

# SNOW STAR FARM

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Jonathan A. Evans  
Presiding Officer  
New Hampshire Site Evaluation Subcommittee  
21 South Fruit Street, Suite 10  
Concord, NH 03301

## **RE: DOCKET NO. 2021-02 INVESTIGATION OF COMPLAINTS REGARDING THE ANTRIM WIND ENERGY FACILITY**

Dear Subcommittee Chair Evans,

Thank you for the opportunity to submit these comments in the above referenced matter before the SEC prior to the public meeting of the full Site Evaluation Committee scheduled for July 21<sup>st</sup>, 2021.

I would like to direct the Subcommittee's attention to two documents submitted by TransAlta to Senior Assistant Attorney General Kelvin Brooks in reference to the operation of the Aircraft Detection Lighting System at the Antrim Wind facility. I am attaching these documents for reference.

By way of introduction, the Aircraft Detection Lighting System (ADLS) was installed at the Antrim facility to comply with the agreement that the night time lighting on the turbines would provide minimal impact on light pollution in the region. The prediction of the manufacturers of this equipment was that, based on the sparse levels of nearby night time air traffic, the flashing turbine lights would remain off approximately 99% of the time. This was to be accomplished by radar monitoring of air traffic, and, in the absence of any aircraft within an elongated dome-shaped area of 3 nautical miles radius and 1000 feet in altitude around and above the turbines, the flashing turbine warning lights would remain off. When properly operating, the lighting would be triggered on when an aircraft enters the active zone and remain on as long as that craft remains within the zone. If the ADLS is not able to track aircraft progress within the activation zone, then FAA regulations call for the lights to remain on for a duration of 30 minutes from the initial triggering.

Attorney Brooks requested that TransAlta supply a complete record of when the strobe lights were in operation and when they were not. Instead, what was provided was only cumulative summary data of percentage of times the lights were in operation. These summaries were provided in curious, obtuse forms. Close examination of the data presented yields some very curious figures.

The first document, titled "Antrim Wind – 2021 ADLS Data", is a very odd graph of dots which appear to represent percentages of time that the lights were on, during the period from January 1<sup>st</sup>, 2021 to the last part of June, 2021. Besides being extremely difficult to read and interpret, this graph raises several very troubling questions about the accuracy of TransAlta's data. For instance, why are there at the most only 20 data points for each month, regardless of the number of nights in the month? More troubling is the question of how TransAlta, during the period between March 2<sup>nd</sup>, 2021 and April 11<sup>th</sup>, 2021 was able to record the strobe lighting in operation from 100% to approximately 112% of the time at least a half dozen days. As a Professor of Communications, I would only be able to interpret this as an indicator of faulty data recording and/or incompetent data representation. Either way, it calls into question the accuracy of ALL data submitted by TransAlta.

The second submission, a chart titled "Antrim Wind – June 2021 ADLS Data", is a numerical table of, again, cumulative percentages of the times the lights were either activated or deactivated (obfuscatory chartspeak for "on" and "off"). Even if we are to take these figures at face value, it is obvious that the amount of time the lights were on far exceeds the promises made by the applicant and expected by the residents of Antrim.

TransAlta admitted that the ADLS was not functioning optimally during the first part of the year, resulting in the lighting being on most of the time every night. During a period in May, 2021, "upgrades" to the system were installed to bring it up to the predicted operation capabilities. However, a study of the cumulative percentage of "activated" times shown after the completion of said upgrades shows that the lights were still flashing an average of over 42% of the time every night, and over 60% of the time some nights. Never were the lights off more than 74% of the time, a far cry from the predicted and promised 99%.

If we parse the percentages of "activated" times using the FAA's regulations for amount of time the lights should trigger for each encounter, TransAlta's data suggests that, during the period from June 5<sup>th</sup>, 2021 to June 22<sup>nd</sup>, 2021, there were a total of 139 night time aircraft passages under 1000 feet in altitude over the turbines (for an average of almost 8 encounters per night). This is patently absurd for this very rural are, and, again, this brings into question the accuracy of ALL of TransAlta's data AND the ability of the ADLS to keep the strobe lighting off most of the time.

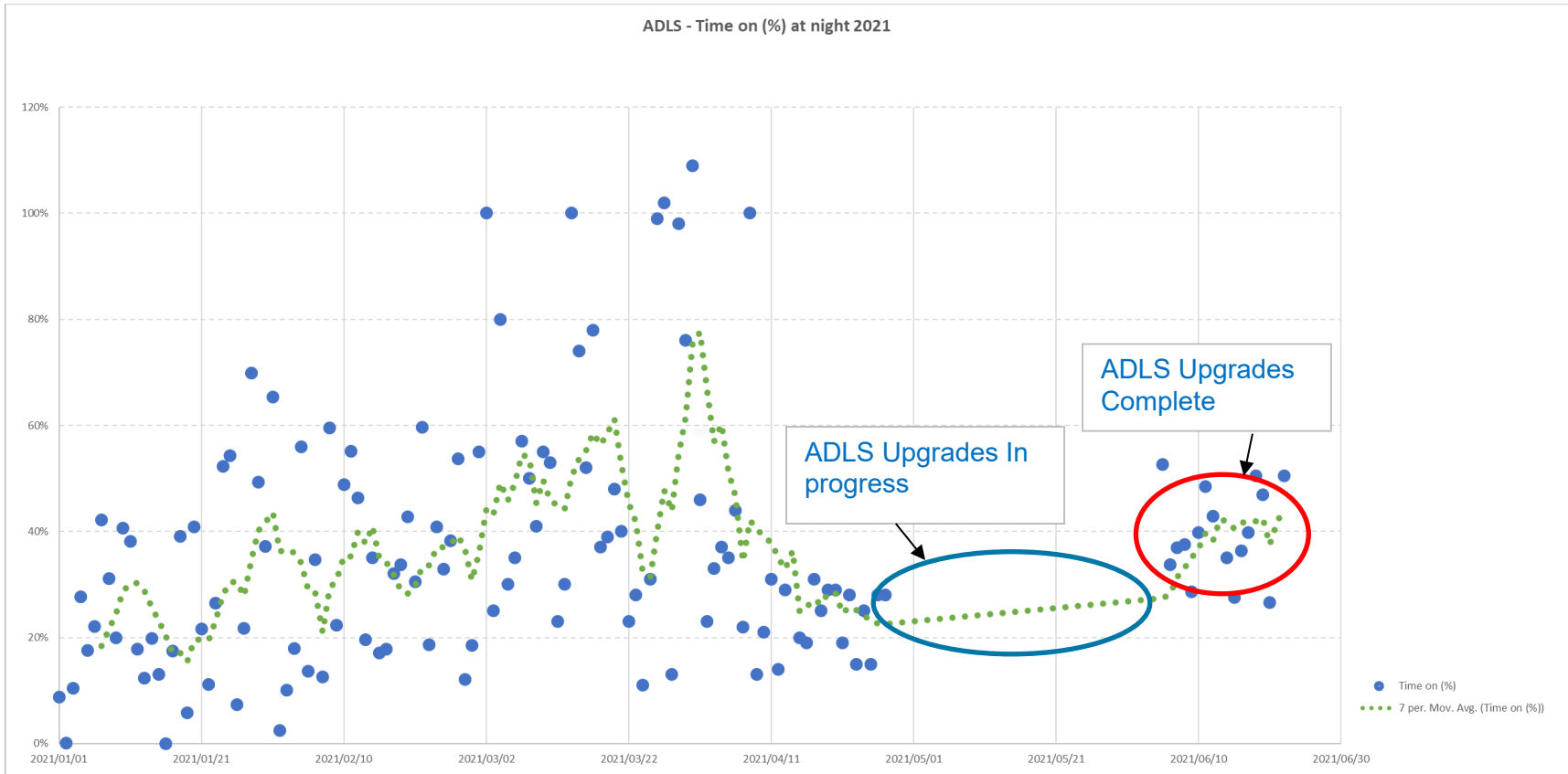
The residents of Antrim deserve to experience the conditions promised to them in the Certificate of Operation issued to Antrim Wind by the Site Evaluation Committee. That document is not only a contract between the developer and the State, but also a contract between both those entities and the people of Antrim. Failure to enforce the terms of the Certificate is de facto a breach of that contract and the residents of Antrim deserve satisfaction. I urge the Subcommittee to act to assure the observance of the terms of the Certificate.

Sincerely,



Richard Block  
**SNOW STAR FARM**

# Antrim Wind – 2021 ADLS Data



**Antrim Wind – June 2021 ADLS Data**

<b>Period Beginning</b>	<b>Sunset (UTC)</b>	<b>Period Ending</b>	<b>Sunrise (UTC)</b>	<b>Duration of Night</b>	<b>Lights Activated Percentage</b>	<b>Lights Deactivated Percentage</b>	<b>Total %</b>	<b>Lights Activated Time</b>	<b>Lights Deactivated Time</b>
2021/06/05 0:23	0:23:00	2021/06/05 9:10	9:10:00	8:47:00	52.67%	47.33%	100.00%	4:37:34	4:09:26
2021/06/06 0:24	0:24:00	2021/06/06 9:10	9:10:00	8:46:00	33.72%	66.28%	100.00%	2:57:22	5:48:38
2021/06/07 0:25	0:25:00	2021/06/07 9:10	9:10:00	8:45:00	36.91%	63.09%	100.00%	3:13:47	5:31:13
2021/06/08 0:26	0:26:00	2021/06/08 9:09	9:09:00	8:43:00	37.50%	62.50%	100.00%	3:16:07	5:26:52
2021/06/09 0:26	0:26:00	2021/06/09 9:09	9:09:00	8:43:00	28.64%	71.36%	100.00%	2:29:47	6:13:13
2021/06/10 0:27	0:27:00	2021/06/10 9:09	9:09:00	8:42:00	39.78%	60.22%	100.00%	3:27:39	5:14:21
2021/06/11 0:27	0:27:00	2021/06/11 9:09	9:09:00	8:42:00	48.51%	51.49%	100.00%	4:13:13	4:28:47
2021/06/12 0:28	0:28:00	2021/06/12 9:09	9:09:00	8:41:00	42.93%	57.07%	100.00%	3:43:40	4:57:20
2021/06/13 0:28	0:28:00	2021/06/13 9:09	9:09:00	8:41:00	61.44%	38.56%	100.00%	5:20:06	3:20:54
2021/06/14 0:29	0:29:00	2021/06/14 9:08	9:08:00	8:39:00	35.05%	64.95%	100.00%	3:01:55	5:37:05
2021/06/15 0:29	0:29:00	2021/06/15 9:08	9:08:00	8:39:00	27.49%	72.51%	100.00%	2:22:40	6:16:20
2021/06/16 0:30	0:30:00	2021/06/16 9:08	9:08:00	8:38:00	36.32%	63.68%	100.00%	3:08:08	5:29:52
2021/06/17 0:30	0:30:00	2021/06/17 9:08	9:08:00	8:38:00	39.75%	60.25%	100.00%	3:25:54	5:12:06
2021/06/18 0:30	0:30:00	2021/06/18 9:09	9:09:00	8:39:00	50.52%	49.48%	100.00%	4:22:12	4:16:48
2021/06/19 0:31	0:31:00	2021/06/19 9:09	9:09:00	8:38:00	46.92%	53.08%	100.00%	4:03:03	4:34:57
2021/06/20 0:31	0:31:00	2021/06/20 9:09	9:09:00	8:38:00	26.55%	73.45%	100.00%	2:17:32	6:20:28
2021/06/21 0:31	0:31:00	2021/06/21 9:09	9:09:00	8:38:00	62.39%	37.61%	100.00%	5:23:11	3:14:49
2021/06/22 0:32	0:32:00	2021/06/22 9:09	9:09:00	8:37:00	50.48%	49.52%	100.00%	4:20:59	4:16:01

<b>Average</b>	42.09%	57.91%	-	03:39:09	05:01:37
<b>Median</b>	39.77%	60.24%	-	03:26:47	05:13:14
<b>Min.</b>	26.55%	37.61%	-	02:17:32	03:14:49
<b>Max.</b>	62.39%	73.45%	-	05:23:11	06:20:28