

**BEFORE THE STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**RUSO WIND PARTNERS, LLC
RUSO WIND PROJECT - WARD AND MCLEAN COUNTIES
SITING APPLICATION**

**RUSO WIND PARTNERS, LLC
230 KV TRANSMISSION LINE - MCHENRY AND WARD COUNTIES
SITING APPLICATION**

CASE NOS. PU-19-28/PU-19-29

**PRE-FILED TESTIMONY OF KRISTIN MOHON
ON BEHALF OF RUSO WIND PARTNERS, LLC**

May 29, 2019

- 77 PU-19-29 Filed 06/17/2019 Pages: 23
Exhibit 32 - Pre-filed testimony of Kristin Mohon
Ruso Wind Partners, LLC
- 85 PU-19-28 Filed 06/17/2019 Pages: 23
Exhibit 32 - Pre-filed testimony of Kristin Mohon
Ruso Wind Partners, LLC

1 **I. INTRODUCTION AND QUALIFICATIONS**

2

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

4 A. My name is Kristin Mohon. I am employed by Southern Power Company ("Southern
5 Power") and my business address is 3535 Colonnade Parkway, Birmingham, AL
6 35243.

7

8 **Q. Briefly describe your background and qualifications.**

9 A. I am currently a Project Manager in the Environmental Affairs group at Southern
10 Power, where my responsibilities include leading environmental permitting for
11 proposed projects and managing and coordinating with consultants to conduct
12 environmental studies and prepare environmental permit applications. I have more
13 than 20 years of experience overseeing and conducting environmental analyses. I
14 have a Bachelor of Science in Biology and a Masters of Biology from Jacksonville
15 State University. Additional details regarding my background and qualifications are
16 provided in proposed Exhibit 32-A.

17

18 **Q. What is your familiarity with the Ruso Wind Project ("Wind Project") and**
19 **associated Generation Tie-In Facility and Switching Station ("Gen-Tie Line**
20 **Project") (collectively, the "Project")?**

21 A. In my current position at Southern Power, I have been involved in overseeing the
22 environmental analysis and studies conducted for the Project. I have also been
23 involved with Ruso Wind Partners, LLC's ("Ruso Wind") coordination with resource
24 agencies, including the North Dakota Game and Fish Department ("NDGFD") and
25 the U.S. Fish and Wildlife Service ("USFWS").

26

27 **Q. What proposed hearing exhibits are you sponsoring in your testimony?**

28 A. I am sponsoring the following proposed hearing exhibits:

- 29 • Exhibit 1: Certificate of Site Compatibility Application (Sections 3.1, 3.2,
30 6.7, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 7.0, 8.1, 8.4, 8.9, 8.10,

8.11, 9.2, 9.3, 9.8, 9.9, 9.10, 9.12, 9.13; Appendices A, C, D, F, G, H, I, P, S)

- Exhibit 2: Updates to Certificate of Site Compatibility Application
- Exhibit 3: Consolidated Certificate of Corridor Compatibility and Route Permit Application (Sections 3.1, 3.2, 6.7, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 7.0, 8.1, 8.4, 8.9, 8.10, 8.11, 9.2, 9.3, 9.7, 9.8, 9.9, 9.11, 9.12; Appendices A, D, E, F, G, H, I, J, K)
- Exhibit 4: Updates to Consolidated Certificate of Corridor Compatibility and Route Permit Application
- Exhibit 19: Eagle Use Status Report
- Exhibit 20: NDGF/USFWS Correspondence
- Exhibit 22: NDDOT Correspondence
- Exhibit 23: USAF Correspondence
- Exhibit 24: WAPA Correspondence
- Exhibit 26: Grasslands Map with Wind Project Facilities
- Exhibit 27: Grasslands Map with Transmission Line

II. ENVIRONMENTAL SITE ANALYSIS OVERVIEW

Q. What was the overall approach to environmental analysis of the Project Area?

A. Ruso Wind generally followed the USFWS's Land Based Wind Energy Guidelines ("WEGs") (2012). The guidelines are a tier-based approach that starts at Tier 1 and goes to Tier 5, if necessary.

- Tier 1 is Preliminary site evaluation. It is a landscape level assessment covering habitat for species of concern and identifying populated or protected areas.
- Tier 2 is Site Characterization. At this point, third-party contractors are brought on board to conduct a desktop review and discuss potential field work. A site visit by a biologist and coordination with wildlife agencies also occur at this time.

- 61 • Tier 3 is Field studies and impact prediction. In coordination with
62 applicable agencies, field studies are conducted to document natural and
63 cultural resources in and around the site, and to evaluate the risk to
64 features, species and habitat. The Project is currently in Tier 3.
65 • Tiers 4 and 5 involve Post-Construction studies, which are used to
66 document actual Project impacts (Tier 4) and any ongoing research (Tier
67 5).

68
69 **Q. Has Ruso Wind updated the Project boundaries since the Applications were**
70 **submitted?**

71 A. Yes. As shown in proposed Exhibits 5 and 7, Ruso Wind has reduced the Project
72 Area identified in the Applications to reflect the current Project design. See also
73 Exhibits 2 and 4. For the purposes of my testimony, I will refer to the current Project
74 area as the "Project Area" and the prior Project area as the "Study Area."

75
76 **Q. Please provide a general description of the Project Area from a land use**
77 **perspective.**

78 A. The Project Area is located in rural North Dakota in an area predominantly
79 comprised of cultivated land, with wetlands and some grasslands. As such, much of
80 the Project Area is utilized for agricultural purposes. USFWS Grassland and
81 Wetland Easements and a USFWS Waterfowl Production Area are also present
82 within the Project Area; however, Project facilities have been sited to avoid these
83 features.

84
85 **Q. What corridor was used for desktop analysis of the Gen-Tie Line Project?**

86 A. As shown in Table 2 of proposed Exhibit 3, the Gen-Tie Line Project corridor for
87 purposes of the broader environmental analysis set forth in the Application was one
88 mile wide, centered on the Gen-Tie Line Project centerline.

89
90 **Q. What is Ruso Wind proposing as the Designated Corridor for the Project?**

92 A. Also as shown in Table 2 of proposed Exhibit 4, the proposed Designated Corridor is
93 150 feet wide (75 feet on either side of the currently proposed Gen-Tie Line
94 centerline ("Route")), and aligns with both the permanent right-of-way that has been
95 acquired for the Gen-Tie Line and the cultural resource and wetland field survey
96 corridor. Additionally, Ruso Wind is requesting that the Designated Corridor include
97 the 3.5 acre site identified for the interconnection Switching Station.

98 **Q. What environmental study reports were filed with the Applications for the**
99 **Project?**

100 A. The following environmental study reports were filed with the Applications (Exhibits 1
101 and 3):

- 102 • Appendix F: Bat Monitoring Report;
- 103 • Appendix G: 2017-2018 Annual Pre-Construction Avian Survey Report;
- 104 • Appendix H: Grassland Assessment;
- 105 • Appendix I: 2018 Dakota Skipper Habitat Assessment and Survey Report;
- 106 • Appendix P: Wetland Mapping Survey (Appendix J to the Gen-Tie Line
107 Project Application); and
- 108 • Appendix S: Class III Cultural Resource Inventory (Appendix K to the Gen-
109 Tie Line Project Application).

110 In addition, Ruso Wind included information concerning its agency outreach and
111 coordination with the Applications. See Exhibit 1 (Appendices C and D) and Exhibit
112 3 (Appendices D and E).

113
114 **Q. Do you have any updates regarding the studies that have been completed for**
115 **the Project?**

116 A. Yes. Ruso Wind has conducted an additional year of eagle survey and is in the
117 process of conducting a Class II architectural survey, as well as updating its Class III
118 archaeological field surveys and wetland field surveys. I will provide additional detail
119 concerning these efforts later in my testimony.

121 **III. CULTURAL RESOURCES**

122

123 **Q. Please discuss the recommendations made by the State Historical Society of**
124 **North Dakota.**

125 A. The State Historical Society of North Dakota (“SHSND”) recommended a Class I file
126 search, a Class II architectural survey, and Class III pedestrian surveys for the
127 Project.

128

129 **Q. Please describe the cultural resource investigations conducted for the Project**
130 **to-date.**

131 A. Class I and Class III cultural resource investigations for the Project were conducted
132 in 2018 for an Area of Potential Effect (“APE”) that included all turbine locations
133 proposed at that time, access roads to primary turbines for the Wind Project, and a
134 100-foot-wide area (50 feet on either side of the centerline) and the 3.5-acre
135 switching station site for the Gen-Tie Line Project. The Class I file search revealed
136 seven sites, 13 site leads, and no isolated finds for a one-mile radius centered on
137 the survey area. The Class III pedestrian surveys identified five new cultural
138 resources, including three archaeological sites and two isolated finds. Four of the
139 previously-recorded site leads (potential coal mines) were also potentially located
140 within the APE; however, fieldwork has determined that no cultural material or
141 features associated with coal mining exist within the survey area.

142

143 **Q. Is Ruso Wind conducting additional Class III surveys?**

144 A. Yes. Ruso Wind is in the process of conducting additional pedestrian surveys for
145 the remaining Project facilities, including turbine and access road adjustments made
146 since the initial survey work was conducted, collector lines, and 75 feet on either
147 side of the current centerline of the Gen-Tie Line. Ruso Wind expects to have the
148 results of that work by prior to the public hearing, with a report prepared by July 1,
149 2019.

150

152 **Q. Has Ruso Wind consulted with area tribes in connection with the cultural**
153 **resource investigations being conducted?**

154 A. Yes. Turtle Mountain Chippewa has been contacted to work alongside Beaver
155 Creek Archaeology during the Class III surveys.

156 **Q. Will the Project avoid impacts to the three cultural resource sites identified to-**
157 **date?**

158 A. Yes. The Project will avoid the three archaeological sites, and temporary fencing will
159 be installed near these sites prior to construction to create a 100-foot buffer where
160 practicable. If construction activities were to occur within 100 feet of these sites or
161 other sites identified during construction, archaeological monitoring would occur
162 during ground-disturbing activities.

163
164 **Q. Will Ruso Wind have procedures in place to address previously unidentified**
165 **cultural resources encountered during construction?**

166 A. Yes. An Unanticipated Discovery Plan ("UDP") has been prepared to guide activities
167 in the event that cultural resources are identified during construction activities. The
168 UDP will be submitted to SHSND for approval, along with the final Class III cultural
169 resources report.

170
171 **Q. Has a Class II Architectural History Investigation been conducted for the**
172 **Project?**

173 A. A Class II Architectural History Investigation is in process. Initial results are
174 expected prior to the public hearing, with the report completed by July 1, 2019.

175
176 **Q. Please discuss Ruso Wind's ongoing coordination with SHSND.**

177 A. The reports will be submitted to the SHSND when complete, with concurrences
178 expected in July 2019.

179
180 **IV. WETLANDS AND WATERBODIES**

182 **Q. How has Ruso Wind identified wetlands and waterbodies within the Project**
183 **Area?**

184 A. First, a desktop review of existing wetlands using aerial photography, national
185 wetland inventory (“NWI”) data, and a national hydrography dataset was completed.
186 Second, a Wetland Mapping Survey was completed for the Project in October-
187 December, 2018. See Exhibit 1, Appendix P and Exhibit 3, Appendix J. The survey
188 area focused on two proposed turbine layouts with a buffer radius of 250 feet around
189 each turbine and the Gen-Tie Line with a 75-foot buffer on either side. While
190 additional wetland surveys of the final layout are currently being conducted, the NWI
191 maps, which are conservative, were utilized to ensure no wetlands or streams would
192 be directly impacted.

193

194 **Q. Is Ruso Wind conducting additional wetland surveys?**

195 A. Yes. Ruso Wind is surveying at collector line and access road locations that were
196 not previously surveyed, as well as adjustments made to the proposed turbine
197 locations since the initial survey. However, based on the more conservative NWI
198 data, there are no permanent impacts expected to wetlands. Ruso Wind expects to
199 have the results of these surveys in July 2019.

200

201 **Q. How has Ruso Wind considered wetlands in the Project layout design?**

202 A. Wind turbines have been sited to avoid all wetlands, both U.S. Army Corps of
203 Engineers (“USACE”) jurisdictional and non-jurisdictional wetlands. Additionally,
204 Project facilities have been sited to avoid USFWS wetland easement basins to the
205 extent possible. Where collection lines would intersect a wetland or a USFWS
206 wetland easement basin, impacts will be avoided by boring beneath the
207 wetland/basin.

208

209 **Q. Will the Project qualify for coverage under a nationwide permit (“NWP”)?**

210 A. Yes, it is anticipated that the Project will be under the threshold necessary for
211 coverage under a USACE NWP.

212

● V. AVIAN AND BAT ANALYSES

214

215 **Q. Please discuss the 2017-2018 Avian Survey Report (“Avian Survey”) prepared**
216 **for the Project.**

217 A. The Avian Survey was prepared to identify avian species using the Study Area. See
218 Exhibit 1, Appendix G and Exhibit 3, Appendix G. The surveys included general
219 avian point count surveys, eagle point count surveys, aerial raptor nest surveys, and
220 aerial and ground sharp-tailed grouse lek surveys. A total of 91 species of birds
221 were identified within the Project Area, 24 of which are considered special-status
222 avian species. Four active sharp-tailed grouse leks were identified within the Study
223 Area, with an additional lek immediately adjacent to the Study Area. One bald eagle
224 was observed within the Study Area during general avian point count surveys, and
225 two bald eagles were observed during eagle point count surveys. Thirteen raptor
226 nests were identified within ten miles of the Study Area during the aerial raptor nest
227 survey, eight of which were occupied (five by red-tailed hawks within the Study Area,
● 228 two by great horned owls adjacent to the Study Area, and one by a bald eagle
229 approximately nine miles from the Study Area).

230

231 **Q. Where are the identified grouse leks in relation to the current Project Area?**

232 A. There were five lek areas identified within the Project Area during field studies.
233 Based on discussions with NDGFD and USFWS, all but five turbines are at least one
234 mile from a lek area. Additionally, the five turbines within one mile of a lek were
235 moved to at least one-half mile from a lek. Currently, the closest proposed turbine
236 location is approximately 3,280 feet from the nearest lek area.

237

238 **Q. You previously mentioned that a second year of eagle survey was being**
239 **conducted for the Project. Do you have an update concerning that survey?**

240 A. Yes. Eagle point count surveys were conducted in January-April, 2019. Only one
241 eagle was observed in the Project Area during those surveys. See Exhibit 19.

242

● 243 **Q. Is there a potential for whooping cranes to occur in the Project Area?**

244 A. The Project Area occurs within the whooping crane migration corridor, whereby 75
245 percent of observations occur. Although suitable migration stopover habitat occurs
246 within the Project Area in the form of wetlands and cropland, between 1955 and
247 2009, no whooping cranes have been recorded within the Project Area. One siting
248 (four adults) was recorded in 2004 within one mile of the Project Area.

249

250 **Q. Did Ruso Wind conduct a whooping crane habitat assessment?**

251 A. No. Based on its consultation with USFWS early in the Project development
252 process, Ruso Wind did not conduct a habitat assessment for whooping crane.

253

254 **Q. What steps is Ruso Wind taking to avoid impacts to whooping cranes?**

255 A. A desktop Whooping Crane Habitat Analysis is currently being conducted to quantify
256 the land use types and topography within the Project area and assess the potential
257 for use as suitable stopover habitat. The Analysis will be completed prior to the
258 public hearing. Further, as discussed with USFWS, bird diverters will be utilized in
259 potential high usage areas along the Gen-Tie Line. Also, during the whooping crane
260 migration season, operations and maintenance staff will curtail turbines when a
261 whooping crane is within one mile of any turbine until the whooping crane leaves the
262 area.

263

264 **Q. Please discuss the Acoustic Bat Monitoring Report prepared for the Project.**

265 A. A pre-construction acoustic bat survey was conducted for the Project in 2017. See
266 Exhibit 1, Appendix F and Exhibit 3, Appendix F. Six bat species were identified: big
267 brown bat, silver-haired bat, eastern red bat, hoary bat, little brown bat, and northern
268 long-eared bat ("NLEB"). Although potential NLEB calls were recorded, due to the
269 likelihood of false identification and the fact that both the USFWS and NDGFD noted
270 that prior occurrences of NLEB have been primarily in McLean County near the
271 Missouri River (over 20 miles away from the Project), it is unlikely that NLEB are
272 actually present within the Project Area. However, to confirm this is the case, a mist
273 netting survey will be conducted in June 2019 to positively identify bat species within
274 the Project Area.

276 **Q. How will the Project avoid and minimize avian and bat impacts?**

277 A. The Project will avoid direct impacts on known raptor nests and grouse leks and has
278 sited Project facilities at least one-half mile from active grouse leks. Ruso Wind will
279 coordinate with NDGFD and USFWS regarding any previously unknown leks or
280 raptor nests discovered during construction activities. In addition, all collection lines
281 will be buried, and access roads have been sited to follow section line roads to the
282 extent practicable to minimize grassland fragmentation. Turbines have been sited
283 on cropland to the extent practicable to minimize impacts on grasslands, wetlands,
284 and wooded habitats. A Bird and Bat Conservation Strategy ("BBCS") will be
285 developed for the Project prior to operation. In addition, Ruso Wind will use bird
286 flight diverters on the Gen-Tie Line and comply with APLIC standards. Coordination
287 with NDGFD and USFWS is ongoing regarding avoidance and minimization
288 measures.

289

290 VI. DAKOTA SKIPPER HABITAT EVALUATION

291

292 **Q. Please explain why Ruso Wind conducted a Dakota skipper habitat evaluation.**

293 A. Ruso Wind conducted a Dakota skipper habitat evaluation after coordination with
294 resource agencies to assess whether suitable and structurally similar habitat for the
295 Dakota skipper is present within the Project Area. See Exhibit 1, Appendix I and
296 Exhibit 3, Appendix I.

297

298 **Q. What were the results of the evaluation?**

299 A. The evaluation identified four blocks of habitat capable of supporting all life cycles of
300 the Dakota skipper. Two of these blocks are outside the updated Project Area.
301 Flight surveys were then conducted in June-July 2018 in grassland habitats where
302 native plant assemblages were consistent with use by Dakota skippers. However,
303 no Dakota skippers were observed during the 2018 surveys. See Exhibit 1,
304 Appendix I and Exhibit 3, Appendix I.

305

306 **Q. Has the Project minimized potential Dakota skipper habitat impacts?**
307 A. As noted above, based on the surveys conducted for the Project, it is not anticipated
308 that Dakota skipper are present within the Project Area. In addition, as I will discuss
309 in more detail below, Ruso Wind has sited Project facilities to avoid the types of
310 grassland that contain suitable habitat for the Dakota skipper.

311
312 **VII. OTHER SITE ANALYSES: STATUS, RESULTS, POTENTIAL IMPACTS, AND**
313 **MITIGATION MEASURES**
314

315 **Q. Are there grasslands within the Project Area?**

316 A. Yes, as shown on proposed Exhibits 26 and 27, there are some grasslands within
317 the Project Area. However, as shown on those exhibits, the updated Project Area
318 now excludes large tracts of unbroken grasslands to the east of the Project Area.

319
320 **Q. How has the Project minimized impacts to potentially undisturbed**
321 **grasslands?**

322 A. As I mentioned, the updated Project Area now excludes the larger tracts of unbroken
323 grasslands to the east of the Project Area. In addition, no turbines or other Wind
324 Project facilities are located within unbroken grasslands. Gen-Tie Line structures
325 have also been sited to avoid unbroken grasslands to the extent possible, and only
326 0.04 acres of unbroken grassland will be impacted by the Gen-Tie Line structures.
327 Further, no Project facilities are placed in areas identified as potential Dakota
328 skipper habitat.

329
330 **Q. You mentioned earlier that there is prime farmland/farmland of statewide**
331 **importance within the Project Area. How many acres will be permanently**
332 **impacted by the Project?**

333 A. The Project will impact a total of 19.1 acres of prime farmland, prime farmland if
334 drained and farmland of statewide importance, which equates to 0.24 percent of
335 prime/important farmland within the Project that will be impacted.

336

338 **Q. How has the Project minimized impacts to prime farmland/farmland of**
339 **statewide importance?**

340 A. As shown in Table 16 of the Wind Project Application (Exhibit 1), the Wind Project is
341 anticipated to have permanent impacts on 7.1 acres of prime farmland, 0.3 acres of
342 prime farmland if drained, and 11.7 acres of farmland of statewide importance, as
343 compared to 8,027 total acres within the Project Area. As shown in Table 16 of the
344 Gen-Tie Line Project Application, the Gen-Tie Line Project is anticipated to have
345 permanent impacts on 3.32 acres of prime farmland, zero acres of prime farmland if
346 drained, and 0.01 acres of farmland of statewide importance. For the Project,
347 temporarily disturbed areas would be reclaimed at the conclusion of construction
348 activities and returned to agricultural land. Impacted landowners would be
349 compensated.

350 **Q. In addition to the formal studies you have discussed, were any other key site**
351 **analyses conducted?**

352 A. Yes. As discussed in both Applications, the site assessment analysis considered a
353 number of other resources, including: land use; human health and safety;
354 recreational resources; land-based economies; soils; vegetation; and, rare and
355 unique natural resources. See Exhibit 1, Sections 6.2, 6.4, 6.8, 6.9, 6.10, 6.14, 6.16
356 and Exhibit 3, Sections 6.2, 6.4, 6.8, 6.9, 6.10, 6.14, 6.16.

357
358 **VIII. AGENCY COORDINATION**

359
360 **Q. Prior to filing its Project Applications, did Ruso Wind send consultation letters**
361 **to all agencies and entities identified in Section 69-06-01-05 of the North**
362 **Dakota Administrative Code?**

363 A. Yes.

364
365 **Q. Please discuss the correspondence received from NDGFD.**

366 A. In its December 20, 2018 correspondence, NDGFD noted concerns related to native
367 prairie, wetlands, grouse leks, bats, whooping cranes, waterfowl, and bald eagles.

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Q. How has Ruso Wind responded to those concerns?

A. As I will discuss in more detail below, Ruso Wind was engaged in coordination with NDGFD both before and after the December 20, 2018, correspondence, and continues to coordinate with NDGFD. More specifically:

- With respect to native prairie, Project turbines are not sited in unbroken grasslands, and other Project facilities also avoid unbroken grasslands. In addition, the updated Project Area avoids the larger tracts of unbroken grasslands to the east of the Project Area. Further, the Project avoids USFWS grassland easements.
- With respect wetlands, Ruso Wind has conducted desktop and field wetland surveys, and is in the process of completing additional field surveys. Those surveys are incorporated into Project design to avoid and minimize wetland impacts. Turbines are not sited in wetlands.
- With respect to grouse leks, Ruso Wind conducted grouse lek surveys. Turbines are sited at least one-half mile from known, active leks.
- With respect to bats, the Project will minimize tree-clearing and is generally sited away from woodlands.
- With respect to whooping cranes, no whooping cranes have been observed in the Project Area. In addition, as I discussed above, the Project will implement construction- and operations-related measures in the event a whooping crane is spotted in the vicinity of the Project.
- With respect to waterfowl, as I discussed above, the Project avoids or minimizes wetland and waterbody impacts. In addition, as I will discuss further below, Ruso Wind has provided NDGFD with a voluntary offset package
- With respect to bald eagles, there are no known, active eagle nests within the Project Area, and only one bald eagle was sited during this year's eagle point count surveys.

Q. Please discuss the correspondence received from USFWS.

400 A. In its April 15, 2019 correspondence, USFWS noted the coordination that had
401 already occurred between that agency and Ruso Wind. USFWS further
402 recommended that Ruso Wind avoid grassland and wetland habitats to the
403 maximum extent possible. USFWS acknowledged that Ruso Wind modified the
404 Project layout "in an effort to reduce the footprint of the project on grasslands by
405 moving turbines to croplands in the project area."

406 **Q. How has Ruso Wind responded to the USFWS comments?**

407 A. As I previously noted, the Project turbines are not sited in unbroken grasslands, and
408 other Project facilities also avoid unbroken grasslands and USFWS grassland
409 easements. See Exhibits 26 and 27. Further, the Project avoids USFWS grassland
410 easements. Similarly, with respect to wetlands, Ruso Wind's desktop and field
411 wetland surveys are being incorporated into Project design to avoid and minimize
412 impacts to wetlands, and turbines are not sited in wetlands.

413
414 **Q. Has Ruso Wind engaged in additional coordination with NDGFD and USFWS
415 since the Applications for the Wind Project and Gen-Tie Line Project were
416 submitted?**

417 A. Yes. Please see proposed Exhibits 13, 14, 20, 21, 22, 23, 24, and 25. I will discuss
418 proposed Exhibits 20 (NDGFD and USFWS correspondence), 22 (North Dakota
419 Department of Transportation ("NDDOT") correspondence), and 23 (U.S. Air Force
420 ("USAF") correspondence).

421
422 **Q. With respect to USFWS and NDGFD, to put the additional correspondence in
423 context, please describe your coordination efforts with those agencies.**

424 A. As is recommended by both NDGFD and USFWS, Ruso Wind began coordination
425 with those agencies early in Project development, and coordination is ongoing.
426 Specifically:

- 427 • Ruso Wind began coordination with NDGFD and USFWS in May 2017. At
428 a meeting on July 5, 2017, Ruso Wind, NDGFD (John Schumacher), and
429 USFWS (Kevin Shelley) discussed the Project. On behalf of USFWS, Mr.

430 Shelley asked Ruso Wind about avoidance of USFWS grassland
431 easements and provided information about Dakota skipper.

- 432 • Ruso Wind met with NDGFD again on February 21, 2018, at which time
433 NDGFD recommended that the Project avoid unbroken grassland.
- 434 • On February 22, 2018, Ruso Wind met with USFWS and NDGFD.
435 NDGFD recommended an offset package, and Mr. Shelley (USFWS)
436 again discussed the potential for Dakota skipper in the Project Area. With
437 respect to whooping cranes, Mr. Shelley noted that most companies
438 choose an adaptive management approach to risk and that he didn't see
439 any glaring issues with regard to take of whooping cranes from the
440 Project. In addition, the group agreed that it would be more beneficial to
441 put remaining time and effort into native prairie mapping rather than
442 conducting an additional season of avian studies.
- 443 • On September 13, 2018, Ruso Wind again met with USFWS and NDGFD.
444 Ruso Wind presented the results of the surveys and studies it had
445 conducted to date.
- 446 • On December 14, 2018, Ruso Wind met with USFWS (Natalie Gates).
447 Ruso Wind provided an update on Project surveys and studies, as well as
448 background concerning prior coordination among Ruso Wind, USFWS,
449 and NDGF.
- 450 • On May 9, 2019, Ruso Wind met with USFWS and NDGFD. Ruso Wind
451 provided an update concerning the Project. Ruso Wind committed to
452 presenting a voluntary offset package to the agencies.

453
454 **Q. What are Ruso Wind's current plans regarding potential offsets for grassland**
455 **impacts?**

456 A. On May 16, 2019, Ruso Wind presented the voluntary offset package to NDGFD.
457 See Exhibit 20. Ruso Wind committed to paying \$500,000 to offset direct and
458 indirect grassland and wetland impacts. The following day, NDGFD responded that
459 the proposal "looks good." Ruso Wind further provided the following clarification
460 regarding the offsets package: "Regarding the type of offset, Southern Power will be

462 having discussions with several third party entities on the voluntary offsets and will
463 discuss specifically native grass reconstruction, wetland restoration and protection of
464 these resources with each of the third party entities. Additionally, Southern Power
465 will confer about timing with the third party entities, but will commit to selecting a
466 third party entity to pay the voluntary funds into and ensure that the dollars will be
467 paid to the third party entity prior to project construction commences.” Exhibit 20
468 (emailed dated May 17, 2019).

469 **Q. The North Dakota Department of Health (“NDDH”) noted that a portion of the**
470 **construction of the Project may overlay the Snake Creek glacial drift aquifer**
471 **and lie adjacent to the Strawberry Lake aquifer. How will Ruso Wind avoid**
472 **impacts to these aquifers?**

473 A. Ruso Wind will incorporate the NDDH’s Construction and Environmental
474 Disturbance Requirements and will ensure that there are measures in the Project’s
475 Stormwater Pollution Prevention Plan with respect to avoidance of aquifer impacts.

477 **Q. With respect to the Minot Air Force Base, the USAF provided comments**
478 **concerning Project design and construction with respect to USAF facilities.**
479 **Do you have an update concerning Ruso Wind’s coordination with USAF?**

480 A. Yes. In its September 13, 2018, correspondence, USAF provided specific
481 requirements/recommendations with respect to its facilities. On December 20, 2018,
482 USAF provided additional detail concerning those requirements/recommendations.
483 As shown in proposed Exhibit 23, Ruso Wind provided USAF with the Project’s
484 layout and civil design on March 8, 2019. On March 26, 2019, USAF notified Ruso
485 Wind that two areas did not meet USAF’s 90 degree crossing angle requirement.
486 On April 24, 2019, Ruso Wind provided USAF with updated civil designs of those
487 two areas. On the same day, USAF notified Ruso Wind that the changes were
488 acceptable and they had no other issues at that time.

490 **Q. In the correspondence filed with the Application, NDDOT notified Ruso Wind**
491 **that it had concerns about access points. Has Ruso Wind coordinated with**
492 **NDDOT regarding access points?**

493 A. Yes. As shown in proposed Exhibit 22, Ruso Wind met with NDDOT on February
494 21, 2019. As indicated in subsequent correspondence, NDDOT will approve access
495 to the substation parcel if Ruso Wind “follows department procedures and
496 specifications in the access construction.” Exhibit 22 (email dated April 19, 2019).

497

498 **IX. PERMITS AND APPROVALS**

499

500 **Q. Are other permits besides the Certificate of Site Compatibility for the Wind**
501 **Project, and the Certificate of Corridor Compatibility and Route Permit for the**
502 **Gen-Tie Line Project, required for this Project?**

503 A. Yes. Potential permits and approvals for the Wind Project are identified in Table 19
504 of that Application (Exhibit 1). Potential permits and approvals for the Gen-Tie Line
505 Project are identified in Table 19 of that Application (Exhibit 3).

506

507 **Q. Will Ruso Wind commit to obtaining all necessary federal, state, county, and**
508 **township permits?**

509 A. Yes.

510

511 **X. COMPLIANCE WITH COMMISSION SITING RULES**

512

513 **Q. Are you familiar with the exclusion areas, avoidance areas, selection criteria**
514 **and policy criteria identified in Section 69-06-08-01 of the North Dakota**
515 **Administrative Code?**

516 A. Yes.

517

518 **Q. Please discuss whether there are any general exclusion areas located within**
519 **the Wind Project Area.**

521 A. There are three categories of general exclusion areas within the Wind Project Area:
522 two USFWS Waterfowl Production Areas ("WPAs") within the Project Area; prime
523 farmland and unique farmland; and two intercontinental ballistic missile ("ICBM")
524 facility areas.

525 **Q. Do Project facilities avoid the two USFWS WPAs within the Wind Project Area?**

526 A. Yes.

527
528 **Q. Do Project facilities also avoid the two ICBM facility areas within the Wind
529 Project Area?**

530 A. Yes.

531
532 **Q. Will the Wind Project have a negligible impact on agricultural production?**

533 A. Yes. Because the Project would permanently impact less than one percent of
534 farmland classified as prime farmland or farmland of statewide importance within the
535 Project Area, it is anticipated that the Project would have a negligible impact on
536 agricultural production.

537
538 **Q. For that reason, is Ruso Wind requesting that the Commission not apply this
539 exclusion area criterion to the Project, as is allowed under Section 69-06-08-
540 01(d) of the North Dakota Administrative Code?**

541 A. Yes.

542
543 **Q. Please discuss whether any of the exclusion areas specific to wind energy
544 conversion facilities are located within the Wind Project Area.**

545 A. Five exclusion areas specific to wind energy conversion facilities are present within
546 the Wind Project Area:

- 547 • Areas less than 1.1 times the height of the turbine from interstate or state
548 roadway right of way;
- 549 • Areas less than 1.1 times the height of the turbine + 75 feet from the
550 centerline of any county or maintained township road;

- 551 • Areas less than 1.1 times the height of the turbine from any railroad right-
552 of-way;
- 553 • Areas less than 1.1 times the turbine height from a 115 kV or higher
554 transmission line; and
- 555 • Areas less than 1.1 times the turbine height from the property line of a
556 non-participating landowner.

557 Although present within the Wind Project Area, the turbines have been sited to avoid
558 these areas.

559

560 **Q. Are there any general avoidance areas present within the Wind Project Area?**

561 A. Yes. The following general avoidance areas are present within the Wind Project
562 Area:

- 563 • Historical resources which are not designated as exclusion areas: three
564 unevaluated archaeological sites are present, but will be avoided.
- 565 • Areas that are geologically unstable: one historic landslide area is present,
566 but is avoided by Project facilities.
- 567 • Woodlands and wetlands: woodlands and wetlands are present, but have
568 been avoided to the extent practicable; where trees and shrubs are
569 impacted, Ruso Wind will comply with the Commission's tree and shrub
570 mitigation specifications.

571

572 **Q. Are there any avoidance areas specific to wind energy conversion facilities
573 located within the Wind Project Area?**

574 A. No.

575

576 **Q. Are there any exclusion areas located in the corridor for the proposed Gen-Tie
577 Line Project?**

578 A. No.

579

580 **Q. Are there any avoidance areas in the Gen-Tie Line Project's proposed
581 Designated Corridor or crossed by the proposed Route?**

583 A. There are six avoidance areas, as identified below:

- 584 • One USFWS WPA is present, but will be avoided; and
- 585 • One historic landslide area is present, but will be avoided.

586 **Q. Will any significant adverse effects resulting from the location, construction,**
587 **and operation of the Wind Project and the Gen-Tie Line Project as they relate**
588 **to the Selection Criteria set forth in the Commission's rules be at an**
589 **acceptable minimum or managed and maintained at an acceptable minimum?**

590 A. Yes.

591
592 **Q. Were the policy criteria set forth in the Commission's siting rules considered**
593 **and utilized to the extent possible by Ruso Wind when designing the proposed**
594 **Wind Project and Gen-Tie Line Project?**

595 A. Yes.

596
597 **XI. CONCLUSION**

598
599 **Q. Based on the analysis conducted by Ruso Wind, as set forth in the proposed**
600 **hearing exhibits, will construction of the proposed Project produce minimal**
601 **adverse human and environmental effects?**

602 A. Yes.

603
604 **Q. Does this conclude your Testimony?**

605 A. Yes.

EDUCATION

- Masters in Biology, Thesis: "A Vascular Flora of Jackson County, AL," Jacksonville State University, December 1999
- Bachelor of Science, Major: Biology with a concentration in Environmental/Ecology, December 1998

PROFESSIONAL EXPERIENCE

SPC, Environmental Affairs **Birmingham, Al**

2/2016 – Present

Project Manager

Responsibilities:

- Lead environmental permitting for proposed new build projects
- Lead environmental due diligence to identify and mitigate risks on project acquisitions
- Provide technical review, support, and guidance to the Siting, Development and EPC teams
- Strategic analysis of proposed and newly-enacted environmental regulations and laws
- Manage/coordinate consultants to conduct environmental studies and prepare environmental permit applications
- Manage compliance with applicable air, water, waste, and natural resource environmental requirements at operational facilities

SCS, Research and Environmental Affairs **Birmingham, Al**

1/2014 – 2/2016

Senior Research Specialist

Responsibilities:

- System subject matter expert for wetlands and threatened & endangered species (T&E) issues
- Represent Southern Company on various national electric utility industry environmental policy and regulatory advocacy groups and task forces, Vice-Chair of UWAG 404 Committee
- Represent Southern Company on Electric Power Research Institute (EPRI) ESA technical issues
- Strategic analysis of proposed and newly-enacted environmental regulations and laws
- Support environmental due diligence for new generation projects and asset acquisitions
- Compliance support for operating companies with regard to wetlands, T&E, BGEPA, MBTA

Manhard Consulting **Smyrna, Ga**

3/2003 –1/ 2014

Senior Ecologist/Project Manager

Project Management/Fieldwork - Alabama, Arizona, California, Colorado, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Michigan, Mississippi, Nevada, North Carolina, South Carolina, Tennessee, and Wisconsin

Field Studies:

- Conducted wetland delineations and stream assessments.
- Conducted threatened and endangered species surveys, floristic studies using belt transect and nested quadrat methodologies, habitat surveys, and invasive species surveys.
- Conducted benthic macroinvertebrate surveys, water quality sampling (culverts, streams, and wetlands), and dry weather screening.

Permitting:

- Led efforts to secure Regional, Nationwide, and Individual Permits to U.S. Army Corps of Engineers.
- Managed securing Stream Buffer Variances to Georgia Environmental Protection Division.
- Successfully secured 401 Water Quality Certifications from U.S. Environmental Protection Agency, Alabama Department of Environmental Management, Arizona Department of Environmental Quality, Florida Department of Environmental Protection, Idaho Department of Environmental Quality, Indiana Department of Environmental Management, Mississippi Department of Environmental Quality, Nevada Division of Environmental Protection, San Francisco Regional Water Quality Control Board, and South Carolina Department of Health and Environmental Control.
- Prepared and submitted Georgia Environmental Protection Division NPDES general permits and Alabama Department of Environmental Management NPDES general permits.
- Filed Stormwater Pollution Prevention Plans for commercial sites.
- Managed efforts in preparing Biological Assessments, Biological Evaluations, Environmental Assessments, and Environmental Impact Statements for National Environmental Policy Act.

- Led efforts in preparing Environmental Impact Report, Mitigated Negative Declaration, and Initial Study for California Environmental Quality Act.
- Successfully secured Open Burn Permits from the Alabama Forestry Commission
- Prepared Invasive Species Management Plans and Post-Construction Monitoring reports for regulatory agencies

Restoration:

- Designed prairie, sedge, and wetlands (tidal and non-tidal) creation, restoration, and enhancement.
- Designed riparian restoration and enhancement.
- Designed stream restoration and relocation using bioengineering techniques based on Rosgen methodology.
- Managed construction of restoration projects.
- Conducted monitoring of restoration projects.

Project Management:

- Managed construction projects and ensured compliance with all environmental permit conditions.
- Secured 319(h) grants.
- Prepared and submitted request for proposals including cost estimates.
- Managed staff in Georgia and Illinois, ecological projects, clients, and billing.

ARCADIS □ Atlanta, Ga

1/2000 - 3/2003

Wetland Scientist/Task Manager

Project management/fieldwork - Florida, Georgia, Michigan, Mississippi, New Mexico, New York, and Tennessee.

Field Studies: Wetland delineations and stream assessments, threatened and endangered species surveys, floristic studies, habitat surveys, invasive species surveys, Phase I Environmental Site Assessments, ecological risk assessments.

Permitting: Nationwide and Individual Wetland Permits (USACE); Stream Buffer Variances (GA EPD); 401 Water Quality Certifications (US EPA, FDEP, TDEC); Biological Assessments, Biological Evaluations, Environmental Assessments, and Environmental Impact Statements for National Environmental Policy Act; Monitoring Reports; SPCC.

Restoration: Sedge and wetlands (non-tidal) creation, restoration, and enhancement; riparian restoration and enhancement; monitoring of restoration projects.

Whetstone Consulting □ Anniston, Al

1/1997 - 1/2000

Biological Assistant

Project management/fieldwork - Alabama, Georgia, and Mississippi

Field Studies: Wetland delineations, T&E species surveys, floristic studies, and habitat surveys; benthic macroinvertebrate studies.

Permitting: Nationwide and Individual Permits (USACE); Stream Buffer Variances (GA EPD); Water Quality Certifications (US EPA, ADEM, MDEQ).