

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

**IN THE MATTER OF THE APPLICATION BY PREVAILING WIND PARK, LLC
FOR A PERMIT FOR A WIND ENERGY FACILITY IN BON HOMME, CHARLES MIX,
AND HUTCHINSON COUNTIES, SOUTH DAKOTA, FOR PREVAILING WIND
PARK ENERGY FACILITY**

SD PUC DOCKET EL-18-026

**PREFILED REBUTTAL TESTIMONY OF BRIDGET CANTY
ON BEHALF OF PREVAILING WIND PARK, LLC**

September 26, 2018

1 **I. INTRODUCTION**

2

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

4 A. My name is Bridget Canty.

5

6 **Q. Did you provide Direct Testimony in this Docket?**

7 A. Yes. I submitted Direct Testimony on May 30, 2018. I also submitted Supplemental
8 Direct Testimony on August 10, 2018.

9

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

11 A. The purpose of my Rebuttal Testimony is to provide updates to my Supplemental
12 Direct Testimony concerning the following:

- 13 • The status of Prevailing Wind Park Project (“Project”) environmental
14 surveys/studies;
- 15 • The status of the Environmental Assessment (“EA”) being prepared in
16 conjunction with Western Area Power Administration’s (“WAPA”) review of
17 the Project’s interconnection to WAPA facilities;
- 18 • Prevailing Wind Park, LLC’s (“Prevailing Wind Park”) re-review of potential
19 residences within and near the Project area;
- 20 • Small shifts of two turbines locations, one to meet the property line
21 setback with the taller turbine, and another to avoid a microwave beam
22 path.

23

24 **Q. Are there any exhibits attached to your Rebuttal Testimony?**

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

- 26 • Exhibit 1: Burns & McDonnell Memorandum, Potential House Field
27 Review
- 28 • Exhibit 2: Revised Layout.

29

30 **II. UPDATES TO SUPPLEMENTAL DIRECT TESTIMONY**

31

32 **Q. In your Supplemental Direct Testimony at page 2, you indicated that Prevailing**
33 **Wind Park intended to do additional archaeological field survey work as part**
34 **of WAPA’s Section 106 process. Do you have an update?**

35 A. Yes. Since my Supplemental Direct Testimony, all pedestrian surveys have been
36 completed for archaeological resources. During the three archaeological
37 mobilizations, one newly documented archaeological site (field number PWND-D13-
38 001) was identified. Site PWND-D13-001 consists of a historic artifact scatter and
39 foundations identified during the pedestrian survey of the collection line and
40 alternative crane path to Turbine 64. Additional survey and shovel testing will be
41 completed in this area during the next archaeological mobilization. South Dakota
42 State site forms will be completed for this site and submitted to the South Dakota
43 Archaeological Research Center (“SDARC”).

44

45 The next archaeological mobilization will occur following the completion of the
46 Yankton Tribal Historic Preservation Office (“THPO”) Traditional Cultural Properties
47 (“TCP”) survey. The Yankton Sioux Tribe (“YST”) began surveying for TCPs on
48 September 24, 2018 and is expected to conclude surveys in late October or early
49 November of this year. The next mobilization will focus on subsurface testing (shovel
50 testing) at locations that do not contain TCP sites and areas that were not
51 adequately reviewed by pedestrian survey due to limited ground surface visibility. A
52 total of 16 areas within the Project area have been identified for subsurface testing
53 pending the results of the TCP survey.

54

55 Prevailing Wind Park does not expect that the surveying will result in the need to
56 shift turbines. However, if archaeological surveys or TCP surveys identify sensitive
57 resources, Prevailing Wind Park will avoid impacts by moving Project infrastructure
58 where practicable. If complete avoidance is not practicable, Prevailing Wind Park will
59 work with SHPO to minimize and mitigate impacts.

60

61 **Q. In your Supplemental Direct Testimony at page 2, you indicated that a**
62 **historical/architectural survey was currently underway. Do you have an**
63 **update?**

64 A. Yes. Prevailing Wind Park's cultural resources consultant recently completed the
65 historical/architectural survey. During the survey, 324 properties were analyzed.
66 One National Register of Historic Places ("NRHP")-listed property was identified.
67 Sixteen (16) properties were identified that were recommended eligible for the
68 NRHP. Of those 16 properties, two were fully accessed. The remaining 14 are
69 assumed eligible for the NRHP because they are not visible from public right-of-way
70 and right of entry was not obtained. A draft report summarizing the results is
71 expected by mid-November and will be submitted to the State Historic Preservation
72 Office for review and concurrence.

73

74 **Q. What is the status of WAPA's environmental review of the Project?**

75 A. Prevailing Wind Park expects that WAPA will issue the draft EA this fall.

76

77 **Q. In your Supplemental Direct Testimony at page 3, you stated that Prevailing**
78 **Wind Park was continuing to investigate the omission of Ms. Schoenfelder's**
79 **residence on Project figures. Do you have an update?**

80 A. Yes. As discussed in Prevailing Wind Park's response to Staff Data Request 1-2,
81 the inhabited status of dwellings was first determined in 2016. As I understand it, at
82 this time, the inhabited status of dwellings was determined by (1) reviewing aerial
83 photography to determine location of residences in and around the Project footprint;
84 (2) reviewing aerials and drawing on local knowledge of the area to determine
85 obvious occupied residences; (3) field verifying dwellings with indeterminate status;
86 (4) contacting landowners to verify occupancy status; and (5) using tax rolls to
87 determine ownership and addresses of residences.

88

89 This year, on behalf of Prevailing Wind Park, Burns & McDonnell undertook a
90 verification process that was just completed to ensure that inhabited residences

91 within the Project area and within a one-half mile of the Project (“Verification Area”)
92 were accounted for.

93

94 **Q. What verification process did Burns & McDonnell undertake?**

95 A. The verification process is described in the September 22, 2018 memorandum from
96 Burns & McDonnell, which is attached as **Exhibit 1**. Generally, Burns & McDonnell
97 first reviewed aerial imagery to identify potential additional occupied residences
98 within the Verification Area. That effort resulted in 28 potential structures. Two
99 representatives of Burns & McDonnell then spent two days in South Dakota to
100 evaluate the status of the 28 locations.

101

102 **Q. What were the results of Burns & McDonnell’s work?**

103 A. Burns & McDonnell identified one additional potential occupied residence in the field
104 (for a total of 29 structures), which was also further evaluated. Of the 29 structures,
105 Burns & McDonnell determined that there were nine additional occupied residences,
106 including the Schoenfelder property in Wagner, within the Verification Area. Four of
107 the additional occupied residences are located in the Project Area; five are outside
108 the Project Area. The distances from the additional occupied residences to the
109 nearest turbine range from 2,427 to 12,865 feet. This brings the total occupied
110 residences in the Verification Area to 146.

111

112 **Q. How is Prevailing Wind Park using the results of the Burns & McDonnell
113 review?**

114 A. Prevailing Wind Park directed Burns & McDonnell to conduct updated shadow flicker
115 and sound analyses that included these receptors. The results of those analyses
116 are provided in the rebuttal testimony of Chris Howell and Aaron Anderson.

117

118 **Q. Has Prevailing Wind Park made any changes to the Project based on the
119 review of potential occupied residences?**

120 A. Yes. In the review, we identified an occupied residence within 900 feet of turbine
121 location T19. While the turbine location could meet all applicable setback, shadow

122 flicker and sound requirements, and the residence is owned by a participating
123 landowner, Prevailing Wind Park decided to eliminate this turbine location due to its
124 proximity to an occupied residence. With the removal of this location, the closest
125 turbine to an occupied residence is 1,556 feet (T61).

126

127 **Q. Please describe the two minor turbine shifts that Prevailing Wind Park has**
128 **made.**

129 A. As Peter Pawlowski testified in his Rebuttal Testimony, the GE3.8-137 is being
130 modified with a taller hub to allow the transformer to be housed within the turbine.
131 That modification increases the total system height to 590 feet, 5.5 inches. This
132 results in a minimum setback from property lines of non-participating landowners of
133 649.61 feet. To meet this setback requirement, a shift of turbine location T38, which
134 was 647 feet away from the nearest non-participating property line, was required.
135 We moved it 10 feet to the west away from the property line, bringing the setback to
136 657 feet.

137

138 The second move was for turbine location T40, 50 feet to the north. This move was
139 coordinated with the National Telecommunications and Information Administration to
140 ensure no conflict with microwave beam paths.

141

142 The removal of T19 and the two minor turbine shifts were evaluated in the Project's
143 updated shadow flicker and noise analyses I referenced above. **Exhibit 2** shows the
144 revised Project layout that includes the additional nine occupied residences, reflects
145 the two turbine shifts, and notes the removal of T19.

146

147

148 **III. CONCLUSION**

149

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

151 A. Yes.

152

153 Dated this 26th day of September, 2018.

154

A handwritten signature in black ink, appearing to read "B. Canty", is written above a horizontal line.

155

156 Bridget Canty

157

158

159 64841916



Date: September 22, 2018
To: Bridget Canty
From: Ed Bowers
Subject: Prevailing Wind Park Project, Potential House Field Review

Prevailing Wind Park, LLC engaged Burns & McDonnell (Burns) to conduct an independent review of residences within the Prevailing Wind Park project area (Project Area) and within a half-mile of the Project Area (Verification Area). Prevailing Wind Park, LLC directed Burns to evaluate whether there were any occupied residences in the Verification Area that were not included in the 137 occupied residences shown in the Application for a Facility Permit in South Dakota Public Utilities Commission Docket EL18-026. This memorandum describes the verification process and the results of our investigation.

Burns first reviewed aerial imagery to identify potential occupied residences within the Verification Area. Through that process, Burns identified 28 structures that could be residences. The 28 were assigned house numbers XX-1 through XX-28.

The locations of these 28 structures were field reviewed on September 17 and 18, 2018 by Angie Woehler, assistant environmental scientist and Ed Bowers, environmental scientist.

We drove by each of the identified 28 potential residences and visually observed the general appearance for signs that the structure could be considered occupied. Signs of potential occupation included the presence of a mailbox, visible electric or other utility service to the house, condition of the driveway or access to the house (maintained versus tall vegetation), and the overall condition of the house.

Houses with some signs of occupation, but that displayed evidence of long-term structural and property decline (broken out windows, holes and damage to roof, overgrown vegetation, etc.) were classified as non-occupied. In cases where visual observation of the potential house was restricted, we relied upon visual signs to assess whether the house was occupied. In cases where there were some signs of occupancy as well as abandonment, the house was presumed to be occupied.

We recorded notes about our observations and took a photo(s) of each of the houses to support our classification decision. The location and occupation status for each house was also recorded into a geographic information system (GIS) geodatabase using a global positioning system (GPS) enabled laptop computer with ArcGIS 10.4 software. Recording GIS data provides a record of each house that can be viewed and evaluated in relationship to other resources in the project area, particularly the proximity to proposed wind turbines. Using GIS

with GPS also provided us a means of efficiently navigating to each house while documenting our search area.

As part of our field work reviewing the 28 structures, we also looked for any discrepancies in the status of nearby residences previously identified in the Application. No discrepancies were observed.

During the process of classifying the 28 identified structures, we observed an additional potential residence, bringing the total potential residences to 29. The structure had not been identified as a potential residence in the desktop review due to its general appearance.

In the field, we observed a second structure next to XX-22 that appeared to have electric service connected to an electric meter, had what looked like a newer roof installed, and gave the overall appearance it could be occupied. Rather than change the location of XX-22 to this structure, we added it to the geodatabase as XX-22A, and classified it as occupied. We also recorded the location of a few structures that we observed, which were not part of the prior study and not included in the 28 potential houses. These were recorded into the geodatabase in case they are later observed on aerials and their status is brought into question. None of these additional structures was determined to be an occupied residence.

Of the 29 structures evaluated, we classified 20 houses as non-occupied and nine structures as occupied residences. A spreadsheet is attached that provides the house numbers we observed matched with the reference numbers of photos taken of the house and the field notes recorded during our observation.

Ed F. Bowers

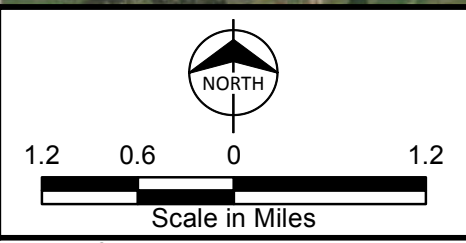
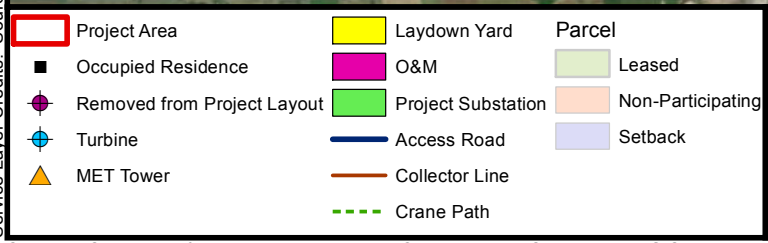
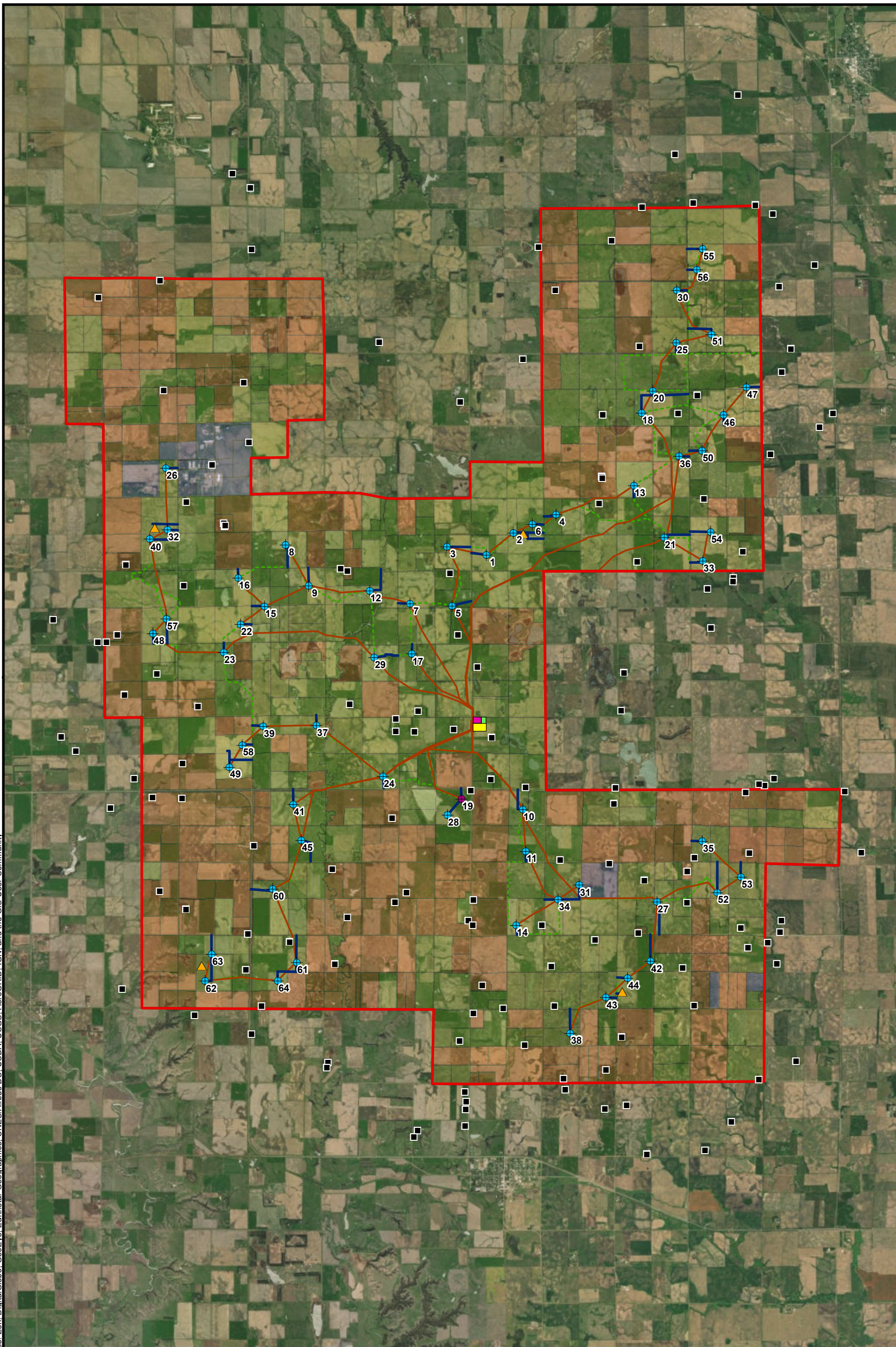
A handwritten signature in cursive script that reads "Edward L. Bowers".

Enclosure: House Status Classification Spreadsheet

House Number	Photo Number	Field Notes	Occupation Status	Property Status	Latitude_DMS	Longitude_DMS	Date Field Classified
XX-01	Photo 032	Mailbox and gate (locked) both look newer. Electricity present, No access to house, but appears on aerial layer. Landowner had contacted project team prior to field visit	Occupied	Non-participating	43d 5' 55.232" N	98d 8' 32.940" W	18-Sep-18
XX-02	Photo 028 & 029	No mailbox, no electric, broken windows	Non-occupied	Non-participating	43d 11' 1.833" N	98d 8' 40.131" W	18-Sep-18
XX-03	Photos 006 & 007	Has electric, several old cars, gate locked. Does not appear to be occupied	Non-occupied	Non-participating	43d 10' 35.127" N	98d 3' 6.224" W	17-Sep-18
XX-04	Photo 005	Has AC unit, satellite dish, electric, no mailbox. Looks livable	Occupied	Non-participating	43d 11' 21.356" N	98d 3' 2.897" W	17-Sep-18
XX-05	Photo 003	House gone, barn present. No mailbox, no electric	Non-occupied	Non-participating	43d 12' 5.113" N	98d 0' 40.937" W	17-Sep-18
XX-06	Photo 027	Dog in yard, Overall looks occupied	Occupied	Non-participating	43d 4' 11.480" N	97d 57' 50.740" W	17-Sep-18
XX-07	Photo 025	No mailbox, rope gate, no access but driveway mowed and clear, has electric and newer vehicles outside	Occupied	Non-participating	43d 2' 52.807" N	97d 59' 12.417" W	17-Sep-18
XX-08	Photos 023 & 024	Satellite dish but very overgrown, no mailbox, damage to roof visible	Non-occupied	Non-participating	43d 2' 27.827" N	97d 59' 26.585" W	17-Sep-18
XX-09	Photo 022	Chickens and cats in yard, electric, looks occupied	Occupied	Non-participating	43d 1' 43.601" N	97d 58' 54.005" W	18-Sep-18
XX-10	Photo 014	Boarded_up windows, overgrown vegetation on driveway, does not appear occupied	Non-occupied	Non-participating	43d 1' 32.372" N	98d 4' 50.731" W	17-Sep-18
XX-11	Photo 041	Satellite dish, house has decorations for autumn and appears well kept and occupied	Occupied	Non-participating	43d 2' 34.786" N	98d 9' 46.298" W	18-Sep-18
XX-12	Photo 031	No mailbox, no electric, damage to roof, locked gate	Non-occupied	Non-participating	43d 7' 23.940" N	98d 10' 14.558" W	18-Sep-18
XX-13	Photo 008	No mailbox, gate open, but no sign of traffic on driveway, broken windows	Non-occupied	Leased	43d 8' 11.171" N	98d 4' 12.108" W	17-Sep-18
XX-14	Photo 009	Has electric, no mailbox, gate locked with "No Trespassing", Looks like frequently visited, but not occupied	Non-occupied	Leased	43d 8' 3.304" N	98d 4' 2.772" W	17-Sep-18
XX-15	Photo 039	No mailbox, tall vegetation on driveway, roof damaged	Non-occupied	Leased	43d 5' 5.351" N	98d 6' 15.889" W	18-Sep-18
XX-16	Photo 010	Has long driveway, has electric, satellite dish, dawn-to-dusk light, propane tank	Occupied	Leased	43d 5' 33.462" N	98d 3' 48.488" W	17-Sep-18
XX-17	Photos 037 & 038	No mailbox, but has electric. Damaged and broken windows	Non-occupied	Leased	43d 4' 49.482" N	98d 6' 36.828" W	18-Sep-18
XX-18	Photo 011	Has mailbox, looks livable	Occupied	Leased	43d 4' 55.837" N	98d 4' 8.622" W	17-Sep-18
XX-19	Photo 040	Broken glass, overgrown vegetation	Non-occupied	Leased	43d 2' 43.987" N	98d 5' 21.487" W	18-Sep-18

House Number	Photo Number	Field Notes	Occupation Status	Property Status	Latitude_DMS	Longitude_DMS	Date Field Classified
XX-20	Photos 001 & 002	Appears abandoned, has electric, but no sign of life	Non-occupied	Leased	43d 11' 44.326" N	97d 59' 33.618" W	17-Sep-18
XX-21	Photo 030	No gate, mailbox, electric. Broken windows	Non-occupied	Non-participating	43d 10' 19.688" N	98d 9' 57.741" W	18-Sep-18
XX-22	Photos 032- 035	Gate locked, no mailbox. House originally identified is overgrown with trees and considered unoccupied.	Non-occupied	Non-participating	43d 4' 51.192" N	98d 9' 18.526" W	18-Sep-18
XX-22A	Photos 036	Located next to potential house XX.22. Gate was locked (In Google Earth photo there is no gate and a mailbox is present at end of driveway). Has newer roof, has electric meter visible on side of building, driveway appears maintained and used (no tall grass). Could not gain closer view, so considered occupied	Occupied	Non-participating	43d 11' 47.88" N	98d 1' 15.89" W	18-Sep-18
XX-23	Photo 026	Has mailbox, but overgrown with vegetation, windows broken. House looks very fragile	Non-occupied	Non-participating	43d 4' 52.288" N	97d 59' 19.726" W	17-Sep-18
XX-24	Photos 012 & 013	Overgrown vegetation, no mailbox, no electric	Non-occupied	Non-participating	43d 3' 57.850" N	98d 4' 12.042" W	17-Sep-18
XX-25	Photo 016 & 017	Gate locked and way back from road, no access, no mailbox, no electric	Non-occupied	Leased	43d 2' 53.592" N	98d 3' 15.406" W	17-Sep-18
XX-26	Photo 018 & 019	Overgrown vegetation, broken windows	Non-occupied	Leased	43d 2' 17.864" N	98d 0' 49.813" W	17-Sep-18
XX-27	Photos 020 & 021	Locked gate, no mail box, no access	Non-occupied	Leased	43d 1' 36.832" N	98d 0' 44.229" W	17-Sep-18
XX-28	Photo 015	House and surrounding trees appear to have been removed. Structure in background shows up behind house on aerials and is not believed to be occupied either	Non-occupied	Non-participating	43d 1' 30.692" N	98d 4' 2.560" W	17-Sep-18

Path: Z:\Resources\Local\Clients\KCM\EN\S\PowerGroup\104294_PrevailingWind\ArcGIS\Geospatial\DataFiles\ArcDocs\PUC Data Requests\OccupiedResidences.mxd apwoehler 9/26/2018
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Revised Layout
Prevailing Wind Park
Wind Energy Facility
SDPUC Application