Appendix 15.1 – Climate Change Policy

Appendix 15.1 Climate Change National Legalisation, Policy and Guidance

To satisfy the requirements of the Environmental Impact Assessment (EIA) Regulations, a Greenhouse Gas (GHG) Emissions Assessment has been undertaken for the Proposed Development. This Appendix sets out the guidance and standards that have been used to inform the scope, methodology, identification of likely significant effects and potential mitigation measures for both assessments.

Legislation

Paris Agreement 2015

The 2015 Paris Agreement declared a long-term temperature target to strengthen the global response to the threat of climate change. This target is to keep a global temperature rise this *century "well below 2 degrees Celsius above pre-industrial levels and to limit the temperature increase even further to 1.5 degrees Celsius"* (the '1.5 Degrees Target').

In 2015 the UK Government signed the Paris Agreement, and in 2016, ratified it. Ratifying the Paris Agreement formally bound the UK to the "*well below 2 degrees*" target (in 2018 reduced further to the 1.5 Degrees Target) and requires the UK Government to translate that commitment into legislative requirements. Through national legislation, the responsibility to realise the 1.5 Degrees Target disseminates from the UK Government to Local Planning Authorities (LPAs) and, ultimately, developers.

Climate Change Act (2008) (2050 Target Amendment) Order 2019

The Climate Change Act (CCA) 2008 established the context for government action on climate change, providing a legally binding framework for the UK to reduce GHG emissions and develop the UK's ability to adapt to climate change.

In 2019, the CCA 2008 was amended to include a revision of the previous aim of 80% reduction of GHG emissions compared to 1990 levels by 2050. The CCA 2008 now mandates a net zero target by 2050:

"*the net UK carbon account for the year 2050 is at least 100% lower than the 1990 baseline*."

To reach net zero carbon emissions, the UK government has set legally binding carbon budgets, capping the amount of GHG emitted in the UK over a 5-year period.

Carbon Budget Orders 2009, 2011, 2016 and 2021

The Carbon Budget Orders are made in accordance with the duty to set carbon budgets as required by the CCA 2008. These Orders provide the legal requirement to meet the carbon budgets set out in the table below:

Carbon Budget	Carbon Budget Level	Reduction Below 1990 Level
3rd carbon budget (2018- 2022)	2,544 $MtCO_2e$	37% by 2020
4th carbon budget (2023- 2027)	1,950 $MtCO_2e$	51% by 2025
5th carbon budget (2028- 2032)	1,725 $MtCO_2e$	57% by 2030

6th carbon budget (2033-2037)	965 $MtCO_2e$	78% by 2035

Climate Change (Scotland) Act (2009)

This Act provides the framework for GHG emissions reductions in Scotland, with a target of 80% reduction for 2050. In order to achieve this, the Act also requires Scottish Ministers to set annual targets in secondary legislation.

Climate Change (Emissions Reduction Targets) (Scotland) Act 2019

This Act sets out that the Scottish net-zero emissions target year is 2045, in which "*Scottish Ministers must ensure that the net Scottish emissions account for the net-zero emissions target year is at least 100% lower than the baseline*".

Annual Target Orders

The Climate Change (Annual Targets) (Scotland) Order 2011 sets the emissions targets between 2023 to 2027. The Climate Change (Annual Targets) (Scotland) Order 2016 sets the targets between 2028 and 2032. These are demonstrated below:

Year	**Annual Target for Scotland (tonnes carbon dioxide equivalents - tCO2e)**
2023	37,161,000
2024	35,787,000
2025	34,117,000
2026	32,446,000
2027	30,777,000
2028	29,854,000
2029	28,958,000
2030	28,089,000
2031	27,247,000
2032	26,429,000

Climate Change Plan 2018-2032 (2018, updated 2020)

The Climate Change Plan: third report on proposals and policies 2018-2032 (RPP3) sets out a path to a low carbon future for Scotland. Chapter 1: Electricity sets out the Scottish Government's ambitions in the electricity sector, which includes largely decarbonising Scotland's electricity system by 2032. Hydro is identified as a key renewable technology to help deliver clean, affordable electricity to homes and businesses.

The 2020 update identified that "*Pumped storage also has an important role to play, as it can release stored electricity when the demand is high and the system needs it most (e.g. when there is less wind energy available)*."

The Glasgow Climate Pact 2021

The UK, along with other Nations, adopted the Glasgow Climate Pact at the COP26 UN climate conference in November 2021. The Pact increases the climate ambition and action from the Paris Agreement in 2015, and sets out new rules to reduce greenhouse gas emissions including phasing down coal and a global carbon market.

Policy

Electricity Works (Environmental Impact Assessment) (Scotland) 2017

Regulation 4(2)(c) of the Regulations 2017 requires significant effects on climate to be considered, as appropriate, within the EIA process.

In addition, Schedule 4 to the 2017 EIA Regulations requires likely significant effects resulting from "*the impact of the project on climate…and the vulnerability of the project to climate change*" to be addressed within an ES.

Argyll and Bute Local Development Plan (2015)

Policy LDP 10 – Maximising our Resources and Reducing our Consumption states that "*The Council will support all development proposals that seek to maximise our resources and reduce consumption and where these accord with the following:*

- *The settlement strategy;*
- *Sustainable design principles;*
- *Minimising waste and/or contributing to recycling;*
- *Minimising the impact on the water environment both in terms of pollution and abstraction;*
- *Avoiding areas subject to flood risk or erosion;*
- *Minimising the impact on biodiversity and the natural environment;*
- *Safeguarding our mineral resources and minimising the need for extraction;*
- *Avoiding the loss of trees and woodland*
- *Contributing to renewable energy generation;*
- *Avoiding the disturbance of carbon rich soils;*
- *Safeguarding our best agricultural land."*

Standards and Guidance

The following standards and guidance documents have been used to inform the carbon scope, methodology, identify likely significant effects and potential mitigation measures.

Environmental Impact Assessment Guide to: Assessing Greenhouse Gas Emission and Significance (IEMA, 2022)

IEMA guidance identifies three underlying principles to inform the assessment of significance:

- *"The GHG emissions from all projects will contribute to climate change, the largest interrelated cumulative environmental effect*
- *The consequences of a changing climate have the potential to lead to significant environmental effects on all topics in the EIA Directive (e.g. human health, biodiversity, water, land use, air quality)*
- *GHG emissions have a combined environmental effect that is approaching a scientifically defined environmental limit; as such any GHG emissions or reductions from a project might be considered to be significant."*

World Business Council for Sustainable Development (WBCSD) and World Resources Institute (WRI) Greenhouse Gas Protocol guidance (WBCSD and WRI, 2004

The Greenhouse Gas Protocol identifies emissions sources as falling under three "scopes", which are defined to enable GHG accounting and reporting. These scopes are defined below:

- **Scope 1: Direct GHG emissions**: direct GHG emissions occur from sources that are owned or controlled by the company, for example, emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.; emissions from chemical production in owned or controlled process equipment. GHG emissions not covered by the Kyoto Protocol, e.g. CFCs, NOx, etc. shall not be included in scope 1 but may be reported separately.
- **Scope 2: Electricity indirect GHG emissions**: Scope 2 accounts for GHG emissions from the generation of purchased electricity consumed by the company. Purchased electricity is defined as electricity that is purchased or otherwise brought into the organizational boundary of the company. Scope 2 emissions physically occur at the facility where electricity is generated.
- **Scope 3: Other indirect GHG emissions**: Scope 3 is an optional reporting category that allows for the treatment of all other indirect emissions. Scope 3 emissions are a consequence of the activities of the company, but occur from sources not owned or controlled by the company. Some examples of scope 3 activities are extraction and production of purchased materials; transportation of purchased fuels; and use of sold products and services.

International Hydropower Association (IHA) Hydropower Sustainability Guidelines, 2020

These guidelines defines sustainability for the hydropower sector and how it can be monitored. The Climate Change Mitigation and Resilience section sets out how mitigation should be considered within hydropower developments. The document acknowledges that:

"*Hydropower developments can contribute to reducing grid emissions by displacing fossil fuel generation and improving the feasibility of variable renewables through grid reliability services: flexible generation, ramping capability and energy storage*"

The guidelines also identify various design, construction and operation measures which can help to reduce GHG emissions. These have been taken into consideration and identified within the assessment where relevant.

Argyll and Bute Supplementary Guidance (2016)

The Sustainability Checklist within the supplementary guidance sets out a series of questions for development which have the potential to have significant economic, community or environmental impacts. There are several questions which relate directly to climate change and reducing GHG emissions, such as reducing waste, minimising energy use, and reuse of brownfield land.