

THE HIGHLAND COUNCIL

**NORTH PLANNING APPLICATIONS COMMITTEE
10 JANUARY 2016**

Agenda Item	5.6
Report No	PLN/007/17

16/04775/S36 : Dounreay Tri Limited

Development Site 6KM NW of Dounreay Nuclear Research Establishment, Dounreay

Report by Area Planning Manager

SUMMARY

Description : Construction of two offshore wind turbines on a single floating platform, each with an installed capacity of up to 6MW (max rotor tip of 201m and max hub height of 124m above the lowest astronomical tide), installation of export cable and deemed planning permission for erection of onshore electricity substation

Recommendation - RAISE NO OBJECTION

Ward : Landward Caithness

Development category : Major (Application under Section 36 of Electricity Act 1989)

Pre-determination hearing : None

Reason referred to Committee : Application under S36 of the Electricity Act 1989.

1. PROPOSED DEVELOPMENT AND BACKGROUND

1.1 The Highland Council has been consulted by Marine Scotland on applications submitted to them for:

1. Two Marine Licences pursuant to Section 20 of the Marine (Scotland) Act (the "2010 Act") for the deposit of substances and objects and the construction, alteration or improvements of works within the Scottish Marine Area in relation to the Windfarm; and
2. Consent under Section 36 of the Electricity Act 1989 (the "1989 Act") for the construction and operation of a Generating Station ("Section 36 Consent"); and
3. A Direction Under Section 57 Of The Town And Country Planning (Scotland) Act 1997 (As Amended) That Planning Permission For The Ancillary Onshore Development Be Deemed To Be Granted; and
4. A declaration, pursuant to Section 36A of the Electricity Act to extinguish public rights of navigation so far as they pass through those places within the Scottish Marine Area where the single structure forming part of the offshore Windfarm is to be.

1.2 The proposal incorporates works in the marine and terrestrial (land) area. The Growth and Infrastructure Act 2013 allows for the Scottish Ministers to grant deemed planning permission for onshore elements of offshore electricity generation schemes granted consent under Section 36 of the electricity Act. As such, a separate planning application shall not be submitted to the Highland Council, rather deemed consent for the associated onshore infrastructure shall be sought from the Scottish Ministers as part of the Section 36 application. This report and the Council's consideration relates only to applications 2 and 3 above.

1.3 The proposal comprises:

- construction of two offshore wind turbines on a single floating platform.

Each turbine has an installed capacity of up to 6MW (max rotor tip of 201m and max hub height of 124m above the lowest astronomical tide). This represents the maximum. 3 options are being considered by the developers, including the aforementioned 6MW turbine - a 4MW with a rotor tip of 185m and 5MW with a rotor tip of 186m. All turbine options have 3 blades are set on a yellow platform base. The offshore site area comprises a 5km x 5km area approximately 6km off the coast of Dounreay. The exact siting of the turbines within this area is not conclusively confirmed in the application. In addition to the actual turbines, the offshore elements include: a floating foundation; mooring clump weight; mooring chain and/or steel lines; drag embedment anchors; and scour protection for the anchors and export cable where necessary. The floating platform will be assembled and installed on the platform at a fabrication port and then towed out with the turbines pre-installed, only requiring hooking up to the mooring lines and export cable. Safety lighting is included on the turbines to aviation and navigation specifications.

- installation of a single 33kV export cable

This will bring power to shore immediately to the west of the Dounreay Restoration Site fence line. Installation of the subsea cable, anchors and mooring lines will take around 3 months. These will be buoyed and will take up a small area of sea space. Two cable landfall options have been submitted and indicative onshore cable corridors to connect to the landfall and substation options to the west of Dounreay and Sandside Bay. This stretch of coastline is dominated by slabbing rocks which makes conventional trenched cable landfall very challenging. Two trenchless landfall options are proposed - horizontal directional drilling or pinning. This will also include a cable joint transition bay, where the offshore and onshore cables are spliced together. Two cable landfall options are identified at this stage as both options present different risks to the developer. The onshore cable will be buried to a depth of approximately 1m, subject to ground conditions and will be installed in a trench along the cable route. It is expected that one cable will be installed in a single trench up to 3m with an associated working corridor of up to 20m. The cable route will not be finalised until a contractor is appointed. The construction period for the cable is estimated at 3 months.

- deemed planning permission for erection of onshore electricity substation or switchgear

The substation is to transfer power to the grid at or near the existing Dounreay substation. Two potential locations for the onshore substation have been submitted, these lie immediately south of the Dounreay/Vulcan compounds, adjacent to the existing Dounreay substation. The turbines will export power at

33kV. The project will require either a switchgear to connect to the distribution network at 33kV or a substation to connect to the transmission network at 132KV. The onshore substation or switchgear will include the electrical equipment required to connect the project to the grid. The entire footprint of the substation/switchgear site is likely to be an area of approximately 50m x50m (0.25ha). The majority of electrical plant should be indoors. The substation building itself will be approximately 30m long, 17.5m wide and up to 8m above finished ground level. External lighting will be used to illuminate the building but this will be intermittent and only when people are on site. Following commissioning, it is assumed that the onshore substation will operate continuously (24 hours a day, 7 days a week) except during planned shutdowns for maintenance. The onshore substation will be designed to remain in situ during the life of the wind farm, which is envisaged to be up to 25 years. The substation site will be accessed via an existing access from the A836 which was installed during the upgrade of the Dounreay-Mybster Line in 2015. The construction period for the substation is 12-18 months.

- Laydown area

For the construction of the onshore cable and its landfall, substation and if required, a horizontal directional drilling compound. It is proposed to make use of an existing area of hardstanding which was used during the construction of the existing Dounreay substation in 2013.

- Decommissioning proposals as the lifetime of the development is expected to be 25 years.

- 1.4 The Highland Council is an important consultee and views are sought regarding specifics of the proposal as outlined above, including the type and siting and design of the turbines within the identified envelope, the cable route and the siting, design and external appearance of the substation/switchgear.
- 1.5 The turbines are a demonstration project with two key objectives which are set out in the supporting information submitted by the applicant:
1. to test the performance of a multi turbine floating wind platform in a real offshore environment and use these results to refine the platform for larger scale projects overseas
 2. Verification of the economic return to provide a base for more realistic estimations for utility scale projects overseas.
- The development has an expected operational life of 25 years.
- 1.6 The applicant has undertaken a site selection exercise to identify this site and has undertaken consultation including a stakeholder drop in session held on 2 February 2016 at Caithness Horizons, Thurso and a public consultation event on 9 April 2016, also at Caithness Horizons, Thurso. A report of public consultation is included in the ES.
- 1.7 An Environmental Statement has been submitted. The assessment process makes use of the design envelope, an approach to assessment applied where the final design cannot be confirmed ahead of the determination of the application and a level of flexibility is required. The Environmental Statement (ES) therefore sets maximum and minimum turbine dimensions against which the proposal is assessed, as outlined above. It also provides an envelope for the siting of the turbines in the sea. The ES is based on the realistic worse case scenario.

The ES defines impacts and effects and cumulative impacts. It also covers: physical and coastal processes; intertidal ecology; benthic and shellfish ecology; fish ecology; marine mammals, turtles and basking sharks; marine ornithology; commercial fisheries; shipping and navigation; aviation and radar; archaeology and cultural heritage; other users of the marine environment; marine renewable energy activities; military activities; subsea cables and utilities; socio-economic; recreation and tourism; geology and hydrology; land use, agriculture and soils; terrestrial ornithology terrestrial ecology; onshore archaeology and cultural heritage; air quality; seascape, landscape and visual amenity.

1.8 It is considered that Marine Scotland is more appropriately placed to come to a view on the acceptability or otherwise of effects on the marine environment and ecology. This report notes all technical consultation responses and representations received but is principally concerned with assessment of the onshore aspects from a land use planning perspective.

1.9 **Variations:** None

2.0 **SITE DESCRIPTION**

2.1 The offshore site is located approximately 6km of the coast of Dounreay Nuclear Research Establishment. The site comprises an area of 5km x 5km, it is proposed to site the turbines within this envelope.

2.2 A 0.25ha site area is identified for the onshore elements. It is bound to the north by the coast, to the east by Dounreay Nuclear Facility/HMS Vulcan compound and to the west and south by agricultural land. The site is predominantly flat. There is a working farm located approximately 500m SW of the site area, including a house (Isauld House). The A836 is located to the south east of the site. There is an existing access from the A836 to the onshore site.

2.3 The Seascape, Landscape and Visual Assessment undertook baseline surveys within a core 45km radius study area, extended to a 60km radius to include the full extent of the Hoy and West Mainland, and Kyle of Tongue National Scenic Areas. The Seascape, Landscape and Visual Assessment section of this report considers this in more detail.

Designations included within this area are:

National Scenic Areas

- Hoy and West Mainland (Orkney)
- North West Sutherland
- Kyle of Tongue

Special Landscape Areas

- Oldshormore
- Cape Wrath and Durness
- Eriboll East and Whiten Head
- Farr Bay, Strathy and Portskerra
- The Flow Country and Berridale Coast
- Bens Griam and Loch nan Clar

- Ben Kilbreck and Loch Choire
- Loch Fleet , Loch Brora and Glen Loth
- Dunnet Head
- Duncansbay Head.

Special Protection Areas

The cliffs in the north of the site are designated as Caithness Cliffs SPA.

Gardens and Designed Landscapes

- Castle of Mey
- Melsetter House (Orkney)
- Tongue House

Wild Land

- Ben Kilbreck – Armine Forest
- Causeymire – Knockfin Flowa
- Foinaven- Ben Hee
- Ben Hope – Ben Loyal
- East Halladale Flows
- Cape Wrath
- Hoy (Orkney)

Archaeology

A number of archaeological records exist within and in proximity of the site. The applicant has considered that due to presence of known archaeology in the area the area of the application site has potential for further finds.

- 2.4 When assessing a wind farm proposal, consideration of similar developments in proximity of the proposal for cumulative effects is required. The list below sets out the projects in the wider area that are operational, approved or have been submitted but not yet determined.

Built and / or consented

- Baillie
- Forss
- Bettyhill
- Strathy North
- Hill of Lybster
- Weydale
- Achlachan
- Causeymire
- Bad a Cheo
- Halsary

Under consideration

- Strathy South (awaiting decision by Scottish Ministers)
- Strathy Wood
- Limekilns (considered by North Planning Applications Committee on 10 January 2017 – recommendation - conditional raise no objection)
- Drumholiston (expecting to respond to Scottish Government by April 2017)

3. PLANNING HISTORY

- 3.1 15/02035/PREAPP - Dounreay Tri Offshore Wind Farm. Construction and operation of a floating Offshore Wind Farm approximately 9 KM off Dounreay, consisting of three turbines of between 5 to 10MW each. A Semi-submersible foundation, six to eight anchors and associated moorings, a single marine cable of 33KV, a single terrestrial cable and infrastructure to connect to the grid.

The Planning Service highlighted that the key issues are seascape, landscape and visual impact and that these issues require to be fully addressed in a formal submission.

16/00362/SCOP - Proposed section 36 application and marine application for Dounreay Tri Floating Wind Demonstration Project

4. PUBLIC PARTICIPATION

- 4.1 Advertised :

John O’Groat Journal	18 th and 25 th November 2016
Caithness Courier	23 rd and 30 th November 2016
Edinburgh Gazette	18 th and 25 th November 2016
The Herald (Glasgow)	22 nd November 2016

Representation deadline : 6 January 2017

The Council has established practice for handling of representations in cases where it is a consultee. Representations and consultation responses are directed to Marine Scotland. The Council’s practice is to consider all representations which raise material planning issues when forming a view. The expiry of the representation deadline on Friday 6 January 2017 is the reason for the delayed conclusion and publication of this report.

Timeous representations : 5 objections, 1 support

Late representations :

- 4.2 Material considerations raised are summarised as follows:

1 representation in support:

- Employment opportunities and growth of new industry

5 representation - objections:

- Visual impact and impact on scenic beauty
- Cumulative seascape, landscape and visual impacts
- Cumulative visual impact has not been assessed
- Degradation of scenic beauty due to industrialisation of the marine environment
- Could reduce tourist related jobs in the area and impact on tourism generally
- Note that Marine Scotland concluded in their letter of 4th February 2015 that there is a potential for significant environmental effects from the proposal.
- Impact on ornithology – puffins and gannets
- Existing residents leaving the area and people being put off moving to area due to number of windfarms
- To date there has been little or no employment for local people in the construction of wind farms – limited economic benefit
- Impact on whale migration – believe these are on a cycle and not annual as the surveys submitted with the application suggest.
- People come to and live in the area for the uninterrupted views where you can see the horizon line

Not material planning considerations

- Impact on private views
- Impact on health
- Impact on house prices
- Inefficient/ineffective technology
- Set precedent for further wind farms to be built
- Caithness is already a net exporter of electricity to rest of UK. Object to any more being approved in this area
- Disturbance to the no-fishing zone around the Dounreay site which is currently seen by many local people as being a significantly positive zone for the marine life which has been recovering in this area.
- Maritime hazard and danger to shipping and increase in potential for environmental damage from ships encountering problems
- No significant community benefit for the community in Portskerra/Melvich

4.3 All letters of representation are available for inspection via the Council's eplanning portal which can be accessed through the internet www.wam.highland.gov.uk/wam. Access to computers can be made available via Planning and Development Service offices.

5.0 CONSULTATIONS

5.1 Consultations undertaken by the Highland Council

- 5.2 **Transport Planning** : No objection. A Traffic Statement (TS) has been submitted which concludes there is no potential for significant environmental impacts from traffic and transport. Mitigation measures identified include the TS and a Construction Traffic Management Plan which will form part of the Onshore Construction Method Statement. Transport Planning are generally satisfied with the methodology and content of the TS. As stated in the TS however, traffic numbers associated with the development are not yet fully understood in terms of routes and numbers. It is therefore recommended that the TS be updated when the project has progressed to a stage when reliable data is available. At this stage, a review of the routes to site for construction traffic will be required. Thereafter, a programme of mitigation/improvement works shall be agreed and carried out by the developer in consultation with the Council as Roads Authority.
- 5.3 **Coastal Planner** : No objection. Consideration relates to the intertidal and marine elements in relation to development plan policy and biodiversity and Natura duties only. As far as can be determined, the proposal complies with Policies 49, 57-60 of the adopted Highland wide Local Development Plan in relation to the marine and coastal elements. Depending on the exact final location, it would lie off a section of either 'undeveloped' or 'isolated' coastline as defined in the Highland Coastal Development Plan. However, given the distance off shore and the relatively short section of 'isolated' coast, this is not a significant issue of concern with relation to Policy 49 of the HwLDP. The proposal complies with Policy 4: Renewable Energy Generation of the Pilot Pentland Firth and Orkney Waters Marine Spatial Plan, as well as with the various biodiversity policies as far as can be ascertained. There are other specific matters for Marine Scotland to consider within their remit.
- 5.4 **Landscape Officer** : Considers that the landscape and seascape effects are underestimated in the ES but are judged to be acceptable taking all relevant matters into account. Impacts are generally greater than recognised in the ES but it is considered that these are relatively limited in extent and do not significantly compromise the characteristics of the landscape and seascape characters as a whole. Raises concerns about the acceptability of the visual impacts as depicted in the ES. These may be successfully mitigated by siting the turbines within the north west of the site identified and with a 5MW turbine with a tip height of approx. 184m above sea level. The ES assessed a tip height of 201m. The visual impacts of smaller turbines further offshore have not been demonstrated by the applicant as amended visualisations have not been submitted.
- 5.5 **Environmental Health**: No objection but request that conditions be attached regarding noise for the turbines, and for the substation/switchgear.
- 5.6 **Caithness West Community Council**: No response
- 5.7 **Consultations Undertaken by Marine Scotland**
- 5.8 **BT Radio Network Protection** : No comments

- 5.9 **Caithness District Salmon Fishery Board** : No specific comments
- 5.10 **Maritime and Coastguard Agency** : No objection . A Navigation Risk Assessment has been submitted. Subject to the developer meeting requirements set out by Maritime and Coastguard Agency, it provides a cautious acceptance of the licence request. Each turbine must be lit with a single 2000 candela red aviation light.
- 5.11 **NATS** : No objection
- 5.12 **Royal Yachting Association Scotland**: No objection subject to clarification of the rights of navigation.
- 5.13 **SEPA**: No objection subject to conditions being attached regarding submission of the final cable route, appointment of an ecological clerk of works, compliance with mitigation measures identified in ES. Note that the finalised location of the onshore infrastructure is yet to be agreed but as long as the infrastructure is located within the corridors shown, it is not considered that there will be significant environmental effect on SEPAs interests (peat, watercourses and private water supplies). Decommissioning best practice and legislation will be applied at that time.
- 5.14 **Northern District Salmon Fishery Board** – No specific comments
- 5.15 **Transport Scotland**: No objections. The proposal will not significantly impact upon the trunk road network nor will it give rise to any significant environmental impacts on receptors adjacent to the trunk road network
- 5.16 **UK Chamber of Shipping**: No specific comments
- 5.17 **RSPB Scotland**: No objections. Whilst located in an environmental sensitive region, the project is small scale and the associated potential impacts are low. A condition should be applied to require an environmental monitoring programme.
- 5.18 **Transport Scotland Ports and Harbours**: No specific comments
- 5.19 **Crown Estate**: No specific comments
- 5.20 **Scottish Fishermen’s Federation**: Comments regarding dredging and impact on decommissioning, rock dumping and the cable burial plan.
- 5.21 **OIC Marine Services**: No specific comments
- 5.22 **Pentland Firth Yacht Company**: No objections
- 5.23 **Northern Lighthouse Board**: Comments relating to Shipping and Navigational Safety
- 5.24 **Nuclear Decommissioning Authority**: No specific comments
- 5.25 **Melvich Community Council**: Concerns raised. The existing wind farm in our area, SSE’s Strathy North, as well as the proposed Strathy South wind farm have shown a good level of consideration for the impact these turbines would have on the views of those who both live and visit the area. In comparison, the developers of this proposal have clearly shown no such consideration. The appeal for a number of residents who have moved to our area are the uninterrupted views across to Orkney. Should this proposal be approved the turbines, being of such a significant height, will have a substantial impact on these views. We expect this would put off any individuals who were considering moving to Melvich and Portskerra in the future. Related to the above point, it has been noted that wind farms can have a huge impact on the house prices in the areas to which they are

visible. In a village like Melvich, where we are currently under threat of losing both our local school and care home in the future, the drop in house prices that would come with this proposal. We would ask that sensitivity to the above concerns of our village be taken into consideration when making a decision on this proposal.

- 5.26 **Historic Environment Scotland:** No objection. Suggest that a suspensive condition be applied regarding the proposed mitigation relating to marine assets.
- 5.27 **Castletown and District Community Council:** No specific comments
- 5.28 **Caithness District Salmon Fishery Boards:** No specific comments
- 5.29 **CAA:** comments regarding aviation safety and sets out safety requirements
- 5.30 **Aberdeen International Airport:** No specific comments
- 5.31 **MOD:** no objection. Comments regarding the requirement for aviation safety lighting and notification of development
- 5.32 **SNH:** No objection. Unlikely to have significant adverse impacts on international or national natural heritage interests. The project is relatively small scale with the majority of impacts being localised and (during construction) temporary in nature. Although there may be some cumulative impacts with other development, it is unlikely that these will have a significant adverse impact.
- 5.33 **Scrabster Harbour:** No objection. Supports the proposal for its environmental and economic benefits
- 5.34 **WDC Scottish Dolphin Centre:** No objection. General agreement that the level of impact on marine mammals in the area will be negligible as long as pile driving is not required. Request involvement in the development of the Vessel Management Plan and Marine Mammal Observers should be used at all times during construction and deployment of the wind farm floating platform and cable laying. Agree that there would be no adverse effect on the SACs.
- 5.35 **Marine Scotland Science:** No objection, mitigation measures to be implemented

6. DEVELOPMENT PLAN POLICY

The following policies are relevant to the assessment of the application

6.1 Highland Wide Local Development Plan 2012

Policy 28	Sustainable Development
Policy 29	Design, Quality and Place Making
Policy 31	Developer Contributions
Policy 51	Trees and Development
Policy 55	Peat and Soils
Policy 56	Travel
Policy 57	Natural, Built and Cultural Heritage
Policy 58	Protected Species
Policy 59	Other Important Species
Policy 60	Other Important Habitats
Policy 61	Landscape
Policy 63	Water Environment
Policy 67	Renewable Energy Developments

- Natural, Built and Cultural Heritage
- Other Species and Habitat Interests
- Landscape and Visual Impact
- Amenity at Sensitive Locations
- Safety and Amenity of Individuals and Individual Properties
- The Water Environment
- Safety of Airport, Defence and Emergency Service Operations
- The Operational Efficiency of Other Communications
- The Quantity and Quality of Public Access
- Other Tourism and Recreation Interests
- Traffic and Transport Interests

Policy 72

Pollution

Policy 77

Public Access

6.2 **Caithness Local Plan 2002 (As Continued in Force 2012)**

The general policies and land allocations of the Local Plan pertinent to this application have been superseded by the policies of the Highland-wide Local Development Plan.

6.3 **Caithness Onshore Supplementary Guidance Nov 2016**

Onshore Wind Energy Supplementary Guidance is a material consideration in the determination of planning applications. This requires the proposal to be assessed, as noted above, within Policy 67 of the HwLDP. The Supplementary Guidance also expands on the considerations / criteria set out in the Development Plan policy.

7.0 **OTHER MATERIAL CONSIDERATIONS**

7.1 **Caithness and Sutherland Local Development Plan: Modified Proposed Plan**

7.2 The onshore site is within area identified for Energy Business Expansion in the plan's strategy. The Plan also refers to a "strong, diverse and sustainable economy characterised as being an internationally renowned centre for renewable energy, world class engineering, land management, and sea based industries and a tourist industry that combines culture, history and adventure. One of the overall aims is to ensure that development helps to maintain and grow a strong and diverse Caithness and Sutherland Economy. The Proposed Plan confirms the boundaries of the Special Landscape Areas.

7.3 **Highland Council Supplementary Planning Policy Guidance**

The following Supplementary Guidance forms a statutory part of the development plan and is considered pertinent to the determination of this application.

- Flood Risk and Drainage Impact Assessment: Supplementary Guidance (January 2013)
- Highland Historic Environment Strategy: Supplementary Guidance (March 2013)
- Managing Waste in New Developments: Supplementary Guidance (March 2013)

- Sustainable Design Guide: Supplementary Guidance (January 2013)
- Highland Statutorily Protected Species: Supplementary Guidance (March 2014)

7.4 **Other Highland Planning Guidance**

7.5 The Highland-wide Local Development Plan is currently under review and is at Main Issues Report Stage. It is anticipated the Proposed Plan will be published in 2017.

7.6 In addition to the above, guidance sets out further advice on delivery of major developments in a number of documents. This includes Construction Environmental Management Process for Large Scale Projects and The Highland Council Visualisation Standards for Wind Energy Developments to which all proposals are expected to adhere to.

7.7 **Other Policy/Guidance**

- Pilot Pentland Firth and Orkney Waters Marine Spatial Plan

7.8 **Scottish Government Planning Policy and Guidance (June 2014)**

7.9 Scottish Planning Policy (SPP) advances principal policies on Sustainability and Placemaking, and subject policies on A Successful, Sustainable Place; A Low Carbon Place; A Natural, Resilient Place; and A Connected Place. It also highlights that the Development Plan continues to be the starting point of decision making on planning applications. The content of the SPP is a material consideration that carries significant weight, although it is for the decision maker to determine the appropriate weight to be afforded to it in each case.

Other Material Planning Considerations

- 7.10
- National Planning Framework for Scotland 3
 - PAN 56 – Planning and Noise
 - PAN 58 – Environmental Impact Assessment
 - PAN 60 – Planning for Natural Heritage
 - 2020 Routemap for Renewable Energy

8.0 **PLANNING APPRAISAL**

8.1 As explained in Section 1 of this report, the application has been submitted to the Scottish Government for approval under Section 36 of the Electricity Act 1989 (as amended). While not a planning application, the Council processes S36 applications in the same way as a planning application as consent under the Electricity Act will carry with it deemed planning permission under Section 57(2) of the Town and Country Planning Scotland Act 1997 (as amended).

8.2 Determining Issues

The determining issues for the Council as Planning Authority responding to this consultation are:

- do the proposals accord with the development plan?
- if they do accord, are there any compelling reasons for objecting to them?
- if they do not accord, are there any compelling reasons for not objecting to them?

8.3 Planning Considerations

In order to address the determining issues, the Committee must consider

- Development Plan
- National Policy
- Roads and Transport
- Water, Flood Risk, Drainage, Peat and Soil
- Natural Heritage including ornithology and fisheries
- Built and Cultural Heritage
- Landscape, Seascape and Visual Impact (including Wild Land)
- Design
- Access and Recreation
- Noise and Shadow Flicker
- Telecommunications
- Aviation
- Shipping and Navigation
- Fisheries
- Construction
- Geology and Hydrology
- Socio- Economics, Recreation and Tourism
- Other material considerations

8.4 Development Plan

8.5 The Development Plan comprises the adopted Highland wide Local Development Plan (HwLDP) and the Caithness Local Plan 2002 (as continued in force). The principal HwLDP policy on which the application needs to be determined is Policy 67 – Renewable Energy. The other HwLDP policies listed in the policy section of this report are also relevant and the application must be assessed against these. The proposal also requires to be considered in the context of the emerging Caithness and Sutherland Local Development Plan which is currently at modified proposed plan stage

8.6 Policy 67 of the adopted Highland wide Local Development sets out that renewable energy development should be well related to the source of the primary renewable resource needed for operation, the contribution of the proposed development in meeting renewable energy targets and positive / negative effects on the local and national economy as well as all other relevant policies of the development plan and other relevant guidance. In that context the Council will support proposals where it is satisfied they are located, sited and designed such as they will not be

significantly detrimental overall individually or cumulatively with other developments having regard to the specified criteria. Such an approach is consistent with the concept of Sustainable Design (Policy 28) to achieve the right development in the right place; it is not to allow development at any cost. If the Council is satisfied that there will be no significant adverse impact then the application will accord with the Development Plan.

8.7 Draft Caithness Landscape Sensitivity Study

8.8 The draft Landscape Sensitivity Appraisal for Caithness has been published for public consultation. Responses are due by 20 January 2017. This sets out landscape sensitivity and is designed as a tool for the assessment of development within the landscape. The Appraisal does state the importance of views of dramatic sea stacks and cliff faces and panoramic and extensive sea views, views across the north mainland coast and to Orkney, experience of weather, open skies and sea and coastal wildlife.

8.9 Caithness and Sutherland Local Development Plan Proposed Plan (CaSPlan)

8.10 The proposed CaSPlan recognises the potential for marine renewable energy generation, particularly in the north-east of the Plan area which is identified in the Spatial Strategy for energy business expansion. This reflects the National Planning Framework 3 (NPF3) which designates the Orkney, Pentland Firth and North Caithness as an Area of Coordinated Action of marine renewables. The proposed CaSPlan aims to maximise the benefits to the local economy by adopting a more targeted, but still flexible, approach to identifying business and industrial land. It builds on the work carried out as part of the North Highland Onshore Vision (NHOV) which identified land use planning actions to support the growth of marine renewables. The Caithness and Sutherland Vision and Spatial Strategy 2030 states that the area will become an international centre of excellence for marine renewables.

8.11 Paragraph 74 of the CASPlan sets out that the Special Landscape Area boundaries have been revised for CASPlan to ensure “key designated landscape features are not severed and that distinct landscapes are preserved.” The boundaries set out in CASPlan are supported by a background paper which includes citations for the Special Landscape Areas. Policies 28, 57, 61 and 67 of the HwLDP seek to safeguard these regionally important landscapes. The impact of this development on landscape is primarily assessed in the Design, Landscape and Visual Impact (including Wild Land) section of this report.

8.12 National Policy

8.13 There is strong support for renewable energy development in national policy. The Scottish Government has a target of 50% of Scotland’s electricity demand generated from renewable resources by 2015 and 100% of demand by 2020. These targets are not a cap. As the technology is well developed it is expected that the majority of this energy will come from on-shore wind farms.

- 8.14 Notwithstanding the overarching context of support, SPP recognises that the need for energy and the need to protect and enhance Scotland's natural and historic environment must be regarded as compatible goals. The planning system has a significant role in securing appropriate protection to the natural and historic environment without unreasonably restricting the potential for renewable energy. National policies highlight potential areas of conflict but also advise that detrimental effects can often be mitigated or effective planning conditions can be used to overcome potential objections to development.
- 8.15 Criteria outlined within SPP for the assessment of applications include landscape and visual impact; effects on heritage and historic environment; contribution to renewable energy targets; effect on the local and national economy and tourism and recreation interests; benefits and dis-benefits to communities; aviation and telecommunications; development with the peat environment, noise and shadow flicker; and cumulative impact.
- 8.16 Orkney, Pentland Firth and North Caithness is identified as an area of coordinated action in NPF3; a location of particular significance to the delivery of the Scottish Government's low carbon strategy. NPF3 states that the area is an internationally renowned historic and natural environment, with significant future prospects for growth and innovation. There are unparalleled opportunities for marine renewable energy development, generating significant new business and employment opportunities for the surrounding coastal and island communities.
- 8.17 Notwithstanding assessment of the specifics of the proposal, The principle of the development proposal could be seen to be compatible with Scottish Government policy and guidance and increase its overall contribution to the Government, UK and European energy targets.
- 8.18 Energy and Economics
- 8.19 The Council continues to respond positively to the Government's renewable energy agenda. Nationally onshore wind energy capacity at end of Quarter 2, 2016 was 9,618MW. Highland onshore wind energy projects in operation/under construction or approved as of January 2016 have a capacity to generate 1,991MW; approximately 20.7% of the national installed capacity. There is a further 2,116MW off-shore wind in Highland.
- 8.20 While the Council has effectively met its own 2015 target, as previously set out in the Highland Renewable Energy Strategy, it remains the case that there are areas of Highland capable of satisfactorily absorbing renewable developments without significant effects. However, equally the Council could take a more selective approach to determining which wind farm developments should be supported, consistent with national and local policy. This is not treating targets as a cap or suggesting that targets cannot be exceeded; simply recognition of the balance that is called for in both national and local policy. The HRES sets out planning requirement and guidance for offshore wind development.

8.21 Roads and Transport

8.22 A Traffic Statement has been submitted as part of the ES. This concludes that the proposal will not result in significant adverse environmental impacts associated with traffic and transport. Some equipment and materials will come by road, principally A836 and A9(T). There are also options for material to be sourced locally or brought to Caithness by sea, rail or road. An existing access track from the A836 to the onshore site could be upgraded, if necessary, and temporarily extended by approximately 300m to serve the onshore site. The ES outlines that during operations there will be minimal traffic associated with maintenance activities. Decommissioning traffic levels are assumed to be no higher than those associated with construction. There will be a limited amount of traffic to and from the substation for general operation and maintenance purposes. It is intended that the turbines will be assembled at a port and taken by sea to their offshore site.

Transport Planning have no objections subject to the Traffic Statement being updated prior to the commencement of development. Submission of a Construction Traffic Management Plan can be secured by condition. Transport Scotland have no objections.

8.23 Water, Flood Risk, Drainage and Peat and Soil

8.24 No significant effects on agriculture and soils are predicted from construction activities or temporary occupation of land. Mitigation measures are outlined in the ES. This matter has been considered by SEPA. SEPA are content with the proposals subject to conditions regarding submission of the final details of cable routes. A Construction Environmental Management Document/Plan (CEMD) requires to be produced.

8.25 Submission of detailed drainage proposals once the final onshore proposals have been agreed can be secured by condition.

8.26 Natural Heritage

8.27 SNH and Marine Scotland Science (MSS) have provided technical consultation responses. It is considered that SNH and MSS are appropriately placed to advise the Council on these matters. The Planning Service is in general agreement with the views expressed by SNH and MSS with regard to natural heritage and considers that subject to appropriate mitigation, the development is acceptable in this regard.

8.28 Coastal Processes

The ES concludes that there will be no significant impacts.

8.29 European Protected Species (Cetaceans)

The ES concludes that the impacts on cetaceans are likely to be minor/negligible. SNH request that a detailed entanglement monitoring and reporting schedule is provided, and support the limiting of vessel speeds and the designation of a navigations route to minimise the potential for collision.

8.30 Fish and Shellfish
The ES concludes that the impacts on fish and shellfish is likely to be minor/negligible. SNH and Marine Scotland Science broadly agree with this in their consultation response and support the mitigation measures outlined in the ES.

8.31 Benthic Ecology
SNH agree with the findings of the ES, that impacts on benthic features will be minor/negligible. SNH advise that a benthic survey of the cable route and mooring system be undertaken prior to installation. SNH do state in their consultation response that they consider that the cable route has not been dealt with very well in the ES, and there could be damage to Priority Marine features that we are not aware of. However, due to the scale of the development, SNH conclude that it is unlikely that there will be any significant adverse impacts in relation to relevant protected species or habitats. It is an open coastline subject to dynamic conditions, and it is likely that species and habitats are typical of those found in these environments, and are able to cope with some level of disturbance.

Marine Scotland Science have advised that they are also generally happy with the ES with regard to benthic ecology but have advised that further high resolution video and acoustic surveys should be completed to create more robust mapping.

8.32 Ornithology
The ES concludes that impacts on bird features will be minor/negligible. SNH agree overall and advise that monitoring should be undertaken to provide data on the behaviour of bird species to the platform and aerial surveys are continued during the breeding season, and covering pre- construction, construction, and post construction to monitor sea bird densities.

8.33 Marine Mammals
Marine Scotland Science (MSS) have provided detailed consultation comments. MSS agree with the list of impacts assessed and that due to the lack of pile driving, the development presented a much reduced risk of acoustic injury or disturbance to marine mammals. The main activities with the potential to cause disturbance are vessel traffic and cable laying. Consideration does not appear to have been given to the proximity of the development side to the Inner Hebrides and the Minches cSAC for harbour porpoise but MSS consider that it is unlikely that the that the development will have an adverse effect on the SAC. Mitigation including vessel management plan and monitoring programme is required.

SNH have undertaken a detailed Habitats Regulation Appraisal for the relevant SPAs/pSPAs. The key potential impacts of the proposal are collision risk and displacement during the operation an maintenance phase of the project . Scottish Ministers will have to carry out a Habitats Regulation Appraisal and Appropriate Assessment as required.

8.34 Commercial Fisheries
The ES states that the site is outwith intensively fished areas. No objection has been received in relation to commercial fisheries and it is therefore considered that there are no significant impacts on fisheries assuming that mitigation measures are met.

8.35 Onshore Built and Cultural Heritage and Archaeology

8.36 The onshore interest relates to the onshore cable route. The area around and to the east of Sandside Bay contains a wide scattering of recorded archaeological features from prehistoric to more recent human activity, including scheduled monuments. Additionally it is likely that as yet unrecorded archaeological features may be present in this area. The ES notes that there is a concentration of sites along the coastal margin of the onshore site boundary and one non-designated site is located within the area of one of the cable corridor options. The ES states if cultural heritage assets cannot be avoided during excavation, then mitigation in the form of excavation or recording will be required. The ES includes provision for archaeological evaluations prior to construction. Historic Environment Scotland and the Historic Environment Team have considered the proposals and the Planning Service generally agrees with their conclusions. Subject to appropriate mitigation, it is not considered that the development will result in significant impacts on cultural heritage and archaeology.

8.37 Offshore Archaeology

No sites with statutory designation or other sites have been identified at this point.

Mitigation is identified in the ES and appropriate investigation and recording in line with the Council's standards can be secured by condition.

8.38 Design, Seascape, Landscape and Visual Amenity

8.39 In land use planning terms, the potential for seascape, landscape and visual impacts resulting from the turbines are key considerations. This aspect has been subject to detailed discussions with the Council's Landscape Officer pre application and during processing of the application.

The Caithness landscape is unique in Highland due to its particular and distinct natural landforms and settlement pattern. It is home to a range of internationally important features including the Flow Country and serves as a gateway to the Northern Isles and as a key tourist destination, including John O'Groats and Dunnet Head. It is renowned for its distinct environments; the coast with high cliffs and sandy bays, a moorland interior and settled rolling landscapes. Although offshore, the turbines would be visible for those travelling between Caithness and Sutherland. The transition between Caithness and Sutherland is significant with travellers moving between the rugged Sutherland landform and the gradual and agrarian coastal landscape setting of Caithness.

8.40 Onshore

It is not considered that the onshore elements will result in significant adverse landscape impacts given the siting and scale of these within the site area identified. Indicative details of the substation/switchgear have been provided. It is envisaged that the substation/switchgear will be of a design, scale, mass and external appearance that is in keeping with the existing Dounreay substation building i.e. a utilitarian shed with a dual pitch roof in a recessive finish and colour. It is considered that this type of design is appropriate in this location given the surrounding context of these types of buildings. It is considered that a high quality

design solution and use of appropriate finishing materials is required. A not dissimilar example of what is deemed appropriate of functional buildings of this form and scale were recently approved and constructed at Ness of Quoy for Meygen. A condition will be used to secure submission of details of exact siting, design and external appearance of the onshore elements. Options have been presented for the cable route, it is considered that the options could be accommodated without significant landscape or visual amenity issues.

8.41 Offshore

The assessment is based on a design envelope, the site identified for the offshore turbines is referred to as the study area in the ES and comprises an area of 5km x 5km, which is 6km to the shore at its closest point. Given the uncertainty in the siting and scale of the turbines and platform within the study area, the worst case scenario is assessed in the ES - 2 no 6MW turbines, 201m to tip in height. The applicant has recently advised the Planning Service by email dated 1 December 2016 that a sea bed survey was completed after the application was submitted. The sea bed survey results confirm that the ground conditions in the NW quadrant of the development site is suitable for anchors. Further investigations will be undertaken in summer 2017 to identify the final location. However, the applicant has indicated informally that the platform will be located approximately 9km at its closest point to shore. The applicant also advised the Planning Service in the same email that they have selected a preferred turbine supplier and it is intended to use a 5MW turbine with a tip height of approximately 184m above sea level. No detailed information has been submitted to confirm this and as far as the Planning Service is aware, this is an informal point of clarification and therefore the application as currently presented remains based on the potential 3 turbine options within the offshore site area identified.

8.42 Visual Impact

The visual receptors for the development have all been assessed in the ES. 8 viewpoints have been provided on the mainland, 1 on Orkney and 1 from the Scrabster-Stromness ferry. The Planning Service contributed that the selection of viewpoints to be included. Comments were made with regard to the position that some of the images were taken from.

8.43 The ES states that the project will introduce two very large vertical manmade features in views of the open sea beyond Sandside Bay, and it considers that the yellow platform will largely read as a recessive horizontal element merging with the sea surface. The ES notes visual context of the great majority of views is dominated by the large, expansive scale of the open sea, occasionally also including distant coastal features and hills or mountains further inland.

The ES states that the extent of the ZTV (fig 15.2) indicates a number of key characteristics:

- Relatively continuous visibility along the coastline and immediate hinterland extending from Strathy Point to Thurso Bay;
- Beyond this central zone, the configuration of the coastline has a much stronger effect, with headlands and bays frequently restricting visibility. Areas of visibility include Dunnet Head and Duncansbay Head, but there are also substantial areas which are almost entirely screened, including Thurso Bay, Loch Eriboll and Tounge Bay;

- Further inland, elevation, relief restricts theoretical visibility primarily to areas of higher ground;
 - In many inland areas, actual visibility will be significantly reduced by the extensive areas of forestry plantation
- 8.44 The ES concludes that there will be no significant effects on views experienced at viewpoints. The relatively low magnitude of change was the primary determinant in instances where the sensitivity of view points was high or very high; the predominantly long or very long separation distances and small proportion of the view affected by the project being judged as particularly important. The turbines will be lit (at the nacelle) with red flashing lights and the platforms with white flashing lights. The ES states that it has taken into account the night time effects of lighting in the worst case scenario and in the context of other sources of lighting.
- 8.45 Both the Planning Authority and SNH have considered the assessment and the potential for visual impacts of the proposal. In terms of methodology employed for the visual impact assessment, the visualisations prepared for this project do not meet the standards laid out by The Highland Council. The applicant was advised that visualisations require to be produced in accordance with the Council's standards at pre-application stage, and again during processing of the application. While the applicants have explained that the degree of haze present in some images has been unavoidable due to conditions in the area, it is considered by the Planning Service that the assessment texts fails to acknowledge this or offer explanation of how this has been accounted for in the assessment.
- 8.46 In Viewpoints 4 (Drum Holliston Car Park), 7 (Dunnet Head) and 11 (A836 east of Forss) the Planning Service considers that the montage presents the turbines in such a way that they do not reasonably represent a worst case scenario of clearly perceptible turbines with appropriate lighting.
- 8.47 The sequential route assessment also concludes that only the A9 northbound would experience an effect as high as Moderate/minor which is not deemed to be significant.
- 8.48 Of the 10 assessed viewpoints which are relevant to the Highland Council area, five have been given an impact assessment of minor/moderate which is declared to be not in accordance with the assessment matrix. Reasons are given of Magnitude of Change being considered the primary determinant and there being either limited geographical extent of change or long distance from development coupled with limited proportion of view affected. It is not clear to the Planning Service why the Magnitude of Change assessment itself does not take these factors into account giving an assessment which would accord with the matrix. With half of the selected viewpoints being on the boundary of a significant effect, it would be appropriate to look at the degree of exposure to borderline effects which are experienced by receptors within categories. These are the effects which receptors experience and are aware of as they move around the landscape. Receptors, particularly local residents, remain aware of developments when they are out of view, and may not be travelling the entirety of any numbered route. Therefore figures for sequential routes which measure the percentage of route with visibility can be misleading and tend to underestimate effects as they will actually be experienced.

- 8.49 The Planning Service considers that there are two main aspects in which the overall visual impact of this development is understated.
1. The two most more westerly viewpoints, VPs 2 (Strathy Point Car Park) and 3 (Portskerra/Melvich) and routes afford, in clear conditions, views to Orkney rather than views across open sea. Receptors can see that they are looking across a Firth or Sound, and remain aware of this even when visibility is not clear. Therefore the view assessment should take account of perception on scale of the Pentland Firth and on the landforms of Hoy beyond. This may be applicable to the more panoramic views from Viewpoint one as well where the development is not seen between Orkney and Caithness but can be seen in context of the narrowing of the Firth. This will generally increase the magnitude of change for those views and routes where the development would be seem back dropped by Orkney and establish a significant adverse impact.
 2. The impact on Sequential Routes gives percentage of route within the study area affected. For many users of routes this is not a helpful metric as they will be moving about within the Study Area, between their settlement of residence and Thurso or other workplace/service location and may have the majority of their regular experience of the route and area affected.
- 8.50 It is noted that SNH in their consultation response have also commented that the ES Technical Appendices 15.5 and 27.4 Visual Material informing the visual impact assessment is poor in quality. Primarily the clarity of rendering in the modelling of the turbines entails that the turbines in many 'closer' views are difficult to discern on the photo montages, even though in many instances the turbines would be front lit, due to the position of the development with respect to the majority of receptors. SNH also consider that the visualisations in particular the photomontages, underestimate the predicted visibility of the turbines and could be misleading. SNH consider that in viewpoints 2 (Strathy Point Car Park), 3 (Portskerra/Melvich), 4 (Drum Holliston Car Park), 5 (Sandside Head) and 6 (St Mary's Chapel Forss) from the immediate coastal setting and sequentially along the A836 (a distance of approx. 22kms between Strathy and Forss) there will be intervals with moderately significant cumulative effects. This partially relates to the higher sensitivity of the viewpoint (residents and visitors) at the viewpoints and travelling along the A836, but also the very large scale of the turbines and the uncharacteristic seascape context of the development. The A836 is on the North Coast 500 Route. In addition, there will be cumulative effects on the baseline views where there is already experience of onshore development at Forss and Bailie. Mitigating the impact is the relatively small footprint of the development which appears well contained by the much wider panorama of coast and sea. SNH consider localised impacts to be significant but largely localised. SNH have commented that they consider that the bright navigational yellow of the platform, chosen to increase visibility will visually contrast rather than merge with the sea surface.
- 8.51 The Planning Service also considers that the localised visual effects which would be experienced by receptors living, visiting and travelling in the west of the study area and as depicted in the SLVIA are significant as opposed to that stated in the ES.

- 8.52 The Planning Service considers that there is a degree to which people travelling around and through the area will be aware that there is a development both north and south of the A836. Given the undulating nature of the landform, the sense of encirclement will be muted. It is likely that the actual visibility would limit any sense of encirclement to a restricted area between Forss and Dounreay, where it won't affect a settlement. Although properties around Achreamie and Balmore may experience an increase in that effect, it is not expected that this will be to a significant degree.
- 8.53 The standard of information presented by the applicant is not in accordance with the Council's standards. In this regard, the value of these in assisting with the assessment of the proposal is considered to be questionable and it is not considered that an assessment has been presented that robustly demonstrates the acceptability of the proposals. It is accepted by the Planning Service and SNH that the visualisations are however a tool in the assessment of the application and that our assessments have also relied on the wirelines and analysis as well as site visits. In response to the concerns raised, the applicant has advised that they consider that the assessment is robust and has been undertaken in accordance with relevant guidance and methodology by professional landscape architects and assesses the worst case scenario.
- 8.54 Visual Impact Assessment Conclusion
It is acknowledged that the SLVIA in the ES is based on a worst case scenario and it is accepted that visual assessment is a subjective matter. It is clear that the proposal will introduce a new feature to the visual influence of the northern coastline of Caithness and Sutherland. Taking into account the ES, and technical advice from the Council's Landscape Advisor and SNH, it is considered that the proposal is likely to have localised significant visual impacts.
- 8.55 Adverse visual impacts may be successfully mitigated by the reduction in height of the turbines and the siting of these in the north west of the study area, a further 3km offshore from that shown in the ES as has been mooted by the applicant. The likelihood is that the siting and reduction in height will make the visual impact acceptable is based on the following: navigational lights will appear reduced with distance; there would also be some increased visibility of the turbine base as some masking by landform may be lost due to the relative angle of view, this might have the perceived benefit in some situations of clarifying to the viewer that the turbines are offshore; a lower turbine height would create less of a visual focus and have a reduced impact on perception of scale of the channel and landforms.
- 8.56 The mitigation outlined above is the preference of the Planning Service, but as this has not been formally proposed, the assessment needs to consider the application as submitted. It is acknowledged the proposal will have significant localised impact. However given, the small footprint of the offshore site, the predominantly long or very long separation distances and small proportion of the view affected by the proposal and the containment of the development within the much wider panorama of coast and sea allow this to be viewed as acceptable in the wider landscape and seascape setting of the area. Whilst acknowledging the concerns of the Council's Landscape Officer and SNH, the Planning Service considers the localised visual impacts of the proposal to be acceptable on balance.

8.57 Seascape and Landscape

Likely Impacts on Seascape Resource

The ES defines the baseline seascape consists of units at local, regional and national level. The ES concludes that given that offshore site is not attributed physically to any of these units all effects will be indirect only, resulting from visibility of the infrastructure which will affect their characteristics and qualities to varying degrees. The ES identifies significant effects on Sandside Bay and on 3 other Local Coastal Character areas which are in Orkney.

8.58 Likely Impact on Landscape Resource

The ES states that baseline landscape resource consist of landscape character types, which occur in discrete geographical units across the study area, in addition to the specific designated landscape areas. The effects on all these receptors will also be indirect only as the project does not physically affect any unit or area. The ES identifies there will be no significant effects on landscape character types. The ES identified that there would be significant effects on one landscape designation – the Farr Bay, Strathy and Portskerra Special Landscape Area would experience a significant effect primarily due to views from the coastline being explicitly protected in the citation and the fact that a high proportion of the coastline would be affected by views of the development.

8.59 The potential for landscape/seascape impacts has been informed by technical input from the Council's Landscape Officer and SNH. SNH consider that the location of the site at least 6km from the coastline mitigates the level of impact on coastal character areas such that complex interactions between coast and the development are largely avoided. The relatively small footprint of the offshore development contributes to this mitigation, such that the development is contained and limited in spread, reducing or avoiding intrusion on the experience of indented coastline and series of bays. In contrast, the vertical scale of the turbines, located on a yellow platform heightens visibility as an unfamiliar and uncharacteristic feature in the Pentland Firth waters. However, onshore turbines (of a similar, albeit smaller 3 bladed design) exist within the landscape and immediate coastal and landscape proximity of the site.

8.60 SNH consider that there will be moderate significant impacts (which include cumulative impacts) on local coastal character, in Landscape Coastal Character Areas 39 (Melvich Bay to Sandside Bay), 40 (Sandside Bay) and 41 (Sandside Bay to Ness of Litter), which partially relates to the uncharacteristic context of the seascape site and scale of the turbines. However this is mitigated by the lower sensitivity of the coastal character and the context of the type of wind and wider energy production infrastructure and turbines within the area, including the overhead pylon lines which terminate at the Dounreay facility. Immediately west of this area, where there is potential for impacts on character along to Strathy Point (and further west), the coastal and landscape character increases in wildness qualities, with a more elevated and far less managed land cover, more open upland moorland and a rugged rocky coastline (LCCAs 35 to 37 Strathy Point, Strathy Bay, Strathy Bay to Melvich Bay). The level of sensitivity of this landscape increases markedly. Whilst the distance between the character areas and development starts to increase, where the orientation of coast incorporates the

seascape of the site, the turbines will impact potentially significantly. In particular there are likely to be cumulative impacts where the proposal will extend the experience of turbines as a feature in the coastal character areas (in addition to the existing onshore turbines at Forss and Baillie). Contrary to the ES, SNH consider there to be potential for moderate and therefore significant effects on sections of coastal character extending between LCCAs 35 to 41 (Strathy Point to Ness of Litter). SNH consider these impacts to be largely localised. The magnitude of change is increased where the proposal introduces additional or new areas of change and experience of turbines into the coastal character further west.

8.61 With regard to the LCCA assessments, the Planning Service agrees with SNH and also considers that the LCCA assessments generally do not account for impacts which arise in perception of the LCCA from points outwith the LCCA. This is particularly significant for LCCA 35 Strathy Point where the character of the cliffs and elevated headlands is mostly seen from outside the LCCA. Where the offshore development is seen in association with Strathy Point, the cliffs and headlands may seem diminished in perceived scale by comparison with the development, making this a significant impact.

8.62 Cumulative Impacts on Seascape, Landscape and Visual Impacts

The ES lists projects to be included in the cumulative assessment and projects taking into account are also shown on figure no. 15.10. Figure 15.10 omits a number of wind farm developments within the identified study area including Bettyhill, Strathy North, Drum Holliston, Forss, Baillie, Causeymire and Limekilns. The omission of these from figure 15.10 is misleading. The Beatrice and Moray offshore developments are not covered by the assessment as these are outwith the 60km study area identified by the applicant.

8.63 The ES concludes that there are no significant cumulative effects on LCCAs or on NSAs, Gardens and Designed Landscapes, Wild Land.

The ES concludes that there will be significant cumulative effects on Farr Bay, Strathy and Portskerra Special Landscape Area

The ES concludes that the A9 north bound is the only route assessed as experiencing moderate/minor effect. The assessment identified there would be no significant cumulative effects on the route.

8.64 SNH have commented that whilst they support the adoption of a proportional approach to the assessment of cumulative effects, they disagree with the first 'rule' which has been applied (ES para 15.143), where the cumulative assessment for seascape receptors (LCCAs) includes only the offshore developments. By their very nature, LCCAs focus on the land / sea interface and comprise both terrestrial and maritime components in their character. As such, to rule out consideration of wind development in planning which are proposed along the seaboard within or adjacent to the LCCAs entails that the cumulative assessment is incomplete and results of assessment therefore misleading. Typically 'rules' of this nature which step away from conventional assessment guidance should be agreed with statutory consultees in advance. SNH consider however that the moderate significant landscape, visual and coastal effects predicated are likely to be contained between

Strathy Point and Litter Ness. As such potential cumulative significant effects are likely to reflect this analysis and pattern of effects, and are unlikely to trigger issues of national interest to SNH. The Planning Authority agrees that there will be moderate significant, visual and coastal effects within a localised area.

8.65 Landscape and Seascape Impacts Conclusion

There are some elements where the assessment minimises the landscape and seascape impacts. The most significant of these is on the Special Landscape Area at Farr Bay, Strathy and Portskerra as this is on the most 'limited resource'. The impacts on the Landscape Character and Local Coastal Character are limited to relatively small areas of a character type. Based on judgement, whilst the landscape and seascape effects appear to be underestimated in the ES, these are judged to be acceptable on the basis that these are relatively limited in extent. Whilst there are some impacts on perception of scale of the landscape, the coastal and landscape characters are generally extensive enough that this effect does not significantly compromise the defining characteristics of the characters as a whole.

8.66 National Scenic Areas

There are 3 NSAs within or partially within the extended 60km radius study area: Hoy (Orkney) and West Mainland; North West Sutherland; Kyle of Tongue. Figure 15.7 Combined ZTV and Landscape Designation illustrates visibility along the north coastline of the Kyle of Tongue NSA and the western coastline of the Hoy and West Mainland NSA. SNH consider that the relatively small footprint of the development and distance from NSAs mitigates significant effects.

8.67 Wild Land Areas

The site is not within a wild land area and therefore para 215 of SPP does not apply, but the general test considering the effects on wild land as set out in para 169 of SPP and reflected in Policy 67 of the HwLDP is relevant. The introduction of turbines and other infrastructure into views from the wild land area and the introduction of a dominant contemporary landuse visible from the wild land area affecting the perceptual qualities of wildness. SNH agree with the assessment in the ES assessment of effect, that for the majority of wild land areas, within the core and extended study area, that there would be minor or negligible impact. For Wild Land Area 39 East Halladale Flows, at approximately 10km to the south of the site, there is predicated visibility within the northern extent. However, SNH agree with the ES that the visibility of turbines is unlikely to be significant and not affect the integrity of the Wild Land Area. On balance, having considered SNH's assessment and the ES, it is agreed that there would be no impact on the physical or perceptual qualities of the wild land.

8.68 Access and Recreation

8.69 The location of the turbine platform has no direct impact on land based public recreational access. The location of the proposed cable landfall at Sandside Bay is a local well used recreational area and there are two core paths providing access to the Bay from Reay. There is expected to be limited impact on recreational access during operation. Maintenance of access during construction can be secured by condition.

The ES includes mitigation including maintenance of passage. Details can be secured by condition. It is expected that during operation, the corridor for the underground cable and landfall will revert to land where access rights are accessible.

8.70 Other Users of the Marine Environment

No significant impacts to other users of the marine environment to their associated activities (marine renewable energy, military and electrical cable installation) has been identified by the ES. Consultation responses have been provided by relevant parties.

8.71 Noise, Shadow Flicker and Amenity

8.72 Offshore

It is not considered that the turbines will result in unacceptable noise or shadow flicker issues. As a safeguard, upper noise limits can be secured by condition.

Onshore

No residential or commercial properties would be significantly affected by the construction of the onshore works. Upper noise limits for the operation of the substation/switchgear can be secured by condition. Construction will be controlled under the Control of Pollution Act 1974 (as amended).

8.73 Telecommunications

8.74 No concerns have been raised in relation to potential interference with radio / television networks in the locality. A condition should nonetheless be sought to secure a scheme of mitigation should an issue arise.

8.75 Aviation

8.76 The aviation industry and provision of Air Navigation Services are regulated through extensive legislation out with the planning system. The proposal has been subject to consultation with technical bodies. There are no objections from the technical bodies. Mitigation is identified in the ES inclusion notification to relevant parties and lighting. This can be controlled by condition.

8.77 Shipping and Navigation

8.78 A Marine Safety Navigational Risk Assessment has been produced. The assessment identified the area as being of relatively low vessel traffic compared to the wider Pentland Firth area. Mitigation has been identified including applying standard industry practice and relevant consultees have provided responses and it is considered that the development is acceptable in this regard subject to appropriate mitigation.

8.79 Fisheries

8.80 The ES identifies four key fisheries in relation to the proposal. No significant impacts are identified arising from the proposal in terms of loss of fishing grounds, obstruction, displacement or indirect impacts due to low intensity of activity and availability of fishing grounds in the wider sea. Potential moderate impacts are identified to inshore creel fishery due to loss of access to fishing grounds, localised nature of their fishing activity and greater sensitivity to change. Potential impacts were identified from the risk of gear damage as a result of snagging gear on infrastructure, but mitigation measures have been identified in terms of application and monitoring of operational safety zone. A Fisheries Management Plan and Fisheries Liaison Officer are identified as mitigation. The proposal has been subject to consultation with relevant fisheries bodies.

8.81 Construction - Air quality

8.82 Onshore construction activities could give rise to some local air quality impacts associated with dust. Given the location, and distance from residential properties, it is not considered to be a significant issue. The mitigation outlined in the ES is appropriate. Submission of a Construction Environmental Management Plan is conditioned

8.83 Geology and Hydrology

8.84 There are no geologically designated sites within the site boundary for the onshore works. Sandside SSSI is location just over 800m from the SW edge of the cable corridor area. Whilst this is not designated specifically for its geological interests the sand dunes present are fundamental plant species. The ES states that route of the cable duct and associated infrastructure requires to be designed to avoid these. If this is not possible then horizontal directional drilling should be the preferred method of installing the cable duct below the dunes.

Other than a field drain, there are no watercourses present within the site boundary. The nearest watercourses are the Burn of Isauld, approx 800m from the SW boundary of the site and the Dounreay burn which flows in a NW direction approx. 350m to the NE of the boundary.

No private water supplies have been identified in the vicinity of the site.

The ES identified site is at a very limited risk of flooding. It is considered appropriate to condition submission of Flood Risk Assessment once the onshore sites are fully selected.

No significant residual impacts are identified for pollution of watercourses and disruption to groundwater flow. Mitigation measures are identified, following the requirements of the Construction Environmental Management Documents for the project.

A flood and drainage impact assessment and strategy will be developed for the onshore development prior to construction beginning, submission of this can be secured by condition.

8.85 Socio-Economics, Recreation and Tourism

8.86 The key considerations for this are where the construction activity will be based, where the commissioning of the floating platform occurs and where the operations and maintenance base is located. Locations for these activities will be identified during the detailed design phase. Socio-economic impacts were assessed in the ES are largely positive with direct and indirect effects such as job creation, value added and income generated in the economy. The key impact being the potential creation of local employment and business opportunities. The actual number of jobs that will be created will not be fully known until the plans are more fully developed. It is estimated that around 240 construction jobs have the potential to be created. The operation and management phase is estimated to create around 11 jobs for the 25 year lifespan of the project.

8.87 The developer issued a press release on 6 January 2017 stating that the works will be carried out by Global Energy Group at Nigg Energy Park and that they have entered into an agreement with Scrabster Port for servicing. The press release states that the proposal will create 7 full time jobs and support many other jobs locally ranging from the Harbour Authority itself, through to fuel suppliers, craneage and other supply chain activities. The proposal has the potential to power up to 8,000 homes.

8.88 The ES considers the potential impacts on tourism where visitors are deterred from visiting due to disruption during construction and decommissioning; industrialisation of the local seascape during construction works and direct impact to tourism whereby visitors are attracted or deterred from visiting the area due to the presence of the windfarm. The ES considers that impacts on tourism will be negligible due to the small scale of the project and the temporary nature of the construction impacts.

8.89 Tourism is an important sector for the Highland economy and the North Coast 500 route is a key part of this. To date no studies have blamed the existence of wind farms as a reason for a decline in tourist numbers. Although it may be that some will be deterred from returning to the area, given the range of activities pursued by visitors to Caithness and Sutherland it is not considered that the proposal would be significantly detrimental. While sea views will be affected, the character of the area, its open skies and broad horizons, will remain. It is also possible that a development such as this could become an attraction in its own right.

8.90 Other Material Considerations

8.91 In line with Council policy and practice, community benefit considerations are undertaken as a separate exercise and generally parallel to the planning process.

8.92 All material considerations raised by consultees/third parties have been considered in this report.

8.93 There are no other relevant material factors highlighted within representations for consideration of this application.

8.94 **Matters to be secured by Section 75 Agreement**

8.95 None

9.0 **CONCLUSION**

9.1 The Scottish Government gives considerable commitment to renewable energy and encourages planning authorities to support the development of wind farms where they can operate successfully and where concerns can be satisfactorily addressed. Highland has been successful in accepting many renewable energy projects in recent years and many more applications are in the planning process.

9.2 The application has not raised any fundamental objections from those statutory agencies involved with local infrastructural networks (road, air, telecommunications, etc.) and environmental resources (water, soils, peat, etc.). Five objections have been received from third parties. The adoption of good construction practices through a Construction Environment Management Document and the implementation of mitigation measures identified in the ES will minimise impacts.

9.3 The development has the potential to result in socio-economic benefits to the area through construction and to make a contribution to meeting renewable energy targets. Policy 67 - Renewable Energy Developments highlights the balance that the Council has to strike between the delivery of proposals which make a contribution towards meeting the renewable energy generation targets and the protection of natural resources which contribute to the overall character of the Highland area.

9.4 The Planning Service has reviewed the information submitted and consultation responses and representations received. The principal land use planning issues are landscape, seascape and visual impact and the applicant was advised that these would be the key issues at pre-application stage and that these should be fully addressed in the ES. Any development of this type will inevitably have some visual impacts and impacts on the landscape and seascape. As outlined in this report, it is the conclusion of the Planning Service that the landscape and seascape effects depicted in the ES are understated, but considered acceptable as these are judged to be relatively limited in extent. The visual impacts outlined in the ES is based on a realistic worst case scenario, with the largest of the turbines at the closest point to the shore. Concerns have been raised about the significance of visual impacts. The Planning Service considers that siting the turbines further offshore, within the NW quadrant of the site and reducing the height of the turbines would further reduce our concerns. The mitigation outlined is the preference of the Planning Service, but the proposal requires to be considered as submitted. Whilst it is acknowledged the proposal will have significant localised impact, given, the

small footprint of the offshore site, the predominantly long or very long separation distances and small proportion of the view affected and the containment of the development within the much wider panorama of coast and sea allow this to be viewed as acceptable in the wider landscape and seascape setting of the area. Whilst acknowledging the concerns of third parties, the Council's Landscape Officer and SNH, the Planning Service considers the localised visual impacts of the proposal to be acceptable on balance.

9.5 The Highland Council has determined its response to this application against the policies set out in the Development Plan, principally Policy 67 of the Highland-wide Local Development Plan with its tests which are expanded upon with the Onshore Wind Energy Supplementary Guidance. This policy also reflects policy tests of other policies in the plan, for example Policy 28. This policy also draws in the range of subject specific policies as also contained within the HwLDP as listed in section 6.2 above. Given the above analysis the application would, on balance, accord with the Development Plan.

9.6 Schedule 9 of the Electricity Act requires sets out what an applicant shall do in relation of the preservation of amenity. It is considered that the proposal has had regard to the desirability of preserving natural beauty and is considered to have mitigated the effects of the development on the natural beauty of the countryside. However, in considering these matters it is not consider that having "regard to" and "in doing what he reasonably can" to mitigate these effects mean that the effects of the development are acceptable.

9.7 It is recommended that the Council **raise no objection** to the proposal subject to the mitigation measures identified in the ES and the following deemed planning permission conditions and reasons:

1 This deemed planning permission shall expire after a period of 30 years from the date when electricity is first exported from any of the approved wind turbines to the electricity grid network (the "First Export Date"). Upon the expiration of a period of 25 years from the First Export Date, the wind turbines and all associated onshore elements shall be decommissioned and removed from the site, with decommissioning and restoration works undertaken in accordance with the terms of Condition 3 of this permission. Written confirmation of the First Export Date shall be submitted in writing to the Planning Authority within one month of the First Export Date.

Reason: Wind turbines have a projected lifespan of 25 years, after which their condition is likely to be such that they require to be replaced, both in terms of technical and environmental considerations. The onshore elements are granted in conjunction with the wind turbines. This limited consent period also enables a review and, if required, re-assessment to be made of the environmental impacts of the development and the success, or otherwise, of species protection, habitat management and other offered mitigation measures. The 30 year cessation date allows for a 5 year period to complete commissioning and site restoration work.

2 For the avoidance of doubt the development shall be constructed and operated in accordance with the provisions of the application, the submitted plans, and the Environmental Statement, including Supplementary Environmental Information.

Reason: In order to clarify the terms of permission.

3 No development or works (excluding preliminary ground investigation which shall be permitted) shall commence until an Interim Decommissioning and Restoration Plan (IDRP) for the site has been submitted to, and approved in writing by, the Planning Authority in consultation with SNH and SEPA . Thereafter:

- i. not later than 3 years prior to the decommissioning of the Development, the IDRP shall be reviewed by the Developer, to ensure that the IRDP reflects best practice in decommissioning prevailing at the time and ensures that site specific conditions, identified during construction of the site, and subsequent operation and monitoring of the Development are given due consideration. A copy shall be submitted to the Planning Authority for its written approval, in consultation with SNH and SEPA; and
- ii. not later than 12 months prior to the decommissioning of the Development, a detailed Decommissioning and Restoration Plan (DRP), based upon the principles of the approved interim plan, shall be submitted to, and approved in writing by, the Planning Authority, in consultation with SNH and SEPA.

The IDRP and subsequent DRP shall include, unless otherwise agreed in writing with the Planning Authority and in accordance with legislative requirements and published best practice at time of decommissioning details about the removal of all elements of the Development, relevant access tracks and all cabling, including where necessary details of (a) justification for retention of any relevant elements of the Development, b) the treatment of disturbed ground surfaces, c) management and timing of the works, d) environmental management provisions and e) a traffic management plan to address any traffic impact issues during the decommissioning period. The DRP shall be implemented as approved. In the event that the Final DPR is not approved by The Highland Council in advance of the decommissioning, unless otherwise agreed by the Planning Authority the Interim IDRP shall be implemented.

Reason: To ensure that all wind turbines and associated development are removed from site should the wind farm become largely redundant; in the interests of safety, amenity and environmental protection.

4 The Wind Farm Operator shall, at all times after the First Export Date, record information regarding the monthly supply of electricity to the national grid from the site as a whole and electricity generated by each individual turbine within the development and retain the information for a period of at least 12 months. The information shall be made available to the Planning Authority within one month of any request by them. In the event that:

- i. any wind turbine installed and commissioned fails to supply electricity on a commercial basis to the grid for a continuous period of 6 months, then unless otherwise agreed, the wind turbine, along with any ancillary equipment, fixtures and fittings not required in connection with retained turbines, shall, within 3 months of the end of the said continuous 6 month period, be dismantled and removed from the site and the surrounding land fully reinstated in accordance with this condition; or
- ii. the wind farm fails to supply electricity on a commercial basis to the grid from 50% or more of the wind turbines installed and commissioned and for a continuous period of 12 months, then the Wind Farm Operator must notify the Planning Authority in writing immediately. Thereafter, the Planning Authority may direct in writing that the wind farm shall be decommissioned and the application site reinstated in accordance with this condition. For the avoidance of doubt, in making a direction under this condition, the Planning Authority shall have due regard to the circumstances surrounding the failure to generate and shall only do so following discussion with the Wind Farm Operator and such other parties as they consider appropriate.

All decommissioning and reinstatement work required by this condition shall be carried out in accordance with the approved detailed Decommissioning and Reinstatement Plan (DRP), or, should the detailed DRP not have been approved at that stage, other decommissioning and reinstatement measures, based upon the principles of the approved draft DRP, as may be specified in writing by the Planning Authority.

Reason: To ensure that any redundant wind turbine is removed from site, in the interests of safety, amenity and environmental protection.

5

No development shall commence full details of the proposed wind turbines have been submitted to, and approved in writing by, the Planning Authority. These details shall include:

- i. The make, model, design, power rating and sound power levels of the turbines to be used;
- ii. Maximum rotor tip height (above LAT)
- iii. Maximum rotor diameter
- iv. Maximum hub height (above LAT)
- v. Co-ordinates for siting of platform and turbine within the study area
- vi. Design of the turbines and platform
- vii. The external colour and/or finish of the turbines to be used (incl. towers, nacelles and blades) which should be non-reflective pale grey semi-matt.

Thereafter, development shall progress in accordance with these approved details and, with reference to part ii above, the turbines shall be maintained in the approved colour, free from external rust, staining or discolouration, until such time as the wind farm is decommissioned. For the avoidance of doubt, all wind turbine blades shall rotate in the same direction.

Reason: To ensure that the turbines chosen and siting are suitable in terms of visual, landscape, noise and environmental considerations.

- 6 Notwithstanding the provisions of the Town and Country Planning (Control of Advertisements) (Scotland) Regulations 1984 (as amended), and unless there is a demonstrable health and safety or operational reason, none of the wind turbines substation buildings / enclosures or above ground fixed plant shall display any name, logo, sign or other advertisement without express advertisement consent having been granted on application to the Planning Authority.

Reason: To ensure that the turbines are not used for advertising, in the interests of visual amenity.

- 7 No development shall commence until full details of the location, layout, external appearance, dimensions and surface materials of all control and/or substation buildings, welfare facilities, compounds and parking areas, as well as any fencing, walls, landscaping, screening, bunding paths and any other ancillary elements of the development, have been submitted to, and approved in writing by, the Planning Authority (in consultation with SEPA and SNH, as necessary). Thereafter, development shall progress in accordance with these approved details. For the avoidance of doubt, details relating to the control and substation buildings shall include additional architectural design, carried out by suitably qualified and experienced people, to ensure that they are sensitively scaled, sited and designed.

Reason: To ensure that all ancillary elements of the development are acceptable in terms of visual, landscape noise and environmental impact considerations.

- 8 No development shall commence until full details of the location, layout, route, construction/burial method of the cable route between the offshore turbine platform and the onshore substation, including cable landfall have been submitted to, and approved in writing by, the Planning Authority (in consultation with SEPA and SNH, as necessary). This shall include justification in relation to the disturbance of any radioactive contamination. Thereafter, development shall progress in accordance with these approved details.

Reason: To ensure that all ancillary elements of the development are acceptable in terms of visual, landscape noise and environmental impact considerations.

- 9 No development shall commence until a scheme of aviation lighting is submitted to, and approved in writing by, the Planning Authority after consultation with the Ministry of Defence. Thereafter the approved scheme of aviation lighting shall be fully implemented on site. The Company shall provide both the Ministry of Defence

and the Defence Geographic Centre (AIS Information Centre) with a statement, copied to the Planning Authority and Highland and Islands Airports Limited, containing the following information:

- a. The date of commencement of the development;
- b. The exact position of the wind turbine towers in latitude and longitude;
- c. A description of all structures over 300 feet high;
- d. The maximum extension height of all construction equipment;
- e. The height above ground level of the tallest structure; and
- f. Details of an infra red aviation lighting scheme, unless otherwise required, as agreed with the MOD, HIAL and other aviation interests and the Planning Authority.

Reason: To ensure that the turbines present no air safety risk and in a manner that is acceptable to local visual impact considerations.

- 10 No development shall commence until an updated Construction Traffic Management Plan including full details of the mitigation/improvement measures required on the routes to and from the site has been submitted to and approved in writing by the Planning Authority in consultation with the Roads Authority. The Traffic Management Plan shall include:

- . A risk assessment for transportation during daylight hours and hours of darkness.
- . Proposed traffic management and mitigation measures on the access routes to site. Measures such as temporary speed limits, suitable temporary signage, road markings and the use of speed activated signs should be considered.
- . Proposed measures to mitigate the impact of general construction traffic on the local road network following detailed assessment of relevant roads.
- . A procedure for the regular monitoring of road conditions and the implementation of any remedial works required during the construction period.
- . Details of appropriate upgrading works at the junction of the site access and the public road. Such works will include suitable drainage measures, improved geometry and construction, measures to protect the public road and the provision and maintenance of appropriate visibility splays.
- . Details of appropriate traffic management which shall be established and maintained at the site access for the duration of the construction period. Full details shall be submitted for the prior approval of Highland Council, as roads authority.
- . Measures to ensure that all affected public roads are kept free of mud and debris arising from the development
- . A concluded agreement in accordance with Section 96 of the Roads (Scotland) Act 1984 under which the developer is responsible for the repair of any damage to the public road network that can reasonably be attributed to construction and decommissioning related traffic. As part of this agreement, pre-start and post construction road condition surveys shall be carried out by the developer, to the

satisfaction of the Roads Authority(s). The agreement shall take account of any neighbouring developments that might progress concurrent with the works proposed and provide, if necessary, a mechanism for apportionment of costs between respective developers.

The above agreement shall include joint before and after road condition surveys (developer and Highland Council) and regular monitoring of traffic levels and road conditions during the construction phase of the development. Any works required within or alongside Council maintained roads will require the prior written approval of Highland Council, as roads authority, through either a Road Opening Permit or Road Construction Consent process, as deemed appropriate by the roads authority.

Reason : In the interests of road safety. Traffic movements associated with the development are not yet fully understood in terms of routes and numbers and as such require further consideration.

11 No development shall commence until a detailed Outdoor Access Plan of public access across the site (as existing, during construction, during operation and during decommissioning) has been submitted to, and approved in writing by, the Planning Authority. The plan shall include details showing:

- i. All existing access points, paths, core paths, tracks, rights of way and other routes (whether on land or inland water), and any areas currently outwith or excluded from statutory access rights under Part One of the Land Reform (Scotland) Act 2003, within and adjacent to the application site;
- ii. Any areas proposed for exclusion from statutory access rights, for reasons of privacy, disturbance or effect on curtilage related to proposed buildings or structures;
- iii. All proposed paths, tracks and other routes for use by walkers, riders, cyclists, canoeists, all-abilities users, etc. and any other relevant outdoor access enhancement (including construction specifications, signage, information leaflets, proposals for on-going maintenance etc.);
- iv. Any diversion of paths, tracks or other routes (whether on land or inland water), temporary or permanent, proposed as part of the development (including details of mitigation measures, diversion works, duration and signage).

Reason: - To ensure public access to the outdoors is not unnecessarily impeded as a result of this development.

12 No development shall commence until a finalised Construction Environmental Management Document is submitted to and agreed in writing by the Planning Authority in consultation with SNH and SEPA. The document shall include provision for :

- An updated Schedule of Mitigation (SM).
- Processes to control / action changes from the agreed Schedule of Mitigation.
- The following specific Construction and Environmental Management Plans (CEMP):
 - i. Peat Management Plan – to include details of any peat stripping, excavation, storage and reuse of material in accordance with best practice advice published by SEPA and SNH. This should for example highlight how sensitive peat areas are to be marked out on-site to prevent any vehicle causing inadvertent damage.
 - ii. Water Quality Management Plan - highlighting drainage provisions including monitoring / maintenance regimes, any water crossings designed to 1 in 200 year event plus 20% for climate change, surface water drainage management (SUDs) and development and storage of material buffers (50m minimum) from water features, unless otherwise agreed in writing by SEPA and The Highland Council's Flood Risk Management Team;
 - iii. Public and Private Water Supply Protection Measures;
 - iv. Pollution Prevention Plan and Construction Method Statement
 - v. Site Waste Management Plan
 - vi. Construction and Decommissioning Method Statement
 - vii. Provision of wheel washing facilities.
 - viii. Construction Noise Mitigation Plan.
 - ix. Construction Vessel Management Plan
 - x. Species Protection Plan advancing
 - a. The pre construction survey for legally protected species is carried out at an appropriate time of year for the species, at a maximum of 12 months preceding commencement of construction, and that a watching brief is then implemented by the Ecological Clerk of Works (ECOW) during construction. The species that should be surveyed for include, but are not limited to, breeding birds, wild cat, otter and water vole. The area that is surveyed should include all areas directly affected by construction plus an appropriate buffer to identify any species within disturbance distance of construction activity and to allow for any micro-siting needs
 - b. Provision of a communication plan to ensure all contractors are aware of the possible presence of protected species frequenting the site and the laws relating to their protection;
 - c. The notification and a stop the job commitment requirements should protected species be encountered

- Details of the appointment of an appropriately qualified Environmental Clerk of Works with roles and responsibilities which shall include but not necessarily be limited to:
 - i. Providing training to the developer and contractors on their responsibilities to ensure that work is carried out in strict accordance with environmental protection requirements;
 - ii. Monitoring compliance with all environmental and mitigation works and working practices approved under this consent;
 - iii. Advising the developer on adequate protection for environmental and nature conservation interests within, and adjacent to, the application site;
 - iv. Directing the placement of the development (including any micro-siting, as permitted by the terms of this consent) and the avoidance of sensitive features; and
 - v. The power to call a halt to development on site where environmental considerations warrant such action.

- Details of any other methods of monitoring, auditing, reporting and communication of environmental management on site and with the client, Planning Authority and other relevant parties.

- Statement of any additional persons responsible for 'stopping the job / activity' if in potential breach of a mitigation or legislation occurs.

Unless otherwise agreed in writing by the Planning Authority the development shall proceed in accordance with the agreed CEMD.

Reason: To protect the environment from the construction and operation of the development and secure final detailed information on the delivery of all on-site mitigation projects.

13

No development shall commence until a Project Environmental Monitoring Programme (PEMP) has been submitted to and approved in writing by the Planning Authority in consultation with relevant consultees including SNH. This shall agree the environmental interests to be monitored and appropriate monitoring methodologies. The monitoring programme shall cover construction and operational periods of development. The PEMP shall be regularly reviewed, to a timescale to be agreed. The agreed monitoring will thereafter be implemented and the data collected will be reported on and made publicly available. Detailed entanglement monitoring and reporting schedule shall be provided as part of the PEMP in order to mitigate and monitor entanglement for this demonstrator proposal

Reason: In the interests of safeguarding the natural environment.

14 No development shall commence until a programme for operations and maintenance (OandM) has been submitted to and approved in writing by the Planning Authority in consultation with relevant consultees including SNH. This shall take account of environmental sensitivities which may influence the timing of OandM activities. It shall set out OandM vessel requirements and vessel management. The OandM Environmental Management Plan shall detail how each and all contractors and sub-contractors will be made aware of environmental sensitivities, what requirements they are expected to adhere to and how chains of command will work during OandM activity. The approved OandM programme shall be implemented as approved, and reviewed regularly.

Reason: In the interests of safeguarding the natural environment.

15 No development shall commence until full details of all surface water drainage provision within the application site (which should accord with the principles of Sustainable Urban Drainage Systems (SUDS) and be designed to the standards outlined in Sewers for Scotland Second Edition, or any superseding guidance prevailing at the time) have been submitted to, and approved in writing by, the Planning Authority. Thereafter, only the approved details shall be implemented and all surface water drainage provision shall be completed prior to the first occupation of any of the development.

Reason: To ensure that surface water drainage is provided timeously and complies with the principles of SUDS; in order to protect the water environment.

The rating level of noise imissions from the wind farm, including the application of any tonal penalty when determined in accordance with best practice as set out in ETSU-R-97 and the Institute of Acoustics Good Practice Guide and Supplementary Guidance Notes, shall not exceed 35dB LA90 10 minute at wind speeds up to and including 10m/s at the curtilage of any dwelling which is lawfully existing or has planning permission at the date of this permission. Noise limits expressed in dB LA90, 10 minute as a function of the standardised wind speed (m/s) at 10 metre height as determined at the turbine location averaged over 10 minute periods.

i. Within 21 days from receipt of a written request from the Local Planning Authority following a complaint to it from an occupant of a dwelling alleging noise disturbance at that dwelling, the wind farm operator shall, at its expense, employ a consultant approved by the Local Planning Authority to assess the level of noise imissions from the wind farm at the complainant's property. The written request from the Local Planning Authority shall set out at least the date, time and location that the complaint relates to and any identified atmospheric conditions, including wind direction, and include a statement as to whether, in the opinion of the Local Planning Authority, the noise giving rise to the complaint contains or is likely to contain a tonal component.

ii. The assessment of the rating level of noise imissions shall be undertaken by an independent noise consultant in accordance with best practice as set out in ETSU-R-97 and the Institute of Acoustics Good Practice Guide and Supplementary Guidance Notes over the relevant range of conditions.

iii. The wind farm operator shall provide to the Local Planning Authority the independent consultant's assessment of the rating level of noise immissions within 2 months of the date of the written request of the Local Planning Authority. All data collected for the purposes of undertaking the compliance measurements shall be made available to the Planning Authority on request.

iv. Time periods in 2 and 4 above may only be extended following written agreement by the Planning Authority.

v. If the assessment concludes that noise from the wind farm is not complying with the limit stipulated in condition 1, the wind farm shall cease operation immediately until a mitigation scheme, approved in writing by the Planning Authority, is implemented.

Reason: To ensure that, following a complaint, noise levels can be measured to assess whether or not the predicted noise levels set out within the supporting noise assessment have been breached, and where excessive noise is recorded, suitable mitigation are undertaken.

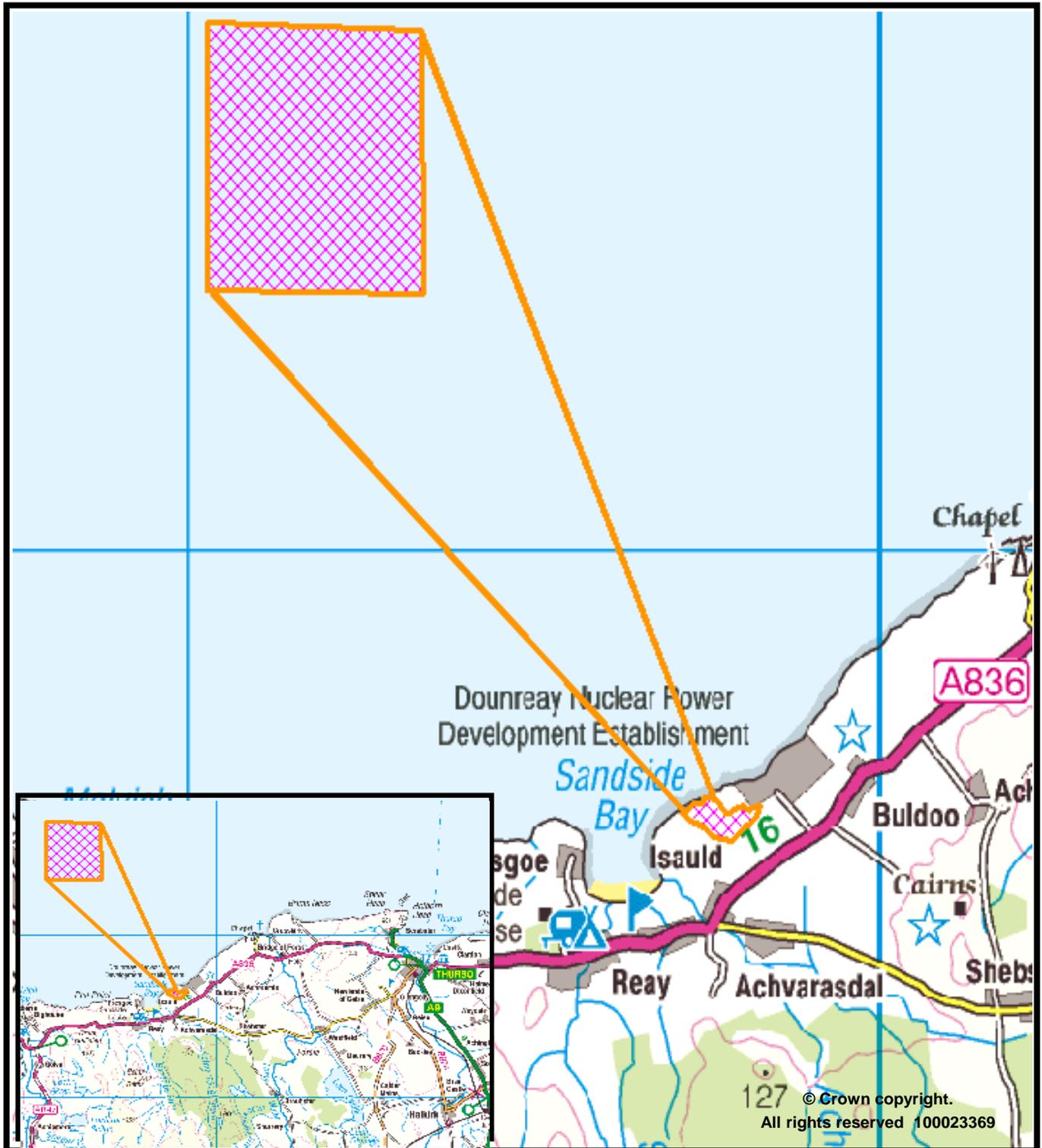
- 16 Noise arising from within the operational land of the sub-station when measured and/or calculated as an Leq, 5min, in the 100Hz one third octave frequency band must not exceed 30 dB, at noise sensitive premises; and
The Rating Level of noise arising from the use of plant, machinery or equipment installed or operated within the operational land of the sub-station, hereby permitted, must not exceed the current background noise levels at noise sensitive premises. The Rating Level should be calculated in accordance with BS 4142: 2014: Methods for rating and assessing industrial and commercial sound.

Reason: To ensure that, following a complaint, noise levels can be measured to assess whether or not the predicted noise levels set out within the supporting noise assessment have been breached, and where excessive noise is recorded, suitable mitigation are undertaken.

- 17 No development or work (including site clearance) shall commence until a programme of work for the evaluation, preservation and recording of any archaeological and historic features affected by the proposed development/work, including a timetable for investigation, all in accordance with the attached specification, has been submitted to, and approved in writing by, the Planning Authority. The approved programme shall be implemented in accordance with the agreed timetable for investigation.

Reason: In order to protect the archaeological and historic interest of the site.

Signature: Dafydd Jones
Designation: Area Planning Manager - North
Author: Emma Forbes
Background Papers: Documents referred to in report and in case file.
Relevant Plans: Plan 1 – Study Area – Offshore
Plan 2 – Detailed Study Area – Offshore
Plan 3 – Site Plan – Onshore
Plan 4 – Detailed Site Plan – Onshore
Plan 5 – Turbine Dimensions
Plan 6 – Substation Indicative Details

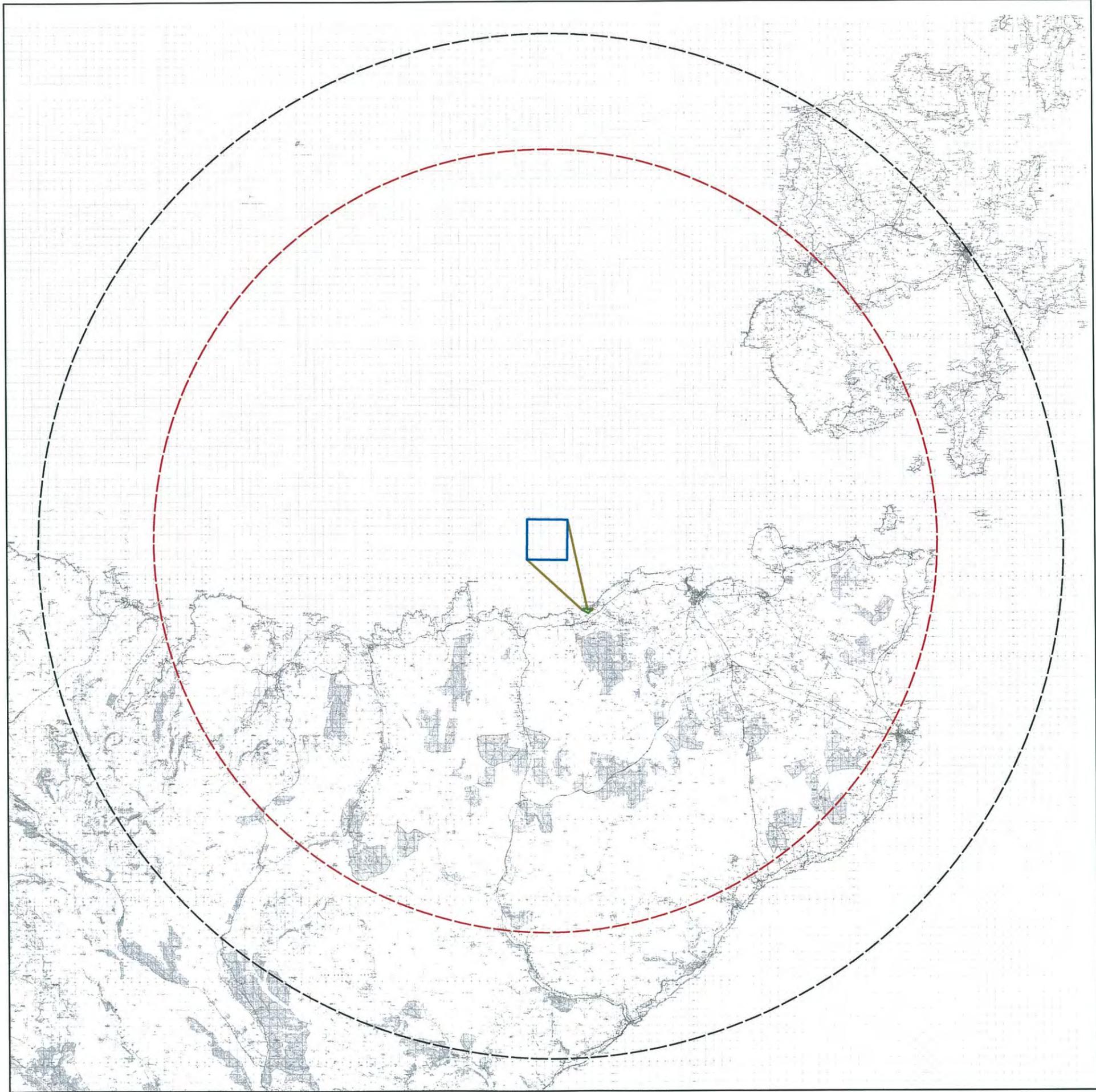


The Highland Council
Comhairle na Gàidhealtachd

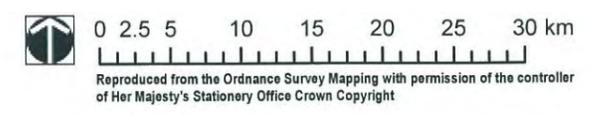
Planning & Development Service

Development Site 6KM NW of Dounreay Nuclear Site Research Establishment
Case No: 16/04775/S36

Erection of two offshore wind turbines & erection of onshore electricity substation



- Legend**
- Hexicon Dounreay Demonstration Site
 - Onshore study area
 - Export cable corridor
 - Core Study Area
 - Extended Study Area



Hexicon Dounreay Demonstration Site - Offshore
Seascape and Landscape and Visual Impact Assessment

Study Area

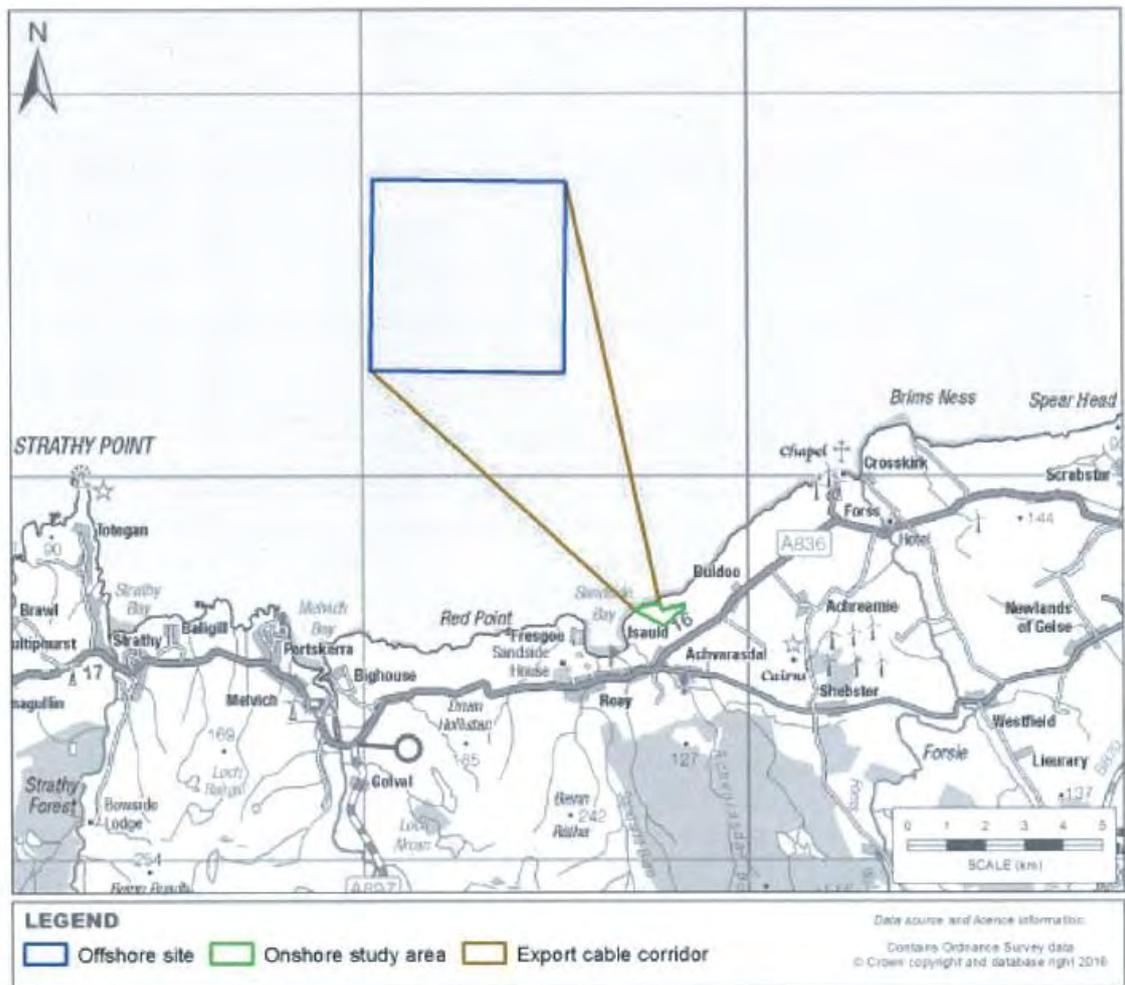
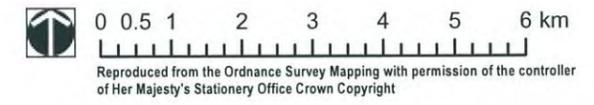


Figure 1-1 Offshore site, export cable corridor and onshore study area



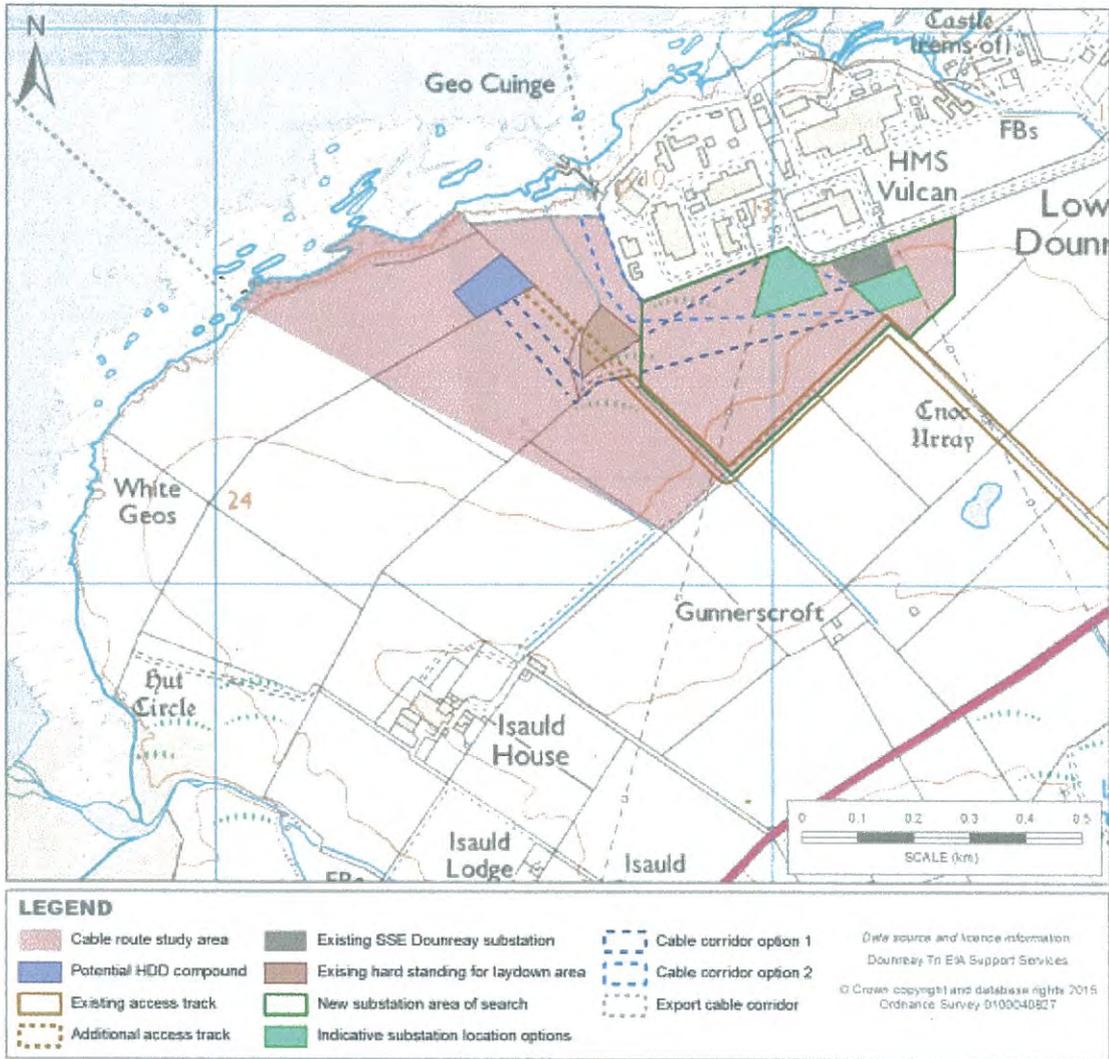
Legend

- Cable route study area
- Existing SSE Dounreay Substation
- Substation locations
- Study Area



**Hexicon Dounreay Demonstration Site - Onshore
Landscape and Visual Impact Assessment**

Substation Study Area



Onshore study area - including indicative landfall options, substation options and cable corridors

Offshore Site Coordinates

Corner	Latitude	Longitude
NW	58°40'25.6"	3°53'36.0"
NE	58°40'27.7"	3°48'25.7"
SE	58°37'46.0"	3°48'22.0"
SW	58°37'44.0"	3°53'31.9"



PL

Dounreay Tri Floating Wind Demonstration Project, Dounreay, Caithness.

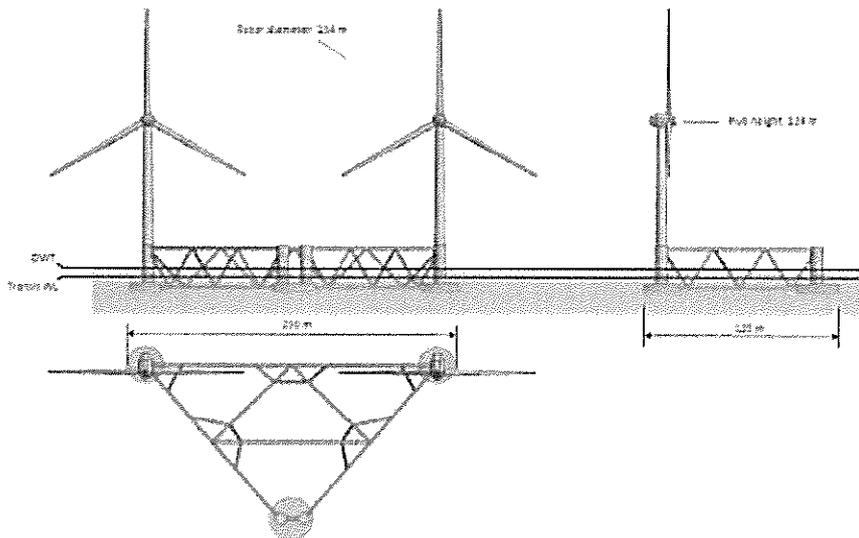
Turbine Elevations

The following dimensions are taken from the Project Description in Chapter 4 of the Environmental Statement

The turbine envelope sets maximum and minimum turbine dimensions against which the environmental impacts of this Project have been assessed (Table 4-1). These minimum and maximum dimensions used to define the turbine envelope are based on current offshore wind turbine technology.

Table 4-1 Turbine Envelope

Nominal rating	Maximum rotor tip height (above LAT)	Maximum number of turbines	Maximum rotor diameter	Maximum hub height (above LAT)	Minimum air draft (above MHWS)
4 MW	185m	2	130m	120m	22m
5 MW	186m	2	132m	120m	22m
6 MW	201m	2	154m	124m	22m



Indicative platform parameters



PS

The turbines will export power at 33kv. The Project will require either a:

- Switchgear to connect to the distribution network at 33KV; or
- Substation to connect to the transmission network at 132KV.

The onshore substation or switchgear will include the electrical equipment required to connect the Project to the grid. This may include switchgear, transformers, filtering and harmonic equipment, reactive compensation devices, protection equipment and other auxiliary equipment.

The entire footprint to the edge of the fence line is likely to be an area of approximately 50m x 50m (0.25 hectares). The majority of electrical plant should be indoors owing to the coastal location. The substation building itself shall be approximately 30m long, 17.5m wide and up to 8m above finished ground level (FGL). Figure 4-14 provides the context in which a proposed new substation would be set and shows the existing 132/33/11kv substation. A new substation is unlikely to be larger than the existing 132/33/11Kv substation.

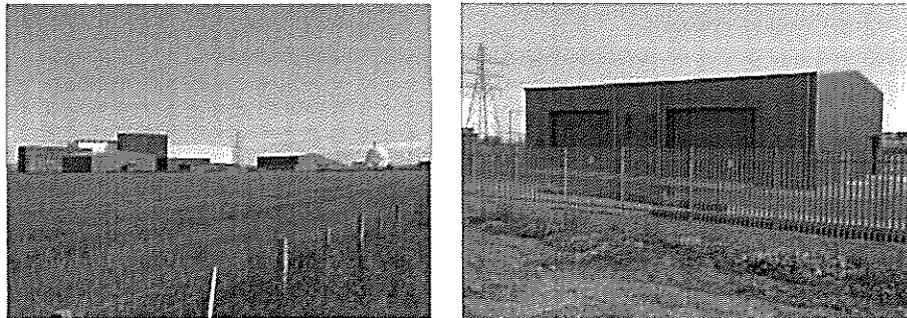


Figure 4-14 Substation context and existing 132/33/11kv Dounreay Substation
(RES, 2015)

External lighting will be used to illuminate the building but this will be intermittent and only when