

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

**IN THE MATTER OF THE)
APPLICATION OF CROWNED)
RIDGE WIND, LLC FOR A) EL-19-003
PERMIT OF A WIND ENERGY)
FACILITY IN GRANT)
AND CODINGTON COUNTIES)**

**IN THE MATTER OF THE)
STAFF’S PETITION FOR)
A SHOW CAUSE ORDER) EL20-002
REGARDING)
CROWNED RIDGE WIND, LLC)**

WEEKLY REPORT ON AIRCRAFT DETECTION LIGHT SYSTEM

On May 26, 2020, in Docket Nos. EL19-003 and EL20-002 Crowned Ridge Wind, LLC (“Crowned Ridge”) committed to file weekly reports that (1) show the same information in Table 1 of the May 26, 2020 submittal for the previous week; and (2) explain what adjustments and filters were applied to the Aircraft Detection Light System (“ADLS”) in that week.

This report provides the weekly table for June 7-13, 2020 in Table 1-A and explains adjustments, filters, and corrective action taken as a result of a communication issue with the ADLS on-site server. The corrective action taken to restore the communication with the ADLS on-site server and subsequent review of data indicated the need to correct data previously submitted in the May 24 to May 30, 2020 weekly report, which is provided in Table 1-B. In addition, Crowned Ridge is providing in Table 2 a complete set of data in a tabular format from the date the ADLS was operational on April 28, 2020 to June 13, 2020. Table 2 includes columns showing when aircraft was in the area, resulting in the ADLS activating the warning lights. It also

shows that due to a communication issue with the ADLS on-site server the ADLS defaulted to lights on for 100% of the time between May 24 and June 5, 2020.

Crowned Ridge acknowledges the inconvenience the ADLS defaulting to a lights on mode may have caused in the project area; however, our priority is the safety of aircraft in area, and the ADLS worked properly and consistent with Federal Aviation Administration (“FAA”) regulations by defaulting to a lights-on mode. At this time, the communication issue has been corrected. Crowned Ridge remains committed to continue to make adjustments to this new ADLS technology with safety as a priority.

TABLE 1-A FOR WEEK OF JUNE 7, 2020 TO JUNE 13, 2020

Sunset	Sunrise	Total night hours	Lights on hours during night	Lights on night percentage	Time warning lights were on due to aircraft in the area ¹
6/7/2020 20:11:59 PM	6/8/2020 04:40:26 AM	8.47	3.24	38.25	2 Hr, 12 Min
6/8/2020 20:12:40 PM	6/9/2020 04:40:11 AM	8.45	5.8	69.28	1 Hr, 44 Min
6/9/2020 20:13:15 PM	6/10/2020 04:40:00 AM	8.44	2.65	31.07	1 Hr, 55 Min
6/10/2020 20:13:50 PM	6/11/2020 04:39:51 AM	8.43	2.19	26	2 Hr, 7 Min
6/11/2020 20:14:20 PM	2020-06-11 04:39:51.120	8.42	1.40	16.60	1 Hr, 19 Min
6/12/2020 20:14:53 PM	6/13/2020 04:39:39 AM	8.41	2.73	32.43	2 Hr, 43 Min
6/13/2020 20:15:19 PM	6/14/2020 04:39:38 AM	8.40	0.89	10.61	0 Hr, 53 Min

¹The “time warning lights were on due to aircraft in the area” data shown in the tables are based on a review of the radar imaging of a vehicle similar in size and speed to an aircraft. Crowned Ridge staff and the Detect General Manager have also visually observed aircraft in the area at night and close enough for the ADLS activate the warning lights.

Adjustments, Filters, and Corrective Action Taken the Week of June 7-13, 2020

Crowned Ridge determined there was a communication issue with the ADLS on-line server not accepting communications from DeTect, the company managing the ADLS, which resulted in the ADLS defaulting to having the lights on at all times. To address this issue, DeTect sent a General Manager to the site to conduct a root cause analysis with Crowned Ridge staff and offsite programmers. It was determined the root cause of the communication issue between the DeTect manager and the on-site server was insufficient bandwidth. The bandwidth and programs were adjusted, and the on-site server will now accept all communications from DeTect. Crowned Ridge has also installed an alarm, so the operations site manager will receive an automated notification if the ADLS defaults into a lights on mode. Once the operations site manager receives the alarm, he will dispatch subject matter experts to resolve the issue. Below is an example of an alarm email that is generated and sent to DeTect staff and to the Crowned Ridge operations site manager when the ADLS defaults to a warning lights on mode. This alarm will result in staff from DeTect and Crowned Ridge investigating why the ADLS is in the default mode and resolving the issue.

Crowned Ridge 2020-06-14 20:10 – ADLS Offline Alert

Harrier ADLS Alert

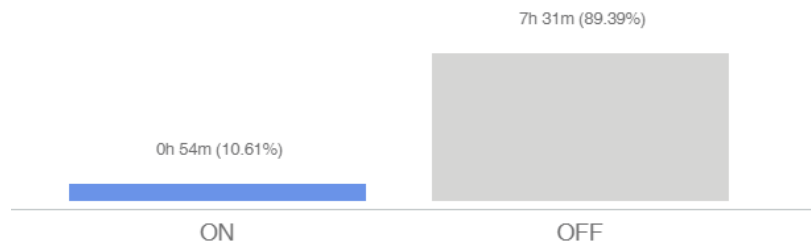
AdlsOffline Failure from 2020-06-14 20:00:20 to 2020-06-14 20:00:23 (0 mins and 3 secs).

Please, check the system.

DeTect team.

Additionally, redundant automatic reporting has been implemented to provide daily summaries to DeTect staff and to the Crowned Ridge operations site manager. Below is a generic example of the daily summary email generated by the system so that DeTect and Crowned Ridge are provided the current status of the ADLS and how it is performing.

Harrier ADLS Summary



- Lights were OFF for 7h and 31min during the night.
- 46 aircraft detections events were fired during the day (11h and 29min) and 8 during the night (54min).
- 233 aircraft lost events were fired during the day and 13 during the night.
- There were no weather events.
- There were no radar processing failures.
- No Adls failsafe events.
- There were no Database failures.
- No Lights comms tests were performed.
- No comms failures with Adls Manager.

Due to the communication issue, the data submitted for the week of May 24 to May 30, 2020, was not correct, as the lack of communications between DeTect and the on-site ADLS server resulted in the ADLS defaulting to warning lights on. The corrected data is provided in Table 1-B.

CORRECTED DATA TABLE 1-B FOR WEEK OF MAY 24 TO MAY 30, 2020

Sunset	Sunrise	Total night hours (original filing)	Lights on night % (original filing)	Lights on night % (corrected)
5/24/2020 20:00	5/25/2020 4:47	8.79	4.87	100.00
5/25/2020 20:01	5/26/2020 4:46	8.76	59.56	100.00
5/26/2020 20:02	5/27/2020 4:46	8.73	9.85	100.00
5/27/2020 20:03	5/28/2020 4:45	8.71	33.98	100.00
5/28/2020 20:04	5/29/2020 4:44	8.68	7.46	100.00
5/29/2020 20:05	5/30/2020 4:44	8.65	23.15	100.00
5/30/2020 20:05	5/31/2020 4:43	8.63	35.58	100.00

In conclusion, while the ADLS defaulted to a lights on mode consistent with the FAA regulations, Crowned Ridge will continue to work to improve the ADLS so to minimize the time the warning lights are activated with safety being the first priority.

Sincerely,

June 16, 2020

/s/ Miles Schumacher _____

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