

Appendix 15.2 POTENTIAL SHADOW PERIODS

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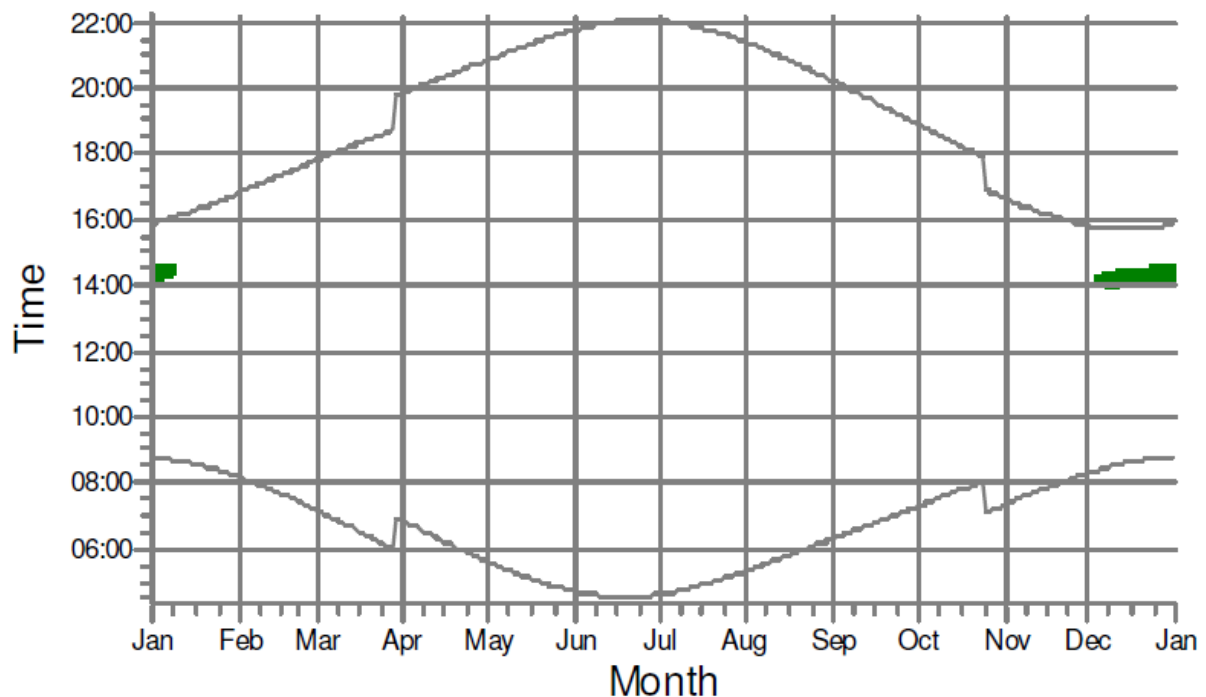
Graphs A15.1 to A15.7 below visually represent the potential periods when each receptor may experience shadow flicker during the operational phase of the Revised Development. These are calculated using commercial software model WindPro Version 3.1.617 which takes into account the movement of the sun 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). These graphs represent a worst case scenario assuming no mitigation as explained in Chapter 15.

Key



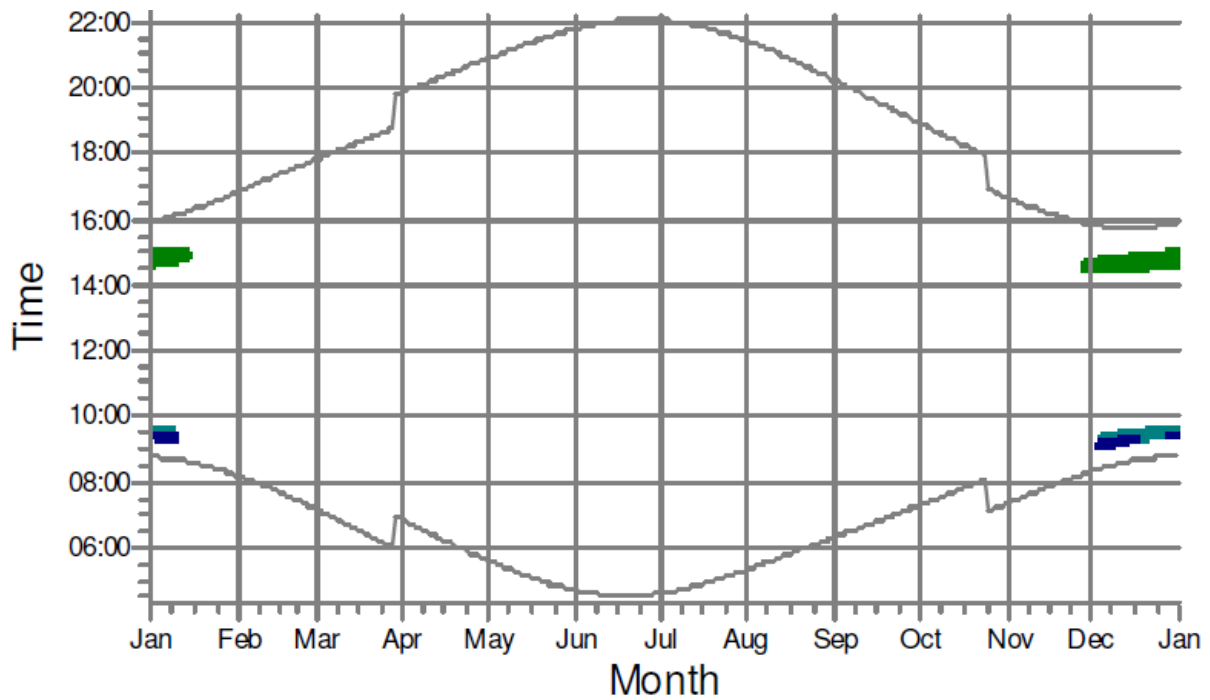
Graphs

Graph A15.1 – Theoretical Shadow Flicker Periods for Receptor 1 (8 Middlemuir Road)



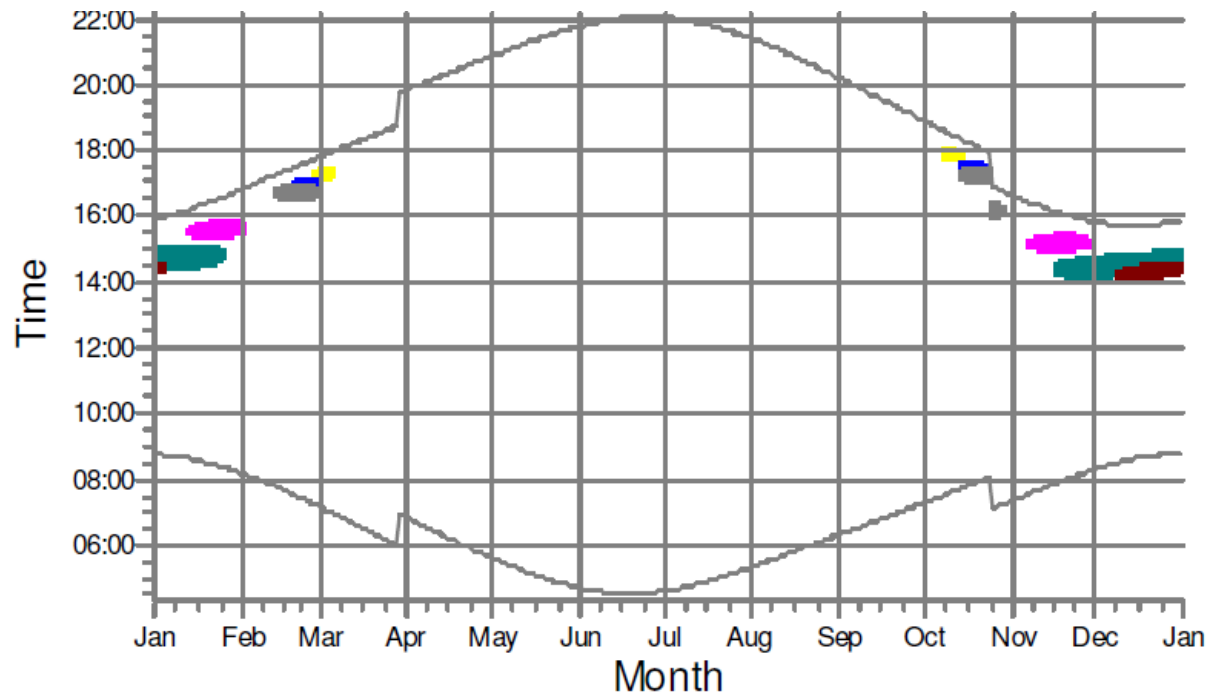
There is potential for Turbine 01 to cause shadow flicker for a period in the early afternoon from December through to early-January.

Graph A15.2 – Theoretical Shadow Flicker Periods for Receptor 2 (Braehead)



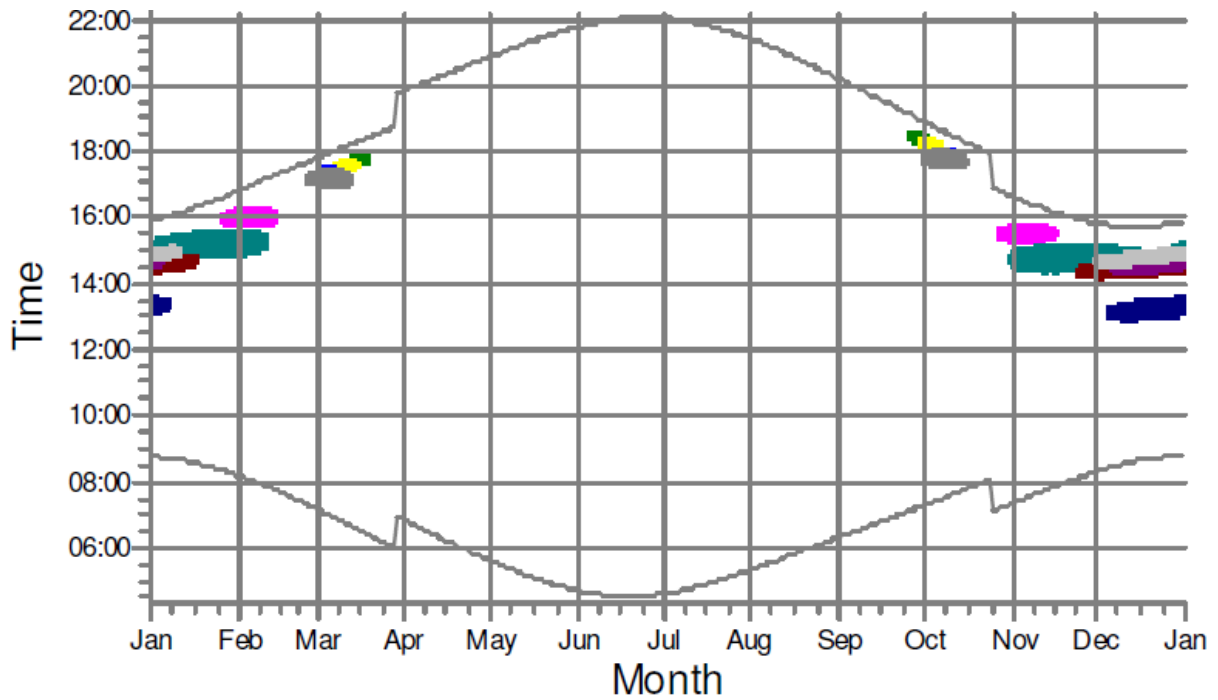
There is potential for Turbine 01, 06 and 07 to cause shadow flicker for a period in the early morning (T06 and T07) mid-afternoon (T01) from late November through to mid-January.

Graph A15.3 – Theoretical Shadow Flicker Periods for Receptor 3 (West Toun House)



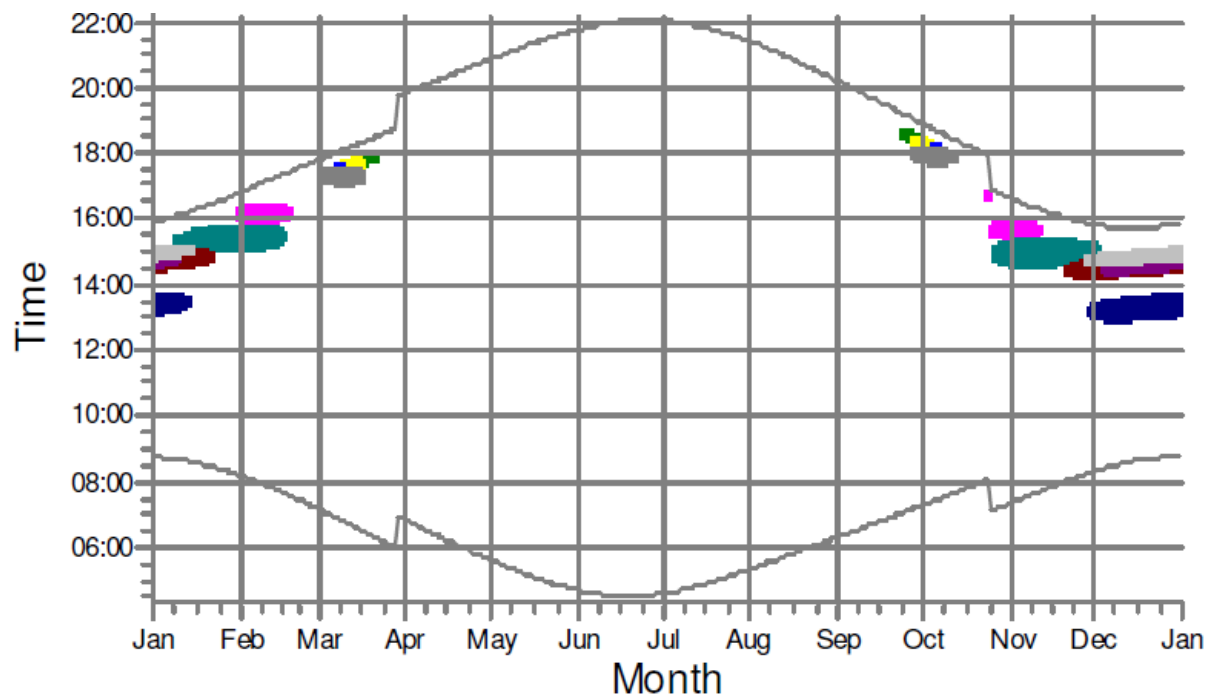
There is potential for Turbines 02, 03, 04, 05, 06 and 08 to cause shadow flicker in the afternoons from early-October through to the early-March. There is potential for periods of shadow flicker overlap for Turbines 06 and 08 in December and Turbines 3 and 04 in late-March.

Graph A15.4 – Theoretical Shadow Flicker Periods for Receptor 4 (Craigend)



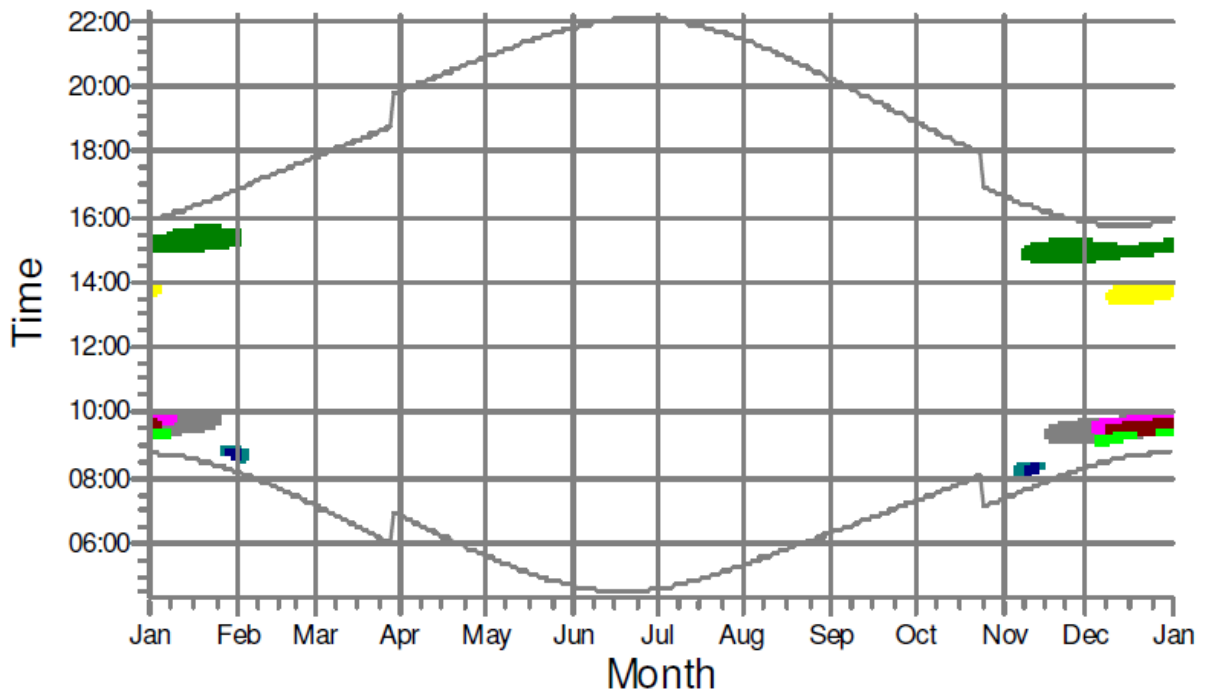
There is potential for Turbines 01 to 08 to cause shadow flicker in the afternoons from the end of September through to mid-March. There is potential for periods of shadow flicker overlap for Turbines 06 and 08 in December, and for Turbines 01 to 04 in March.

Graph A15.5 – Theoretical Shadow Flicker Periods for Receptor 5 (Westerhouse)



There is potential for Turbines 01 to 08 to cause shadow flicker in the afternoons from the end of September through to mid-March. There is potential for periods of shadow flicker overlap for Turbines 06 and 08 in December, and for Turbines 01 to 04 in March.

Graph A15.6 – Theoretical Shadow Flicker Periods for Receptor 6 (Gunsgreen)



There is potential for Turbines 01, 02, and 04 to 09 to cause shadow flicker in the mornings (08:00 – 10:00, T04-T09) and in the afternoons (13:00 – 16:00, T01 and T02) from early November through to early February. There is potential for periods of shadow flicker overlap for Turbines 04, 05, 08 and 09 in December and early-January.