

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 FOR A WIND ENERGY FACILITY AND A 345 KV TRANSMISSION LINE
IN CLARK COUNTY, SOUTH DAKOTA, FOR CROCKER WIND FARM

SD PUC DOCKET EL-17-028

PREFILED TESTIMONY OF BRIE ANDERSON
ON BEHALF OF CROCKER WIND FARM, LLC

December 15, 2017



1 **I. INTRODUCTION AND QUALIFICATIONS**

2

3 **Q. Please state your name and business address.**

4 A. My name is Brie Anderson. I am employed at Merjent, Inc., 800 Washington Avenue
5 North, Suite 315, Minneapolis, Minnesota.

6

7 **Q. Please describe your background and your duties.**

8 A. I have a Bachelor of Science degree in ecology and field biology with a wildlife
9 emphasis and a Master of Science degree in Geographic Information Systems for
10 Natural Resources. I have ten years of experience permitting various infrastructure
11 projects at the federal, state, and local levels. A copy of my resume is attached as
12 **Exhibit 1.**

13

14 **Q. What is Merjent’s role with respect to the Project?**

15 A. Merjent is providing environmental permitting support on the Project.

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17 **Q. Describe your familiarity with the Crocker Wind Farm (the “Project”).**

18 A. I’ve been working on the Crocker Wind Farm since August 2016. I’ve managed or
19 authored the environmental chapters of the Facility Permit Application, reviewed
20 environmental survey data for the Project, and assisted with layout modifications to
21 avoid and minimize impacts to environmental resources.

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23 **II. PURPOSE OF TESTIMONY**

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25 **Q. What is the purpose of your Direct Testimony?**

26 A. The purpose of my Direct Testimony is to provide information concerning existing
27 environmental conditions in the area of the proposed Project (“Project Area”),
28 potential impacts of the Project on the existing environment, and how the Project will
29 avoid, minimize, or mitigate potential impacts. In addition, I describe the
30 environmental survey work conducted on behalf of Crocker Wind Farm, LLC
31 (“Crocker”) to analyze the Project Area, as well as the associated federal and state

32 agency correspondence and coordination. I also provide information concerning the
33 National Environmental Policy Act (“NEPA”) review currently underway for those
34 portions of the Project where facilities will be located on United States Fish and
35 Wildlife (“USFWS”) grassland or wetland easements.

36
37 **Q. What sections of the Application for a Facility Permit for the Project**
38 **(“Application”) are you sponsoring?**

39 A. I am sponsoring the following sections of the Application:

- 40 • Section 7.1.1: USFWS Land-Based Wind Energy Guidelines
- 41 • Section 7.2: Pre-construction Studies and Micro-siting Process
- 42 • Section 9.1: Effect on Physical Environment
- 43 • Section 9.2: Effect of Hydrology
- 44 • Section 9.3: Effect on Terrestrial Ecosystems
- 45 • Section 9.4: Effect on Aquatic Ecosystems
- 46 • Section 9.5: Land Use (with the exception of those subsections concerning
47 noise, shadow flicker, and telecommunications)
- 48 • Section 9.6: Air Quality
- 49 • Section 9.7.4: Cultural Resources
- 50 • Section 12.1: Permits and Approvals
- 51 • Section 12.2: Agency Coordination
- 52 • Appendix C: Crocker Flow Direction Map Set
- 53 • Appendix D: Draft Bird and Bat Conservation Strategy
- 54 • Appendix H: Crocker Wind Farm Agency Correspondence

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56 **III. ENVIRONMENTAL SURVEYS/STUDIES**

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58 **Q. What was the overall approach to environmental analysis of the Project site?**

59 A. Crocker has conducted various environmental surveys and studies of the Project
60 Area, the purpose of which was to identify existing human and environmental
61 resources within the Project Area, and then avoid or minimize impacts to such
62 resources. The surveys and studies have covered a range of resources and are

63 designed and conducted to comply with applicable regulations and guidelines,
64 including the USFWS Land-Based Wind Energy Guidelines. The results of these
65 survey and study efforts have been incorporated into the Project design, and used to
66 inform avoidance, minimization, and/or mitigation efforts related to Project
67 construction and operation.

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69 **Q. Discuss the environmental surveys and/or studies conducted on behalf of**
70 **Crocker with respect to the Project.**

71 A. As discussed in Section 7.2 of the Application, the following pre-construction surveys
72 and studies have been completed or are in progress:

- 73 • Communication Tower Study
- 74 • Microwave Beam Path Study¹
- 75 • Shadow Flicker Assessment²
- 76 • Acoustic Assessment³
- 77 • Grassland Avian Use Study
- 78 • Avian Use Studies
- 79 • Eagle and Raptor Nest Surveys
- 80 • Eagle Monitoring
- 81 • Sharp-tailed Grouse and Greater Prairie Chicken Lek Surveys
- 82 • Dakota Skipper and Poweshiek Skipperling Habitat Assessment
- 83 • Dakota Skipper and Poweshiek Presence/Absence Survey
- 84 • Northern-Long Eared Bat Presence/Absence Acoustic Surveys
- 85 • General Bat Acoustic Surveys
- 86 • Natural Community Inventory
- 87 • Wetland and Waterbody Delineations
- 88 • Archaeological and Cultural Studies

¹ See Direct Testimony of Rob Copouls for additional information concerning the Communication Tower and Microwave Beam Path Studies.

² See Direct Testimony of Michael Morris for additional information concerning shadow flicker.

³ See Direct Testimony of Eddie Duncan for additional information concerning noise analysis.

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Q. How has Crocker incorporated the results of those surveys and/or studies into Project design?

A. The data acquired through site-specific studies was incorporated into refinement of the Project’s boundaries and configuration. The Project initially started with 219 potential turbine locations, and that number has been reduced to the proposed 120 locations. Crocker modified the proposed Project layout to avoid direct impacts to wetlands, and has removed 27 proposed turbine locations from USFWS grassland easements, leaving only 14 turbines on grassland easements. Design changes were also made to avoid newly identified cultural resource sites, USFWS protected wetland basins, and to account for county and state setback requirements and other constraints. Crocker has also worked with the USFWS and South Dakota Game, Fish and Parks (“SDGFP”) to realign linear corridors, such as the access roads, collector system, crane pathways, and transmission lines to follow existing disturbed corridors (e.g., roads, transmission lines, fence rows) in an effort to reduce habitat fragmentation. This has resulted in the avoidance of approximately 80 percent of the natural vegetation communities located within the Project Area.

Q. Is there any environmental study work yet to be completed for the Project?

A. Yes. The avian use studies and eagle monitoring will be ongoing until March 2018. The wetland and waterbody delineation and natural community inventory are 78 percent complete, and the archaeological and cultural studies are 80 percent complete. These will be completed in Spring 2018.

Q. Does the remaining environmental study work need to be completed to determine whether the Project complies with State siting requirements?

A. No. The remaining study work is not anticipated to affect the environmental analysis set forth in the Application, or the conclusion that the Project will meet all applicable local, state, and federal permitting requirements.

IV. ENVIRONMENTAL SITE ANALYSIS OVERVIEW

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Q. Could you please provide a general overview of the Project site from a land use perspective?

A. Almost 90 percent of the Project area consists of grassland/pasture and cropland. Crops grown within the Project Area primarily include soybeans and corn, and pasture land supports cattle and other livestock operations. There are 35 occupied residences within the Project Area. The Project Area is also dotted with wetlands, and open water ponds and lakes, and there are small, discontinuous patches of deciduous oak forest also found throughout the Project Area. See Section 9.5.1.1 of the Application for additional information.

Q. What steps will Crocker take to avoid, minimize, and/or mitigate impacts to the existing land uses?

A. As an initial matter, the Project will not displace existing residences or businesses. With respect to cultivated cropland and grassland/pasture lands, land would be removed from productivity; however, following construction the majority of the land would be restored and would return to its prior agricultural use. Fencing or grazing deferment in pasture lands within or adjacent to the construction workspace may also be necessary to prevent livestock from injury by entering the construction area. Crocker will work with landowners and employ various BMPs to avoid and/or minimize disruption to agricultural operations, as discussed in more detail in Section 9.5.1.3 of the Application.

Q. Could you describe the existing geological and soil resources, seismic risks, and subsidence potential in the Project site?

A. A discussion of existing geological resources in the Project Area is provided in Section 9.1.1.1. With respect to seismic activity, the risk of seismic activity in the vicinity of the Project Area is extremely low to negligible, according to data from the U.S. Geologic Survey (“USGS”). Similarly, the potential for subsidence within the Project Area is negligible; the bedrock does not exhibit karst topography, and there

150 are no documented historic underground mining operations within the Project
151 vicinity.

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153 **Q. What steps will Crocker take to avoid, minimize, and/or mitigate potential**
154 **impacts to geologic and soil resources?**

155 A. The Project will avoid impacts by: siting facilities to avoid steep slopes; minimizing
156 the size of areas in which soil would be disturbed or vegetation would be removed;
157 and designing access roads and crane paths to minimize the number of road miles
158 of new construction while also avoiding environmentally-sensitive features. In
159 addition, Crocker will implement various best management practices (“BMPs”)
160 during construction and restoration to minimize impacts to the physical environment,
161 including separating topsoil and subsoil, installing temporary erosion control devices,
162 and decompacting soil after construction is complete. Additional details concerning
163 these and other mitigation measures are available in Sections 9.1.1.3 and 9.1.2.3 of
164 the Application.

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166 **Q. Could you describe the hydrologic resources, including surface and**
167 **underground resources, present within the Project Area?**

168 A. As set forth in Section 9.2, Crocker analyzed the following types of hydrologic
169 resources with respect to the Project:

170 • Hydrogeology resources: The majority of the Project Area is underlain by
171 sand and gravel, with the first occurrence of water aquifer material
172 generally greater than 100 feet below land surface. There are areas of
173 shallow aquifer material in certain northern and eastern portions of the
174 Project Area.

175 • Watersheds: The Project Area is located within the Missouri River Basin,
176 and, more specifically, within the following sub-basins: Mud, Middle
177 James, and Upper Big Sioux.

178 • Waterbodies: According to National Wetland Inventory (“NWI”) data, there
179 are 47.8 acres of lakes within the Project Area. There are 38.5 miles of

180 waterbodies within the Project Area, the large majority of which (34.4
181 miles) are intermittent waterbodies.

- 182 • Existing and planned Water Rights: The Applicant reviewed SDDENR
183 Water Rights, Location Notices, and Well Completion Report databases to
184 identify existing water uses within the Project Area.
- 185 • Floodplains: FEMA has not completed a study to determine flood hazards
186 in Clark County.
- 187 • National Park Service Nationwide Rivers Inventory: There are no NRI-
188 listed rivers within the Project Area. The closest NRI segment is the
189 James River, which is in Spink County approximately 23 miles southwest
190 of the Project Area.
- 191 • Impaired waters: There are no impaired waterbodies within the Project
192 Area.

193

194 **Q. Are significant impacts anticipated to hydrologic resources?**

195 A. Project impacts on hydrologic resources are anticipated to be temporary and/or
196 minor. The majority of waterbodies that would be crossed by Project facilities are
197 intermittent and expected to be dry at the time of construction. In addition, the
198 Project is only anticipated to permanently impact approximately 0.2 acres of
199 wetlands and waterbodies.

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201 **Q. What measures will Crocker employ to avoid, minimize, and/or mitigate
202 potential impacts to hydrologic resources?**

203 A. With respect to wetlands and waterbodies under the jurisdiction of the United States
204 Army Corps of Engineers (“USACE”), Crocker will obtain coverage under a Section
205 404 Nationwide Permit and comply with applicable permit requirements. In addition,
206 Project construction will require coverage under the General Permit Authorizing
207 Stormwater Discharges Associated with Construction Activities, administered by
208 South Dakota Department of Environment and Natural Resources (“SDDENR”),
209 which requires the development and implementation of a Stormwater Pollution

210 Prevention Plan and the implementation of certain BMPs. These and other
211 measures are discussed in more detail in Section 9.2.3 of the Application.

212

213 **Q. Are aquatic ecosystems present in the Project site and, if so, what measures**
214 **will Crocker employ to avoid, minimize, and/or mitigate potential impacts?**

215 A. As I discussed above, there are surface waters present within the Project Area, and
216 various BMPs will be utilized to avoid, minimize, and/or mitigate any impacts. No
217 federally-listed aquatic species are present in the Project Area, and no long-term
218 impacts to aquatic ecosystems is anticipated.

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220 **Q. Are any federally-listed species, federally-designated critical habitat, or state-**
221 **listed species present within the Project site?**

222 A. There is a potential for certain federally-listed species to occur within the Project
223 Area, including: northern long-eared bat; Poweshiek skipperling; rufa red knot; and
224 whooping crane. No designated critical habitat for federally-listed species is present
225 within the Project Area. With respect to state-listed species, the northern river otter
226 is the only state-listed species that may occur in Clark County. See Sections 9.3.3.1
227 and 9.3.4.1 of the Application for additional detail.

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229 **Q. Is the Project anticipated to impact federally-listed species, federally-**
230 **designated critical habitat, or state-listed species?**

231 A. No. Impacts on federally threatened and endangered species due to Project
232 construction and operations are anticipated to be minimal due to the low likelihood or
233 frequency of species presence in the Project Area and implementation of species-
234 specific conservation measures, as appropriate. Additionally, Crocker has
235 conducted species-specific surveys for the northern long-eared bat, Dakota skipper,
236 and Poweshiek skipperling and confirmed absence of all three species. With
237 respect to the state-listed northern river otter, suitable habitat is not present within
238 the Project Area and, as such, impacts are not anticipated. See Sections 9.3.3.2
239 and 9.3.4.3 for additional information.

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241 **Q. Discuss the analysis conducted of eagle use of the Project Area.**

242 A. In April 2016 and 2017, Crocker conducted an aerial eagle nest survey. The nearest
243 bald eagle nest was approximately 3 miles north of the Project Area, and the other
244 nests identified ranged from 4.0 to 9.2 miles from the Project Area. Golden eagles
245 have not been document in the Project Area, and data from avian use surveys
246 indicates relatively low use of the Project Area by bald eagles. See Sections 9.3.2.1
247 and 9.3.2.2 for additional detail.

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249 **Q. Is the Project anticipated to impact bald and golden eagles?**

250 A. No, given the survey results, impacts to bald and golden eagles are not anticipated.
251 Crocker will continue to monitor bald eagle use within the Project Area through
252 March 2018 and coordinate with the USFWS on the data collected. In addition,
253 Crocker will implement a number of avian-related monitoring and mitigation
254 measures, including: conducting post-construction avian mortality monitoring for at
255 least one year; turning off unnecessary lighting at night; and following applicable
256 USFWS Wind Energy Guidelines lighting guidelines. See Sections 9.3.2.2 and
257 9.3.2.3 of the Application for more detail.

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259 **Q. Is the Project anticipated to impact other wildlife species?**

260 A. Construction of the Project may have impacts on other wildlife species primarily as a
261 result of habitat disturbance. However, following construction, Crocker would restore
262 and reseed all temporary construction workspaces, except for actively cultivated
263 croplands, unless approved in writing by the landowner. Wildlife may avoid areas
264 during Project construction, but it is anticipated that displaced wildlife would return to
265 these areas following restoration. See Sections 9.3.2.2 and 9.3.2.3 for additional
266 detail.

267 Impacts to birds and bat species are generally the primary concern associated with
268 the construction and operation of wind energy facilities and associated transmission
269 lines. The project may directly impact birds and bats; however, based on pre-
270 construction studies conducted to date, Crocker anticipates that avian fatalities due
271 to the Project will be below the national average and may result in limited localized

272 impacts on some groups of birds, such as small passerines. Similarly, bat activity at
273 Crocker was lower than the average rate of bat activity at most Midwest Projects.
274 Overall impacts to bats are expected to be low.

275

276 **Q. What measures will Crocker implement to avoid, minimize, or mitigation**
277 **impacts to other wildlife species?**

278 A. Crocker has refined the layout to avoid and minimize impacts and fragmentation to
279 bird and bat habitats. These include avoiding permanent impacts to protected
280 wetland basins, avoiding and minimizing impacts to wetlands and waterbodies,
281 reducing the number of turbines on grassland easements from 41 to 14, and
282 collocating linear facilities. Crocker has drafted a Bird and Bat Conservation
283 Strategy (“BBCS”) in coordination with USFWS and SDGFP that describes
284 avoidance and minimization measures during the life of the Project. The BBCS is a
285 “living document” and will updated, as necessary with USFWS and SDGFP.
286 Additional mitigation measures are outlines in Section 9.3.2.3.

287

288 **Q. Discuss Crocker’s coordination with federal and state agencies regarding the**
289 **studies and analyses conducted with respect to wildlife and habitat in and**
290 **around the Project Area.**

291 A. Crocker initiated consultation with the USFWS and SDGFP in April 2016 to introduce
292 the proposed Project and to request information on species of concern. Crocker
293 reviewed Natural Heritage Program records for rare species within the vicinity of the
294 proposed Project, and publicly available landscape data, such as NWI data, land
295 cover data, and federal and state lands data. The USFWS identified four listed
296 species with the potential to occur in the Project Area (whooping crane, rufa red
297 knot, northern long-eared bat, and Poweshiek skipperling). No critical habitat areas
298 were identified by the USFWS as occurring in or in proximity to the Project Area.
299 Bald eagles, Birds of Conservation Concern, and other grassland birds were also
300 identified as having the potential to occur in the Project Area. In addition, SDGFP
301 indicated that there are South Dakota Species of Greatest of Conservation Need
302 with the potential to occur in the Project Area.

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Crocker continued consultations with the USFWS to design the survey protocols for biological surveys, including preconstruction avian surveys, grassland bird surveys, Dakota skipper and Poweshiek skipperling habitat assessments and individual surveys, and northern long-eared bat surveys. Further, as discussed above, Crocker made Project modifications based on input from the USFWS and SDGFP. Crocker is in the process of developing a BBCS in coordination with the USFWS and SDGFP, which will identify avoidance, minimization, and mitigation measures the Project will implement to address potential avian and bat impacts. Finally, since the Project is undergoing a NEPA review in conjunction with obtaining approval to place facilities on USFWS grassland easements, Crocker has been in continual discussions with the USFWS as part of that process.

Q. Is the Project anticipated to impact existing water or air quality?

A. No, as discussed in Sections 9.2 and 9.6 of the Application, the Project is not anticipated to have material impacts on existing air and water quality.

Q. With respect to cultural resources, what steps has Crocker taken to identify cultural resources within the Project site?

A. Crocker contacted the South Dakota State Historical Society (“SDSHS”) in April 2016 to initiate project coordination. A Level I Record Search was conducted, and data was collected from the South Dakota Archaeological Research Center of known cultural resources information derived from previous professional cultural resources surveys and reported archaeological sites and historical architecture inventory resources. Data collection included gathering records of sites within the Project Area and a standard one-mile buffer of the Project Area (“Archaeological Study Area”). The Level I Record Search identified one previously documented archaeological sites within the environmental survey corridor and 12 previously recorded archaeological sites within the Archaeological Study Area;. No previously documented architectural resources were identified in the environmental survey corridor; however, three previously documented architectural resources were

334 documented within the Historic Structures Review Area (i.e., within 1-mile of all
335 Project facilities).In addition, pursuant to a recommendation from the SDSHS, a
336 Level III Intensive survey was conducted, which resulted in the documentation of 97
337 additional archaeological resources located within the Project Area.

338

339 The Level III Intensive Survey was conducted within the environmental survey
340 corridor that encompassed the proposed construction workspaces, including access
341 roads, and permanent facility footprints. Archaeological field investigations were
342 conducted in accordance with the South Dakota Guidelines for Cultural Resource
343 Surveys and Survey Reports and the South Dakota Historic Resource Survey
344 Manual. See Sections 9.7.4.1 and 9.7.4.2 of the Application for additional detail.

345

346 **Q. Discuss the SDSHS's involvement in establishing the cultural and**
347 **architectural resource survey protocols employed for the Project.**

348 A. As noted above, SHPO recommended a record search be obtained from the
349 Archaeological Research Center and that a Level III Intensive (cultural resources)
350 survey be completed prior to Project construction. Crocker has conducted the
351 literature search, and a Level III Intensive Survey of the environmental survey
352 corridor is underway to identify archaeological resources. The survey is 80%
353 complete and will be completed during Spring 2018. See Sections 9.7.4.1 and
354 9.7.4.2 of the Application for additional detail.

355

356 **Q. What steps will Crocker take to avoid, minimize, and/or mitigate impacts to**
357 **cultural and tribal resources?**

358 A. None of the sites identified have been formally evaluated for eligibility for listing in
359 the NRHP. However, all of the sites identified during the Level III Intensive Survey
360 were delineated to establish external site boundaries, and Project infrastructure was
361 altered to ensure that all newly documented sites would be avoided. Crocker will
362 also develop an Unanticipated Discovery Plan to outline the protocol to be
363 implemented in the event previously unidentified cultural resources or human

364 remains are discovered during construction. See Section 9.7.4.3 of the Application
365 for further information.

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367 **V. USFWS EASEMENTS**

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369 **Q. Please discuss Crocker's consultation with USFWS concerning placement of**
370 **Project facilities within USFWS easements.**

371 A. Crocker been coordinating with the USFWS's Waubay Wetland Management District
372 to obtain grassland and wetland easement data, coordinate field reviews, and review
373 various iterations of the Project design. Crocker and the USFWS conducted field
374 reviews of protected wetland basins November 21-22, 2017. This field review
375 assessed historic wetland basins compared to delineated wetland basins.
376 Additionally, Crocker and the USFWS had a conference call on November 27, 2017,
377 to discuss minimizing the impacts of turbines and associated infrastructure on
378 grassland easements. The configuration proposed in the Application incorporates
379 design suggestions by the USFWS (for instance, it avoids all USFWS protected
380 wetland basins), while balancing setbacks, constructability, noise, shadow flicker,
381 cultural resources, sensitive habitat, and other factors. See Section 12.2.1 for more
382 information.

383

384 **Q. Why is Project subject to review under NEPA?**

385 A. The placement of proposed Project infrastructure on USFWS grassland easements
386 requires approval of agreed-upon mitigation for permanent impacts. Temporary
387 impacts to USFWS grassland and wetland easements requires issuance of a
388 Special Use Permit. These actions by the USFWS are considered "federal actions"
389 under NEPA and require environmental review prior approval.

390

391 **Q. Please describe the NEPA environmental review process for the Project, and**
392 **its current status.**

393 A. The Project is utilizing the Final Programmatic Environmental Impact Statement
394 ("PEIS") prepared by the Western Area Power Administration and the USFWS to

395 evaluate Project impacts. The PEIS assesses environmental impacts associated
396 with wind energy development and identifies management practices to mitigate
397 impacts. As long as wind energy project developers are willing to implement the
398 applicable evaluation process, BMPs, and conservation measures identified in the
399 PEIS, the NEPA evaluation for the wind energy project may tier off the analyses in
400 the PEIS.

401
402 Crocker is currently preparing a Draft Applicant-Prepared Environmental
403 Assessment (“EA”) that will be reviewed by the USFWS, and is anticipated to be
404 issued to the public for review in first quarter 2018. The analysis in this EA is Project-
405 specific and focuses on site-specific issues that are not already addressed in
406 sufficient detail in the PEIS. This EA is intended to be read in conjunction with the
407 PEIS, and the EA and PEIS together comprise the NEPA compliance for this action.

408

409 **VI. AGENCY COORDINATION**

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411 **Q. Please discuss Crocker’s agency coordination efforts.**

412 A. As discussed above, Crocker has actively coordinated with various federal, state,
413 and local agencies to identify concerns regarding the Project. Project notification
414 letters were sent to these agencies on April 18, 2016 and October 24, 2016.
415 Additionally, Crocker has been coordinating with Clark County and the townships
416 within the Wind Farm Project Area, including Ash Township, Cottonwood Township,
417 Spring Valley Township, Warrant Township, and Woodland Township. See Section
418 12.2 of the Application for further information.

419

420 **Q. Discuss any comments provided by state and federal agencies regarding the**
421 **Project and how Crocker has addressed, or will address, those comments.**

422 A. The following agencies, local governments, and/or utilities have provided comments
423 concerning the Project: USFWS; U.S. Army Corps of Engineers; SDGFP; SDDENR;
424 SHPO; National Telecommunications and Information Administration; Interstate
425 Telecommunications Cooperative, Inc.; Clark County; and, Ash, Cottonwood, Spring

426 Valley, Warren, and Woodland Townships. As discussed in more detail in Section
427 12.2 of the Application, Crocker has considered these comments and, where
428 applicable, they have been incorporated into Project design.

429

430 **VII. PERMITS AND APPROVALS**

431

432 **Q. In addition to Energy Facility Permits, what other permits are required for the**
433 **Project?**

434 A. In addition to the Energy Facility Permits from the South Dakota Public Utilities
435 Commission, various federal, state, and local approvals may be required for the
436 Project. Table 12-1 in the Application identifies potential permits or approvals
437 required for construction and operation of the Project. Table 12-1 also identifies the
438 status of each permit/approval.

439

440 **Q. Will the Project obtain all local, state, and federal permits required for the**
441 **Project?**

442 A. Yes. The Applicant will be responsible for undertaking all required environmental
443 review and will obtain all permits and licenses that are required following issuance of
444 the Facility Permit.

445

446 **VIII. CONCLUSION**

447

448 **Q. Based on the analysis Crocker has conducted of the Project Area, has the**
449 **Project been sited so as to minimize human and environmental impacts?**

450 A. Yes. As discussed above and throughout the Application, the Project is not
451 anticipated to have any significant long-term effects on humans or the environment.
452 Construction impacts are anticipated to be minor and temporary, and only 157.1 of
453 the total 29,331 acres within the Project Area will be impacted during the life of the
454 Project. Further, Crocker has committed to complying with all applicable regulatory
455 and permit requirements, implementing resource-specific minimization and

456 mitigation measures, and utilizing BMPs during construction and operation.
457 Therefore, the Project is not anticipated to have long-term negative impacts.

458

459 **Q. Does this conclude your Direct Testimony?**

460 A. Yes.

461

462 Dated this 15th day of December, 2017.

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Brie Anderson