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18. Shadow Flicker

18.1. Introduction

18.1.1. This Chapter does not repeat the information set out in *Chapter 18: Shadow Flicker* of the Shepherds' Rig EIA Report (November 2018) where that information remains valid in the context of the reduced number of turbines now proposed as the Revised Development (AEI Figure 4.1). As such, the Additional Environmental Information (AEI) supplements Chapter 18 of the EIA Report (November 2018) and should be read in conjunction with it.

18.1.2. No post-submission consultation responses were received in regards to the shadow flicker assessment.

18.2. Methodology

18.2.1. This section takes into account the legislation, policy and guidance referred to in the EIA Report (November 2018). The baseline information relied upon in order to make an assessment of the effects of the revised layout is that information which has been provided in the EIA Report (November 2018). To ensure consistency of approach, the same significance criteria and assessment methodology as referred to in the EIA Report (November 2018) has been followed. Taking into account the relevant policy and guidance, baseline information, and assessment criteria, an assessment is presented below which details the effect of the revised layout (AEI Figure 4.1).

18.3. Baseline Conditions

18.3.1. There is no change in baseline conditions, and Section 18.5 of the EIA Report (November 2018) remains valid. The shadow flicker study area remains valid with no new receptors have been identified as a result of the Revised Development.

18.4. Change in Effects

18.4.1. Using the methodology specified in Section 18.6 of Chapter 18 Shadow Flicker, the revised layout has been analysed using shadow flicker modelling software. AEI Table 18.1 below lists the months and times of day during which shadow flicker could occur.

AEI Table 18.1: Potential Shadow Flicker Effects

Name	Window Orientation	Days per year	Maximum Minutes per Day	Theoretical Maximum Hours per Annum	Likely Hours per Annum
Craigengillan	North	69	32	32	10
	East	0	0	0	0
	South	0	0	0	0
	West	69	32	32	10
	North	87	35	45	13

Name	Window Orientation	Days per year	Maximum Minutes per Day	Theoretical Maximum Hours per Annum	Likely Hours per Annum
Craigengillan Cottage	East	0	0	0	0
	South	0	0	0	0
	West	116	35	55	16

18.4.2. As Table 18.1 shows, no location within the study area exceeds the 30 hours per year identified within the Northern Ireland guidance, as set out in Chapter 18: Shadow Flicker of the EIA Report (November 2018). Therefore, shadow flicker remains not significant as a result of the Revised Development.

18.5. Cumulative Effects

18.5.1. Chapter 18 Shadow Flicker of the EIA Report (November 2018) concluded that no cumulative developments were likely to result in shadow flicker effects at either of the receptors within the Development study area. Since the EIA report (November 2018), Troston Loch Wind Farm has been submitted as a section 36 application. As there are no receptors within the study area that are located within 10 rotor diameter distance of Troston Loch Wind Farm, no cumulative shadow flicker effects from Troston Loch Wind Farm have been considered further. Given that Longburn was refused, and there are no additional wind farm developments either in planning, consented, or operational since the November 2018 assessment (excluding Troston Loch Wind Farm), cumulative shadow flicker effects have not been considered further.

18.6. Summary

18.6.1. An assessment of the potential shadow flicker effects associated with the Revised Development has been carried out. The assessment takes into account the revised layout.

18.6.2. Shadow flicker does not exceed the criteria specified within the Northern Ireland guidance, and therefore no significant effects will occur as a result of the Revised Development. This conclusion is consistent with the findings of the EIA Report (November 2018).

18.7. Statement of Significance

18.7.1. Effects on Shadow Flicker associated with the Revised Development are considered to be not significant. This represents no change to the conclusions outlined in the EIA Report (November 2018).