



CROMARTY HYDROGEN PROJECT

CRHY-PR-RP-0016: A01





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PLANNING STATEMENT

ScottishPower Energy UK Retail Limited and Storegga Hydrogen Limited

November 2023



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Document history

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1 INTRODUCTION

1.1 Introduction

- 1.1.1 This Planning Statement has been prepared by Stephenson Halliday Ltd on behalf of ScottishPower Energy Retail UK Limited ('SPERL') ('the Applicant') who is leading a joint development with Storegga Hydrogen Limited ('Storegga') for the erection of a hydrogen production and storage facility (the 'Proposed Development') at land to the east of the Beinn Tharsuinn Wind Farm.
- 1.1.2 This Proposed Development would form part of the North of Scotland Hydrogen Programme recognised in the Scotlish Government's Hydrogen Action Plan. The North of Scotland Hydrogen Programme is a strategic programme in line with the Scotlish Government's target to achieve Net Zero greenhouse gas ('GHG') emissions by 2045 and the UK Government ambition by 2050. The programme is aimed at developing hydrogen production hubs across the North of Scotland to supply hydrogen, initially to meet industrial and heavy goods vehicle ('HGV') transport demand in the near term and then expanded to cater to additional hydrogen demand in the future.

1.2 Planning Application Documentation

- 1.2.1 This Planning Statement forms part of a comprehensive suite of documentation which accompanies the planning application. This Planning Statement comprises an overarching statement and refers to the accompanying documentation where appropriate.
- 1.2.2 This Planning Statement should be read alongside:
 - Environmental Appraisal Report (EAR).
 - Supporting Statement.
 - Pre-Application Consultation (PAC) Report.
 - Design and Access Statement (DAS).
 - Transport Statement (including Framework Construction Traffic Management Plan (CTMP).

1.3 Purpose of this Planning Statement

- 1.3.1 The Planning Statement hereby submitted provides an assessment of the Proposed Development in consideration of the supporting information, against the Development Plan, as well as any other material considerations. The Planning Statement is structured as follows:
 - Chapter 1 Introduction.
 - Chapter 2 The Site and Development Description.
 - Chapter 3 Development Plan and Material Considerations.



- Chapter 4 Planning Assessment.
- Chapter 5 Conclusion.

1.4 Statutory Framework

- 1.4.1 The statutory framework for the Proposed Development is The Town and Country Planning (Scotland) Act 1997 (TCPSA), which regulates land use planning in Scotland. An application for planning permission is made under Section 32 of the TCPSA.
- 1.4.2 All applications for planning permission must be determined in accordance with the provisions of this legislation. Under Section 25 of the TCPSA, the determination of all planning applications must be made in accordance with the statutory Development Plan, unless material considerations indicate otherwise. This requirement is reinforced by Section 37(2) of the TCPSA.

1.5 The Applicant

- 1.5.1 SPERL is part of Iberdrola, a world leader in clean energy with an installed capacity of over 28,000 MW and the leading wind energy producer worldwide. Iberdrola is a global leader in tackling climate change, with a commitment to reaching carbon neutrality by 2050.
- 1.5.2 As part of the energy transition to zero carbon, ScottishPower, of which SPERL is a part, is developing a network of hydrogen production facilities utilising renewable energy to create hydrogen for a range of industrial and transportation uses.
- 1.5.3 Storegga Hydrogen Limited is part of the Storegga Group. Storegga is an independent, UK-based decarbonisation development business. It develops early-stage carbon capture and storage and hydrogen projects in the UK and internationally to contribute to achieving Net Zero targets. The company employs approximately 80 people in the UK, US, and Singapore, with its head office in London.
- 1.5.4 Storegga is a private company backed by GIC, Mitsui & Co. Ltd., M&G Investments, Macquarie Group and Snam.

1.6 Background and Relationship with the North of Scotland Hydrogen Programme

- 1.6.1 The Proposed Development would form part of the North of Scotland Hydrogen programme. The Proposed Development, known as 'The Cromarty Hydrogen Project', is the first project in the programme.
- 1.6.2 The aim of the project is to develop a green hydrogen production hub in the Cromarty Firth region and revolves around the local distilleries forming the baseload demand for early phases of the project, which would enable them to decarbonise in line with their own ambitions and sector targets.
- 1.6.3 The Proposed Development is intended to be powered by renewable power provided by ScottishPower Renewables from the co-located Beinn Tharsuinn Windfarm and through power purchase agreements with off-site renewable generation within ScottishPower



Renewables portfolio to produce hydrogen by splitting water into hydrogen and oxygen using electrolysis.

1.7 Pre-Application Activities

- 1.7.1 The Applicant had a pre-application consultation meeting with The Highland Council ('THC') in October 2021, which was followed by a formal pre-application advice meeting on 8 June 2022 attended by THC, the Scottish Environment Protection Agency ('SEPA') and NatureScot.
- 1.7.2 An Environmental Impact Assessment ('EIA') screening request was submitted to THC on 22 December 2022.
- 1.7.3 The screening opinion was issued by THC on the 1 February 2023 and determined that the Proposed Development is not EIA development.
- 1.7.4 Since the submission of the EIA screening request, the cable route is included in the Proposed Development. The Applicant discussed this with THC and a further screening request was not required.

1.8 Public Consultation

- 1.8.1 A Proposal of Application Notice (PAN) (Ref: 22/04169/PAN) was submitted for the Proposed Development on 12 September 2022 to:
 - THC:
 - Edderton Community Council;
 - Ardross Community Council;
 - Elected members of Ward 06: Cromarty Firth;
 - o Tamala Collier:
 - o Pauline Munro;
 - o Molly Nolan; and
 - o Maxine Smith.
 - Jamie Stone MP for Caithness, Sutherland and Easter Ross; and
 - Maree Todd MSP for Caithness, Sutherland and Easter Ross.

¹ It was subsequently noted that the development would fall within the East Sutherland and Edderton ward; however, the PAN was sent to the correct community councils and planning authority, therefore satisfying the relevant legal requirements.



1.8.2 The PAN detailed the public consultation to be undertaken for the Proposed Development. The Applicant hosted two rounds of hybrid public consultation events which included three inperson events. The details of the public consultation are outlined in the PAC Report submitted with the application.

1.9 Planning History

1.9.1 The planning history of the application site comprises the pre-application activities as set out in the section above. In terms of planning history of the application site's surroundings, the Beinn Tharsuinn Wind Farm has been in operation since 2005 and comprises 17 turbines with an operating capacity of 29 MW. In addition, the site access includes the consented access to the Beinn Tharsuinn Wind Farm.



2 THE SITE AND DEVELOPMENT DESCRIPTION

2.1 The Application Site and its Surroundings

- 2.1.1 The application site is approximately 11.9 ha and is wholly contained within the administrative boundary of THC and is located approximately 12 km north of Alness and 3.9 km to the north east of high point Beinn Tharsuinn (692 AOD). The Location Plan (Figure 1) and the Application Boundary Plan (Figure 2) is submitted with this application and shows the extent of the application site and its location.
- 2.1.2 The application site currently comprises open moorland. In the immediate surroundings there are steep slopes, including Cnoc Muigh-bhlàraidh to the north, valleys and numerous watercourses. There is a Habitat Management Area associated with Beinn Tharsuinn Wind Farm adjoining the main site area and the access track. North west of the main site area there is a restored borrow pit that was in use during the construction of the Beinn Tharsuinn Wind Farm. There are two overhead power lines that run largely parallel with the B9176 and cross the proposed access track. The wider area comprises upland moorland, broad rounded hills and forestry plantation, with limited development except for windfarms. The nearest properties are approximately 2 km to the east at Aultnamain The main site area lies between 325 and 355 m AOD, sloping generally down to the south-east.
- 2.1.3 The application site is relatively contained by the elevated landform to the north, west and south and conifer plantation to the south and southeast.
- 2.1.4 The application site lies within Landscape Character Type (LCT) 330 Rounded Hills and Moorland Slopes Ross & Cromarty. This LCT comprises smooth rounded hills, sweeping moorland slopes and broad, high level unfarmed straths.
- 2.1.5 There are no statutory ecological designations located within the application site. The nearest Site of Special Scientific Interest (SSSI) is the Struie Channels SSSI which is located approximately 2.85 km to the southeast of the main site area and is designated for geological reasons (rather than ecological). Other SSSI's within 5 km of the application site are the Palaeontological SSSI to the northeast, Craigroy Burn SSSI approximately 4.05 km to the northeast of the main site area and Easter Fearn SSSI approximately 4.7 km to the north of the main site area.
- 2.1.6 The Morangie Forest Special Protection Area (SPA) is located approximately 4.04 km southeast of the main site area which has a qualifying interest of Capercaillie breeding.
- 2.1.7 The Dornoch Firth National Scenic Area (NSA) is located 3.5 km north of the application site.
- 2.1.8 There are no designated or non-designated heritage assets within the application site. The nearest Listed Buildings (within 5 km of the application site) are, LB7847 Strathrory Bridge (Cat C) and LB1809 Bridge Over Easter Fearn Burn (A836), (Cat B).
- 2.1.9 There are also three Scheduled Monuments within 5 km of the application site, these are, SM476 Bravard, cairn, two hut circles and field system, SM4963 Rhamore, settlement and field system and SM5495 Casandamff, settlement and farmstead.



2.1.10 There are no core paths, public footpaths or cycle ways within the application site.

2.2 Description of Proposed Development

Description of the Proposed Development

- 2.2.1 The Proposed Development is classed as a major development under The Town and Country Planning (Hierarchy of Developments) (Scotland) Regulations 2009.
- 2.2.2 The Proposed Development comprises a hydrogen production and storage facility (Class 5 General Industry), road haul tanker loading facility, underground electricity connection, import substation, improvements to existing access road, site offices, parking, gatehouse and perimeter fencing, temporary construction and laydown area, and ancillary development.
- 2.2.3 The two primary resources for the hydrogen production facility are electricity and water. The hydrogen production facility has a predicted capacity for supply up to 6,480 kg of hydrogen per day The anticipated water demand for the facility is up to c. 500,000 litres per day. Access to the application site comprises the existing junction with the B9176 Struie Road, (approximately 2 km to the east of the main site area) and the Beinn Tharsuinn Wind Farm access track to the main site area. There could be localised resurfacing as required from the windfarm access track, between the site access junction with the Struie Road and the entrance to the Proposed Development, to provide a road suitable for HGV use. However, there would be no change to the footprint of the access track and no groundworks along the access track are proposed.
- 2.2.4 Electricity supply will be via a buried cable. The cable route corridor refers to the area comprising the existing access track plus a 10-15 m buffer running between the main site area and the existing Beinn Tharsuinn Wind Farm substation. To minimise ground disturbance, cables would be laid in the road verge or alongside the site access tracks where possible and plant and equipment to enable grid connection would operate from the access track.
- 2.2.5 The site access and cable route corridor are included within the red line boundary as shown on Figure 1.1.

Biodiversity net gain

- 2.2.6 Production of a Biodiversity Enhancement Plan (BEP) will be a condition of any approval for the Proposed Development. The BEP will be written in consultation with NatureScot, THC and any relevant stakeholders, as required by THC. The BEP will aim to enhance local biodiversity, increase habitat resilience within the wider landscape, and improve connections between nature networks, in line with NPF4. The BEP will be developed post-consent, delivering biodiversity enhancement required by NPF4 (Scottish Government, 2023), and contributing towards the objectives set out within the Scottish Biodiversity Strategy to 2045: Tackling the Nature Emergency in Scotland (Scottish Government, 2023).
- 2.2.7 Furthermore, management prescriptions which will be detailed in the BEP will contribute towards actions, commitments and priority species included within the Highland Nature Biodiversity Action Plan 2021-2026 (HNBAP) (The Highland Environment Forum, 2021), and will be set in accordance with guidance on priority peatland habitats in development management (NatureScot, 2023).



- 2.2.8 A steering group and review committee (SGRC) would be established prior to the finalisation of the BEP to oversee the implementation of the BEP, monitoring results and recommendations for any amendments to the BEP.
- 2.2.9 It is anticipated the BEP will include a combination of the following measures, with exact prescriptions to be confirmed when the detailed design has been completed:
 - Enhancement of bog habitats;
 - Enhancement of heath habitats; and
 - Native riparian tree planting.
- 2.2.10 The measures detailed in the BEP will ensure a holistic approach to habitat enhancement to complement those enhancement measures being adopted for the adjacent operational Beinn Tharsuinn wind farm and comprise targeting the same ecologically important habitat types (bog and heath), as well as increasing the extent of native tree planting, whilst taking into account the safeguarding of peatland habitats.
- 2.2.11 It is considered that the outline enhancement measures provided as part of the Proposed Development, based on surveys and assessment of the wider area in the vicinity of the application site, demonstrate that biodiversity net gain is feasible. Further details of the proposed biodiversity enhancement measures are included in Chapter 3: Ecology of the EAR.

Project Components

- 2.2.12 The Proposed Development would comprise the following components:
 - Hydrogen production and storage facility comprising:
 - hydrogen electrolysers;
 - o hydrogen purification plant;
 - hydrogen and oxygen processing plant;
 - o compression and cooling equipment; and
 - low and high pressure storage vessels.
 - Road haul tanker loading facility and transport access roads;
 - Power import infrastructure: including underground cabling, substation, transformer(s) and switchgear;
 - Water import, buffer storage and water demineralisation package;
 - Waste water treatment infrastructure: including effluent treatment plant and holding tanks;
 - Chemical storage and dosing equipment (if alkaline electrolyser technology is selected);



- Site office, control room, admin and welfare facilities, gatehouse, internal access roads, parking and hardstanding and perimeter security fencing;
- Improvements to existing access road;
- Temporary construction and laydown area; and
- Ancillary infrastructure, incl. flood mitigation and site drainage, stand by power generation and emergency equipment.
- 2.2.13 The indicative dimensions for plant components as listed are contained in Table 1.2 of Chapter 1 of the EAR. The indicative site layout is shown on Figure 1.4, the general arrangement of the indicative Hydrogen Production Facility is shown on Figure 1.6 and engineering drawings of the key components of the Proposed Development are included in Figures 1.7-1.12 submitted with the application.
- 2.2.14 The Proposed Development is of a low scale with the maximum height of its structures not exceeding 25m. Of the structures proposed, the tallest are the vent stack of the hydrogen production facility (25 m), and the electrolyser building (15 m), with the majority of the buildings and infrastructure at a level of 9.5m or lower.
- 2.2.15 The site selection and design of the Hydrogen Production Facility has been optimised in terms of avoiding and reducing potential impacts on the receiving environment however the Applicant requests a micrositing allowance of 100 m within the extent of the application site. This is to allow flexibility to take into account localised ground conditions and other environmental constraints that may be identified pre-construction, which will provide further opportunity for mitigation to reduce effects. Where environmental features may be potentially impacted by micrositing this would be managed in consultation with an Environmental Clerk of Works (ECoW) for the Proposed Development and with consideration of the onsite constraints detailed in this EAR. The Applicant would seek to agree the use of a planning condition requiring all micrositing to be agreed with the THC.

Wastewater Drainage

2.2.16 A new wastewater connection would be provided for the Proposed Development. Details for this would be provided within the planning application for the water abstraction and pipework and are therefore not included as part of this application.

Surface Water Drainage

2.2.17 The surface water drainage network for the Proposed Development would be designed taking into account THC Supplementary Guidance Flood Risk & Drainage Impact (THC, 2013), SEPA's Water Assessment and Drainage Assessment Guide (SUDSWP, 2016) and CIRIA Publication C753 – the SuDS Manual (CIRIA, 2015). Further details of surface water drainage provision are detailed in Technical Appendix 4.2 Drainage Impact Assessment (DIA) submitted with the EAR as part of the application.



Construction

Construction Process

- 2.2.18 To minimise the potential impacts of construction, the Applicant would prepare a Construction Environmental Management Plan (CEMP) and CTMP. These would be developed in line with best practice guidelines prior to the start of construction, detailing measures to avoid or mitigate potential effects associated with key construction activities. The CEMP and CTMP would be agreed with key stakeholders, where appropriate. A Framework CTMP is included as part of the Transport Statement submitted with this application. It is anticipated that the requirement for a CEMP would form a condition of consent.
- 2.2.19 Associated with the Proposed Development would be a temporary construction laydown area approximately 0.26 ha formed of temporary hardstanding as shown in Figure 1.4 of the EAR. The compound would be enclosed by means of security fencing and details of onsite security during construction would be finalised prior to the commencement of construction activities.

Construction Working Hours, Programme and Personnel

- 2.2.20 Construction activities across all components of the Proposed Development would occur on a 7 day per week basis for an approximate 18-month construction programme. Construction works that may give rise to audible noise at the properties in the locality and HGV deliveries to the application site would be limited to the hours 07:00 to 19:00 Monday to Friday and 07:00 to 13:00 on Saturdays, unless otherwise approved in advance by THC (except in case of an emergency).
- 2.2.21 Based on estimates provided by the Applicant, traffic flows during construction are expected to peak at around 44 two-way HGV movements per day (22 vehicles in each direction), with a similar number of cars/vans associated with workers travelling to/from the application site (44 two-way light goods vehicles (LGV).

Operation and Output of the Development

- 2.2.22 The Proposed Development has a predicted capacity for supply up to 6,480 kg of hydrogen per day. And it is anticipated to be powered by renewable energy provided by ScottishPower Renewables from the co-located onshore wind generation at Beinn Tharsuinn and through power purchase agreements with off-site renewable generation.
- 2.2.23 Scottish Water Horizons (SWH) would supply the water for the Proposed Development. SWH feasibility studies have identified a preferred water supply, sourced from the River Glass approximately 14 km to the south west near Alness, under an existing abstraction licence. The water would be supplied to the Proposed Development by a new pipeline from the Newmore Water Treatment Works in Alness. The additional demand required for the Proposed Development should be met without the need to carry out any upgrade on the existing asset. A report setting out the feasibility work undertaken is included in Technical Appendix 1.4 of the EAR. The final route of the water pipeline is still being determined and would be subject to a separate consent application and thus is not considered further in this report; however, initial feasibility shows a preferred 20.5 km pipeline (c. 180 mm diameter) route installed in the verges along existing roads and the existing site access track and so no material environmental or health and safety effects are anticipated at this stage.



- 2.2.24 It is acknowledged that the current operational lifetime of the existing Beinn Tharsuinn Windfarm is time limited by planning condition as part of the extant consent. The Applicant has discussed this with THC during pre-application consultation and it is proposed that a subsequent application for a grid connection would be submitted if Beinn Tharsuinn Windfarm was decommissioned (this would be a separate application).
- 2.2.25 Power supply is required by means of High-voltage (HV) cable transfer at 33 kilovolts (kV). The underground cabling will link the hydrogen production facility to the existing Beinn Tharsuinn Windfarm substation.
- 2.2.26 Operationally in respect of the Proposed Development, it is anticipated that the hydrogen is exported via metering to tube trailers. Based on the Applicant's current understanding of the compressed Hydrogen transportation trailer market, we have assumed single trailers could be filled or decanted in 3 to 10 hours depending on trailer manufacturer and sizing. As per the Transport Statement submitted with this application, we have assumed a frequency for transport movements during operations based on 840 kg tube trailers. However, these values are indicative based on current market specifications and both fill/decanting rate and tube trailer capacity could change in the future. It is intended that tube-trailers would enter the main site area from the west and be able to directly access six filling bays for their use only. These filling bays are located directly adjacent to the high-pressure hydrogen storage vessels. The contracted Transporter would drive low emission vehicles to haul the trailers to Off-taker sites.
- 2.2.27 General vehicles would use the same access route via the access track and would access the hydrogen production facility via the same designed access point. General vehicles would then go onwards to the administration and control building and associated staff and visitor parking. There would be provision for charging electric vehicles in the parking facilities.
- 2.2.28 In the operational phase, the plant will be operational 24 hours/day and 7 days/week, with regular deliveries from the application site; this equates to up to 29 Full Time Equivalent (FTE) jobs through 5 shifts of 5 crew, and 10 HGV per day.
- 2.2.29 As per Chapter 2: Landscape and Visual Appraisal (LVA) of the EAR, the Proposed Development includes temporary lighting during the construction phase and permanent lighting when the facility is operational. Lighting associated with construction would be over the 18 month build period with agreed hours for lighting work areas and for security.
- 2.2.30 Permanent night-time lighting is proposed along the perimeter of the Hydrogen Production Facility and at the entrance, and where possible, directed downward and carefully designed not to contribute to light pollution.
- 2.2.31 The Applicant's proposition is that the Proposed Development would operate in the same way as a business and industrial development and there is no operational need or statutory or legislative limit to the lifetime of the development. Therefore, consent is being sought for the Proposed Development and its components in perpetuity However, while the Proposed Development is not strictly classed as energy generation it would be powered by renewable energy and would produce green hydrogen.

Decommissioning

2.2.32 Whilst there is no intention to limit the operational life of the Proposed Development, it has been agreed in consultation with THC that a suitably worded condition could be imposed to ensure in a case where the Proposed Development was inactive for a substantial period with



no evidence to suggest it was to be repaired/used again, that appropriate decommissioning would be undertaken.

2.2.33 An Outline Restoration and Decommissioning Plan (RDP) has been included at the request of THC (Technical Appendix 1.3 of the EAR). Due to estimated advances in technology, changes in working methods and good practice guidelines it is proposed that a finalised RDP would be prepared in consultation with stakeholders prior to decommissioning if required. It is anticipated that the requirement for the RDP would form a condition of consent.

Health and Safety

- 2.2.34 The Proposed Development is considered remote to the majority of sensitive receptors however it is within a location which is accessible. To ensure further protection of both component and receptors, the hydrogen production facility will be enclosed by means of security fencing and gated access and will be monitored during their operation via CCTV.
- 2.2.35 Hydrogen is a 'named substance' under the Control of Major Accident Hazard (COMAH)
 Regulations 2015. The control of major accident hazards involving dangerous substances, to
 prevent major accidents and limit the consequences of such accidents, is primarily managed
 through the COMAH Regulations 2015 and The Town and Country Planning (Hazardous
 Substances) (Scotland) Regulations 2015.
- 2.2.36 A hazardous substances consent application will be submitted, if required, separately to this planning application.
- 2.2.37 Health and safety during construction and decommissioning falls within the Construction (Design and Management) Regulations 2015.
- 2.2.38 Further details on the legislation that would cover the Proposed Development is provided in the Supporting Statement submitted with the application.



3 DEVELOPMENT PLAN AND MATERIAL CONSIDERATIONS

3.1 Introduction

3.1.1 Sections 25 and 37(2) of the TCPSA require applications for planning permission to be determined in accordance with the Development Plan unless material considerations indicate otherwise.

3.2 The Development Plan

- 3.2.1 The Development Plan for the application site consists of:
 - National Planning Framework 4 (NPF4) adopted 2023;
 - Highland-wide Local Development Plan (HwLDP) adopted 2012;
 - Caithness and Sutherland Local Development Plan (CaSPlan) adopted 2018; and
 - Inner Moray Firth Local Development Plan (IMFLDP) adopted 2015.

National Planning Framework 4

- 3.2.2 The NPF4 was published by the Scottish Government on 13 February 2023. The NPF4 sets out the spatial principles, regional policies, national developments and national planning policy. NPF4 replaces the NPF3 and Scottish Planning Policy (SPP). Unlike NPF3, NPF4 now forms part of the statutory Development Plan.
- 3.2.3 The NPF4 sets out in its introduction that 'Scotland's future places will be Net Zero.'
- 3.2.4 In Part 1 'the National Spatial Strategy' it also sets out that the north (where the application site is located):

"can continue to make a strong contribution towards meeting out ambition for a net zero and nature positive country by demonstrating how natural assets can be managed and used to secure a more sustainable future."

3.2.5 In relation to priorities for the North, page 26 outlines that:

"This part of Scotland can continue to make a strong contribution towards meeting our ambition for a net zero and nature positive country by demonstrating how natural assets can be managed and used to secure a more sustainable future. By guiding RSS and LDPs in this area, our strategy aims to:

• Protect environmental assets and stimulate investment in natural and engineered solutions to climate change and nature restoration,



whilst decarbonising transport and building resilient connections.

- Maintain and help to grow the population by taking a positive approach to rural development that strengthens networks of communities.
- Support local economic development by making sustainable use of the areas' worldclass environmental assets to innovate and lead greener growth."
- 3.2.6 More information on the priorities for the North is detailed in Annex C of NPF4. Page 125 outlines:

"To deliver sustainable places, Regional Spatial Strategies and Local Development Plans in this area should protect environmental assets and stimulate investment in natural and engineered solutions to climate change and nature restoration, whilst decarbonising transport and building resilient connections."

3.2.7 Page 128 states:

"Through Opportunity Cromarty Firth and other projects, new facilities and infrastructure will help ports to adapt, unlocking their potential to support the transition from fossil fuels through oil and gas decommissioning, renewable energy (including the significant opportunities for marine energy arising from Scotwind) and low carbon hydrogen production and storage, and the expansion of supply chain and services. This will in turn benefit communities by providing employment and income for local businesses."

Sustainable Places

3.2.8 The national spatial strategy for sustainable places states:

"Scotland's future places will be net zero, nature-positive places that are designed to reduce emissions and adapt to the impacts of climate change, whilst protecting, recovering and restoring our environment.

Meeting our climate ambition will require a rapid transformation across all sectors of our economy and society. This means ensuring the right development happens in the right place.

Every decision on our future development must contribute to making Scotland a more sustainable place. We will encourage low and zero carbon design and energy efficiency, development that is accessible by sustainable travel, and expansion of renewable energy generation."

Applying NPF4

- 3.2.9 In terms of applying NPF4, the Chief Planner's letter transitional arrangements for National Planning Framework 4 (February 2023) sets out that the NPF4 should be read as a whole and that conflicts between policies are to be expected. Factors for and against development will be weighed up in the balance of planning judgement.
- 3.2.10 The Chief Planner's letter also outlines that:

"Whether an LDP [Local Development Plan] has been adopted prior to or after the adoption and publication of NPF4, legislation states that in the event of any incompatibility between a provision of NPF and a provision of an LDP, whichever of them is the later in date is to prevail (Town and Country Planning (Scotland) Act 1997 ("the 1997 Act"); section 24(3))."



NPF4 Relevant Policies

- 3.2.11 The Proposed Development comprises an industrial development which supports the production of renewable energy through the production of green hydrogen and therefore it is considered that the key policy considerations from NPF4 include:
 - Policy 26 Business and Industry; and
 - Policy 11 Energy.

Policy 26

3.2.12 The intent of Policy 26 is:

"To encourage, promote and facilitate business and industry uses and to enable alternative ways of working such as home working, live-work units and micro-businesses."

3.2.13 The policy sets out that Local Development Plans (LDP) should allocate sufficient land for business and industry land audits and states that allocations:

"should take account of local economic strategies and support broader objectives of delivering a low carbon and net zero economic recovery, and a fairer and more inclusive wellbeing economy."

3.2.14 Policy 26 supports development for business, general industrial and storage uses outside of allocated sites where there are no suitable alternatives allocated in the LDP and where the nature and scale of activity will be compatible with the surrounding area. As outlined above Cromarty is recognised in NPF4 as an area for low carbon hydrogen production.

Policy 11

3.2.15 The intent of Policy 11 is:

"To encourage, promote and facilitate all forms of renewable energy development onshore and offshore. This includes energy generation, storage, new and replacement transmission and distribution infrastructure and emerging low-carbon and zero emissions technologies including hydrogen and carbon capture utilisation and storage (CCUS)."

3.2.16 In relation to LDPs, the text preceding Policy 11 states:

"LDPs should seek to realise their area's full potential for electricity and heat from renewable, low carbon and zero emission sources by identifying a range of opportunities for energy development."

- 3.2.17 Policy 11 supports all forms of renewable, low-carbon and zero emissions technologies.
- 3.2.18 Other policies contained within the NPF4 which are considered relevant to the proposed development are set out below:
 - Policy 1 Tackling the climate and nature crises
 - Policy 2 Climate mitigation and adaption



- Policy 3 Biodiversity
- Policy 4 Natural Places
- Policy 5 Soils
- Policy 22 Flood Risk and Water Management
- Policy 23 Health and Safety
- Policy 25 Community wealth building
- Policy 29 Rural Development
- 3.2.19 The full policy wording is contained in **Appendix 1**

Highland Indicative Regional Spatial Strategy (IRSS) (April 2021)

- 3.2.20 THC prepared the Highland Indicative Regional Spatial Strategy (IRSS) (April 2021) to help inform the preparation of NPF4. The strategy sets out how the THC region can prosper and support the delivery of national policies.
- 3.2.21 Under the subheading 'Climate Change: What development will we need to address climate change?' The strategy states:

"The development of a hydrogen economy is expected to be crucial to decarbonisation and there is a key opportunity for Highland to play a major role in achieving this for the nation."

Highland-wide Local Development Plan (HwLDP) 2012

- 3.2.22 The HwLDP was adopted in April 2012 and therefore prior to the adoption of the NPF4.
- 3.2.23 The Proposed Development falls just within an area of local/regional importance and otherwise is within the wider countryside.
- 3.2.24 It is understood that the area for local/regional importance relates to a possible Shieling Hut 'Meall Lighiche' located approximately 480 m south of the application site. This is a non-statutory site and the reference number on THC's Historic Environment Record is MHG23888.
- 3.2.25 The vision of the HwLDP is:

"By 2030, Highland will be one of Europe's leading regions. We will have created sustainable communities, balancing population growth, economic development and the safeguarding of the environment across the area and have built a fairer and healthier Highlands."

- 3.2.26 In land use planning terms, the environment will be safeguarded by:
 - "ensuring that development of renewable energy resources are managed effectively with clear guidance on where renewable energy developments should and should not be located:



- ensuring that the special quality of the natural, built and cultural environment in Highland is protected and enhanced;
- taking a lead in reducing the amount of greenhouse gases released into the air, adapted to the effects of climate change and limited the amount of non renewable resources development uses;"
- 3.2.27 It is considered the following policies in the HwLDP are relevant to the Proposed Development:
 - 28 Sustainable Design
 - 29 Design Quality & Place-making
 - 30 Physical Constraints
 - 36 Wider Countryside
 - 41 Business and Industrial Land
 - 55 Peat and Soils
 - 57 Natural, Built & Cultural Heritage
 - 58 Protected Species
 - 59 Other important Species
 - 60 Other Importance Habitats
 - 61 Landscape
 - 63 Water Environment
 - 64 Flood Risk
 - 66 Surface Water Drainage
 - 67 Renewable Energy Developments
 - 72 Pollution
 - 73 Air Quality
 - 77 Public Access
- 3.2.28 The full text of these policies is provided in **Appendix 2.**



Caithness and Sutherland Local Development Plan (CaSPlan) 2018

- 3.2.29 The majority of the application site including the main site area is covered by the CaSPlan which allocates sites, either for new development, such as housing, or sites to be protected. It also includes policies that guide decisions on all planning applications.
- 3.2.30 A very small area of the northern most part of the application site is located in an "Area for Coordinated Tourism Connections" on the Strategy Map on page 3 of CaSPlan. The CaSPlan focuses on employment with their spatial strategy, in part through "promoting and supporting tourism" within the Area for Coordinated Tourism Connections.
- 3.2.31 Paragraph 53 of CasPlan states:

"Investment in renewable energy generation in North Highland is not only helping to meet Council and national climate change targets but it has also delivered economic benefits for the area."

3.2.32 Paragraph 80 relates to climate change and sets out that:

"The Council is committed to working with communities, businesses and partners to mitigate our impact on climate change by reducing greenhouse gas emissions, maximising renewable energy contributions, taking steps to adapt to the unavoidable impacts of a changing climate and to working with communities to respond to climate change."

Inner Moray Firth Local Development Plan (IMFLDP) 2015

- 3.2.33 A very small section of the application site which encompasses part of the access track toward the west of the application site, near to the Beinn Tharsuinn Wind Farm is covered by the IMFLDP (2015).
- 3.2.34 The application site is not included in any of the allocations contained within the IMFLDP.
- 3.2.35 Whilst the application site is not allocated, the IMFLDP sets out that by 2030 Inner Moray Firth will have:

"increased the number of jobs people and facilities" and "have diversified its economy".

3.3 Material Considerations

3.3.1 This section of the Planning Statement sets out the relevant material considerations for the Proposed Development.

Scottish Government Planning Advice

- 3.3.2 The Scottish Government produce Planning Advice Notes (PANs) and online advice which provide advice on planning matters. The PANs and Scottish Government online advice considered relevant to the Proposed Development are:
 - Flood risk: planning advice published 22 June 2015.



- Energy storage: planning advice last updated 12 December 2013.
- PAN 1/2011: planning and noise published 3 March 2011.
- PAN 3/2010: community engagement published 31 August 2010.
- PAN 79: water and drainage published 27 September 2006.
- PAN 75: planning for transport published 15 August 2005.
- PAN 68: design statements published 18 August 2003.
- PAN 60: natural heritage published 1 January 2000.

Emerging Planning Policy

The Highland Local Development Plan Review

3.3.3 THC is in the process of preparing a new Highland Local Development Plan (HLDP) and are currently at the evidence-gathering stage. The Highland Development Plans Newsletter – March 2023 outlines that THC aim to reach the Proposed Plan stage in October 2025 with adoption aimed for around June 2027. Once the HLDP is adopted it will replace the HwLDP and the individual area LDPs.

Inner Moray Firth Proposed Local Development Plan

- 3.3.4 The IMFPLDP2 was submitted to Scottish Ministers on 24 March 2023 and the examination started on 22 May 2023. The IMFPLDP2 places greater emphasis on the Climate and Ecological Emergency
- 3.3.5 The application site does not fall within a proposed allocation in the IMFPLDP2.
- 3.3.6 The IMFPLDP2 emphasis the aims of the Inner Moray Firth region to become national leader in renewable energy sectors and acknowledges the North of Scotland Hydrogen Programme which:
 - "aims to develop a state-of-the art hydrogen hub in the Cromarty Firth and would produce, store and distribute green hydrogen to Highland, Scotland and other parts of the UK and Europe."
- 3.3.7 Proposed Policy 2 relates to nature, protection, preservation and enhancement and would require major developments to conserve and enhance biodiversity.
- 3.3.8 The IMFPLDP2 supports industrial development outwith allocated sites as long as they can demonstrate good levels of accessibility for staff, do not adversely impact the amenity of neighbouring properties and do not adversely impact the environment (in line with HwLDP policies).



Climate Emergency, Carbon and Energy Legislation Policy and Targets

- 3.3.9 This section of the Planning Statement outlines the climate emergency declared by the Scottish Government and THC. It sets out the legal framework for Net Zero carbon emissions within the UK and Scotland and provides a high-level review of some of the most recent publications from the UK and Scottish Governments. It is evident that the planning system has a key role in delivering Net Zero and the energy policy commitments. This is clearly evidenced in NPF4.
- 3.3.10 The recently published Scottish Government Programme for Government 2023-24 outlines on page 21 in relation to green growth and energy that the Scottish Government aims to:

"Develop a Green Industrial Strategy, setting out how we will help businesses and investors to realise the enormous economic opportunities of the global transition to net zero and create good, well-paid jobs across Scotland in sectors such as offshore wind and hydrogen, and support the development of sectoral Just Transition Plans."

Climate Emergency

- 3.3.11 In May 2019, the Scottish Government and UK Government declared a climate emergency.
 - The Highland Council Climate Emergency
- 3.3.12 At a meeting of THC on 9th May 2019, following a motion brought by the Leader of the Council, Cllr Margaret Davidson, Members agreed that the THC declare a climate and ecological emergency.
- 3.3.13 THC has adopted the following position on climate change, following the declaration of a climate and ecological emergency on 9 May 2019:
 - "Highland Council recognises the serious and accelerating changes to the world caused by climate change and therefore declares a climate and ecological emergency. The Council will establish a Climate Change panel with responsibility for the following reporting back to full council on progress."
- 3.3.14 Under the Councils Carbon CLEVER initiative which has a target of 'a carbon neutral Inverness in a low carbon Highlands by 2025' it is stated that:
 - "By 2025, the Highlands will be a region where its residents and visitors can move around easily by low carbon and sustainable forms of transport. The region is well connected both in terms of transport links and through digital connectivity. Buildings across the region will have been energy renovated, and new buildings are energy efficient. The growing majority of buildings in rural areas will be heated by renewable sources. Electricity will be generated from a range of renewable sources, and excess energy can be transmitted to surrounding regions through smart grids, or stored efficiently. Land and resources across the Highlands are utilised for optimal economic, social, and environmental gains. Communities across the region are engaged, are highly active, more healthy and empowered."



Highland's Hydrogen Economy & Update on Opportunity Cromarty Firth's Greenport Bid (March 2021)

3.3.15 This report was prepared by the Executive Chief Officer - Infrastructure and Environment for THC Committee on 25th March 2021. In the Executive Summary of the report it states that it:

"Highlights a major proposition for Highland to capitalise on hydrogen as a driving force in achieving its net zero ambitions, and in evolving the region's unique role as Scotland's engine for renewables, whilst also safeguarding our most valuable natural and environmental assets."

3.3.16 It also recognises:

"the rapidly emerging position for hydrogen at the national and international level, as well as commercially..."

3.3.17 Section 6 'Opportunity Cromarty Firth' sets out that

"Highland's natural and environmental assets make it uniquely well placed to drive Scotland's renewable energy transition and to deliver against both the local and national climate & ecological emergencies, whilst also supporting a just transition to net zero and a green economic recovery from the COVID-19 pandemic."

3.3.18 The section also acknowledges that there are:

"multiple benefits which are likely to flow from the successful development of a Hydrogen Hub within the Cromarty Firth."

3.3.19 These include:

"Economics - wind energy is now the cheapest way to produce electricity at scale, which means the resulting green hydrogen can be produced cost-effectively."

3.3.20 And

"Hydrogen production could resolve many of the grid constraint issues in the Highlands, thereby anchoring jobs here instead of bypassing the Highlands through shore connections landing outwith the area e.g. Moray West Offshore Windfarm."

The Highland Council Net Zero Strategy (October 2023)

- 3.3.21 THC adopted The Highland Council Net Zero Strategy in their Climate Change Committee Meeting held on the 5 October 2023. The Strategy outlines THC's approach in addressing the climate emergency which it declared in 2019.
- 3.3.22 The Foreword states that:

"This Strategy sets out the Council's approach to addressing the climate emergency and contributing towards Scotland's national legally binding target to become Net by 2045. Highland Council will adopt the Scottish Government's Net Zero by 2045 target, aiming to achieve this sooner. The route map to Net Zero included in this Strategy also sets key interim targets to reduce emissions by at least 75% by 2030 and by at least 90% by 2040."



3.3.23 The Strategy states that:

"The scientific evidence presented in this Strategy describes why we must take urgent action to reduce our carbon emissions and to adapt to climate change."

- 3.3.24 The Strategy outlines that THC need to have an annual decrease of 8.5% to meet the 2030 target.
- 3.3.25 One of the outcomes in the Strategy is Outcome 4: A Sustainable Highland Environment and Global Centre for Renewable Energy. In relation to Place, the Strategy outlines the following to achieve this:
 - "4.7 Invest in commercial renewable energy opportunities to generate new income streams for the Council
 - 4.8 Achieve our Net Zero Target
 - 4.9 Identify and commit to renewable energy investments to reduce the overall energy costs for the Council
 - 4.10 Capitalise on our areas of immense natural capital to deliver alternative energy solutions including development of solar, hydrogen, Hydro, and wind solutions."
- 3.3.26 In relation to Transport, the Strategy outlines the following with respect to Outcome 4:
 - "4.1 Promote active travel infrastructure across Highland.
 - 4.2 Promote greener transport including low carbon public transport and the development of hydrogen hubs throughout the area.
 - 4.7 Achieve Net Zero Targets."
- 3.3.27 It is understood that an action plan will be developed to support the Strategy and will be considered by THC later this year (2023).

Climate Change and Energy Legislation and Policy

3.3.28 The UK and Scottish legislative and policy framework on climate change is shaped by international climate change legislation. The United Nations Paris Agreement of 2015 is a legally binding international treaty on climate change. Its goal is:

"holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;" (page 4)

- 3.3.29 The UK Government passed The Climate Change Act 2008 (the 2008 Act) on 26 November 2008. Scotland is a partner in delivering the UK emissions reduction target set out in the 2008 Act.
- 3.3.30 Two key aims underpin the 2008 Act, these are:
 - to improve carbon management and help the transition towards a low carbon economy in the UK; and
 - to demonstrate strong UK leadership internationally.



- 3.3.31 The 2008 Act introduced for the first time a legally binding framework to tackle the challenges of climate change. It set legally binding targets for the UK to reduce carbon dioxide emissions by 80% by 2050 relative to 1990 levels.
- 3.3.32 The 2008 Act was amended in 2019 by the Climate Change Act 2008 (2050 Target Amendment) Order 2019 to include revised targets. These included an at least 100% reduction in GHGs from 1990 levels by 2050. The key aims were not altered.
- 3.3.33 In turn, the Scottish Government has set some of the most ambitious targets in the world and have committed to achieving Net Zero by 2045 (5 years before the UK) which is set in law by the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 which amends the Climate Change (Scotland) Act 2009.
- 3.3.34 The Climate Change (Scotland) Act 2009 (sets targets to reduce Scotland's emissions of all GHGs to Net Zero by 2045, with interim targets for reductions of at least 48.5% by 2020, 75% by 2030 and 90% by 2040.
- 3.3.35 There are a number of energy and climate change advisory reports and energy policies which are material considerations for this application.
- 3.3.36 It is considered the most relevant and latest advisory reports published include:
 - The Sixth Carbon Budget: The UK's Path to Net Zero (Climate Change Committee) (December 2020)
 - United Nations Emissions Gap Report 2022 The Closing Window (United Nations Environment Programme) (October 2022)
 - Progress in reducing emissions in Scotland 2022 Report to Parliament (Climate Change Committee) (December 2022)
 - Mission Zero: Independent Review of Net Zero (Rt Hon Chris Skidmore MP) (January 2023)
 - AR6 Synthesis Report: Climate Change 2023 (Intergovernmental Panel on Climate Change) (March 2023)
 - Progress in reducing emissions 2023 Report to Parliament (Climate Change Committee) (June 2023)
- 3.3.37 A summary of the Advisory Reports detailed above is contained in **Appendix 3**.
- 3.3.38 The relevant strategies and policies which have been published include:
 - Scottish Energy Strategy: The future of energy in Scotland 2017 (Scottish Government) (December 2017)
 - Climate Change Plan, The Third Report on Proposals and Policies 2018-2032 (Scottish Government) (February 2018)
 - The Ten Point Plan for a Green Industrial Revolution (UK Government) (November 2020)



- Update to the Climate Change Plan 2018-2032: Securing a Green Recovery on a Path to Net Zero (Scottish Government) (December 2020).
- Energy White Paper: Powering our Net Zero Future (UK Government) (December 2020)
- Scottish Government Hydrogen Policy Statement (Scottish Government) (December 2020)
- Scotland's Energy Strategy Position Statement (Scottish Government) (March 2021)
- UK Hydrogen Strategy (UK Government) (August 2021)
- Net Zero Strategy: Build Back Greener (UK Government) (October 2021)
- British Energy Security Strategy (UK Government) (April 2022)
- Hydrogen Action Plan (Scottish Government) (December 2022)
- Onshore Wind Policy Statement 2022 (OWPS) (Scottish Government) (December 2022)
- Powering up Britain (UK Government) (March 2023)
- Powering up Britain: Energy Security Plan (UK Government) (March 2023, updated April 2023)
- Equality, Opportunity, Community Our Programme for Government 2023 to 2024 (Scottish Government) (September 2023)
- 3.3.39 A summary of the Hydrogen Action Plan, UK Hydrogen Strategy and OWPS is detailed below with a summary of the remaining documents provided in **Appendix 4.**

UK Hydrogen Strategy

3.3.40 The UK Government released the UK Hydrogen Strategy in August 2021 which sets out how progress will be delivered in the 2020s to meet the goal of 5 GW capacity by 2030 (which has now been doubled to 10 GW as set out in the British Energy Security Strategy published in April 2022) and meet the Sixth Carbon Budget and net-zero commitments. The Strategy states:

"As part of a deeply decarbonised, deeply renewable energy system, low carbon hydrogen could be a versatile replacement for high-carbon fuels used today – helping to bring down emissions in vital UK industrial sectors and providing flexible energy for power, heat and transport."

The key role of Scotland in the development of a UK hydrogen economy is noted and The UK Hydrogen Strategy states that the UK Government is:

"working closely with the devolved administrations to help hydrogen contribute to emissions reductions and deliver local economic benefits across the UK."



Hydrogen Action Plan

- 3.3.42 The Hydrogen Action Plan was published by the Scottish Government in December 2022. It sets out the actions that will be taken over the next five years to support the development of a hydrogen economy.
- 3.3.43 The Hydrogen Action Plan reflects the pipeline of renewable energy generation expected to come forward in Scotland and sets ambitions for the future of Scotland in becoming a future export market for hydrogen which:

"could present Scotland's greatest industrial opportunity since oil and gas was discovered in the North sea."

- 3.3.44 Part 4 of the Hydrogen Action Plan sets out the following actions:
 - "Scaling up hydrogen production in Scotland
 - Facilitating the development of a domestic market
 - Maximising the benefits of integrating hydrogen into our energy system
 - Enabling the growth and transition of Scotland's supply chain and workforce
 - Establishing and strengthening international partnerships and markets
 - Strengthening research and innovation"
- 3.3.45 The Hydrogen Action Plan refers to the Proposed Development stating that it:

"will initially supply renewable hydrogen to local distilleries operated by Diageo, Glenmorangie and Whyte & Mackay, and the supply chain supporting those distilleries, before expanding into a broader Cromarty regional solution for heat and transport needs whilst also enabling hydrogen export via the Port of Cromarty Firth."

3.3.46 The Hydrogen Action Plan states on page 22 that:

"The North of Scotland Hydrogen Programme aims to develop a state-of-the-art hub to produce, store and distribute renewable hydrogen to the local area, the UK and Europe. Ideally located close to large-scale renewable resources, there is a driving ambition for the region to become a hydrogen economy, with huge local demand for renewable hydrogen from distilleries, industry, transport and domestic applications."

Onshore Wind Policy Statement

- 3.3.47 The OWPS 2022 was published by the Scottish Government in December 2022 and sets out the ambitions for delivering onshore wind in Scotland.
- 3.3.48 The Proposed Development is situated close to Beinn Tharsuinn Wind Farm and will source power from this renewable energy source and through power purchase agreements with off-site renewable generation within the ScottishPower portfolio.
- 3.3.49 In relation to the security of supply and storage potential and role of onshore wind, paragraph 8.4.4 of the OWPS states:



"These include the potential of co-location with hydrogen electrolysers. The renewable hydrogen produced from such processes can serve a number of highly valuable purposes; in addition to greatly reducing network constraint payments and costs, the renewable hydrogen produced could help meet demand for zero carbon heat and transport as well as being used to generate electricity and provide vital flexibility at key strategic locations on the network."

3.3.50 Paragraph 8.4.6 states that:

"The Scottish Government will continue to support the co-location of both battery storage and hydrogen production facilities with onshore wind developments to help balance electricity demand and supply, add resilience to the energy system and support the production of renewable hydrogen to meet our future demands."

3.3.51 The OWPS confirms the important relationship between hydrogen and wind energy and states that:

"We see the growth of renewables and a hydrogen economy as complementary; we need a strong renewables sector to support the development of a range of small and large scale renewable hydrogen projects."

3.3.52 The OWPS also refers to the Hydrogen Action Plan as detailed above and confirms that:

"The Action Plan is supported by a £100m capital funding programme, designed to accelerate and maximise the production of renewable hydrogen in Scotland to meet our target of 5 GW of renewable and low carbon hydrogen production by 2030 and 25 GW by 2045."

Emerging Energy Policy

Draft Energy Strategy and Just Transition Plan (January 2023)

3.3.53 The Draft Energy Strategy and Just Transition Plan was consulted on until 9 May 2023. The Executive Summary outlines:

"To realise our climate change ambitions, we need to transform the way Scotland generates, transports and uses energy. We must seize the huge opportunity this presents and deliver maximum benefits to Scotland's people, workers, communities and economy from our vast renewable energy resource."

3.3.54 The Draft Energy Strategy and Just Transition Plan:

"sets out clear policy positions and a route map of actions with a focus out to 2030 that the Scottish Government will take and the changes that the UK Government must deliver."

3.3.55 This includes:

"An ambition for hydrogen to provide 5 GW or the equivalent of 15% of Scotland's current energy needs by 2030 and 25 GW of hydrogen production capacity by 2045."

3.3.56 Section 3.1.7 states:

"As set out in our Hydrogen Action Plan, our vision is for Scotland to become a leading Hydrogen Nation with an ambition to produce 5 GW of renewable and low carbon hydrogen by 2030, and 25 GW by 2045. A thriving hydrogen economy in Scotland will support domestic decarbonisation goals, our domestic supply chain capability and secure and create new jobs



as part of the just transition. It will also help support the decarbonisation of other nations through the export from Scotland of renewable hydrogen, skills and expertise."

3.3.57 In relation to maximising benefits to the economy, businesses and workers, Section 3.1.7 states:

"The growth of the hydrogen economy is dependent on supply and demand developing in concert, as well as the enabling infrastructure required to produce, store and distribute the hydrogen products. Key to this are supportive policies and the establishment of investment and incentives to enable the growth of supply, demand and infrastructure, including the £100 million in capital funding for renewable hydrogen projects from our Emerging Energy Technologies Fund, which will complement UK Government funding and regulatory and market frameworks..."

"...Economic impact estimates based on scenarios developed for the Scottish Government indicate the development of a hydrogen economy in Scotland could mean between 70,000 and over 300,000 jobs could be protected or created with potential GVA (Gross Value Added) impacts of between £5 billion and £25 billion a year by 2045 depending on the scale of production and the extent of exports."

Progress Towards Targets

The UK

- 3.3.58 The Climate Change Act 2008 commits the UK government by law to reducing GHG emissions by at least 100% of 1990 levels (Net Zero) by 2050. In relation to hydrogen the UK also has a target to provide up to 10 GW of low carbon hydrogen production capacity by 2030.
- 3.3.59 The Climate Change Committee Progress in reducing emissions Report to Parliament 2023 discusses the GHG targets for the UK and states on page 16:

"UK greenhouse gas emissions were 450 MtCO2e in 2022, including the UK's share of international aviation and shipping, which is 46% below 1990 levels. This is an increase of 0.8% since 2021, but remains 9% below pre-pandemic (2019) levels."

3.3.60 Page 17 states:

"The rate of emissions reduction will need to significantly increase for the UK to meet its 2030 NDC and the Sixth Carbon Budget. If the UK is to achieve its NDC, the rate of emissions reduction outside the electricity supply sector must almost quadruple, from 1.2% annual reductions to 4.7%. The Government's quantified plans in the CBDP fall slightly short of this, falling by an annual average of 4.4%, with the Government taking the position that unquantified plans will make up this shortfall."

Scotland

- 3.3.61 The current renewable energy target for Scotland is to generate 50% of overall energy consumption from renewable energy sources by 2030. The Draft Energy Strategy and Just Transition Plan sets out the ambitions for the future of renewable energy in Scotland which includes the targets set in the Hydrogen Action Plan 5 GW by 2030 and 25 GW by 2045.
- 3.3.62 The legally binding target in the Climate Change (Scotland) Act 2009 for reducing all GHG emissions by 100% is by 2045.



- 3.3.63 The 'Scottish Greenhouse Gas Statistics 2021' was published on 20 June 2023 and is an Official Statistics publication for Scotland. The net GHG emissions in 2021 was 41.6MtCO2e which constitutes a 49.9% emissions reduction against an interim target of 51.1% by 2021 from the 1990 baseline. Therefore, Scotland has narrowly missed the interim target for 2021.
- 3.3.64 In response to these findings, the Scottish Parliament 'Meeting of Parliament' official report from the meeting held on the 20 June 2023 sets out:

"It is therefore more important than ever that Scotland is stepping up and playing our part in realising the benefits of a net zero, climate-resilient future. It is right that this Parliament passed some of the world's most ambitious climate legislation by a significant cross-party majority."

3.4 Conclusion

- 3.4.1 NPF4 now forms part of the statutory development plan and places significant weight on addressing the climate emergency.
- 3.4.2 The UK and Scottish Government's along with THC have set ambitious targets for reaching Net Zero and to address the climate emergency.
- 3.4.3 THC's Net Zero Strategy which was published in October 2023 aligns with the UK and Scottish Government's target of a reduction in GHG emissions by 75% by 2030. Outcome 4: A Sustainable Highland Environment and Global Centre for Renewable Energy states:
 - "Capitalise on our areas of immense natural capital to deliver alternative energy solutions including development of solar, hydrogen, Hydro, and wind solutions."
- 3.4.4 The Proposed Development forms part of the North of Scotland Hydrogen Programme which is referred to in the Hydrogen Action Plan. The Hydrogen Action Plan sets a target of 5 GW of renewable and low carbon hydrogen by 2030.
- 3.4.5 Rapid progress needs to be made now in order to meet the targets set by THC and the UK and Scottish Governments for 2030. The GHG emissions reduction targets are set in law and the evidence shows progress is not being made quickly enough. The Proposed Development would clearly help to meet these targets. It should also be noted that these targets are not a ceiling figure but should be seen as the starting point to achieving Net Zero by 2045.



4 PLANNING ASSESSMENT

4.1 Introduction

- 4.1.1 Planning applications are to be determined in accordance with the Development Plan unless material considerations indicate otherwise.
- 4.1.2 This chapter of the Planning Statement outlines the principle of the Proposed Development and assesses the Proposed Development against the relevant provisions of the Development Plan and relevant material considerations.
- 4.1.3 The chapter considers the outcomes of the technical and environmental reports which accompany this application and therefore the following section cross references these reports to assess against the Proposed Development.

4.2 Principle of Development

Introduction

- 4.2.1 As demonstrated in Chapter 3 of the Planning Statement there is strong policy support within the Development Plan and relevant material considerations for the Proposed Development. The Proposed Development would form part of the green transition and to the drive to achieve energy security.
- 4.2.2 The Proposed Development would form part of the North of Scotland Hydrogen programme. The Proposed Development is the first project in the programme which is referred to in the Hydrogen Action Plan.
- 4.2.3 The Scottish Government has an ambition to produce 5 GW of clean hydrogen in Scotland by 2030 and at least 25 GW by 2040 as part of the legal requirement of Net Zero by 2045. The Proposed Development would make a positive contribution to meeting the hydrogen targets as well as Net Zero by 2045.
- 4.2.4 The policy intent of NPF4 Policy 11 Energy is:
 - "To encourage, promote and facilitate all forms of renewable energy development onshore and offshore."
- 4.2.5 This expressly includes hydrogen developments.
- 4.2.6 It is therefore considered the principle of the Proposed Development has been established.

4.3 Development Plan

NPF4

4.3.1 As outlined in **Chapter 3**, it is considered that the principal policies for assessing the Proposed Development are Policy 26 and Policy 11 of NPF4.



Policy 26 Business and Industry

- 4.3.2 Policy 26 Business and Industry seeks to encourage, promote and facilitate business and industry uses.
- 4.3.3 Parts d), e) and f) are relevant to the Proposed Development and are therefore assessed below.
- 4.3.4 The Proposed Development is not located within an area allocated for business, general industrial or storage and distribution uses and therefore will only be supported where:
 - i) It is demonstrated that there are no suitable alternatives allocated in the LDP or identified in the employment land audit; and
 - ii) The nature and scale of the activity will be compatible with the surrounding area."
- 4.3.5 The Proposed Development is considered decentralised production, which means production of green hydrogen that is co-located to the generation of renewable energy as the source for electrolysis. Utilising power from Beinn Tharsuinn Wind Farm in the first instance will provide an initial low cost source of energy (sourcing electricity is typically the largest component of hydrogen production costs), which will be supplemented by green energy supplied through the existing grid connection as required, to feed hydrogen production.
- 4.3.6 It is therefore the case that allocated sites for business and industrial purposes contained within the HwLDP would not be suitable alternatives for the Proposed Development. The nature and scale of the Proposed Development requires that it is located close to existing forms of renewable energy sources (including energy generation assets and / or grid import and export infrastructure) which are necessary to the function and operation of the Proposed Development.
- 4.3.7 The Proposed Development would form part of the North of Scotland Hydrogen Programme recognised in the Scottish Government's Hydrogen Action Plan. The Cromarty Hydrogen Project is the first project in the Programme and originated from a collaboration between the Port of Cromarty Firth, ScottishPower, Glenmorangie, Whyte & Mackay and Diageo and the project originator, Storegga, during the feasibility stage. This project is looking to develop a hydrogen production hub in the Cromarty Firth region and revolves around the local distilleries forming the baseload demand for early phases of the project, which would enable them to decarbonise in line with their own ambitions and sector targets.
- 4.3.8 It is therefore considered that the Proposed Development meets the requirements of part d) of Policy 26.
- 4.3.9 Part e) of Policy 26 outlines criteria that development proposals for business and industry will need to take into account. The criteria are dealt with in turn below.
 - i) Impact on surrounding residential amenity; sensitive uses and the natural and historic environment
- 4.3.10 The application site is relatively remote, chosen in part due to the absence of neighbouring residential properties. The LVA submitted with the application does not include an assessment of residential visual amenity as it was judged that the Proposed Development would not give rise to effects meeting the threshold in the Landscape Institute Technical Guidance Note 02/19 'Residential Visual Amenity Assessment (RVAA)'.The LVA concludes



an RSK company

there would be Moderate to Minor residual effects on visual receptors where the Proposed Development would be seen either across short distances or from more distant views where the majority of the Proposed Development would be visible. However, it would form a small part of a wider view to surrounding hills and to more rugged and coastal landscapes beyond.

- 4.3.11 The Noise Impact Assessment (NIA) (Chapter 5 of the EAR) submitted with this application concludes that noise levels resulting from the Proposed Development are unlikely to increase existing residual sound levels and are also comfortably below the WHO Guidelines and BS8233 design targets for residential use.
- 4.3.12 With regard to impact on the natural environment, the Proposed Development would be located outside of any international and national designations. An assessment of the impact on the natural environment is considered under NPF4 Policy 4 in **Table 1.2** below.
- 4.3.13 A desk-based review and initial assessment found that there were no known heritage assets within the developable area. Historical mapping and previous survey work undertaken for the development and construction of Beinn Tharsuinn Windfarm also indicated there is negligible potential for unknown archaeological remains within the developable area. It was also considered unlikely that the developable area contributes to the significance of any heritage assets and the nature and scale of the Proposed Development is unlikely to challenge the prominence of any monuments. Therefore, potential impacts that may affect the preservation of a heritage asset or the setting of heritage assets are considered unlikely. It was agreed with THC that this could be scoped out of further appraisal. It is therefore considered the Proposed Development meets this criterion.
 - ii) The need for appropriate site restoration at the end of a period of commercial use.
- 4.3.14 It is not proposed to limit the operational lifetime of the Proposed Development, however as previously agreed with THC, a suitably worded condition would ensure that the Proposed Development meets the policy requirements. This would ensure that if the Proposed Development became inactive with no evidence to suggest it was to be required/used again, that appropriate decommissioning and restoration would be required (Technical Appendix 1.3 of the EAR).
- 4.3.15 Therefore, it is considered the Proposed Development meets this criterion.
- 4.3.16 Part f) of Policy 26 requires:
 - "Major developments for manufacturing or industry will be accompanied by a decarbonisation strategy to demonstrate how greenhouse gas emissions from the process are appropriately abated. The strategy may include carbon capture and storage."
- 4.3.17 A carbon balance assessment has been prepared as part of the planning application (full details are provided in Section 4 of the Supporting Statement). It estimates the potential contribution from the Proposed Development towards the Scottish Government's climate change targets.



- 4.3.18 The CO₂e intensity has been calculated using the Hydrogen emissions calculator located on the gov.uk website². The calculations have assumed that any grid electricity needed for the operation of the project is covered by contractual power purchase agreements (PPA) with Renewable Energy Guarantees of Origin, and thus have no GHG emissions associated directly with the consumption of this electricity.
- 4.3.19 The emissions from the operation of the Proposed Development are estimated at 0.390 gCO2e/MJLHVH2. Any project with emissions lower than 20 gCO2e/MJLHVH2 is classed as low-carbon projects, as determined by the UK Low Carbon Hydrogen Standard (2023). This compares to a carbon intensity of 56.63 gCO2e/MJLHVH2 (from UK Government emissions factors) for the natural gas currently used by potential offtakers.
- 4.3.20 By displacing this natural gas, approximately 13,002 tonnes of CO2e will be abated every year 3 (99.3% reduction compared with natural gas).
- 4.3.21 It is therefore considered the Proposed Development is in accordance with NPF4 Policy 26.

Policy 11 Energy

4.3.22 Policy 11 seeks to encourage, promote and facilitate all forms of renewable energy development. This includes energy storage and distribution infrastructure. Hydrogen is specifically referenced within the policy intent section where it states that the purpose of the policy also encourages:

"emerging and low-carbon and zero emissions technologies including hydrogen and carbon capture utilisation and storage."

4.3.23 Following the policy intent, in relation to LDPs, it states:

"LDPs should seek to realise their area's full potential for electricity and heat from renewable, low carbon and zero emission sources by identifying a range of opportunities for energy development."

- 4.3.24 The Proposed Development is supported in principle and is an example of 'negative emissions technology' as set out in criterion a) of Policy 11. The Proposed Development includes a hydrogen electrolyser which is intended to be powered by renewable power provided by ScottishPower Renewables from the co-located Beinn Tharsuinn Windfarm and through power purchase agreements with off-site renewable generation within ScottishPower Renewables portfolio.
- 4.3.25 The co-location of these technologies aims to support the generation of renewable energy utilising the output from renewable sources to create green hydrogen contributing to energy security across Scotland and the UK.
- 4.3.26 Criterion b) of Policy 11 relates to wind farms so is not applicable to the Proposed Development, however the application site it is not located within a National Park or NSA.

https://www.gov.uk/government/publications/uk-low-carbon-hydrogen-standard-emissions-reporting-and-sustainability-criteria?_ga=2.260098895.392353141.1652428459-1269331730.1650876467



Maximise net economic impact

4.3.27 Criterion c) of Policy 11 states that:

"Development proposals will only be supported where they maximise net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities."

- 4.3.28 The Scottish Government in their Hydrogen Policy Statement (December 2020) projected that if Scotland becomes an exporter of green energy to Europe this could result in the requirement for green hydrogen production of 126 TWh, a £25bn contribution to GVA and over 300,000 jobs by 2045. This underscores the importance of developing green hydrogen projects and supply chains locally to ensure these jobs are not lost overseas. With this comes investment in skills and knowledge to support the future growth of the industry. The Proposed Development therefore has potential to benefit both the economy and the development of knowledge and skills associated with hydrogen technology.
- 4.3.29 The Proposed Development would have direct economic benefits. It is estimated that at the peak of construction the Proposed Development would create 57 direct jobs and 30 indirect jobs. In the operation phase the Proposed Development would require regular deliveries accounting for approximately 29 FTE jobs.
- 4.3.30 There would also be indirect effects, created in other companies and organisations that provide services/materials to businesses and organisations directly involved in the construction and operation of the Proposed Development. Therefore, resulting in positive procurement and supply chain effects, as well as induced effects, of additional jobs and other economic outputs created in the wider economy as a result of the spending of employee incomes on locally produced goods and services for example.
- 4.3.31 It is therefore considered that the Proposed Development is consistent with the objective to maximise the net economic impact.

Impact on international or national designations

4.3.32 Criterion d) of Policy 11 states:

"Development proposals that impact on international or national designations will be assessed in relation to Policy 4."

4.3.33 An assessment is undertaken below in **Table 1.2** in relation to Policy 4. In summary, the application site was specifically chosen following a feasibility assessment and it is not subject to any international or national designations. Impacts on statutory designated sites with ecological features were scoped out of further assessment based on the distances from the application site and the features for which they are designated there is considered to be no connectivity and thus no potential for impacts. The only exception is Morangie Forest SPA which has been assessed in the ecology chapter of the EAR and concludes that additional (secondary and tertiary) mitigation would not be required as the habitats within the application site are unsuitable for capercaillie which is the qualifying feature of the SPA and the Proposed Development is outwith the buffer zones for any records or suitable habitats for Capercaillie.



4.3.34 Criterion e) states:

"In addition, project design and mitigation will demonstrate how the following impacts are addressed"

- 4.3.35 An assessment against the list of impacts is provided in **Table 1.1**
- 4.3.36 The siting, layout and design of the Proposed Development has been refined and finalised and has taken potential environmental effects into consideration in order to seek to mitigate by design predicted adverse effects as far as reasonably practicable. The resultant Proposed Development balances the environmental and technical constraints, whilst producing an economically viable project overall. As a result of the iterative design process, the Proposed Development is located where potential impacts have been minimised as far as possible and are considered justifiable in the context of the benefits of the Proposed Development. A detailed account of the site selection and design evolution process is provided in the DAS.

Table 1.1 Assessment against impacts listed in Policy 11 criterion e)

Impact Assessment

Impact on communities and individual dwellings - residential amenity, visual impact, noise and shadow flicker.

One of the principal reasons the application site was chosen was due to the absence of residential properties within close proximity. The nearest populated settlements which are located over 6.5 km to the northeast are small coastal towns known as Balleigh and Edderton. The closest individual residential properties are located approximately 2 km east of the application site at Aultnamain, directly east of the B9176.

The LVA submitted with the application does not include an assessment of residential visual amenity as it is judged that the Proposed Development would not give rise to effects meeting the threshold as set out within the Landscape Institute Technical Guidance Note 02/19 Residential Visual Amenity

The Framework CTMP submitted with the application confirms that construction traffic associated with workers will typically arrive during the first hours of the operating period (07.00) and leave within the last few hours of the working day (19.00). Only on rare occasions would work be completed outside of these working hours where workers may be leaving outside of these hours. The Framework CTMP outlines that the Principal Contactor would be responsible for the provision of measures to minimise the effects of nuisance from construction traffic noise, vibration, dust and air quality. As outlined in the Framework CTMP Best Practicable Means (BPM), as defined in Section 72 of the Control of Pollution Act 1974 and Section 79 of the Environmental Protection Act 1990, will be applied during all construction works to minimise noise (including vibration) at neighbouring residential properties and other sensitive receptors.

In relation to operational traffic estimates, the Transport Statement submitted with the application outlines that the plant will be operational 24 hours/day and 7 days/week, with regular deliveries from the site. The site will be manned by a small on-site staff presence through 5 shifts of 5 crew members and 10 HGV drivers on shift patterns.

The hydrogen produced would be collected by tube trailer with 4 filling bays provided for this purpose. The Applicant estimates that the peak number of trailer (HGV) movements per day could be up to 32 two-way movements (16 vehicles in each direction), assuming 840 kg trailers. Utilisation of larger trailer capacities would have the potential to reduce trailer movements, although ultimately this would be dependent on customer sites and logistic optimisation.



As noted above, the predicted peak traffic generated for the operational phase based on workers (LGV) and HGV movements are:

- All vehicles (LGV + HGV) = 102 two-way movements; and
- HGV only = 32 two-way movements.

The Transport Statement predicts the large percentage increase in total traffic would be on the B9176 Struie Road with 5.3%. The largest percentage increase in HGV flows would be 22.6% on the B9176 Struie Road.

Given the percentage increase in traffic on the roads does not exceed 30 per cent it is deemed that no further assessment is required.

The Transport Statement outlines that while there is no discernible effect on the strategic or local road network as a result of the operational stage, it is recognised that the B9176 Struie Road is prone to road closures from land slips. As such, the following statement on Contingency Planning has been prepared by the Applicant. It is stated that, if the B9176 Struie Road, south of the site access, is closed, no alternative routes would be used. Instead, operations would reduce and limited onsite storage would be used where available, or production would stop if required. Contingency in the form of storage at customer sites would be considered as part of the design for their operations and also the possibility to store additional trailers at their site, if the bad weather is anticipated in advance.

The Applicant also proposes to engage with relevant stakeholders – Strategic Timber Transport Scheme members and Highland Council Area Roads Team (Ross & Cromarty) – in regard to the ongoing inspection and maintenance of the Struie Road during the operation of the development.

The NIA submitted with the application concludes that results of the noise model indicate that predicted rating levels are unlikely to increase existing residual sound levels and are also comfortably below the WHO Guidelines and BS8233 noise levels.

Shadow flicker is not a consideration for this type of development.

The Proposed Development has considered the potential impact on communities.

The LVA submitted with the application assesses the landscape and visual impact of the Proposed Development.

Site Fabric

In relation to the site fabric, there would be changes to the application site from altering the slope of Cnoc Muigh-bhlarajdh to form a flat area for the Proposed Development. There would also be 2.3 km of underground cabling and the ground would be returned to its former state on completion of construction works.

Landscape Character

In relation to landscape character, the application site and its immediate surrounds are located within the LCT330 Rounded Hills and Moorland Slopes – Ross and Cromarty Landscape Character Type (LCT). The most notable change to the application site would be the introduction of the Proposed Development on part of the southern slope of Cnoc Muigh-bhlaraidh, which would result in a Large scale of change, although this change would be limited to the application site itself. The Proposed Development would change the continual undulating nature of the hillscape locally; but would not change the surrounding upland moorland areas or parts of the LCT that have a sense of wildness. Within the wider LCT there would be no discernible change.

The LVA concludes there would be a moderate, adverse level of effect on the Rounded Hills and Moorland Slopes – Ross and Cromarty LCT which would be limited to the application site and its immediate surrounds.

Visual

In relation to visual impacts, the LVA assessed the effects on:

Significant landscape and visual impacts, recognising that such impacts are to be expected for some forms of renewable energy. Where impacts are localised and/or appropriate design mitigation has been applied, they will generally be considered to be acceptable.



- Residents at Aultnamain and road users on the Moray Firth Tourist Route (0 km – 1 km east)
- Recreational receptors on hills surrounding the application site and in the southwest of the L&V 5km study area (0 km – 5 km)
- Key routes B9176 and Core path RC15.08

Residents at Aultnamain and road users on the Moray Firth Tourist Route

The LVA reports that this receptor group includes a cluster of residential properties at Aultnamain, located approximately 2.1 km east of the application site and represented by Viewpoint 3 submitted with the LVA, and road users on the Moray Firth Tourist Route, represented by Viewpoints 2 (adjacent to the site access, off the B9176) and 3 submitted with LVA.

The LVA outlines that the properties at Aultnamain are located adjacent to the B9176 and orientated to take in views to the east and west, across the strath and to surrounding hills, including towards the application site. Garden trees and roadside vegetation provide some screening. The northern property, adjacent to the B9176 has the most open aspect to the application site with birch trees within the front garden providing little screening, particularly in winter months. During the construction stage, machinery and traffic on the access track and application site would be visible along the hill slope, and the scale of change from this property would be Medium, reducing to Small, when the Proposed Development is operating.

The Moray Firth Tourist Route runs along the B9176 and the LVA outlines there would be a Medium scale of change during construction which would reduce to Small during operation.

For both the residential receptors and road users on the tourist route, the level of effect would be Moderate during construction, reducing to Moderate/Minor and Adverse during operation.

Recreational receptors on hills surrounding the application site and in the southwest of the L&V 5 km study area (0 km - 5 km)

The LVA outlines that this includes Beinn Tharsuinn and Torr Leathann, located to the southwest of the application site and forestry, wind farm tracks and unclassified roads leading to former small-scale quarries also provide easy access within lower hill slopes and valley areas.

LVA concludes that during construction the level of effect would be Moderate and Adverse and would be the same during operation, however the scale of effect from slightly further slopes and summits would reduce to Small.

Key routes - B9176 and Core path RC15.08

The LVA concludes in relation to B9176 the magnitude of change would be Slight during construction, reducing to Slight/Negligible permanently, and the Proposed Development would have Moderate/ Minor and Adverse effects, reducing to Minor and Adverse effects on road users.

In relation to the Core Path RC15.08 the LVA concludes the magnitude of change would be Slight during construction and reducing to Slight/ Negligible permanently, and the Proposed Development would have Moderate and Adverse effects, reducing to Moderate/ Minor and Adverse, permanently for users of this Core Path.

The EAR outlines that there could be localised resurfacing as required from the windfarm access track, between the site access junction with the Struie Road and the entrance to the Proposed Development, to provide a road suitable for HGV use; however, there would be no change to the footprint of the access track



and no groundworks along the access track are proposed.

Conclusion

The LVA concludes that there would be Moderate effects on the host landscape character although this would be on the application site itself and its immediate surrounds with limited effects in the remaining study area and no notable change to the key characteristics of the greater LCT330 Rounded Hills and Moorland Slopes – Ross and Cromarty LCT. There would be Moderate to Minor residual effects on visual receptors, where the Proposed Development would be seen across short distances or from more distant views where the majority of the Proposed Development would be visible. However, it would form part of a wider view to surrounding hills, along the strath and to more rugged and coastal landscapes beyond. The LVA considers there would be capacity to accommodate the Proposed Development.

The landscape and visual effects have been assessed. It is considered the effects are limited and localised.

Public access, including impact on long distance walking and cycling routes and scenic routes

One of the key design principles which informed the overall siting, layout and design of the Proposed Development was consideration of the impact on public access. The DAS sets out that the Proposed Development has been designed to avoid and minimise potential impacts on public access.

The track to Beinn Tharsuinn Wind Farm is used by the public for recreation though it is not a core path or public right of way, any disruption to this public use would be minimised during the construction period.

In accordance with the Construction (Design and Management) Regulations 2015, notices would be placed in prominent locations around the site to outline areas of restricted access. Measures for ensuring public safety during construction would be secured by the CEMP. Though unlikely to affect public access, the increase in HGV use has been considered as part of the Transport Statement submitted with the planning application to ensure that passing places on the track are suitable for the increased use.

This impact has therefore been addressed.

Impacts on aviation and defence interests, including seismological recording

By virtue of the scale, height and nature of the Proposed Development it is not considered that there would be any impact on aviation and defence interests.

Impacts on telecommunications and broadcasting installations, particularly ensuring that transmission links are not compromised

It is considered there would be no impact on telecommunication and broadcasting installations by virtue of the relatively small footprint and height of the Proposed Development.

Impact on road traffic and adjacent trunk roads, including during construction

The Transport Statement submitted as part of the application concludes the Proposed Development would have a negligible impact on the local road network and the existing strategic road network has sufficient capacity.

This impact has therefore been addressed.

Impact on the historic environment

A desk-based review and initial assessment found that there were no known heritage assets within the developable area. Historical mapping and previous survey work undertaken for the development and construction of Beinn Tharsuinn Windfarm also indicated there is negligible potential for unknown archaeological remains within the developable area. It was also considered unlikely that the developable area contributes to the significance of any heritage assets and the nature and scale of the Proposed Development is unlikely to challenge the prominence of any monuments. Therefore, potential impacts that may affect the preservation of a heritage asset or the setting of heritage assets are considered unlikely. It was agreed with THC that this could be scoped out of further appraisal.



	an RSK company	
	This impact has therefore been addressed.	
Effects on hydrology, the water environment and flood risk	The EAR submitted with the application includes an assessment of the potential impacts on hydrology, hydrogeology, geology and soils. Flood risk was scoped out the assessment as the application site is in remote location and is not close to any major watercourses or waterbodies. Additionally, flood mapping indicates that it is not in a sensitive location.	
	The EAR includes the primary mitigation which would be adopted during the construction and operation of the Proposed Development in relation to the water environment, along with additional (secondary and tertiary) mitigation where required.	
	This impact has therefore been addressed.	
Biodiversity including impacts on birds	Embedded mitigation measures would be adopted as part of the Proposed Development and where there is still considered to be potential impacts, Chapter 3 of the EAR has assessed the potential impact on ecological or ornithological features arising from the Proposed Development.	
	Biodiversity	
	The main impact from an ecological perspective is considered to be the impact on M19a bog and M6C flush during construction. However, this loss would be compensated for as appropriate. Further detail in the assessment against Policy 3 of NPF4 in Table 1.2.	
	Impact on birds	
	The Morangie Forest SPA which is located approximately 4.04 Km southeast of the main site area was scoped in for further assessment as part of the EAR due to its qualifying interest of Capercaillie.	
	The assessment concluded that habitats within the application site are unsuitable for capercaillie compared to the nearby forestry and there were no capercaillie recorded at the application site from the desktop study. It is therefore considered that given the proximity of the application site to the habitats which support capercaillie, any disturbance and displacement of breeding and non-breeding capercaillie is discounted and no direct effects on birds would be likely.	
	This impact has therefore been addressed.	
Impact on trees, woods and forests	There are no existing trees within the application site and therefore the Proposed Development does not require the removal of any trees.	
	This impact has therefore been addressed.	
Proposals for the decommissioning of developments, including ancillary infrastructure, and site restoration	It is not proposed to limit the operational lifetime of the Proposed Development; it is proposed in perpetuity. However, a suitably worded condition would ensure that the Proposed Development meets the policy requirement in the case that it was inactive with no evidence to indicate of its future operation.	
The quality of site restoration plans including the measures in place to safeguard or guarantee availability of finances to effectively implement those plans	This is not applicable to the Proposed Development as it is not proposed to limit the operation lifetime.	
Cumulative Impacts	Cumulative impacts of the Proposed Development were scoped into Chapter 2 of the EAR and were considered as part of the baseline within the Viewpoint Analysis (Technical Appendix 2.4) The cumulative baseline includes the existing wind farms of Beinn Tharsuinn and Beinn nan Oighrean and the consented Strathrory Windfarm.	



A summary of the LVA conclusion in Chapter 2 of the EAR is detailed above in relation to landscape and visual effects.

Cumulative impacts have therefore been addressed.

4.3.37 Criterion e) of Policy 11 states:

"In considering these impacts, significant weight will be placed on the contribution of the proposal to renewable energy generation targets and on greenhouse gas emissions reduction targets."

- 4.3.38 In addition, NPF4 Policy 1 Tackling the climate and nature crises outlines that when considering all development proposals, significant weight will be given to the global climate and nature crises.
- 4.3.39 The Proposed Development would demonstrably help to meet the Scottish Government's legally binding GHG emissions reduction targets as a result of the production of green hydrogen which would substantially reduce the carbon intensity of energy which is currently used by potential offtakers of the Proposed Development (see assessment against Policy 1 of NPF4 in **Table 1.2** for carbon balance assessment outcomes). The contribution of the Proposed Development towards GHG emission reduction targets is to be afforded significant weight.
- 4.3.40 Policy 11 seeks to support the Proposed Development in principle provided it is demonstrated that the impacts of the Proposed Development as set out in **Table 1.1** have been addressed.
- 4.3.41 **Table 1.1** provides an assessment against all the criteria contained within Policy 11 of NPF4 and cross-references the technical reports from the EAR where necessary. The impacts have been appropriately considered throughout the iterative design process and potential impacts as a result of the Proposed Development have been scoped in for further assessment where necessary. It is recognised that the Proposed Development would result in some moderate effects on the host landscape character and moderate to minor effects on the visual receptors however these are limited and are considered to be localised and therefore acceptable. When balancing these limited effects against the contribution the Proposed Development would make to the GHG emission targets which should be afforded significant weight it is clear the Proposed Development is in accordance with Policy 11 of NPF4.

Other relevant NPF4 policies

4.3.42 An assessment against the other relevant NPF4 policies is detailed in **Table 1.2** below.

Table 1.2 Assessment against other relevant NPF4 policies

Policy	Assessment
Policy 1: Tackling the climate and nature crisis	Climate Crisis The Proposed Development would form part of the North of Scotland Hydrogen programme recognised in the Scottish Government's Hydrogen Action Plan as a contributor to the Scottish Government's (and THC's) targets to achieve Net Zero by 2045.



The Proposed Development would support the renewable energy sector, making use of renewable energy sources for the production of hydrogen.

It is necessary to start developing and delivering hydrogen from renewable energy sources now to the places where electrification cannot reach in order to meet climate targets. As previously set out, the Supporting Statement contains the Carbon Balance Calculations which confirm that GHG emissions from the operation of the Proposed Development are estimated to be 0.390 gCO $_2$ e/MJLHvH $_2$.13,002 tonnes of CO $_2$ e will be abated every year (99.3% reduction compared with natural gas).

Nature Crisis

Chapter 3 of the EAR outlines a BEP will be a condition of any approval for the Proposed Development. Section 3.7 of the EAR sets out the proposed approach to developing, agreeing and implementing the BEP.

The BEP will aim to enhance local biodiversity, increase habitat resilience within the wider landscape, and improve connections between nature networks, in line with NPF4. The BEP has been assessed and can provide significant biodiversity net gain which is feasible to be developed post-consent, delivering biodiversity enhancement required by NPF4 (Scottish Government, 2023), and contributing towards the objectives set out within the Scottish Biodiversity Strategy to 2045: Tackling the Nature Emergency in Scotland (Scottish Government, 2023).

Section 3.7 of the EAR outlines that construction for the Proposed Development would directly affect 0.68 ha of M19a bog and 1.17 ha of M6c flush habitats. A further indirect loss (habitat within 10 m of permanent loss areas), due to potential drying out/degradation of adjacent habitats, of 0.22 ha and 0.43 ha respectively is considered.

An appraisal of the wider area revealed that these mire habitats are common and widespread in the wider area at the locality. Furthermore, there is considerable scope within the wider area for enhancement of mire and heath habitats as indicatively shown in Figure 3.7 of the EAR. This includes extensive areas of bog habitat considered in unfavourable condition, as well as areas of bog and heath that could benefit from scrub/invasive vegetation removal. Based on the surveys and assessment of the wider area in the vicinity of the application site, the Applicant is confident that significant biodiversity enhancement is feasible and will be developed to accord with future guidance on biodiversity net gain requirements at the time the BEP is agreed. Section 3.7 of the EAR outlines that it is anticipated the BEP will include a combination of the following measures:

- Enhancement of bog habitats;
- Enhancement of heath habitats; and
- Native riparian tree planting.

Chapter 4 of the EAR outlines the 'Future baseline' without the proposed development and predicts that due to the impact of climate change (i.e., wetter winders, drier summers and increase in 1 in 100 year rainfall events) that this could cause increased erosion of soils and rock, disturbances of plants and animals and drying of peat which could also lead to a loss of biodiversity.

The Proposed Development in contributing towards climate change targets and providing biodiversity enhancements will help to respond to the nature crisis.

It is therefore considered the Proposed Development is in accordance with Policy 1.

Policy 2: Climate mitigation and adaption

The Proposed Development has been carefully considered with regard to its location and siting to minimise the impact on surrounding receptors and has been purposefully sited near to a reliable source of renewable energy to assist in the production of green hydrogen as zero emissions energy output.

The Proposed Development has been located in an area of low flood risk.



The Proposed Development would contribute to the reduction in GHG emissions by reducing the carbon intensity of energy which is currently used by the potential offtakers of the Proposed Development. It is therefore considered the Proposed Development is in accordance with Policy 2.

Policy 3 Biodiversity

An extended phase 1 habitat survey of the application site was undertaken to ensure that the existing site characteristics and its ecological context was understood prior to any further assessment.

Primary mitigation measures include incorporating existing tracks into the Proposed Development as far as possible to minimise the disturbance of adjacent habitats. It also includes reinstating habitats where possible to ensure no habitat loss occurs overall. The Proposed Development has been carefully sited and designed to reduce the impact on habitats of higher ecological value such as bogs and flush and is equally located a measurable distance away from habitat features that typically support protected species such as watercourses. It is also important to note that there is no requirement for the removal of any trees as a result of the Proposed Development.

The design of the Proposed Development has sought to reduce impacts on potential Groundwater Dependent Terrestrial Ecosystems (GWDTE) within the main site area. However, in order to minimise incursion into peat it has been necessary to site the Proposed Development partly within an area of M6 habitat, classed by SEPA and UKTAG as potentially highly groundwater dependent. In this context, peat is considered to be a more sensitive receptor and so has been afforded greater protection. In relation to additional (secondary and tertiary mitigation) the EAR details there may be options to improve or extend areas of M6 habitats through vegetation management and/or drainage management within the rest of the application site or a designated area off-site as compensation from the unavoidable direct habitat loss. This would be discussed with an Environmental Clerk of Works (ECoW) as part of the construction mitigation

Suitable drainage would be installed around Proposed Development infrastructure, including around the hydrogen production facility, the substation and new track sections. This would provide continuity of flow across these areas, helping to maintain M6 habitats downslope of construction areas. Any required modified or additional drainage within the application site/main site area would not discharge directly into or upslope of identified sensitive habitat areas, to minimise potential for water and nutrient flushing in these areas.

Chapter 3 of the EAR has assessed the potential effects of the Proposed Development during all stages. During the construction phase approximately 0.68 ha of M19a bog and 1.17 ha of M6c flush habitat would be affected. Given the requirements of the NatureScot guidance 'Advising on peatland, carbon-rich soils and priority peatland habitats in development management' published in June 2023, it is considered the loss of the M19a bog would need compensated by peatland restoration in the order of 1:11 (lost:restored), to ensure a tangible biodiversity enhancement from the Proposed Development is achieved. This would mean that for the 0.9 ha of M19a to be lost (includes 0.22 ha indirect loss as a precaution), based on the NatureScot guidance, a minimum of 9.9 ha of peatland would need to be restored in the wider estate. The area of peatland habitat in unfavourable condition within the wider area far exceeds this so it is considered that the required area of peatland restoration can be facilitated within the vicinity of the application site. The details of those areas of peatlands (and heath) to be targeted for enhancement will be presented in the BEP.

It is understood that NatureScot is revising their guidance on peatland noted above. Section 3.7 of the EAR sets out the opportunities for environmental enhancement. It details that a BEP will be a condition of any approval for the Proposed Development.

The BEP will aim to enhance local biodiversity, increase habitat resilience within the wider landscape, and improve connections between nature networks, in line with NPF4. The BEP will be developed post-consent, delivering biodiversity enhancement required by NPF4 and contributing towards the objectives set out within the Scottish Biodiversity Strategy to 2045: Tackling the Nature Emergency in Scotland. It is anticipated the BEP will include a combination of enhancement of bog habitats, enhancement of heath habitats and native riparian tree planting.

The BEP will be written in consultation with NatureScot, THC and any relevant stakeholders, as required by THC. The BEP will be agreed pre-construction subject to an appropriate planning condition, with detailed methods and locations for peatland and heathland restoration and tree planting to be agreed during the construction phase, and to be implemented during construction and in the first year of operation of the Proposed Development. The BEP would remain in place as agreed over the operational lifetime of the Proposed Development, subject to adaptive management where required.



As detailed under Policy 1, based on the surveys and assessment of the wider area in the vicinity of the application site, the Applicant is confident that significant biodiversity enhancement is feasible and will be developed to accord with future guidance on biodiversity net gain requirements at the time the BEP is agreed. It is therefore considered the Proposed Development meets the requirements of Policy 3.

Policy 4 Natural Places

Statutory Designations

The nearest statutory designated site for nature conservation within a 5 km radius from the application site is the Morangie Forest SPA which lies approximately 4.04 km southeast of the main site area.

Potential effects with regard to disturbance to capercaillie from Morangie Forest SPA has been considered in Chapter 3 of the EAR. The assessment has concluded that habitats within the application site are unsuitable for capercaillie compared to the nearby forestry and there were no capercaillie recorded at the application site from the desktop study. It is therefore considered that given the proximity of the application site to the habitats which support capercaillie, any disturbance and displacement of breeding and non-breeding capercaillie is discounted and no direct effects on birds would be likely, therefore monitoring and mitigation to this affect is not required.

Based on the distances of designated sites from the application site, and the features for which they are designated, there is considered to be no connectivity or potential for impacts as a result of the Proposed Development.

Information to inform a Habitats Regulations Appraisal has been provided within Section 3.10 of Chapter 3 of the EAR. Section 3.10 outlines that given the distance between the application site and the Morangie Forest SPA (3.36 km), and the documented disturbance distances for the species (maximum 1 km), and the absence of suitable habitat within 1 km of the application site, the potential for Likely Significant Effects on the SPA (and capercaillie within the SPA boundaries) can be precluded for both the Proposed Development on its own and in-combination with other projects. No pathway of impacts from the Proposed Development on the Morangie Forest SPA have been identified, with no impacts on the distribution, no significant disturbance and no impact on the SPA population of capercaillie predicted.

The Dornoch Firth NSA is located 3.5 km from the application site. The ZTV prepared for the LVA indicates no potential visibility from the NSA. The Proposed Development is unlikely to have any notable effects on the designated qualities of the NSA. Effects would be no greater than Negligible and were therefore not considered further in the LVA.

Local Designations

The EAR has scoped out further assessment on designated sites (with the exception of Morangie Forest SPA noted above). This is based on the distance from the application site to the designated sites and the features they are designated for there is considered to be no connectivity.

There are no Special Landscape Areas (SLAs) within the LVA study area.

It is therefore considered the Proposed Development is in accordance with Policy 4.

Policy 5 Soils

Mitigation Hierarchy

In accordance with the mitigation hierarchy, Phase 1 and 2 peat depth surveys were undertaken as part of the site selection process and informed site design, to firstly avoid impacts on peatland, albeit recognising the location need for the Proposed Development and the surrounding catchment is an upland region which is mainly characterised by peatland and moorland.

Chapter 4 of the EAR assesses the impacts of the Proposed Development on peatland and soils and further informs the Outline Peat Management Plan (OPMP) (Technical Appendix 4.1 of the EAR) which has been prepared as a mitigation strategy to manage potential adverse effects of the construction phase.

Justification for Proposed Development on peatland

The Proposed Development is a type of infrastructure which requires a specific locational need, as it requires to be sited close to renewable sources of energy. The Proposed Development is also an



example of development which demonstrably contributes to GHG emissions reduction targets and therefore meets this criterion of Policy 5 which makes exception for these types of developments on peatland.

Policy 5 requires a detailed site specific assessment which identifies the criteria listed in part d).

Baseline depth

The combined peat depth surveys include a total of 109 individual peat depth records. The surveys indicate that deeper peat (>1.5 m) is present in the northernmost part of the main site area, as well as adjacent to the northern edge of the site access and cable route corridor at some locations. Within the application site the majority of peat is <1.0 m in depth, while the southernmost corner of the main site area has no peat (<0.5 m in depth). An overview map of the peat depth distribution within the application site is provided in Figure 4.5 of the EAR.

Habitat condition and stability of carbon rich soils

Soil coverage within the application site is predominantly dystrophic blanket peat which is described by Scotland's Soils (2017) as: "poorly drained upland soil with an organic surface layer more than 50 cm thick. It is unconfined and blankets the landscape".

Class 1 and 2 carbon soils are considered to be nationally important carbon rich soils.

Within the application site, the soils are predominantly assigned Class 1. Three small areas of Class 2 are identified within the cable route corridor. Class 5 is found in the east of the site access, the west of the main site area and at several locations along the cable route corridor. Further details are contained within Chapter 4 of the EAR.

Likely effects of Proposed Development on peatland and soil disturbances

Chapter 3 of the EAR has determined that during construction there is the potential for 0.68 ha of M19a bog (considered priority peatland) to be lost and therefore peatland restoration at a ratio of 1:11 would be undertaken to compensate for this loss.

Chapter 4 of the EAR also assesses the potential effects of the Proposed Development on peatland and carbon rich soils and proposes mitigation measures which would be implemented during construction phases to reduce the impact of the Proposed Development on peatland and soil. Importantly excavated soil and peat would be used for restoration and rehabilitation at the end of the construction period.

The OPMP which is submitted with this application (see Technical Appendix 4.1 of the EAR) has provided an assessment of the likely volumes of peat that would require excavation during the construction of the Proposed Development.

Net effect on carbon emissions

As previously stated, the Proposed Development relates to the production of hydrogen from renewable sources and the Carbon Balance Assessment contained within Appendix 1 of the Supporting Statement sets out that by displacing natural gas currently used by potential offtakers, approximately 13,002 tonnes of CO₂e will be abated every year. This is a 99.3% reduction in CO₂e emissions per year compared with natural gas.

It is therefore considered the Proposed Development is in accordance with Policy 5.

Policy 22 Flood Risk and Water Management The Proposed Development is not located within an area which is at risk of flooding. The Proposed Development has been purposefully sited to avoid flood risk from the small watercourse to the northeast of the application site and is not sited close to any major watercourses or waterbodies. THC have previously confirmed that they have no flood risk concerns. It is also considered that the Proposed Development by virtue of its size, scale and location would also not increase flood risk elsewhere. As such flood risk has been appropriately scoped out of the EAR for further assessment. Further detail is provided in Chapter 4 of the EAR.



Drainage Impact Assessment

A Drainage Impact Assessment (DIA) (Technical Appendix 4.2 of the EAR) has been prepared for the application.

The Outline Drainage Strategy contained within the DIA adopts best practice methods to ensure that surface water drainage is appropriately manged to ensure there is no adverse impact on the Proposed Development, the application site or the surrounding areas.

It is therefore considered the Proposed Development is in accordance with Policy 22.

Policy 23 Health and Safety

Air Quality

The Proposed Development would not have any significant adverse impact on air quality which would cause a risk to human health. Any impacts associated with air quality would be limited to the construction phase and these would be minor and temporary impacts. Best practice measures during construction would also be put in place to further minimise any potential impact on air quality and these measures would be set out in the CEMP.

Noise

The NIA submitted with the application concludes that results of the noise model indicate that predicted rating levels are unlikely to increase existing residual sound levels and are also comfortably below the WHO Guidelines and BS8233 noise levels.

Hazardous Substances

Hydrogen is a 'named substance' COMAH Regulations 2015 and the Proposed Development would require to be constructed and operated in accordance with the regulations.

The Proposed Development would comply with all relevant UK and international legislation and standards throughout the design life, including during the design, build and operation of the Proposed Development. All equipment would be installed, and maintained, by a competent person.

The transportation of hydrogen in tube trailers would be compliant with the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2004, which apply to the carriage of dangerous goods, including hydrogen, by road and rail and places general duties on everyone with a role in transporting the goods.

A hazardous substances consent application will be submitted, if required, separately to this planning application.

It is therefore considered the Proposed Development is in accordance with Policy 23.

Policy 25 Community Wealth Building

The Proposed Development provides opportunities for the involvement of suppliers from the Highlands and Islands, and wider Scotland. The range of activities that suppliers can be involved in include research and development, design, project management, civil engineering, component fabrication and/or manufacture, installation and maintenance.

There would also be indirect effects, created in other companies and organisations that provide services/materials to businesses and organisations directly involved in the construction and operation of the Proposed Development (i.e. procurement and supply chain effects); and, induced effects, which cover additional jobs and other economic outputs created in the wider economy as a result of the spending of employee incomes on locally produced goods and services (i.e., personal vehicle maintenance, food and drink etc.) and other derived multiplier effects occurring from direct and indirect effects of the Proposed Development.

The Proposed Development could also have wider economic benefits. There would be opportunities for those employed during the construction phase to develop skills that would be of benefit to the local economy and local businesses in the longer term. Further, employment generated through the Proposed Development would contribute to diversifying the local economy and help support the retention in the area of the working age population.



It is therefore considered the Proposed Development is in accordance with Policy 25.

Policy 29 Rural Development

The Proposed Development would contribute to the viability, sustainability and diversity of the rural economy. It would contribute towards local living insofar as it relates to the production of hydrogen fuel from renewable energy sources local to help decarbonise local industry and, contribute towards reducing GHG emissions and provide a number of local jobs.

The LVA concluded in relation to landscape and visual effects, there would be capacity to accommodate the Proposed Development. It is considered the Proposed Development is appropriate in this location where it is sited in close proximity to the existing Beinn Tharsuinn Wind Farm development.

The Proposed Development would be in a location close to potential end users and the Cromarty Green Freeport bid area.

It is therefore considered the Proposed Development is in accordance with Policy 29.

The Highland wide Local Development Plan

4.3.43 As outlined in Chapter 3, the HwLDP was adopted in 2012. Section 24(3) of the TCPSA states:

"In the event of any incompatibility between a provision of the National Planning Framework and a provision of a local development plan, whichever of them is the later in date is to prevail."

- 4.3.44 In this instance, the NPF4 would prevail where there are incompatibilities between the NPF4 and HwLDP.
- 4.3.45 **Table 1.3** provides a full list of HwLDP policies considered to be relevant to the Proposed Development. It then confirms whether the policy requirements are addressed in **Tables 1.1** and **1.2** in relation to NPF4. However, where there are additional local policy considerations which are provided by the HwLDP and not previously addressed in **Tables 1.1** and **1.2** above, these are assessed within **Table 1.3** below.

Table 1.3 HwLDP policies

Policy	Already Assessed / Assessment Required
Policy 28 Sustainable Design	No further assessment required; full assessment provided in Tables 1.1 and 1.2.
Policy 29 Design	The overall design objective for the Proposed Development is as follows:
Quality and Place making	"To identify a technically feasible and economically viable Proposed Development. The final site, layout and design should, on balance, cause the least disturbance to the environment and the people who live, work and enjoy recreation within it".
	Key design principles were adopted to inform the iterative design process. Such considerations included siting and design to avoid or minimise impact on physical constraints, GHG emissions, the natural environment, landscape and visual impact including impact on residential amenity, public access and in consideration of the character of the surrounding area. Further details are contained with the DAS submitted with this application.
	The impacts of the Proposed Development on relevant receptors have been considered and assessed in the appropriate Technical Reports and assessed against the relevant NPF4 policies in Table 1.1 and Table 1.2.
	It is therefore considered the Proposed Development is in accordance with Policy 29.



Policy Physical Constraints

As part of an initial feasibility assessment undertaken in Autumn 2021, a search of local and national constraints was undertaken.

The feasibility study informed siting and design and considered a number of constraints to development at the early stages of design to ensure the Proposed Development maintains appropriate setback distances from natural watercourse; avoids areas of deepest peat; relatively well contained by the landscape to the north and west; avoids a habitat management area; avoids areas of steeper slope; and avoids potential impacts on existing overhead lines.

Where further assessment is required to assess impacts of physical constraints as contained in the Supplementary Guidance prepared by THC, these have been assessed below.

Surface watercourses and waterbodies

In accordance with Policy 30; mitigation and monitoring measures have been detailed in Chapter 4 of the EAR to avoid and reduce the risk of impacts on nearby surface watercourses both during construction and operational phases.

Private Water Supply

Chapter 4 of the EAR outlines there are no Private Water Supplies within the application site. Two Private Water Supplies have been identified within 2 km downstream of the application site, as shown in Figure 4.8 of Chapter 4 of the EAR. One was determined to have a potential linkage and assessed further. Mitigation is proposed during construction of the Proposed Development to ensure there is no impact.

Other physical constraints which are relevant to the Proposed Development have been considered and have been appropriately assessed in **Table 1.1** and **Table 1.2** above.

It is therefore considered the Proposed Development is in accordance with Policy 30.

Policy 36 Development in Wider Countryside

No further assessment required, addressed in Table 1.2.

Policy 41 Business and Industrial Land

No further assessment required, addressed under Policy 26 of NPF4.

Policy 55 Peat and Soils

No further assessment required; addressed in Table 1.2.

Policy 57 Natural, Built and Cultural Heritage

Part of the main site area is designated as land which is of local/regional importance, which requires assessment against Policy 57 of the HwLDP.

It is considered that the designation for local/regional importance under THC relates to a possible Shieling Hut 'Meall Lighiche' located approximately 480 m south of the main site area. The designation reference number provided on Highland's Historic Environment Record is MHG23888. The description states:

"An archaeological survey has been undertaken to inform the National Trust for Scotland of the range of archaeological features on their Glencoe Estate, with additional information relating to historic sources, management, interpretation and possibilities for future research."

The findings relate to "NN 095 543 Small sub-rectangular structure -?shieling."

As per Appendix 2 of the HwLDP this has been designated under 'sites and monuments record archaeological sites'.

As detailed earlier in the Planning Statement a desk-based review and initial assessment found that there were no known heritage assets within the developable area. Historical mapping and previous survey work undertaken for the development and construction of Beinn Tharsuinn Windfarm also indicated there is negligible potential for unknown archaeological remains within the developable area.

It is therefore considered the Proposed Development is in accordance with Policy 57.



Policy 58 Protected Species	No further assessment required; addressed in Table 1.2.
Policy 59 Other Important Species	No further assessment required; addressed in Table 1.2 .
Policy 60 Other Important Habitats	No further assessment required; addressed in Table 1.2 .
Policy 61 Landscape	No further assessment required, addressed in Tables 1.1 and 1.2.
Policy 63 Water Environment	No further assessment required; addressed in Table 1.1.
Policy 64 Flood Risk	No further assessment required; addressed in Table 1.2.
Policy 66 Surface Water Drainage	No further assessment required; addressed in Table 1.2.
Policy 67 Renewable Energy Development	No further assessment required; addressed in Table 1.1.
Policy 72 Pollution	No further assessment required; addressed in Table 1.2
Policy 73 Air Quality	No further assessment required; addressed in Table 1.2.
Policy 77 Public Access	No further assessment required; addressed in Table 1.2.

Summary

- 4.3.46 **Table 1.3** provides an assessment against all policies within the HwLDP which are considered to be relevant. Where policies are covered by those in NPF4, this is set out next to the appropriate policy.
- 4.3.47 The assessment concludes the Proposed Development is in accordance with the HwLDP.

Caithness and Sutherland Local Development Plan

- 4.3.48 A very small part of the access track for the Proposed Development is in an "Area for Coordinated Tourism". It is not considered the Proposed Development would impact on this area.
- 4.3.49 As stated in the CaSPlan "The Council is committed to working with communities, businesses and partners to mitigate our impact on climate change by reducing greenhouse gas emissions, maximising renewable energy contributions, taking steps to adapt to the



unavoidable impacts of a changing climate and to working with communities to respond to climate change."

4.3.50 The Proposed Development would contribute towards meeting Scotland renewable energy targets which seeks to mitigate the impacts of climate change. The Proposed Development therefore aligns with considerations and objectives contained within the CaSPlan.

Inner Moray Firth Local Development Plan

- 4.3.51 Whilst only a small section of the application site, which encompasses part of the access track is covered by the IMFLDP, it is not included within any allocations contained within the IMFLDP.
- 4.3.52 The Proposed Development would increase the number of jobs and diversify the renewable energy sector providing increased energy security for potential offtakers, this aligns with the aims contained within the IMFLDP to have "increased the number of jobs of people and facilities" by 2030.

4.4 Material Considerations

4.4.1 The following section provides an assessment against the key material considerations contained within **Section 3.3** of this Planning Statement.

Emerging Planning Policy

- 4.4.2 The HwLDP review is at the early stages of evidence gathering and at this time there are no draft policies to consider for assessment at this stage.
- 4.4.3 The IMFPLDP2 places greater emphasis on the climate crisis and acknowledges its support for hydrogen and references the North of Scotland Hydrogen Programme as a contribution to the ambitions to become a national leader in renewable energy sectors.
- 4.4.4 The Proposed Development is therefore supported by emerging policy insofar as it constitutes a material consideration.

Climate Emergency, Carbon and Energy Legislation

- 4.4.5 Both the Scottish Government and THC have declared a climate emergency and therefore, more than ever, the role of development as a response to this emergency should not be overlooked.
- 4.4.6 Official Statistics show that the 2021 interim targets for were missed and therefore more needs to be done to accelerate the reduction of GHG emissions in order to meet the legally binding targets.
- 4.4.7 As previously set out, the Proposed Development would produce hydrogen, increasing energy security and contributing to the offset of carbon emissions (Supporting Statement).
- 4.4.8 The UK Hydrogen Strategy and the Scottish Government's Hydrogen Action Plan seek to support the development of a hydrogen economy in the aim to reduce GHG emissions. Specifically, the Hydrogen Action Plan seeks to 'scale up hydrogen production in Scotland'.



4.4.9 The Proposed Development would directly contribute toward the aims set out in the Hydrogen Action Plan, would contribute towards meeting hydrogen production targets (5GW by 2030) and the GHG emissions reduction targets.

Emerging Energy Policy

- 4.4.10 The Scottish Government's Draft Energy Strategy and Just Transition Plan reiterates the ambition for hydrogen production. The aims of which seek for Scotland to become 'leading Hydrogen Nation' emphasising the benefits of this in section 3.1.7 of the Just Transition Plan:
 - "A thriving hydrogen economy in Scotland will support domestic decarbonisation goals, our domestic supply chain capability and secure and create new jobs as part of the just transition. It will also help support the decarbonisation of other nations through the export from Scotland of renewable hydrogen, skills and expertise".
- 4.4.11 The Proposed Development would play a vital role toward Scotland becoming a leading nation in hydrogen production. The socioeconomic benefits of the Proposed Development would create a knowledge share which would lead the way and set the example for wider expansion of hydrogen production in Scotland to accelerate the progress toward meeting GHG targets.

4.5 Assessment Conclusion

- 4.5.1 The Proposed Development benefits from strong policy support in respect of renewable energy and climate change policy as set out in **Chapters 3** and **4** of this Planning Statement.
- 4.5.2 It is concluded that the Proposed Development would make an extremely valuable contribution to achieving the 2030 hydrogen target and to the legally binding GHG emission reduction targets which are to be afforded significant weight as set out in NPF4.
- 4.5.3 The Proposed Development has been assessed against all relevant policies contained within the Development Plan including material considerations which emphasise the urgency to act now on matters which seek to address the local and national climate emergency.
- 4.5.4 An assessment against policy concludes that there are no impacts from the Proposed Development which would outweigh the need for the Proposed Development in its contributions towards tackling the climate change crisis.
- 4.5.5 The Proposed Development would provide direct, indirect and induced socio-economic benefits within the Highlands and Scotland. It would create 57 direct jobs and 30 indirect jobs as well as wider supply chain benefits. In the operation phase the Proposed Development would require regular deliveries accounting for approximately 29 FTE jobs
- 4.5.6 The Proposed Development would support the just transition and will aid energy security within the UK.
- 4.5.7 The Proposed Development would provide a real contribution toward GHG reduction targets and lead the way for Scotland to become a leading nation in hydrogen production.



5 CONCLUSION

- 5.1.1 This Proposed Development would form part of the North of Scotland Hydrogen Programme recognised in the Scottish Government's Hydrogen Action Plan. The North of Scotland Hydrogen Programme is a strategic programme in line with the Scottish Government's aim to achieve Net Zero GHG emissions by 2045 and the UK Government ambition by 2050. The programme is aimed at developing hydrogen production hubs across the North of Scotland to supply hydrogen, initially to meet industrial and HGV transport demand in the near term and then expanded to cater for additional hydrogen demands in the future.
- As is evident throughout this Planning Statement, there is a pressing need to take action to address the climate emergency and mitigate the impact of climate change. Hydrogen is recognised as a key contributor toward meeting GHG emission reduction targets, support the just transition and aid energy security within Scotland and this is reflected both in legislation and policy, further supported by advisory reports and action plans prepared by the Scottish Government.
- 5.1.3 The Proposed Development would contribute to meeting THC, Scotland and the UK's legally binding GHG emissions reduction targets which are to be afforded significant weight in the decision-making process.
- 5.1.4 The Proposed Development would contribute to the economy, creating 57 direct jobs and 30 indirect jobs as well as indirect effects created in other companies and organisations that provide services/materials to businesses and organisations directly involved in the construction and operation of the Proposed Development. In the operation phase the Proposed Development would require regular deliveries accounting for approximately 29 FTE jobs.
- 5.1.5 The Proposed Development would demonstrably promote Scotland's ambition to become a leading nation in hydrogen production and is in accordance with the Development Plan and relevant material considerations. It is respectfully requested planning permission should be granted.





APPENDIX 1 NPF4 POLICIES

Policy	Summary
Policy 1 Tackling the climate and nature crises	"When considering all development proposals significant weight will be given to the global climate and nature crises."
Policy 2	"a) Development proposals will be sited and designed to minimise lifecycle greenhouse gas emissions as far as possible.
Climate mitigation and adaption	b) Development proposals will be sited and designed to adapt to current and future risks from climate change.
	c) Development proposals to retrofit measures to existing developments that reduce emissions or support adaptation to climate change will be supported."
Policy 3 Biodiversity	"a) Development proposals will contribute to the enhancement of biodiversity, including where relevant, restoring degraded habitats and building and strengthening nature networks and the connections between them. Proposals should also integrate nature-based solutions, where possible.
	b) Development proposals for national or major development, or for development that requires an Environmental Impact Assessment will only be supported where it can be demonstrated that the proposal will conserve, restore and enhance biodiversity, including nature networks so they are in a demonstrably better state than without intervention. This will include future management. To inform this, best practice assessment methods should be used. Proposals within these categories will demonstrate how they have met all of the following criteria:
	i. the proposal is based on an understanding of the existing characteristics of the site and its local, regional and national ecological context prior to development, including the presence of any irreplaceable habitats;
	ii. wherever feasible, nature-based solutions have been integrated and made best use of;
	iii. an assessment of potential negative effects which should be fully mitigated in line with the mitigation hierarchy prior to identifying enhancements;
	iv. significant biodiversity enhancements are provided, in addition to any proposed mitigation. This should include nature networks, linking to and strengthening habitat connectivity within and beyond the development, secured within a reasonable timescale and with reasonable certainty. Management arrangements for their long term retention and monitoring should be included, wherever appropriate; and
	v. local community benefits of the biodiversity and/or nature networks have been considered
	c) Proposals for local development will include appropriate measures to conserve, restore and enhance biodiversity, in accordance with national and local guidance. Measures should be proportionate to the nature and scale of development. Applications for individual householder development, or which fall within scope of (b) above, are excluded from this requirement.
	d) Any potential adverse impacts, including cumulative impacts, of development proposals on biodiversity, nature networks and the natural environment will be minimised through careful planning and design. This will take into account the need to reverse biodiversity loss, safeguard the ecosystem services that the natural environment provides, and build resilience by enhancing nature networks and maximising the potential for restoration."
Policy 4	"a) Development proposals which by virtue of type, location or scale will have an unacceptable impact on the natural environment, will not be supported.
Natural Places	



- b) Development proposals that are likely to have a significant effect on an existing or proposed European site (Special Area of Conservation or Special Protection Areas) and are not directly connected with or necessary to their conservation management are required to be subject to an "appropriate assessment" of the implications for the conservation objectives.
- c) Development proposals that will affect a National Park, National Scenic Area, Site of Special Scientific Interest or a National Nature Reserve will only be supported where: i. The objectives of designation and the overall integrity of the areas will not be compromised; or ii. Any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance. All Ramsar sites are also European sites and/or Sites of Special Scientific Interest and are extended protection under the relevant statutory regimes.
- d) Development proposals that affect a site designated as a local nature conservation site or landscape area in the LDP will only be supported where:
- i. Development will not have significant adverse effects on the integrity of the area or the qualities for which it has been identified; or
- ii. Any significant adverse effects on the integrity of the area are clearly outweighed by social, environmental or economic benefits of at least local importance.
- e) The precautionary principle will be applied in accordance with relevant legislation and Scottish Government guidance.
- f) Development proposals that are likely to have an adverse effect on species protected by legislation will only be supported where the proposal meets the relevant statutory tests. If there is reasonable evidence to suggest that a protected species is present on a site or may be affected by a proposed development, steps must be taken to establish its presence. The level of protection required by legislation must be factored into the planning and design of development, and potential impacts must be fully considered prior to the determination of any application.
- g) Development proposals in areas identified as wild land in the Nature Scot Wild Land Areas map will only be supported where the proposal:
- i. will support meeting renewable energy targets; or,
- ii. is for small scale development directly linked to a rural business or croft, or is required to support a fragile community in a rural area.

All such proposals must be accompanied by a wild land impact assessment which sets out how design, siting, or other mitigation measures have been and will be used to minimise significant impacts on the qualities of the wild land, as well as any management and monitoring arrangements where appropriate. Buffer zones around wild land will not be applied, and effects of development outwith wild land areas will not be a significant consideration."

Policy 5

Soils

- "a) Development proposals will only be supported if they are designed and constructed:
- i. In accordance with the mitigation hierarchy by first avoiding and then minimising the amount of disturbance to soils on undeveloped land; and
- ii. In a manner that protects soil from damage including from compaction and erosion, and that minimises soil sealing.
- b) Development proposals on prime agricultural land, or land of lesser quality that is cult t for primary use, as identified by the LDP, will only be supported where it is for:
- i. Essential infrastructure and there is a specific locational need and no other suitable site;
- ii. Small-scale development directly linked to a rural business, farm or croft or for essential workers for the rural business to be able to live onsite;
- iii. The development of production and processing facilities associated with the land produce where no other local site is suitable;
- iv. The generation of energy from renewable sources or the extraction of minerals and there is secure provision for restoration; and



In all of the above exceptions, the layout and design of the proposal minimises the amount of protected land that is required.

- c) Development proposals on peatland, carbon rich soils and priority peatland habitat will only be supported for:
- i. Essential infrastructure and there is a specific locational need and no other suitable site;
- ii. The generation of energy from renewable sources that optimises the contribution of the area to greenhouse gas emissions reductions targets;
- iii. Small-scale development directly linked to a rural business, farm or croft;
- iv. Supporting a fragile community in a rural or island area; or
- v. Restoration of peatland habitats.
- d) Where development on peatland, carbon-rich soils or priority peatland habitat is proposed, a detailed site specific assessment will be required to identify:
- i. the baseline depth, habitat condition, quality and stability of carbon rich soils;
- ii. the likely effects of the development on peatland, including on soil disturbance; and
- iii. the likely net effects of the development on climate emissions and loss of carbon.

This assessment should inform careful project design and ensure, in accordance with relevant guidance and the mitigation hierarchy, that adverse impacts are first avoided and then minimised through best practice. A peat management plan will be required to demonstrate that this approach has been followed, alongside other appropriate plans required for restoring and/ or enhancing the site into a functioning peatland system capable of achieving carbon sequestration.

- e) Development proposals for new commercial peat extraction, including extensions to existing sites, will only be supported where:
- i. the extracted peat is supporting the Scottish whisky industry;
- ii. there is no reasonable substitute;
- iii. the area of extraction is the minimum necessary and the proposal retains an in-situ residual depth of peat of at least 1 metre across the whole site, including drainage features;
- iv. the time period for extraction is the minimum necessary; and
- v. there is an agreed comprehensive site restoration plan which will progressively restore, over a reasonable timescale, the area of extraction to a functioning peatland system capable of achieving carbon sequestration."

Policy 11

Energy

- "a) Development proposals for all forms of renewable, low-carbon and zero emissions technologies will be supported. These include:
- i. wind farms including repowering, extending, expanding and extending the life of existing wind farms;
- ii. enabling works, such as grid transmission and distribution infrastructure;
- iii. energy storage, such as battery storage and pumped storage hydro;
- iv. small scale renewable energy generation technology;
- v. solar arrays;
- vi. proposals associated with negative emissions technologies and carbon capture; and



- vii. proposals including co-location of these technologies.
- b) Development proposals for wind farms in National Parks and National Scenic Areas will not be supported.
- c) Development proposals will only be supported where they maximise net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities.
- d) Development proposals that impact on international or national designations will be assessed in relation to Policy 4.
- e) In addition, project design and mitigation will demonstrate how the following impacts are addressed:
- i. impacts on communities and individual dwellings, including, residential amenity, visual impact, noise and shadow flicker;
- ii. significant landscape and visual impacts, recognising that such impacts are to be expected for some forms of renewable energy. Where impacts are localised and/ or appropriate design mitigation has been applied, they will generally be considered to be acceptable;
- iii. public access, including impact on long distance walking and cycling routes and scenic routes;
- iv. impacts on aviation and defence interests including seismological recording;
- v. impacts on telecommunications and broadcasting installations, particularly ensuring that transmission links are not compromised;
- vi. impacts on road traffic and on adjacent trunk roads, including during construction;
- vii. impacts on historic environment;
- viii. effects on hydrology, the water environment and flood risk;
- ix. biodiversity including impacts on birds;
- x. impacts on trees, woods and forests;
- xi. proposals for the decommissioning of developments, including ancillary infrastructure, and site restoration;
- xii. the quality of site restoration plans including the measures in place to safeguard or guarantee availability of finances to effectively implement those plans; and
- xiii. cumulative impacts.

In considering these impacts, significant weight will be placed on the contribution of the proposal to renewable energy generation targets and on greenhouse gas emissions reduction targets.

Grid capacity should not constrain renewable energy development. It is for developers to agree connections to the grid with the relevant network operator. In the case of proposals for grid infrastructure, consideration should be given to underground connections where possible.

f) Consents for development proposals may be time-limited. Areas identified for wind farms are, however, expected to be suitable for use in perpetuity."

Policy 22

- "a) Development proposals at risk of flooding or in a flood risk area will only be supported if they are for:
- i. essential infrastructure where the location is required for operational reasons;



Flood Risk and Water Management

Flood Risk and ii. water compatible uses;

iii. redevelopment of an existing building or site for an equal or less vulnerable use; or.

iv. redevelopment of previously used sites in built up areas where the LDP has identified a need to bring these into positive use and where proposals demonstrate that longterm safety and resilience can be secured in accordance with relevant SEPA advice.

The protection offered by an existing formal flood protection scheme or one under construction can be taken into account when determining flood risk.

In such cases, it will be demonstrated by the applicant that:

- all risks of flooding are understood and addressed;
- there is no reduction in floodplain capacity, increased risk for others, or a need for future flood protection schemes;
- the development remains safe and operational during floods;
- flood resistant and resilient materials and construction methods are used; and
- future adaptations can be made to accommodate the effects of climate change.

Additionally, for development proposals meeting criteria part iv), where flood risk is managed at the site rather than avoided these will also require:

- the first occupied/utilised floor, and the underside of the development if relevant, to be above the flood risk level and have an additional allowance for freeboard; and
- that the proposal does not create an island of development and that safe access/ egress can be achieved
- b) Small scale extensions and alterations to existing buildings will only be supported where they will not significantly increase flood risk.
- c) Development proposals will:

i. not increase the risk of surface water flooding to others, or itself be at risk.

ii. manage all rain and surface water through sustainable urban drainage systems (SUDS), which should form part of and integrate with proposed and existing bluegreen infrastructure. All proposals should presume no surface water connection to the combined sewer;

iii. seek to minimise the area of impermeable surface.

- d) Development proposals will be supported if they can be connected to the public water mains. If connection is not feasible, the applicant will need to demonstrate that water for drinking water purposes will be sourced from a sustainable water source that is resilient to periods of water scarcity.
- e) Development proposals which create, expand or enhance opportunities for natural flood risk management, including blue and green infrastructure, will be supported."

Policy 23 Health and Safety

- "a) Development proposals that will have positive effects on health will be supported. This could include, for example, proposals that incorporate opportunities for exercise, community food growing or allotments.
- b) Development proposals which are likely to have a significant adverse effect on health will not be supported. A Health Impact Assessment may be required.



- c) Development proposals for health and social care facilities and infrastructure will be supported.
- d) Development proposals that are likely to have significant adverse effects on air quality will not be supported. Development proposals will consider opportunities to improve air quality and reduce exposure to poor air quality. An air quality assessment may be required where the nature of the proposal or the air quality in the location suggest significant effects are likely.
- e) Development proposals that are likely to raise unacceptable noise issues will not be supported. The agent of change principle applies to noise sensitive development. A Noise Impact Assessment may be required where the nature of the proposal or its location suggests that significant effects are likely.
- f) Development proposals will be designed to take into account suicide risk.
- g) Development proposals within the vicinity of a major accident hazard site or major accident hazard pipeline (because of the presence of toxic, highly reactive, explosive or inflammable substances) will consider the associated risks and potential impacts of the proposal and the major accident hazard site/pipeline of being located in proximity to one another.
- h) Applications for hazardous substances consent will consider the likely potential impacts on surrounding populations and the environment.
- i) Any advice from Health and Safety Executive, the Office of Nuclear Regulation or the Scottish Environment Protection Agency that planning permission or hazardous substances consent should be refused, or conditions to be attached to a grant of consent, should not be overridden by the decision maker without the most careful consideration."
- j) Similar considerations apply in respect of development proposals either for or near licensed explosive sites (including military explosive storage sites)."

Policy 25 Community wealth building

- "a) Development proposals which contribute to local or regional community wealth building strategies and are consistent with local economic priorities will be supported. This could include for example improving community resilience and reducing inequalities; increasing spending within communities; ensuring the use of local supply chains and services; local job creation; supporting community led proposals, including creation of new local firms and enabling community led ownership of buildings and assets.
- b) Development proposals linked to community ownership and management of land will be supported."

Policy 26

Business and Industry

- "a) Development proposals for business and industry uses on sites allocated for those uses in the LDP will be supported.
- b) Development proposals for home working, live-work units and micro-businesses will be supported where it is demonstrated that the scale and nature of the proposed business and building will be compatible with the surrounding area and there will be no unacceptable impacts on amenity or neighbouring uses.
- c) Development proposals for business and industry uses will be supported where they are compatible with the primary business function of the area. Other employment uses will be supported where they will not prejudice the primary function of the area and are compatible with the business/industrial character of the area.
- d) Development proposals for business, general industrial and storage and distribution uses outwith areas identified for those uses in the LDP will only be supported where:
- i. It is demonstrated that there are no suitable alternatives allocated in the LDP or identified in the employment land audit; and
- ii. The nature and scale of the activity will be compatible with the surrounding area.



- e) Development proposals for business and industry will take into account:
- i. Impact on surrounding residential amenity; sensitive uses and the natural and historic environment;
- ii. The need for appropriate site restoration at the end of a period of commercial use.
- f) Major developments for manufacturing or industry will be accompanied by a decarbonisation strategy to demonstrate how greenhouse gas emissions from the process are appropriately abated. The strategy may include carbon capture and storage."

Policy 29

Rural Development

- "a) Development proposals that contribute to the viability, sustainability and diversity of rural communities and local rural economy will be supported, including:
- i. farms, crofts, woodland crofts or other land use businesses, where use of good quality land for development is minimised and business viability is not adversely affected;
- ii. diversification of existing businesses;
- iii. production and processing facilities for local produce and materials, for example sawmills, or local food production;
- iv. essential community services;
- v. essential infrastructure;
- vi. reuse of a redundant or unused building;
- vii. appropriate use of a historic environment asset or is appropriate enabling development to secure the future of historic environment assets;
- viii. reuse of brownfield land where a return to a natural state has not or will not happen without intervention;
- ix. small scale developments that support new ways of working such as remote working, homeworking and community hubs; or
- x. improvement or restoration of the natural environment.
- b) Development proposals in rural areas should be suitably scaled, sited and designed to be in keeping with the character of the area. They should also consider how the development will contribute towards local living and take into account the transport needs of the development as appropriate for the rural location.
- c) Development proposals in remote rural areas, where new development can often help to sustain fragile communities, will be supported where the proposal:
- i. will support local employment;
- ii. supports and sustains existing communities, for example through provision of digital infrastructure; and
- iii. is suitable in terms of location, access, siting, design and environmental impact.
- d) Development proposals that support the resettlement of previously inhabited areas will be supported where the proposal:
- i. is in an area identified in the LDP as suitable for resettlement;
- ii. is designed to a high standard; iii. responds to their rural location; and
- iv. is designed to minimise greenhouse gas emissions as far as possible."



APPENDIX 2 HIGHLAND-WIDE LOCAL DEVELOPMENT PLAN POLICIES



APPENDIX 2 HIGHLAND-WIDE LOCAL DEVELOPMENT PLAN POLICIES

Policy	Summary
Policy 28 Sustainable	"The Council will support developments which promote and enhance the social, economic and environmental wellbeing of the people of Highland. Proposed developments will be assessed on the extent to which they:
Design	• are compatible with public service provision (water and sewerage, drainage, roads, schools, electricity);
	are accessible by public transport, cycling and walking as well as car;
	maximise energy efficiency in terms of location, layout and design, including the utilisation of renewable sources of energy and heat;
	are affected by physical constraints described in Physical Constraints on Development: Supplementary Guidance;
	make use of brownfield sites, existing buildings and recycled materials;
	demonstrate that they have sought to minimise the generation of waste during the construction and operational phases. (This can be submitted through a Site Waste Management Plan);
	impact on individual and community residential amenity;
	• impact on non-renewable resources such as mineral deposits of potential commercial value, prime quality agricultural land, or approved routes for road and rail links;
	• impact on the following resources, including pollution and discharges, particularly within designated areas:
	o habitats
	o freshwater systems
	o species
	o marine systems
	o landscape
	o cultural heritage
	o scenery
	o air quality;
	demonstrate sensitive siting and high quality design in keeping with local character and historic and natural environment and in making use of appropriate materials;
	• promote varied, lively and well-used environments which will enhance community safety and security and reduce any fear of crime;
	accommodate the needs of all sectors of the community, including people with disabilities or other special needs and disadvantaged groups; and
	contribute to the economic and social development of the community.
	Developments which are judged to be significantly detrimental in terms of the above criteria will not accord with this Local Development Plan. All development proposals must demonstrate compatibility with the Sustainable Design Guide: Supplementary Guidance, which requires that all developments should:



- conserve and enhance the character of the Highland area;
- use resources efficiently;
- minimise the environmental impact of development;
- enhance the viability of Highland communities.

Compatibility should be demonstrated through the submission of a Sustainable Design Statement where required to do so by the Guidance. All developments must comply with the greenhouse gas emissions requirements of the Sustainable Design Guide. In the relatively rare situation of assessing development proposals where the potential impacts are uncertain, but where there are scientific grounds for believing that severe damage could occur either to the environment or the wellbeing of communities, the Council will apply the precautionary principle. Where environmental and/or socio-economic impacts of a proposed development are likely to be significant by virtue of nature, size or location, The Council will require the preparation by developers of appropriate impact assessments. Developments that will have significant adverse effects will only be supported if no reasonable alternatives exist, if there is demonstrable over-riding strategic benefit or if satisfactory overall mitigating measures are incorporated."

Policy 29

Design Quality & Place-making

"New development should be designed to make a positive contribution to the architectural and visual quality of the place in which it is located, where appropriate, and should consider the incorporation of public art as a means of creating a distinct sense of place and identity in line with the Council's Public Art Strategy for the Highlands. Applicants should demonstrate sensitivity and respect towards the local distinctiveness of the landscape, architecture, design and layouts in their proposals.

The design and layout of new residential development proposals should focus on the quality of places and living environments for pedestrians rather than movement of vehicles, and should incorporate all of the six qualities of successful places. Further guidance on this policy topic will be provided in the Council's Residential Layout: Supplementary Guidance.

Where relevant, the Council will judge proposals in terms of their contribution to place-making. Proposals should have regard to the historic pattern of development and landscape in the locality and should, where relevant, be an integral part of the settlement. The Council will examine proposals to ensure that people of all abilities can move safely and conveniently within the development and, where appropriate, to facilities in other parts of the settlement."

Policy 30 Physical

Constraints

"Developers must consider whether their proposals would be located within areas of constraints as set out in Physical Constraints: Supplementary Guidance. The main principles of the guidance are:

- to provide developers with up to date information regarding physical constraints to development in Highland; and
- to ensure proposed developments do not adversely affect human health and safety or pose risk to safeguarded sites.

Where a proposed development is affected by any of the constraints detailed within the guidance, developers must demonstrate compatibility with the constraint or outline appropriate mitigation measures to be provided."

Policy 36

"Outwith Settlement Development Areas, development proposals will be assessed for the extent to which they:

Development in Wider Countryside

- are acceptable in terms of siting and design;
- are sympathetic to existing patterns of development in the area;
- are compatible with landscape character and capacity;
- avoid incremental expansion of one particular development type within a landscape whose distinct character relies on an intrinsic mix/distribution of a range of characteristics
- avoid, where possible, the loss of locally important croft land; and
- would address drainage constraints and can otherwise be adequately serviced, particularly in terms of foul drainage, road access and water supply, without involving undue public expenditure or infrastructure that would be out of keeping with the rural character of the area.

Development proposals may be supported if they are judged to be not significantly detrimental under the terms of this policy. In considering proposals, regard will also be had to the extent to which they would help, if at all, to support communities in Fragile Areas (as defined by Highlands & Islands Enterprise) in maintaining their population and services by helping to re-populate communities and strengthen services.

Within Fragile Areas, proposals that will lead to the change of use or loss of a lifeline rural facility such as a village shop, whether or not that facility is outwith the settlement development area, will be required to provide information as why the facility/use is no longer feasible including evidence that it has been marketed for that purpose at a reasonable price/rent for a minimum period of 3 months.



Renewable energy development proposals will be assessed against the Renewable Energy Policies, the non statutory Highland Renewable Energy Strategy and where appropriate, Onshore Wind Energy: Supplementary Guidance.

All proposals should still accord with the other general policies of the plan.

Development proposals for housing in the wider countryside will be determined against the relevant sections of the Housing in the Countryside and Siting and Design: Supplementary Guidance."

Policy 41

Business and Industrial Land

"The Council will support the development of strategic business and industrial sites/locations as indicated on the Proposals Map and listed below. Area local development plans will further identify and specify business and industrial sites within the settlements listed below and elsewhere. The Council will safeguard each site from other competing uses unless a development plan review concludes that the site is no longer required or suitable for business and industrial purposes.

Scrabster, Forss, Thurso Business Park, Murkle Bay, Wick, Brora, Golspie, Dornoch, Tain, Nigg, Delny, Cromarty Industrial Park, Inverbreakie, Alness Business Park, Highland Deephaven, Evanton Industrial Estate, Dingwall Business Park, Muir of Ord, Kishorn, Lochalsh Business Park, Portree Industrial Estate, Broadford Industrial Estate, Corpach, Blar Mor Industrial Estate, Glen Nevis Business Park / Ben Nevis Industrial Estate, Kinlochleven Business Park, Carse Industrial Estate, Inverness East, Inverness Airport Business Park, Nairn South, Balmakeith.

In the first instance, proposals for new business and industrial development will be directed to these sites and other land already allocated for or accommodating an existing employment use. However, the Council will also support the principle of business and industrial proposals outwith these sites/areas if the land requirement is from an emerging industry with uncertain size and locational characteristics (such as marine renewables) or there is another unforeseen element to the requirement (such as a large inward investment). Developers will have to demonstrate that their proposals cannot reasonably be accommodated on existing allocated industrial and business sites. Such proposals will also still need to be assessed against other parts of the development plan and should set out and follow principles which accord with the vision and spatial strategy of this Plan. Supplementary Guidance which follows this approach may be prepared where time allows and the complexity of the issue suggests it appropriate."

Policy 55

Peat and Soils

"Development proposals should demonstrate how they have avoided unnecessary disturbance, degradation or erosion of peat and soils.

Unacceptable disturbance of peat will not be permitted unless it is shown that the adverse effects of such disturbance are clearly outweighed by social, environmental or economic benefits arising from the development proposal.

Where development on peat is clearly demonstrated to be unavoidable then The Council may ask for a peatland management plan to be submitted which clearly demonstrates how impacts have been minimised and mitigated.

New areas of commercial peat extraction will not be supported unless it can be shown that it is an area of degraded peatland which is clearly demonstrated to have been significantly damaged by human activity and has low conservation value and as a result restoration is not possible.

Proposals must also demonstrate to the Council's satisfaction that extraction would not adversely affect the integrity of nearby Natura sites containing areas of peatland."

Policy 57

Natural, Built and Cultural Heritage

"All development proposals will be assessed taking into account the level of importance and type of heritage features, the form and scale of the development, and any impact on the feature and its setting, in the context of the policy framework detailed in Appendix 2. The following criteria will also apply:

- 1. For features of local/regional importance we will allow developments if it can be satisfactorily demonstrated that they will not have an unacceptable impact on the natural environment, amenity and heritage resource.
- 2. For features of national importance we will allow developments that can be shown not to compromise the natural environment, amenity and heritage resource. Where there may be any significant adverse effects, these must be clearly outweighed by social or economic benefits of national importance. It must also be shown that the development will support communities in fragile areas who are having difficulties in keeping their population and services.
- 3. For features of international importance developments likely to have a significant effect on a site, either alone or in combination with other plans or projects, and which are not directly connected with or necessary to the management of the site for nature conservation will be subject to an appropriate assessment. Where we are unable to ascertain that a proposal will not adversely affect the integrity of a site, we will only allow development if there is no alternative solution and there are imperative reasons of overriding public interest, including those of a social or economic nature. Where a priority habitat or species (as defined in Annex 1 of the Habitats Directive) would be affected, development in such circumstances will only be allowed if the reasons for overriding public interest relate to human health, public safety, beneficial consequences of primary importance for the environment, or other reasons subject to the opinion of the European Commission (via Scottish Ministers). Where we are unable to ascertain that a proposal will not adversely affect the integrity of a site, the proposal will not be in accordance with the development plan within the meaning of Section 25(1) of the Town and Country Planning (Scotland) Act 1997.

Note: Whilst Appendix 2 groups features under the headings international, national and local/regional importance, this does not suggest that the relevant policy framework will be any less rigorously applied. This policy should also be read in conjunction with the Proposal Map.

The Council intends to adopt the Supplementary Guidance on Wild Areas in due course. The main principles of this guidance will be:



- to provide mapping of wild areas;
- to give advice on how best to accommodate change within wild areas whilst safeguarding their qualities;
- to give advice on what an unacceptable impact is; and
- to give guidance on how wild areas could be adversely affected by development close to but not within the wild area itself.

In due course the Council also intends to adopt the Supplementary Guidance on the Highland Historic Environment Strategy. The main principles of this guidance will ensure that:

• Future developments take account of the historic environment and that they are of a design and quality to enhance the historic environment bringing both economic and social benefits;

It sets a proactive, consistent approach to the protection of the historic environment."

Policy 58

Protected Species

"Where there is good reason to believe that a protected species may be present on site or may be affected by a proposed development, we will require a survey to be carried out to establish any such presence and if necessary a mitigation plan to avoid or minimise any impacts on the species, before determining the application. Development that is likely to have an adverse effect, individually and/or cumulatively, on European Protected Species (see Glossary) will only be permitted where:

There is no satisfactory alternative;

- The development is required for preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment; and
- The development will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Development that is likely to have an adverse effect, individually and/or cumulatively, on protected bird species (see Glossary) will only be permitted where:

- There is no other satisfactory solution; and
- The development is required in the interests of public health or public safety.

This will include but is not limited to avoiding adverse effects, individually and/or cumulatively, on the populations of the following priority protected bird species:

- Species listed in Annex 1 of the EC Birds Directive;
- Regularly occurring migratory species listed in Annex II of the Birds Directive;
- Species listed in Schedule 1 of the Wildlife and Countryside Act 1981 as amended;
- Birds of conservation concern.

Development that is likely to have an adverse effect, individually and/or cumulatively (see glossary), on other protected animals and plants (see Glossary) will only be permitted where the development is required for preserving public health or public safety. Development proposals should avoid adverse disturbance, including cumulatively, to badgers and badger setts, protected under the Protection of Badgers Act 1999 (as amended by the Nature Conservation (Scotland) Act 2004."

Policy 59

Other Important Species

"The Council will have regard to the presence of and any adverse effects of development proposals, either individually and/or cumulatively, on the Other Important Species which are included in the lists below, if these are not already protected by other legislation or by nature conservation site designations:

Species listed in Annexes II and V of the EC Habitats Directive;

- Priority species listed in the UK and Local Biodiversity Action Plans;
- Species included on the Scottish Biodiversity List.

We will use conditions and agreements to ensure detrimental affect on these species is avoided."

Policy 60

"The Council will seek to safeguard the integrity of features of the landscape which are of major importance because of their linear and continuous structure or combination as habitat "stepping stones" for the movement of wild fauna and flora. (Article 10 Features). The Council will also seek to create new habitats which are supportive of this concept. The Council will have regard to



Habitats

Other Important | the value of the following Other Important Habitats, where not protected by nature conservation site designations (such as natural water courses), in the assessment of any development proposals which may affect them either individually and/or cumulatively:

- Habitats listed in Annex I of the EC Habitats Directive:
- Habitats of priority and protected bird species (see Glossary);
- Priority habitats listed in the UK and Local Biodiversity Action Plans;
- Habitats included on the Scottish Biodiversity List.

The Council will use conditions and agreements to ensure that significant harm to the ecological function and integrity of Article 10 Features and Other Important Habitats is avoided. Where it is judged that the reasons in favour of a development clearly outweigh the desirability of retaining those important habitats, the Council will seek to put in place satisfactory mitigation measures, including where appropriate consideration of compensatory habitat creation."

Policy 61 Landscape

"New developments should be designed to reflect the landscape characteristics and special qualities identified in the Landscape Character Assessment of the area in which they are proposed. This will include consideration of the appropriate scale, form, pattern and construction materials, as well as the potential cumulative effect of developments where this may be an issue. The Council would wish to encourage those undertaking development to include measures to enhance the landscape characteristics of the area. This will apply particularly where the condition of the landscape characteristics has deteriorated to such an extent that there has been a loss of landscape quality or distinctive sense of place. In the assessment of new developments, the Council will take account of Landscape Character Assessments, Landscape Capacity Studies and its supplementary guidance on Siting and Design and Sustainable Design, together with any other relevant design guidance.

Note: The principles and justification underpinning the Council's approach to sustainable developments are contained in the supplementary guidance: "Sustainable Design". The key principles underlying this guidance are set out in Policy 28: Sustainable Design."

Policy 63 Water

Environment

"The Council will support proposals for development that do not compromise the objectives of the Water Framework Directive (2000/60/EC), aimed at the protection and improvement of Scotland's water environment. In assessing proposals, the Council will take into account the River Basin Management Plan for the Scotland River Basin District and associated Area Management Plans and supporting information on opportunities for improvements and constraints."

Policy 64

Flood Risk

"Development proposals should avoid areas susceptible to flooding and promote sustainable flood management. Development proposals within or bordering medium to high flood risk areas, will need to demonstrate compliance with Scottish Planning Policy (SPP) through the submission of suitable information which may take the form of a Flood Risk Assessment.

Development proposals outwith indicative medium to high flood risk areas may be acceptable. However, where:

- better local flood risk information is available and suggests a higher risk;
- a sensitive land use (as specified in the risk framework of Scottish Planning Policy) is proposed, and/or;
- the development borders the coast and therefore may be at risk from climate change;

a Flood Risk Assessment or other suitable information which demonstrates compliance with SPP will be required. Developments may also be possible where they are in accord with the flood prevention or management measures as specified within a local (development) plan allocation or a development brief. Any developments, particularly those on the flood plain, should not compromise the objectives of the EU Water Framework Directive. Where flood management measures are required, natural methods such as restoration of floodplains, wetlands and water bodies should be incorporated, or adequate justification should be provided as to why they are impracticable."

Policy 66

Surface Water Drainage

"All proposed development must be drained by Sustainable Drainage Systems (SuDS) designed in accordance with The SuDS Manual (CIRIA C697) and, where appropriate, the Sewers for Scotland Manual 2nd Edition. Planning applications should be submitted with information in accordance with Planning Advice Note 69: Planning and Building Standards Advice on Flooding paragraphs 23 and 24. Each drainage scheme design must be accompanied by particulars of proposals for ensuring long-term maintenance of the scheme."

Policy 67

Renewable **Energy** Development "Renewable energy development proposals should be well related to the source of the primary renewable resources that are needed for their operation. The Council will also consider:

- the contribution of the proposed development towards meeting renewable energy generation targets; and
- any positive or negative effects it is likely to have on the local and national economy; and will assess proposals against other policies of the development plan, the Highland Renewable Energy Strategy and Planning Guidelines and have regard to any other material considerations, including proposals able to demonstrate significant benefits including by making effective use of existing and proposed infrastructure or facilities.



Subject to balancing with these considerations and taking into account any mitigation measures to be included, the Council will support proposals where it is satisfied that they are located, sited and designed such that they will not be significantly detrimental overall, either individually or cumulatively with other developments (see Glossary), having regard in particular to any significant effects on the following:

- natural, built and cultural heritage features;
- species and habitats;
- visual impact and impact on the landscape character of the surrounding area (the design and location of the proposal should reflect the scale and character of the landscape and seek to minimise landscape and visual impact, subject to any other considerations):
- amenity at sensitive locations, including residential properties, work places and recognised visitor sites (in or outwith a settlement boundary);
- the safety and amenity of any regularly occupied buildings and the grounds that they occupy having regard to visual intrusion or the likely effect of noise generation and, in the case of wind energy proposals, ice throw in winter conditions, shadow flicker or shadow throw;
- ground water, surface water (including water supply), aquatic ecosystems and fisheries;
- the safe use of airport, defence or emergency service operations, including flight activity, navigation and surveillance systems and associated infrastructure, or on aircraft flight paths or MoD low-flying areas;
- other communications installations or the quality of radio or TV reception;
- the amenity of users of any Core Path or other established public access for walking, cycling or horse riding;
- tourism and recreation interests:

land and water based traffic and transport interests.

Proposals for the extension of existing renewable energy facilities will be assessed against the same criteria and material considerations as apply to proposals for new facilities. In all cases, if consent is granted, the Council will approve appropriate conditions (along with a legal agreement/obligation under section 75 of the Town and Country Planning (Scotland) Act 1997, as amended, where necessary), relating to the removal of the development and associated equipment and to the restoration of the site, whenever the consent expires, other than in circumstances where fresh consent has been secured to extend the life of the project, or the project ceases to operate for a specific period."

Policy 72 Pollution

"Proposals that may result in significant pollution such as noise (including aircraft noise), air, water and light will only be approved where a detailed assessment

report on the levels, character and transmission and receiving environment of the potential pollution is provided by the applicant to show how the pollution can be appropriately avoided and if necessary mitigated. Where the Council applies conditions to any permission to deal with pollution matters these may include subsequent independent monitoring of pollution levels. Major Developments and developments that are subject of Environmental Impact Assessment will be expected to follow a robust project environmental management process, following the approach set out in the Council's Guidance Note "Construction Environmental Management Process for Large Scale Projects" or a similar approach."

Policy 73 Air Quality

"Development proposals which, individually or cumulatively, may adversely affect the air quality in an area to a level which could cause harm to human health and wellbeing or the natural environment must be accompanied by appropriate provisions, such as an Air Quality Assessment, (deemed satisfactory to the Local Authority and SEPA as appropriate) which demonstrate how such impacts will be mitigated.

Some existing land uses may have a localised detrimental effect on air quality. Any proposals to locate development in the vicinity of such uses and therefore introduce receptors to these areas (e.g. housing adjacent to busy roads) must consider whether this would result in conflict with the existing land use. Proposals which would result in an unacceptable conflict with the existing land use to air quality impacts will not be approved."

Policy 77 Public Access

"Where a proposal affects a route included in a Core Paths Plan or an access point to water, or significantly affects wider access rights, then The Council will require it to either:

- retain the existing path or water access point while maintaining or enhancing its amenity value; or
- ensure alternative access provision that is no less attractive, is safe and convenient for public use, and does not damage or disturb species or habitats.

For a proposal classified as a Major Development, the Council will require the developer to submit an Access Plan. This should show the existing public, nonmotorized public access footpaths, bridleways and cycleways on the site, together with proposed public access provision, both during construction and after completion of the development (including links to existing path networks and to the surrounding area, and access point to water)."





APPENDIX 3 ADVISORY REPORTS

Advisory	Summary
Report	
The Sixth Carbon Budget: The UK's Path to Net Zero (Climate Change Committee) (December 2020)	The Climate Change Committee (CCC) published the Sixth Carbon Budget in December 2020. The CCC is an independent, statutory body established under the Climate Change Act 2008. Their purpose is to advise the UK and devolved governments on emissions targets and to report to Parliament on progress made in reducing greenhouse gas emissions and preparing for and adapting to the impacts of climate change.
	The Sixth Carbon Budget sets out, for the first time, the actions that the UK will need to take to achieve net zero emissions by 2050. The recommended pathway requires 78% reduction in UK territorial emissions by 2035, a 63% reduction from 2019. This early action is considered vital to support the required increase in global ambitions in respect of net zero.
	The 6th Carbon Budget identifies hydrogen as a key contributor for decarbonisation and states on page 25 in relation to how the sixth carbon budget can be met:
	"Low-carbon hydrogen scales up to 90 TWh by 2035 (i.e. nearly a third of the size of the current power sector), produced using electricity or from natural gas or biomass with carbon capture and storage. It is used in areas less suited to electrification, particularly shipping and parts of industry, and is vital in providing flexibility to deal with intermittency in the power system. It may also have a material longer term role in buildings and other transport, such as heavy goods vehicles."
United Nations Gap	The 13 th edition of the United Nations Gap Emissions Report named "The Closing Window', sets out that: <i>'In just eight years, global GHG emissions must be reduced by 30</i>
Emissions Report: The Closing Window	to 45 per cent compared to where they are headed under policies currently in place to get on track to limiting global warming to well below 2.0°C and 1.5°C respectively." The Executive Summary (page 16) states:
(United Nations Environment Programme)	"The transformation towards zero GHG emissions in the sectors of electricity supply, industry, transportation and buildings is under way. However, increased and accelerated action is needed if these are to happen at the pace and scale required to limit global warming to well below 2oC, preferably 1.5oC."
(October 2022)	Table 5.1 (page 41) of the Gap Emissions Report 2022 sets out actions which accelerate or hinder the transformation of the electricity sector. The most important actions are:
	"Expand Renewables: Renewable energy needs to be expanded as fast as possible. Removing barriers is most important, as costs are no longer the issue in many geographies. This can be achieved through policies, incentives, purchases of green electricity, removal of administrative barriers, and direct investments (Falk, Gaffney et al. 2020; IEA 2021e; Clarke et al. 2022).
	Plan a Just Transformation: The transformation needs to be planned carefully in regions that are currently dependent on fossil fuel extraction for jobs and public revenue. Anticipating the change and planning for it seems essential (Falk, Gaffney et al. 2020; IEA 2021e).
	Prepare Electricity System for High Shares of Renewables: this includes providing flexible electricity supply, short- and long-term storage, adapting the distribution grids, considering variable electricity demand, and adapting the electricity market to incentivize this (Falk, Gaffney et al. 2020; IEA 2021e; Clarke et al. 2022)."
	Section 5.4 of the report recognises the need to "grow and integrate green hydrogen production capacity." "There is vast potential for green hydrogen to help decarbonize several sectors, especially the hard-to-abate energy-intensive industry sectors that cannot use electricity."
	Green Hydrogen has been listed under the "most important actions" for the decarbonisation of industrial production.
Progress in reducing emissions in Scotland 2022 Report to	The report was published by the CCC in 2022. With regard to the GHG emissions reduction targets the report sets out in the Executive Summary (page 12):
Parliament (Climate	



Change Committee) (December 2022)

"A quantified plan is urgently needed. The Scottish Government urgently needs to provide a quantified plan for how its police's will combine to achieve the emissions reduction required to meet the challenging 2030 target. The plan must detail how each of Scotland's ambitious milestones will be achieved."

In relation to the year on year targets for reducing emissions that the report states in in Section 2 "Emissions in 2020" (page 18): "there is a significant risk of Scotland failing to meet its annual targets in the 2020s."

Mission Zero: Independent Review of Net Zero (Rt Hon Chris Skidmore MP)

view pub Hon The sub

(January 2023)

The Department for Business, Energy and Industrial Strategy appointed the Rt Hon Chris Skidmore MP as Chair of the Independent Review of Net Zero. The findings were published in January 2023. The Foreward from the Net Zero Review Chair notes on page 3: "that the Review has taken a whole of society approach to our evidence gathering. The Review has sought to engage, listen, and learn from businesses, organisations, industries, and communities from across the UK. We received over 1800 written submissions as part of our official Call for Evidence — testament to the strong interest in delivering on net zero — as well as holding over 50 evidence roundtables, visiting every devolved nation in the UK and each region in England, and speaking personally to a thousand participants in our engagement sessions. It is their voices and views that this Review has sought to represent, as one of the largest national engagement exercises on the future of net zero and its role in the UK economy."

Paragraph 11 states "The Government's Net Zero Strategy sets out the UK's decarbonisation pathway out to 2037, based on modelling on the most cost-effective net zero energy system in 2050. New analysis conducted over the course of the Review shows that this is still the right pathway and the policies outlined in the Strategy should go ahead. Delay is a significant risk. Our engagement and own analysis have shown that the benefits of decarbonisation are larger if it is done sooner."

Page 10 states: "Infrastructure is the key that will unlock net zero" and recommends:

Using infrastructure to unlock net zero by:

- "Accelerating the implementation of the British Energy Security Strategy to finally update the mandate of Ofgem, create the Future System Operator which is essential to a holistic approach to solve the challenges of our future, multi-fuel energy system and accelerate the connection of our cheap renewable generation
- A cross-sectoral infrastructure strategy by 2025. We need to rapidly build and adapt the infrastructure for electricity, hydrogen, other liquid and gaseous fuels and CO2 networks that support our green economy. The scale of this challenge, and the breadth, is too much to be left to the whims of individual projects
- Reforming our approach to planning, streamlining processes and, where locally supported, unleashing solar and developing onshore wind, the cheapest forms of generation, to be rapidly deployed in communities across the country and enable local people to reap the benefits of local, low carbon generation".

In relation to 25 key actions for 2025, hydrogen is included as a key action (page 15) and the recommendation is:

"By the end of 2023, develop and implement an ambitious and pragmatic '10 year' delivery roadmap for the scaling up of hydrogen production. Government should deliver hydrogen business models as soon as legislation allows and confirm the long-term funding envelope available for hydrogen revenue support, to incentivise timely investment."

AR6 Synthesis Report: Climate Change 2023 (Intergovernmental Panel on Climate Change)

(March 2023)

The Intergovernmental Panel on Climate Change (IPCC) finalised the Synthesis Report for the Sixth Assessment Report (AR6) during the Panel's 58th Session held in Interlaken, Switzerland from the 13-19 March 2023.

The IPCC was created to provide policymakers with regular scientific assessments on climate change, its implications and potential future risks, as well as to put forward adaptation and mitigation options.

Through its assessments, the IPCC determines the state of knowledge on climate change. It identifies where there is agreement in the scientific community on topics related to climate change, and where further research is needed. The reports are drafted and reviewed in several stages, for the purposes of objectivity and transparency.

The IPCC does not conduct its own research. IPCC reports are neutral, policy-relevant but not policy-prescriptive. The assessment reports are a key input into the international negotiations to tackle climate change. The IPCC was created by the United Nations Environment Programme (UN Environment) and the World Meteorological Organization (WMO) in 1988, and IPCC has 195 Member countries including the United Kingdom.

The observed challenges and impacts of climate change detailed in Section A of the AR6 Synthesis Report "Summary for Policymakers" include:

"Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred. Human-caused climate change is already affecting many weather and climate extremes in every region across the globe. This has led to widespread adverse impacts and related losses and damages to nature and people." (Paragraph A.2).

Section B of the report is titled "Future Climate Change, Risks, and Long-Term Responses" and states that:

"Continued greenhouse gas emissions will lead to increasing global warming, with the best estimate of reaching 1.5°C in the near term in considered scenarios and modelled pathways. Every increment of global warming will intensify multiple and concurrent hazards (high confidence). Deep, rapid, and sustained reductions in greenhouse gas emissions would lead to a discernible slowdown in global warming within around two decades, and also to discernible changes in atmospheric composition within a few years (high confidence)." (Paragraph B.1).



Progress in reducing emissions 2023 Report to Parliament (Climate Change Committee) (June 2023)

The report, published by the CCC in June 2023 states that: "The rate of emissions reduction will need to significantly increase for the UK to meet its 2030 NDC and the Sixth Carbon Budget. If the UK is to achieve its NDC, the rate of emissions reduction outside the electricity supply sector must almost quadruple, from 1.2% annual reductions to 4.7%."

One of the key messages within the report is to: "stay firm on existing commitments and move to delivery. The Government has made a number of strong commitments, notably on the 2030 fossil fuel vehicle phase-out, the 2035 decarbonisation of the electricity system, the commitment to install 600,000 heat pumps per year by 2028, and the deployment at scale of new industries such as hydrogen and greenhouse gas removals." (page 14).

The report emphasises in Section 4 that need for action and strategy stating that: "The slow progress to date on delivery towards Net Zero means that it is no longer tenable for the Government to develop strategies that do not contain committed policies." It also states in Section 4 that:

"The Government has committed to decarbonising electricity supply by 2035, subject to ensuring security of supply, together with ambitious targets for building new renewables and nuclear."





APPENDIX 4 ENERGY POLICY AND STRATEGY

Energy Policy/ Strategy	Summary
Scottish Energy Strategy: The future of energy in Scotland 2017 (Scottish Government)	The Scottish Government published its Scottish Energy Strategy (SES 2017) in December 2017. The SES 2017 sets out a vision for a strong and sustainable low carbon economy. SES 2017 describes the Scottish Government's vision for the future energy system in Scotland beyond 2020 looking forward until 2050.
(December 2017)	The SES provides a long-term vision to guide detailed energy policy decisions over the coming decades. It sets out the priorities for an integrated system-wide approach that considers both the use and the supply of energy for heat, power and transport. It contains six energy priorities including increasing renewable energy production and increasing flexibility, efficiency and resilience of the energy system.
	The SES 2017 advises that for Scotland to meet the domestic and international climate change targets, the Government will set a new 2030 'all-energy' target for the equivalent of 50% of Scotland's heat, transport and electricity consumption to be supplied from renewable sources. Within the Executive Summary it advises that it has a vision for:
	"The equivalent of 50% of the energy for Scotland's heat, transport and electricity consumption to be supplied from renewable sources;"
	And
	"An increase by 30% in the productivity of energy use across the Scottish economy."
	The SES 2017 in Chapter 2 advises that:
	"changes to how we store energy across the system, and particularly in terms of electricity and heat, could have a profoundly important bearing on our low carbon future."
	Under the heading of Renewable Energy, the SES 2017 its states that "Scotland's long term climate change targets will require the near complete decarbonisation of our energy system by 2050, with renewable energy meeting a significant share of our needs."
	In Chapter 2 of the SES under the subheading "Scotland in 2050" it states "In order to develop our Strategy, we have developed two indicative scenarios for the energy system, consistent with our current climate change targets. These show how low carbon electricity and hydrogen could be used to meet demand across the industry, services, residential and transport sectors."
	Scenario 2 refers to "A Hydrogen Future" and sets out that in this scenario "By 2050, much of the demand previously met by natural gas has been converted to low carbon hydrogen" this scenario would result in "60% of demand in the residential sector delivered by hydrogen" and "100% of cars or light goods vehicles" being powered by hydrogen."
Climate Change Plan, The Third Report on Proposals and Policies 2018-2032 (Scottish Government) (February 2018)	The Scottish Government published the Climate Change Plan, The Third Report on Proposals and Policies 2018-2032 (CCP 2018) in February 2018, which sets out Scotland's decarbonisation plans to 2032. The Executive Summary advises that the CCP 2018 sets out how Scotland can deliver its target of 66% emissions reductions, relative to the baseline for the period 2018-2032. It is important to note these targets have now been superseded by the targets in the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 which are much more ambitious.



The	Ten	Point	Plan	for	а
Gree	n Ind	dustrial	Revo	olutio	on
(UK	Gover	nment)		

The Ten Point Plan for a Green Industrial Revolution was published by the UK Government in November 2020 and sets out 10 points for accelerating the path to net zero in the UK.

Point 2 of the Ten Point Plan is titled "Driving the Growth of Low Carbon Hydrogen" and states:

(November 2020)

"Working alongside partners in industry, our aim is for the UK to develop 5GW [now 10 GW] of low carbon hydrogen production capacity by 2030 that could see the UK benefit from around 8,000 jobs across our industrial heartlands and beyond."

Update to the Climate Change Plan 2018-2032: Securing a Green Recovery on a Path to Net Zero (Scottish Government) (December 2020)

This update to the Climate Change Plan was published by the Scottish Government in December 2020 and sets out the Scottish Government's "approach to delivering a green recovery, and sets out a pathway to deliver our world leading climate change targets in line with the 2018 plan, the focus is on the period up to 2032.".

Section 2.1 focuses on a 'Whole System Energy Approach' and the Scottish Government believe "that everyone in Scotland has the right to an affordable, secure and increasingly low carbon supply of energy." (page 59). In relation to Hydrogen, paragraph 2.1.9 states that:

"Producing hydrogen in zero-carbon and low-carbon ways, and showing that it can be used to meet challenging energy demands (e.g. for heat, transport and industry), will be part of the next stage of Scotland's energy transition."

Paragraph 2.1.10 continues by stating:

"Hydrogen can be a strong complement to electrification and can provide alternatives to the uses of carbon-based fuels across the energy system, helping to decarbonise high emission sectors such as transport, heat and industry. Hydrogen can provide flexibility to the whole energy system; unlike electricity, it is relatively easy to store, meaning that its production can be decoupled from its use. This means that hydrogen may provide a sustainable replacement for the energy storage that natural gas and petroleum products currently provide, and a way to capture and store renewable energy from when it is available until when it is needed."

Energy White Paper. Powering our Net Zero **Future (UK Government)**

On 13th December 2020, the UK Government published its Energy White Paper, Powering our Net Zero Future.

The Energy White Paper states on page 9 that:

(December 2020)

'Decarbonising the energy system over the next thirty years means replacing - as far as it is possible to do so - fossil fuels with clean energy technologies such as renewables, nuclear and hydrogen."

Scottish Government Hydrogen Policy Statement (Scottish Government) (December 2020)

The Scottish Hydrogen Policy Statement was published in December 2020 and sets out a vision for Scotland to become a leading hydrogen nation in the production of reliable, competitive, sustainable hydrogen. The Statement restates the target of 5GW of low-carbon hydrogen by 2030.

On Pages 7 and 8 it sets out that the Scottish Government:

- "Confirm Scottish Government support for the strategic growth of a strong hydrogen economy in Scotland, focusing our efforts on supporting the development of Scotland's hydrogen production capability to meet an ambition of at least 5GW of renewable and low-carbon hydrogen by 2030 and at least 25GW by 2045.
- Commit £100 million funding towards the development of our hydrogen economy over the next five years as implemented through our Hydrogen Action Plan, due for publication in 2021.
- Confirm that both renewable and low-carbon hydrogen will play an increasingly important role in our energy transition to net zero in 2045 and the importance of establishing low-carbon hydrogen production at scale by the mid-2020s, linked to Carbon Capture and Storage (CCS).
- Set out how Scotland's abundant natural resources, skills and supply chain offer the potential for large scale production of renewable hydrogen from offshore wind to be a key driver of the longer-term hydrogen economy in Scotland.
- Support the demonstration, development and deployment of hydrogen and its emergent role in the sustainable decarbonisation of critical industry functions and processes, transport and heat in buildings.
- Commit to drive technological progress and advance innovation by unlocking public and private funds for innovation development, and support demonstration for key hydrogen technologies, such as fuel cells and electrolysers.
- Recognise the need for pace the need to start now and grow quickly to capitalise on opportunities within the domestic and global hydrogen market.
- Commit to actively seek international collaboration in the development of our shared hydrogen economy and fully explore our hydrogen export potential.



	an action party
	 Support the transition and growth of Scotland's existing supply chain, including in the development of skills and manufacturing capacity, that can play a significant role in the hydrogen economy both domestically and internationally.
	Commit to exploring the opportunities for negative carbon hydrogen, combining the potential to use bioenergy resources to produce hydrogen with CCS.
	 Commit to engage with the UK Government on the development of a UK policy and regulatory framework for hydrogen, business models, market mechanisms, carbon pricing, feed in tariffs, fuel economy standards, renewable fuel standards and zero emission vehicle mandates – all of which are important for raising market certainty and investor confidence."
Scotland's Energy Strategy Position Statement (Scottish	The Scottish Government published Scotland's Energy Strategy Position Statement (SESPS) in March 2021 which provides an overview of the Governments key priorities for the short to medium-term in ensuring a green economic recovery, whilst remaining aligned to net zero ambitions, in the lead up to COP 26.
Government) (March 2021)	SESPS provides an overview of Government policies in relation to energy and reinforces on page 5:
	"the importance the Scottish Government attaches to supporting the energy sector in our journey towards net zero, thus ensuring a green, fair and resilient recovery for the Scottish economy".
	The Statement makes reference to the previous year which saw:
	"Scotland become the first country in the UK to publish a hydrogen strategy, through our Hydrogen Policy Statement, setting out our vision for Scotland to become a leading Hydrogen Nation in both deployment of hydrogen within our energy system and for generation of significant volumes of hydrogen for export to markets such as the rest of UK, and partner nations on the European mainland." (page 5)
	On Page 18 titled "maximising Scotland's International Potential" it states:
	"The Scottish Government, along with our Enterprise Agencies, will continue to engage with international partners – strengthening existing relationships and seeking out opportunities for our energy industries to flourish in the global market. This will include maximising opportunities for global growth in new innovations and emerging technologies, such as the development of a hydrogen economy."
Net Zero Strategy: Build Back Greener (UK Government)	The Net Zero Strategy 2021 sets out the UK Government's policies and proposals to keep them on track in relation to the carbon budgets.
(October 2021)	Page 19 in relation to "Power" states that:
	"The transformation of the power sector will bring high skill, high wage job opportunities right across the UK" of which hydrogen is listed as a "reliable power."
	The Net Zero Strategy reiterates the Government's ambitions to "Deliver 5 GW of hydrogen production capacity by 2030." (page 20). It goes onto to state "Building on commitments in the North Sea Transition Deal, we will significantly reduce emissions from traditional oil and gas fuel supplies, whilst scaling-up the production of low carbon alternatives such as hydrogen and biofuels."
British Energy Security Strategy (UK Government)	The British Energy Security Strategy was published by the UK Government in April 2022. It builds upon the Ten Point Plan for a Green Industrial Revolution and the Net Zero Strategy.
(April 2022)	The British Energy Security Strategy is supportive of hydrogen as a key source of energy and under the heading "Hydrogen" states:
	"Hydrogen is the most abundant chemical element in the universe, but needs releasing from water, hydrocarbons, or other organic matter before we can use it. The UK will look to be a leader in developing a domestic source of this super-fuel, in this ever-increasing internationally competitive space. And we fully support hydrogen as a relatively frictionless way to decarbonise our lives in the near-term."
Powering up Britain Policy Paper (UK Government)	Powering up Britain was published by the UK Government on 30 March 2023. It sets out the UK Government's plans to enhance the country's energy strategy, seize the economic opportunities of the transition, and deliver on their net zero commitments.
(March 2023)	Page 6 outlines how the UK Government will meet achieve these goals:
	"To meet these ambitions the Department for Energy Security and Net Zero will deliver:
	 Energy security: setting the UK on a path to greater energy independence. Consumer security: bringing bills down, and keeping them affordable, and making wholesale electricity prices among the cheapest in Europe. Climate security: supporting industry to move away from expensive and dirty fossil fuels. Economic security: playing our part in reducing inflation and boosting growth, delivering high skilled jobs for the future."



In relation to hydrogen, page 7 states:

"Delivering a Hydrogen economy: Our 2030 hydrogen production ambition could generate enough clean electricity to power all of London for a year. We are announcing a suite of developments that get that ambition underway: confirming the first winning projects from the £240 million Net Zero Hydrogen Fund, naming the two CCUS-enabled hydrogen projects moving forward on the Track-1 clusters, publishing a shortlist of 20 projects we intend to enter due diligence with for the first electrolytic hydrogen allocation round; and announcing our intention to open two further hydrogen funding rounds in 2023."

Powering up Britain: Energy Security Plan (UK Government) (March 2023)

Powering up Britain: Energy Security Plan was published by the UK Government in March 2023 and updated 4 April 2023. It sets out the steps the UK Government is taking to ensure the UK is more energy independent, secure and resilient.

In Section 4 'A future of cheap, clean and British energy' the plan states that:

"It is essential that we bring forward power Carbon Capture, Usage and Storage (CCUS) and other flexible technologies, which can either increase supply or reduce demand at short notice to close any gap between consumer demand and what is being generated by renewables and nuclear technologies.

We are developing the technology options for delivering flexibility on both the supply side, through power CCUS, hydrogen to power and storage, and the demand side, through electric vehicle charging or smart appliances (demand side response).

Reference is also made in Section 4 to the UK Hydrogen Strategy 2021 and the plan sets out that:

"The government sees low-carbon hydrogen as a critical component of our broader strategy to deliver energy security, create economic growth and contribute to our net zero target. We set out our plans to deliver a thriving low-carbon hydrogen sector in the 'UK Hydrogen Strategy' in 2021. This was followed by the 'British Energy Security Strategy' last year in which we set out our ambition to have up to 10 gigawatts of low-carbon hydrogen production capacity in the UK by 2030, subject to affordability and value for money, with at least half from electrolytic hydrogen."

Further to this, on page 29 the plan states that:

"The Government is also supporting the development of low-carbon hydrogen production and next-generation CCUS, aiming to reduce costs and bring new solutions to market."

And acknowledges that:

"Central to delivering this infrastructure is an efficient planning system."

Equality, Opportunity, Community Our Programme for Government (Scottish Government) (September 2023)

The Programme for Government is published by the Scottish Government in September every year and sets out the actions the Scottish Government will take in the coming year.

Page 11 states:

"Responding to the climate crisis is a fundamental priority for this government. Scaling up renewables is central to our strategy and that is why we will establish a sector deal with the onshore wind industry to help deliver our onshore wind ambition, maximising the benefits for Scotland's economy and communities. We will also develop a Green Industrial Strategy, setting out how the Scottish Government intends to help businesses and investors realise the enormous economic opportunities of the global transition to net zero and of creating good, well-paid jobs in sectors such as offshore wind and hydrogen, while also supporting the development of sectoral Just Transition Plans."

The Cabinet Secretary for Wellbeing Economy, Fair Work and Energy outlines on page 21 in relation to Green growth and energy that the Scottish Government will:

"Develop a Green Industrial Strategy, setting out how we will help businesses and investors to realise the enormous economic opportunities of the global transition to net zero and create good, well-paid jobs across Scotland in sectors such as offshore wind and hydrogen, and support the development of sectoral Just Transition Plans."

Page 22 states the following:

"Continue to implement the Hydrogen Action Plan and use the Hydrogen Innovation Scheme and the Hydrogen Investment Programme, via the upcoming launch of the Green Hydrogen Fund, to develop Scotland's potential to become a leading nation in the production of reliable, competitive and sustainable hydrogen."



