



September 17, 2019

Mr. Michael Carey
SWEB Development USA LLC
209 West Central Street, Suite 306
Natick, MA, USA, 01760

Dear Mr. Carey,

Re: Shadow Flicker Assessment
Silver Maple Wind Project

Introduction

Strum Consulting (Strum) was retained by SWEB Development USA LLC (SWEB) to conduct a shadow flicker assessment for the proposed Silver Maple Wind Project (the Project) located near the town of Clifton, Maine, USA. SWEB is proposing the development of a 20 megawatt (MW) wind power project that would consist of five wind turbines, and would be located adjacent the existing 9 MW Pisgah Mountain wind energy project that is also owned by SWEB.

SWEB is considering two turbine models which are largely the same, with the exception of the hub height [100m (328 feet) and 117m (384 feet)]. Both turbine models will be evaluated in this assessment.

Pursuant to Maine Law 38 M.R.S. § 484(10), wind energy developments must be sited to avoid unreasonable shadow flicker effects. The Town of Clifton's Land Use Ordinance has also set criteria for evaluating and assessing shadow flicker impacts which must also be taken into consideration.

The purpose of this assessment is to conduct a shadow flicker assessment consistent with the requirements of the State of Maine and the Town Clifton to support SWEB's applications for the development of the Project. In addition to these assessments, we will provide guidelines for the mitigation of the shadow flicker exposure as necessary.

Methodology

Shadow flicker is caused by alternating changes in light intensity caused by rotating wind turbine blades casting shadows on the ground, an object, or a building. Shadow flicker occurs as the shadows of the blades move past the observation point, when the rotor is directly between the observer and the sun, and the rotor is spinning.

Engineering • Surveying • Environmental

Head Office
Railside, 1355 Bedford Hwy.
Bedford, NS B4A 1C5
t. 902.835.5560 (24/7)
f. 902.835.5574

Antigonish Office
3-A Vincent's Way
Antigonish, NS B2G 2X3
t. 902.863.1465 (24/7)
f. 902.863.1389

Moncton Office
45 Price Street
Moncton, NB E1A 3R1
t. 1.855.770.5560 (24/7)
f. 902.835.5574

Deer Lake Office
101 Nicholasville Road
Deer Lake, NL A8A 1V5
t. 1.855.770.5560 (24/7)
f. 902.835.5574

The WEA sets a limit of 30 hours per year of shadow flicker exposure (shadow hours) at an occupied building. Additionally, the LUO sets a limit of 10 shadow hours per year at a non-participating residential parcel and a roadway, and 0 shadow hours at a roadway intersection. For the purpose of this analysis, shadow hours at each shadow receptor (defined below) were estimated using the Shadow (Flicker) Module of Windpro v3.2 Software, which takes into account the turbine information (hub height, blade sweep, location, etc.), topography, and the location and elevation of each receptor location. A bare terrain model was used to generate conservative estimations of the shadow flicker exposure estimations in the absence of vegetation, although it is highly likely that vegetation (tree cover) would reduce the actual shadow flicker exposure at receptors. Additionally, “greenhouse mode” was enabled for each receptor location, which assumes that the receptor (e.g. a building) is facing all directions. This is useful when the actual properties of the receptor are unknown or if there are wind turbines on more than one side of the receptor which may contribute to the flickering impact.

Shadow Receptors are defined as:

- A building
- A vacant residential parcel (e.g. a plot of land zoned as residential where no building has yet been developed)
- A roadway, or
- An intersection between two roadways.

The location of all identified shadow receptors are shown on Drawing 1. The results of the shadow model are shown on Drawing 2a and 2b and in the Tables A1, A2 and A3 in Appendix A.

As roadways are long linear features that are often bordered by vegetation (trees, forest, etc.) that blocks the visibility of the turbines, a vegetation buffer was included in the shadow model for roads. A site visit to the roads that were identified in the area confirmed that Springy Pond Road is bordered by 50 to 80 ft tall forests for its entire length. See the photolog in Appendix B or photos taken along Springy Pond Road. Pomoroy Logging Inc. is a commercial quarry and logging operation located on Springy Pond Road. The driveway into the Pomoroy Logging Inc. compound is not shaded by trees so there would be a clear line of sight to the Project. SWEB has negotiated a shadow flicker easement with Gary Pomoroy of Pomoroy Logging Inc., classifying them as a participating receptor, so any shadow flicker exposure on their property, including roads, was not considered in this model.

Results

Buildings

The shadow flicker model results for buildings are shown in Table A1, Appendix A. A total of 254 building receptors were located within 2 miles of the Project site. Of these 254 buildings, 233 will not receive shadow flicker exposure from the Project at either hub height. Twenty-one (21) buildings will receive shadow flicker exposure, which ranges from between 6 hours and 21 minutes (6:21) to 23:25 for the 105 m hub height turbine model, and from 6:21 to 22:22 for the 117 m hub height model.

There are no instances in which the 30h per year of shadow flicker threshold, as defined by the Wind Energy Act (WEA Constraint), is exceeded for either turbine model. However, there are 13 building receptors where the 10h per year threshold set in the Town of Clifton's Land Use Ordinance (CLUO Constraint) is exceeded for both the 105 m or 117 m turbine models. The shadow flicker model results and locations of where the thresholds are exceeded are shown on Drawings 2a and 2b. As a result of the shadow flicker exceedances, a shadow flicker curtailment schedule was developed based on the shadow flicker model results. The shadow flicker curtailment schedule is presented in Tables A4 and A5, and prescribes a curtailment schedule for each turbine for a full year down to one minute resolution. Provided that the curtailment schedule is adhered to, the shadow flicker exposure at all building receptors would be below the 10h per year CLUO threshold. The shadow flicker estimates for buildings with the curtailment plan enacted is also provided in Tables A1 and A2.

Vacant Residential Lots

The shadow flicker model results for vacant residential parcel receptors (VRPRs) are shown in Table A2 in Appendix A. A total of 17 VRPRs located within 1 mile of the Project site were modeled by centralizing a point within the parcel to represent the location of a potential future building. The shadow flicker model results show that of these 17 VRPRs, 8 will not receive any shadow flicker exposure from the Project at either hub height. Nine (9) VRPRs will receive shadow flicker exposure, which ranges from 8:55 hours and 26:25 for the 105 m hub height turbine model, and from 9:00 to 26:31 for the 117 m hub height turbine model.

There are no instances in which the 30h per year WEA Constraint is exceeded for either the 105 m or 117 m turbine model. There are seven vacant lot receptors where the 10h per year CLUO Constraint is exceeded for both the 105 m and 117 m turbine models. Vacant residential lots were also considered when the shadow flicker curtailment schedules (see Tables A4 and A5) were developed. Again, provided the curtailment schedule is adhered to, the shadow flicker exposure at all vacant residential lots will be below the 10h per year CLUO threshold as well. The shadow flicker estimates for vacant residential lots with the curtailment plan enacted is also provided in Tables A1 and A2.

Roads

The shadow flicker model results for roads are summarized in Table A3 in Appendix A. A total of 23 road points separated by 0.1 mile increments were modeled along two roads, the Bangor Water Works Road and Springy Pond Road. Factoring in the effect that the surrounding vegetation has on turbine visibility from the road, there would be no shadow flicker exposure on either of these roads for both the 105 m and 117 m turbine models.

Discussion and Recommendations

Shadow Flicker

The shadow flicker models prepared for the Silver Maple Wind Project show that the majority of receptors in the area will receive little or no shadow flicker exposure. Receptors located within 1 mile to the east and west of the Project will generally be at higher risk of shadow flicker exposure owing to the path of the sun as it travels from east to west across the sky.

It should be noted that shadow flicker exposure limits are very conservative as they do not account for cloud cover which would reduce the actual shadow flicker exposure substantially. Additionally, the model assumes that the axis of the rotor rotation is always facing the receptors in the model, which would not be the case, further reducing the shadow flicker exposure. Realistically, the actual shadow flicker exposure could be expected to be 25% to 50% less than the results shown in the model, but results would vary significantly depending on weather and wind conditions.

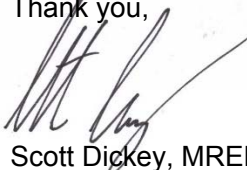
The shadow flicker exposure estimations in the model show that the 30h per year WEA Constraint was met for all receptors for both the 105 m and 117 m hub heights without any need to curtail the turbines. The 10h per year CLUO shadow flicker limit was exceeded for a number of receptors. As such, we recommend that a shadow flicker curtailment program based on the curtailment schedule (see Tables A4 and A5) be implemented, which would keep shadow flicker exposure at all receptors below the 10h per year CLUO limit.

Closure

The results of these assessments are based on analysis conducted with Windpro software which is the industry standard for modeling and assessing the environmental impact of wind turbines. Additionally, the assessment guidelines and requirements prescribed by the State of Maine's Department of Environmental Protection and the Town of Clifton's Land Use Ordinance were adhered to when conducting this assessment.

Please contact us with any questions you may have.

Thank you,



Scott Dickey, MREM
Environmental Scientist
sdickey@strum.com



Shawn Duncan, BSc.
Vice President
sduncan@strum.com

Statement of Qualifications and Limitations

This Report (the "Report") has been prepared by Strum Consulting ("Consultant") for the benefit of SWEB Developments USA LLC. ("Client") in accordance with the agreement between Consultant and Client, including the scope of work detailed therein (the "Agreement").

The information, data, recommendations, and conclusions contained in the Report (collectively, the "Information"):

- is subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the "Limitations")
- represents Consultant's professional judgement in light of the Limitations and industry standards for the preparation of similar reports
- may be based on information provided to Consultant which has not been independently verified
- has not been updated since the date of issuance of the Report and its accuracy is limited to the time period and circumstances in which it was collected, processed, made or issued
- must be read as a whole and sections thereof should not be read out of such context
- was prepared for the specific purposes described in the Report and the Agreement
- in the case of subsurface, environmental, or geotechnical conditions, may be based on limited testing and on the assumption that such conditions are uniform and not variable either geographically or over time

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This Statement of Qualifications and Limitations forms part of the Report and any use of the Report is subject to the terms hereof.

Should additional information become available, Strum requests that this information be brought to our attention immediately so that we can re-assess the conclusions presented in this report. This report was prepared by Scott Dickey, MREM, Environmental Scientist, and was reviewed by Shawn Duncan, BSc., Vice President.

DRAWINGS

APPENDIX A

Table A1 - Silver Maple Wind Project Shadow Flicker Model Results - Building Receptors within

Receptor ID	105m Hub Height				117m Hub Height			
	Shadow Hours per Year (Un-Curtailed)	Shadow Hours per Year (Curtailed)	30h WEA Constraint Met	10h CLUO Constraint Met	Shadow Hours per Year (Un-Curtailed)	Shadow Hours per Year (Curtailed)	30h WEA Constraint Met	10h CLUO Constraint Met
DQ	23:25	8:58	Yes	Yes	22:22	9:54	Yes	Yes
DR	8:49	0:00	Yes	Yes	8:57	0:00	Yes	Yes
DS	10:28	9:52	Yes	Yes	10:43	9:23	Yes	Yes
DT	6:57	0:00	Yes	Yes	7:01	0:00	Yes	Yes
DU	8:17	0:00	Yes	Yes	8:21	0:00	Yes	Yes
DV	8:55	0:00	Yes	Yes	9:08	0:00	Yes	Yes
DW	8:36	0:00	Yes	Yes	8:47	0:00	Yes	Yes
DX	8:33	0:00	Yes	Yes	8:47	0:00	Yes	Yes
DY	8:00	0:00	Yes	Yes	8:09	0:00	Yes	Yes
DZ	9:38	0:00	Yes	Yes	9:57	0:00	Yes	Yes
EA	10:15	9:59	Yes	Yes	10:38	9:23	Yes	Yes
EB	10:40	9:43	Yes	Yes	11:06	9:30	Yes	Yes
EC	11:30	9:48	Yes	Yes	12:09	9:49	Yes	Yes
ED	12:57	9:27	Yes	Yes	14:17	9:57	Yes	Yes
EE	15:17	9:31	Yes	Yes	16:54	9:58	Yes	Yes
EF	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EG	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EH	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EI	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EJ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EK	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EL	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EM	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EN	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EO	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EP	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EQ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
ER	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
ES	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
ET	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EU	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EV	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EW	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EX	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EY	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
EZ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FA	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FB	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FC	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FD	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FE	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FF	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FG	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FH	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FI	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FJ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FK	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FL	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FM	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FN	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FO	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FP	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FQ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FR	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FS	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FT	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FU	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FV	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FW	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FX	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FY	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
FZ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GA	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GB	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GC	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GD	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GE	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GF	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GG	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GH	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GI	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GJ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GK	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GL	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GM	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GN	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GO	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GP	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GQ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GR	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GS	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GT	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GU	6:21	0:00	Yes	Yes	6:21	0:00	Yes	Yes
GV	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GW	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GX	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GY	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
GZ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HA	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HB	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HC	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HD	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HE	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HF	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HG	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HH	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HI	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HJ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HK	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HL	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HM	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HN	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HO	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HP	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HQ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HR	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HS	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HT	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HU	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HV	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HW	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HX	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HY	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
HZ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IA	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IB	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IC	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
ID	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IE	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IF	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes

Table A1 - Silver Maple Wind Project Shadow Flicker Model Results - Building Receptors within

Receptor ID	105m Hub Height				117m Hub Height			
	Shadow Hours per Year (Un-Curtailed)	Shadow Hours per Year (Curtailed)	30h WEA Constraint Met	10h CLUO Constraint Met	Shadow Hours per Year (Un-Curtailed)	Shadow Hours per Year (Curtailed)	30h WEA Constraint Met	10h CLUO Constraint Met
IG	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IH	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
II	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IJ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IK	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IL	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IM	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IN	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IO	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IP	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IQ	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IR	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IS	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
IT	18:41	9:53	Yes	No	16:19	9:55	Yes	Yes

Table A2 - Silver Maple Wind Project Shadow Flicker Model Results - Vacant Residential Parcels

Receptor ID	105m Hub Height				117m Hub Height			
	Shadow Hours per Year (Un-Curtailed)	Shadow Hours per Year (Curtailed)	30h WEA Constraint Met	10h CLUO Constraint Met	Shadow Hours per Year (Un-Curtailed)	Shadow Hours per Year (Curtailed)	30h WEA Constraint Met	10h CLUO Constraint Met
A	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
B	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
C	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
D	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
E	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
F	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
G	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
H	16:50	9:35	Yes	Yes	17:10	9:53	Yes	Yes
I	17:16	9:46	Yes	Yes	17:42	9:51	Yes	Yes
J	0:00	0:00	Yes	Yes	0:00	0:00	Yes	Yes
K	26:09	9:56	Yes	Yes	26:37	9:48	Yes	Yes
L	19:16	9:49	Yes	Yes	19:02	9:53	Yes	Yes
M	10:22	9:57	Yes	Yes	9:55	0:00	Yes	Yes
N	8:55	0:00	Yes	Yes	9:00	0:00	Yes	Yes
O	26:25	9:50	Yes	Yes	26:31	9:59	Yes	Yes
P	16:35	9:49	Yes	Yes	16:47	9:46	Yes	Yes
Q	13:36	9:30	Yes	Yes	14:37	9:45	Yes	Yes

Table A3 - Silver Maple Wind Project Shadow Flicker Model Results - Roads

Road	Road Point	105m Hub Height		117m Hub Height	
		Shadow Hours per Year	10h CLUO Constraint Met	Shadow Hours per Year	10h CLUO Constraint Met
Bangor Water Works Road	A	0:00	Yes	0:00	Yes
	B	0:00	Yes	0:00	Yes
	C	0:00	Yes	0:00	Yes
	D	0:00	Yes	0:00	Yes
	E	0:00	Yes	0:00	Yes
	F	0:00	Yes	0:00	Yes
	G	0:00	Yes	0:00	Yes
	H	0:00	Yes	0:00	Yes
	I	0:00	Yes	0:00	Yes
Springy Pond Road	J	0:00	Yes	0:00	Yes
	K	0:00	Yes	0:00	Yes
	L	0:00	Yes	0:00	Yes
	M	0:00	Yes	0:00	Yes
	N	0:00	Yes	0:00	Yes
	O	0:00	Yes	0:00	Yes
	P	0:00	Yes	0:00	Yes
	Q	0:00	Yes	0:00	Yes
	R	0:00	Yes	0:00	Yes
	S	0:00	Yes	0:00	Yes
	T	0:00	Yes	0:00	Yes
	U	0:00	Yes	0:00	Yes
	V	0:00	Yes	0:00	Yes
W	0:00	Yes	0:00	Yes	

Table A4 - Silver Maple Wind Project - Shadow Flicker Curtailement Schedule - 105m Hub Height

Date	Turbine Curtailement Schedule - 105m Hub Height				
	TB1	TB2	TB3	TB4	TB5
1-Jan	8:00 to 8:23				8:23 to 8:30
2-Jan	8:00 to 8:23				8:23 to 8:30
3-Jan	8:00 to 8:23				8:23 to 8:30
4-Jan	8:00 to 8:23				8:23 to 8:30
5-Jan	8:00 to 8:23				8:23 to 8:30
6-Jan	8:00 to 8:23				8:23 to 8:30
7-Jan	8:00 to 8:23				8:23 to 8:30
8-Jan	8:00 to 8:23				8:23 to 8:30
9-Jan	8:00 to 8:23				8:23 to 8:30
10-Jan	8:00 to 8:23				8:23 to 8:30
11-Jan	8:00 to 8:23				8:23 to 8:30
12-Jan	8:00 to 8:23				
13-Jan	8:00 to 8:23				
14-Jan	8:00 to 8:23				
15-Jan	8:00 to 8:23				
16-Jan	8:00 to 8:23				
17-Jan	8:00 to 8:23				
18-Jan	8:00 to 8:23				
19-Jan	8:00 to 8:23				
20-Jan	8:00 to 8:23				7:49 to 7:57
21-Jan	8:00 to 8:23				7:49 to 7:57
22-Jan					7:49 to 7:57
23-Jan					
24-Jan					
25-Jan					
26-Jan					
27-Jan					
28-Jan					
29-Jan					
30-Jan					
31-Jan					
1-Feb					
2-Feb					
3-Feb					
4-Feb					
5-Feb					
6-Feb					
7-Feb					
8-Feb					
9-Feb					
10-Feb					
11-Feb					
12-Feb					
13-Feb					
14-Feb					
15-Feb					
16-Feb					
17-Feb					
18-Feb					
19-Feb					
20-Feb					
21-Feb					
22-Feb					
23-Feb	16:20 to 16:38				
24-Feb	16:20 to 16:38				
25-Feb	16:20 to 16:38				
26-Feb	16:20 to 16:38				
27-Feb	16:20 to 16:38				
28-Feb	16:20 to 16:38				
1-Mar	16:19 to 16:37				
2-Mar	16:19 to 16:37				
3-Mar	16:19 to 16:37				
4-Mar	16:19 to 16:37				
5-Mar	16:19 to 16:37				
6-Mar					
7-Mar					
8-Mar	17:41 to 17:51		17:40 to 17:50		
9-Mar	17:41 to 17:51		17:40 to 17:50		
10-Mar	17:41 to 17:51		17:40 to 17:50		
11-Mar	17:41 to 17:56		17:40 to 17:50		
12-Mar	17:41 to 17:56		17:40 to 17:50		
13-Mar	17:41 to 17:56		17:40 to 17:50		
14-Mar	17:41 to 17:56		17:40 to 17:50		
15-Mar	17:41 to 17:56		17:40 to 17:50		
16-Mar	17:41 to 17:59		17:40 to 17:50		
17-Mar	17:41 to 17:59		17:40 to 17:50		

Table A4 - Silver Maple Wind Project - Shadow Flicker Curtailement Schedule - 105m Hub Height

Date	Turbine Curtailement Schedule - 105m Hub Height				
	TB1	TB2	TB3	TB4	TB5
18-Mar	17:41 to 17:59		17:40 to 17:50		
19-Mar	17:41 to 17:59				
20-Mar	17:51 to 17:59				
21-Mar					
22-Mar					
23-Mar	7:03 to 7:11, 17:55 to 18:06				
24-Mar	7:03 to 7:11, 17:55 to 18:06				
25-Mar	7:03 to 7:11, 17:55 to 18:06				
26-Mar	7:03 to 7:11, 17:55 to 18:06				
27-Mar	7:03 to 7:11, 17:55 to 18:06				
28-Mar	7:03 to 7:11, 17:55 to 18:06				
29-Mar	7:03 to 7:11, 17:55 to 18:06				
30-Mar	7:03 to 7:11, 17:55 to 18:06				
31-Mar	7:03 to 7:11, 17:55 to 18:06				
1-Apr					
2-Apr					
3-Apr					
4-Apr					
5-Apr				18:50 to 19:05	
6-Apr				18:50 to 19:05	
7-Apr				18:50 to 19:05	
8-Apr			8:15 to 8:23	18:50 to 19:05	
9-Apr			8:15 to 8:23	18:50 to 19:05	
10-Apr			8:15 to 8:23	18:50 to 19:05	
11-Apr			8:15 to 8:23	18:50 to 19:05	
12-Apr			8:15 to 8:23		
13-Apr		18:30 to 18:39	8:15 to 8:23		
14-Apr		18:30 to 18:39	18:15 to 18:33		
15-Apr		6:20 to 6:30, 18:30 to 18:39	18:15 to 18:33		
16-Apr		6:20 to 6:30, 18:30 to 18:39	18:15 to 18:33		
17-Apr		6:20 to 6:30, 18:30 to 18:39	18:15 to 18:33		
18-Apr		6:20 to 6:30, 18:30 to 18:39	18:15 to 18:33		
19-Apr		6:20 to 6:30, 18:30 to 18:39	18:15 to 18:33		
20-Apr		6:20 to 6:30, 18:30 to 18:39	18:15 to 18:33		
21-Apr		6:20 to 6:30, 18:30 to 18:39	18:15 to 18:33		
22-Apr		6:20 to 6:30, 18:30 to 18:39	18:22 to 18:45		
23-Apr		6:20 to 6:30, 18:30 to 18:39	18:22 to 18:45		
24-Apr		6:20 to 6:30, 18:30 to 18:39	18:22 to 18:45		
25-Apr		6:20 to 6:30	18:22 to 18:45		
26-Apr		6:20 to 6:30	18:29 to 18:45		
27-Apr		6:20 to 6:30	18:29 to 18:45		
28-Apr		6:20 to 6:30	18:29 to 18:45		
29-Apr			18:29 to 18:45		
30-Apr			18:29 to 18:45		
1-May			18:29 to 18:40		
2-May			18:29 to 18:40		
3-May			18:29 to 18:40		
4-May			18:29 to 18:40		
5-May			18:29 to 18:40, 18:52 to 19:02		
6-May			18:29 to 18:40, 18:52 to 19:02		
7-May			18:52 to 19:04		
8-May			18:52 to 19:04		
9-May			18:52 to 19:04	19:02 to 19:12	
10-May			18:52 to 19:04	19:02 to 19:12	
11-May			18:52 to 19:04	19:02 to 19:12	
12-May			18:52 to 19:04	19:02 to 19:12	
13-May			18:52 to 19:12	19:02 to 19:12	
14-May			18:52 to 19:12	19:02 to 19:12	
15-May			18:52 to 19:12	19:02 to 19:12	
16-May	18:57 to 19:14		18:52 to 19:12	19:02 to 19:12	
17-May	18:54 to 19:14		18:52 to 19:12	19:02 to 19:12	
18-May	18:54 to 19:17		18:52 to 19:16	19:02 to 19:12	
19-May	18:54 to 19:17		18:52 to 19:16	19:02 to 19:12	
20-May	18:54 to 19:21		18:52 to 19:16	19:02 to 19:12	
21-May	18:54 to 19:21		18:52 to 19:16	19:02 to 19:12	
22-May	18:54 to 19:21		18:52 to 19:16	19:02 to 19:12	
23-May	18:54 to 19:21		18:52 to 19:16	19:02 to 19:12	
24-May	18:54 to 19:21		18:52 to 19:16	19:02 to 19:12	
25-May	18:54 to 19:21		19:03 to 19:16	19:02 to 19:12	
26-May	18:54 to 19:21		19:03 to 19:16	19:02 to 19:12	
27-May	18:54 to 19:21		19:03 to 19:16		
28-May	18:54 to 19:21		19:03 to 19:16		
29-May	18:54 to 19:21		19:03 to 19:16		
30-May	18:54 to 19:21		19:03 to 19:16		
31-May	18:54 to 19:21		19:03 to 19:16		
1-Jun	19:08 to 19:30		19:02 to 19:22		

Table A4 - Silver Maple Wind Project - Shadow Flicker Curtailement Schedule - 105m Hub Height

Date	Turbine Curtailement Schedule - 105m Hub Height				
	TB1	TB2	TB3	TB4	TB5
2-Jun	19:08 to 19:30		19:02 to 19:22		
3-Jun	19:08 to 19:30		19:02 to 19:22		
4-Jun	19:08 to 19:30		19:02 to 19:22		
5-Jun	19:08 to 19:30		19:02 to 19:22		
6-Jun	19:08 to 19:30		19:02 to 19:22		
7-Jun	19:08 to 19:30		19:02 to 19:22		
8-Jun	19:08 to 19:30		19:09 to 19:22		
9-Jun	19:08 to 19:30		19:09 to 19:22		
10-Jun	19:08 to 19:30		19:09 to 19:22		
11-Jun	19:08 to 19:30		19:09 to 19:22		
12-Jun	19:08 to 19:30		19:09 to 19:22		
13-Jun	19:08 to 19:30		19:09 to 19:22		
14-Jun	19:08 to 19:30		19:09 to 19:22		
15-Jun	19:08 to 19:30		19:09 to 19:22		
16-Jun	19:08 to 19:30		19:09 to 19:22		
17-Jun	19:08 to 19:30		19:09 to 19:22		
18-Jun	19:08 to 19:30		19:09 to 19:22		
19-Jun	19:08 to 19:30		19:09 to 19:22		
20-Jun	19:08 to 19:30		19:09 to 19:22		
21-Jun	19:08 to 19:30		19:09 to 19:22		
22-Jun	19:08 to 19:30		19:09 to 19:22		
23-Jun	19:08 to 19:30		19:09 to 19:22		
24-Jun	19:08 to 19:30		19:09 to 19:22		
25-Jun			19:09 to 19:22		
26-Jun			19:09 to 19:22		
27-Jun			19:09 to 19:22		
28-Jun			19:09 to 19:22		
29-Jun			19:09 to 19:22		
30-Jun			19:09 to 19:22		
1-Jul			19:19 to 19:35		
2-Jul			19:19 to 19:35		
3-Jul			19:19 to 19:35		
4-Jul			19:19 to 19:35		
5-Jul			19:19 to 19:35		
6-Jul			19:19 to 19:35		
7-Jul			19:19 to 19:35		
8-Jul			19:19 to 19:35		
9-Jul			19:19 to 19:35		
10-Jul			19:19 to 19:35		
11-Jul			19:19 to 19:35		
12-Jul			19:19 to 19:35		
13-Jul			19:19 to 19:35		
14-Jul			19:19 to 19:35		
15-Jul			19:19 to 19:35		
16-Jul	19:12 to 19:30		19:19 to 19:35	19:13 to 19:19	
17-Jul	19:12 to 19:30		19:15 to 19:26		
18-Jul	19:12 to 19:30		19:15 to 19:26		
19-Jul			19:15 to 19:26		
20-Jul			19:00 to 19:26		
21-Jul			19:00 to 19:26		
22-Jul			19:00 to 19:26		
23-Jul			19:00 to 19:26		
24-Jul			19:00 to 19:26		
25-Jul			19:00 to 19:26		
26-Jul			19:00 to 19:26		
27-Jul			19:00 to 19:26		
28-Jul			19:00 to 19:14		
29-Jul			19:00 to 19:14		
30-Jul			19:00 to 19:14		
31-Jul			19:00 to 19:14		
1-Aug			18:55 to 19:15		
2-Aug			18:55 to 19:15		
3-Aug			19:04 to 19:14		
4-Aug			19:04 to 19:14		
5-Aug			19:04 to 19:14		
6-Aug					
7-Aug					
8-Aug			18:26 to 18:47		
9-Aug			18:26 to 18:47		
10-Aug			18:26 to 18:47		
11-Aug			18:26 to 18:47		
12-Aug			18:26 to 18:47		
13-Aug			18:26 to 18:47		
14-Aug			18:26 to 18:47		
15-Aug			18:26 to 18:47		
16-Aug			18:26 to 18:47		

Table A4 - Silver Maple Wind Project - Shadow Flicker Curtailement Schedule - 105m Hub Height

Date	Turbine Curtailement Schedule - 105m Hub Height				
	TB1	TB2	TB3	TB4	TB5
17-Aug			18:26 to 18:47		
18-Aug			18:26 to 18:47		
19-Aug			18:23 to 18:47		
20-Aug			18:23 to 18:47		
21-Aug			18:23 to 18:47		
22-Aug			18:15 to 18:47		
23-Aug			18:15 to 18:47		
24-Aug			18:15 to 18:47		
25-Aug			18:15 to 18:47		
26-Aug			18:15 to 18:47		
27-Aug			18:15 to 18:47		
28-Aug			18:15 to 18:47		
29-Aug			18:15 to 18:31		
30-Aug			18:15 to 18:31		
31-Aug			18:15 to 18:31		
1-Sep					
2-Sep					
3-Sep					
4-Sep					
5-Sep					
6-Sep				18:05 to 18:14	
7-Sep				18:05 to 18:14	
8-Sep	17:45 to 17:53			18:05 to 18:14	
9-Sep	17:45 to 17:53			18:05 to 18:14	
10-Sep	17:45 to 17:53			18:05 to 18:14	
11-Sep	17:45 to 17:53			18:05 to 18:14	
12-Sep	17:45 to 17:53			18:05 to 18:14	
13-Sep	17:45 to 17:53			18:05 to 18:14	
14-Sep	17:45 to 17:53			18:05 to 18:14	
15-Sep	17:45 to 17:53			18:05 to 18:14	
16-Sep	17:45 to 17:53				
17-Sep	17:45 to 17:53				
18-Sep	17:45 to 17:53				
19-Sep	17:34 to 17:53				
20-Sep	17:34 to 17:53				
21-Sep	17:34 to 17:55				
22-Sep	17:34 to 17:55				
23-Sep	17:34 to 17:55				
24-Sep	17:34 to 17:55				
25-Sep	17:34 to 17:55				
26-Sep	17:34 to 17:55				
27-Sep	17:34 to 17:55				
28-Sep					
29-Sep					
30-Sep					
1-Oct					
2-Oct					
3-Oct					
4-Oct					
5-Oct					
6-Oct					
7-Oct					
8-Oct					
9-Oct	16:53 to 17:10				
10-Oct	16:53 to 17:10				
11-Oct	16:53 to 17:10				
12-Oct	16:53 to 17:10				
13-Oct	16:53 to 17:10				
14-Oct	16:53 to 17:10				
15-Oct	16:53 to 17:10				
16-Oct	16:53 to 17:10				
17-Oct	16:53 to 17:10				
18-Oct	16:53 to 17:10				
19-Oct	16:53 to 17:10				
20-Oct					
21-Oct					
22-Oct					
23-Oct					
24-Oct					
25-Oct					
26-Oct					
27-Oct					
28-Oct					
29-Oct					
30-Oct					
31-Oct					

Table A4 - Silver Maple Wind Project - Shadow Flicker Curtailement Schedule - 105m Hub Height

Date	Turbine Curtailement Schedule - 105m Hub Height				
	TB1	TB2	TB3	TB4	TB5
1-Nov					
2-Nov					
3-Nov					
4-Nov					
5-Nov					
6-Nov					
7-Nov					
8-Nov					
9-Nov					
10-Nov					
11-Nov					
12-Nov					
13-Nov					
14-Nov					
15-Nov					
16-Nov					
17-Nov					
18-Nov					
19-Nov					
20-Nov					
21-Nov					
22-Nov					
23-Nov					
24-Nov					
25-Nov					
26-Nov					
27-Nov					
28-Nov					
29-Nov					
30-Nov					
1-Dec					
2-Dec					
3-Dec					
4-Dec					
5-Dec					
6-Dec					
7-Dec					
8-Dec					
9-Dec					
10-Dec					
11-Dec					
12-Dec					
13-Dec					
14-Dec					
15-Dec					
16-Dec					
17-Dec					
18-Dec					8:00 to 8:12
19-Dec					8:00 to 8:12
20-Dec					8:00 to 8:12
21-Dec					8:00 to 8:12
22-Dec					8:00 to 8:12
23-Dec					8:00 to 8:12
24-Dec					8:00 to 8:12
25-Dec					8:00 to 8:12
26-Dec					8:00 to 8:12
27-Dec					8:00 to 8:12
28-Dec					8:00 to 8:12
29-Dec					8:00 to 8:27
30-Dec					8:00 to 8:27
31-Dec					8:00 to 8:27

Table A5 - Silver Maple Wind Project - Shadow Flicker Curtailement Schedule - 117m Hub Height

Date	Turbine Curtailement Schedule - 105m Hub Height				
	TB1	TB2	TB3	TB4	TB5
1-Jan					8:02 to 8:24
2-Jan					8:02 to 8:24
3-Jan					8:02 to 8:24
4-Jan					8:02 to 8:24
5-Jan					8:02 to 8:24
6-Jan					8:02 to 8:24
7-Jan					8:02 to 8:24
8-Jan					8:02 to 8:24
9-Jan					8:02 to 8:24
10-Jan					8:02 to 8:24
11-Jan					8:02 to 8:24
12-Jan					8:02 to 8:24
13-Jan					8:02 to 8:24
14-Jan					8:02 to 8:24
15-Jan					8:02 to 8:24
16-Jan					8:02 to 8:24
17-Jan					8:02 to 8:24
18-Jan					8:02 to 8:24
19-Jan					8:02 to 8:24
20-Jan					8:02 to 8:24
21-Jan					8:02 to 8:24
22-Jan					8:02 to 8:24
23-Jan					8:02 to 8:24
24-Jan					
25-Jan					
26-Jan					
27-Jan					
28-Jan					
29-Jan					
30-Jan					
31-Jan					
1-Feb					
2-Feb					
3-Feb					
4-Feb					
5-Feb					
6-Feb					
7-Feb					
8-Feb					
9-Feb					
10-Feb					
11-Feb					
12-Feb					
13-Feb					
14-Feb					
15-Feb					
16-Feb					
17-Feb					
18-Feb					
19-Feb					
20-Feb					
21-Feb					
22-Feb					
23-Feb	16:19 to 6:37				
24-Feb	16:19 to 6:37				
25-Feb	16:19 to 6:37				
26-Feb	16:19 to 6:37				
27-Feb	16:19 to 6:37				
28-Feb	16:19 to 6:37				
1-Mar	16:18 to 16:36				
2-Mar	16:18 to 16:36				
3-Mar	16:18 to 16:36				
4-Mar	16:18 to 16:36				
5-Mar	16:18 to 16:36				
6-Mar	16:18 to 16:36				
7-Mar					
8-Mar					
9-Mar			17:35 to 17:45		
10-Mar			17:35 to 17:45		
11-Mar	17:35 to 17:53		17:35 to 17:45		
12-Mar	17:35 to 17:53		17:35 to 17:45		
13-Mar	17:35 to 17:53		17:35 to 17:45		
14-Mar	17:35 to 17:53		17:35 to 17:45		
15-Mar	17:41 to 17:56		17:35 to 17:45		
16-Mar	17:41 to 18:00		17:35 to 17:45		
17-Mar	17:41 to 17:56		17:35 to 17:45		

Table A5 - Silver Maple Wind Project - Shadow Flicker Curtailement Schedule - 117m Hub Height

Date	Turbine Curtailement Schedule - 105m Hub Height				
	TB1	TB2	TB3	TB4	TB5
18-Mar			17:35 to 17:45		
19-Mar					
20-Mar					
21-Mar					
22-Mar					
23-Mar					
24-Mar					
25-Mar					
26-Mar	6:58 to 7:13				
27-Mar	6:58 to 7:13				
28-Mar	6:58 to 7:13				
29-Mar	6:58 to 7:13				
30-Mar	6:58 to 7:13				
31-Mar	6:58 to 7:13				
1-Apr					
2-Apr					
3-Apr					
4-Apr					
5-Apr					
6-Apr					
7-Apr					
8-Apr					
9-Apr			18:13 to 18:24		
10-Apr			18:13 to 18:24		
11-Apr			18:13 to 18:24		
12-Apr			18:13 to 18:24		
13-Apr			18:13 to 18:24		
14-Apr			18:13 to 18:24		
15-Apr			18:13 to 18:24		
16-Apr		18:24 to 18:39	18:13 to 18:24		
17-Apr		18:24 to 18:39	18:13 to 18:37		
18-Apr		6:15 to 6:30, 18:24 to 18:39	18:13 to 18:37		
19-Apr		6:15 to 6:30, 18:24 to 18:39	18:13 to 18:37		
20-Apr		6:15 to 6:30, 18:24 to 18:39	18:13 to 18:37		
21-Apr		6:15 to 6:30, 18:24 to 18:39	18:13 to 18:37		
22-Apr		6:15 to 6:30, 18:24 to 18:39	18:15 to 18:37		
23-Apr		6:15 to 6:30, 18:24 to 18:39	18:15 to 18:37		
24-Apr		6:15 to 6:30	18:15 to 18:45		
25-Apr		6:15 to 6:30	18:25 to 18:45		
26-Apr		6:15 to 6:30	18:25 to 18:45		
27-Apr			18:25 to 18:45		
28-Apr			18:25 to 18:45		
29-Apr			18:25 to 18:45		
30-Apr			18:25 to 18:45		
1-May			18:25 to 18:45	18:41	
2-May			18:25 to 18:45	18:41	
3-May				18:41	
4-May					
5-May					
6-May					
7-May			18:47 to 19:06		
8-May			18:47 to 19:06		
9-May			18:47 to 19:06		
10-May			18:43 to 19:06		
11-May			18:43 to 19:06		
12-May			18:43 to 19:06		
13-May			18:43 to 19:06		
14-May			18:43 to 19:16	18:56 to 19:16	
15-May			18:43 to 19:16	18:56 to 19:16	
16-May	18:50 to 19:05		18:43 to 19:16	18:56 to 19:16	
17-May	18:50 to 19:05		18:43 to 19:16	18:56 to 19:16	
18-May	18:50 to 19:05		18:43 to 19:20	18:56 to 19:16	
19-May	18:50 to 19:14		18:43 to 19:20	18:56 to 19:16	
20-May	18:50 to 19:14		18:43 to 19:20	18:56 to 19:16	
21-May	18:50 to 19:14		18:43 to 19:20	18:56 to 19:16	
22-May	18:50 to 19:18		18:58 to 19:20	18:56 to 19:16	
23-May	18:50 to 19:18		18:58 to 19:20		
24-May	18:59 to 19:21		18:58 to 19:20		
25-May	18:59 to 19:21		18:58 to 19:20		
26-May	18:59 to 19:21		18:58 to 19:20		
27-May	18:59 to 19:21		18:58 to 19:20		
28-May	18:59 to 19:21		18:58 to 19:20		
29-May	18:59 to 19:21		18:58 to 19:20		
30-May	18:59 to 19:21		18:58 to 19:20		
31-May	18:59 to 19:21		18:58 to 19:20		
1-Jun	19:03 to 19:21		19:07 to 19:21		

Table A5 - Silver Maple Wind Project - Shadow Flicker Curtailement Schedule - 117m Hub Height

Date	Turbine Curtailement Schedule - 105m Hub Height				
	TB1	TB2	TB3	TB4	TB5
2-Jun	19:03 to 19:21		19:07 to 19:21		
3-Jun			19:07 to 19:21		
4-Jun			19:07 to 19:21		
5-Jun			19:07 to 19:21		
6-Jun			19:07 to 19:21		
7-Jun			19:07 to 19:21		
8-Jun			19:07 to 19:21		
9-Jun			19:07 to 19:21		
10-Jun			19:07 to 19:21		
11-Jun			19:07 to 19:21		
12-Jun			19:07 to 19:21		
13-Jun			19:07 to 19:21		
14-Jun			19:07 to 19:21		
15-Jun	19:04 to 19:28		19:07 to 19:21		
16-Jun	19:04 to 19:28		19:07 to 19:21		
17-Jun	19:04 to 19:28		19:07 to 19:21		
18-Jun	19:04 to 19:28		19:07 to 19:21		
19-Jun	19:04 to 19:28		19:07 to 19:21		
20-Jun	19:04 to 19:28		19:07 to 19:21		
21-Jun	19:04 to 19:28		19:07 to 19:21		
22-Jun	19:04 to 19:28		19:07 to 19:21		
23-Jun	19:04 to 19:28		19:07 to 19:21		
24-Jun	19:04 to 19:28		19:07 to 19:21		
25-Jun	19:04 to 19:28		19:07 to 19:21		
26-Jun	19:04 to 19:28		19:07 to 19:21		
27-Jun	19:04 to 19:28		19:07 to 19:21		
28-Jun	19:04 to 19:28		19:07 to 19:21		
29-Jun	19:04 to 19:28		19:07 to 19:21		
30-Jun	19:04 to 19:28		19:07 to 19:21		
1-Jul			19:10 to 19:35		
2-Jul			19:10 to 19:35		
3-Jul			19:10 to 19:35		
4-Jul			19:10 to 19:35		
5-Jul			19:10 to 19:35		
6-Jul			19:10 to 19:35		
7-Jul			19:10 to 19:35		
8-Jul			19:10 to 19:35		
9-Jul			19:10 to 19:25		
10-Jul	19:10 to 19:30		19:10 to 19:25		
11-Jul	19:10 to 19:30		19:10 to 19:25		
12-Jul	19:10 to 19:30		19:10 to 19:25		
13-Jul	19:10 to 19:30		19:10 to 19:25		
14-Jul	19:10 to 19:30		19:10 to 19:25		
15-Jul	19:09 to 19:30		19:10 to 19:25		
16-Jul	19:09 to 19:30		19:10 to 19:25		
17-Jul	19:09 to 19:30		19:10 to 19:25		
18-Jul	19:09 to 19:30		19:10 to 19:25		
19-Jul	19:05 to 19:19		19:10 to 19:25		
20-Jul	19:05 to 19:19		19:10 to 19:25		
21-Jul	19:05 to 19:19		19:07 to 19:27		
22-Jul	19:03 to 19:15		19:07 to 19:27	19:06 to 19:25	
23-Jul	19:03 to 19:15		18:58 to 19:25	19:06 to 19:25	
24-Jul	19:03 to 19:15		18:58 to 19:25	19:06 to 19:25	
25-Jul	19:03 to 19:15		18:58 to 19:25	19:06 to 19:25	
26-Jul	19:03 to 19:15		18:58 to 19:25	19:06 to 19:25	
27-Jul	19:03 to 19:15		18:58 to 19:25	19:06 to 19:25	
28-Jul			18:58 to 19:25	19:06 to 19:25	
29-Jul			18:58 to 19:25	19:06 to 19:25	
30-Jul			18:58 to 19:25		
31-Jul			18:58 to 19:25		
1-Aug			18:54 to 19:15	18:55 to 19:06	
2-Aug			18:54 to 19:15	18:55 to 19:06	
3-Aug				18:55 to 19:06	
4-Aug					
5-Aug					
6-Aug					
7-Aug					
8-Aug				18:00 to 18:10	
9-Aug				18:00 to 18:10	
10-Aug			18:30 to 18:50	18:00 to 18:10	
11-Aug			18:30 to 18:50	18:00 to 18:10	
12-Aug			18:30 to 18:50	18:00 to 18:10	
13-Aug			18:30 to 18:50		
14-Aug			18:30 to 18:50		
15-Aug			18:30 to 18:50		
16-Aug			18:30 to 18:50		

Table A5 - Silver Maple Wind Project - Shadow Flicker Curtailement Schedule - 117m Hub Height

Date	Turbine Curtailement Schedule - 105m Hub Height				
	TB1	TB2	TB3	TB4	TB5
17-Aug			18:30 to 18:50		
18-Aug			18:30 to 18:50		
19-Aug			18:20 to 18:50		
20-Aug		18:27 to 18:42	18:20 to 18:41		
21-Aug		18:27 to 18:42	18:16 to 18:41		
22-Aug		18:27 to 18:42	18:16 to 18:41		
23-Aug		18:27 to 18:42	18:16 to 18:41		
24-Aug		18:27 to 18:42	18:16 to 18:41		
25-Aug		18:27 to 18:42	18:16 to 18:41		
26-Aug		18:27 to 18:42	18:16 to 18:26		
27-Aug			18:16 to 18:26		
28-Aug			18:16 to 18:26		
29-Aug			18:16 to 18:26		
30-Aug			18:16 to 18:26		
31-Aug					
1-Sep					
2-Sep					
3-Sep					
4-Sep					
5-Sep					
6-Sep					
7-Sep					
8-Sep					
9-Sep	17:37 to 17:52				
10-Sep	17:37 to 17:52				
11-Sep	17:37 to 17:52				
12-Sep	17:37 to 17:52				
13-Sep	17:37 to 17:52				
14-Sep	17:37 to 17:52				
15-Sep	17:37 to 17:52				
16-Sep	17:37 to 17:52				
17-Sep	17:37 to 17:52				
18-Sep					
19-Sep					
20-Sep					
21-Sep					
22-Sep					
23-Sep					
24-Sep					
25-Sep					
26-Sep					
27-Sep					
28-Sep					
29-Sep					
30-Sep					
1-Oct					
2-Oct					
3-Oct					
4-Oct					
5-Oct					
6-Oct					
7-Oct					
8-Oct					
9-Oct					
10-Oct					
11-Oct	16:52 to 17:10				
12-Oct	16:52 to 17:10				
13-Oct	16:52 to 17:10				
14-Oct	16:52 to 17:10				
15-Oct	16:52 to 17:10				
16-Oct	16:52 to 17:10				
17-Oct	16:52 to 17:10				
18-Oct	16:52 to 17:10				
19-Oct					
20-Oct					
21-Oct					
22-Oct					
23-Oct					
24-Oct					
25-Oct					
26-Oct					
27-Oct					
28-Oct					
29-Oct					
30-Oct					
31-Oct					

Table A5 - Silver Maple Wind Project - Shadow Flicker Curtailement Schedule - 117m Hub Height

Date	Turbine Curtailement Schedule - 105m Hub Height				
	TB1	TB2	TB3	TB4	TB5
1-Nov					
2-Nov					
3-Nov					
4-Nov					
5-Nov					
6-Nov					
7-Nov					
8-Nov					
9-Nov					
10-Nov					
11-Nov					
12-Nov					
13-Nov					
14-Nov					
15-Nov					
16-Nov					
17-Nov					
18-Nov					
19-Nov					
20-Nov					
21-Nov					
22-Nov					
23-Nov					
24-Nov					
25-Nov					
26-Nov					
27-Nov					
28-Nov					
29-Nov					
30-Nov					
1-Dec					
2-Dec					
3-Dec					
4-Dec					
5-Dec					
6-Dec					
7-Dec					
8-Dec					
9-Dec					
10-Dec					
11-Dec					7:05 to 7:20
12-Dec					7:05 to 7:20
13-Dec					7:05 to 7:20
14-Dec					7:05 to 7:20
15-Dec					7:05 to 7:20
16-Dec					7:05 to 7:20
17-Dec					7:05 to 7:20
18-Dec					7:05 to 7:20
19-Dec					7:05 to 7:20
20-Dec					7:05 to 7:20
21-Dec					7:05 to 7:20
22-Dec					7:05 to 7:20
23-Dec					7:05 to 7:20, 8:00 to 8:18
24-Dec					7:05 to 7:20, 8:00 to 8:18
25-Dec					7:05 to 7:20, 8:00 to 8:18
26-Dec					7:05 to 7:20, 8:00 to 8:18
27-Dec					7:05 to 7:20, 8:00 to 8:18
28-Dec					7:05 to 7:20, 8:00 to 8:18
29-Dec					7:05 to 7:20, 8:00 to 8:18
30-Dec					7:05 to 7:20, 8:00 to 8:18
31-Dec					7:05 to 7:20, 8:00 to 8:18

APPENDIX B

Silver Maple Wind Farm – Shadow Flicker Assessment

Appendix B: Photolog



Photo 1: Tree Cover along Springy Pond Road – Looking South



Photo 2: Tree Cover along Springy Pond Road – Looking South

Silver Maple Wind Farm – Shadow Flicker Assessment

Appendix B: Photolog



Photo 3: Tree Cover along Springy Pond Road – Looking North



Photo 4: Entrance to Pomoroy Logging Inc. Compound from Springy Road – Looking West