# BOROUGH OF BARROW-IN-FURNESS

## EXECUTIVE COMMITTEE

Meeting, Wednesday, 4th January, 2017
at 2.00 p.m. (Committee Room No. 4)

**NOTE:** Group Meetings at 1.15 p.m.

## AGENDA

### PART ONE

1. To note any items which the Chairman considers to be of an urgent nature.

2. To receive notice from Members who may wish to move any delegated matter non-delegated and which will be decided by a majority of Members present and voting at the meeting.

3. Admission of Public and Press

   To consider whether the public and press should be excluded from the meeting during consideration of any of the items on the agenda.

4. Declarations of Interest

   To receive declarations by Members and/or co-optees of interests in respect of items on this Agenda.

   Members are reminded that, in accordance with the revised Code of Conduct, they are required to declare any disclosable pecuniary interests or other registrable interests which have not already been declared in the Council's Register of Interests. (It is a criminal offence not to declare a disclosable pecuniary interest either in the Register or at the meeting).

   Members may however, also decide, in the interests of clarity and transparency, to declare at this point in the meeting, any such disclosable pecuniary interests which they have already declared in the Register, as well as any other registrable or other interests.

5. Apologies for Absence/Attendance of Substitute Members.

### FOR DECISION

(D) 6. North West Coast Connections Project (NWCC) Preliminary Environmental Information (PEI) Report and S42 Consultation: Barrow Borough Council Consultation Response to National Grid's Formal Consultation 2016/17 (Pages 1-34).

(D) 7. Sale of 1-5 Lawson Street, Barrow-in-Furness (Pages 35-36).

(D) 8. Cavendish Dock Road, Barrow-in-Furness (Pages 37-38).

**NOTE (D) - Delegated**
**(R) - For Referral to Council**

**Membership of Committee**
**Councillors**

Councillors Pidduck (Chairman)
Sweeney (Vice-Chairman)
Barlow
Biggins
Brook
Cassells
Hamilton
R. McClure
Maddox
Pemberton
Roberts
Williams

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Published: 19th December, 2016.

Part One

| EXECUTIVE COMMITTEE | (D) Agenda Item 6 |
|---|---|
| Date of Meeting: 4th January, 2017 | |
| Reporting Officer: Assistant Director (Regeneration and Built Environment) | |

**Title: North West Coast Connections Project (NWCC) Preliminary Environmental Information (PEI) Report and S42 Consultation: Barrow Borough Council Consultation Response to National Grid's Formal Consultation 2016/17**


**Summary and Conclusions:**

Officers from Barrow Borough Council have produced a formal response to the PEI Consultation, which is set out in the detailed report below. The full Headlines Report to the consultation response is also included in Appendix 2.


**Recommendations**

1. To agree to submit this report and Appendix 2 as the Council's response to National Grid's formal consultation on the North West Coast Connections (NWCC) Project; and

2. To delegate authority to the Assistant Director (Regeneration and Built Environment) in consultation with the Leader and Deputy Leader of the Council to approve the technical response prepared by the consultant team on behalf of the Council and the local authorities within the Planning Performance Agreement group.

## Report

### 1.0 Background

1.1 To meet future energy demand, to increase security of supply and to decarbonise electricity generation, the Government's National Policy Statement (NPS) EN-1 concludes there is a significant need for new major energy infrastructure. NPS EN-1 includes information regarding the specific need for major new electricity networks infrastructure. National Grid is required to strengthen its electricity transmission network in Cumbria and Lancashire to connect the proposed new nuclear generation at Moorside (near Sellafield West Cumbria) by new electricity transmission lines to the existing electricity network.

1.2 National Grid is undertaking a formal public consultation on the North West Coast Connections (NWCC) project. National Grid own the high-voltage electricity transmission network in England and Wales, operating it across Great Britain.

1.3 National Grid have been working on this project for six years. National Grid plans to build a 400kV connection from the proposed Moorside Power Station in West Cumbria to the national electricity grid at Heysham, near Lancaster and Harker, near Carlisle. This project – 'North West Coast Connections' – is a Nationally Significant Infrastructure Project (NSIP), which will be decided by the Secretary of State through the Development Consent Order (DCO) process. This £2.8bn project to connect the proposed new nuclear power station power station at Moorside in Cumbria into the electricity network and the project will only be implemented if the new nuclear power station at Moorside goes ahead.

**The NSIP process and next stages**

1.4 As an NSIP, the NWCC project needs approval from the Secretary of State through the DCO process. A DCO is a composite consent that avoids the requirement for several different consents for a single project. It can include planning permission, the compulsory acquisition of land and interests in land, the stopping up of highways and highways works. The DCO application is submitted to the Planning Inspectorate (PINS) and Secretary of State for Energy and Climate Change for determination.

1.5 National Grid has been carrying out a public consultation on the North West Coast Connections (NWCC) project from 28th October 2016 ending on 6th January 2017. Five out of a total of thirty public information events have now taken place within the Borough:

- Tue 1st November 2016 – Rampside
- Sat 5th November 2016 – Lindal-in-Furness
- Tue 8th November 2016 – Askam-in-Furness
- Sat 19th November 2016 – Roosecote
- Fri 25th November 2016 – Newton-in-Furness

1.6 Askam and Ireleth Parish Council and Dalton with Newton Town Council have considered the NWCC proposals and the responses are attached at Appendix 4.

1.7 This is a formal stage of consultation under Section 42 of the Planning Act 2008 with the public and local authorities, and is the main opportunity to comment on this project before a DCO application is submitted to the Planning Inspectorate, currently scheduled for April 2017. As part of the S.42 consultation, the applicants have provided what is known as a Preliminary Environmental Information (PEI) report, which sets out the likely environmental effects of the development at this stage. The PEI is the precursor to a full Environmental Statement that will be submitted with the DCO.

1.8 Barrow Borough Council is a statutory consultee in the DCO process and is classified as a 'host authority'. This important project will bring significant economic benefits to the borough. The Council's role as part of the current consultation is to:

- ensure that the developer provides and responds to evidence on likely impacts;
- develop solutions for how the impacts can be avoided or mitigated;
- maximise benefits for the local community including the employment of local labour and expenditure on locally sourced goods and services;
- achieve legacy impacts from the project;
- consider the prospective detailed terms of any DCO, including requirements (planning conditions) and legal obligations.

1.9 The Council (jointly with the other Cumbrian Authorities affected by project, together with Lancaster County Council and Lancaster City Council) has entered into a Planning Performance Agreement (PPA) with National Grid to enable it to engage in a positive way and to reach an informed view on the impacts of the proposal. Consultants WYG are supporting the work of this PPA Group. WYG is preparing the technical consultation response to National Grid's formal consultation on behalf of the PPA Group, by mid-January 2017.

1.10 Barrow Borough Council has been involved in the evolution of the project through a Planning Performance Agreement (PPA) to help steer the project and identify any issues prior to an application being made. This involvement does not prejudice the way the Council should respond to any consultation nor does it prejudice the Council's involvement in later, formal stages of the project, when the Council deals directly with the Planning Inspectorate. Barrow Borough Council is a statutory consultee.

1.11 Following submission of the DCO, PINS will have 28 days in which to confirm their acceptance of the application. Within this period, the Council will have 14 days to submit comments on the Adequacy of Consultation. Once the application has been accepted, the Council will be asked to submit relevant representations within the next 28 days. To inform the Examination, the Council will also be invited to submit a Local Impact Report (LIR) and Statement of Common Ground. The LIR sets out the Council's view on how the project will affect the local area and effectively forms the evidence base against which the case will be assessed by PINS for mitigation and or legacy measures sought by the Council. The Council will also submit written representations to the Examining Authority and participate in oral Examination hearings, when invited to do so. The LIR will be approved by the Executive Committee prior to submission to PINS.

1.12 The expected timetable for the project is as follows:

- DCO application submitted April 2017

- Prepare Local Impact Report — Summer/Autumn 2017
- Examination — Nov 2017 to April 2018
- Consent (if secured) — October 2018
- Construction — 2019 onwards
- Operation begins — 2024

1.13 The Council has worked with the PPA Group authorities to prepare a joint response to the current S.42 consultation (including the PEI report) highlighting the key issues. Appendix 2 provides a summary response setting out the headline issues of key concern to the Group. The more detailed PPA Group response will be submitted jointly with the support of all the PPA authorities.

1.14 National Grid undertook an informal consultation on six Strategic Options between May 2012 and July 2012. The appraisal work concluded that Option 3 (Cumbria Ring onshore) achieved the best balance between the technical, socio-economic and environmental considerations. Based on consultation feedback and further technical appraisal of the options, National Grid identified potential route corridors where new infrastructure could be located, and undertook consultation between 4th September 2014 and 28th November 2014. These route corridor options fell into three groups: Onshore North and Onshore South with Tunnel; Onshore North and Onshore South; Onshore North and Offshore South.

1.15 Members previously received a report on 22nd October 2014, relating to the consultation on the Stage 2 Routeing Corridor Study and Outline Siting Studies for Associated Infrastructure. Member's raised concerns about National Grid's preferred Route Corridor for the section between Lindal-in-Furness to Morecambe Bay (H1) citing the effects of the development upon ecology, economic activity, transport and social infrastructure. Members also raised concerns about two options for the Duddon to Lindal-in-Furness section (E2), given significant sensitivities and complexity associated with the area and both option routes were considered undesirable. Members were advised that where it is established through further work that both routes would have unacceptable effects, and mitigation is not possible, a further route or delivery technology such as undergrounding (where appropriate) must be explored.

1.16 Having reviewed all responses, National Grid decided in June 2015 to proceed with the Onshore North and Onshore South with Tunnel option, which they have worked on into the current consultation.

**The Proposals (within the Borough)**

1.17 The current National Grid consultation involves:

- The number of **400kV lattice pylons** (upto 46.5m high, depending on pylon type) National Grid are proposing to build within the Borough is 28 No. (within the route from Mere Beck to Roosecote

there are an additional 9 No. 400kV lattice pylons but these will sit within the SLDC area).

- 12.8km (3.35km of this length is within the SLDC area at Stainton with Adgarley/Highfield Lodge and Leece) overhead 400kV pylon line from Mere Beck (northern borough boundary) via Lindal-in-Furness (section E2) that broadly follows the path of the existing Electricity Northwest (ENW) 132kV pylon line. It also involves removing 4.79km of the existing 132kV line and removing 16 pylons.
- The new 400kV pylon line continues running south from Lindal-in-Furness to a point west of Leece and then south-west to land at Roosecote (section H1) following the line of the existing 132kV pylon line, plus removal of one of the 132kV lines.
- A new **132kV** overhead (31 wooden pole structures, 8 wooden pole structures with back stays and 1 lattice trident terminal pylon) trident pylon line (3.8km) is also proposed continuing from the Duddon Estuary south from Mere Beck to Lindal-in-Furness as well from Dalton-In-Furness together with Cable Sealing End Platforms at a number of locations.
- At **Paradise** 200m of existing 11kV and lower voltage overhead line is to be removed together with 1 wooden pole. 100m of 11kV cable is to be installed underground and two wooden poles with backstays are proposed.
- **North of Moor Road** (Nr Ireleth) 330m of existing 33kV overhead line is to be removed together with 4 wooden poles. 340m of 33kV cable is to be installed underground and two wooden poles with backstays are proposed.
- To the south-east of Ireleth, the proposed route of the 400kV connection and the 132kV wood pole would both move away from the path of the existing ENW 132kV pylon line. This is planned to route around the Askam wind farm.
- At **Rakes Lane** (South of Stewner Bank Cottage) 170m of existing 33kV overhead line is to be removed together with one wooden pole. 180m of 33kV cable is to be installed underground and two wooden poles with backstays are proposed.
- North of **Primrose Cottages** (Tarn Flat) 120m of existing 11kV and lower voltage overhead line is to be removed together with two wooden poles. 230m of 11kV and lower voltage cable is to be installed underground and two wooden poles with backstays are proposed. Also removing 110m existing 11kV underground cable.
- Undergrounding east of Tarn Flat / Primrose Cottages & west of **High Henning Farm.** Another section of 132kV underground cable would be built to join two existing ENW 132KV pylon lines north-west of Lindal-in-Furness, with a Cable sealing end pylon at each end of the underground cable. This would allow National Grid to remove an existing pylon line along the whole route of the new 400kV connection. Therefore Four 132kV lattice cable sealing end platform pylon are proposed. Approximately 1.99km of fibre optic cable is to be installed underground (south towards A590 and east towards High Henning Farm). A section of the

western existing 132kV pylon line to the east of the Zoo in Dalton would be placed underground. 380m of 132kV cable is to be installed underground, together with a further 3.28km of 132kV cable being installed underground.

- From the southern end of the underground cable, National Grid propose to build a new 132kV pylon line east of Dalton-in-Furness as a replacement for a section of the western existing ENW 132kV pylon line in this area. This would be carried by 14 new pylons (plus 2 pylons in the SLDC area) for 3.38 km and would create space to build the 400kV connection. There would also be a **site compound** at **Ulverston Road**, Dalton-in-Furness.
- At **Urswick Road** 240m of existing 33kV overhead line is to be removed together with 3 wooden poles. 240m of 33kV cable is to be installed underground and two wooden poles with backstays are proposed.
- From Lindal-in-Furness to Roosecote (section H1), National Grid is proposing to remove the existing 132kV pylon lines in this section, taking down 10 pylons up to the SLDC boundary, south of Urswick Road, that is removing 3.5km of overhead lines. They would build a 400kV pylon line running south from a point west of Lindal-in-Furness to a point west of Leece and then south west to land at Roosecote, following the path of the existing 132kV lines. **East of North Stank Farm** 4.48km (plus 0.86km in SLDC area) of 132kV overhead line is to be removed together with the removal of a further 15 pylons (plus 3 pylons in the SLDC area).
- **NW of Highfield Farm**. 340m of existing 11kV and lower voltage overhead line is to be removed together with 4 wooden poles. 330m of 11kV cable is to be installed underground and two wooden poles with back stays are proposed. (within borough boundary)
- **North of Long Lane**. 60m of existing 11kV and lower voltage overhead line is to be removed together with one wooden pole. 110m of 11kV cable is to be installed underground and three wooden poles with backstays is proposed.
- **South of Long Lane**. 160m of existing 11kV and lower voltage overhead line is to be removed together with two wooden poles. 170m of 11kV cable is to be installed underground and one wooden pole with backstays is proposed (within borough boundary).
- **At Roosecote Construction Compound**. 220m of existing 11kV and lower voltage overhead line is to be removed together with three wooden poles. 280m of 11kV cable is to be installed underground and 140m of 33kV underground cable is to be removed and 140m of 33kV underground cable is proposed (realigned).
- A tunnel would be constructed at Roosecote to run under Morecambe Bay (to avoid the southern section of the Lake District National Park (LDNP) i.e. avoid building 60km or 37 miles connection onshore around the South Lakes and into Lancashire including a further 23km or 14 miles that would have been in the

LDNP) and connect into the national transmission system at Middleton substation near Heysham in Lancashire, via an islet at approximately 9.45 km from the Rampside coastline.

- A new 400kV substation incorporating a tunnel head house to the north of the site of the old Roosecote power station and to the east of the existing 132kV substation. To help screen the substation native trees would be planted to the north of the new substation and at the end of the causeway to the south of Cavendish Dock (see Appendix 3). This would mark the northern end of the proposed 22km (approx) tunnel to carry 400kV cables across Morecambe Bay to Middleton near Heysham in Lancashire. An island would be built half way across the bay (approximately 12.3 km away from Roosecote) to provide ventilation as well as emergency access to and exits from the tunnel. This would be approximately 30m high above sea level at low tide and 20m at high tide, and is likely to be 25-45m wide with a rock armour base up to 100m wide.
- A factory to manufacture concrete tunnel segments is proposed adjacent to the new substation and tunnel head house at Roosecote. The tunnel head house would contain fans to ventilate the tunnel and keep electric cables cool. It would also enable access to the tunnel for maintenance purposes. National Grid state that the tunnel head house would be no larger than 55m long, 30m wide by 15m high. A site compound would also be built at the Roosecote Substation site.
- An extension to the existing 33kV substation at Sandgate would also be built (see Appendix 3).
- There would be one temporary construction compound with rail access south of Lots Road Askam-in-Furness (approx. 14.5 Ha). In addition, there would be three temporary construction compounds with helicopter access – one West of Lindal-in-Furness (north of A590 at approx. 6.5 Ha), one west of A595 Tippins Lane (approx. 5.5 Ha) and one NE of Stank and the borough boundary at Dendron (approx. 4 Ha). Further temporary construction compounds at:
- Western side of Ulverston Road Dalton-in-Furness (North of Urswick Road approx. 2 Ha).
- West of Peasholmes Lane (Temporary shaft site approx. 5 Ha). National Grid have said they **may** build a temporary tunnel inspection shaft at Rampside to allow them to inspect the tunnel boring machine and potentially replace its cutting face before it goes under the bay. The tunnel shaft may not be needed, the decision will only be made once a tunnelling contractor has been appointed. If used, it would be filled in afterwards and the land restored to its previous state;
- Temporary Construction compound (approx. 20 Ha) at Roosecote for the proposed tunnel works. Clarification is needed in relation to use of rail access including using the rail connecting to the ABP facilities.

- Highway works include the construction of new bellmouths at public highway boundaries and the construction of new and resurfaced access tracks. Highway works are also a consideration on the A5087 Rampside Road to access the temporary shaft site (where it is needed). A materials movement corridor is proposed on the causeway forming the southern edge of Cavendish Dock. Movement options being considered include conveyors, rail (using the same gauge as may be used in the tunnel) or use of HGVs with traffic control. These may result in closure for various durations of the permissive access.

**Brief Summary of the Key Considerations for Barrow-in-Furness**

1.18 Key issues are:

1) There are significant concerns over the impacts related to noise, vibration, air quality, light, ecology and residential amenity at the tunnel-head site(s), which have not been adequately measured, addressed, or mitigated. More detail in relation to the proposed mitigation methods in relation to the adjacent housing areas within 250m/500m of the Roosecote construction site is required. There is a need to assess the impacts of waste removal arising from the construction of the Substation and the tunnel head house at Roosecote as well as construction of the 22km tunnel beneath Morecambe Bay. A Waste Management Plan will be needed for tunnel spoil, aggregates for haul roads, undergrounding spoil, backfilling of National Grid sites;

2) There are still significant omissions and gaps in information, which have not been presented with the S.42 consultation and its supporting Preliminary Environmental Information. There are also concerns about the potential effects on local communities, especially those located nearest the tunnel head development. Further mitigation and information should be provided as part of the DCO application;

3) The NWCC project will generate extensive traffic resulting from the importing (and decommissioning) of material for access and haul roads, construction materials, cabling and waste. National Grid have not provided a clear decision on the final mix of rail, road and port transport that will be utilised for the construction of the Project, and there is an over-reliance upon the local road network and the use of HGVs. There is a need for a multi modal solution given the traffic impacts as well as a need to commit to fund road feasibility studies and prioritisation of schemes. The Port at Barrow would provide potential access by sea in the multi-modal option;

4) There is a need to understand the potential effects of the development upon the land allocations in the Barrow Port Area Action Plan, in particular the proposed Marina Village development;

5) There is insufficient evidence to demonstrate that National Grid has made adequate provision for local skills training, employment and linkages with the supply chain, as well as taking account of existing employment needs in the area, given the amount of construction work that is taking place within Barrow;

6) The cumulative adverse landscape and visual effects of the new 400kV pylons along with the additional 132kV ENW pylons between Askam-in-Furness/Ireleth and Roosecote. National Grid must identify and provide further appropriate mitigation in relation to greater rationalisation and undergrounding of the 132kV ENW line through Furness including further re-routing and reduced additional infrastructure (such as Cable Sealing End Platforms);

7) The construction of the project will generate an estimated concentration of over 380 workers at the tunnel head at Barrow. Given the number of directly employed workers required for the construction of the tunnel, and the other major projects in local areas, accommodation for workers is a key concern;

8) There is insufficient information to understand, and for National Grid to address, the noise and vibration impacts and the supporting infrastructure on local communities;

9) There is insufficient evidence of an assessment of emissions from construction traffic from the proposed development;

10) National Grid has not, so far, recognised the need to provide any community benefits package for the local communities affected by the development. The Council will expect National Grid to work with Barrow Borough Council and local communities to deliver benefits to the local area, and, for example, a Community Impact Mitigation Fund would address unforeseen or poorly predicted effects arising from the project.

## 2.0 Detailed Breakdown of the Key Issues arising from the S.42 Consultation/PEI report relevant to Barrow Borough Council

2.1 The key concerns arising from the current S.42 consultation affecting Barrow are focused on the following topic areas;

- Tunnel Head Impacts at Barrow
- Traffic and Transport
- Community Impact Mitigation Fund
- Construction and Operational Noise & Vibration
- Socio Economics, Recreation and Land Use
- Waste & Materials Management
- Air Quality
- Landscape and Visual Impact;
- Ecology;

- Historic Environment
- Hydrology and Flood Risk
- Lack of Information and Timescales; and
- Alternative Offshore/Duddon Estuary Options.

2.2 The following sections consider each of the key topic areas in turn together with appropriate recommendations relating to those areas.

**Tunnel Head Impacts at Barrow**

2.3 Access to the tunnel will be created by constructing two 20m diameter vertical shafts at Roosecote and Middleton (Heysham). Tunnel boring machines (TBM) will be used to dig the tunnel at an average depth of 30-40 metres, meeting at a mid-way point across the bay, where a new islet will be constructed. The islet will be the place where the TBMs will be recovered, and once built, its main purpose will be to provide an air intake to cool the cables in the tunnel.

2.4 Review of the PEI suggests that there is limited information regarding the tunnel heads and the impact on the surrounding community transportation links and social infrastructure in Roosecote. For example, information on the construction processes (such as the slurry treatment plant) will not be available until the Environmental Statement. In the absence of vital information, the PPA Group considers that the impacts related to noise, vibration, air quality, light, ecology and residential amenity at the tunnel-head sites are not adequately measured, addressed, or mitigated. More detail in relation to the proposed mitigation methods in relation to the adjacent housing areas within 250m/500m of the Roosecote construction site is required.

***Tunnel head Construction***

2.5 There are significant concerns about both proposed layouts given their proximity to existing and proposed residential and commercial development, and adverse impacts on the PRoW. Little information is available regarding the on-site processes, such as those relating to the 20m high slurry treatment plant or off site movements. Therefore, at this stage it is not clear whether the locality will be subject to an unacceptable adverse impact on amenity and health for a prolonged period of construction.

2.6 Delivery of materials for the tunnel construction and segment factory needs to be fully understood and also the delivery of the tunnel lining segments from Roosecote to Heysham, ideally by rail and not by road. Advanced feasibility studies are required into the suitability of a number of local locations for the aggregate/arisings from the tunnelling works and the confirmed tunnelling method.

2.7 It should be noted that the indicative layout for the Roosecote tunnel head now reflects the submitted planning application by Centrica for a gas fired

power station and energy storage plant (see Socio Economic Recreation and Land Use section). Clarity is also required from Centrica in relation to the timing of the proposals, should they proceed. However National Grid have stated they are confident that there remains sufficient space to accommodate the manufacture of all the concrete segments required for the tunnel.

***Worker Accommodation***

2.8 During the construction of the project there is likely to be a concentration of over 380 workers at the tunnel head at Barrow. Given the number of directly employed workers required for the construction of the tunnel, and the other major projects in local areas, accommodation for workers is a key concern (see comments in the Socio Economics Land Use and Recreation section).

2.9 Another major concern is that the PEI Report does not indicate any collaboration with accommodation providers to overcome existing shortfalls and/or raise standards of suitable worker accommodation. A workforce strategy and an accommodation plan is nevertheless required that will include commitments from Grid to support delivery of worker accommodation (including refurbishment of existing housing stock) so as to avoid adverse impacts on the existing housing market and visitor accommodation.

***Material waste and tunnel spoil***

2.10 National Grid is consulting on both a road based, and multimodal transport strategy (see transport section below). However, until this is made available, there is inadequate information provided on the storage, movement and final destination of tunnel spoil. Currently a use at Cavendish Dock has been rejected, as the site is part of a SSSI, a SPA and Ramsar, primarily for its bird interest, and National Grid consider that initial investigations suggest there is no reason for its de-notification. However the Borough Council consider a review of the status with Natural England is still needed.

2.11 National Grid has proposed a materials movement corridor on the causeway forming the southern edge of Cavendish dock. Movement options being considered include conveyors, narrow gauge rail or use of HGVs with traffic control. This route allows direct access to the Port of Barrow as a means of importing and exporting materials and waste. However, some of these options may result in closure to the causeway, including a PRoW for the period of use, in addition to possible noise and amenity issues. A closure would not be acceptable to the Borough Council. There is inadequate information at this stage on the storage, movement and final destination of tunnel spoil.

2.12 With regard to the settlement lagoon adjacent to the nearby public footpath, there will be a need to maintain the public right of way when

facilitating the muckaway conveyor, depending on which of the three tunnelling methods are employed. The access to the Salthouse Mills area also needs consideration. Discussion is required with Associated British Ports (ABP)/Natural England about reviewing the designation Cavendish Dock. (currently SSSI/SPA/RAMSAR area). Concern is raised as to the potential impacts on the protective species (slow worms and common lizards) impacts could be an issue in the vicinity of Salthouse Mills/Cavendish Dock/Roosecote areas for example.

2.13 Additional information is required to demonstrate the acceptability of the effects of the tunnel head construction on the local community in terms of amenities (noise, air quality, light, health), transport, housing and waste.

2.14 A clearer understanding is required of the activities/works that may need local Planning Authority approval (T&CP Act), for example in relation to enabling works for the construction site(s), both along the route and at the tunnel heads.

**Traffic and Transport**

***Transport Strategy***

2.15 National Grid's conclusion there are no traffic reasons to favour a multi-modal option for moving materials and workers to the construction sites is not agreed. The PPA Group disagrees with the assessment of impacts relating to 'road based' and 'multi-modal' options, and consider that a multi-modal strategy can reduce traffic in certain locations, and a multi-modal approach could have a significant reduction in overall vehicle-kms, especially for HGVs, which might reduce emissions and accidents. These benefits have not been considered in the PEI, which is a considerable shortcoming.

2.16 It is noted that the Roosecote site could be the largest single construction site in terms of traffic generation with a forecast of approximately 128,000 HGVs for the tunnel head and substation construction. The construction of the Roosecote Substation is anticipated to give rise to a total of 3,642 HGV movements over a 56 week period from March 2021 in the road-based option, with a peak daily flow of 38 HGVs Light vehicles are anticipated to total 7,051 trips over a longer 76 week period. The construction of the tunnel at Roosecote would include the removal of spoil/waste, and the bringing in of aggregates, concrete, steel, tunnel boring machine parts and consumables, and tunnel segments. It is forecast to involve 124,984 HGV movements in the road-based option in the period from November 2018 to November 2024. The construction activities related to the tunnel shaft taking place from the Rampside site are forecast to involve 9,046 HGVs in the road-based option over the period from May 2019 to September 2023.

2.17 On the strategic roads the duration of HGV impact varies from 37 weeks on the A595 at Askam in Furness, to 302 weeks on the A590 west of the

M6 Junction 36. On the local roads, the duration varies from 7 to 103 weeks, depending on location. The Council are concerned by the potential transport impacts and it is expected that these will need to be mitigated.

2.18 National Grid has suggested that an additional reason for not choosing the multi-modal option is the impact on capacity of the Cumbrian Coast Line (rail). The Council does not agree with this conclusion as the approach should be to provide investment to mitigate rail capacity issues, in order to keep traffic off the highway and also provide a legacy benefit. A clear decision will be needed on the final mix of rail, road and port transport that will be utilised for the construction of the Project. The Port at Barrow provides potential access by sea in the multi-modal option. There is a need for a multi modal solution given the traffic impacts as well as a need to commit to fund road feasibility studies and prioritisation of schemes.

2.19 A temporary rail link (north of Roosecote sands and NE of Salthouse Junction) from the tunnel site needs consideration, and would provide an opportunity for improving the access into Salthouse Mills. Currently the Draft DCO does not cover a large enough area to facility additional temporary use of land or a temporary rail link

2.20 Cumulative effects will need to be considered, particularly in relation to rail use. With respect to the Furness Line, analysis accompanying the Outline Business Case identifies there is anticipated to be sufficient capacity between Barrow and Carnforth even in future with an increase from potential additional use from the Project and other major developments. However, the evidence for this statement has not been provided and is therefore challenged.

***Traffic Modelling***

2.21 Further clarification on the traffic models used to determine trip distribution for journey to work trips is needed. Although assignments have been carried out on an all-or-nothing basis using journey times this has been done using a very simplified network. In Barrow for instance, trips between the Roosecote site and Dalton are assigned along Hindpool Road/Park Road. It is understood that CCC SATURN models will be utilised to improve the assignment output.

***Transport Improvements***

2.22 The NWCC project will generate extensive traffic resulting from the importing (and decommissioning) of material for access and haul roads, construction materials, cabling and waste. The Council is concerned about the cumulative impact of these movements on the transport network, especially if a single source is used and a road based approach is adopted. These measures need to be informed by modelling of traffic flows both for the individual development and for the cumulative impact,

and is dependent upon the completion of survey data. Additionally, a number of rail and road construction sites are proposed to store and deploy materials along the route. Consequently, the impact of the movements is likely to require mitigation measures to address pinch points on the network and improve the local highway network.

***Public Rights of Way, Cycle Ways and Paths***

2.23 The NWCC project will have temporary (during construction) and permanent effect on the PRoWs, paths and cycle ways, in particular NCN700. This will include closures, diversions and a reduction in the amenity and ability of users to enjoy the routes. For example, the options relating to the removal of waste and tunnel spoil may result in closure to the causeway at Cavendish Dock, including a PRoW for the period of use, in addition to possible noise and amenity issues. There is inadequate information at this stage on the storage, movement and final destination of tunnel spoil.

2.24 National Grid are proposing a package of measures to mitigate the closures and disruption to the routes, and these will be set out in a PRoW Management Plan (PMP), However, as highlighted above these are not yet known and will need to be clarified prior to the submission of the DCO.

***Construction Traffic Access Routes and Points***

2.25 Additional information has been provided outside the PEI, which show the routes from the main roads, to construction access points. Some of the routes are on narrow lanes with tight bends, sharp crests, narrow bridges, NCN cycle routes or past schools. Measures should therefore seek to provide a high standard of mitigation to address direct and indirect effects. No details of how these routes will be safely managed with the additional HGV flows have been provided.

2.26 This is particularly important in Barrow and should be part of the public consultation. Access to the Barrow tunnel head is off the A5087 which has residential frontage and on-street parking and a low bridge. No details of how these routes will be safely managed with the additional HGV flows have been provided.

2.27 Sections of the A5087 and A595 are considered inappropriate to carry construction traffic to and from Project construction sites and they have not formed part of the Highways Study Area. The A595 has very severe bends, gradient changes and narrow sections from Kirkby-in-Furness to the A5082 junction at Grizebeck and can be avoided by prescribing the use of the A5082 for east-west trips. The A5087 coast road from Ulverston to Rampside is also not considered suitable for high volumes of Heavy Goods Vehicles. There are concerns in relation to accessing the proposed pylon route, particularly in the vicinity of Kirkby-in-Furness (Section E2). Improvements and the removal of pinch points along the

A595 should be considered, as well as consideration of CPO powers/land dedications, to provide for future widening along the route. An improvement of Lots Road should also be considered in relation to the proposed large railway compound near Askam brickworks.

2.28 The future baseline materials, arisings and waste volumes transported by sea through Barrow Port are assumed to remain static at 2015 volumes. This statement needs clarification, appears to be no consideration of Windfarms, investment on the Barrow Island Business Park or BAE Systems traffic.

2.29 National Grid must take a multi-modal approach to the project, and they must provide investment to mitigate rail capacity issues, in order to avoid cumulative impacts and keep traffic off the highway and also provide a legacy benefit. A satisfactory PRoW Management Plan must also be made available prior to the submission of the DCO, and measures should be provided to ensure that a high standard of mitigation is provided for the many construction access points in the interests of highway safety.

**Community Impact Mitigation Fund**

2.30 National Grid are aware of the local desire to secure a Community Impact Mitigation fund. Ofgem, National Grid's regulator, will decide whether a fund is justified and clearly sees National Grid's role as a purely statutory one, in that the upgrade to the grid is only taking place because of NuGen's request to connect the Moorside power station. This has implications as to which organisation would be responsible for the negotiation and payment of any community impact mitigation fund. The Council will expect National Grid and NuGen to work with local communities to deliver benefits to the local area where the proposal is located.

2.31 It is noted that 'Bringing Energy To Life' is National Grid's new community investment programme in the UK. Being piloted this year it funds projects in communities affected by National Grid's operations. Through Bringing Energy to Life, National Grid only fund projects run by charities and community groups that meet local community needs by providing a range of social, economic and environmental benefits. Whilst this initiative is recognised, National Grid do not appear to have any community benefit/grant funding scheme for the locality, and in these circumstances it is unlikely that local communities will derive any social or other benefits from the NWCC Project development.

2.32 A Community Impact Mitigation Fund (CIM Fund) could potentially provide a mechanism for securing additional measures. nFor example, the proposed Hinkley Point C power station would provide £128m over 40 years. It is felt that the need for the CIM Fund would arise from a range of residual adverse impacts. These can be summarised as:

- individual and cumulative impacts where National Grid's proposed mitigation is inadequate;
- adverse impacts which are understated, unforeseen or poorly predicted; and
- residual unmitigated effects.

2.33 The Proposed Development would, individually and cumulatively with other schemes, lead to a range of adverse impacts on communities along its length and over a wide area, during both construction and operational phases. Many of these impacts have been identified by National Grid, and some will be mitigated.

2.34 However, a number cannot or will not be mitigated adequately, or at all. There will also be a variety of intangible and/or unquantifiable impacts on local communities, their well-being and quality of life. These have largely not been identified by the technical assessment in National Grid's environmental assessment.

2.35 A Community Impact Mitigation Fund could address unforeseen or poorly predicted effects arising from the project, as well as residual unmitigated effects and cumulative effects with other projects to be addressed. This fund should be delivered through a section 106 agreement, sitting alongside other planning obligations required to mitigate the Project's impacts. The use of CIM Funds is well established, and the Somerset authorities are now implementing such a fund via a S106 agreement established under the consents for Hinkley Point C Nuclear New Build.

2.36 A key issue is the need to address adequate community benefits in Barrow. It is recommended that further discussion is undertaken with both National Grid and NuGen on this issue, noting National Grid's 'Bringing Energy to Life' programme, and that the Council's position regarding the need for a Community Impact Mitigation Fund is highlighted as part of this consultation response.

**Construction and Operational Noise and Vibration**

2.37 Two main sources of operational noise have been identified:

- Substations, in particular transformers and reactive plant (which are in continuous or semi-continuous operation)
- Tunnel head houses, in particular ventilation and cooling fans; and
- 400kV overhead lines, which can make noise during certain weather conditions (described as wet and dry noise)

2.38 In general the approach taken with regard to construction and operational noise and vibration is acceptable, although there are some inconsistencies in the methodology over the sensitivity of receptors and the significance of impact.

2.39 Establishment of the baseline noise conditions should be considered a priority. The assessments and mitigation measures presented are based on assumption of noise levels. Although this could be worst-case and noise levels could be higher, there is also the possibility that the levels are lower.

2.40 The suitability of the mitigation measures outlined within the Code of Construction Practice (CoCP) and Noise and Vibration Management Plant (NVMP) can be enforced through planning condition.

2.41 With regard to construction traffic noise, Volume 2.4 states that impacts will be negligible on all road links. This does not correspond with the calculations presented within Volume 2.7, Appendix 11E where the magnitude of impact ranges from low to medium. An assessment to determine effects at receptors located within proximity to roads which have not been scoped out (i.e. roads where a change in noise level is greater than 1 dB(A)) should be undertaken. This is particularly relevant given the amount of construction necessary at the Roosecote site.

2.42 The classing of residential receivers as being of 'medium' sensitivity is also not acceptable. Recommendations have previously been provided by the PPA Group stating that residential/school receptors should be classed as 'high' sensitivity as opposed to being medium sensitivity for noise impacts. This has not been accepted in the submitted assessments and impacts on all the predictions and outcomes. The outcome of the assessments therefore show a potentially more positive outcome for the project than should otherwise be anticipated.

2.43 The assessment of the 400kV overhead line noise is reasonable, however there is only limited detail regarding the methodology. The modelling however does not include noise contribution from the switchgear or auxiliary plant at the substation due to its impulsive nature. No assessment of the proposed 132kV overhead lines is presented, and we would like to see quantitative information relating to the 132kV overhead lines confirming the levels are quiet enough to not have an effect on nearby receptors.

2.44 National Grid must work with the Council to provide sufficient information to enable it to understand and for National Grid to address the noise and vibration impacts of the lines and the supporting infrastructure on local communities.

## Socio Economics, Recreation and Land Use

2.45 There is concern that National Grid has underestimated the impact on the visitor economy across the area, by relying on limited local survey and other national tourism studies. Little primary information regarding the visitor economy has been provided in the PEI, with full assessment of the impact on the visitor sector and visitor perceptions not available until the Environmental Statement. It is important that National Grid recognise seasonal visitors to Rampside, Roa Island and Piel Island for the enjoyment of the coast. Public access should be maintained. The impact of the project on Public Rights of Way (PRoWs), paths and cycleway national cycle routes NCN700 and NCN70.could also have implications for the visitor economy.

2.46 Appropriate mitigation, such as support for marketing and promotional activities are required to counter the disruption caused during the construction period.

2.47 It is in the interests of National Grid and the local economy for the skills to be available and for the local businesses to be equipped to become part of the supply chain. Although the number of direct jobs that would be generated by the NWCC Project for the local workforce in Barrow may not be substantial, the overall benefits of the scheme have to be seen in context with the indirect benefits of the new nuclear power station at Moorside through the local supply chain, where there may be cumulative employment benefits. Nonetheless, there will be a need for a financial commitment from National Grid to invest in local skills development and supply chain capability development. Funding will need to be provided to support training providers in delivering additional training to meet National Grid's requirements, but also to support ancillary skills training to mitigate wider impacts on the labour market.

2.48 In terms of skills and supply chain, National Grid has developed an outline Employment and Skills Framework (ESF) that sets out key principles that will be used to provide opportunity to local businesses and workers. National Grid is proposing that 20% of the project workforce and supply chain would be derived from the local area, which is welcomed as a minimum at this stage. However, detailed analysis of the PEI material must be undertaken to understand the justification and appropriateness of this figure. Additionally, further investigation is required to understand how the appropriate local level of involvement on the NWCC will be secured; for example at Hinckley Point C Connections (HPCC) project the equivalent figure was secured by a S.106 Agreement.

2.49 Whilst reference made to National Grid's career service and there appears to be involvement in the Framework Contactor appointment panel to ensure the procurement process includes local employment considerations, there nonetheless appears to be insufficient details as to how National Grid will create local jobs, see www.careers.nationalgrid.com www.competefor.com )

2.50 Furness Economic Development Forum (FEDF) have undertaken some preliminary research into likely job numbers associated with all the planned major construction /manufacturing schemes now underway and emerging up to 2019 and the possible timing of such build works as part of the project planning for managing incoming accommodation demands and encouraging greater supply of accommodation. FEDF has also started to operate an Accommodation Hub section of www.fedf.co.uk to help promote demand /supply to incoming contractors. The hub provides direct assistance through local partners to organisations such as National Grid to identify solutions to accommodation needs and to promote what is on offer and encourage more entrepreneurs to offer solutions.

2.51 It is noted that National Grid intent to produce an Accommodation Strategy related to Barrow. This must be developed in conjunction with FEDF to help better understand the likely procurement process and timings for the project. Additionally, National Grid should commit to both sourcing local suppliers, and helping raise awareness of the skills needed. National Grid must work with its contractors and commit to contribute to training people for the jobs to be created and creating jobs for local people.

2.52 Investment in skills centre/apprenticeships and Construction training considerations, joint working with Furness College /UnPS/FEDF, particularly relating to the proposed tunneling works is required.

2.53 Within the Wider Study Area (which includes the Local Study Area), other major development could also potentially have economic implications for the local labour market (competition for workers from other infrastructure projects), changing the future economic and social baseline. In relation to the South Route Corridor, for example, any proposed significant future/emerging development of major local businesses/employers, such as BAE Systems at Barrow-in-Furness, and any likely significant effects with the Project, needs to be taken into account in the Environmental Statement. The Economic Strategy and Action Plans of the Cumbria Local Enterprise Partnership also need to be taken into account as factors in assessing the current and future baseline.

2.54 In terms of impacts on employment sites within Barrow, the PPA Group previously suggested a number of sites that should be considered for investment and use within the NWCC Project. The assessment for Sections E2 (Arnaby to Lindal-in-Furness), H1 (Lindal-in-Furness to Morecambe Bay) and H2 (Morecambe Bay) shows that the Draft Order Limits would affect potential land allocations at Barrow Port and Barrow Marina as well as current planning applications proposed for Roosecote Power Station (5.5ha of industrial land).

2.55 The land at the former Roosecote Power Station is currently subject of two approved planning applications for energy related development, comprising the following:

1. Borough of Barrow-in-Furness Council Planning Application Reference B12/2016/0372 - Erection of a building containing a grid connected electricity storage facility with associated access and surfacing (Approved 18/08/2016); and
2. Borough of Barrow-in-Furness Council Planning Application Reference B12/2016/0354 - Development of a gas-fired reserve electricity generating plant (Approved 07/09/2016).

2.56 The three future development sites allocated in the Barrow Port Area Action Plan development plan Document are as follows:

1. Salthouse Housing – planning land allocation on brownfield land on the site of the former Salthouse Paper Mill (Policy BP21) for around 250 homes. Now a designated Opportunity Site;
2. Marina Village Housing – planning land allocation on land to north of Cavendish Dock (Policy BP18) for a new sustainable waterfront neighbourhood including 650 homes, hotel and retail provision, recreation and leisure provision; and
3. Barrow Watersports Centre (Policy BP20) providing facilities for a range of watersports and ancillary restaurant/bar and retail.

2.57 Land to the east of the former Roosecote Power Station and the site of the Rampside Gas Terminal is designated as an Energy Schemes Protection Area, which safeguards land for energy-related development (Policy A12). The PEI considers the site to be of regional value/medium sensitivity.

2.58 Taken as a group, the PEI considers the sites to be of regional value/medium sensitivity, and the effects during the construction phase to be not significant. The PEI suggests that the likely effects of the NWCC Project would not be significant during both construction and operational phases. It states that permanent land take effects would occur in relation to the proposed Tunnel Head and substation areas at Roosecote only.

2.59 As this area of ground is currently vacant at present, the PEI states that their use is expected to lead to longer-term beneficial effects. Similarly, their use is considered in the PEI to be consistent with policy objectives as set out in the respective Development Plans. Notwithstanding these conclusions, further investigation is required to assess the actual impacts of the development on all these areas especially during the construction phase is required.

2.60 In terms of the draft Development Consent Order, no schedules have been prepared. This raised the prospect of unforeseen adverse impacts introducing changes/deviations. In relation to the compulsory acquisition of land, there is a need to understand the potential impacts on the Barrow Port Area Action Plan (BPAAP) and any implications for the proposed Waterfront scheme including Marina Village. The Council need to understand the implications relating to 'rights to be acquired' and

temporary use/possession of land by National Grid, presuming compensation is a consideration and or payable.

2.61 The PPA Group has previously provided comment regarding maintaining the integrity of the ENW infrastructure in a number of areas across the route, while also ensuring the opportunity for new connections for both users and producers. National Grid's proposed route makes provision for a number of additional 400kV substations, the extension to a number of 132kV substations, including a 400kV substation in Roosecote.

2.62 National Grid need to provide appropriate mitigation, such as support for marketing and promotional activities to support the visitor economy, engagement and development of an appropriate Accommodation Strategy, as well remediation of the compound sites are required to counter the disruption caused during the construction period. In addition, National Grid must provide a guarantee that a significant proportion of the project workforce and supply chain would be derived from the local area, and this must be supported through a legally binding agreements.

2.63 More investigation is required to understand the detail of National Grid's proposals to ensure the impacts are considered and where possible legacy can be secured.

**Waste & Materials Management**

2.64 The following issues require further assessment and/or consideration within the final ES:

- research into the availability and capacity of rail-linked quarries to determine whether materials can be delivered to the Project sites by rail (e.g. primary aggregates) and/or wastes can be transported from the Project sites to quarries (for restoration);
- the viability of using marine dredged aggregates for use in the construction works, using marine wharves or ports local to the Project sites;
- further work is required to determine the most likely management option for the bulk materials required and for the predicted waste arisings;
- the PEI considers the potential effects from both the Local Study Area and Wider Study Area, but it is recommended that further work be undertaken to establish where the principal materials are most likely to be supplied from and where waste will be treated and/or disposed of;
- future baseline – this will require ongoing assessment to ensure conclusions remain valid;
- cumulative impacts – the developing short list of major projects will require ongoing monitoring to ensure that the projects are up to date and the conclusions of the assessment remain valid.

2.65 A key issue is the need to assess the impacts of waste removal arising from the construction of the Substation and the tunnel head house at Roosecote as well as construction of the 22km tunnel beneath Morecambe Bay. (12.3 km long Barrow element).

2.66 A Waste Management Plan will be needed for tunnel spoil, aggregates for haul roads, undergrounding spoil, backfilling of National Grid sites.

**Air Quality**

2.67 The PEI for Air Quality has considered the effects of the construction phase in accordance with the relevant guidance. However, an assessment of emissions from construction traffic should be undertaken as the EPUK and IAQM document 'Land Use Planning and Development Control: Planning for Air Quality limit on HGVs is triggered particularly in Barrow.

2.68 Due to the worst case effects on air quality being during the construction phase, and operational air quality effects will be negligible, it is not expected that there will be any significant residual effects.

2.69 National Grid must provide evidence of an assessment of emissions from construction traffic from the proposed development. The effects on air quality will need to be considered in the context of the need for a Transport Modal Study aimed at removing reliance upon HGV construction traffic to thereby minimise adverse effects on air quality.

**Landscape & Visual Impact**

2.70 General concern is raised about the significant impact of the overhead line directly and cumulatively on the landscapes across the borough and beyond. The proposal incorporates substantial mitigation measures, which are acknowledged including; the deployment of 23.4km (14.5 miles) of new underground cable and removal of the ENW 132kV line through the western section of the Lake District National Park (LDNP), a tunnel beneath Morecambe Bay, to avoid the southern section of the LDNP.

2.71 Justification for diverting the 132kV overhead line from the current dual pylon corridor from south of Standing Tarn to the west of Stainton should be provided.

2.72 The opportunity to reinforce the network between the Devonshire Road substation and the Sandgate substation by undergrounding to reduce the landscape impact to the east of Dalton-in-Furness should be investigated.

2.73 However, within the Borough of Barrow when extending south towards Lindal-in-Furness the 132kV route crosses the 400kV route in a number of locations requiring undergrounding. The proposed cable sealing end platform near Crooklands, Dalton-in-Furness would be particularly visible.

Visually it would be beneficial if the lines did not cross as frequently. The route as it progresses south also, in some locations, tracks higher ground and it cannot be confirmed if this alignment will break the horizon. Provision of wireframes with both the 400kV and the 132kV route is required to ascertain this.

2.74 The lack of wireframes views available within the PEI has severely limited the ability to review the effect on views along the route. Additionally, this makes assessment of the impacts, particularly on skylining of the pylons and other infrastructure, difficult to assess. These have been requested by the PPA Group over a long period. While National Grid has very recently agreed to provide some basic wireframes for some viewpoints, these have been provided too late to be able to be incorporated into the assessment process and does not address the lack of this as a key tool for Landscape and Visual Impact Assessment (LVIA).

2.75 Whilst a number of photomontages have been prepared showing the existing view and the proposed development. These are sporadic and often do not provide important views. The photomontages do not appear to illustrate any other works apart from the 400kV line and proposed ceiling end compounds. There are instances where proposed 132kV lines are not shown on the photomontages, which leads to a misrepresentation of the potential views afforded in some locations.

2.76 The Visual report in the PEI does not carry out an assessment of the magnitude and effect of the development on the individual viewpoints selected, or from a selection of individual viewpoints at this stage. This makes it difficult to correlate any of the photomontage images provided to the assessments given. Therefore at this stage, the photomontages provided can give little guidance in commenting on the assessments provided.

2.77 Particularly for the south route and with regards to undergrounding, the effects during construction have not been described thoroughly within the assessment. This is a key omission from the current PEI report, and it is expected that it should be covered in further detail within the ES.

2.78 The proposed 400kV route progresses almost directly south from Lindal-in-Furness to Leece (within SLDC) before heading south west to the proposed 400kV substation and Tunnel Head House at Roosecote.

2.79 The route from the proposed Roosecote 400kV Substation to the adjoining Subsection H2 (Morecambe Bay) is all underground apart from the proposed temporary tunnel shaft and construction compound. The effects of this are identified as minor to moderate adverse, at this stage, and we would generally concur with this assessment.

2.80 The Morecambe Bay subsection (H2) deals with the seascape effects as a result of the emergency access tunnel islet in Morecambe Bay. The precise method of islet construction is not currently known and the

Volume 2.5 Chapter 6 therefore provides no assessment of effects during construction. This requires clarification in order to provide full comment on this section. The assessment of effects identifies only Moderate/Minor, Minor or Negligible effects. It is considered on clear days, in favourable weather conditions that the effect of the islet projecting from the seascape may result in a greater effect than that stated however without transparency, this cannot be confirmed.

2.81 National Grid has adopted a one-up-one-down principle in relation to the existing ENW 132kV OHL running between Arnaby, Lindal-in-Furness and onto Roosecote/Morecambe Bay, with a number of other areas where additional lines are removed or transferred underground. Whilst all the mitigation measures outlined above are broadly welcomed, the benefit of the one-up-one-down approach would, to a degree, be offset by the landscape and visual impact of the taller and more bulky form of the 400kV pylons. Askam in Furness/Ireleth (High Sensitivity) are identified as Landscape/Visual areas of likely significant effect. In addition, there would be the addition of new 132kV wooden pole lines around the Duddon Estuary down to Lindal-in-Furness together with the additional 132kV pylon line to the east of Dalton-in-Furness (albeit affecting land within SLDC), but which would nonetheless cumulatively increase the number of lines running through these areas. The Electricity North West rationalisation around the Lindal-in-Furness area appears overly complicated. South of Lindal-in-Furness towards Roosecote, one of two 132kV pylon routes would be maintained and would run parallel with the 400kV pylon route.

2.82 It is felt that further mitigation is required than is currently proposed by National Grid. Although National Grid acknowledge alternative options would be technically feasible, they have so far dismissed them on grounds of cost.

2.83 Failing that further rationalisation should include the undergrounding of both 132kV lines to address the adverse impacts on the 400kV lines on the landscape (including in the vicinity of the Paradise area, north of Ireleth, raised on previous occasions) set out in this report and the Council's detailed response.

2.84 An important issue is the consideration of the effects of the proposed National Grid pylons upon 'valued landscapes' within the rural part of Barrow. The National Planning Policy Framework (NPPF) states that the planning system should contribute to, and enhance, the natural and local environment by protecting and enhancing valued landscapes where they are not nationally designated. The NPPF does not define what valued landscapes might be. However, recent planning appeal decisions and legal judgements would suggest that the sum of the landscape quality, scenic quality, representativeness and recreational value of a site may set it apart from mere countryside (Stroud District Council v SoS CLG and Gladman Developments Limited [2015] EWHC 488 (Admin)). National Grid must therefore submit evidence to demonstrate that they have

considered and assessed whether there are likely to be any affects on valued landscapes in the rural parts of Barrow affected by the development.

2.85 In addition, there remains concern over National Grid's methodology for considering alternative technology across the whole length of the route, which is based on the notion that alternative technologies are only required where there would be 'particularly significant' effects. The use of 'particularly significant' in National Grid's 'Options Appraisal of Alternative Technologies' methodology has set an artificially high bar for the establishment of 'Focus Areas' where they have identified for specific mitigation. Their methodology is not in accordance with current guidance, and is in conflict with National Grid's 'Response to Consultee Feedback to Assessment of Mitigation Options Methodology' (February 2016), which states that mitigation will be considered for the entire length of the route. In this regard, there is concern that whilst 'significant' effects would be measured in the EIA, it is not clear as to why areas within the rural parts of Barrow have not been considered for appropriate mitigation, where there are significant effects in a way that is both robust and accountable.

***Cumulative landscape and visual impacts***

2.31 The cumulative impact of existing vertical infrastructures, which are sequentially visible in the landscape, and which can lead to adverse landscape and visual impacts is a concern, and the proposed larger 400kV pylons will further worsen the position. The Cumbria Cumulative Impact of Vertical Infrastructure (CIVI) document highlights that there are already significant cumulative landscape and visual effects of vertical infrastructure in the area of the proposed National Grid route, and there has been a clear increase in both off-shore and on-land wind farm development from 2010 onwards, particularly around the coast and inland around Barrow-in-Furness.

2.32 It is likely that the effects of the 400kV line will result in a more dominant feature in the landscape. It is not clear as to whether sufficient consideration has been given to the effects of the development upon sensitive receptors, including the areas of coast within Barrow due to the effects of large scale vertical infrastructure, the potential for alternative technology to be used within the area, and the need to minimise the cumulative impacts on settlements such as Askam-in-Furness/Ireleth, Dalton-in-Furness and the eastern edges of Barrow as well as sporadic households in the rural area.

2.86 Rationalisation of the Electricity North West (ENW) line has afforded some reduction in overhead line (OHL) clutter in a number of locations in the South Section. However, the Council is seeking more substantial mitigation and there is opportunity for further rationalisation and/or undergrounding across the whole of the south route between Askam-in-Furness and Roosecote to remove both of the 132 kV pylon lines, but

especially so near the east of Ireleth and east of Dalton-in-Furness where there are proposed additional ENW 132kV Trident pylon lines.

2.87 The lack of wireframes provided with the PEI would suggest a need for a further detailed review of the landscape and visual impacts of the development. In this regard, there is concern about the potential effects of skylining in certain areas where there may be adverse effects upon sensitive receptors. It is not clear as to whether or not National Grid has correctly applied its' own Holford Rules (which seek to avoid the incorrect siting of pylons and lines) in relation to skyling.

2.88 A key issue for landscape and visual impact is the cumulative effects of the new 400kV pylons along with the additional 132kV ENW pylons. National Grid must utilise the Cumbria Cumulative Impact of Vertical Infrastructure (CIVI) report to identify and provide further appropriate mitigation in the form of the Offshore South/Duddon Tunnel options or failing that rationalisation of the 132kV ENW line east of east of Ireleth and east of Dalton-in-Furness where there are proposed additional 132kV pylon lines.

**Ecology**

2.89 Many of the ecology assessments have been based on incomplete survey data, which will need updating when surveys have been completed. This information will now only be available for incorporation into reports at the ES stage, and so we will not be able to comment on any of the final ecology evaluations and assessments. Survey methodologies appear to be appropriate, however, it is currently difficult to clearly identify a breakdown of all habitats and the degree to which these will be lost. There is inadequate approach and failure to progress with the statutory Habitats Regulation Assessment (HRA) of the impacts of the project on internationally important wildlife.

2.90 It appears that the existing incomplete information has been used to scope in or out various designated sites, habitats and species. This approach will not provide a robust assessment until all the information has been considered, and by scoping out features prior to obtaining all the data may result in these features being ignored prior to the final ES.

2.91 Clear rationale behind the selection of specific study areas for additional protected species survey and more detailed habitat/NVC survey is not provided, other than an overview of methodology used.

2.92 Other areas that would require consideration include County Wildlife Sites within the Borough. The applicant need to demonstrate that they have avoided them, and if not why not. County Wildlife Sites should be treated in the same manner as Ancient Semi-Natural Woodland, that they should avoid them by design mitigation and explain why this cannot be done if they decide not to.

2.93 There appears to be a lack of inclusion of undesignated priority habitats in the assessment for each section. Some assessments provide a conclusion of no significant effect despite the fact that surveys are still ongoing. Issues have then been scoped out (habitats and/or species) from certain sections prior to assessing completed survey material.

2.94 The present route results in woodland areas, including parts of ancient woodland, being lost or the canopy removed. It appears that some sites or sections that are hydrologically linked to European or International sites have been scoped out. Each subsection lacks any detailed list of qualifying features (SAC, SPA, Ramsar) and interest features (SSSI) which is necessary baseline information to enable assessment of likely significant effects (for example tables just refer to 'plants' or 'habitats' or 'birds').

2.95 There is significant risk of wildlife impacts from the spread of invasive species is not adequately assessed and mitigated; this is a major risk from such a large scale linear project. Managing Invasive Non-Native Species (INNS) across the whole project area is vital as the risk of spread from a significant linear project (which will be using mobile teams moving across the development route) is a major biodiversity risk. The significance of this point must be addressed in the ES.

2.96 A key issue is the lack of information supplied with the PEI in order to assess the potential impacts on terrestrial and avian ecology. National Grid must provide sufficient detailed ecology information to address this issue as part of the ES to be submitted with the DCO.

**Historic Environment**

2.97 A major concern is that the desk based assessment and walkover survey of the route corridor has not, as far as we are aware, been completed and the results from this piece of work and other projects that have been recently completed have not been used in the PEI. We therefore do not feel at this stage that we have all the information available to be able to ascertain the overall impact on the historic environment.

2.98 Assets are grouped in terms of contemporary usage and date within the assessment of setting impacts. In some specific cases this may not be appropriate mainly due to differences in 'setting' and the level to which setting contributes to the asset's significance. Overall the majority of the assessments appear to be appropriate.

2.99 The 10km distance considered for settings to high grade Listed Buildings and registered Parks and Gardens, and 2km distance for other Listed Buildings and Conservation Areas is unrealistic. It is difficult to envisage the exact impact on parts of Listed Buildings and Conservation Areas without extensive site based assessment and without relevant photomontages. The lack of assessment of the effects on views and therefore settings of above ground Heritage Assets using on-site

assessments as well as visualisations, including photo-montages, is a considerable limitation.

2.100 Whilst setting can include more than views into, out of, and around a Historic Asset, many of these settings have been too narrowly defined, and it is likely that many impacts will have been missed. Concern is also expressed about the accuracy and relevance of the assessments. More information is required before settings of Listed Buildings and other above ground Historic Assets have been appropriately assessed.

2.101 A key issue is the lack of information supplied with the PEI in order to assess the potential impacts on heritage assets. National Grid must provide sufficient detailed information to address this issue as part of the Environmental Statement (ES) submitted with the DCO.

**Hydrology & Flood Risk**

2.102 Clarification of the appropriate standard of protection from flooding and critical infrastructure needs to be clearly set out and established in the Environmental Statement.

2.103 Specific modelling may be required to assess flood risk to take account of the following:

(i) Any re-assessment of Flood Zones following the December 2015 floods arising from the current EA modelling programme;
(ii) Specific modelling of ordinary watercourses and overland flood routes where these are impacted either by the construction works or the permanent works.
(iii) Modelling to assess impacts of any stockpiling of materials or re-shaping of land (either permanent or temporary) within Flood Zones 2 and 3 or in areas of identified surface water flood risk

2.104 The design appears to be based on 'desk top' studies. At sensitive locations there is uncertainty over the deliverability of the proposed design due to the absence of supporting intrusive geotechnical data; this is particularly important in respect of proposals to use horizontal directional drilling to pass under rivers/estuaries. The potential associated risk could result in forced changes to the location and depth of the crossings, which would have associated wider impacts on other discipline areas.

2.105 Careful consideration is therefore required to consider potential future lateral migration of river channels and any potential impacts on permanent access tracks and pylon bases.

2.106 It is proposed to create a new constructed island in Morecambe Bay to assist in logistics of tunnel construction and provide permanent access to the tunnel. The geomorphological impacts of this proposal on erosion and depositional patterns in Morecambe Bay need to be investigated to demonstrate that these are not significant.

2.107 The impacts of surface water flood risk (including overland flows) needs to be considered for both the construction process and on the permanent works.

2.108 A key issue is that National Grid must work with the Council and the LLFA to provide sufficient information on the effects of flooding in sensitive locations.

**Lack of Information and timescales**

2.109 There has been a general lack of sufficient information presented within the PEI for a full assessment of the potential effects of the development to be carried out by the PPA Group and its specialists. There are gaps as well assumptions that have been made across a number of topic study areas, which if carried through to the final Environmental Statement could lead to incorrect assessments and the wrong conclusions drawn on the likely affects. This is addressed in more detail in the topic by topic analysis and will be drawn out in the final PEI response.

2.110 These matters will need to be addressed in the final Environmental Statement to be submitted with the DCO application.

2.111 The delay by National Grid in presenting material in the PEI has meant that a full consideration of all the documentation presented has been a significant challenge within the timescales to enable the PPA Group to provide National Grid with a properly considered and approved consultation response.

2.112 A key issue cross-cutting the whole of the consultation is the general lack of sufficient environmental and other information to assess the potential impacts of the development on the local area. National Grid must address this issue in order for it to satisfy not only the Local Authorities and their communities but also the Planning Inspectorate and ultimately the Secretary of State.

Alternative Duddon Estuary/Off-Shore Options

2.113 The PPA Group disagree with National Grid's rejection of alternative options for the Duddon Estuary, including a tunnel option, which are based in part on the flawed assessment of impacts within the landscape setting of the National Park.

2.114 Together with consulting on the preferred route National Grid is seeking comment on rejected options as part of the PEI Report.

2.115 The Duddon Tunnel option includes;

1. An approximately 3.8km Tunnel under the Duddon Estuary to a Tunnel Head and CSE compound located ~350m northwest of Bankfield to the north of Askam in Furness;
2. Depending on detailed routeing, either an overhead line or the continuation of the proposed PRC based underground cable to the

west of Silecroft to a Tunnel Head in the vicinity of Devonshire Road Industrial Estate to the south of Millom. The former would necessitate a CSE compound near Low Layriggs followed by an overhead line to a CSE at the Tunnel Head whereas the latter would require an additional 5.4km of underground 400kV cable to the Tunnel Head along with a CSE (to allow isolation of the tunnel) with a CSE at the eastern end to transition to overhead line;

3. An overhead line connection of approximately 500m back to the PRC based onshore alignment to the north east of Ireleth.

2.116 As an alternative, whilst an offshore high voltage alternating current (HVAC) option was initially considered as part of strategic options studies, it was discounted as a combination of offshore constraints and a lack of suitable landing points in Lancashire meant the cable lengths required would be unfeasible. However, recent changes to other major infrastructure projects has lead to the availability of a potentially suitable landing point at Rossall School, Fylde. Therefore, National Grid has once again reconsidered the use of offshore HVAC, having regard to known environmental and socio-economic constraints to provide a comparative appraisal with the route alignment once again check that the decision remains robust. The current 132kV pylons would remain in the Whicham and Duddon Valleys, including Paradise. No options have been suggested or costed by National Grid for HVAC between two points in Cumbria, such as Silecroft to Walney or Rampside, any such proposal would hit the problems with the Walney or Rampside landfalls.

2.117 Subject to further detailed routeing studies:

1. Connection from the landing point on the coast at Kirksanton to the existing 132kV distribution network in the Whicham Valley;
2. A 55km long array of up to 18 cables installed in trenches on the floor of the Irish Sea from Kirksanton to Rossall on the Fylde peninsula;

2.118 A HVAC offshore connection would leave south west Cumbria dependent on an electrical distribution network designed over 60 years ago. It has insufficient capacity for further generation output in the Furness peninsula. It is this lack of capacity which has required multiple undersea cables to cross from the offshore wind farms to Heysham. Perhaps even more importantly, it may block access for future cables and pipelines, they would all have the extra costs of crossing 18 high voltage cables. It would also make repairs to the current cables and pipelines much more expensive.

2.119 The Borough Council is opposed to the HVAC connection from Kirksanton to Rossall on the Fylde peninsula.

2.120 The final figure for the net extra cost for the Duddon Tunnel needs to be considered alongside the huge improvement in visual terms of keeping pylons out of one of the most beautiful and nationally unique areas of the countryside and this requires further investigation.

(i) Legal Implications

The proposed response relates to a pre-application consultation. In undertaking this 'Section 42' consultation, the applicant (National Grid) is fulfilling its legal obligation to consult with local authorities in the areas affected. National Grid must have regard to our response when formulating their application. Barrow Borough Council will only have further formal opportunities to comment on the proposals as part of the public Examination undertaken by the Planning Inspectorate once the application has been submitted. Once National Grid has made its application for consent, the Secretary of State will invite Barrow Borough Council to submit a Local Impact Report under Section 60 of the Planning Act 2008. This will set out Barrow Borough Council's position on the likely impact of the project on the Borough.

(ii) Risk Assessment

The recommendation has no significant implications.

(iii) Financial Implications

This project does have resource implications, particularly in relation to staff time. However, the signed PPA means that Barrow Borough Council's costs, including staff time to attend meetings, consultation events and write reports, will be reimbursed by National Grid for this stage of the process. If Barrow Borough Council or the wider PPA Group wish to challenge National Grid once the DCO is submitted for Examination, the Council will have to fund the challenge itself, insofar as it relates to the Borough of Barrow.

(iv) Health and Safety Implications

The recommendation has no significant implications

(vi) Equality and Diversity

The recommendation has no detrimental impact on service users showing any of the protected characteristics under current Equalities legislation.

(vii) Health and Well-being Implications

The recommendation has no adverse effect on the Health and Wellbeing of users of this service.

**Background Papers**

- 22nd October 2014 Executive Committee, Minute 81. The North West Coast Connections Project (NWCC) Barrow Borough Council Response to National Grid Route Corridors Consultation Stage 2.
- National Grid North West Coast Connections Project: Stage 1 Consultation on Strategic Route Options: June 2012

- The documents comprising National Grid's consultation can be viewed on National Grid's web site www.northwestcoastconnections.com.

**Appendix 1**

**Principal elements of the Project affecting Cumbria wide**

**Appendix 2**

**PPA Group's Headlines Issues Report**

**Appendix 3**

**Plans and Tables**

**Appendix 4**

- **Askam and Ireleth Parish Council Response to NWCC S.42 Consultation (13th December 2016)**
- **Dalton with Newton Town Council Response to NWCC S.42 Consultation.**

## APPENDIX 1: Principal elements of the Project affecting Cumbria wide

The proposed project (the subject of consultation) includes the following principal elements:

- Construction of 400kV transmission connections totalling approximately 163km from Harker to Heysham. This connection comprises overhead lines, underground cables and the use of tunnelling technology;
- Construction of new 400kV substations at Stainburn and Roosecote and extensions to the existing 400kV substations at Harker and Middleton;
- Relocation of existing 400kV overhead line west of Harker;
- Construction of a tunnel beneath Morecambe Bay between tunnel head houses at Roosecote and Middleton (Heysham);
- Modifications to existing 132kV distribution infrastructure and removal of certain existing 132kV overhead lines;
- Works to modify the existing Electricity North West Limited (ENW) 132kV and lower voltage network where necessary to allow construction of the 400kV connections;
- Modifications to the railway network to provide access to temporary rail sidings in certain locations;
- Areas of mitigation, restoration and/or reinstatement; and
- Associated works, for example, temporary access roads, highways works, temporary compounds (rail, helicopter and general construction) two temporary shafts, work sites and ancillary works.

The area of the consultation is divided up into two parts in order to better help consultees understand the areas that affect them – North (Moorside to Harker near Carlisle) and South (Moorside to Middleton near Heysham in Lancashire). National Grid has further divided these two parts into geographic sections for ease of reference.

The Northern connection is divided as follows:

- A1: Moorside to Thornhill
- A2: Thornhill to Whitehaven
- B1: Whitehaven to Seaton
- B2: Seaton to Tallentire
- B3: Tallentire to Aspatria
- C1: Aspatria to Wigton
- C2: Wigton to Harker (part 1 of 2)
- C2: Wigton to Harker (part 2 of 2)

The **Southern connection** is divided as follows:

- D1: Moorside to Waberthwaite
- D2: Waberthwaite to Silecroft
- E1: Silecroft to Arnaby

- E2: Arnaby to Lindal-in-Furness
- H1: Lindal-in-Furness to Morecambe Bay
- H2: Morecambe Bay
- H3: Morecambe Bay to Middleton (Lancashire)

Other proposed works are also proposed at Natland Substation near Kendal.

The areas within the Southern connection affecting Barrow Borough are: E2 (Arnaby to Lindal-in-Furness) and H1 (Lindal-in-Furness to Morecambe Bay). The Draft Order Limits (DOL) for the South route commence at Moorside and would run to Roosecote near Barrow-in-Furness and then through a tunnel under Morecambe Bay to connect into the national transmission system at Middleton substation near Heysham in Lancashire. The 400kV connection would follow a complete route approximately 83km (52 miles) long. The principal settlements in proximity to the South Route of the DOL would be Askam-in-Furness and Ireleth, Lindal-in-Furness, east of Dalton-in-Furness, eastern fringes of Barrow, Leece and Roosecote.

To put the size of the pylons into context with existing 132kV pylons, double circuit pylons and low height double circuit pylons are the two main 400kV designs of pylon for the Project. The 400kV standard lattice pylon is 46.5m high with an approximate arm width of 18.2m. The 400kV low height lattice pylon is 35.3m high with an approximate arm width of 30m. This contrasts with a 132kV standard lattice tower whose height is 26.1m and approximate arm width of 8.4m. A 33kV standard lattice tower height is 18.5m with an approximate arm width of 5.3m.

In terms of other proposed structures, a typical Cable Seal End (CSE) compound would occupy a footprint of up to 100m x 50m for a 400kV double circuit compound with equipment (excluding pylons and gantries) of up to 12m in height. A small control building approximately 4m wide and 3m long would be required in each compound. Each compound would be surrounded by 2.4m high palisade fence, with an electrified fence attached inside up to 1.6m above, to provide protection to the public and the equipment.

132kV overhead lines on lattice pylons or trident wood pole and 33kV overhead lines on lattice pylons connecting to a section of underground cable would commence and terminate at a cable sealing end platform (CSEP) structure. These would comprise a steel platform and steel cable 'ladder' structure. A typical single circuit 132kV CSEP is 7.5m wide and 5m deep and is supported by three vertical steel supports concreted into the ground.

APPENDIX No. 2

# NORTH WEST COAST CONNECTIONS CONSULTATION RESPONSE HEADLINES REPORT

Prepared on behalf of the PPA Group Authorities

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## Document control

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|---|---|
| Document: | CONSULTATION RESPONSE HEADLINES REPORT |
| Project: | North West Coast Connections |
| Client: | PPA Group Authorities |
| Job Number: | A072895 |
| File Origin: | |

| | | |
|---|---|---|
| Date: | 8 November 2016 | |
| Prepared by:<br>Graham Hale & John Leggett | Checked by:<br>Peter Shannon | Approved By:<br>Lynne Thomas |
| Description of revision:<br>Style: Addition of PPA Group comments, changes to format, clarification and typographical points | | |

| | | |
|---|---|---|
| Revision: | Version 1 | |
| Date: | 15 November 2016 | |
| Prepared by:<br>Peter Shannon | Checked by:<br>Lynne Thomas | Approved By:<br>Lynne Thomas |
| Description of revision:<br>Addition of summary table with key issues (from Core group 161109) | | |

| | | |
|---|---|---|
| Revision: | Version 3 Committee FINAL | |
| Date: | 17 November 2016 | |
| Prepared by:<br>Lynne Thomas | Checked by:<br>Peter Shannon | Approved By:<br>Peter Shannon |
| Description of revision:<br>Revision of Summary table as per Core Group Plus 161115 | | |

# Contents

# 1.0 Introduction

1.1.1 The PPA Group welcome National Grid's commitment to meaningful engagement on project design including technology choices and the significant mitigation that is required. The Group are pleased the informal engagement undertaken thus far has resulted in significant and much needed mitigation.

1.1.2 Based on the available information during the Route Corridors consultation (2014) the PPA Group provided positive feedback and support for the 'Onshore North' and 'Onshore South with Tunnel Option' including the Morecambe Bay tunnel.

1.1.3 The PPA Group have previously expressed support for the principle of rationalisation of existing overhead lines, therefore, the provision to take down lines is supported so long as the integrity of the electricity distribution network and connection opportunities is not be weakened as a result. Additionally, the Group consider that there are a number of locations where additional lines need to be removed to provide appropriate mitigation.

1.1.4 Furthermore, the principle to develop a new 400kV underground cable through the western section of the Lake District National Park is strongly supported, given the alternatives. However, the implications of undergrounding on other topic areas, such as ecology and historic environment must still be addressed. Furthermore, the decision to remove the existing Electricity North West (ENW) 132kV overhead line (OHL) is also strongly supported, given the benefit this will have on the landscape and views in the area.

1.1.5 The PPA Group welcomes continued engagement with National Grid and considers that adequately addressing the impacts raised in this paper will minimise the risks to the project through the DCO process, protect our communities and increase delivery certainty for National Grid. The Group wants to continue to engage in positive dialogue to enable delivery of the NWCC project in a way that meets both national and local needs, and is consistent with legislation and government policy.

## 1.2 Document purpose and structure

1.2.1 This report provides a summary of the PPA Group's emerging consultation response and an outline of the headlines from the evaluation of the North West Coast Connections (NWCC) Preliminary Environmental Impact (PEI) Report issued for consultation by National Grid on 28 October 2016. The PEI Report provides a preliminary environmental assessment of the Project and proposed mitigation measures drawing on currently available information

1.2.2 This Headlines Report has been drafted in advance of the PPA Group Joint Specialist Response to provide the PPA Group members with an indication of the key emerging issues at an early stage. It is intended that this Report will assist in the development of a joint PPA Group position on issues and help meet challenging committee schedules required for formal Council approval.

1.2.3 The Report has been informed largely by the views of topic specialists from WYG supplemented by comments from the PPA Group Authorities where available. It is based on a broad assessment of the extensive documentation and therefore, is subject to change as specialist assessments are undertaken.

1.2.4 The remainder of this Report is structured as follows:

- Section 2 provides an over view of the key headline issues; and
- Section 3 provides additional detail on the headline issues.

# 2.0 Key Headline Issues

Landscape and visual impact

| Summary key points |
|---|
| **Baseline**<br>• Baseline information is sufficient but further engagement is required as the project moves towards the development of the Environmental Statement and DCO submission to develop a more refined assessment that considers additional visual impacts especially from community user/receptor perspective. |
| **Methodology**<br>• The methodology for identifying areas where mitigation is required and options should be assessed is flawed; adopting 'particularly significant' as the bar for mitigation need is not consistent with the EIA Regulations<br>• There is a flawed interpretation of national policy and guidance that defines and protects the Lake District National Park and its setting.<br>• There has been a misrepresentation of the visual impact through use of photomontage tools.<br>• The recently updated Cumulative Impact of Vertical Infrastructure tool does not form part of the methodology for the assessment set out in the PEI Report.<br>• The PPA Group do not agree with that National Grid's rationalisation policy (one-up-one down) results in a benefit. |
| **Assessment**<br>• Cumulative and sequential impact is not adequately considered in the assessment along whole route. Specifically, the experience of visitors to the Lake District National Park protected landscape have not been adequately evidenced or addressed including the cumulative impacts of viewing this linear project.<br>• The application of the National Grid's methodology including the Options Appraisal of Alternative Technologies methodology has resulted in the establishment of inappropriate areas for mitigation of the NWCC project. This has led to a piecemeal approach to mitigation and the consideration of alternative technologies. |
| **Mitigation**<br>• Lack of appropriate mitigation of landscape and visual impacts arising from the use of over head lines; in particular within the landscape setting of the Lake District National Park, and related to cumulative impact to the east of Whitehaven, east of Workington following the existing 132kV line north and in the area of the Hadrian's Wall World Heritage Site.<br>• The PPA Group disagree with the assessment and rejection of alternative options for the Duddon Estuary, including a tunnel option, which are based on the flawed assessment of impacts within the landscape setting of the National Park. |

Visitor economy

| Summary key points |
|---|
| **Baseline**<br>• The baseline data set out within the PEI Report in relation to socio-economics, recreation and land use is generally derived from the appropriate sources. However, there is an overreliance on evidence from past projects, particularly in relation to the effects on the visitor economy.<br>• There is a failure to provide adequate information and evidence on the impact on the visitor economy of Cumbria, which is the largest sector in the County's economy and growing. In particular, there is a lack of evidence to support National Grid's position that Cumbria's visitor image/brand will not be significantly damaged. |
| **Methodology**<br>• Although the overall approach to the identification and assessment of socio-economic effects is considered to be appropriate, at this stage, there is limited analysis of the Project's alignment with key local and sub-regional policy, specifically in terms of the visitor economy;<br>• Importantly, National Grid have failed to acknowledge the unique character of the Lake District National Park.<br>• The methodology adopted to assess the deterrence effect on visitors draws upon the results of survey evidence from other previous projects which raises several important issues; the transferability to NWCC study area, robustness and validity of this original research is uncertain, and there is substantial methodological criticism of the focus on survey-based approaches to evaluating impacts. |
| **Assessment**<br>• Key risks and impacts to visitors' enjoyment of Cumbria's landscapes and environment through access and recreation have not been adequately assessed.<br>• In particular, the issues associated with negative effects on visitor perceptions, as demonstrated by the recent floods, should be recognised. In addition, as previously noted, the PEI Report does not adequately assess the significance of impact at the local level.<br>• The impact of disruption to public access and to road and rail transport networks has not been properly considered.<br>• The emerging assessment underestimates the project's impact on the visitor economy in Cumbria. |
| **Mitigation**<br>• There is a lack of appropriate mitigation of visitor economy impacts, including damage to Cumbria's visitor image/brand.<br>• There is a lack of appropriate mitigation for disruption to public access and to road and rail transport networks.<br>• It is considered that appropriate mitigation, such as support for support small and medium sized businesses in the visitor economy and marketing and promotional activities are required to counter the disruption caused during the construction period and the negative perception driven by the adverse impact |

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| of NWCC on the landscape which attracts visitors. |

Tunnel head impacts at Barrow and Heysham

| Summary key points |
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| **Baseline**<br>• There is inadequate information provided on the storage, movement and final destination of tunnel spoil.<br>• No clear information on the need, purpose or use of the temporary works at the tunnel-heads.<br>• Noise, vibration, air quality, light, ecology and residential amenity impacts of development at the tunnel-head sites are not adequately stated.<br>• Transport assessments have not been carried out. |
| **Methodology**<br>• The PPA Group disagree with the determination of high sensitivity receptors assessment.<br>• Standard noise criteria for assessment is inadequate for project of this scale and location. |
| **Assessment**<br>• As the baseline data is largely absent the impacts have not been adequately measured and assessed.<br>• National Grid have drawn conclusions on accommodation availability. However, there is a lack of clarity regarding the required collaboration with accommodation providers to overcome existing shortfalls and/or raise standards of suitable worker accommodation. |
| **Mitigation**<br>• No meaningful mitigation is proposed to treat the noise, vibration, air quality, light, ecology or residential amenity impacts.<br>• No mitigation is proposed to address the impacts caused by the storage, movement and final destination of tunnel spoil.<br>• There is incomplete workforce planning and accommodation proposals at the tunnel-heads. |

Transport and connectivity

| Summary key points |
|---|
| **Baseline**<br>• The PPA group are significantly concerned that the baseline is insufficient to allow selection of road or multimodal strategy.<br>• There is a lack of appropriate modelling of traffic flows to allow assessment and conclusions to be drawn. |
| **Methodology**<br>• A method has not been proposed to enable the selection of the road or multi-modal strategy. |
| **Assessment**<br>• The key risks and impacts of traffic movements have not yet been addressed. |

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| • The PPA group strongly disagree with National Grid's assessment that railway capacity issues should be a reason for not selecting the multi-modal option. The approach should be to mitigate the rail capacity issues, which would keep traffic off the highway and also provide a legacy benefit.<br>• Furthermore, the PPA Group disagree with the assessment of impacts relating to the 'road based' and 'multi-modal' options. The multi-modal option will reduce the scale of HGV movements in some areas, which could have safety and environmental benefits.<br>• Fundamentally, the cumulative impacts have not yet been assessed.<br>• Key risks and impacts on PRoW and cycle paths have not been adequately addressed. | |
| **Mitigation**<br>• There is a lack of appropriate mitigation measures and improvements to address the traffic impacts on the highway network. These measures need to be informed by modelling of traffic flows both for the individual development and for the cumulative impact, and is dependent upon the completion of survey data.<br>• Mitigation should also address the following, for which no detail has yet been provided; the safe management of traffic on minor roads; the impact of worker accommodation locations – for example for the underground section within the National Park, and the implementation of Travel Plans.<br>• The PPA Group are concerned that the PRoW Management Plan has yet to be developed. Additionally, the economic impacts upon the visitor economy need to be assessed.<br>• Measures should seek to provide a high standard of mitigation to address direct and indirect effects. | |

Skills and supply chain

| **Summary key points** | |
|---|---|
| **Baseline**<br>• The baseline data set out within the PEI Report in relation to skills and supply chain is derived from the appropriate sources, however, there is little detail available to assess the implications. | |
| **Methodology**<br>• The methodology is as considered to be appropriate at this stage, and is consistent with that used for other major projects. | |
| **Assessment**<br>• The PEI Report recognises that there are no published standards that define the sensitivity and magnitude of socio-economic effects. However, the overall conclusions are considered to be reasonable and consistent with that used for other major projects. | |
| **Mitigation**<br>• Initial work towards an Employment and Skills Framework is welcomed, however, it is disappointing that the content of the consultation proposals on what measures will be put in place to achieve the targets and objectives is at this stage inadequate to provide support for the proposals. | |

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| • The PPA Group support the commitment to secure 20% as a minimum of the workforce from the local labour market – however, National Grid must provide commitment to providing support to target those that are currently economically inactive to help ensure they can secure work.<br>• It is in the interests of National Grid and the local economy for the skills to be locally available and for the businesses to be equipped to become part of the supply chain. There will be a need for a financial commitment from National Grid to invest in local skills development and supply chain capability development.<br>• There will need to be appropriate training facilities provided not only to support the existing population but also to help attract new workers and their families to come and work in Cumbria. |

Ecology

| Summary key points |
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| **Baseline**<br>• The baseline fails to provide adequate information and evidence to enable assessment of risks and impacts on key habitats and protected species.<br>• There is an inadequate approach and failure to progress with the statutory Habitats Regulation Assessment (HRA) of the impacts of the project on internationally important wildlife. |
| **Methodology**<br>• The potential risk to biodiversity from the spread of invasive species from the construction of the project has been inadequately addressed in the methodology. |
| **Assessment**<br>• The assessment of impacts on habitats and species have been made in the absence of completed surveys. |
| **Mitigation**<br>• Lack of appropriate mitigation and compensation for impacts on habitats and species The PPA Group would expect these to be measures such as avoiding key hotspots, inadequate construction methods and lack of information regarding compensation for loss and disturbance.<br>• Significant risk of wildlife impacts from the spread of invasive species is not adequately assessed and mitigated; this is a major risk from such a large-scale linear project. |

Historic environment and cultural landscapes

| Summary key points |
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| **Baseline**<br>• Inadequate evidence of impacts to the historic environment and archeology; in particular from underground construction methods including cabling in the LDNP and Roman Empire (Hadrian's Wall) World Heritage site.<br>• The baseline focuses on providing information and evidence relating to |

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| archaeology, and is inadequate for listed buildings and Conservation Areas. | |
| **Methodology**<br>• Key risks and impacts to World Heritage Sites are not adequately addressed. In particular, only one of the three key features of the English Lake District nominated World Heritage Site have been considered.<br>• There is no evaluation of the setting of other elements of the historic environment for example listed buildings and Conservation Areas. | |
| **Assessment**<br>• Inadequate assessment of impacts to the historic environment and archeology. This includes; historic buildings and underground construction methods including cabling.<br>• The PPA Group disagree with the conclusions of the assessment that there would be "a slight beneficial" significance of effect Roman Empire (Hadrian's Wall) World Heritage site and the candidate English Lake District. | |
| **Mitigation**<br>• Without an appropriate evidence base and assessment the PPA Group are unable to provide comment on mitigation measures. | |

# 3.0 Emerging Headlines

## 3.1 Landscape and visual impact

Mitigation Methodology

3.1.1 Fundamentally, National Grid's approach to landscape mitigation, including the Options Appraisal of Alternative Technologies methodology (OAAT) remains flawed. The PPA Group concerns appear not to have been addressed; therefore, the application has resulted in the establishment of inappropriate areas for mitigation of the NWCC project. This has led to a piecemeal approach to mitigation and the consideration of alternative technologies.

Undergrounding in the National Park

3.1.2 The principle to provide 23.4km (14.5 miles) of new 400kV underground cable through the western section of the Lake District National Park (LDNP) is welcomed. The decision to remove the existing Electricity North West 132kV overhead line is also welcomed, given the benefit this will have on the landscape.

3.1.3 However, the implications of undergrounding on other topic areas, such as ecology and historic environment must be addressed. Additionally, there is a need to consider the appropriate location for the Compound Sealing End (CSE) required as an interface between OHL and the section of underground cabling. The long-term reversible effects of the vegetation loss and disruption to landscape pattern and features due to the implementation of the undergrounding do not appear to have been fully considered. The undergrounding is a major engineering development, and needs to be addressed in far greater detail than is currently in order to understand the potential scale of the temporary disruption to the landscape.

Impacts of the Special Qualities and Setting of the National Park

3.1.4 The proposals for use of pylons and associated cabling within the setting of the Lake District National Park are a major concern. The LDNPA and the PPA Group has very clearly and over a long period of time raised strong concerns about impacts affecting landscape character and views in to and out of the National Park. The PPA Group disagree with the assessment of impacts on the landscape setting of the Lake District National Park; particularly the flawed assessment of national policy and guidance that defines and protects the setting. The Group are concerned that this has led to a inappropriate proposal and the a lack of the required mitigation.

3.1.5 The PEI makes little reference to the 'setting' of the LDNP. The PPA Group's position stated within the Stakeholder Feedback Questionnaire issued in September 2016 was clear that consideration of the wider landscape setting of the Lake District National Park is also of equal importance. Therefore, it is considered that the approach to mitigation currently proposed by National Grid is particularly deficient in its assessment of the effects on the 'setting' of the Lake District National Park.

3.1.6 Three issues on setting arise –

- Definition of setting in policy - this is a flawed definition that can be strongly challenged. It fails to consider the long established definition of setting for Protected Landscapes of assessing impacts from within AND outside of the designated area;
- Definition of setting for the NWCC project - the application of National Grid's flawed definition of the setting set out above leads to a flawed assessment in the PEI in section 6A.3. The impact on receptors is framed entirely by those receptors within the National Park only;
- Landscape character types - the failure of the PEI assessment of landscape and visual impacts to recognise the continuity of landscape types and topography across the National Park boundary is a significant flaw that can be challenged.

3.1.7 The route to the north of the LDNP is to be carried on lattice pylons whilst the section through the LDNP is proposed to be undergrounded from the location of the CSE compound located to the north of Drigg. The baseline description of the area provides a description of the existing landscape and visual context; however, the presence of the Low Level Waste Repository at Drigg is a large repository site within the Subsection and is not referenced. The presence of this site is of particular importance in the consideration of the setting of the LDNP and the proposed 400kV route.

3.1.8 It is noted that there is a short length of undergrounding extending south of the LDNP boundary to a CSE at Silecroft, which is welcomed. However, following a preliminary review of the part of the Subsection that runs from the head of Duddon Estuary over the mosses to Kirkby-in-Furness, we would question why this section of the route is above ground when it forms the setting of the LDNP. Although, the alignment of the route is outside the boundary line of the LDNP designation, the area of land is of similar/equal value and susceptibility as the LDNP in landscape terms in providing the setting to the LDNP. It is therefore considered that this section should be considered for undergrounding. This option would avoid the considerable problems raised by the proposed route across Foxfield Ridge and the Duddon Mosses SAC, as well as in the setting of the LDNP that have been identified in the Duddon Estuary. Whilst we acknowledge that designing a route crossing the Duddon Estuary is challenging, it is vital that the appropriate design and mitigation is provided.

3.1.9 National Policy EN-1, DCLG guidance, the Electricity Act 1995 as well as current planning practice make it clear that the 'setting' of National Parks should be considered in the same way as those areas within the National Park. However, the approach to mitigation currently proposed by National Grid is particularly deficient in its assessment of the effects on the 'setting' of the Lake District National Park. Consideration of the wider landscape setting of the Lake District National Park is also of equal importance along the whole route of the NWCC Project. Landscape planning guidance from DCLG, including that shown on its website, provides clarity that development by 'relevant authorities' impacting on the setting of National Parks should be considered in the same way as those within the National Park. There is a long-established recognition that the legislative and policy framework, including current planning guidance, provides protection of the setting of National Parks. Although these areas are not designated as National Park, developments within the setting can impact upon their statutory purposes and Special Qualities.

The Duddon Tunnel

3.1.10 The PPA Group had also recommended undergrounding beneath the Duddon Estuary to avoid major adverse impacts, particularly at the Foxfield Ridge and the Duddon Mosses SAC, plus the wider landscape setting of the LDNP (see points above about setting of the LDNP). This would also avoid significant visual, landscape and community impacts of the proposals in the vicinity of Kirkby in Furness and Beckside and further south.

3.1.11 However, this recommendation has not been taken forward as part of the consultation proposals. The PPA Group disagree with the assessment and the rejection of alternative options for the Duddon Estuary, including a tunnel option, which are based on the flawed assessment of impacts within the landscape setting of the National Park.

Cumulative Impact

3.1.12 The cumulative impact of the vertical infrastructure, particularly in Allerdale, and Carlisle and north Copeland, 'and in parts of the Furness peninsula is already a concern and larger pylons will further worsen the position. Rationalisation of the Electricity North West (ENW) line has afforded some reduction in OHL clutter in a number of locations in the North Section and notably in the LDNP; however, this does not go provide sufficient mitigation (see below). The PPA Group do not consider that the PEI provides sufficient details to understand the cumulative impact of the project and further assessment is required to assess the impact of the new OHL cumulatively with the existing lines.

Electricity North West Rationalisation

3.1.13 National Grid has adopted a one-up-one-down principle in relation to the ENW 132kV OHL, with a number of other areas where additional lines are removed or transferred underground. These are largely focused on the North Section of the route, with additional rationalisation; in the area around the Hadrian's Wall World Heritage Site (WHS), a section at Broughton Moor and in the area north of Westlakes Science Park. However, The PPA Group do not consider that the appropriate level of mitigation of landscape and visual impacts arising from the use of pylon and overhead cables has been proposed. In particular, to the north of the Moorside site, east of Whitehaven, east of Workington following the existing 132kV line north, and Hadrian's Wall World Heritage Sites.

3.1.14 Although the additional rationalisation is largely welcomed where the 132kV cable is undergrounded there are concerns regarding the appropriate positioning of Cable Sealing End Platform Pylons (CSEPP), particularly where these are close to the highway or existing properties. This infrastructure is also required where 132kV and below OHL is placed underground to facilitate the cross of the new 400kV OHL.

Electricity North West 132kV Trident over head line

3.1.15 A new 132kV trident route on timber poles extends from Millom and converges with the proposed 400kV route near The Green, extending north beyond the 400kV route round the head of the Duddon Estuary. This line has just been revealed and is required to provide a 132kV connection to the Millom area and specifically the Haverigg wind farm extension. The line connects to a 132kV substation (not proposed within NWCC) and is considered to provide an ungraded local electricity distribution network, as well as connection opportunities in the areas of Millom.

3.1.16 The principle of upgrading the network in the Millom area is welcomed, however, it is considered that this route, albeit on timber poles, will result in a notable increase in visual clutter within the bottom of the valley. There is also concern about the additional visual clutter from the 132KV trident line and associated sealing end pylons around the wider Duddon estuary including at Foxfield, Kirkby in Furness and south to Lindal in Furness.

Methodology

3.1.17 The PPA group are very concerned by the lack of wireframe diagrams to support the photomontages. These make assessment of the impacts, particularly on skylining of the pylons and other infrastructure, difficult to assess. These have been requested by the PPA Group over a long period. While National Grid has very recently agreed to provide some basic wireframes for some viewpoints, this does not fully address the lack of vital information as a key tool for Landscape and Visual Impact Assessment.

3.1.18 The selection of viewpoints for photomontages included in the PEI fails to address some of the concerns posed by the proposals. For example, the PEI viewpoints within the Whicham Valley fail to help assessment of the impact to receptors at lower elevation and from the coastal plain around Silecroft. These locations are within the setting of the National Park, and the PPA Group has been clear that this is a sensitive location. It is a flaw in the PEI to fail to adequately cover them in the viewpoint and photomontage assessments.

## 3.2 Socio-economics, recreation and land use

Visitor Economy

3.2.1 The NWCC project alone and in combination with other major projects has the potential to disrupt tourist trade through displacement and negative image. The PPA Group is concerned that National Grid underestimates the impact on the visitor economy across the area, by relying on limited local survey and other national tourism studies. Limited primary information regarding the visitor economy has been provided in the PEI, with full assessment of the impact on the visitor sector and visitor perceptions not available until the ES. The PPA Group consider that National Grid have failed to provide adequate information and the level of assessment required to understand the key risks and impacts on the visitor economy.

3.2.2 The impact of the project on Public Rights of Way (PRoWs), paths and cycleway could have significant implication for the visitor economy. This issue is set out below under paragraph 3.4.11 and 3.4.11.

3.2.3 The PPA Group consider that there is a lack of appropriate mitigation of visitor economy impacts, including damage to Cumbria's visitor image, and the disruption to public access, road and rail transport networks. Appropriate mitigation, such as support for small businesses and marketing and promotional activities are required to counter the disruption caused during the construction period and the negative perception driven by the adverse impact of NWCC. In addition to specific mitigation measures for key tourism and visitor economy assets affected.

Skills and Supply Chain

3.2.4 The PPA Group consider that there is inadequate detail in the PEI to understand the impacts and assess the extent to which these are addressed. Initial work on an Outline Employment and Skills Framework (ESF) is encouraging, however, it is disappointing that measures, targets and objectives are not available is at this stage to support the proposals.

3.2.5 Review of the PEI reveals that National Grid is proposing that 20% of the project workforce and supply chain would be derived from the local area, however, detailed analysis of the PEI material must be undertaken to understand the justification and appropriateness of this figure. While the commitment to secure 20% as a minimum is welcomed, further investigation is required to understand how this level of involvement on NWCC will be secured; the Hinkley Point C Connections project secured a similar undertaking by a S.106 Agreement.

3.2.6 Furthermore, the PPA Group consider that it is in the interests of National Grid and the local economy for the skills to be locally available and for the businesses to be equipped to become part of the supply chain. However, this needs commitment from National Grid to invest in local skills development and supply chain capability development. Additionally, as part of the package of measures National Grid and their contractors should commit to target economically inactive people in the area and the recruitment of apprentices to support local skills training and development. These measures will help mitigate displacement impacts, however, they will require a funded programme of intervention and support and a commitment from Grid (and their contractors) to recruit from the pool of people that are supported.

3.2.7 The PPA Group are concerned that there is very limited detail on mitigation measures that will be required to address the impacts of the NWCC Project, and therefore, few details of how the mitigation will be secured and monitored. It is important that National Grid;

- makes clear and early commitments to providing funding to support the development of local business capability and capacity, working with the LEP and other local partners, through the development and implementation of a supply chain strategy..
- progresses the development of a detailed skills action plan to ensure that there is investment in skills development in advance of construction in order to facilitate employment and training of local people.
- makes early commitments to capital investment in training facilities.
- provides a clear procurement strategy and to develop specific interventions with measurable and enforceable targets that capture the local benefit for Cumbrian businesses.

3.2.8 Additionally, the PEI suggests that the need for investment in education and training facilities will be explored further, and if there is a need, any proposed support and investment measures will be reported in the Employment and Skill Framework and submitted with the DCO. The PPA group consider that such investment is required for appropriate training facilities provided not only to support the existing population but also to help attract new workers and their families to come and work in Cumbria. However, an understanding of the delivery mechanism is required to evaluate the appropriateness of this undertaking. It is also suggested that

Employment sites and land allocations

3.2.9 The PPA Group previously suggested a number of sites that should be considered for investment and use within the NWCC Project. A number of these have been proposed for use as construction, rail and helicopter compounds, notably sites at; Port of Workington and Kingmoor Park Lillyhall, Wigton, Aspatria, Flimby, and Heysham. There are also potential effects on land allocations at Barrow Port and Marina, as well as employment and current planning applications proposed for Roosecote Power Station, and land at Heysham, Heysham Port and Heysham Moss. The PEI considers that the likely effects of the NWCC Project would not be significant during both the construction and operational phases. Permanent land take effects would occur in relation to the proposed Tunnel Head and substation areas at Roosecote and Middleton. As both of these areas of ground are currently vacant at present, the PEI states that their use is expected to lead to longer-term beneficial effects. Similarly, their use is considered in the PEI to be consistent with policy objectives as set out in the respective Development Plans.

3.2.10 The assessment for the North Route identifies a number of planning site allocations in Local Plans, where there could potentially be conflicts during the construction phase. These include: the Ehen/Keekle Valleys Tourism Opportunity Site and the Whitehaven Eastern Relief Road; a possible Opportunity Site at Hensingham Common comprising 16ha of employment land of which 1.8ha would be used as a site compound; Whitehaven Commercial Park, Lillyhall Industrial Estate and Derwent Forest Site; Kingmoor Park Industrial Estate, Kingmoor Park Rockcliffe, Kingmoor Park Heathlands Estate, and land at Station Road Wigton. In terms of the operational phase, only the Ehen/Keekle Valleys Tourism site would seem to have any long-term effects, as all the others would be used for temporary site compounds.

3.2.11 In terms of the South Route, further investigation is required to assess the impacts on allocations described above especially in Barrow and Heysham. In addition the above new permanent lattice trident terminal pylons (with laydown), are shown to be located within the site boundary of a housing site next to Burlington School in Kirkby-in-Furness, which is allocated in the SLDC Land Allocations DPD. This will cut across the allocated site and could have a negative effect on the allocation.

3.2.12 Further investigation will be undertaken within the detailed response to understand the detail of National Grid's proposals to ensure the impacts are considered and where possible legacy secured.

Ability to connect to the ENW network

3.2.13 The PPA Group has previously provided comment regarding maintaining the integrity of the ENW infrastructure in a number of areas across the route, while also ensuring the opportunity for new connections for both users and producers. National Grid's proposed route makes provision for a number of additional 400kV substations, the extension to a number of 132kV substation and substantial re-configuration of the ENW infrastructure. Initial review of the PEI suggests that reconfiguration of the infrastructure could be better designed to meet future needs of users and producer, for example ensuring connection opportunities at the Stainburn substation. Additionally, previously expressed concern regarding the resilience of the ENW infrastructure to flooding does not appear to be addressed, indeed the Carlisle 33kV substation is not included in the project.

3.2.14 Furthermore, initial review of the PEI suggests that the integrity of the ENW network in the Millom area appears to have been addressed by the addition of a 132kV trident line that connects from a 132kV substation (not part of this project) near Millom, round the Duddon Estuary to the network at Lindal. However, it is understood that the new substation is contingent on the development of the Haverigg Wind Farm. The impact of the trident line is considered above.

## 3.3 Tunnel head impacts at Barrow and Heysham

Lack of details

3.3.1 Significant issues have been raised regarding the impact of the tunnel construction on the local community, transportation links and social infrastructure in Roosecote and Heysham. Initial review of the PEI suggests that there is limited information regarding the tunnel heads and the impact on the surrounding community. For example, information on the construction processes (such as the slurry treatment plant) will not be available until the ES. Proposed construction working hours are included in the Code of Construction Practice that accompanies the PEI Report. In the absence of vital information, the PPA Group considers that the impacts related to noise, vibration, air quality, light, ecology and residential amenity at the tunnel-head sites are not adequately measured, addressed, or mitigated. This issue is a significant concern.

Impact of Tunnel Head construction

3.3.2 Following on from the section above the PPA Group has significant concerns about both proposed layouts given their proximity to existing and proposed residential and commercial development, and adverse impacts on PRoW. Little information is available regarding the onsite processes, such as those relating to the 20m high slurry treatment plant or off site movements. Therefore, at this stage it is not clear whether the local areas will be subject to an unacceptable adverse impact on amenity and health for a prolonged period of construction.

3.3.3 As stated above, National Grid does not intend to provide more information on the project infrastructure, or an assessment of the impacts on the amenity of the local community until the Environmental Statement (ES) to be submitted alongside the DCO.

3.3.4 It should be noted that the indicative layout for the Roosecote tunnel head now reflects the submitted planning application by Centrica for a gas fired power station and energy storage plant. National Grid is confident that there remains sufficient space to accommodate the manufacture of all the concrete segments required for the tunnel. Additionally, after concerns were expressed regarding the location of the segment factory in Heysham, proposals do not include a factory on the Lancashire side.

Worker accommodation

3.3.5 During the construction of the project there is likely to be a concentration of over 380 workers at each of the tunnel heads at Barrow and Heysham. Given the number of directly employed workers required for the construction of the tunnel, and the other major projects in local areas, accommodation for workers is a key concern. The PEI concludes that there is limited effect in the Heysham area given access to transport links and the wider catchment of workers. However, the PPA Group consider that a workforce strategy is nevertheless required that will include commitments from Grid to support delivery of worker accommodation (including refurbishment of existing housing stock) so as to avoid adverse impacts on the existing housing market and visitor accommodation

3.3.6 The impact in the Barrow area is acknowledged and National Grid commit to working with stakeholders to produce an Accommodation Plan to be submitted with the ES. There are currently no details on the content of the Plan. This accommodation will also cover the area of undergrounding in the LDNP.

3.3.7 The PPA Group is concerned that currently there is incomplete workforce planning and accommodation proposals at the tunnel-heads. The PEI Report does not indicate any collaboration with accommodation providers to overcome existing shortfalls and/or raise standards of suitable worker accommodation.

Material, waste and tunnel spoil

3.3.8 The Key Issues Report suggested that the level of construction materials and tunnel spoil generated will place extensive pressure on the transport infrastructure if a road based strategy is followed. Currently National Grid is consulting on both a road based, and multimodal transport strategy (see transport section below). Until a decision has been made it is difficult to appreciate the implications for the materials and waste resulting from the tunnel construction. This is a significant issue that needs addressed before the impacts can be appreciated. National Grid state they are happy to continue to discuss opportunities for the positive use of the tunnel spoil with the PPA Group. However, plans do not appear to have been progressed. A proposed use at Cavendish Dock has been rejected, as the site is part of a SSSI, a SPA and Ramsar, primarily for its bird interest, and National Grid consider that initial investigations suggest there is no reason for its de-notification.

3.3.9 National Grid has proposed a materials movement corridor on the causeway forming the southern edge of Cavendish dock. Movement options being considered include conveyors, narrow gauge rail or use of HGVs with traffic control. This route allows direct access to the Port of Barrow as means of importing and exporting materials and waste. However, some of these options may result in closure to the causeway, including a PRoW for the period of use, in addition to possible noise and amenity issues. The PPA Group suggest that there is inadequate information on the storage, movement and final destination of tunnel spoil.

## 3.4 Transport and connectivity

Transport Strategy

3.4.1 National Grid have yet to select the Transport Strategy, however, review of the PEI suggests that the key risks and impacts of traffic movements have not yet been addressed.

3.4.2 The PPA Group are significantly concerned that National Grid are not consulting on a single and coherent transport strategy. This is a major issue that has widespread impact across other topic areas, such as visitor economy and waste and material. Additionally, the PPA Group and affected communities need to understand how the project will be delivered and what the mitigation and transport improvements are. This approach is inadequate and therefore the PPA Group cannot support National Grid's transport strategy at this point. Given these fundamental issues it is suggested that a subsequent consultation may be required when National Grid have sufficient information and a single strategy to appropriately address these issues.

3.4.3 National Grid conclude that there are no traffic reasons to favour the multi-modal option because of increased flows on more sensitive routes, the road option having a greater impact on the strategic routes which are generally less sensitive. The PPA Group do not accept this conclusion, as it is not clear that this is this appropriate and whether it should apply in all cases. For example, the multi modal strategy would reduce the number of traffic movements though Barrow.

3.4.4 Overall, the PPA Group strongly disagree with the assessment of impacts relating to the 'road based' and 'multi-modal' options. The multi-modal option will reduce the scale of HGV movements in some areas, while also having safety and environmental benefits. Additionally the Group are concerned that the cumulative impacts have not yet been assessed.

3.4.5 The multi-modal options will have a significant reduction in overall vehicle usage, especially for HGVs. This will reduce emissions and accidents, however, these benefits have not been considered.

3.4.6 Furthermore, the PPA Group do not accept National Grid's assertions that railway capacity issues should be a reason for not selecting the multi-modal option. The approach should be to mitigate the rail capacity issues, which would keep traffic off the highway and also provide a legacy benefit.

3.4.7 For the central strategic route area National Grid suggest an additional reason for not choosing the multi-modal option is given as the impacts on capacity of the Cumbrian Coast Line, Workington Port and Workington Port rail depot, although it is understood that there is sufficient capacity at Workington Port to accommodate the additional tonnage.

Transport improvements

3.4.8 The construction of the NWCC project will require extensive traffic related to the importing (and decommissioning) of material for access and haul roads, construction materials, cabling and waste. There is concern about the cumulative impact of these movements on the transport network especially if a single source is used and a road based approach is adopted. Additionally, a number of rail and road construction sites are proposed to store and deploy materials; these are all along the route and are more concentrated in the areas where underground technology will be used, such as Drigg, Silecroft and Foxfield. The transport infrastructure along the route and in these areas in particular is constrained, therefore, the impact of the movements is likely to require mitigation measures to address pinch points on the network and improve the local highway network, and minimise impact on nearby residents and businesses including at Foxfield Business Park.

3.4.9 Fundamentally, there is a lack of appropriate mitigation of traffic impacts on the highway network, which needs to be informed by modelling of traffic flows both for the individual development and for the cumulative impact, and is dependent upon the completion of survey data. It is suggested that mitigation should also address the following, for which no detail has yet been provided; the safe management of traffic on minor roads, the impact of worker accommodation locations – for example for the underground section within the National Park, implementation of Travel Plans

3.4.10 Lack of information on mitigation is a serious issue that needs to be addressed to enable a full assessment to be made.

Public Rights of Way (PRoW), cycle ways and paths

3.4.11 The NWCC project will have temporary (during construction) and permanent effect on the PRoW across Cumbria and those related to the tunnel head at Heysham. This will include closures, diversions and a reduction in the amenity and ability of users to enjoy the routes.

3.4.12 Review of the PEI reveals that the project will have an adverse impact on a number of PRoW, paths and cycleways. Key risks and impacts on PRoW and cycle paths have not been adequately addressed. More in depth assessment is required to understand the extent of these impacts across the area, however, at this stage National Grid are proposing a package of measures to mitigate the closures and disruption to the routes. These will be set out in a PRoW Management Plan (PMP) that will form part of the application for DCO. In addition, a number of specific mitigation measures are proposed in certain locations, these relate to proposed plans for the mitigation of key features such as a proposed Hadrian's Wall Mitigation Plan. These specific plans will also be secured in the DCO. The PPA Group are concerned that at this time there is a lack of clarity on appropriate mitigation measures that are required.

3.4.13 While the undergrounding through the Park be supported, in terms of setting, the A5092 transport corridor approach to the Western Lakes, along with the 'view out' of the National Park from Open Access and specific PRoW are undeniably affected by the proposed stretch of pylons that hug the National Park Boundary through Whicham and the Duddon.

Construction Access Points

3.4.14 WYG have been provided additional information outside the PEI showing the routes from the main roads, such as the A596, to construction access points. There are a significant number of access points to service the 1000 individual construction sites across the area. Some of the routes are on narrow lanes with tight bends, sharp crests, narrow bridges, NCN cycle routes or past schools, e.g. Beacon Hill School in Aspatria. Access to the Barrow tunnel head is off the A5087 which has residential frontage, on-street parking and a low bridge. No details of how these routes will be safely managed with the additional HGV flows have been provided. This should be part of the public consultation.

Highway Assessment

3.4.15 The impact of construction traffic has been assessed based on the average daily flow in the busiest peak four week period – based on engineering judgement. Whilst the principle that the impact should be reasonably prolonged (not just for a day or two) is accepted it is not clear why four weeks is appropriate.

## 3.5 Terrestrial and avian ecology

Habitats Regulation Assessment

3.5.1 The PPA Group are significantly concerned that there has been a failure to progress with the statutory Habitats Regulation Assessment (HRA) of the impacts of the project on internationally important wildlife. This has resulted in a failure to identify risks, such as those associated with the Ravenglass Estuary SAC of undergrounding/HDD operation, and of tunnel option on Morecambe Bay SAC/SPA. Furthermore, the PPA Group are concerned that a number of sites or sections which are hydrologically linked to European or International sites have been scoped out (e.g. South Solway Mosses SAC); Additionally, it is considered that the lack of any assessment of cumulative impacts on ecology, including EU protected sites and species, will affect the timescale for the HRA.

3.5.2 This could lead to significant delays to the acceptance of the DCO by PINS if not addressed.

Ecology Surveys

3.5.3 Many of the ecology -assessments have been based on incomplete survey data, which will need updating when surveys have been completed. This information will now only be available for incorporation into reports at the ES stage so we will not be able to comment on any of the final ecology evaluations and assessments.

3.5.4 Additionally, some assessments provide a conclusion of no significant effect despite the fact that surveys are still ongoing.

Topics Scoped out

3.5.5 It appears that the existing incomplete information has been used to scope in or out various designated sites, habitats and species. This approach will not provide a robust assessment until all the information has been considered, and scoping out features prior to obtaining all the data may result in these features being ignored prior to the final ES. Provision of habitat areas in table format should be sought for the development order limts sections.

3.5.6 Issues have then been scoped out (habitats and/or species) from certain sections prior to assessing completed survey material. The PPA Group suggest this results in unreliable conclusions on significance of potential impacts.

Non-designated priority habitats

3.5.7 The PPA Group are concerned that non-designated priority habitats are not effectively assessed and therefore are not appropriately protected. This is of particular significance in the southern section where undergrounding is proposed which has potential to result in more significant damage to habitats. Additionally, parts of the assessment rely on Aerial Photo Interpretation and therefore it has not been possible to possible to accurately assess the value of most habitats using this approach.

Invasive Non Native Species

3.5.8 Although invasive species have been recorded as present or absent within entire route sections there is no detail on location of Japanese knotweed where it may provide a constraint to the works. The PPA Group consider that in view of the large geographic extent of the linear project it is vital that non-native invasive species are dealt with extreme care due to the risk of spread over a wide area posing potential significant risks to biodiversity. In particular – Japanese knotweed can take many years to eradicate, therefore it will be important to deal with this problem well in advance of the proposed construction schedule.

Effective Mitigation

3.5.9 The PPA Group are concerned that the mitigation measures outlined are not considered adequate. There is a lack of appropriate mitigation and compensation for impacts on habitats and species; in particular not avoiding key hotspots, inadequate construction methods and compensation for loss and disturbance.

3.5.10 Design mitigation will be important to avoid impacts on several County Wildlife Sites and woodland areas. For example, the present route results in woodland areas, including parts of ancient woodland, being lost or the canopy removed. Compensation is proposed by National Grid to comprise planting of a similar area of woodland to that lost. However, loss of mature woodland and in particular ancient woodland cannot be mitigated or compensated for. The first consideration should be the avoidance of woodland through micro-siting but the information provided does not make it clear in most cases whether micro-siting has been considered and why this cannot be achieved.

3.5.11 The PPA Group consider that in all cases avoidance should be adopted, and if this is impossible then the reasons for this need to be highlighted and explained in detail. Additional compensation will be expected where loss of mature/ancient woodland is still being considered. It is also considered that a clear Code of Practice for any development work in the vicinity of ancient or mature woodland.

Protected Species Impacts

3.5.12 Clear rationale behind the selection of specific study areas for additional protected species survey and more detailed habitat/NVC survey is not provided other than an overview of methodology used. It is not always apparent how disturbance to protected species will be assessed and addressed during construction and maintenance phases.

## 3.6 Historic environment and cultural landscapes

World Heritage Sites

3.6.1 The PPA Group are concerned that the key risks and impacts to World Heritage Sites are not adequately addressed. In particular, only one of the three key features of the English Lake District nominated World Heritage Site have been considered. Although the assessment terminology used in the PEI is the same as in the ICOMOS HIA Guidance (2011), it exclusively focuses on the physical historic environment as an attribute of Outstanding Universal Value (OUV). There is a tendency within the suite of PEI documents to treat World Heritage as solely a historic environment issue. However, this approach covers only part of the first of the three themes of OUV which have been identified for the English Lake District. There is a need to ensure that the HIA takes into account the full range of OUV attributes from the three main themes. There is also a need to make sure that the wider EIA also takes into account the full range of National Park Special Qualities. Currently it is not clear that the PEI has done this.

3.6.2 Furthermore, the PPA Group consider that there is a failure to provide adequate information and evidence to enable assessment of impacts on the Frontiers of the Roman Empire (Hadrian's Wall) World Heritage site (FRE WHS).

3.6.3 The PEI concludes that for both the FRE WHS and the candidate English Lake District WHS, the net effect of NWCC would be *"a slight beneficial significance of effect on this asset as a whole"*. This appears to be based primarily on the removal of ENW infrastructure and improvement of the ability to appreciate the physical historic landscape. In terms of the Lake District National Park, this relates only to part of the first theme of Outstanding Universal Value (OUV).

3.6.4 The HIA should also assess the potential impact on OUV of the surface treatment of the undergrounded section within the National Park.

3.6.5 Without a demonstrably comprehensive HIA it is it is difficult at this stage to accept the conclusion that NWCC would have *"slight beneficial significance"* for the OUV of the candidate English Lake District WHS.

Historic Environment and Archaeology

3.6.6 The PPA Group consider that there is inadequate evidence and assessment of impacts to the historic environment and archaeology across the route, and in particular from underground construction methods including cabling in the Lake District National Park. Undergrounding will have a major impact on any archaeological remains within the corridor and although mitigation can be provided, in terms of evaluation and recording, there is a risk that any archaeological remains could be destroyed on the route and they are a finite and unrenewable resource.

3.6.7 A major concern is, however, that the desk based assessment and walkover survey of the route corridor has not, as far as we are aware, been complete; and no viewpoint analysis is provided in connection with potential impacts on the setting of designated heritage assets. It is understood that the results from this piece of work and other projects that have been recently completed (i.e. aerial mapping project/Romans in Ravenglass), have not been used in the PEI. We therefore do not feel at this stage that we have all the information available to be able to ascertain the overall impact on the historic environment.

## 3.7 Project wide comments

Cumulative impact assessment

3.7.1 As stated in the PPA Group comments on the PEI Cumulative Effects Briefing Paper, the adopted four-stage approach which reflects the approach within the PINS Advice Note 17 is welcomed. It is understood that the PEI will only contain stages 1 and 2 as set out in the advice note, and that the EIA procedure will enable decision making as to the actual final cumulative impacts to be assessed, their extent and residual outcomes.

3.7.2 As this is such a critical element for decision makers, whilst paragraph 22.1.6 states that "*Consultee comments have been considered during the compilation of this chapter, with the ZoI and assessment methodology amended where appropriate*", it would be more helpful and clearer to the Planning Inspectorate in the future for a table be provided in the ES setting out whether or not the changes sought by the PPA Group have been accepted, and if they have not then there should be clear justification for doing so.

3.7.3 There are a number of specific areas that require clarification, which relate to the assumptions for the distances used for the Zones of Influence identified for each of the topic areas covering: landscape (10km), Socio economics (20km), terrestrial and avian ecology (20km), historic environment (10km), and waste (10km).

3.7.4 With regard to marine matters, we note and welcome that Table 22.1 now confirms that the Islet associated with the Morecombe Bay tunnel, consultation with relevant bodies and Government levels and that works in the Duddon and Ravenglass estuaries are to be included.

PEI consultation

3.7.5 In a letter dated 21 October 2016, the PPA Group had expressed concern to National Grid that despite a 10-week consultation period running from 28 October 2016 to 6 January 2016, this was a compromise position and had been based on assurances by National Grid that technical information would be released to the Authorities well in advance of the formal consultation date. This length of time was needed to allow all the PEI material to be properly considered and for that consideration to inform the Local Authorities' consultation response.

3.7.6 However, notwithstanding that assurance, several deadlines offered by National Grid were passed without the technical information being released on time. Consultation responses have to be approved by the various Local Authority Executives prior to issue to National Grid, and there is a significant lead-in time for all Committee reports to be prepared by the Local Authorities. The delay by National Grid in presenting material in the PEI has therefore meant that a full consideration of all the documentation is a significant challenge within the timescales. As a consequence the original request that the S.42 consultation be extended to the 3 February 2017 still stands to enable the PPA group to provide National Grid with a properly considered and approved consultation response, and enable National Grid to have full information on local sensitivities and impacts when it finalises the application ready for the DCO submission.

Lack of information

3.7.7 There has been a general lack of sufficient information presented within the PEI for a full assessment of the potential effects of the development to be carried out by the PPA Group and its specialists at this formal stage of consultation.

3.7.8 There are gaps as well assumptions that have been made across almost all topic areas (including landscape, ecology, transport, historic environment, socio-economics, noise, hydrology etc). If this is carried through to the final Environmental Statement could lead to incorrect assessments and the wrong conclusions drawn on the likely affects. Additionally, the approach would be inadequate in terms of ongoing engagement with the PPA Group and other organisations. This is addressed in more detail in the topic-by-topic analysis and will be drawn out in the final PEI response.

3.7.9 The PPA Group are concerned that these matters need to be addressed and consulted on prior to the development of a Environmental Statement and the submission of the DCO.

APPENDIX No. 3


NWCC ROUTE LEGEND

LEGEND

- PERMANENT SUBSTATION & HEADHOUSE COMPOUND
- TEMPORARY COMPOUND FENCELINE (2.5m HIGH) WHERE INSIDE BUILD DEVELOPMENT LINE
- PUBLIC FOOTPATH
- PEDESTRIAN WALKWAY
- CENTRE OF SHAFT SHOWN AT OSGB GRID COORDINATES
  E = 322488.153 N = 468410.187
- TEMPORARY FACILITIES FOR DURATION OF CONSTRUCTION PHASE
- FIXED LOCATIONS

NOTES

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
2. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM
3. TEMPORARY STRUCTURE HEIGHT ABOVE GROUND LEVEL = 4.8m UNLESS NOTED OTHERWISE
   MAXIMUM VEHICLE CONVEYOR HEADROOM = 10m
   BUILDING HEIGHT OVER SHAFT = 15m
   HEIGHTS STATED ABOVE DO NOT INCLUDE FOR MOBILE PLANT OR CRANES (SEE BELOW).
4. ALL DIMENSIONS REPRESENT A REASONABLE WORST CASE IN EACH INSTANCE
5. THE TEMPORARY WORK EQUIPMENT LOCATIONS ARE INDICATIVE ONLY
6. EARTHWORKS, TERRACING OR RETAINING WALLS MAY BE REQUIRED AT SLOPING GROUND UNDER THE SWITCHGEAR

| TRANSIENT PLANT ITEMS INCLUDE | |
|---|---|
| ITEM | HEIGHT (m) |
| CRANE LIFT CRANE | 10 |
| SHAFT CRANE | 45 |
| TEMP LIFT HOIST CRANE | 45 |
| YARD CRANE | 45 |

DRAWING BASED ON NATIONAL GRID DRAWING PDO-21037-TUN-800 - ISSUE 6

nationalgrid

| Master Scheme No. | Sub-Scheme No. | Cat. |
|---|---|---|
| 30029 | 16303780 | NWCC |

Scheme Name: NORTH WEST COAST CONNECTIONS

Document Title: FIGURE 4.13.1 TUNNEL TEMPORARY WORKS PLAN - ROOSECOTE

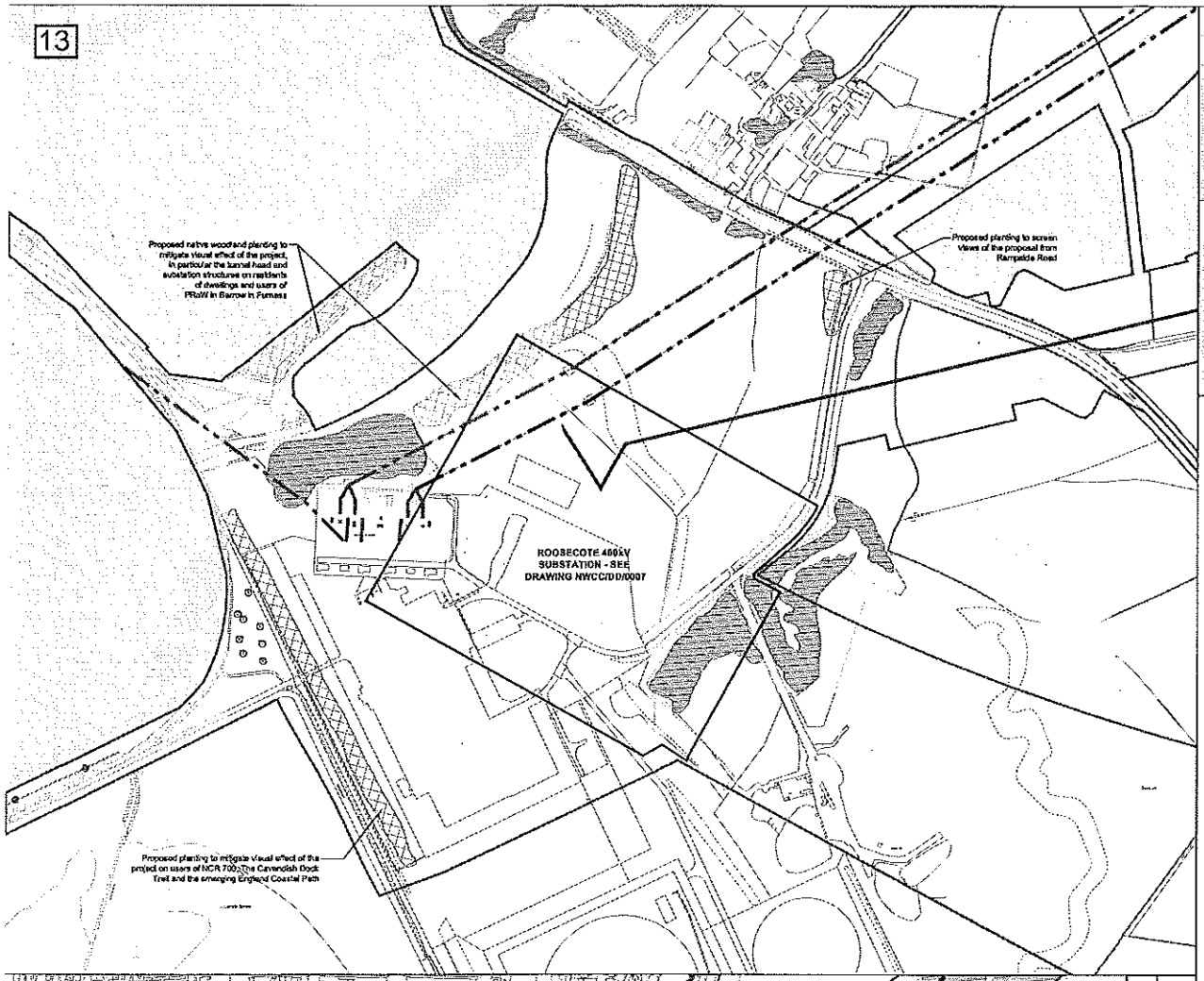
| Created by: H.LOWTHER | Date: OCTOBER 2015 | Checked by: D.GOOCH | Date: OCTOBER 2015 | Approved by: P.REASTON | Date: OCTOBER 2015 |
|---|---|---|---|---|---|
| Co-ordinated by: P. BYRON | Document Type: | Scale: 1:500 | Format: A1 | Sheets: - | Rev: - |

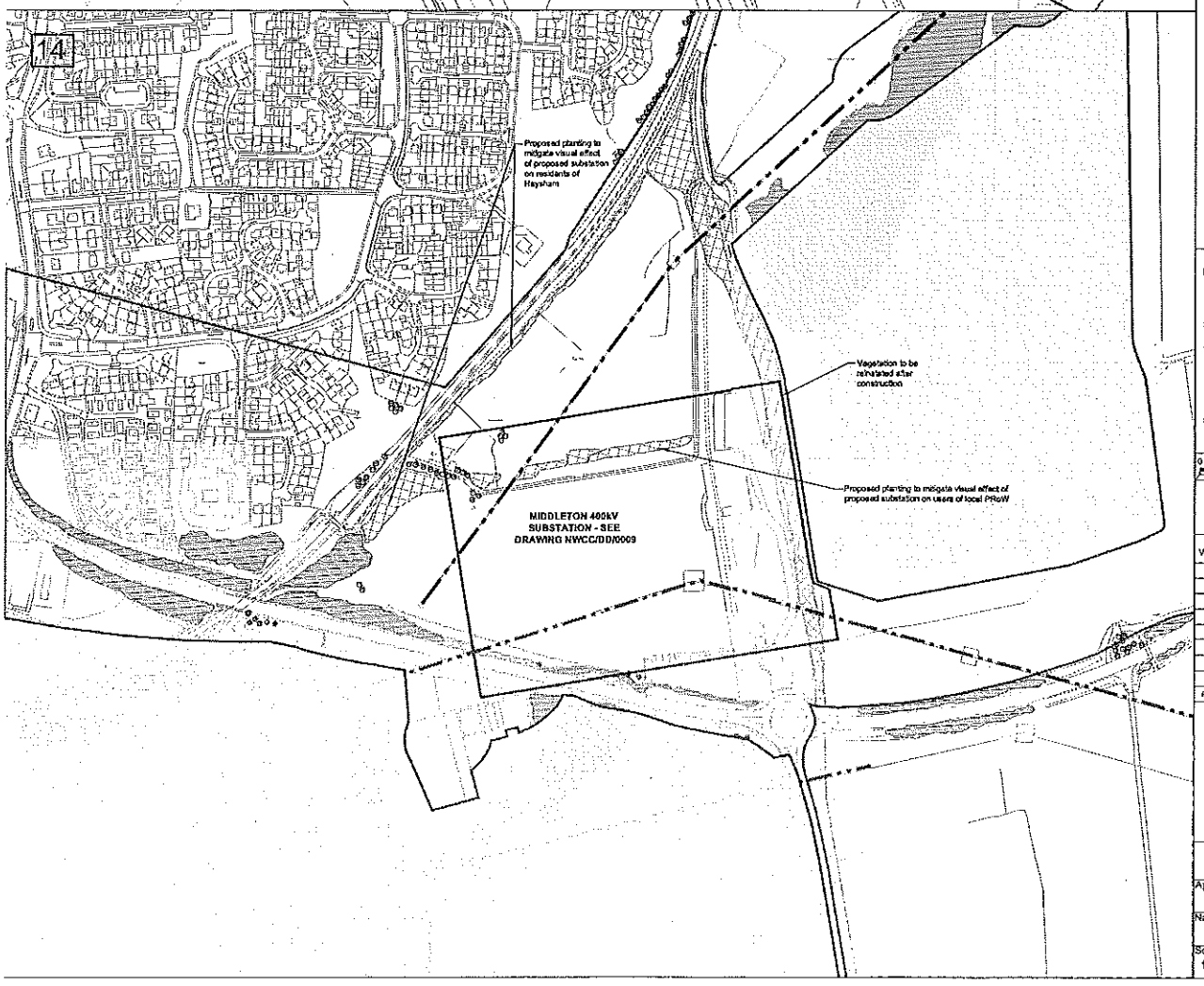
National Grid Document No.: PDO-30029-REP-0028

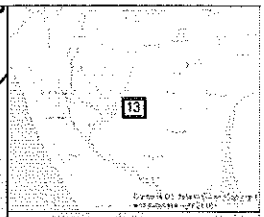
PEED Document No.: 16303780-REP-0028

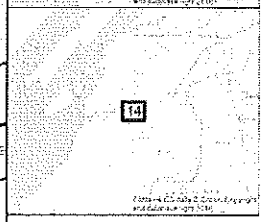
NATIONAL GRID (NORTH WEST COAST CONNECTIONS PROJECT) ORDER
LANDSCAPE MITIGATION PLANS (REGULATION 5(2)(o))
SHEET 7 of 8
EIA SECTION H1 AND H3
BARROW-IN-FURNESS BOROUGH COUNCIL
AND LANCASTER CITY COUNCIL

FOR CONSULTATION PURPOSES




KEY

- Draft Order Limits
- Area not included in Draft Order Limits
- Substation or Cable Sealing End Compound drawing extents

Existing Infrastructure

- Existing 400kV Overhead Line
- Existing 132kV Overhead Line - To be retained
- Existing 132kV Overhead Line - To be removed

Proposed Infrastructure

- Proposed 400kV Route Alignment Centreline

Existing Vegetation to be retained

- Hedgerow
- Trees
- Woodland

Proposed Planting

- Proposed Woodland
- Proposed Shrub

NOTES:

1. No dimensions are to be scaled from this drawing. All dimensions are to be checked on site.
2. All plans are best printed in colour using CMYK colour model.
3. Draft Order Limits – The outer extent of the line is contiguous with the extent of the Draft Order Limits.
4. The purpose of this plan is to show indicative landscape mitigation proposals. This plan does not identify vegetation within the Draft Order Limits that may be potentially affected by construction works or vegetation to be reinstated following construction. This will be identified on the Trees and Hedgerows to be Removed or Affected Plans at the DCO stage.
5. This plan shows a simplified version of the works. Refer to the Works Plans and Substation Layout Plans for detailed design information.

0 3 6 9 12 Metres



Version History:

| Rev | Date | Remarks | Drawn | Checked | Approved |
|---|---|---|---|---|---|
| 1 | 14/10/2015 | S 42 Consultation | HL | DG | JB |

NATIONAL GRID (NORTH WEST COAST CONNECTIONS PROJECT) ORDER
LANDSCAPE MITIGATION PLANS
(REGULATION 5(2)(o))
SHEET 7 of 8
EIA SECTION H1 AND H3
BARROW-IN-FURNESS BOROUGH COUNCIL
AND LANCASTER CITY COUNCIL

nationalgrid

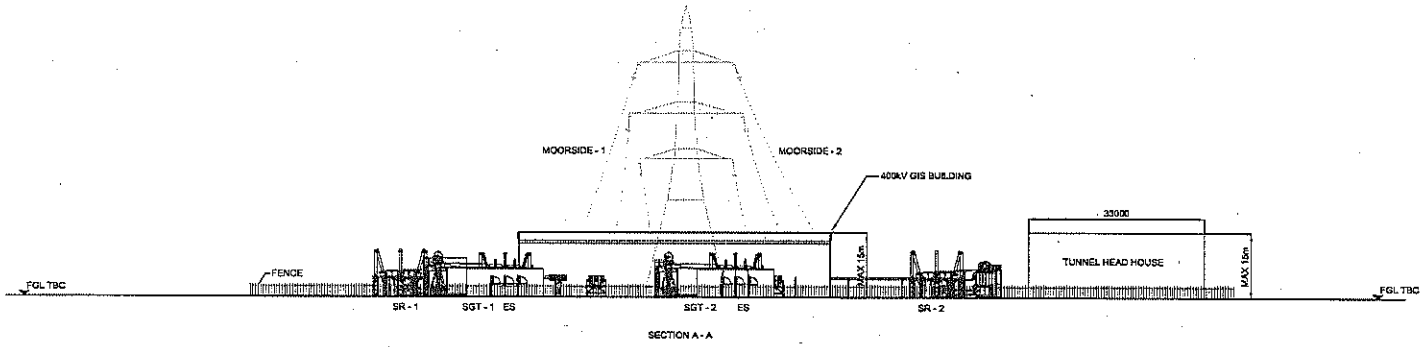
Application Number:
EN020007

National Grid Drawing Ref:
NWCC/LM/0007

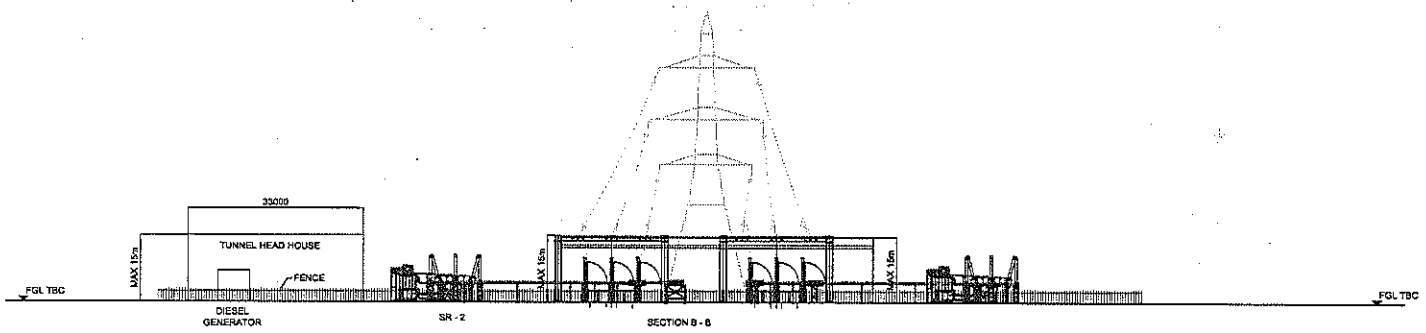
| Scale: | Sheet: | Size: | Status: |
|---|---|---|---|
| 1:2,500 | 7 of 8 | A1 | A |

NATIONAL GRID (NORTH WEST COAST CONNECTIONS PROJECT) ORDER
DESIGN DRAWING (REGULATION 5(2)(o))
SHEET 1 of 1
EIA SECTION H1
BARROW-IN-FURNESS BOROUGH COUNCIL

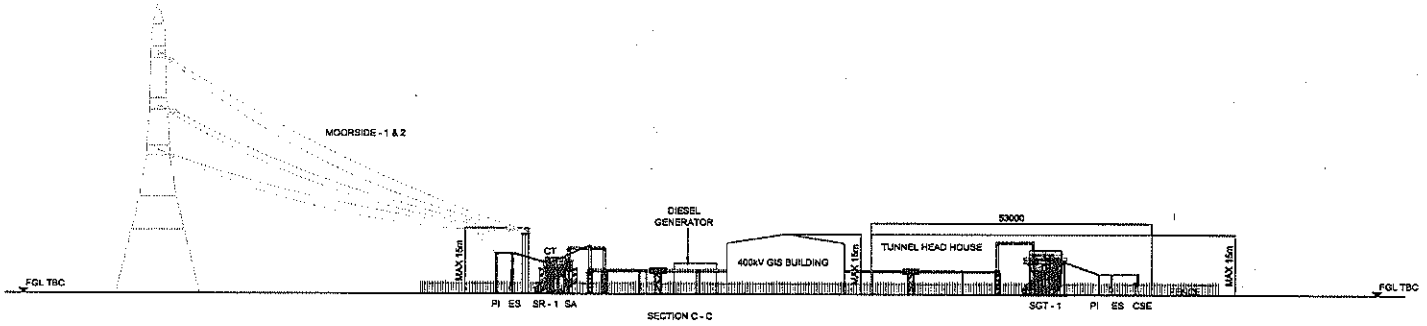
FOR CONSULTATION PURPOSES



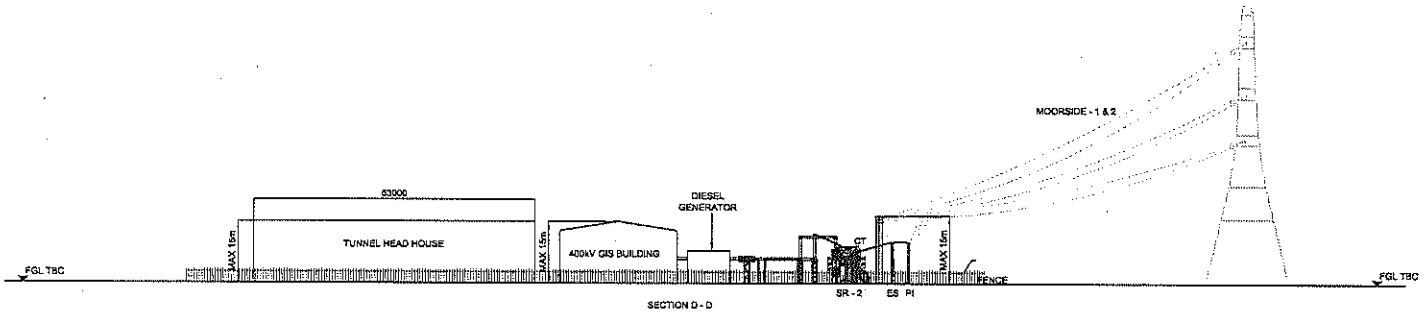

SECTION A - A




SECTION B - B




SECTION C - C




SECTION D - D

0 Metres 10

KEY:

- NEW EQUIPMENT
- OVERHEAD LINE
- HEAD HOUSE

NOTES:

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED. NO DIMENSIONS ARE TO BE SCALED FROM THIS DRAWING. ALL DIMENSIONS ARE TO BE CHECKED ON SITE.
2. ALL PLANS ARE BEST PRINTED IN COLOUR USING RGB COLOUR MODEL.

ABBREVIATIONS:

| | | |
|---|---|---|
| CSE | - | CABLE SEALING END |
| CT | - | CURRENT TRANSFORMER |
| ES | - | EARTH SWITCH |
| PI | - | POST INSULATOR |
| SA | - | SURGE ARRESTORS |
| SGT | - | SUPER GRID TRANSFORMER |

REFERENCE DRAWINGS:

1.NWCC/DD/0015 NATIONAL GRID (NORTH WEST COAST CONNECTIONS PROJECT) ROOSECOTE SUBSTATION LAYOUT

2.NWCC/WP/0138 NATIONAL GRID (NORTH WEST COAST CONNECTIONS PROJECT) WORKS PLAN SHEET 137 OF 158

Version History:

| Rev | Date | Remarks | Drawn | Checked | Approved |
|---|---|---|---|---|---|
| 2 | 28/09/2016 | DCO FORMATTING ONLY | SL | KB | DP |
| 1 | 16/12/2015 | ENG. DESIGN DRAWING | BK | PD | PD |

NATIONAL GRID (NORTH WEST COAST CONNECTIONS PROJECT)

ROOSECOTE SUBSTATION ELEVATIONS

nationalgrid

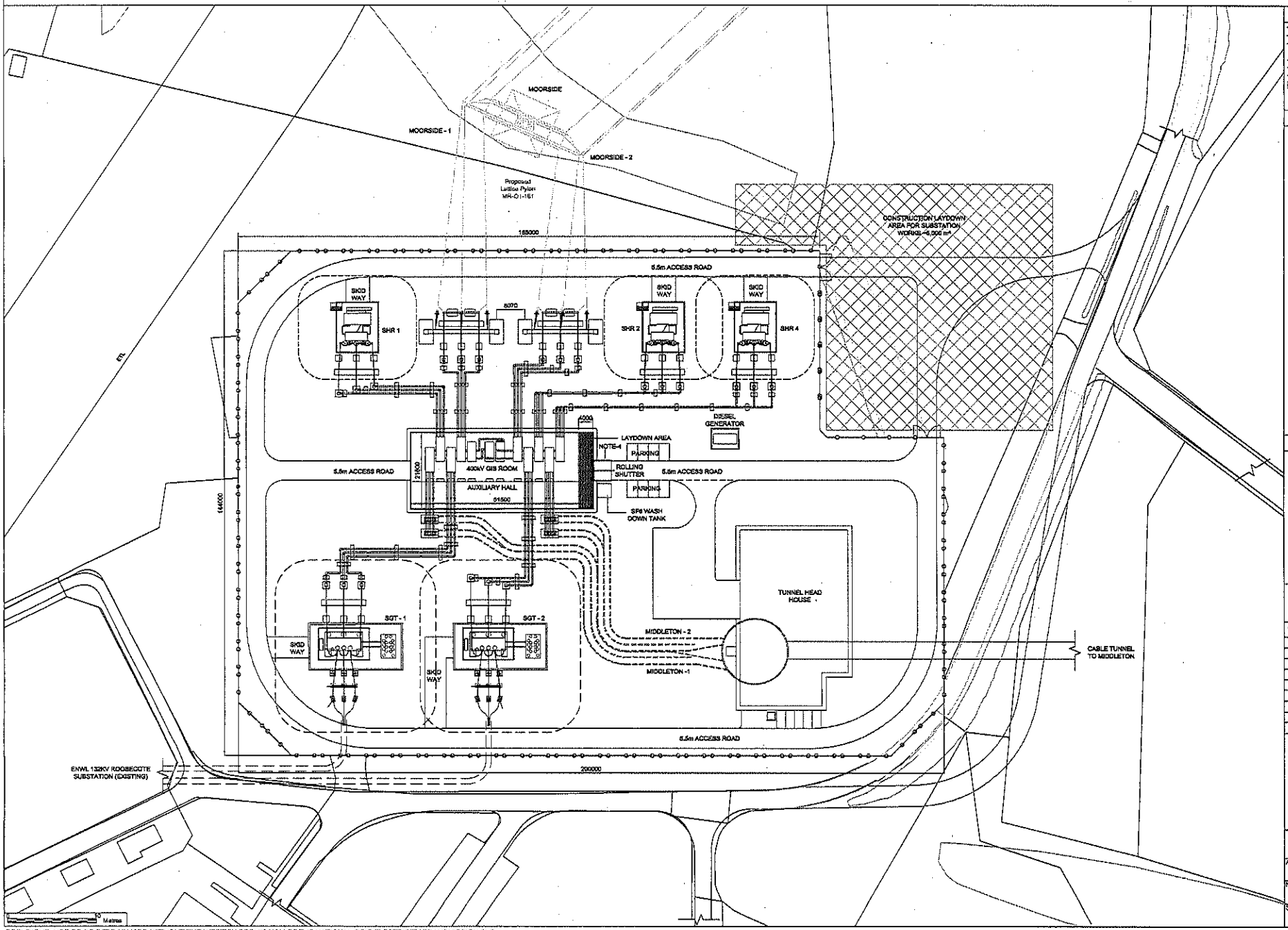
Application Number: EN020007

National Grid Drawing Ref: NWCC/DD/0016

| Scale: | Sheet: | Size: | Status: |
|---|---|---|---|
| 1:500 | 1 of 1 | A1 | A |

NATIONAL GRID (NORTH WEST COAST CONNECTIONS PROJECT) ORDER
DESIGN DRAWING (REGULATION 5(2)(o))
SHEET 1 of 1
EIA SECTION H1
BARROW-IN-FURNESS BOROUGH COUNCIL

# FOR CONSULTATION PURPOSES




KEY:

- NEW EQUIPMENT
- FENCE
- CABLE
- OVERHEAD LINE
- TUNNEL INFRASTRUCTURE BY OTHERS
- FIRE DAMAGE ZONE
- TO BE REMOVED
- CONSTRUCTION LAYDOWN AREA FOR SUBSTATION WORKS

NOTES:

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED. NO DIMENSIONS ARE TO BE SCALED FROM THIS DRAWING. ALL DIMENSIONS ARE TO BE CHECKED ON SITE.
2. ALL PLANS ARE BEST PRINTED IN COLOUR USING RGB COLOUR MODEL.

REFERENCE DRAWINGS:

1. NWCC/DD/0016 NATIONAL GRID (NORTH WEST COAST CONNECTIONS PROJECT) ROOSECOTE SUBSTATION ELEVATIONS
2. NWCCOWP/0136 NATIONAL GRID (NORTH WEST COAST CONNECTIONS PROJECT) WORKS PLAN SHEET 137 OF 158



Version history:

| Rev | Date | Remarks | Drawn | Checked | Approved |
|---|---|---|---|---|---|
| 2 | 23/08/2018 | DCO FORMATTING ONLY | WT | KB | DP |
| 1 | 30/08/2016 | ENG. DESIGN DRAWING | WK | PO | TC |

NATIONAL GRID (NORTH WEST COAST CONNECTIONS PROJECT)

ROOSECOTE SUBSTATION LAYOUT

nationalgrid

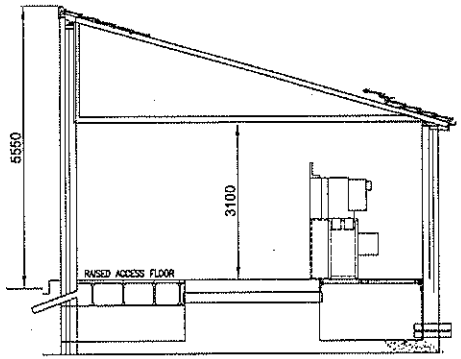
Application Number: EN020007

National Grid Drawing Ref: NWCC/DD/0015

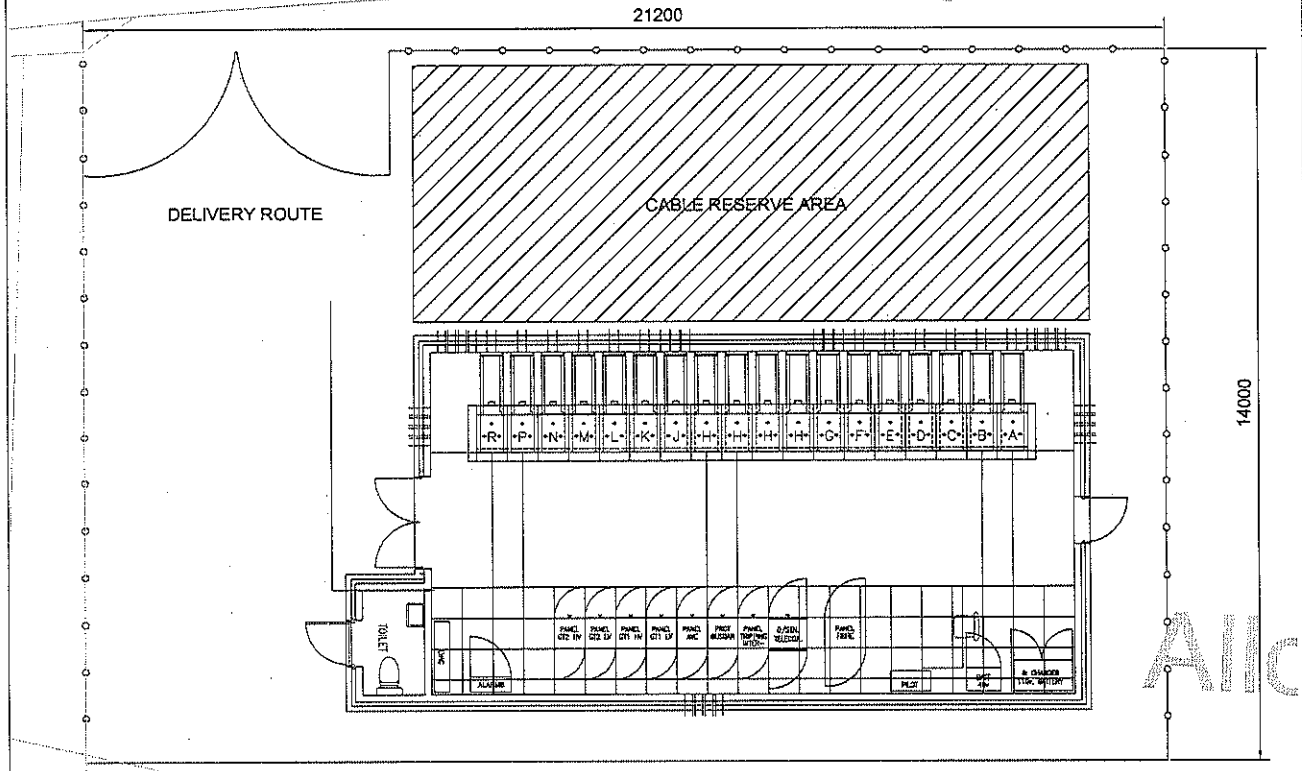
| Scale: | Sheet | Size: | Status: |
|---|---|---|---|
| 1:500 | 1 of 1 | A1 | A |

NATIONAL GRID (NORTH WEST COAST CONNECTIONS PROJECT) ORDER
DESIGN DRAWING (REGULATION 5(2)(o))
SHEET 1 OF 1
EIA SECTION H1
BARROW-IN-FURNESS BOROUGH COUNCIL

# FOR CONSULTATION PURPOSES




SECTION




0 10 Metres

KEY:

NEW EQUIPMENT
FENCE

NOTES:

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED. NO DIMENSIONS ARE TO BE SCALED FROM THIS DRAWING. ALL DIMENSIONS ARE TO BE CHECKED ON SITE.
2. ALL PLANS ARE BEST PRINTED IN COLOUR USING RGB COLOUR MODEL.

REFERENCE DRAWINGS:

1.NWCC/WP/0051 NATIONAL GRID (NORTH WEST COAST CONNECTIONS PROJECT) WORKS PLAN SHEET 138 OF 168



Version history:

| Rev | Date | Remarks | Drawn | Checked | Approved |
|---|---|---|---|---|---|
| 2 | 29/08/2018 | CCO FORMATTING ONLY | BL | KS | DP |
| 1 | 07/07/2016 | ENG. DESIGN DRAWING | S.L.H. | M.T. | M.T. |

NATIONAL GRID (NORTH WEST COAST CONNECTIONS PROJECT)

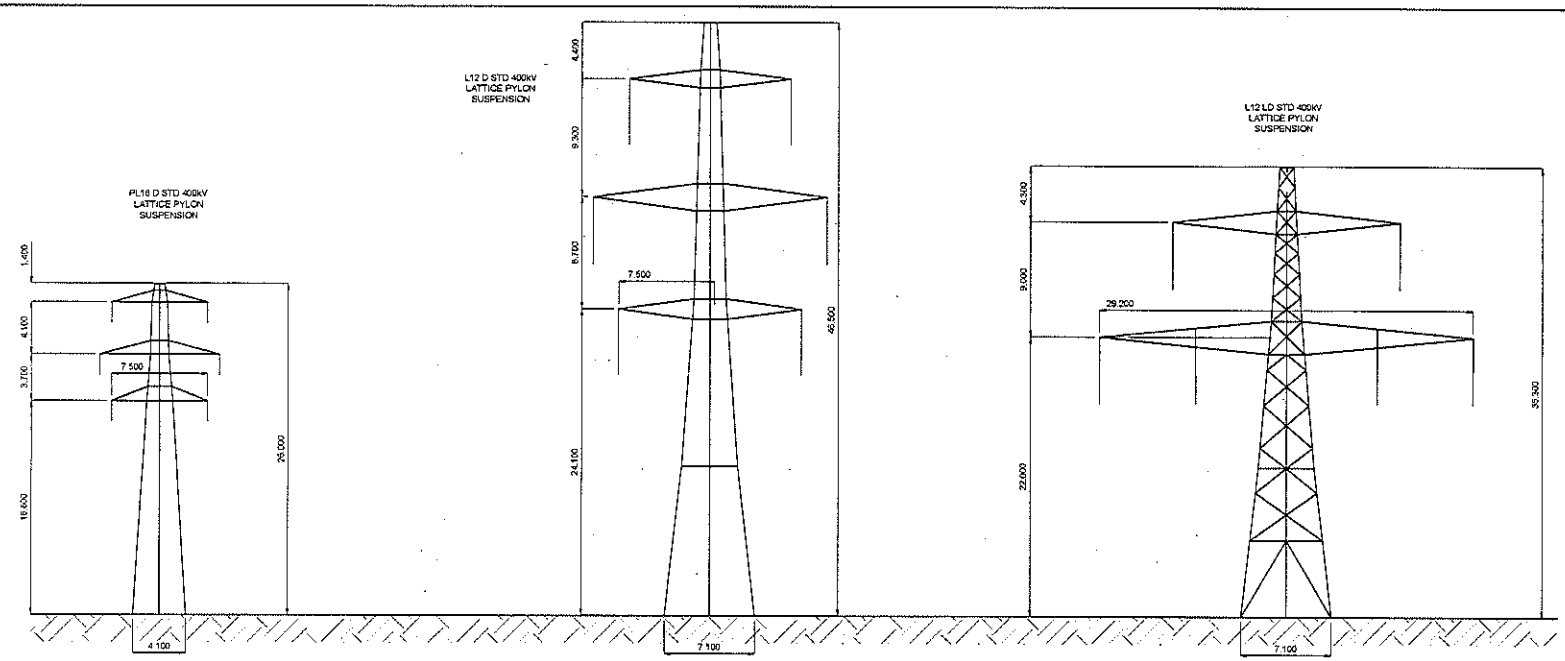
SANDGATE SUBSTATION
LAYOUT & ELEVATION

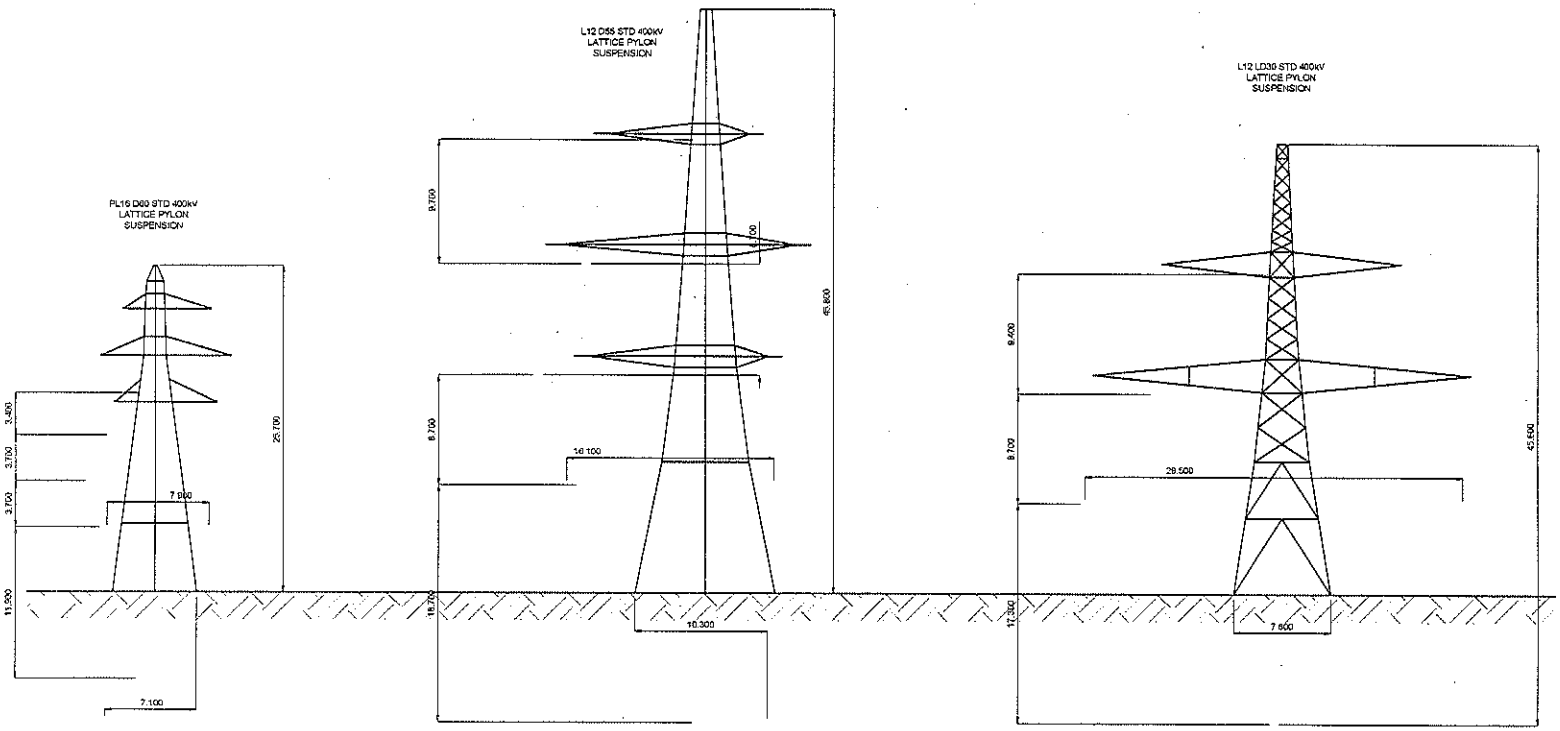
nationalgrid

Application Number: EN020007

National Grid Drawing Ref: NWCC/DD/0025

| Scale: | Sheet: | Size: | Status: |
|---|---|---|---|
| 1:50 | 1 of 1 | A1 | A |




NWCC ROUTE LEGEND

LEGEND

NOTES

1. Drawing based on National Grid Drawing PDD-30029-OHL-0023 Revision 2

nationalgrid

| Master Scheme No. | Sub Scheme No. | Site: |
|---|---|---|
| 30029 | 15303750 | NWCC |

Scheme Name: NORTH WEST COAST CONNECTIONS

Document Title:
FIGURE 4.3.1
PROPOSED PYLON TYPES AND DIMENSIONS

| Created By | Date: | Checked By: | Date: | Approved By: | Date: |
|---|---|---|---|---|---|
| H.LOWTHER | OCTOBER 2014 | D GOOCH | OCTOBER 2014 | P.REASTON | OCTOBER 2014 |
| Development Eng. / P. BYRON | Document Type: | Scale: 1:200 | Format: A3 | Sheets: - | Rev: - |

National Grid Document No.: PDD-30029-REP-0028

FEED Document No.: 1403750-REP-0028

## Table 4A.5.1 Volume of Material Requirements and Arisings/Wastes by Type

| Material and Purpose | Tonnage/ Volume | Location Material Required/Waste Generated | Notes |
|---|---|---|---|
| Materials | | | |
| Aggregate for temporary trackways, hardstanding and crane pads and tunnel works (including islet) | 1.61M tonnes | Spread along line of Project with concentrations at the tunnel heads | Estimated aggregate requirement 1.13M tonnes for overhead line, undergrounding and related works, and 475,000 tonnes for tunnel works including islet. Islet material may be direct delivered from coastal quarries. |
| Cement Bound Sand | 213,700 tonnes | Mainly required in underground sections | |
| Steelwork for pylons | 20-30,000 tonnes | Evenly spread along line of Project | Pylon steelwork c.146 tonnes/km<br>Smaller tonnages of metals generated by removal of 132kV infrastructure |
| Concrete for pylon footings, substations, islet and tunnel head compounds | Up to 400,000 tonnes | Evenly spread along line of Project with concentrations at substations and tunnel heads | 216,000 tonnes required for tunnel head works (excluding tunnel segments). 37,000 tonnes required for substations and DNO Works. Up to 147,000 tonnes required for 400kV line. Final figure for 400kV determined by foundation design. |
| Geotextile for temporary trackways, hardstanding and crane pads | c.2.74M square metres | Evenly spread along line of Project | Bulky, low weight item. Additional tonnages required for tunnel heads, compounds and substations. Requirement based on 0.3m depth of aggregate.<br>Very light material – Total weight of geotextile c. 500 tonnes |
| Concrete tunnel segments | (14,239 x 18 tonne rings) required for tunnel and 10,387 tonnes for shafts | Roosecote and Heysham. 6047 rings required at Middleton and 8192 rings at Roosecote | Assumed tunnel segments manufactured on site at Roosecote from imported aggregate/cement/additives. |
| Tunnel Boring Machine (TBM) consumables | 19,557 tonnes | Roosecote and Heysham | Including bentonite, lime, grout and wide range of other materials required for tunnelling process. Materials imported dry in bagged form or tanker.<br>Final volume determined by TBM selection. |

| Material and Purpose | Tonnage/ Volume | Location Material Required/Waste Generated | Notes |
|---|---|---|---|
| Arisings/Wastes | | | |
| Tunnel spoil | 0.99M cubic metres (bulked) (1.32Mt) | 497,068m$^3$ from tunnel at Roosecote<br>366,389m$^3$ from tunnel at Heysham<br>104,441m$^3$ from shafts | Tunnel spoil likely to be mainly granular with some clays. |
| Used aggregate removed from temporary tracks, hardstandings and crane pads | Up to 1.27M tonnes | Evenly spread along line of Project. Concentrations at tunnel heads and compounds | |
| Excavated soils (substrate) | 409,000 tonnes | Primarily underground sections – but also along route of Project | |
| Used geotextile from temporary trackways, hardstandings and crane pads | c2.74M square metres | Evenly spread along route of Project | Bulky, low weight item. Cannot be recycled/ reused.<br>Total weight c.500t |
| Waste metal from removed pylons and conductors | c.9,000 tonnes from pylon and conductor removal | Evenly spread along route of Project | Steel pylons and aluminium conductors from 132kV circuits |
| General construction waste | Maximum of 60,000 tpa | Evenly spread along route of Project. Concentrations at tunnel heads and compounds | Based on 10% of National Grid's annual waste arisings |

## Table 4A.6.1 Assumptions for PEI – Bulk Materials

**Key**
++ = very likely mode
+ = potential mode
x = discounted as an option

| Material Required | Quantity | Type | Where Required (Project Works) | Key Considerations | Study Area | Relevance of Transport Mode | | | Source of Material | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Road | Rail | Sea | | |
| Aggregate | 1.8 Mt including sand in cement bound sand | Primary aggregate | Temporary trackways, hardstandings and crane pads | Cost Environmental Proximity Principle | Local (Cumbia and Lancashire) | ++ | x | x | Quarries (Cumbia and Lancashire) | Either Primary or Secondary Aggregate required or combination of both |
| | | | | | Wider (UK and overseas) | + | + | + | Quarries (UK and overseas) | |
| | | Secondary or recycled aggregates | Temporary trackways, hardstandings and crane pads | Cost Environmental Proximity Principle Technical Suitability | Local (Cumbia and Lancashire) | ++ | x | x | Recycling facilities and quarries (Cumbria and Lancashire) | Either Primary or Secondary Aggregate required or combination of both |
| | | | | | Wider (UK and overseas) | + | + | + | Recycling facilities and quarries (UK and overseas) | |
| Concrete | Up to 400,000t | - | Pylon footings, substations, islet and tunnel head compounds | Cost Environmental Proximity Principle Technical Suitability | Local (Cumbia and Lancashire) | ++ | x | x | Existing Concrete Plants (Cumbria and Lancashire) and on site concrete plants | Wider Study Area discounted |
| Concrete Segments | 267,000 tonnes | Primary aggregate, cement and other minor constituents | Tunnel and shafts | Cost Environmental Proximity Principle Technical Suitability | Local (Cumbia and Lancashire) | ++ | x | x | Segment factory at Roosecote | Whole segments may be imported from off-site factory using same routes |
| | | | | | Wider (UK and overseas) | + | + | + | | |

| Material Required | Quantity | Type | Where Required (Project Works) | Key Considerations | Study Area | Relevance of Transport Mode | | | Source of Material | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Road | Rail | Sea | | |
| Cement | 55,000 tonnes | Primary | For use in manufacture of tunnel segments and in cement bound sand | Cost Environmental Proximity Principle Technical Suitability | Local (Cumbia and Lancashire) | ++ | x | x | Cement works (and Lancashire) | |
| | | | | | Wider (UK and overseas) | + | + | + | UK or overseas cement manufacturers | |
| Steelwork | 20-30,000 tonnes | For pylons | Along route of Project with concentrations at substations and tunnel heads | Cost Environmental | Wider (UK and overseas) | + | + | + | UK or overseas manufacturers | Local Study Area discounted |
| Geotextile | c2.74M $m^2$ | | Along route of Project with concentrations at substations and tunnel heads | Cost Environmental | Wider (UK and overseas) | ++ | + | + | UK or overseas manufacturers | Total Weight of Geotextile onlyc.500t |

## Table 4A.6.2 Assumptions for PEI – Bulk Waste Arisings

| Waste /Arising | Quantity | Type | Source | Key Considerations | PEI Assumption /Waste Hierarchy | Study Area | Relevance of Transport Mode | | | Destination of waste/arising | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Road | Rail | Sea | | |
| Tunnel Spoil | 1.32Mt | Granular and cohesive natural arisings | Tunnel Heads - Roosecote and Middleton | Waste Hierarchy Cost Environmental Proximity Principle | 100% landfilled | Local (Cumbria and Lancashire | ++ | x | x | Landfills (Cumbria and Lancashire) | |
| | | | | | | Wider (UK) | + | + | + | Landfills (UK) | |
| | | | | | 100% recycled | Local (Cumbria and | ++ | x | x | Recycling facilities (Cumbria and | This approach would be explored first in |

| Waste /Arising | Quantity | Type | Source | Key Considerations | PEI Assumption /Waste Hierarchy | Study Area | Relevance of Transport Mode | | | Destination of waste/arising | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Road | Rail | Sea | | |
| | | | | | | Lancashire | | | | Lancashire) | accordance with waste hierarchy |
| | | | | | | Wider (UK) | + | + | + | Recycling facilities and quarries (UK) | |
| Used Aggregate | 1.27Mt | Graded granular aggregate | Temporary trackways and hardstandings | Waste Hierarchy Cost Environmental Proximity Principle | 100% Landfilled | Local (Cumbria and Lancashire | ++ | x | x | Landfill facilities (Cumbria and Lancashire) | |
| | | | | | | Wider (UK) | + | + | + | Landfill facilities (UK) | |
| | | | | | 100% recycled | Local (Cumbria and Lancashire) | ++ | x | x | Recycling facilities (Cumbria and Lancashire) | This approach would be explored first in accordance with waste hierarchy |
| | | | | | | Wider (UK) | + | + | + | Recycling facilities (UK) | |
| Surplus Soils | 409,000t | Natural arisings beneath top and subsoil | Foundations and underground sections of connections | Waste Hierarchy Cost Environmental Proximity Principle | 100% Landfilled | Local (Cumbria and Lancashire) | ++ | x | x | Landfill facilities (Cumbria and Lancashire) | |
| | | | | | | Wider (UK) | + | + | + | Landfill facilities (UK) | |
| | | | | | 100% recycled | Local (Cumbria and Lancashire) | ++ | x | x | Recycling facilities (Cumbria and Lancashire) | This approach would be explored first in accordance with waste hierarchy |
| | | | | | | Wider (UK) | + | + | + | Recycling facilities (UK) | |
| Waste Metal | 2-3,000t | - | Overhead lines to be removed | Waste Hierarchy Cost | 100% recycled | Wider (UK and overseas) | + | + | + | Metal recycling facilities (UK and overseas) | Local Study Area discounted |

| Waste /Arising | Quantity | Type | Source | Key Considerations | PEI Assumption /Waste Hierarchy | Study Area | Relevance of Transport Mode | | | Destination of waste/arising | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Road | Rail | Sea | | |
| Geotextile | c.2.74M square metres | Geotextile | Along route of Project from temporary trackways and hardstandings | Waste Hierarchy Cost Environmental Proximity Principle | Landfilled/ Energy recovery | Local (Cumbria and Lancashire) and Wider (UK) | ++ | x | x | Landfill or Energy Recovery Facility (Wider Study Area) | |
| General Wastes | 60,000 tpa | Wide range of construction and amenity wastes | Along route of Project with concentrations at substations and tunnel heads | Waste Hierarchy Cost Environmental Proximity Principle | 100% landfilled | Local (Cumbia and Lancashire) | ++ | x | x | Landfill facilities | National Grid already achieves 95% recycling of its waste. |
| | | | | | | Wider (UK) | ++ | + | + | Landfill facilities (UK) | |
| | | | | | 100% recycled/ recovered | Local (Cumbria and Lancashire) | ++ | x | x | Recycling/ recovery facilities (UK) | |
| | | | | | | Wider (UK) | + | + | + | Recycling/ recovery facilities (UK) | |

APPENDIX No. 4

Date 13th December 2016

Ref A&IPC NWCC 001

**FREEPOST NG NWCC**

# Askam & Ireleth Parish Council Response to NWCC Section 42 Consultation Procedure.

This is the written response from Askam & Ireleth Parish Council to the Consultation Process undertaken by National Grid for the North West Coast Connection project. The document is divided into three parts: a statement on why our Parish Council representations are important to the consultation procedure, comment on the adequacy of consultation which is a critical facet that National Grid must report to the Planning Inspectorate and then our opinion on the various environmental, social and economic impacts which we feel must be addressed.

Due to the limited timeframe given to adequately digest information, receive technical advice and schedule suitable parish meetings; the statement is made of Parish Councillor opinions on each matter. These are not Decisions or Resolutions and so we reserve the right to make further statements as Interested Parties to this process in the future.

## 1. Strength of Local knowledge

Askam & Ireleth Parish Council represent the interests of whole communities and understands the needs of different groups within (such as young and elderly people, local business and tourism). Representation held within this document from elected Councillors benefits from understanding of

the local community, built from long term experience delivering services to meet local needs aiming to correctly appreciate then improving quality of life and community well being. It is this long service that is critical to this response and the need for it to be assimilated by high quality consultation rather than only 'snapshot' assessment from a private consultancy based appraisal only made over a few months.

It is in our interests to speak on behalf of our community to identify real improvements, so that we can best allow those communities to maintain their sense of purpose and belonging, protect very sensitive local business (small farming or tourism reliant companies for example), and maintain the community strength and character that makes this area special to the UK.

We strongly believe and assert that this knowledge is critical to National Grid's decision making for options on the NWCC project as this is a once in a lifetime opportunity to get matters 'right' and is a responsibility of decision-making that once constructed, will remain in this area for many generations of the people and business, thus affecting the vitality of communities the Parish Councils represent for many generations.

For National Grid to achieve "the right overall balance" in the NWCC project, the benefit of these opinions must be clearly included as recognised influences on decisions before scheme option selections, not merely collated for consultation effort's own sake. A developer that listens knows that it has better support for decisions it may take and has the benefit of getting design decisions right; it would be a shame if National Grid did not take advantage of this significant local resource to achieve a better scheme.

## 2. Adequacy of consultation statement

We wish to make clear that the consultation period was too short, coupled with the late addition of the "Trident 132kV poles" plus the consultation period spans a number of holiday periods that not enough time has been granted to formulate a proper response and has been totally inadequate.

The late addition of the Trident Poles appears to be an ill thought out last minute solution being based on the cheapest possible solution rather than a pragmatic solution to the benefit of the communities.

We do not believe that the options to the preferred route have been thoroughly analysed and detailed costing's applied. Some of the figures used seem to be disproportionate when judged against the existing proposals.

## 3. Environmental Topics

### Landscape & Visual

National Grid have failed to supply photo montages showing the impact on the area there is also concerns around the standards applied to the montages which makes the representations not a true one.

The amount of concrete used to form the bases of the pylons is disproportionate to the environment impacts.

Ground assessments have not been done to see if the ground can support these giant pylons in this area. It would suggest that a desk-based assessment has been done using historical mining records.

The visual impact of this Project is such that it will impact on the local economy, which is driven by visitors to the area. These Pylons will be blotting the landscape for 50 years we do not believe that enough effort has been done to justify alternatives to the Pylons, in which the feedback continually given is due to costs. An easy solution is to move to Askam & Ireleth PC's preferred solution of a sub sea cable from Kirksanton to Roosecote.

At what stage will a full ground assessment be undertaken? The area is well known for the water run offs onto the roads and the Salt Marshes.

## Historic Environment

Both below were originally part of the historic Furness Abbey estates.

Marsh Grange is a Grade 2 listed building and is of historic interest will be impacted by the construction of Pylons and, if a tunnel under the Duddon is considered, by a tunnel head and Cable Sealing End compound. The Marsh Grange farmhouse is considered at paragraph **8.4.53** and it states that the introduction of additional infrastructure would have a moderate magnitude of effect/moderate adverse significance of effect on the Marsh Grange Farmhouse before mitigation. Please supply information on what mitigation NG is proposing. Just because it is mentioned does not mean mitigation will be included for Marsh Grange Farmhouse in the DCO application.

There is a medieval Lime Kiln site close-by.

## Traffic and Transport

No coherent Traffic Plan during construction phase has been supplied but understand that this may be issued as part of the DCO application. However there is not enough information available to allow us to participate fully in the consultation.

Unknown Amount of Road movements on the Lots Road and A595, which is already not fit for purpose.

Unknown amount of Rail traffic and how this will be managed.

Suggested Railhead lay down area in Askam supporting 38 pylons, has very poor access onto LOTS Road (national speed limit) and subsequently A595 at a dangerous junction the documents suggest alleviating A590 traffic but does not identify the increase in A595 traffic.

A recent study of the Lots Road showed that there were 32328 traffic movements one way from East to West during an 8 day period. The point of access to the Rail lay down area is particularly narrow with incidents between buses and HGV wagons a regular occurrence.

Access to fields in very wet areas does not seem to have been considered they may require temporary roads installing which is not addressed on an environmental impact

Helicopter landing areas are mentioned but no real information about how these will be used

No mention has been made about on-going transport requirements and access during operational Phase. It may be available during the DCO but not enough information to allow sufficient participation in this consultation

## Construction Noise

There was a suggestion that in the Rail lay down area no rail spur would be built but deliveries would be during night causing excessive noise and light pollution. This site is very close to a residence and would cause extremely high noise pollution both during the day and at night with deliveries by train and movements by road. Residents were told that there would be traffic movements 12 hours a day from this site, which is unacceptable. It should be noted that there is also a complex of Holiday lodges and Pods located directly opposite the lay down area. Further there is a planning application at the opposite side of the Lots Road for further Lodge and Pods to be erected at the Riding School. Regular hacking out trips from the Riding school occurs along the Lots Road. It should also be noted that the homes at Greenscoe overlook this site and would be impacted also.

Where the Pylons run close to the A595 and Paradise, then crossing the A595 and continuing up to Ireleth the noise and air pollution from the construction and the disruption to traffic would be totally unacceptable on this part of the road which is narrow, has potential subsidence and drainage issues and runs very close to the housing

Construction works on the Route past Ireleth to Lindal T would have poor access and would require access to fields and areas close to the housing in this area again causing excess noise and air pollution. No plans show how these sites will be accessed.

The route along the A595 through Lindal (Ireleth Road) passes close to the C of E Primary School St Peters and a recent survey of the Road showed there were in excess of 63000 traffic movements one way East to West during an 9 day period demonstrating an already busy road that would suffer from increased traffic movements.

## Socio-Economics, Recreation and Land Use

No assessment has been done on the visitor economy in the area. The Socio Economic, recreational and Land use Assessment seems to end at Foxfield and start again at Lindal in Furness likewise when photomontages were supplied, this area was also missed off.

We know that any disruption to the area causes huge impacts on visitors to the area e.g. the foot and mouth. Visitors will not be impressed with the scenic values of the area with a huge project like this taking place it may take years to recover.

The beach at Askam is a local beauty spot and is constantly used by walkers and must be one of the most photographed areas along the Duddon Estuary. With a golf course and caravan and camping site it attracts many visitors. The erection of these pylons would inevitably destroy this.

## 4. Summary

Askam & Ireleth Parish Council would support the option of taking the 400kVa cables from Kirksanton via a sub sea route to Roosecote. There are no figures to suggest what this might cost however, costs from Rossall to Roosecote, Walney and Kirksanton , if the figures are correct , suggest that this would add £200M to the total Project Cost Surely the cost of Kirksanton to Roosecote must be considerably less.

Nation Grid NWCC seem to be considering the sub sea AC cable as an a alternative to the Cross Morecambe Bay tunnel instead of looking at the short route Kirksanton to Roosecote as a solution to alleviating all the issues around the Duddon Estuary.

Askam & Ireleth Parish council are against a tunnel under the Duddon as the Pylons from the tunnel head, currently proposed for North of Askam at the Kirkby/Askam border, would remain on the preferred route which has pylons all the way along the A595 to Paradise then up to Lindal T.

With the addition of a Cable Sealing end Compound, pylon connection and adding a cost of £265M to the Project it is believed that this money could be better utilised on the above sub sea solution.

The above points summarise our current representation and opinions of the adequacy of consultation process undertaken by National Grid and include comment on why Parish Council views with their detailed local and often long term, in depth understanding of the Parish area's geography, environmental and socio-economic characteristics are so important. Based on this deep-seated knowledge, the commentary has also advised National Grid of specific issues, impacts and concerns about the quality and content of information they have based their NWCC project assessment and decision on.

Following on from this we wish to remain involved in all steps of the DSCO process and in particularly because of the reasons above, continue to be considered as an Interested Party for the purposes of the on-going NWCC process.

# DALTON TOWN COUNCIL'S DRAFT RESPONSE TO THE NORTH WEST COAST CONNECTIONS PROJECT

TO: WYG, for insertion of technical data etc
CC: CALC

GENERAL POINTS

- Dalton Town Council is firmly against National Grid's proposals as detailed in H1 of the Formal Consultation Map Booklet. We believe there are other routes and methods which could be used which would reduce the impact and disruption on the Furness area eg. an offshore route, or underground cables. We do not believe that the options have been thoroughly analysed and detailed costings applied. Some of the figures used seem to be disproportionate when judged against the existing proposals.
- There is insufficient detail on the maps supplied by National Grid to show the exact routes of the two proposed lines of pylons. Maps differ from one another, some showing one thing, and some showing another. Additionally, photo montages are not representative and often inaccurate re pylon size/impact, route etc.
- Additionally, we wish it to be noted that National Grid's point-blank refusal to extend the consultation period from its arbitary10 weeks (2 weeks of which are over Christmas and the New Year) is completely unacceptable. We would point out that the Government's Code of Practice on consultations (which has been adopted by both Ofgem and the Planning Inspectorate) states: "2.1: Consultations should normally last for at least 12 weeks with consideration given to longer timescales where feasible and sensible" and "2.2: If a consultation exercise is to take place over a period where consultees are less able to respond eg Christmas break, or if the policy under consideration is particularly complex, consideration should be given to the feasibility of allowing a longer period for the consultation." We feel that this is an attempt to bulldoze their proposals through by not giving councils the time to fully digest the huge amount of complex information, consult with local residents and formulate a comprehensive response.

LOCAL AMENITY FOR RESIDENTS

- No discussion or negotiation has been entered into with the Town Council regarding the planned pylon route. It has been enforced.
- NG have not provided any projected decibel levels, or data regarding the long-term effects of electro-magnetism. In the short-term, the noise and air pollution from the construction, plus the disruption to traffic, would be unacceptable.
- We have serious concerns about the welfare of the wild animals at the Dalton Zoo, who will suffer a 400kv pylon and a Helipad within close vicinity. We have no information as to the impact on the health and welfare of these (in many cases rare and endangered) animals of the noise, pollution and construction process in the short or long term?
- The Woodbine and Tythe barn cottages area appears to be entirely surrounded by pylons ie. one line of 50m pylons and one of standard size.

There are serious concerns around noise, health and visual impact in the short and long term.

- We note that on the Furness area of the proposed route (ie south of Duddon Estuary) 15,000 people will live within 1Km of a 50mtr pylon. North of the Duddon only 1000 people will be affected in total, and yet it has been agreed that cables will run underground north of the Duddon. Why are the people of Furness being treated as second-class citizens? The Duddon and Furness area is equally as beautiful as the Lake District National Park itself and equally as deserving of consideration.
- Construction works and laydown areas on parts of the route would have very poor access and require lanes to be widened or access across fields. Footpaths would be destroyed in the short term with a major impact on tranquillity and residential amenity,

LANDSCAPE AND VISUAL IMPACT

- There will be a massive long term visual impact caused by one line of 50 metre high pylons plus a second parallel (for much of the way) line of standard sized pylons. Because of the topography of Dalton, pylons will be visible just about everywhere in the town and surrounding areas. In many places, because of the steep hills and contours, the pylons will actually appear bigger than 50 mtrs.
- The amount of concrete used to form the bases of the pylons is disproportionate to the environmental impacts.
- There will be a short term (possibly long term) loss of greenfield sites around Dalton where these are to be used as 'construction/temporary laydown areas' - including a helicopter pad for bringing in/removing materials

VISITOR ECONOMY

- Dalton is in an area of historical and archaeological significance, with Dalton Castle and Furness Abbey in its centre. The area attracts large numbers of tourists, being close to the sea and Walney Nature Reserves, and also close to the Lake District itself.
- Additionally, many visitors come to the area attracted by the Dalton Wild Animal Park, which is recognised as one of Europe's leading conservation zoos.
- The visual impact of this project on our area will affect the local economy, which is driven by visitors to the area. In the short term, the amount of noise, pollution and disruption caused by construction works will drive visitors away, possibly never to return. In the long term, these pylons will be blotting the landscape for 50 years or more and we do not believe enough effort has been put into looking at alternatives to the Pylons.

LOCAL HISTORIC ENVIRONMENT

- Ground assessments have not been carried out to check whether the ground can support these giant pylons in this area. The planned route goes through areas of intense iron ore mining in the past and where subsidence has

occurred and is likely to occur. If this route is deemed unsuitable following in-depth surveys, where will any option run?

- Dalton is the ancient historic capital of Furness and the pylon route follows the old gateway into Dalton. Giant pylons are not in keeping with the period and listed buildings, and steep and narrow streets.

TRANSPORT AND CONNECTIVITY

- No coherent traffic plan has been provided to show the impact on traffic or road congestion during the construction phase.
- We believe this will result in traffic chaos and the destruction of our countryside. The current proposed route of the pylons follows a greenfield route around Dalton, where there is no road/track access for vehicles (or only limited access). Lanes would need widening and temporary roads installed.
- In the short term, we believe there will be a major increase in large lorry numbers in and around Dalton itself, with consequent congestion, pollution and traffic delays. Dalton already suffers from severe congestion with many roads in the area being too narrow for large vehicles.
- We believe there is also serious potential danger to life due to construction traffic leaving a 60mph road (A590) at the Crooklands roundabout for construction/laydown areas adjacent to a primary school (Our Lady's).

PROSPECTS FOR RESIDENTS (eg recreational resources, jobs etc)

- Has any assessment been produced regarding the potential for jobs (ie number, duration of jobs) for residents of Dalton? We can see no tangible benefit for our residents in the short or long term.

Part One

| EXECUTIVE COMMITTEE | (D) Agenda Item 7 |
|---|---|
| **Date of Meeting:** 4th January, 2017 | |
| **Reporting Officer:** Commercial Estate Manager | |

**Title: Sale of 1-5 Lawson Street, Barrow-in-Furness**

**Summary and Conclusions:**

The report details the current position with regard to the proposed sale of 1-5 Lawson Street, Barrow-in-Furness

**Recommendations:**

To agree to proceed with the sale of 1-5 Lawson Street (on the terms and conditions outlined in the report).

**Report**

Barrow Borough Council purchased 1-5 Lawson Street in March 2007 (**Appendix 5**).

The property has remained vacant and unused since purchase and is no-longer required by the council. Unfortunately recent interest by The Well, looking to establish a 'Recovery Hub' in the building has now been withdrawn.

Approval is now sought to declare the property fully surplus to requirements and permission given for the Commercial Estate Manager to dispose of the asset on the open market by the appropriate method of sale.

(i) Legal Implications

The recommendation will result in a freehold disposal of council-owned property

(ii) Risk Assessment

The recommendation has no significant implications.

(iii) Financial Implications

A capital receipt for the asset

(iv) Health and Safety Implications

The recommendation has no significant implications.

(v) Equality and Diversity

The recommendation has no detrimental impact on service users showing any of the protected characteristics under current Equalities legislation.

(vi) Health and Well-being Implications

The recommendation has no adverse effect on the Health and Wellbeing of users of this service.

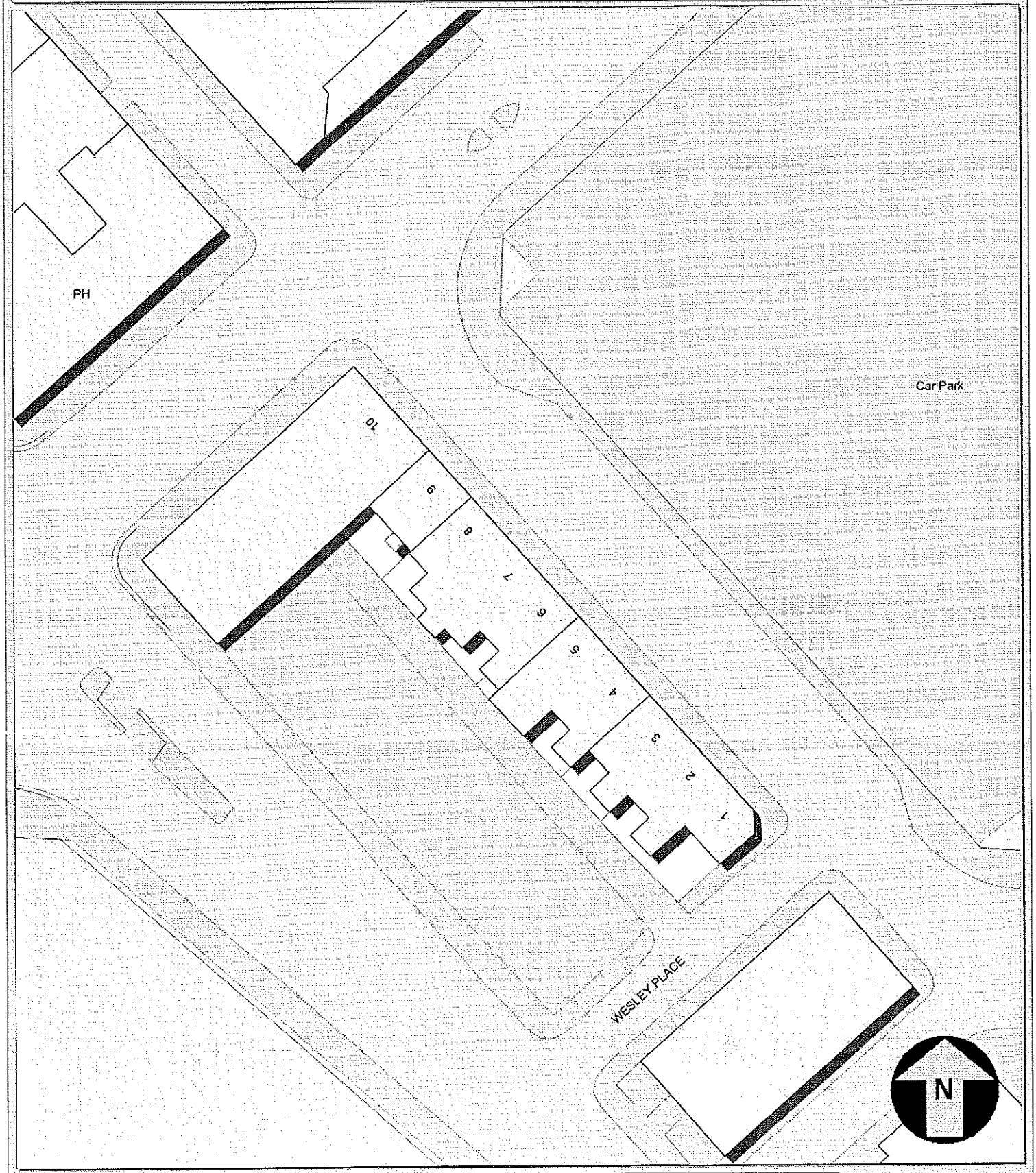
Background Papers

Nil

APPENDIX No. 5

# 1-5 Lawson Street, Barrow-in-Furness

## Location Plan

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Part One

| EXECUTIVE COMMITTEE | | (D) Agenda Item 8 |
|---|---|---|
| Date of Meeting: | 4th January, 2017 | |
| Reporting Officer: | Commercial Estate Manager | |

**Title: Cavendish Dock Road, Barrow-in-Furness**

**Summary and Conclusions:**

The report details the current position with regard to the proposed letting of land alongside Cavendish Dock Road, Barrow-in-Furness.

**Recommendations:**

To authorise the Commercial Estate Manager to let Site A and Site B, Cavendish Dock Road on the terms reported.

## Report

The Council own land in Cavendish Dock Road, identified as Site A and Site B, shown hatched on the attached plans (**Appendices 6 & 7**). Negotiations have been taking place with:-

### 1. Burlington Aggregates Limited.

Following negotiations over the last fifteen months and the successful pilots in loading a goods train and transporting aggregate from the Woodbridge Haven site. Burlington Aggregates wish to be considered for leasing the land (see Site A plan, attached). Again the proposal will be subject to obtaining the necessary planning permission together with the company being successful in obtaining a major award in 2017 for stocking, supplying and transporting a range of aggregates to the development at Drigg and potentially other major projects in the North of the County. The establishment of the distribution hub will we be an important component to the logistics needed once the projects starts to progress.

### 2. The Little Box Company Limited.

The Council re-tendered the option of leasing the land, after a decision was taken not to proceed with Snoozebox. The Little Box Company Limited were the successful bidder for the interest in leasing land at Woodbridge Haven, to facilitate demand for temporary accommodation. However following earlier interest in the same area of land, in particular the need to utilise the existing railway line, an alternative area of land was offered to the south of Cavendish Dock Road (see Site B plan, attached) which they now wish to proceed with, subject to the necessary planning permission being obtained;

It is now proposed that the individual sites be let on the following terms:

**Site A**

| | |
|---|---|
| Tenant | Burlington Aggregates Limited |
| User | Site compound/Stone aggregate distribution centre |
| Term | Seven years (from the grant of full planning permission) |
| Rent | £20,000 pa minimum subject to review in the third year<br>£1 for every tonne of aggregate dispatched from the site as exceeds 25,000 tonnes |
| Rent Review | In the Third year |

**Site B**

| | |
|---|---|
| Tenant | The Little Box Company Limited |
| Use | Serviced residential accommodation units |
| Term | Ten years (from the granting of full planning permission) |
| Rent | £125,000 pa |
| Rent Review | In the Fifth year |

The lease for both Site A and Site B are subject to obtaining Planning Permission.

(i) Legal Implications

The recommendation will result in a leasehold disposal of council-owned property

(ii) Risk Assessment

The recommendation has no significant implications.

(iii) Financial Implications

An annual rental income over seven (Site A) and ten years (Site B)

(iv) Health and Safety Implications

The recommendation has no significant implications.

(v) Equality and Diversity

The recommendation has no detrimental impact on service users showing any of the protected characteristics under current Equalities legislation.

(vi) Health and Well-being Implications

The recommendation has no adverse effect on the Health and Wellbeing of users of this service.

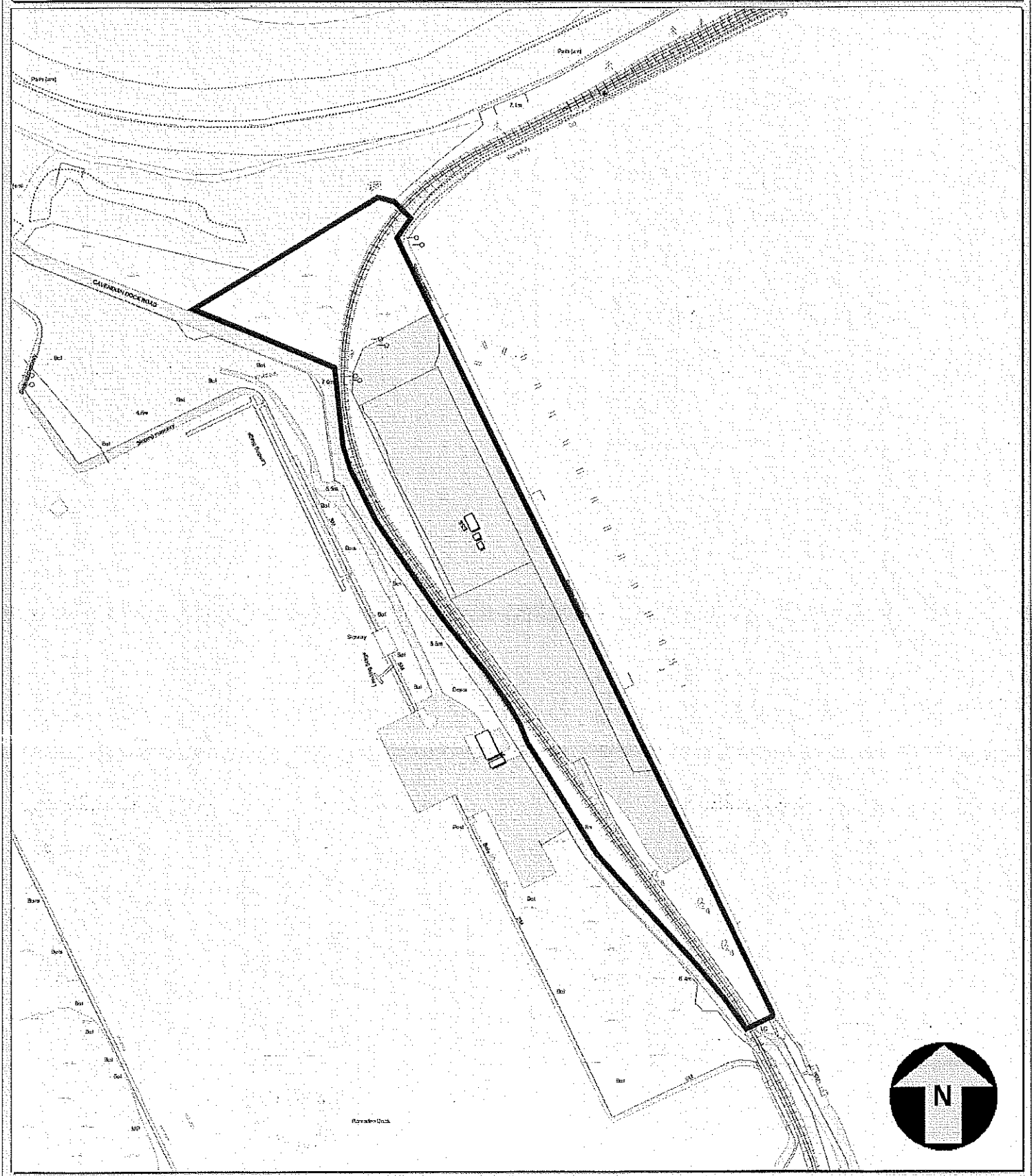
Background Papers

Nil

# Site A

APPENDIX No. 6

Cavendish Dock Road, Barrow

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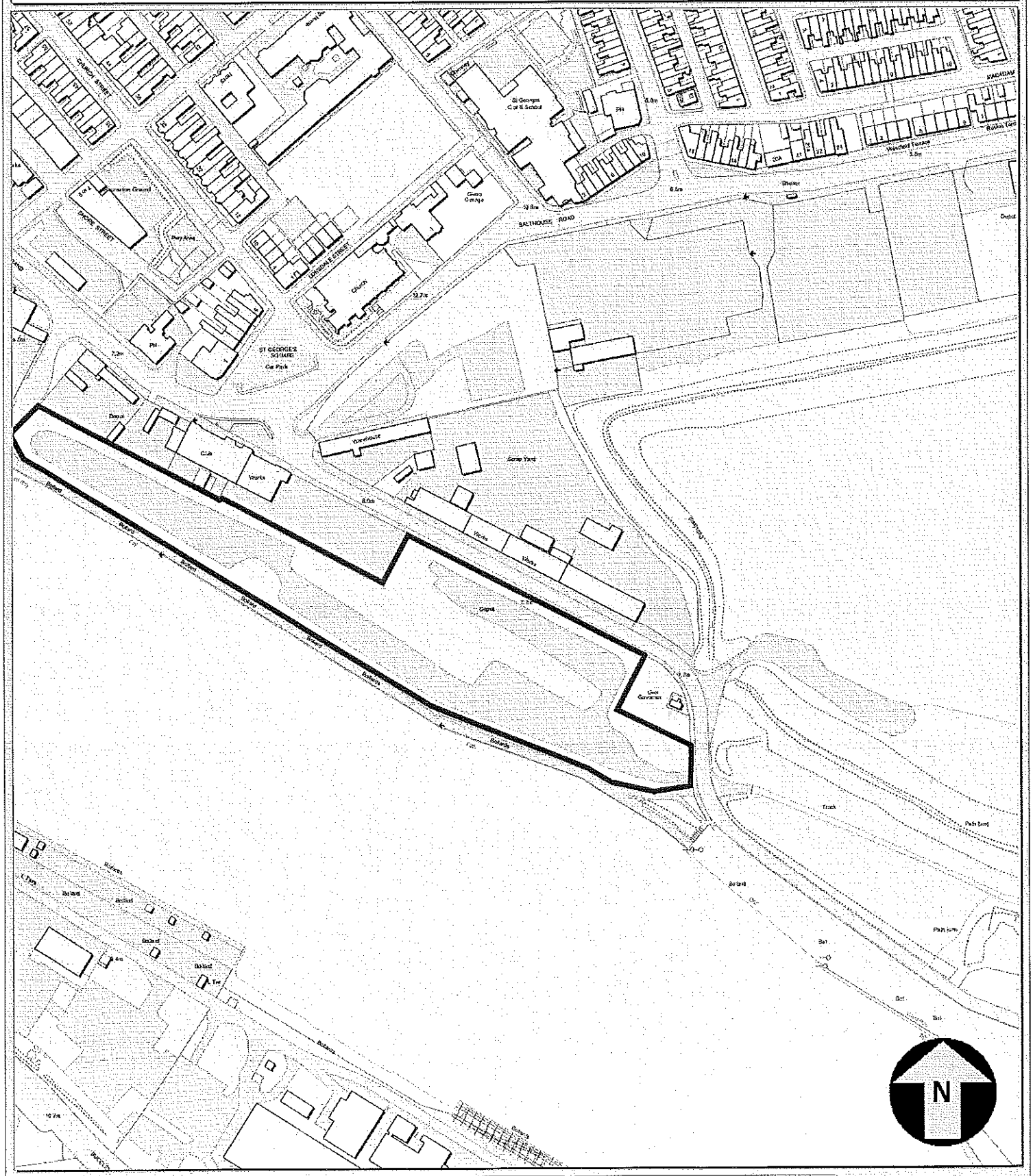
# Site B

**APPENDIX No. 7**

Cavendish Dock Road, Barrow

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