Appendix 15.2 Potential Shadow Periods

Contents

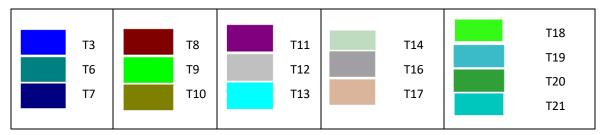
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Appendix 15.2 Potential Shadow Periods

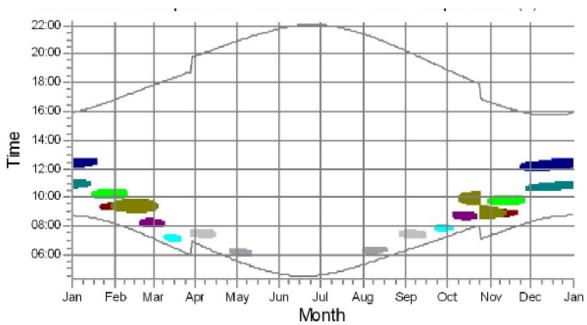
Graphs A15.2.1 to A15.2.10 below visually represent the potential periods when each receptor may experience shadow flicker during the operational phase of the Proposed Development. These are calculated using commercial software model WindPro Version 3.2 which takes into account the movement of the sun relative to the time of day and time of year predicting the time and duration of expected shadow flicker at each window of an affected receptor (refer to Chapter 15: Shadow Flicker). These graphs represent a worst case scenario assuming no mitigation.

Key



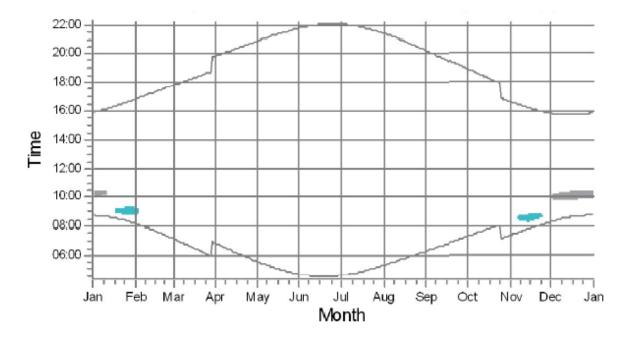
Graphs

Graph A15.2.1 Receptor 1: Logan Farm



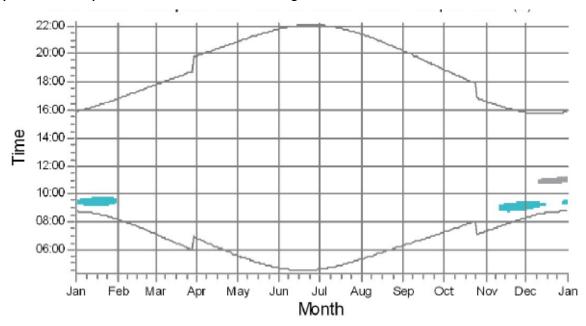
There is potential for turbines 3, 6, 7, 8, 9, 10, 11, 12, 13 or 16 to cause shadow flicker for periods during the morning from August through to early May.

Graph A15.2.2 Receptor 2: Dunside

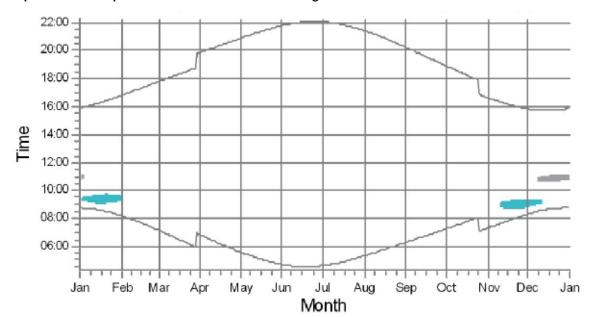


There is potential for turbines 16 and 19 to cause shadow flicker for periods during the morning from mid-November through to early February.

Graph A15.2.3 Receptor 3: 1 Dunside Waterworks Cottage

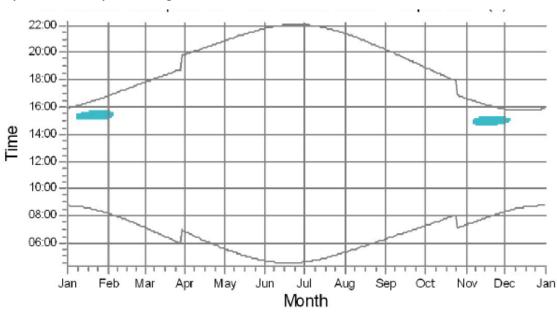


There is potential for turbines 16 and 19 to cause shadow flicker for periods during the morning from mid-November through to late January.



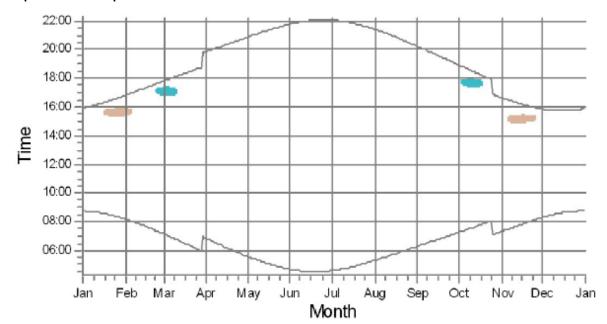
Graph A15.2.4 Receptor 4: 2 Dunside Waterworks Cottage

There is potential for turbines 16 and 19 to cause shadow flicker for periods during the morning from mid-November through to early February.



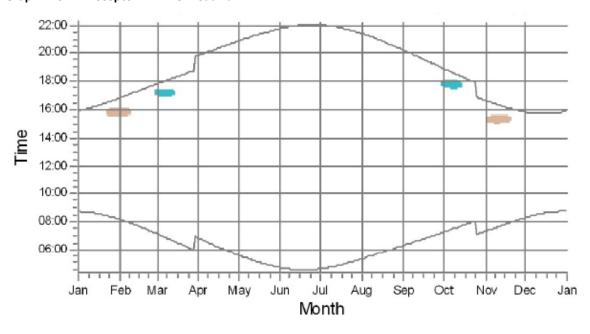
Graph A15.2.5 Receptor 5: Cleughead

There is potential for turbine 19 to cause shadow flicker for periods during the afternoon from mid-November through to early February.



Graph A15.2.6 Receptor 6: Waterside View Birkenhead

There is potential for turbines 17 and 19 to cause shadow flicker for periods during the late afternoon from October through to early March.

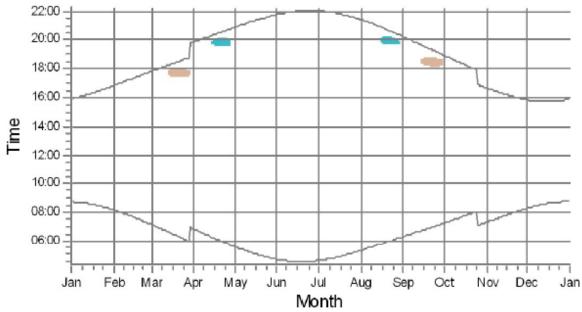


Graph A15.2.7 Receptor 7: Birkenhead Farm

There is potential for turbines 17 and 19 to cause shadow flicker for periods during the late afternoon from late September through to March.

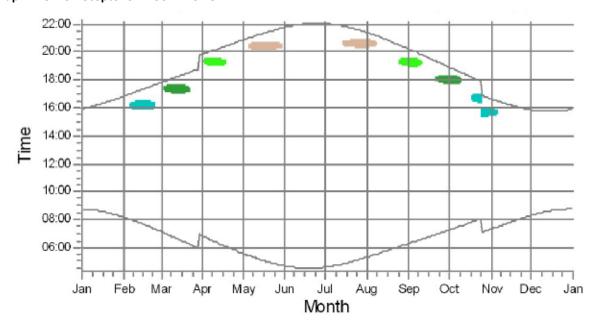
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Graph A15.2.8 Receptor 8: Todlaw



There is potential for turbines 17 and 19 to cause shadow flicker for periods during the early evening during March, April, August and September.

Graph A15.2.9 Receptor 9: Broomknowe



There is potential for turbines 17, 18, 20 and 21 to cause shadow flicker for periods during the evening from February through to early November.

22:00 20:00 18:00 16:00 14:00 12:00 10:00 -08:00 06:00 Apr Jan Feb May Jun Jul Aug Sep Oct Nov Dec Jan Month

Graph A15.2.10 Receptor 10: North Cumberhead

There is potential for turbines 14, 17, 18, 20 and 21 to cause shadow flicker for periods during the evening from late January through to early November.