

OVERVIEW OF CABLE ROUTE & SUBSTATION LOCATION

DETAILS CAN BE VIEWED ONLINE AND ON THE APPLICATION FILE

Figure 1.3: Project cable landfall, onshore cable route, substation and National Grid substation, where the energy generated by the Project will ultimately connect

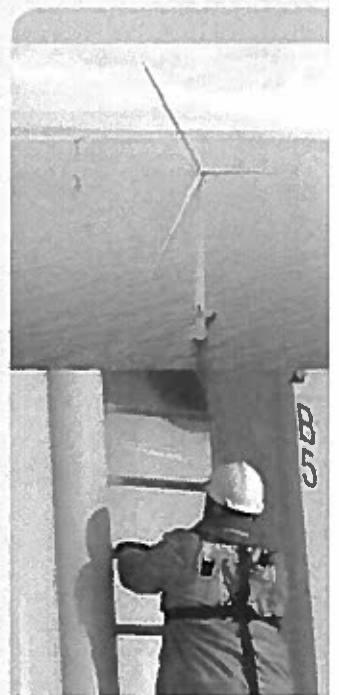


Figure 1.2:

Project site, export cable route (offshore and onshore) leading to the onshore substation and final grid connection

ELEMENTS OF THE SCHEME

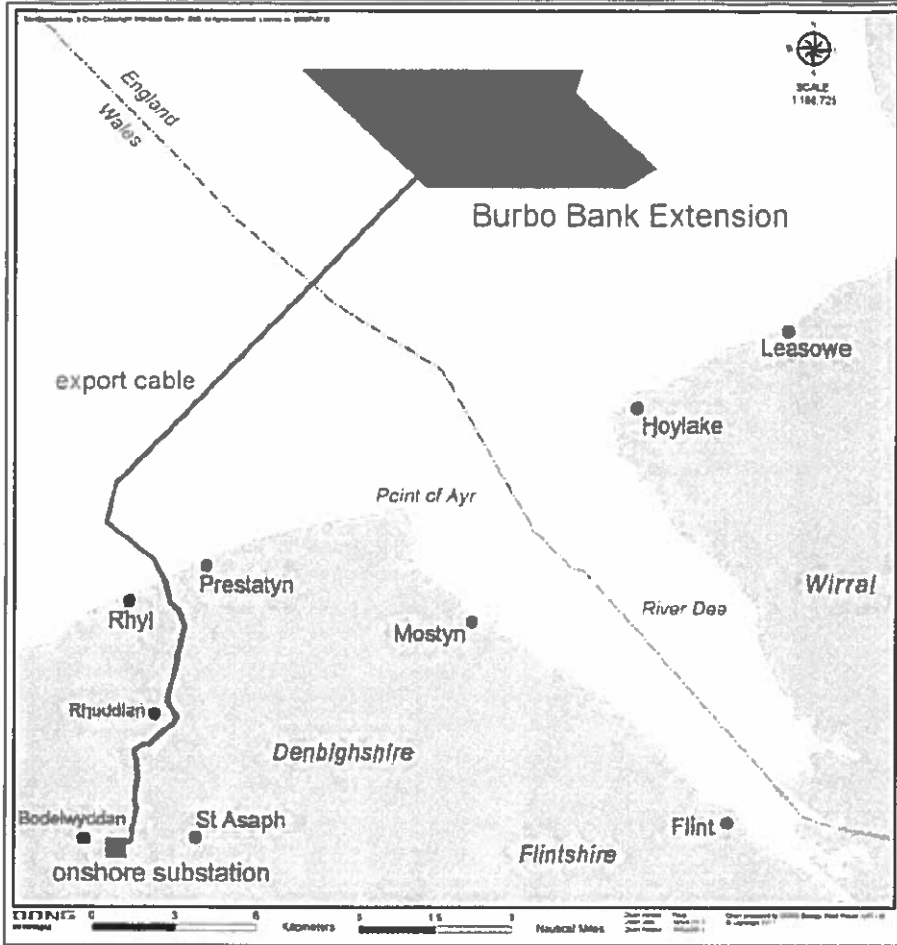
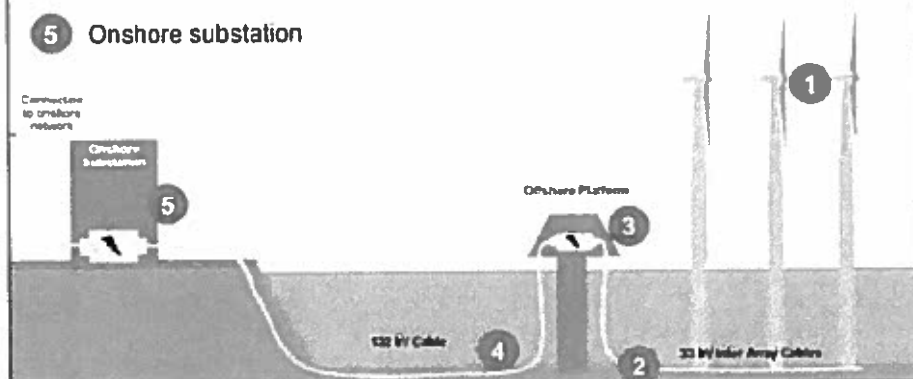


Figure 1.1:

Simplified wind farm setup

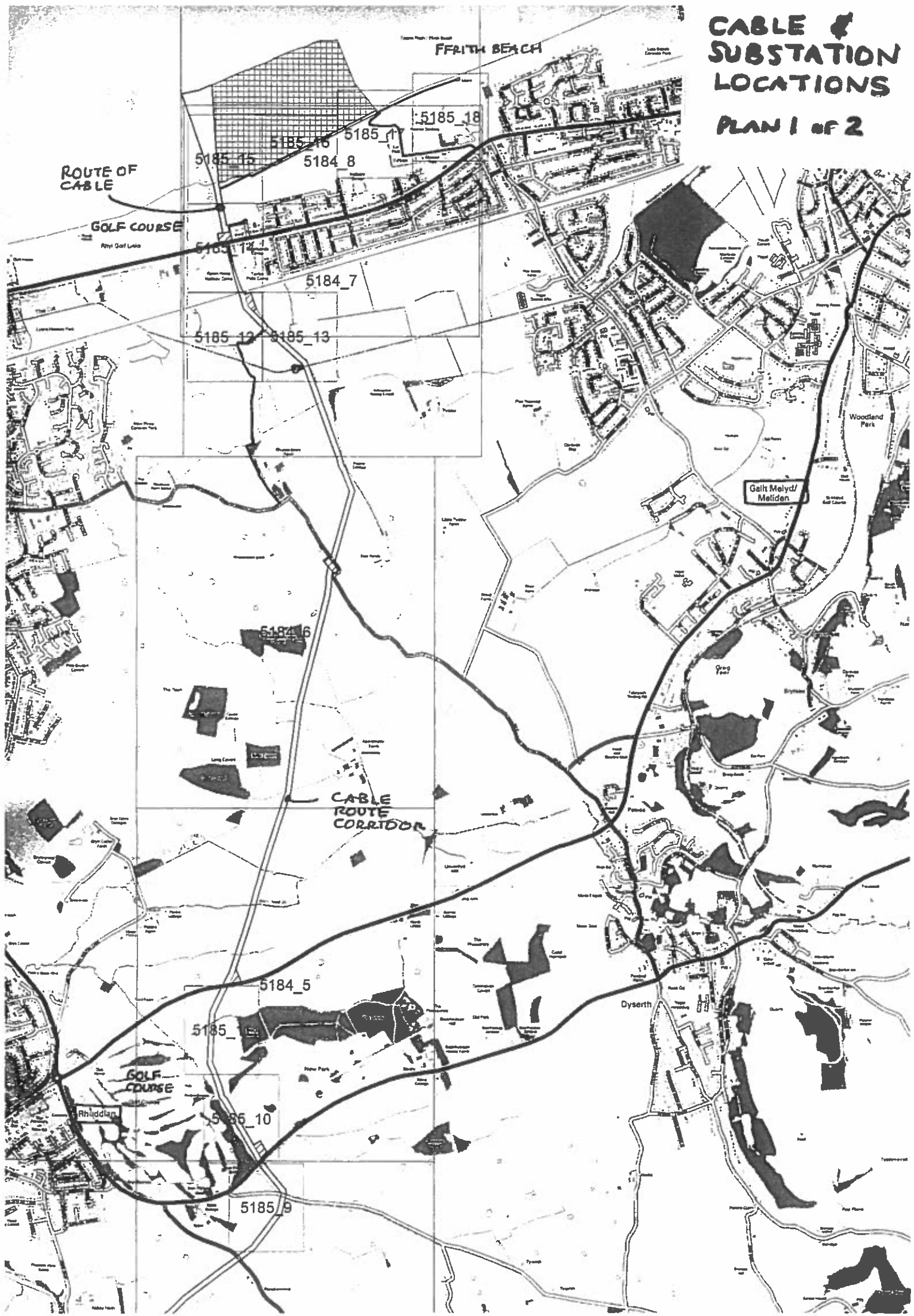
Diagrammatical representation of an offshore wind farm typical format with regards to infrastructure involved

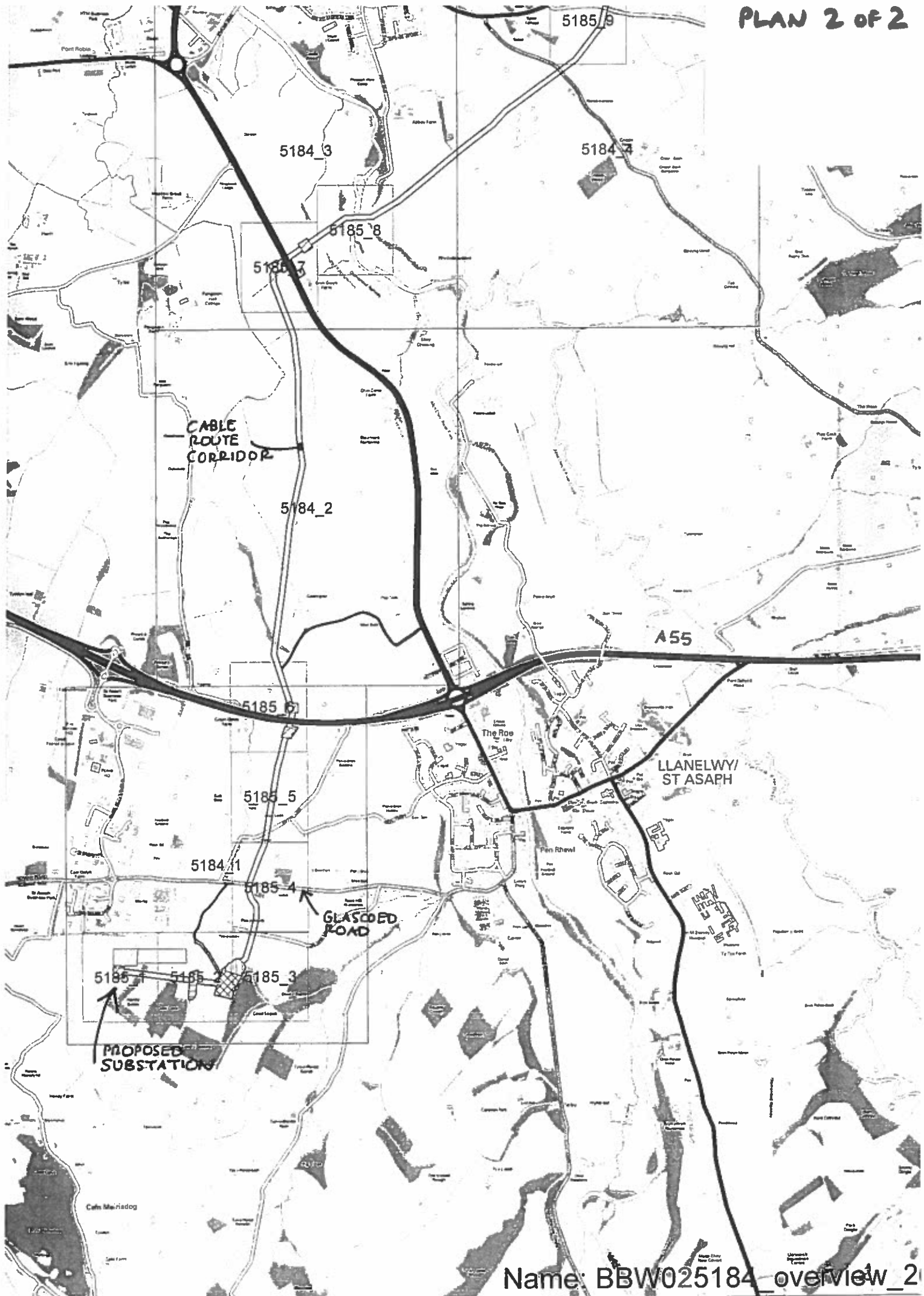
- 1 Wind turbine positions
- 2 Array cables
- 3 Offshore substation
- 4 Export cable
- 5 Onshore substation

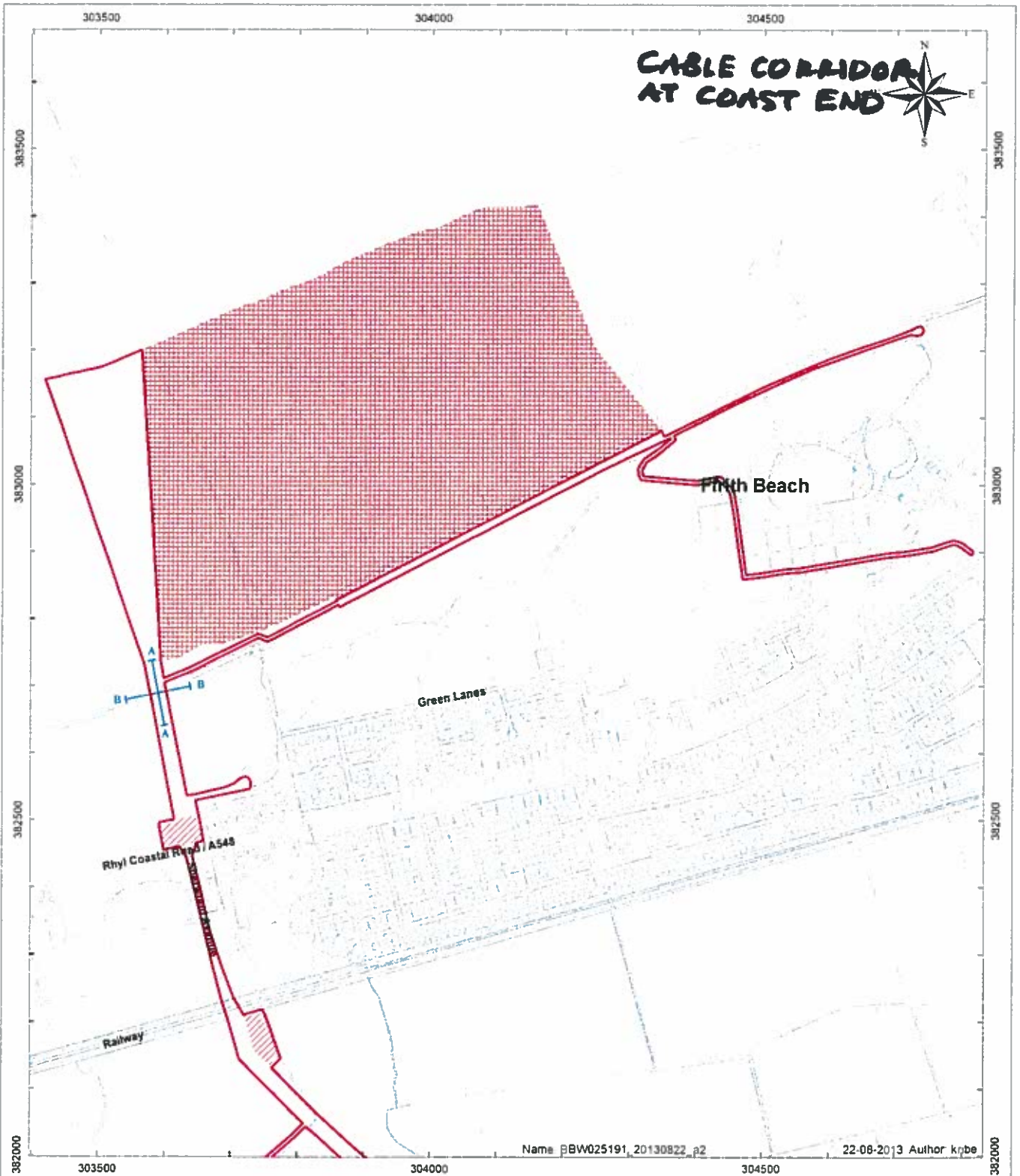


CABLE & SUBSTATION LOCATIONS

PLAN 1 OF 2







Legend

- Planning Condition Location
- Planning application area
- Temporary working and compound area
- Temporary access road

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Scale 1:4,000

Coordinate System: OSGB 36 BNG

**Burbo Bank Extension
 offshore wind farm**

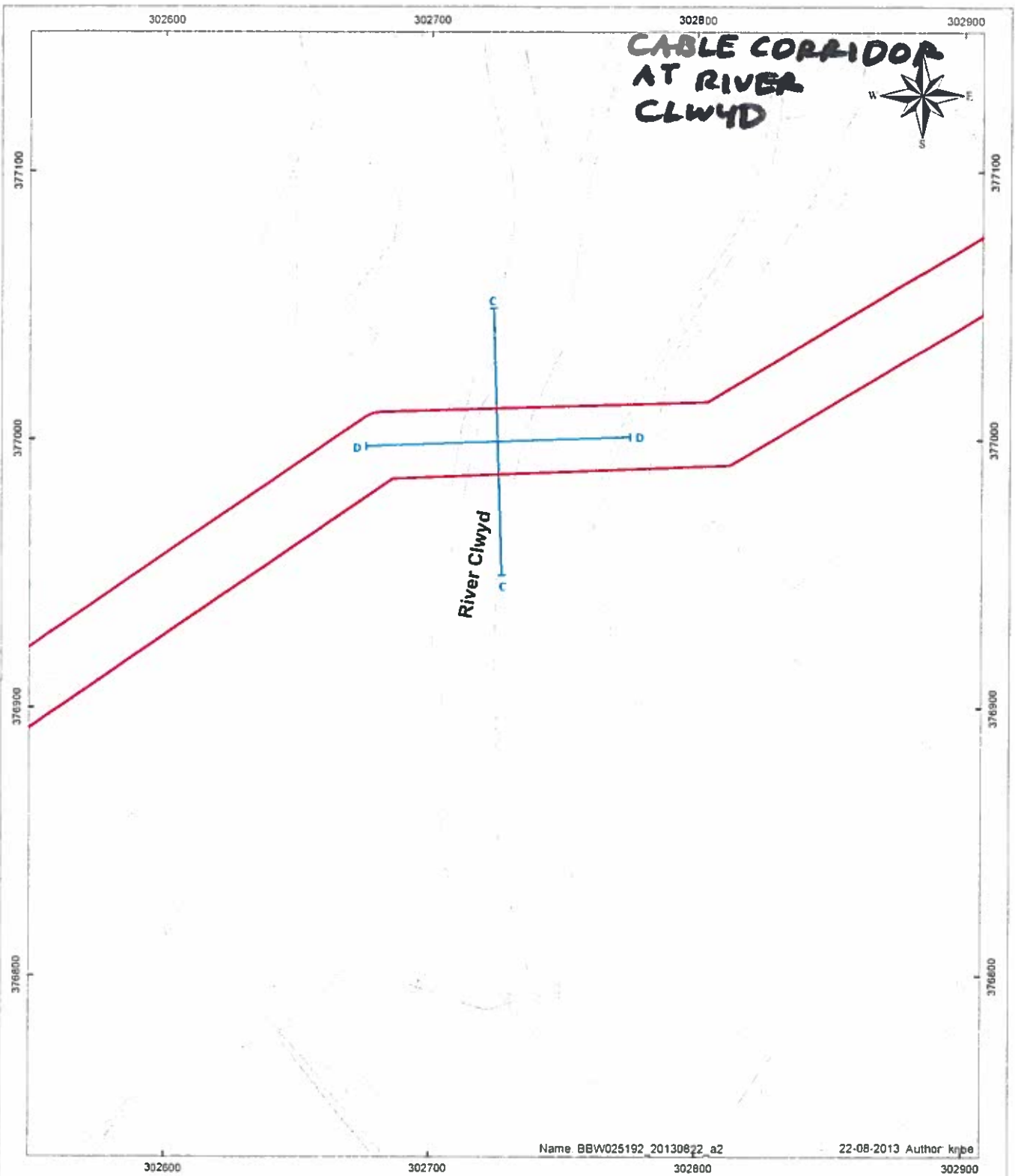
Planning Condition Drawing Number 1



DONG Energy Power (UK) Ltd
 33 Grosvenor Place
 Belgrave
 London
 SW1X 7HY
 UK

Date: 22-08-2013
 Chart produced by: KRIBE
 Chart approved by: CKHEI
 Ref: DAVID
 Document nr: BBW025191



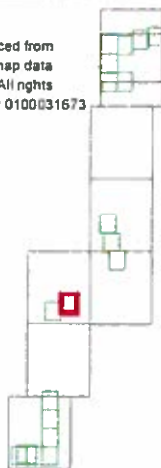


Legend

- Planning Condition Location
- Planning application area

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Scale 1:1,000

Coordinate System OSGB 36 BNG

**Burbo Bank Extension
offshore wind farm**

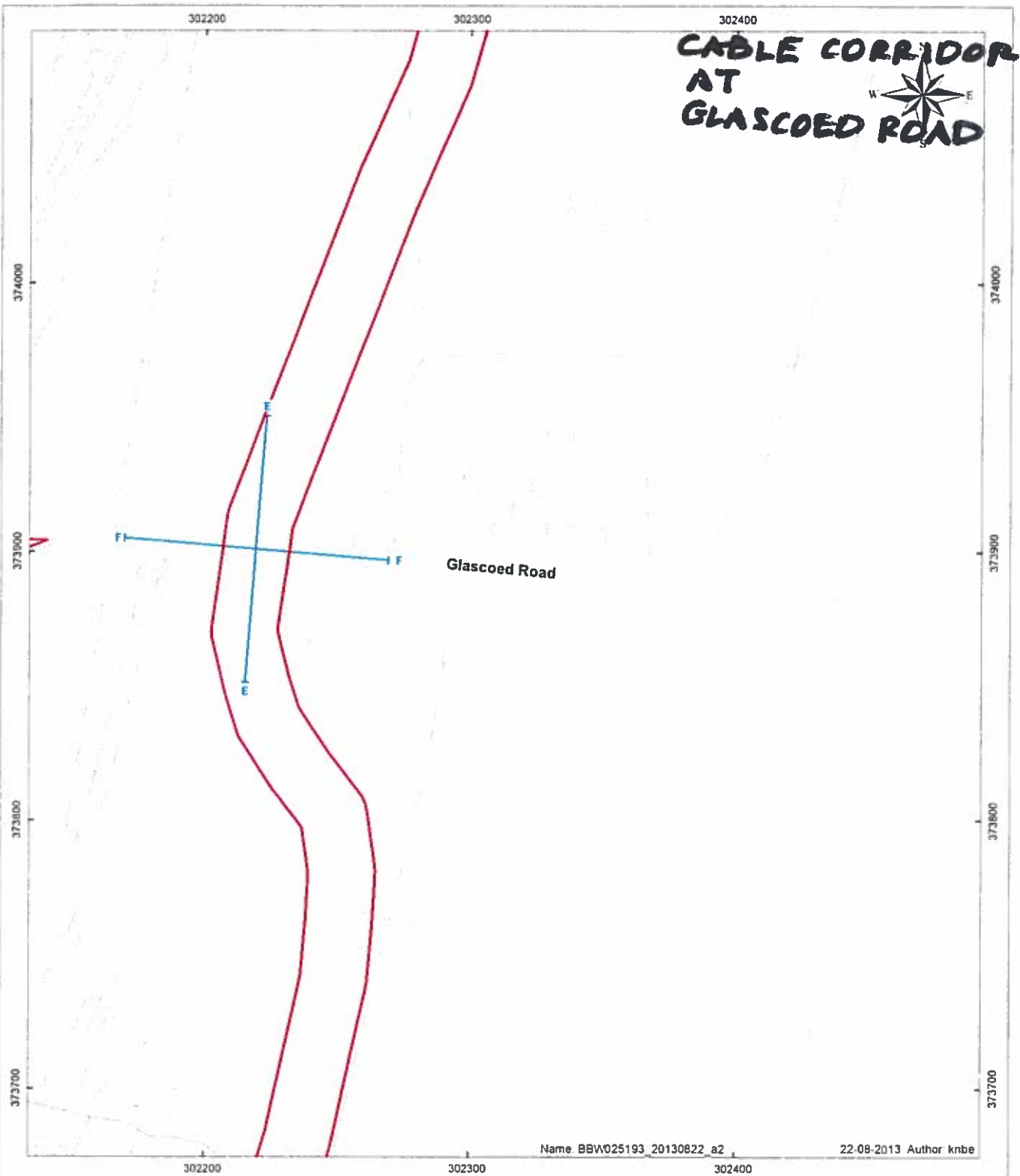
Planning Condition Drawing Number 2



DONG Energy Power (UK) Ltd
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Date
Chart produced by
Chart approved by
Ref
Document nr

22-08-2013
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Legend

- Planning Condition Location
- Planning application area

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0 50 100 Meters

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Coordinate System: OSGB 36 BNG

Burbo Bank Extension offshore wind farm

Planning Condition Drawing Number 3



DONG Energy Power (UK) Ltd
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 Belgrave
 London
 SW1X 7HY
 UK

Date: 22-08-2013
 Chart produced by: KR/BE
 Chart approved by: CJK/NE
 Ref: GAW/6
 Document nr: BBW025193

ITEM NO: 2

WARD NO: Trefnant

WARD MEMBER(S): Rhyl, Prestatyn, Rhuddlan, St Asaph, Cefn Meiriadog Members

APPLICATION NO: 31/2013/0400/ PF

PROPOSAL: Installation and operation of electrical substation compound with outdoor equipment, internal road layout & perimeter fencing south-east of St Asaph Business Park and up to 11.14 km of underground electricity cables between the St. Asaph substation and the coast at Ffrith Beach Prestatyn, in connection with the proposed Burbo Bank offshore windfarm

LOCATION: Land south of St. Asaph Business Park (south) Glascoed Road St. Asaph

APPLICANT: Dong Energy Burbo Extension (UK) Ltd.Dr Jennifer Brack

CONSTRAINTS: Wildlife Site
Main River
Ancient, Semi Natural Woodland
C2 Flood Zone
C1 Flood Zone
Within 67m Of Trunk Road
PROW
Historic Parks and Gardens
EA Floodmap Zone 3
EA Floodmap Zone 2

PUBLICITY UNDERTAKEN: Site Notice - Yes Press Notice - Yes Neighbour letters - Yes

REASON(S) APPLICATION REPORTED TO COMMITTEE:
Scheme of Delegation Part 2

- Referral by Head of Planning / Development Control Manager
- Recommendation to grant – More than 4 objections

CONSULTATION RESPONSES:

RHYL TOWN COUNCIL
"No objection"

CEFN MEIRIADOG COMMUNITY COUNCIL
"The Council wishes to know why the cabling does not go directly onto the Wirral which is much closer.

The Council also wish to know the risk to public health due to electronic magnetic field.

The Council also wish to know whether all of the cabling will be underground or will they be partly overhead from the substation pylon.

The Council are also concerned at the proliferation of large buildings in the rural area as they were under the impression that the existing substation would have taken the new cabling."

Further observations (September 2013)

"The Community Council would like the route and cables to be kept at the maximum distance from the residential curtilage".

PRESTATYN TOWN COUNCIL

"Temporary works should not be carried out on the beach / promenade during the busy summer season

Local residents should be informed and consulted

Hours of operation to be limited to avoid evenings/weekends"

RHUDDLAN TOWN COUNCIL

"No Objection"

NETWORK RAIL

"No Objection"

WELSH ASSEMBLY GOVERNMENT (TRANSPORT)

No objection – Direct that any planning permission shall include Conditions dealing with restrictions to Access on the A55 expressway.

CLWYD POWYS ARCHAEOLOGICAL TRUST

Initially raised concern over the approach taken, which was forwarded to the applicant for consideration. Further discussions have taken place and CPAT now recommend that any permission include a condition in respect of archaeology.

CONWY COUNTY BOROUGH COUNCIL

Raise no objection subject to the following issues being satisfactorily addressed:-

Ecological, Transport, Coast Protection, Tourism, noise, Electro magnetic fields, Land Use, Hydrology, Archaeology and Decommissioning.

NATIONAL GRID

No objection

NATURAL RESOURCES WALES (NRW)

Raise no objection in principle – have requested clarification on a couple of points – have also requested that any planning permission incorporate conditions to cover ecology issues and environmental management.

DENBIGHSHIRE COUNTY COUNCIL CONSULTEES

Head of Transport and Infrastructure (Highways)

Recommends that any permission incorporates planning conditions:- dealing with a construction method statement, highway drainage, wheel cleaning, construction traffic management and details of the road crossings.

Also indicates that Public rights of way need to be protected.

Biodiversity Officer

Raises no objection to the proposal

Pollution Control Officer

Has consulted with Public Health Wales who have the expertise on matters of Electro Magnetic Fields and their implications for Public Health. Public Health Wales has indicated that:-

"The current position is that in general there are no adverse effects on the health of the population of the UK caused by exposure to ELF EMFs below the guideline level of 100 microtesla (μT). There is some epidemiological evidence that long-term exposure to EMF above 0.4 μT is associated with some increases in childhood leukaemia however the

evidence for a direct causal effect is uncertain and other artefacts and confounding factors cannot be discounted. As such exposure guidelines have been set for established health effects, principally associated with CNS effects and supported by additional precautionary advice to reduce exposure as presented below.

In March 2004, NRPB published advice on limiting exposure to electromagnetic fields (EMFs). The advice was based on an extensive review of the science and a public consultation on its website, and recommended the adoption in the UK of the EMF exposure guidelines published by the International Commission on Non-ionizing Radiation Protection (ICNIRP). The ICNIRP 1998 guidelines were recommended by NRPB in the interests of harmonisation and having considered the totality of the scientific evidence in the light of uncertainty and the need for a cautious approach in the interpretation of the science”.

RESPONSE TO PUBLICITY:

In objection

Richard Williams on behalf of RB and ME Davies, Pentre Mawr Farm, Groesffordd Marli, Abergele
P Jarrell, 1 Terfyn Pella Avenue, Rhyl
Sheila Stone, 8 Terfyn Avenue, Rhyl
I.Hilton / on behalf of Mr A.R. Cutting, 7 Terfyn Pella Avenue, Rhyl
Jillian Stanley and Alan Kay 2 Terfyn Pella Avenue Rhyl
F Armstrong, Tyn-y-Caeau, Glascoed Road, St Asaph
Linda and Dylan Griffiths, Cottage Villa, Glascoed Road, St Asaph (responses include comments from Professor Emeritus M.J. O'Carroll Chartered Mathematician and Scientist)
Mrs Nora Brookes, “The Bungalow” Glascoed Road, St Asaph
Gillian Willis, on behalf of Mrs Pat Foster, The Cottage, Glascoed Road, St Asaph
Graham Crook, Llyn Y Wennol, Glascoed Road, St Asaph
J Eifion Bibby on behalf of: Mr J R Jones, Bryn Gwyn Farm, St Asaph Road, Rhuddlan.
Carter Jonas on behalf , 3 trustees, a beneficiary, a farming company and 2 individuals – no addresses supplied.
Mark Isherwood AM, Cardiff Office
Dann Parry-Jones, Royal Mail Group

The main objections to the proposal are:-

Agricultural Land Impact

It will damage Grade 2 Agricultural land and lower yields for years to come
It should be brought ashore on the Wirral not in North Wales.

Ecology

Ecological surveys are incomplete with no mitigation for migrating fish using the River Clwyd.
It will affect the parkland setting of the Grade 1 listed house Bodrhyddan with no mitigation
It will have a long term damaging effect on the great crested newt population in the area.

Archaeology

The archaeological survey work is too simplistic and would appear inadequate to protect the cultural heritage of the route.

Design

The scale and industrial appearance of the substation is out of keeping with the area.
The land take for the substation will have an adverse effect on the farming business.
The substation is inappropriately located and will be visually offensive when viewed from an objector's property.

Residential Amenity

The construction will cause significant inconvenience with dust, dirt and noise / Not prepared to accept the significant levels of disruption / compound area too close to houses

Health Concerns

Significant concern in respect of location of cable to residential properties and the resulting potential health impact associated with electro magnetic fields (EMF). Concern about the health and wellbeing of vulnerable groups such as the young and elderly to include potential association of childhood leukaemia and other impacts of health and wellbeing.

Highways

Holding objection from Royal Mail until Traffic Management Plan is issued – to ensure the development process will not delay mail collections and deliveries / Terfyn Pella not suitable for construction traffic.

* Representations received in relation to DONG energy's responses to the deferral of the application and the request for consideration of locating the cable / cable corridor further to the west of property on Glascoed Road :

From:

Mrs L Griffiths, Cottage Villa, Glascoed Road, St Asaph / Prof. M.J. O'Carroll
Main points in Prof. O'Carroll's representations -

"Dong's letter of 23-10-2013 contains serious errors. For example, the IARC classification as a possible human carcinogen is still current, has been re-affirmed by WHO and all relevant major authorities, and has not been reversed, amended or superseded. I have given verifiable exact quotes from the relevant authorities, rather than the misleading and erroneous paraphrasing to be found in Dong's letter. Mrs Griffiths' objections have some planning basis regarding both precaution and perception. Consistent with WHO guidance, it would be "reasonable and warranted" to position the cable further away from the property at very low cost. In the absence of a satisfactory written assurance from Dong with accountability to the council, a suitable planning Condition would avoid procedural delay while reasonably reflecting the evidence-based concerns.

No good reason has been shown why Dong could not be more responsive to the reasonable concerns by agreeing to locate the cable trench at least 20 metres from the property of Mrs Griffiths, and possibly more, without impinging on any ground outside the existing corridor beyond the immediate field, and by giving a written assurance to that effect.

The second letter, dated 30-10-2013, adds nothing new except on precedent. Cables elsewhere without objection are not comparable. Mrs Griffiths objected within the proper process and has special medical circumstances. A planning Condition should not give cause for the council to accept new objections beyond the deadline."

Points raised by Mrs Griffiths:

" I wish on behalf of my family to confirm support of Professor O'Carroll's response to yourselves, which you have received today. I will not duplicate the points he makes so clearly and precisely with regard to Dong's seriously misleading and erroneous replies. I would ask you to ensure this is pointed out in your report.

I would like, however, to emphasise that we would like to press that the actual cable corridor be moved a distance further west, such that could be achieved at reasonable low cost. This would allow us to feel more comfortable with the low level emf exposure that our daughter will still be subjected to long term. As you are now aware there is an evidence-backed case for precaution ("reasonable and warranted" WHO 2007). Our daughter already has a serious neurological disorder; our objection is justified on a planning basis regarding precaution and perception. Further to this, future research is quite possibly likely to substantiate a health link as evidence is increased.

Professor O'Carroll has suggested a "planning condition" with regard to cable position within the current corridor, in view of the fact that no specific assurances have been given by Dong. He is aware that we ideally wish the cable corridor to be moved further west. In answer to bullet point 4 of Dong's letter (30.10.13), Dong has most certainly not designed the cable route with our concerns in mind and with regard to their claim of "extensive consultation" being undertaken, we have on record an apology from Dong for the fact that they did not consult with us early in the process. "

Mr G.Crook and C.Venters, Lllys y Wennol, Glascoed Road, St Asaph

Points raised : Access to septic tank and soakaway, and indemnification issues still not resolved / traffic management concerns not resolved/ no real engagement with residents or willingness to consider residents concerns

Mark Isherwood, AM

Points raised: DONG response overlooks / fails to recognise uncertainties over effects of low frequency EMF on health, the precautionary principle, comments of Professor O'Carroll and Wales Health Impact Assessment Support Unit.

EXPIRY DATE OF APPLICATION: 15th July 2013

REASONS FOR DELAY IN DECISION (where applicable):

- timing of receipt of representations
- Further information from the applicant
- Number of representations

PLANNING ASSESSMENT:

1. THE PROPOSAL:

1.1. Summary of proposals

1.1.1. Members will recall deferring consideration of this application at the October 16th meeting. Deferral was to allow opportunity for further dialogue with the applicants over issues raised in debate on the item, in particular the proximity of the cable to a residential property on Glascoed Road, St Asaph, and whether the cable / cable route corridor could be moved further to the west to reduce concerns over perceived health risks from exposure to Electro Magnetic Fields (EMF).

1.1.2. DONG energy have responded to this dialogue and have respectfully requested the Committee to consider the application in its originally submitted form. A summary of the main points in the final DONG energy response is included in Section 1.5 of the report. In brief, whilst understanding the concerns raised, and that it is a difficult and emotive topic, DONG energy strongly contend that the application complies with relevant policy and guidelines and that they have provided sufficient research and consultation. They consider an amendment to the cable route is not justified on grounds of EMF health concerns.

1.1.3. Officers have revised the contents of the report as presented to the October Committee, to take account of the matters raised both at Committee and in the applicant's subsequent responses. Interested parties have been advised of DONG energy's stated position, and any additional representations received in relation to the proposals up to the date of Committee will be reported in the late information sheets.

The summary of the proposals is as follows:

1.1.4. Dong Energy Burbo Bank Extension (UL) Ltd (DONG) is proposing to construct and operate (and ultimately decommission) an onshore electrical sub-station and associated ancillary works and underground electrical cabling between Ffrith Beach and St Asaph, within the county boundary of Denbighshire.

1.1.5. This scheme is in conjunction with Dong's proposals to build an offshore wind farm extension to the existing Burbo Bank wind farm with a generating capacity of 258 MW. The onshore component, the subject of this application, is necessary to connect the electricity generated by the wind farm to the National Grid. The offshore element of the proposal is a Nationally Significant Infrastructure project and the Development Consent Order application for that part of the scheme has been submitted to the Planning Inspectorate and is at Pre examination stage.

1.1.6. A generating system of this size requires a direct connection into a 400kV (high voltage) national grid electricity transmission system. The applicants, in consultation with the National Grid, looked at three options for onshore connections and on the advice of National Grid, the route to the National Grid Bodelwyddan 400kV sub station south of St Asaph Business Park was chosen.

1.1.7. In brief the proposal combines three main elements:-

- (a) The laying of approximately 11km of underground electricity cable;
- (b) The construction of a substation with associated equipment;
- (c) The connection from the substation to the Grid network.

1.1.8. The cables from the offshore wind farm will come ashore at Ffrith Beach (underneath the sea defences) to a Transition Joint Bay (TJB) which will be located above the high water on Rhyl Golf Course. The TJB will be an excavated pit measuring approximately 15m x 6m, The depth will depend on how deep the cable needs to be laid beneath the coastal protection works.

1.1.9. The onshore cable from the TJB will be laid in trenches of some 2-4 metres in width and at a depth of between 0.7 and 1.5 metres. The cable will cross Rhyl Golf Club before crossing the main Coast road. It then passes through the Robin Hood leisure complex before crossing into agricultural land. On its way to the substation at St Asaph it crosses several roads including the A 55 Expressway and also rivers/streams. The route is illustrated on the plans at the front of the report.

1.1.10. Along the length of the route there will need to be Jointing Bays and these will occur every 600 to 1000 metres. Each jointing bay will be approx. 10 x 3 metres, buried at 1.5 metre depth.

1.1.11. There will be a need for several temporary construction compounds along the route together with some temporary haul tracks.

1.1.12. Most of the cables will be laid by a cut and fill method, however there are obstacles which will require a different approach. These barriers will require the cables to be installed by a horizontal directional drilling (HDD) or auger boring. This method will be used for the following:-

- Sea Defences
- Rhyl Golf Course
- North Wales Railway line
- River Clwyd
- A55(T)
- A525 and
- 2 gas pipelines at the NGET Bodelwyddan substation

1.1.13. The substation element of the proposed development has been submitted in outline form as the final detailing will not be known until a final assessment of the project has taken place and a contractor appointed. The applicants have however submitted as supporting information a typical substation design which shows two reactors, a control building, lightning masts, other external equipment, together with boundary fencing. (see the plan at the front of the report) The substation will cover an area approximately 80m x 100m.

1.1.14. There will be an underground connection between the new substation and the National grid compound which is within 250 metres of the proposed substation.

1.1.15. It is expected that the construction phase for the onshore element of the project will be 2 years.

1.1.16. The application has been supported by:-

- An Environmental Statement (ES)
- A Design and Access Statement (DAS)

The Environmental Statement

The main part of the ES is a comprehensive document which has for the sake of completeness included both the onshore and offshore works. In this present application the elements that are relevant relate to the works from the high water mark at Ffrith beach to the proposed substation at St. Asaph and the link from there to the National grid Sub Station.

There is comprehensive highly technical data in the submission and the relevant consultees have been consulted to ensure the assessments are accurate and the proposed mitigation is comprehensive, relevant and sufficient to ensure any environmental effects are minimised.

The applicants have also produced a non-technical summary which also covers the onshore and offshore works for completeness. This explains the whole scheme in an easier to read format.

In respect of the onshore development the subject of this application the ES covers the following topics:-

- Physical environment;
- Geology, hydrology and ground conditions;
- Hydrology and Flood Risk;
- Biological Environment;
- Human Environment;
- Land Use and Agriculture;
- Landscape and Visual Impact Assessment;
- Archaeology and Cultural Heritage;
- Traffic and Transport;
- Air Quality
- Noise and Vibration

The Design And Access Statement

The statement has been submitted to support the planning application; it provides the planning context for the onshore works; It explains the details of the proposal and sets out how it accords with local and national planning policy.

It covers the following topics:-

Site location, description of the application area and site appraisal;
Development Proposals;
Legislation and Policy Context;
Vision and Urban Design Principles;
Development Design Concept and Layout;
Response to Policy;
Access;
Sustainability Principles;
Conclusions

1.2. Description of the site and surroundings

1.2.1 As noted previously, the cables from the proposed windfarm will come ashore at Ffrith Beach between Rhyl and Prestatyn. The cable will then cross Rhyl Golf Course before crossing the main A548 Rhyl Coast Road. It will then pass under the Lyons Robin Hood static caravan park, located between the A548 Rhyl Coast Road and the railway before crossing into agricultural land and continue in a southerly direction towards the substation location at St Asaph business park. The cable route corridor crosses several roads including the A525, A55 and also rivers/streams (River Clwyd) on-route to the substation location.

1.2.2 The landfall, cable route corridor and substation locations falls outside of settlement boundaries and the majority of the cable route corridor traverses agricultural fields. However, a number of individual properties are in close proximity to the cable route corridor; a total of 7 properties have been identified in the ES as being within 25m of the cable corridor.

1.3. Relevant planning constraints / considerations

1.3.1 The landfall, cable route corridor and substation locations are affected by the following relevant planning constraints:

- The cables will come ashore at Ffrith Beach under the existing sea defences and cross the allocated Coastal Tourism Protection Zone.
- The temporary works area for the landfall site is located within C1 flood risk zone.
- The temporary works area for the A525 crossing site is likely to be located within an area at potential risk of fluvial flooding from the River Clwyd and Elwy.
- The onshore cable crossing point of the River Clwyd is within the fluvial floodplain.
- The landfall site and the cable route corridor between Rhyl and Prestatyn is within an area allocated for Recreation and Open Space and Green Barrier.
- The cable route passes just within the Grade II* Registered Park and Garden of Special Historic Interest at Bodrhyddan Hall, and also within the defined Essential Setting of this Registered Park and Garden.
- The cable route corridor is in close proximity 4 no. Grade II listed buildings (Rhodarddwy, Aberkinsey, Grivernigrion, Staverton and Southcroft); Grade I Listed House at Bodrhyddan Hall; and Town Ditch at Rhuddlan which is part of the Scheduled Ancient Monument.

1.4. Relevant planning history

1.4.1 An Application for Development Consent under the Planning Act 2008 to construct and operate the proposed Burbo Bank Extension Offshore wind farm has been submitted to the Planning Inspectorate. The proposal comprises up to 69 wind turbines and associated infrastructure in Liverpool Bay, approximately 12.2km off the coast from the Point of Ayr. The Application for Development Consent is currently at the Examination stage.

1.5. Developments / changes since the application submission

1.5.1 For the record, following deferral at the October Committee, Officers outlined the request to consider moving the cable / cable route corridor further to the west to take it away from Cottage Villa on Glascoed Road. This included the amendment sought by the occupiers of the property to ensure the cable was located a minimum of 33 metres from the property boundary.

1.5.2 The applicants' summary of their position is set out below:

- The scientific evidence submitted to date supports the conclusion that there is no health risk, consequently there is no legitimate reason for moving the cable route;
 - As stated above the Application complies with relevant policy and has provided sufficient research and consultation.
 - The request to alter the existing boundary is inconsistent with previously consented underground cables by this council. We are aware that planning permission has been given where cables run under gardens and in close proximity to properties, on the basis that EMF levels comply with relevant guidelines.
- *The current cable route, as a whole, not only complies with relevant policy but has also been designed with the concerns of the residents in mind, pursuant to the extensive consultation that was undertaken and constraints along the route considered.
- Altering the route at this location would open the possibility of other residents along the route also requesting an amendment to the cable route. Notwithstanding the fact that no such requests have yet been received, any insistence that the cable is moved at this particular location would, in the view of the Applicant, render the Council powerless to resist such

a request. This could potentially impact the Project as a whole.'

1.5.3 The remainder of the DONG response enlarges on the above summary and attaches a letter sent to the Planning Section Case Officer in response to representations on EMF from Mark Isherwood A.M. and local residents, a letter from the Health Protection Agency (Centre for Radiation, Chemical and Environmental Hazards) to DONG energy, and a 2012 review paper summarising the debate over concerns that EMF magnetic fields from power lines cause cancer. All this material is available for inspection as a background paper. It has been sent to interested parties, including private individuals and Cefn Meiriadog Community Council who raised the issue of EMF in their representations.

1.5.3 In their summing up, the applicants also point out that the scheme is part of a wider Nationally Significant Infrastructure Project, and that the knock-on effects of continuing to delay a decision on this element could have wide ranging impacts on the feasibility of the project as a whole.

1.6. Other relevant background information

None

2. DETAILS OF RELEVANT PLANNING HISTORY:

Planning permission Ref 31/2008/1123 – Granted 18/02/2009 - For the installation of a 132/400 kv electricity substation and associated underground cables between St. Asaph and Pensarn in connection with the Gwynt Y Mor Offshore windfarm, presently being constructed.

3. RELEVANT PLANNING POLICIES AND GUIDANCE:

The main planning policies and guidance are considered to be:-

3.1. Denbighshire Local Development Plan (adopted 4th June 2013)

Policy RD1 - Sustainable development and good standard design

Policy RD 2- Green Barriers

Policy PSE 13 – Coastal tourism protection zones

Policy VOE 10 – Renewable energy technologies

3.2. Government Policy/Guidance:

Planning Policy Wales Edition 5 (2012)

TAN 5 - Nature Conservation and Planning

TAN 8 - Renewable Energy

TAN 11 – Noise

TAN 12 – Design

TAN 14 – Coastal Planning

TAN 15 - Development and Flood Risk

TAN 18 - Transport

4. MAIN PLANNING CONSIDERATIONS:

In terms of general guidance on matters relevant to the consideration of a planning application, Planning Policy Wales edition 5, 2012 (PPW) confirms the requirement that planning applications should be determined in accordance with the approved or adopted development for the area, unless material considerations indicate otherwise (Section 3.1.2). PPW advises that material considerations must be relevant to the regulation of the development and use of land in the public interest, and fairly and reasonably relate to the development concerned, and that these can include the number, size, layout, design and appearance of buildings, the means of access, landscaping, service availability and the impact on the neighbourhood and on the environment.(Sections 3.1.3 and 3.1.4)

The following paragraphs in Section 4 of the report therefore refer to the policies of the Denbighshire Local Development Plan, and to the material planning considerations which are considered to be of relevance to the proposal.

4.1. The main land use planning issues are considered to be:

- 4.1.1. Principle of development
- 4.1.2. Layout – landscape and design
- 4.1.3. Nature conservation, protected species, trees and woodlands
- 4.1.4. Agricultural land quality
- 4.1.5. Residential amenity
- 4.1.6. Highway and Traffic
- 4.1.7. Health risks and noise
- 4.1.8. Archaeology
- 4.1.9. Drainage and Flood Risk
- 4.1.10. Coast Protection
- 4.1.11. Tourism
- 4.1.12. Decommissioning

4.2. In relation to the main planning considerations noted above;

4.2.1. Principle of development

Renewable energy technology:

The proposed Burbo bank extension wind farm will make a significant contribution to meet UK targets for renewable energy. Planning Policy Wales, Edition 5 2012 and TAN 8 suggest that Local Authorities should plan positively for offshore and onshore wind farms and associated installations. Policy VOE 10 of the adopted Local Development Plan supports the principle of proposals which promote the provision of renewable energy technologies.

The merits of National Government Policy and Welsh Assembly Government Policy in relation to renewable energy production, including the case for alternative forms of generating electricity and the concentration of wind turbines off the Welsh coast are not matters for challenge in the determination of an individual planning application(s) for onshore installations.

Onshore infrastructure is necessary to accompany the offshore development in order to connect with the high voltage grid electricity transmission system.

Alternative sites investigated:

The applicant as part of the process looked at alternative sites for the onshore connection for the Burbo Bank off shore extension. Originally it was thought that it would connect either to the National Grid Substation at Birkenhead (275kV) or Deeside (400kV). However, following the submission of an application for a grid connection, the National Grid suggested the option of connecting to the new 400kV substation at the St Asaph business park (known as the Bodelwyddan (400kV) substation). After further discussions, Bodelwyddan was selected as the most optimal and efficient interface point for the connection of the project to the National Grid onshore network.

Once the connection had been established with National Grid, the applicants assessed various routes from the Coast to the site, based on environmental and technical considerations, consenting risk, potential cumulative effects and economic viability. This resulted in the route now under consideration being adopted as the preferred option.

There were also two options considered for the location of the substation, one immediately to the west of the National Grid substation, the other to the east, which is the one that was chosen.

National and local policies set a framework offering clear support for the development of renewable energy. The onshore installations have to connect to the existing 400kV powerline and the substation scale and size are as proposed for health and safety considerations and to accommodate the type of equipment needed. On the basis of the information provided, the location of the substation in and around the new National Grid substation to the South east of the St Asaph Business Park is considered

logical and acceptable.

4.2.2. Layout – Landscape and Design

There are no specific policies in the adopted Denbighshire LDP relating to the landscape and design of this type of proposal hence the general considerations outlined in PPW need to be applied.

The key landscape management objectives for the substation area , as set by the Authority in LANDMAP, include maintaining and enhancing tree and woodland cover, encouraging new planting of Oak and Black poplar and promoting and establishing ponds.

As noted previously the planning application is a hybrid submission with the proposed substation being submitted in outline whilst the remainder of the works is a detailed submission. Whilst the substation submission is in outline the applicants have provided a typical design option which includes 2 reactors, a control building, lightning masts and other external equipment. The final detail is reserved for future approval once a Contractor has been chosen.

The proposed substation will be seen in the context of the Gwynt y Mor and National Grid substations, and it is considered that whilst there will be some change to the landscape setting in this area, there is a reasonable case for these substations to be in close proximity to each other. There will be some additional planting to help in mitigation against the visual impact the proposal will have on the local environment.

It is considered that the development can be integrated into the local landscape without causing unacceptable harm to its character. The substation will be partially screened by existing vegetation. The additional planting proposed will contribute to the screening of the substation in the agricultural landscape. It is not considered that potential landscape impact would be significant, or that any harm arising would outweigh the case in support of infrastructure to accommodate significant investment in renewable energy development.

4.2.3. Nature conservation, protected species, trees and woodland

Policy VOE5 of the LDP requires due assessment of potential impacts on protected species or designated sites of nature conservation, including mitigation proposals, and suggests that permission should not be granted where proposals are likely to cause significant harm to such interests. This reflects policy and guidance in Planning Policy Wales (Section 5.2) , current legislation and SPG 18- Nature Conservation and Species Protection, which stress the importance of the planning system in meeting the biodiversity objectives through promoting approaches to development which create new opportunities to enhance biodiversity, prevent biodiversity losses or compensate for losses where damage is unavoidable.

An assessment of potential impact has been undertaken with a range of ecological surveys contributing to the baseline information for assessing the potential impacts.

The installation of the underground cables and the proposed substation has potential to create a number of adverse ecological impacts such as the permanent loss, disturbance or fragmentation of habitat during construction.

The impacts include the loss of land at the substation site and the removal of hedgerow and trees along the cable route. The submission includes significant mitigation measures in the Environmental Statement.

The County Ecologist and the ecologist from the NRW have no objections to the proposal or the mitigation proposed and recommend conditions be included on any permission to ensure the mitigation is completed to the satisfaction of the Council.

On the basis of the responses, the proposal is not considered likely to have a significant

adverse effect on ecology and provides for sufficient mitigation to compensate for disruption during the constructional stage.

4.2.4. Agricultural Land Quality

Planning Policy Wales (Section 4.10) obliges considerable weight to be given to protecting land of grades 1, 2, and 3a quality in the Agricultural Land Classification system of the Department for Environment, Food and Rural Affairs. This land is considered to be the best and most versatile and justifies conservation as a finite resource for the future. PPW indicates that land of this quality should only be developed if there is an overriding need for the development, and either previously developed land or land of a lower grade is available, or available lower grade land has an environmental value recognised by a landscape, wildlife, historic or archaeological designation which outweighs the agricultural considerations.

The proposed development has the potential to impact upon existing and future land uses. There will be no permanent effects or loss of agricultural land or public rights of way from the underground cable once reinstatement has taken place.

The construction and operation of the substation will result in the permanent loss of arable and pasture farmland (approximately 0.8 hectares of grade 3b agricultural land). In addition there will be a change of some agricultural land to woodland as mitigation for the ecological and landscape effects.

Some of the landowners have indicated that they consider that the works will result in a downgrade of the land and a reduction in yields for years to come.

The Officer view is that although there will be some disruption during the construction and cable laying period there will be no long term damage to agricultural land. The permanent loss of land to the substation is not significant and the new woodland will assist with improvements to biodiversity in the area.

4.2.5. Residential Amenity

Planning Policy Wales 3.1.4 refers to the number, size, layout, design and appearance of buildings, the means of access, landscaping, service availability and the impact on the neighbourhood and on the environment as potentially material considerations. The impact of a development on residential amenity is therefore a relevant test on planning applications.

There have been concerns raised by occupiers of neighbouring properties to this development both in terms of the constructional and operational phases.

The first area of concern is the area where the cable comes ashore, crosses the golf course, coastal road and Robin Hood holiday complex. The concerns relate to the proximity of the temporary construction compounds and the access to them. These are close to residential properties and residents are concerned about noise and general disturbance, possible damage to their properties and increased traffic especially large delivery vehicles. In this area there is also concern that any works take place during the winter months so as not to disrupt the tourist trade. Members may recall that a resident of Terfyn Pella spoke at the October Committee to explain these concerns.

The other main concern is from residents on Glascoed Road, St Asaph. Their main concern is the possible health effects of exposure to electro magnetic fields. There is also concern in respect of the effect the proposal will have on a septic tank which is within the application site.

The applicant has indicated that there will be controls in their " Code of Constructional Practice" such as restrictions on operational hours, and that before works commence in a particular area neighbours will be contacted and the nature of the works explained and will be given a contact number to which any complaints can be directed. A Public Liaison manager will also be appointed who will establish a system for enquiries and complaints. The applicants have also acknowledged the commercial interests along the

route including the summer holiday season and tourism interests and have indicated that they will as far as possible programme works to avoid peak times.

In relation to the concerns around the Glascoed Road area, the matter of the effect on the residents septic tank is one that has to be resolved between the parties concerned and is not an issue that the planning system needs to address. The matter of possible health risks from electro magnetic fields is discussed in detail in Section 4.2.7 below.

The Officer view is that the issues of concern raised in relation to the laying of the cable and the construction and running of the Substation have been adequately addressed, and that there are no unacceptable residential amenity impacts likely to arise, in particular with suitable controls over construction stage activities, which can be covered by a detailed condition requiring the Council's formal approval prior to commencement of site works.

4.2.6. Highways and Traffic

Planning Policy Wales 3.1.4 refers to what may be regarded as material considerations and that these can include the number, size, layout, design and appearance of buildings, the means of access, landscaping, service availability and the impact on the neighbourhood and on the environment. The acceptability of the means of access is therefore a standard test on most planning applications.

Policy ASA 3 requires adequate parking spaces for cars and bicycles in connection with development proposals, and outlines considerations to be given to factors relevant to the application of standards. These policies reflect general principles set out in Planning Policy Wales (Section 8) and TAN 18 – Transport, in support of sustainable development.

Whilst there are no major representations expressing concerns over the highway and traffic implications, there are some localised concerns re deliveries to the temporary construction compounds. It is considered that these can be resolved by condition or through a constructional management plan.

A full traffic /transport assessment has been included in the EA and whilst it recognises that the most disruption will be in the constructional phase it concludes that this will only be temporary and the overall effect in terms of the EA assessment will be neutral.

There will be some disruption to traffic when work is done to cross minor roads due to the cut and fill method of laying the cable. However, there will be no such disruption to the A55 expressway or the A525 (Coast Road) as high pressure drill methods will be used to go under the road similar to that which happened with the Gwynt y Mor scheme.

The Highway Officer's view is that the scheme as proposed is acceptable in principle and that any permission should incorporate suitable conditions. The Welsh Government's Highways Officer has directed that any permission should include conditions to ensure no direct access is created onto the A 55 Expressway.

The submission acknowledges that there will be some disruption during the constructional phase from both deliveries to and from the temporary constructional compounds and from temporary traffic disruption caused by cable laying across the highways. There also maybe a need to protect Public rights of way. However, it is the Officer view that these concerns can adequately be controlled by condition; such conditions requiring a Code of Constructional Practice Plan (COCP) to be submitted and approved. The COCP will include a Traffic Management Plan.

4.2.7. Health Risk and Noise

There are no specific policies in the Denbighshire LDP relating to Health Risk and noise considerations for proposals in open countryside. The government has indicated that health impact assessment can be considered part of the planning process, and PPW contains the general requirements to have regard to impact on the neighbourhood and

the environment. Section 13.13 of PPW refers to noise being a planning consideration in the use and development of land.

There have been specific issues raised in respect of the health risk associated with Electro Magnetic Fields (EMF) and also possible cumulative noise issues associated with the operation of the substation which is located in close proximity to the National Grid and Gwynt Y Mor substations.

In relation to Health Risk:

Objections have been received from / on behalf of the occupiers of property in Glascoed Road, supported by their neighbours and by Mr Mark Isherwood (Assembly Member) expressing concern about the perceived potential for long term effect on health from exposure to Electro Magnetic Fields, which may arise from proximity to the proposed underground cable near their property. This has resulted in extensive correspondence between objectors, the Assembly Member and the applicant, a meeting between the parties with representatives from the Council, and deferral at the October Planning Committee.

In response to concerns raised in relation to electro magnetic fields, the applicants included as part of their Environmental Statement a section on EMF (Annexe 6) and in respect of the concerns originally raised, provided the following information:

“Cable proximity”

Some local residents have raised concerns about the proximity of the under-ground cable corridor to their property. The cable corridor has a working width of 25m and is being used along the onshore cable route. This means that, where possible, the cable will be laid centrally within this 25m corridor, however there is the possibility of the cable being located further left or right of the central path to avoid physical obstructions or constraints. The actual width of the cable trench within the 25m corridor will be 4m.

Project engineers undertook a site visit to consider the likely installation processes and format at this section of the cable route. Results from this site visit highlighted a number of physical constraints including the existing entrance for access to the field, location of existing manhole covers, and trees in the field to the north of Glascoed Road. These constraints are likely to require the Project to lay the cable towards the west side of the central line of the 25m working corridor at this section of the route, and position the topsoil and subsoil to the east side to act as temporary screening for the adjacent properties during the works (this was also discussed at the meeting mentioned in section 2.3). The area will be remediated post-construction.

Electromagnetic Fields (EMF) and human health concerns

Concerns have been raised about effects of Electromagnetic Fields (EMF) on human health in relation to the proximity of the cable to residential properties. The Project has been in dialogue with several members of the community on this matter via telephone, written, and face-to-face communication. To summarise the Project's position in relation to EMF, the following response is provided:

EMF arises wherever electricity is generated, transmitted or used. At the low frequency used for electricity transmission, it is appropriate to consider the electric and magnetic field components separately.

Strong EMF has the potential to affect human health, and for this reason guide-line limits for public and occupational exposure, set to protect health, have been published by the International Commission on Non-Ionizing Radiation (ICNIRP). ICNIRP's guidelines have been adopted in a voluntary code of practice for the electricity industry, published by the Department for Energy and Climate Change (DECC), on the advice of the former National Radiological Protection Board (NRPB), which is now part of the UK Health Protection Agency (HPA). These guidelines are based on the best available scientific evidence base regarding EMF and health, and have been widely adopted around the world, particularly in the EU following a recommendation by the European

Commission (EC) for their use. They are also referenced as standards set to protect health by the World Health Organisation (WHO) in their published information regarding EMF.

An assessment of the potential for health impacts due to EMF generated by the onshore underground electricity transmission cables of the Project has been undertaken (Annex 6 of the Environmental Statement). The assessment includes a brief summary of the current EMF and health effects evidence base and a discussion of the standards in place to protect human health.

The maximum magnetic field strength has been calculated, based on worst-case parameters for the cables (such as burial depth and electrical current carried). The maximum calculated magnetic field strength, at 1m above ground level directly above the cables, would be 66.9 μ T (micro tesla). This is 18.6% of the guideline public exposure limit to protect health. In reality, with expected cable design and loads, the magnetic field strength would be lesser. The magnetic field strength would decrease rapidly with distance to the sides of the cable route, as shown in the table below.

Distance from trenches centreline (metres)	Magnetic field strength (μT – micro tesla)*
0	66.88
4	14.29
8	3.94
12	1.78
16	1.01
20	0.65
24	0.545
28	0.33
32	0.25

on 0.7m burial depth. A more conservative scenario than presented in the EMF report accompanying the ES.

Source: RPS, July 2013

There would be no electric field from the cable above ground level, as the cable sheath material would fully screen it."

The applicants have responded directly to the concerns raised by the neighbours and to the issue of health risk raised at their meeting and re iterated their position that there are no health risks, concluding in their response that:-

"Based on the cable's design, the current scientific evidence base regarding power frequency EMF, and guidance provided by the HPA in their letter of the 28th January 2013 which responded to the health Impact Assessment undertaken, the proposed underground cables would have no measureable human health impact due to EMF and no mitigation is, therefore required."

The objectors and Pollution Control Officer were duly advised of the above stance. The Pollution Control Officer indicated that he had no more to add to the response from Public Health Wales, referred to in the Consultation Responses section of the report. Objectors comments are summarised earlier in the report.

In summary, it is evident that the objectors have a perception/fear for their long term health from the proximity of the cable to their property, in relation to which they believe the risk could only be reduced by moving the cable outside the defined 'red line' boundary of the planning application site. In the period before the application was reported to the October 2013 Committee, the applicants corresponded and met with the objectors, and indicated that due to technical issues it was extremely likely that the cable(s) will be located as far away as possible away from the property but within the 'red line' application site. They also indicated the location of the cable is within the guidelines published by ICNIRP which has been adopted by DECC on the advice by the NRPB which is now part of the UK Health Protection Agency as the industry standards; and that that these are standards set to protect health by the WHO in their published information.

The applicants' subsequent responses to the deferral of the application to seek an amendment to their proposals reaffirms their view that they have adequately covered the issue of EMF in the ES, that the scientific evidence supports their conclusion that there is no health risk, and that they have tried as far as is possible to allay the perception/fear of long term health implications by the objectors, given the cable is likely to be located as far away as possible from Cottage Villa within the application route corridor.

The Pollution Control Officer has consulted with Public Health Wales (PHW) on the matter of possible Health risk and their response is that there is no risk to health by EMF's if the levels are below the set guidelines indicated by ICNIRP. The Pollution Control Officer has been in further discussions with Officers at PHW following the correspondence received from the Assembly Member Mr Mark Isherwood, and is of the view that if the applicants ensure that the cable is laid as far as possible away from the resident's boundary then this would be sufficient and satisfactory in ensuring a precautionary approach has been taken.

In relation to the additional response from applicants following deferral of the application at October Planning Committee, the applicant has re-affirmed that the scientific evidence submitted to date by all parties, supports a conclusion of no health risk, and therefore do not consider amending the cable route corridor to be necessary. A letter from the Health Protection Agency (HPA) dated January 2013 was also appended to the additional response from the applicants. On the issue of EMF, the HPA have confirmed that the approach taken by the applicant is compliant with the HLA wind farm position statement, and on that basis the HPA did not have any adverse comments to make.

The Officer view is therefore, with every respect to the representations made, that there are no reasonable grounds here to justify the refusal of planning permission in respect of the potential impact on human health; however as a precautionary approach, the exact location of the cable within the route corridor could be controlled by condition to ensure it is as far away as possible from the property concerned. Members are referred to the suggested wording of Condition 19 which requires the further approval to the location of the cable within the corridor in 3 separate locations. In relation to Cottage Villa, if the cable can be located within 1 metre of the western boundary of the route corridor, this would give a distance of 27 metres to the boundary with that property. For the avoidance of doubt, this condition is only considered necessary as a precautionary approach in relation to Cottage Villa, and is not a requirement that has been recommended or directed to meet health regulations. It is acknowledged that the objectors are unlikely to be satisfied with this, however, it is considered the most that can be achieved in this instance.

In relation to noise:

There has been some concern raised in respect of noise during construction and also from the cumulative impact from the operational aspect of the substations in the area.

The applicants have addressed the noise during construction and are in direct contact

with the agent working on behalf of a dairy farmer who is concerned about the noise upsetting his dairy herd.

With respect to the cumulative noise issue the Pollution Control Officer has concluded that this would be best controlled by condition on any planning permission.

The concerns expressed in respect of noise during construction and operation have been addressed and resolved and the Officer view is that noise can and should not be a significant issue subject to conditions being attached to any planning permission.

4.2.8. Setting of Listed Building

Local Development Plan Policy VOE 1 seeks to protect sites of built heritage from development that would adversely affect them. The context for assessment of applications involving alterations / extensions to a listed building which require planning permission is set by Welsh Office Circular 61/ 96 and Planning Policy Wales (Section 6), which stress the importance of protecting the historic environment. PPW 6.1 refers specifically to the need to ensure the character of historic buildings is safeguarded from alterations, extensions, or demolition that would compromise their special architectural and historic interest.; and 6.5.9 indicates that where a development proposal affects a listed building or its setting, the primary material consideration is the statutory requirement to have special regard to the desirability of preserving the building or its setting, and any features of special architectural or historic interest which it possesses.

The proposed cable route will run in close proximity to several listed buildings along its length. These include the grade 2 properties at Rhodarddwy, Aberkinsey, Grivernigrn, Staverton and Southcroft. It will also go through part of the grade 2* registered Park and Garden of special Historic Interest and close to the Grade 1 Listed House at Bodrhyddan Hall, and close to the Town Ditch at Rhuddlan which is part of the Scheduled Ancient Monument.

Whilst the cable route passes through the Registered Garden at Bodrhyddan and will be seen during the construction from the Listed Buildings and scheduled monuments it is considered that there will be no long lasting effect on their setting.

The owner of Bodrhyddan Hall and Registered Garden has objected to the proposal on the basis that it would adversely effect the setting of the building and gardens.

It is accepted there will be some temporary effect on the setting of the registered Garden, the Ancient Monument and the Listed Buildings referred to, but these will only be for a short period and will not have a lasting effect on their importance in the Historic environment.

4.2.9. Archaeology

Planning Policy Wales (Section 6.5) sets out a range of considerations to be given to the assessment of archaeological issues, including approaches to recording and investigating potential remains in conjunction with new development. Welsh Office Circular 60/96 provides basic advice on the handling of archaeological matters in the planning process.

There were originally concerns raised by CPAT on the information provided by the applicant in the study and the approach taken at that stage. However, following a meeting between the parties, assurances have been given that should planning permission be granted there will be sufficient time for the appropriate level of assessment to be carried out and mitigation to be finalised before work commences on the laying of the cable and construction of the substation.

Whilst it is not expected that there will be any direct impacts on significant archaeological assets, any that are found can be safeguarded and dealt with in an appropriate manner, and to ensure this, CPAT has recommended that any planning permission include conditions in respect of Archaeological interests.

Subject to condition(s) Officers suggest the archaeological interests can be adequately protected.

4.2.10. Drainage and Flood Risk

Planning Policy Wales Section 13.2 identifies flood risk as a material consideration in planning and along with TAN 15 – Development and Flood Risk, provides a detailed framework within which risks arising from different sources of flooding should be assessed.

There has been no representation in respect of drainage or Flood Risk issues.

The proposed route for the cable passes through a significant length of land falling within C1 zone as defined in TAN 15: Development and Flood Risk. The applicant has prepared a Flood Consequences Assessment as part of the ES and this assesses the potential impacts of flooding during the temporary construction phases. In this respect the NRW has recommended that the temporary works Construction Manager registers with the NRW's Flood Warning Service to receive appropriate warnings.

The NRW are generally in agreement with the information submitted in the ES but have recommended that certain conditions be attached to any planning permission to ensure the disposal of surface water from the constructional sites is appropriate and in line with Sustainable drainage management techniques.

It is the Officer view that drainage or flood risk issues can be controlled by means of conditions on any permission.

4.2.11. Coast Protection

There are no policies in the Denbighshire LDP which cover the issue of Coast Protection. The National policy can be found in Planning Policy Wales 5th Edition 2012 (Section13) and in TAN 15 which specifically look at Flood Risk and Climate Change.

There has been no representation in respect of the effect the development will have on the existing Coast protection system at Ffrith Beach, where the cable(s) come ashore.

There will be a maximum of 2 cables from the offshore wind farm that will be buried when it crosses the inter-tidal area, each cable will be armoured and will be buried. The cables would be buried to an approximate depth of 0.7m and 1.5m with a possible depth of 3 m at the crossing of the coast defences. Immediately landward of the coast defences on the Rhyl Golf Club land there will be a Transition Joint Bay (TJB) constructed. Underground ducts for the cables will be installed on the seaward and landward side of the TJB. These will be installed by horizontal directional drilling (HDD) or augur boring at each side of the TJB. It is not considered that the integrity of the Sea defences will be compromised.

It is the Officer view that the applicant is proposing appropriate action in the transition from the offshore to the onshore part of the electrical connection to the Grid. The coastal defences will not be compromised due to the HDD technique being used to go under the defences with the ducts.

4.2.12. Tourism

Policy PSE 13 "Coastal tourism protection zones" in the Denbighshire LDP identifies the local issue of protection of areas of the coastal area of the County for tourism related activity. National policy can be found in Planning Policy Wales 5th Edition (Chapter 11).

There have been no concerns raised relating to the effect the proposal will have on the tourist industry. The only letter received on the issue has requested that as much of the work at the coastal end be carried out in the winter months so as not to conflict with the main tourist season.

There will be a large constructional accommodation area at Ffrith Beach required for the period of works in this area to cover the inter tidal works, the coastal defence crossing, the TJB construction and part of the crossing of Rhyl Golf Club. There will be disturbance and restrictions to using the beach area during these works.

It is considered that the proposal limits the area of land take for these accommodation works to the minimum required. It is acknowledged that there will be some disruption and that areas of the beach and parts of the Golf Club will be out of action during parts of the construction phase. However this is only temporary, and the restrictions will be lifted once the works are complete and remediation works undertaken.

The Officer view is that there will be temporary disruption caused in terms of tourist facilities during the construction phase, but this will disappear once that has been completed, therefore the Code of Constructional Practice Plan will need to be carefully controlled to ensure that disruption is minimised.

4.2.13. Decommissioning

There are no Denbighshire LDP policies referring to the decommissioning of wind turbines and related developments. Planning Policy Wales 5th Edition 2012 and TAN 8 reflect the national policy and indicate that decommissioning should be a material consideration and adequately controlled as part of any planning permission.

The planning life of the proposed wind farm is 25 years unless an application is submitted to extend the period by extending the life of the existing turbines or replacing them with new turbines. The decommissioning of the turbines will be a matter for the DCO application being dealt with by the Planning Inspectorate who will report to the Department for Energy and Climate Change.

With regard to the onshore decommissioning, none of cables would be removed as it is considered that there would be less of an environmental effect / disturbance by leaving them in situ rather than trying to remove them. When the substation is decommissioned it can be removed and the site returned to agriculture.

The Officer view is that the proposals for decommissioning the substation in the future are relevant and appropriate, and can be dealt with through condition.

5. SUMMARY AND CONCLUSIONS:-

- 5.1. This is an extensive report setting out the main issues and concerns raised as part of the application process. It has referred to the topic areas covered in the Environmental Statement and identified the works that are required to secure the onshore connection of the Proposed Burbo Bank extension wind farm to the National Grid. These onshore works are essential to assist in securing the energy generation from this Nationally Significant Infrastructure Project and are therefore in line with National and Welsh Government policy.
- 5.2. The report recognises that there will be local impacts during the construction phase and has noted the concerns in respect of the operational stage, but in Officers' opinion the applicant has adequately responded to those impacts and concerns, and suitable mitigation and controls can be put in place to address relevant issues.
- 5.3. Officers acknowledge the basis of concerns raised by residents in respect of perceived effect on health from exposure to Electro Magnetic Fields, arising from the proximity of the proposed cable to residential property. There are differing opinions on the matter but it is evident that the submission meets with the guidelines set out by INCIRP. However, as a precautionary approach it is considered that the precise location of the cable should be as far to the western edge of the application corridor as possible in the area of the crossing of Glascoed Road. It is appreciated that this is unlikely to allay the fears expressed by the residents, but it is not felt that on the evidence submitted that a refusal of planning permission or a requirement to move the cable further away from the property could reasonably be justified or sustained in this instance.

RECOMMENDATION:- GRANT - subject to the following conditions:-

1. Approval of the details of the access, landscaping, scale, layout and appearance of the substation (hereinafter called "the reserved matters" shall be obtained from the Local Planning Authority in writing before the commencement of any development of the substation.
2. Application for the approval of the reserved matters for the substation shall be made to the Local Planning Authority before the expiration of 3 years from the date of this permission.
3. The development hereby permitted including the substation and related cable works and equipment shall be begun before the expiration of five years from the date of this permission or in the case of substation either before the expiration of the five years referred to or before the expiration of two years from the date of approval of the last reserved matters to be approved whichever is the later.
4. No development shall take place until a Code of Construction Practice Plan, incorporating a Traffic Management Plan, has been submitted to and approved, in writing, by the local planning authority. The Statement shall include:

- (i) Programme of works;
- (ii) Hours of operation;
- (iii) Construction Methodologies & Landfall works (including works relating to beach, coastal defence, road crossings, river crossing and all works relating to cable laying);
- (iv) Re-instatement works;
- (v) Material and plant storage/deliveries (including construction traffic routes);
- (vi) Parking arrangements for site delivery, site operatives and visitors vehicles;
- (vii) Wheel washing facilities;
- (viii) Loading and unloading areas;
- (ix) The erection and maintenance of security/safety fencing;
- (x) Measures to control the emission of dust and dirt during construction;
- (xi) Temporary compounds and Haul road construction details;
- (xii) Cable decommissioning and haul route/compound removal details;
- (xiii) Access routes to the works from the A55;
- (xiv) Cross referencing to any construction methodologies which have been identified; in the Landscape/Ecological mitigation Plan;
- (xv) Management including HGV routes;
- (xvi) Signing along public roads;
- (xvii) Water drainage.
- (xviii) All works including access arrangements for mitigation to the area between the substation and the National Grid Substation in consultation with Gwynt y Mor Wind Farm Ltd (GYMOWFL) or if relevant the offshore Transmission owner (OFTO) who takes the transmission assets from GYMOWFL ; and
- (xix) the movement of abnormal indivisible loads to the site.

The approved Code of Construction Practice Plan and Traffic Management Plan shall be adhered to throughout the development process, unless otherwise approved in writing with the Local Planning Authority.

(For the avoidance of doubt the Traffic Management Plan shall also include a record of the existing state of the site and the condition of the local Public network, details of all access/egress arrangements, delivery routes and times, emergency vehicle routes, management of abnormal loads, routing, schedule of timing and movements, details of escorts for abnormal loads, temporary warning signing, banksman/ escort details and mitigation measures).

5. No development shall take place until a Landscape/Ecological Mitigation Plan, has been submitted to and approved, in writing, by the local planning authority. The Statement shall include;

- (i) Detailed hedgerow survey/assessment/removal to include new landscape proposals
- (ii) Comprehensive Ecological surveys
- (iii) Ecological Mitigation/method statements (including construction methodologies, annual monitoring, management, reinstatement/remediation & compensation proposals)

The approved Landscape and Ecological Management Plan shall be adhered to throughout the development process and for the approved period of management.

6. No open excavation shall be permitted within the A55 trunk road boundary. The cables shall be installed by horizontal directional drilling (HDD), auger boring or equivalent. The launch and receptor pits shall be constructed outside the trunk road boundary.

7. There shall be no direct access from the A55 trunk road for vehicles associated with any haul route or access pits.

8. No works shall be undertaken within or beneath the A55 trunk road without the Welsh Government's consent under section 61, New Roads and Streetworks Act 91 (NRSWA). Such consent will require a geotechnical report identifying all geotechnical risks which may be encountered and provide details including dimensions, depth, width, cross sections of tunnels as well as proposed locations for settlement monitors.

9. No development shall take place within the application area until the applicant, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation, which has been submitted by the applicant and approved by the archaeological curator for the Local Planning Authority. The archaeological programme of work will be undertaken and completed in accordance with the standards laid down by the institute of archaeologists and MoRPHE(2006). On completion appropriate reports and an archive assessment will be submitted for approval to the Local Planning Authority .

10. Unless otherwise approved in writing by the local planning authority no work shall be permitted to commence on the construction of the substation until the written approval of the local planning authority has been obtained to a full noise assessment for the final substation design. The noise assessment shall include an assessment of the cumulative situation, and in this respect the total noise levels from the onshore substation and the projects equipment within the National Grid compound must be as close to the night time background noise levels (as stated in the Energy Environmental Statement, Annex 32 - Onshore Noise and Vibration [ie.35 & 33dBLA90,8hrs]) as practicably possible. The mitigation measures proposed shall be fully explained and the benefits gained highlighted. The substation development thereafter shall be completed and operated in accordance with that approval.

11. In the event of complaints to the Local Planning Authority over noise attributable to the operation of the substation and after initial investigation by the Authority to assess that there is justification for such complaints -

a. The Authority shall notify the applicants in writing of the complaint

b. Within one month of notification by the Authority, the applicants shall organise, at their own expense, a noise assessment by independent acoustic consultants, in accordance with a brief to be set by the Authority, to establish whether the terms of Condition 10 are being met, to identify the source of any noise which may be giving rise to complaint, and to put forward measures for addressing/mitigating noise so that the levels set in Condition 10 are met, including the timing of implementation of the measures

c. A copy of the noise assessment undertaken in accordance with b. shall be submitted to the Authority no later than two months from the date of notification in 11 a.

12. In the event that a noise assessment carried out in accordance with Condition 11 identifies noise exceeding the levels set in Condition 10 :-

a. Specific mitigation measures as set out in the assessment, or such other alternative means of addressing the source(s) of noise as are submitted for the consideration and approval of the Local Planning Authority, shall be implemented in accordance with a timescale to be agreed in writing with the Authority.

b. Unless otherwise agreed in writing with the local planning authority the same acoustic consultants who undertook the noise assessment referred to in Condition 11 shall undertake monitoring of noise levels at an agreed noise sensitive facade for a period to be agreed with the Authority, once the approved mitigation measures have been implemented, to determine whether the requirements of Condition 10 are being met.

c. A copy of the findings of the further noise monitoring undertaken in accordance with 12b. shall be submitted to the Authority within 7 days of completion unless otherwise agreed in writing with the local planning authority.

13. Twelve (12) months before the decommissioning of the associated Burbo Bank Extension offshore wind farm details of the decommissioning of the onshore substation and underground cable hereby permitted and reinstatement of the land shall be submitted to and approved by the local

planning authority and thereafter the decommissioning shall be carried out in accordance with that approval.

14. All hard and soft landscape works shall be carried out in accordance with the approved details. The works shall be carried out prior to the substation being brought into use or in accordance with the programme agreed with the local planning authority. All soft landscaping shall be maintained for a period of 5 years following planting and any trees or shrubs which die, become diseased or are removed within that period shall be replaced with a specimen of similar size and species.

15. Details of any floodlighting shall be submitted to and approved in writing by the local planning authority before the onshore substation hereby permitted is brought into use and the development thereafter shall be carried out in accordance with the approved details.

16. No development shall be permitted to commence until the approval of the Local Planning Authority has been obtained to specific proposals for protected species mitigation, including great crested newt. There shall be specific ecological compensation schemes in relation to the onshore substation development, and the mitigation scheme shall include Reasonable Avoidance Measures (RAMS), the measures for the period of temporary severance, the timing of operations, and audit schemes to demonstrate compliance. The ecological Compensation schemes shall include population monitoring for three years post completion unless otherwise agreed in writing with the local planning authority.

17. The development hereby permitted shall not be commenced until a scheme for the provision and implementation of a surface water regulation system has been submitted to and approved in writing by the local planning authority. Prior to the submission of those details, an assessment shall be carried out into the potential for disposing of surface water by means of Sustainable Drainage Systems (SUDS) and the results of the assessment provided to the local planning authority.

18. The development hereby permitted shall not be commenced until such time as a scheme for the management of overland flow from surcharging of the site's surface water drainage system has been submitted to and approved in writing by the local planning authority.

19. Prior to the commencement of works in the locations shown on Planning Condition Drawing 1 to 3 (attached to this consent) between points A-A, C-C and E-E details of the proposed location of each of the onshore underground cables to be installed within the cable corridor hereby approved for the export of electricity from the offshore wind farm shall be submitted to and approved in writing by the Local Planning Authority. The information provided shall include:

A) A plan showing for the relevant locations and for a distance measured [50 metres] on either side of the centreline between each of points A-A, C-C or E-E on Planning Condition Drawing 1 to 3 (Areas):

- (i) the proposed position of the onshore underground cables to be installed in the relevant Area;
- (ii) the location of, and allocating a reference number to, each existing tree in the relevant Area which has a stem with a diameter, measured over the bark at a point 1.5 metres above ground level, exceeding 75 mm, showing which tree(s) is to be retained and the crown spread of each retained tree;
- (iii) details of the location within the relevant Area of existing infrastructure of statutory utilities (including the location of the onshore underground cables associated with the Gwynt y Mor Offshore Wind Farm);
- (iv) details of other constraints influencing the location of the onshore underground cables within the relevant Area;
- (v) details of any proposed temporary fencing for mitigating visual and acoustic impacts of the construction of the development within the relevant Area; and
- (vi) the distance separating the location of the closest edge of the closest cable from the closest points of any residential properties, utilities or features of ecological interest within 50 metres of the proposed cables corridor, measured on a line 90 degrees from the centreline of the corridor as shown on Planning Condition Drawings 1 to 3 between points B-B, D-D and F-F.

B) Details of the species, diameter (measured in accordance with paragraph (ii) above), and the approximate height, and an assessment of the general state of health and stability, of each retained tree and of each retained tree which is on land adjacent to the Area and to which paragraph (ii) above apply;

C) Details of any proposed topping or lopping of any retained tree, or of any retained tree on land adjacent to the relevant Area;

D) Details of any proposed alterations in existing ground levels, and of the position of any proposed excavation, within the crown spread of any retained tree or of any tree on land adjacent to the relevant Area; and

E) Details of the specification and position of fencing and of any other measures to be taken for the protection of any retained tree from damage before or during the course of construction.

The works shall be carried out in accordance with the details approved under this condition unless subsequently otherwise approved in writing by the local planning authority.

In this condition "retained tree" means an existing tree which is to be retained in accordance with the plan referred to in paragraph 1 (ii) above

The reason(s) for the condition(s) is(are):-

1. To comply with the provisions of Section 91 of the Town and Country Planning Act 1990.
2. To comply with the provisions of Section 92 of the Town and Country Planning Act 1990.
3. To comply with the provisions of Section 92 of the Town and Country Planning Act 1990.
4. To ensure proper controls over the matters referred to minimise the impact of the construction development.
5. To ensure proper arrangements are considered for nature conservation and protected species.
6. In the interests of highway safety, as directed by the Welsh Government.
7. In the interests of highway safety, as directed by the Welsh Government.
8. In the interests of highway safety, as directed by the Welsh Government.
9. To ensure the implementation of an appropriate programme of archaeological investigation and mitigation in accordance with the requirements of planning Policy Wales (Ch.6 Historic Environment, Nov 2012) and Welsh Office Circular 60/96 Planning and the Historic Environment: Archaeology.
10. To safeguard the level of amenity the residents in the neighbourhood could reasonably expect to enjoy.
11. To safeguard the level of amenity the residents in the neighbourhood could reasonably expect to enjoy.
12. To safeguard the level of amenity the residents in the neighbourhood could reasonably expect to enjoy.
13. To ensure that the land is reinstated to a satisfactory standard following decommissioning of the associated wind farm in the interests of the amenity of the locality.
14. To ensure adequate landscaping is provided in the interest of the amenity of the locality.
15. To ensure that light pollution from any floodlights is adequately controlled in the interests of the amenity of the locality.
16. To safeguard protected species including the populations of Great Crested Newts.
17. To prevent flooding by ensuring the satisfactory storage of and disposal of surface water from the site.
18. To reduce the risk of flooding to the proposed development.
19. In accordance with Policy RD1: Sustainable Development and Good Standard Design , Policy VOE10 Renewable Energy Technologies and VOE5 Conservation of Natural Resources

NOTES TO APPLICANT:

None