

East Meath - North Dublin Grid Upgrade Environmental Impact Assessment Report (EIAR): Volume 3

Appendix A8.1 – Glossary of Climate Terms

EirGrid

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Appendix A8.1 – Glossary of Climate Terms

| Term | Definition |
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| Carbon budgets | Ireland’s first carbon budget programme, comprising three 5-year economy-wide carbon budgets, was approved by the Government on 22 February 2022. The budgets were laid before the Houses of the Oireachtas on 24 February. The carbon budgets were approved by both Houses of the Oireachtas (the Dáil and Seanad) in April 2022. |
| Carbon dioxide equivalent (CO ₂ e) | Carbon dioxide equivalent (abbreviated as CO ₂ e) is a metric used to compare the emissions of various greenhouse gases, based on their global-warming potential (GWP), by converting amounts of other gases to the equivalent amount of CO ₂ with the same GWP. For example, the GWP for methane (CH ₄) is 25, and for nitrous oxide (N ₂ O) it is 298. This means that an emission of 1 tonne of CH ₄ is equivalent to an emission of 25 tonnes of CO ₂ and an emission of 1 tonne of N ₂ O is equivalent to 298 tonnes of CO ₂ . |
| Carbon emissions | Shorthand for emissions of any of the seven GHGs that contribute to climate change under the Kyoto Protocol, namely carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF ₆) and nitrogen trifluoride (NF ₃). |
| Climate | Long-term weather conditions prevailing over a region. |
| Embodied carbon | Carbon (GHG) emissions associated with energy consumption and chemical processes during the extraction, transport and/or manufacture of construction materials or products. |
| Greenhouse gases (GHGs) | A gaseous compound that absorbs infrared radiation and traps heat in the atmosphere. Greenhouse gases are usually expressed in terms of carbon dioxide equivalent (CO ₂ e). |
| Life cycle stage | PAS 2080:2023 proposes a modular approach for the quantification of infrastructure related GHG emissions over a number of stages over the ‘life cycle’ of a project, namely ‘before use (A)’, ‘use (B)’ and ‘end of life (C)’. These stages are further disaggregated into modules (e.g. product stage (A1–A3) and construction process stage (A4–A5)). |
| Net zero | Net zero means any emissions would be balanced by schemes to offset an equivalent amount of greenhouse gases from the atmosphere, such as planting trees or using technology like carbon capture and storage. |
| PAS 2080 | PAS 2080:2023 ‘Carbon Management in Buildings and Infrastructure’ specifies requirements for the management of whole-life carbon in buildings and infrastructure. |
| Vulnerability | The degree to which a system/asset is exposed and resilient to adverse effects of climate change. |