



Appendix 7-6 Description of Effects (EPA, 2022)

**Total Theoretical Shadow Flicker Shutdown Periods by
Turbine – Scenario 2**

EIAR – Volume 3

Knockanarragh Wind Farm

SLR Project No.: 501.V00727.000008

25/01/2024

Descriptions of Effects (EPA, 2022)

| Impact Characteristic | Term | Description |
|--|----------------------------|---|
| Quality of Effects | Positive Effects | A change which improves the quality of the environment |
| | Neutral Effects | No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error |
| | Negative / Adverse Effects | A change which reduces the quality of the environment |
| Describing the Significance of Effects | Imperceptible | An effect capable of measurement but without significant consequences |
| | Not significant | An effect which causes noticeable changes in the character of the environment but without significant consequences. |
| | Slight Effects | An effect which causes noticeable changes in the character of the environment without affecting its sensitivities |
| | Moderate Effects | An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends. |
| | Significant Effects | An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment |
| | Very Significant | An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment. |
| | Profound Effects | An effect which obliterates sensitive characteristics |
| Describing the Extent and Context of Effects | Extent | Describe the size of the area, the number of sites, and the proportion of a population affected by an effect |
| | Context | Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?) |
| Describing the Probability of Effects | Likely Effects | Describe the size of the area, the number of sites, and the proportion of a population affected by an effect. |
| | Unlikely Effects | Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?) |

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| Describing the Duration and Frequency of Effects | Momentary Effects | Effects lasting from seconds to minutes |
| | Brief Effects | Effects lasting less than a day |
| | Temporary Effects | Effects lasting less than a year |
| | Short-term Effects | Effects lasting one to seven years |
| | Medium-term Effects | Effects lasting seven to fifteen years |
| | Long-term Effects | Effects lasting fifteen to sixty years |
| | Permanent Effects | Effects lasting over sixty years |
| | Reversible Effects | Effects that can be undone, for example through remediation or restoration |
| | Frequency of Effects | Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually. |
| Describing the Types of Effects | Indirect / Secondary Effects | Likely, significant effects on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway. |
| | Cumulative Effects | The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects. |
| | Do-Nothing Effects | The environment as it would be in the future should the subject project not be carried out. |
| | Worst Case Effects | The effects arising from a project in the case where mitigation measures substantially fail. |
| | Indeterminable Effects | When the full consequences of a change in the environment cannot be described. |
| | Irreversible Effects | When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost. |
| | Residual Effects | The degree of environmental change that will occur after the proposed mitigation measures have taken effect. |
| | Synergistic Effects | Where the resultant effect is of greater significance than the sum of its constituents, (e.g. combination of SO _x and NO _x to produce smog). |

