Wind Farm had a federal nexus and therefore, formal tribal
328 consultation was conducted under Section 106.

329
330 This Project does not have a federal nexus and is therefore not subject to review
331 under NEPA or Section 106. Nonetheless, I directed the Project team to contact
332 tribes that may have an interest in the Project Area by letter and to offer to share
333 cultural resources data and to discuss the Project. One of the tribes responded
334 inquiring about the Section 106 process. Deuel Harvest responded and clarified that
335 the Project would not be subject to review under Section 106 and again offering to
336 provide the studies conducted if requested, and has not yet received a response.

337
338 A different tribe responded to our letter which described the studies conducted and
339 the area in which the Project is proposed. The compliance officer stated on a phone
340 call with B&M that he was satisfied with our methods and our findings, and that he
341 appreciated the effort made on this project in bringing it to the awareness of the tribe
342 even though it did not have a federal requirement.

343
344 **Q. At the end of her testimony, page 9, Ms. Olson proposes two conditions**
345 **relating to NRHP unevaluated, eligible for or listed properties and**
346 **unanticipated discoveries. Are these conditions acceptable to Deuel Harvest?**

347 A. Yes. These conditions are acceptable.

348
349 **V. RESPONSE TO PAWLOWSKI DIRECT TESTIMONY**

350
351 **Q. On page 10 of his testimony, Mr. Pawlowski expressed concerns that the**
352 **Application included a request for a Facility Permit for the transmission line**

353 **and Interconnection Substation. Why did Deuel Harvest include the**
354 **Interconnection Switching Station⁵?**

355 A. The Project must connect to the Interconnection Switching Station through a short
356 345 kV transmission line. The generation tie line will be less than a half-mile and
357 may be exempted from the facility permit requirement in SDCL 49-41B-2.1(1).
358 However, until the final Interconnection Switching Station and Project Substation
359 locations are identified, it is not known whether a facility permit will be needed for the
360 generation tie line. We included the Interconnection Switching Station to ensure that
361 it would be permitted with the generation tie line if the generation tie line required a
362 facility permit.

363

364 **Q. Do you agree that OTP will construct and operate the Interconnection**
365 **Switching Station?**

366 A. Yes.

367

368 **Q. Has OTP determined the preferred location for the Interconnection Switching**
369 **Station?**

370 A. We are continuing to coordinate with OTP and understand that a final location has
371 not yet been determined.

372

373 **VI. RESPONSE TO MR. JOHN HOMAN DIRECT TESTIMONY AND MR. GARRETT**
374 **HOMAN DIRECT TESTIMONY**

375

376 **Q. On page 5 of his testimony, Mr. Homan states concerns regarding the private**
377 **air strip he intends to construct on property owned by his company, Homan**
378 **Steel Construction, Inc. (“Homan Construction”). What is your response?**

⁵ I note that in the Application, the interconnection facility is described as the “Interconnection Substation”. OTP has clarified that the facility will be a switching substation with no transformation and I therefore describe it here as the Interconnection Switching Station.

379 A. Representatives of the Project contacted Mr. Homan several times since 2015 to
380 discuss the Project, although I am not aware of his current concerns being brought
381 up at those meetings. On March 28, 2019 I met with Mr. Homan in Watertown,
382 South Dakota, to discuss his concerns about the Project. We had a very respectful
383 conversation but were not able to resolve Mr. John Homan's concerns about the air
384 strip specifically, or the Project.

385
386 It is my understanding that Mr. John Homan wants towers moved or removed, but he
387 has not specifically identified which turbines he believes would need to be removed.
388 However, Mr. Garrett Homan, in his Direct Testimony (page 6), indicates that
389 turbines 106, 107, 108, 117, 123 and 124 are problematic.

390
391 **Q. Has the private use air strip been constructed?**

392 A. Homan Construction received its SEP on September 11, 2017, Permit No. 17-16 for
393 a grass air strip. In response to Applicant's Data Request No. 1-17, Mr. Homan
394 stated the airstrip would be completed in Spring 2019. I note also that Homan
395 Construction obtained a building permit on July 31, 2017 for a new 24' by 40' house
396 on the property. In response to Applicant's Data Request No. 1-16, Mr. Homan
397 stated construction was to be completed in the spring of 2019. Exhibit 6 is a figure
398 showing the intended location of the private use airport and the new residence.

399
400 **Q. Does Deuel Harvest agree with Mr. Garrett Homan's contention that there are**
401 **mandatory setbacks from private use airports in Deuel County?**

402 A. No. As detailed in the Rebuttal Testimony of Ben Doyle, president and owner of
403 Capitol Airspace Group, LLC, neither the FAA, the state of South Dakota, nor Deuel
404 County impose any setback requirements for a private use airport without an FAA-
405 approved instrument approach procedure (see the Rebuttal Testimony of Benjamin
406 Doyle). It is my understanding that a property owner who wishes to operate a
407 private use airport has the responsibility to obtain avigational rights over neighboring
408 properties that the property owner believes are necessary for the safe operation of
409 the airstrip. To Deuel Harvest's knowledge, Homan Construction has no rights to

410 use airspace over any of his neighbors' properties, and Deuel Harvest is not aware
411 of any avigational easements being pursued or obtained with respect to this airstrip.

412

413 **Q. Has Deuel Harvest made any changes to the layout that affect the Homan**
414 **Construction airstrip?**

415 A. Yes. Based on multiple factors, Deuel Harvest has eliminated 42 turbine locations
416 since first applying for an SEP in Deuel County in December 2017. Some of these
417 turbines are located by the Homan Construction property. Exhibit 7 shows the prior
418 anticipated layout submitted to Deuel County in December 2017. The turbines that
419 were removed are circled in yellow, including 13 locations to the north of the Homan
420 Construction airstrip.

421

422 **Q. On page 4 of his testimony, Mr. Homan expresses concern regarding**
423 **contamination to aquifers and underwater springs. What is your response?**

424 A. I am not precisely certain how Mr. Homan believes aquifers or underwater springs
425 would be contaminated by the Project. The Project will not involve the use of any
426 hazardous materials. In addition, Deuel Harvest will conduct geotechnical testing
427 prior to construction and will ensure that turbines do not impact underground
428 waterbodies. Finally, there are 14 proposed turbine locations in Deuel County's
429 Aquifer Protection Overlay District B, A4, A5, 18, 26, 33, 34, 39, 47, 55, 56, 115,
430 117, 118, and 119. The turbines within this overlay district will utilize a secondary
431 containment system in that the gearbox itself contains all lubrication materials.
432 Lubrication materials are also used in the transformer, which will be located within or
433 adjacent to the turbine. Deuel Harvest will work with the manufacturer to develop a
434 secondary containment system. Should these containment systems not be
435 acceptable to the County for the use of petroleum products, Deuel Harvest will use
436 non-petroleum lubricants for all turbines constructed in Aquifer Overlay District B.

437

438 **Q. On page 6 of his testimony, Mr. John Homan recommends that setbacks from**
439 **all residences be at least 1.5 miles, road setbacks be 1500 feet and that**

440 **turbines be set back 2 miles from environmentally sensitive areas. Does**
441 **Deuel Harvest believe these setbacks are warranted?**

442 A. No. Mr. Homan has provided no scientific or other fact-based evidence to support
443 these setback distances. It is also unclear what is meant by “environmentally
444 sensitive areas”. As noted earlier in my testimony, the setback from non-
445 participating residences is approximately double that of several other counties in
446 which wind projects are located that have obtained PUC approval. All setbacks
447 meet or exceed the setback guidelines provided by the manufacturer, General
448 Electric. See Appendix V of the Application, General Electric setback
449 Considerations for Wind Turbine Siting. All setbacks meet the state and Deuel
450 County requirements. Greater setbacks are not warranted.

451

452 **Q. Intervenor Garrett Homan has testified that he is concerned about the Project**
453 **causing pollution, particularly with respect to “oils and fluids leaking” (page**
454 **14). Do you share this concern?**

455 A. No. Deuel Harvest does not anticipate that construction and operation of the turbines
456 will pollute any aquifer(s) or other bodies of water. As described further in the
457 Application, construction impacts on waterbodies and groundwater will be limited,
458 and Deuel Harvest will implement a Stormwater Pollution Prevention Plan to address
459 run-off and erosion issues during and after construction. There will be no operations
460 impacts on waterbodies and groundwater, as turbines will be sited to avoid these
461 resources.

462

463 **VII. RESPONSE TO STONE DIRECT TESTIMONY**

464

465 **Q. On page 2 of his testimony, Mr. Stone expresses concern about the potential**
466 **of the Project to affect the family’s pheasant hunting operation. What is your**
467 **response?**

468 A. Deuel Harvest is unaware of any potential adverse effects that a nearby wind turbine
469 would have on a hunting preserve. Deuel Harvest's leases do not prohibit hunting
470 on properties hosting turbines, and the presence of the turbines would certainly not

471 prohibit hunting on unleased property. See Attachment 3-10 to Staff DR 3-10
472 (Confidential Wind Lease and Easement Agreement).

473

474 **VIII. RESPONSE TO KILBY DIRECT TESTIMONY**

475

476 **Q. On page 2 of her testimony, Ms. Kilby expresses concerns for “adjoining**
477 **landowners from noise, vibration, shadow flicker and infrasound”. What is**
478 **your response?**

479 A. As detailed in the direct testimonies of Dr. Mark Roberts and Dr. Jeff Ellenbogen,
480 and Dr. Ellenbogen’s Rebuttal Testimony, there is no scientific evidence that noise,
481 shadow flicker or infrasound from wind turbines is associated with any adverse
482 health effects. Further, the Project will comply with Deuel County’s sound and
483 shadow flicker requirements that were developed after a lengthy public process.
484 With respect to vibrations, Ms. Kilby’s concern is unclear. There are no known or
485 anticipated ground vibrations caused by the operation of the turbines, and, thus, no
486 known or anticipated resulting potential environmental impacts.

487

488 **Q. On page 6 of her testimony, Ms. Kilby argues that the “court in Williams v.**
489 **Invenergy found evidence that Invenergy had lied to landowners complaining**
490 **of noise violations and then manipulated sound testing.” What is your**
491 **response?**

492 A. I was not involved in that project and am not aware of the specific facts and
493 circumstances of that lawsuit. I understand that the case was dismissed after the
494 parties reached a settlement, so the court never actually made any findings of fact or
495 imposed a judgment. Invenergy has 4,800 MW of operational wind projects, and the
496 mere existence of litigation does not indicate the validity of Intervenors’ disparaging
497 remarks, nor does it reflect on Deuel Harvest’s commitments for this Project. As I
498 have testified, and others have testified, the proposed Project complies with
499 applicable requirements, and we have provided the Commission with reliable reports
500 and other evidence to demonstrate this compliance.

501

502 **Q. On page 22 of her testimony, Ms. Kilby expresses concerns about impacts on**
503 **property values and recommends a property value guarantee. What is your**
504 **response?**

505 A. Expert witness Appraiser Mr. Mike MaRous prepared a market analysis for the
506 Project and concluded that the Project would not adversely impact property values.
507 He provided Direct Testimony and Rebuttal Testimony in further support of his
508 conclusion. There is no evidence to support a property value guarantee. As
509 explained in more detail in Deuel Harvest's response to Staff Data Request 5-5 and
510 incorporated here, and for the reasons Mr. MaRous states in his pre-filed
511 testimonies, Deuel Harvest concludes no property value guarantee is justified.
512 Deuel Harvest's response to Staff Data Request 5-5 is as follows:

513

514 Michael Svedeman and Michael MaRous: Deuel Harvest
515 does not support a property value guarantee. As an initial
516 matter, Mr. Henslin's property is at least two miles from the
517 nearest proposed turbine location, so it is not clear that Mr.
518 Henslin's stated concern is specific to his property. As
519 discussed in the testimony of Mr. MaRous, the Project is not
520 expected to negatively impact property values. Further, a
521 property value guarantee is a complex and nebulous
522 concept and would be difficult, if not impossible, to
523 implement. Many variables can influence value. See, for
524 example, the Rebuttal Testimony of Michael MaRous in
525 Docket No. EL 18-026 at page 2:

526 "I do not believe a property value guarantee is warranted for
527 this Project or workable. As I testified, the Project is not
528 expected to have any adverse impact on property values. I
529 also agree with Mr. Lawrence's "concerns about how to
530 properly manage the valuation process for consistent results
531 before the project and after the installation of the wind
532 project." Lawrence Direct at 14. As Mr. Lawrence discussed,

533 many variables can influence the criteria to establish value
534 or re-establish value at a later date. For example, in addition
535 to the examples provided by Mr. Lawrence, if maintenance
536 and modernization has not been done, the condition of the
537 property can deteriorate and negatively impact value.
538 Alternatively, it would be difficult to determine how an
539 improvement, such as a new kitchen or bathroom, should be
540 factored in. Further, ideally, the same appraiser should do
541 the appraisal years later if an allegation of an impact due to
542 proximity to a wind farm is suggested. There are very few
543 residential appraisers in the Project area, and there is a
544 reasonable chance that the same appraiser would be retired
545 or no longer working in the area when the future appraisal is
546 needed. I want to emphasize that these are just some, not
547 all, of the reasons I believe a property value guarantee is
548 unworkable.”

549 Deuel Harvest also agrees with appraiser Mr. David
550 Lawrence’s assessment in his testimony in Docket EL18-026
551 regarding a property value guarantee.

552 “While I understand the goal of a property value guarantee, I
553 have concerns about how to properly manage the valuation
554 process for consistent results before the project and after the
555 installation of the wind project. Many variables can influence
556 the criteria to establish value or to reestablish value at a later
557 date. For example, who is qualified to provide a value
558 opinion? What will be the scope of work for establishing the
559 market value before, and the market value after the
560 installation of the wind project? How will changes in a
561 property’s condition such as a well maintained property
562 versus a poorly maintained property be measured for value

563 differences in contrast to the operational date of the wind
564 project? I would be more supportive of the idea of a property
565 value guarantee if there were a way to consistently define
566 and measure the valuation process for a property's market
567 value in proximity to a wind project.”

568

569 **Q. Do you have any updates to the Project's site control provided to the**
570 **Commission at the time of submittal of the Application?**

571 A. Yes, after the public input hearing on January 24, 2019, the manager of a parcel in
572 the NE1/4 of Section 17 in Portland Township contacted me to confirm the existence
573 of an easement on the property as was identified on our Project Layout Map (Figure
574 A-4 of the Application). I reviewed our records and confirmed that no such
575 easement existed and apologized for the error on our end, communicated this with
576 him and confirmed that no Project facilities will be installed on the parcel, and he
577 was satisfied with the response and requested no further actions.

578

579 After this issue came to my attention I reviewed our maps that contained site control
580 status to confirm existing statuses. An additional issue was discovered in the W1/2
581 SE1/4 of Section 7 in Glenwood Township where a parcel was mistakenly identified
582 as participating. I contacted that landowner to discuss the issue and inquire on the
583 possibility of leasing the parcel, and was told that the parcel was being sold shortly
584 to his nephew. Deuel Harvest has obtained a verbal agreement from the purchaser
585 to participate in the Project and we expect to execute an agreement with the owner
586 upon the closing of the property (expected in mid-May 2019).

587

588 These issues have been addressed and corrected on the attached Exhibit 1. In
589 addition, as is typical in the industry, Deuel Harvest will complete a survey and in-
590 depth title review prior to construction of the Project to confirm no other such errors
591 exist.

592

593 **IX. CONCLUSION**

594

595 **Q. Does this conclude your Rebuttal Testimony?**

596 A. Yes.

597

598 Dated this 1st day of April, 2019.

599

600

A handwritten signature in cursive script that reads "Michael Svedeman". The signature is written in dark ink on a light-colored background.

601

602 Michael Svedeman

603

604

605

606

607 66216834.1