

SCOPING OPINION

Proposed Hirwaun Power Project



July 2013

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EXECUTIVE SUMMARY

This is the Scoping Opinion (the Opinion) provided by the Secretary of State in respect of the content of the Environmental Statement for Hirwaun Power Project, Aberdare, Mid-Glamorgan, South Wales. The proposal is for a new thermal generating station on land at the Hirwaun Industrial Estate in Aberdare, South Wales. The power generation plant will be designed to provide an electrical output of up to 299MWa and would be fuelled by natural gas.

This report sets out the Secretary of State's opinion on the basis of the information provided in Hirwaun Power Limited's report entitled Hirwaun Power Project Environmental Impact Assessment Scoping report (May 2013). The Opinion can only reflect the proposals as currently described by the Applicant.

The Secretary of State has consulted on the Scoping Report and the responses received have been taken into account in adopting this Opinion. The Secretary of State is satisfied that the topic areas identified in the Scoping Report encompass those matters identified in Schedule 4, Part 1, paragraph 19 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended).

The Secretary of State draws attention both to the general points and those made in respect of each of the specialist topic areas in this Opinion. The main potential issues identified are

- Air quality;
- Ecology;
- Water resources;
- Geology, ground conditions and land use;
- Landscape and visual;
- Cultural heritage and archaeology.

Matters are not scoped out unless specifically addressed and justified by the Applicant, and confirmed as being scoped out by the Secretary of State.

The Secretary of State notes the potential need to carry out an assessment under the Habitats Regulations¹.

¹ The Conservation of Habitats and Species Regulations 2010 (as amended)

1.0 INTRODUCTION

Background

- 1.1 On 13th May 2013, the Secretary of State (SoS) received a scoping report submitted by Hirwaun Power Limited (the Applicant) under Regulation 8 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (SI 2263) (as amended) (the EIA Regulations) in order to request a scoping opinion for the proposed Hirwaun Power Project. This Scoping Opinion is made in response to this request and should be read in conjunction with the Applicant's Scoping Report.
- 1.2 In submitting the information included in their request for a scoping opinion, the Applicant is deemed to have notified the SoS under Regulation 6(1)(b) of the EIA Regulations that it proposes to provide an ES in respect of the proposed Project Name. Therefore the proposed development is determined to be an EIA development in accordance with Regulation 4(2)(a) of the EIA Regulations.
- 1.3 In a letter dated 13th May 2013 addressed to the SoS and accompanying the Scoping Report, the Applicant formally notified the SoS under Regulation 6(1)(b) of the EIA Regulations that it proposes to provide an ES in respect of the proposed development. Therefore, in accordance with Regulation 4(2)(a) of the EIA Regulations, the proposed development is determined to be EIA development. The EIA Regulations enable an applicant, before making an application for an order granting development consent, to ask the SoS to state in writing their formal opinion (a 'scoping opinion') on the information to be provided in the environmental statement (ES).
- 1.4 The proposed development concerns the construction of an onshore electricity generating station with a heat output of 300 megawatts or more. It falls within the description of a Schedule 1 development under the EIA regulations as being an infrastructure project. An EIA is mandatory for a Schedule 1 development.
- 1.5 Before adopting a scoping opinion the SoS must take into account:
 - (a) the specific characteristics of the particular development;
 - (b) the specific characteristics of the development of the type concerned; and
 - (c) environmental features likely to be affected by the development'.

(EIA Regulation 8 (9))

- 1.6 This Opinion sets out what information the SoS considers should be included in the ES for the proposed development. The Opinion has taken account of:
- i the EIA Regulations
 - ii the nature and scale of the proposed development
 - iii the nature of the receiving environment, and
 - iv current best practice in the preparation of environmental statements.
- 1.7 The SoS has also taken account of the responses received from the statutory consultees (see Appendix 2 of this Opinion). The matters addressed by the Applicant have been carefully considered and use has been made of professional judgement and experience in order to adopt this Opinion. It should be noted that when it comes to consider the ES, the SoS will take account of relevant legislation and guidelines (as appropriate). The SoS will not be precluded from requiring additional information if it is considered necessary in connection with the ES submitted with that application when considering the application for a development consent order (DCO).
- 1.8 This Opinion should not be construed as implying that the SoS agrees with the information or comments provided by the Applicant in their request for an opinion from the SoS. In particular, comments from the SoS in this Opinion are without prejudice to any decision taken by the SoS (on submission of the application) that any development identified by the Applicant is necessarily to be treated as part of a nationally significant infrastructure project (NSIP), or associated development, or development that does not require development consent.
- 1.9 Regulation 8(3) of the EIA Regulations states that a request for a scoping opinion must include:
- (a) 'a plan sufficient to identify the land;
 - (b) a brief description of the nature and purpose of the development and of its possible effects on the environment; and
 - (c) such other information or representations as the person making the request may wish to provide or make'.
- (EIA Regulation 8 (3))*
- 1.10 The SoS considers that this has been provided in the Applicant's Scoping Report.

The Secretary of State's Consultation

- 1.11 The SoS has a duty under Regulation 8(6) of the EIA Regulations to consult widely before adopting a scoping opinion. A full list of the consultation bodies is provided at Appendix 1. The list has been compiled by the SoS under their duty to notify the consultees in accordance with Regulation 9(1)(a). The Applicant should note that whilst the SoS list can inform their consultation, it should not be relied upon for that purpose.
- 1.12 The list of respondents who replied within the statutory timeframe and whose comments have been taken into account in the preparation of this Opinion is provided at Appendix 2 along with copies of their comments, to which the Applicant should refer in undertaking the EIA.
- 1.13 The ES submitted by the Applicant should demonstrate consideration of the points raised by the consultation bodies. It is recommended that a table is provided in the ES summarising the scoping responses from the consultation bodies and how they are, or are not, addressed in the ES.
- 1.14 Any consultation responses received after the statutory deadline for receipt of comments will not be taken into account within this Opinion. Late responses will be forwarded to the Applicant and will be made available on the Planning Inspectorate's website. The Applicant should also give due consideration to those comments in carrying out the EIA.

Structure of the Document

- 1.15 This Scoping Opinion is structured as follows:

- Section 1 Introduction
- Section 2 The proposed development
- Section 3 EIA approach and topic areas
- Section 4 Other information.

The Scoping Opinion is accompanied by the following Appendices:

- Appendix 1 List of consultees
- Appendix 2 Respondents to consultation and copies of replies
- Appendix 3 Presentation of the environmental statement.

2.0 THE PROPOSED DEVELOPMENT

Introduction

- 2.1 The following is a summary of the information on the proposed development and its site and surroundings prepared by the Applicant and included in their Scoping Report. The information has not been verified and it has been assumed that the information provided reflects the existing knowledge of the proposed development and the potential receptors/resources.

The Applicant's Information

Overview of the Proposed Development

- 2.2 The proposed Hirwaun Power Project comprises the construction of a new gas fired thermal generating station with an electrical output of up to 299 MWe, and thermal output in the order of 400-950MW (depending on the final technology choice).
- 2.3 Section 1.2 of the Scoping Report has identified the following principal components of the proposed development:
- a gas fired power station capable of providing up to 299 MWe and thermal output in the order of 400-950MW;
 - a new electrical connection to export power from the new generation plant to the National Grid; and
 - a new gas pipeline connection to bring natural gas to the power generation plant from the National Gas Transmission System (NTS).

Description of the site and surroundings

The Application Site

- 2.4 The application site is situated entirely within the Hirwaun Industrial Estate and covers an area of approximately 7.5 ha. The site is entirely within the jurisdiction of Rhondda Cynon Taf County Borough Council. The site is located close to the Brecon Beacons National Park, administered by the Brecon Beacons National Park Authority.
- 2.5 The site and surrounding area are characterised by industrial buildings. There are areas of scrub, grassland and plantation woodland.
- 2.6 The proposal is for a power generation plant; gas connection and electrical connection. An existing warehouse building covers a large proportion of the proposed plant area. A plantation woodland

partly surrounds the site. The proposed plant site is approximately 500m to the south of a proposed Energy from Waste plant, planning consent for which was granted in 2010. The plant is proposed to process 150,000 tonnes per year of waste by 2015 and 240,000 tonnes per year by 2016.

- 2.7 Land to the south of Hirwaun has been designated a Strategic Site that has been allocated for 400 homes, 89 ha of employment use, a new primary school, a 2000 square metre retail store, medical/community facilities and informal recreation.
- 2.8 Access is currently via Main Avenue and Fourth Avenue which run through the Hirwaun Industrial Estate
- 2.9 The gas connection would comprise a new gas pipeline which would connect the plant site with Feeder 2 (Garway to Rhigos pipeline) on the NTS. The existing pipeline runs south and east of the plant site. Four route corridor options are being considered for their suitability. The corridor options will be refined to a single route prior to submission of the DCO application. Route corridor options for the gas connection are shown on Figure 3 of the Scoping Report.
- 2.10 There are two corridors for electrical connections being considered to export power to the National Grid. The proposal is for a new 400kV electricity export cable, either overground line or underground cable to the new Rhigos Substation. A new switchyard is also proposed, to be contained within the plant site. The potential route corridor options are shown on Figure 3 of the Scoping Report. The options for electrical connections will be refined to a single connection route prior to submission of the DCO application.

The Surrounding Area

- 2.11 The Brecon Beacons National Park lies to the north of the site, administered by the Brecon Beacons National Park Authority. The area immediately surrounding the site is within the jurisdiction of the Rhonda Cynon Taf County Borough Council (RCTCBC), and comprises a mixture of urban, semi-suburban and rural communities situated in mountains and lowland farmland.
- 2.12 The closest residential areas include: Rhigos (1.3km to the south west); Hirwaun (1.4km to the east); Penderyn (1.8km to the north); and Aberdare (5km to the east)
- 2.13 Section 5.5 of the Scoping Report refers to the presence of six statutory designated sites for nature conservation within a 2km search radius: Brecon Beacons National Park; Woodland Park and Pontpren Site of Special Scientific Interest; Cors Bryn-y-Gaer SSSI; Blaen Cynon Special Area of Conservation; Coedydd Nedd a Melte SAC; and Dyffrynoedd Nedd a Melte Moel Penderyn SSSI.

There are seven Sites of Importance for Nature Conservation identified within 2km of the plant site. There are 10 protected species identified within 1km of the plant site.

- 2.14 A number of water bodies have been identified in the vicinity of the plant site – Penderyn reservoir; numerous drainage ditches and several small ponds on agricultural land to the south of Rhigos Road, and Hirwaun Ponds.
- 2.15 Initial searches within 2km of the plant site have identified three listed buildings; colliery buildings at Tower Colliery; a group of listed buildings and structures in Hirwaun, including the War Memorial and Clock Tower, and Old House with outbuildings at Trebanog fach. There are larger clusters of listed buildings just beyond the 2km search area in Pentreclwydau, Aberdare and Penderyn. An entry on the National Monuments Record of Wales, associated with the former Hirwaun Royal Armaments Factory is recorded 50m (approx.) to the north of the Plant site.

Description of the Proposed Development

- 2.16 The Proposed Power Generation Station Complex plant dimensions will be in the order of 2.4ha and would be designed to provide a total output of up to 299 MWe (gross capacity) at rated site conditions. The choice of plant and technology are not yet confirmed but will comprise either one or a combination of the following:
- a Combined Cycle Gas Turbine (CCGT) plant;
 - a Simple Cycle Gas Turbine (SCGT) plant; or
 - a Reciprocating Gas Ignition Engine (RGE) plant.
- 2.17 Section 3.3.5 onwards of the Scoping Report provides details of components required for a CCGT plant and describes the operation of such infrastructure; Section 3.3.15 onwards provides the components required and operational information for a SCGT plant and Section 3.3.22 provides details of the components and operational information of a RGE plant. Indicative dimensions of the main plant components are provided in Table 3.1 of the Scoping Report.
- 2.18 An underground gas connection of between 1.1km and 1.71km in length, depending on which connection corridor is chosen, would be required to connect the proposed power generation plant to Feeder 2 of the gas NTS. Inserts 5-8 of the Scoping Report show the options for the potential Gas Connection Corridors which are also shown together on Figure 3 of the Scoping Report.
- 2.19 Connection to the NTS would require the installation of a Minimum Offtake Connection (MOC) facility of around 30m x 30m and a Pipeline Inspection Gauge Trap facility (PTF) of around 30m x

23m. The pipeline would be buried to a depth of cover in accordance with industry standards which is no less than 1.2m in agricultural land; no less than 2m under road crossings; and no less than 1.7m under water crossings.

- 2.20 An electrical connection is proposed to connect the power generation plant to a new substation at Rhigos which will require a dedicated 400kV cable of between 60-475m in length. The substation is expected to be completed by 2016 when the Pen y Cymoedd wind farm is due to be connected. The Scoping Report expresses uncertainty over whether the connection will comprise overhead line or underground cable.
- 2.21 Two indicative route corridors for the electrical connection have been provided in the Scoping Report, shown on Inserts 9-10.
- 2.22 The electric cable may be buried or an overhead line may be used.
- 2.23 An overhead line, if required, would be likely to have tower heights ranging between 35m and 60m depending on design requirements
- 2.24 Sections 3.3.40 – 3.3.42 of the Scoping Report refer to the possibility of Combined Heat and Power (CHP) being part of the proposed development but this is to be the subject of further assessment.

Proposed Access

- 2.25 The site is accessed by road via Main Avenue and Fourth Avenue both of which run through the Hirwaun Industrial Estate. The A465 "Heads of the Valleys" Road runs 0.1km (approx) to the north of the site.

Construction

- 2.26 The laydown area for storage of plant and equipment during construction will be within the red line boundary of the power generation plant as shown in Figures 1 and 2 of the Scoping Report.
- 2.27 Section 3.3.33 of the Scoping Report states that construction and commissioning of the proposed development will take approximately 12 to 36 months, depending on the final choice of plant technology.
- 2.28 The main works associated with the construction phase include:
 - demolition of existing buildings;
 - the removal of old foundations and hardstanding;
 - excavation and site levelling for new foundations;
 - potential piling; and

- the laying of the gas and electrical connection.
- 2.29 Section 5.3.29 of the Scoping Report refers to the production of a Construction Environmental Management Plan (CEMP) which is to be provided.
- 2.30 Expected transport during the construction phase includes: civil works traffic; mechanical works traffic and heavy/abnormal loads.
- 2.31 Section 5.10.1 of the Scoping Report states that there are likely to be large items of plant involved in the construction of all aspects of the development.

Operation and Maintenance

- 2.32 The power generation plant would have an operational life of 25 years after which it would either be re-powered or decommissioned. For the purpose of the EIA, the Scoping Report has assumed that it will be decommissioned.
- 2.33 At its peak, construction is expected to employ between 150 and 250 personnel. Operation would require from 10 to 30 full time staff, depending on which technology is used.

Decommissioning

- 2.34 Section 3.3.37 of the Scoping Report states that decommissioning would involve the removal of all power generation plant items and restoration of the site to a similar, pre-construction condition.
- 2.35 Gas and electricity connections may be left in situ to avoid any adverse environmental impacts associated with their removal.
- 2.36 Items of plant would be recycled or re-used where possible.

The Secretary of State's Comments

Description of the Application Site and Surrounding Area

- 2.37 In addition to detailed baseline information to be provided within topic specific chapters of the ES, the SoS is pleased to note the inclusion of a section that summarises the site and surroundings. This will establish the context for the proposed development including relevant designations and sensitive receptors. This section should identify land that could be directly or indirectly affected by the proposed development and any associated auxiliary facilities, landscaping areas and potential off site mitigation or compensation schemes.

- 2.38 The energy centre application site and the surrounding area are clearly described within the Scoping Report and it is expected that a comprehensive description would also be provided within the ES.
- 2.39 The Secretary of State notes that gas and electricity connections will be required for the project, and that the various potential routes for these connections are described in the Scoping Report. The Scoping Report, at Section 3.2, provides a brief description of the site and its surroundings but this description appears to only cover the power station site. The Applicant is reminded that the ES must address all the effects of the different project elements applied for under the DCO. If gas and electrical connections are included within the DCO then the ES should also include a clear description of the chosen routes and their associate environmental effects, including the identification of designated areas and sensitive receptors.

Description of the Proposed Development

- 2.40 The Applicant should ensure that the description of the proposed development that is being applied for is as accurate and firm as possible as this will form the basis of the environmental impact assessment. It is understood that at this stage in the evolution of the scheme the description of the proposals and even the location of the site may not be confirmed. The Applicant should be aware however, that the description of the development in the ES must be sufficiently certain to meet the requirements of paragraph 17 of Schedule 4 Part 1 of the EIA Regulations and there should therefore be more certainty by the time the ES is submitted with the DCO.
- 2.41 The SoS notes from Sections 3.3.40 – 3.3.42 of the Scoping Report, that consideration will be given to CHP in accordance with Section 4.6 of National Policy Statement EN-1. The ES should provide clear evidence to show that the possibilities of CHP have been fully explored and clearly state whether it is intended to bring CHP forward as part of the proposed scheme.
- 2.42 The SoS notes from Section 3.3.38-3.3.39 of the Scoping Report that the proposed development will be of 299MWe and therefore excluded from the requirement of National Policy Statement EN – 1 to be designed to be carbon capture ready.
- 2.43 If a draft DCO is to be submitted, the Applicant should clearly define what elements of the proposed development are integral to the NSIP and which will require consent under different regimes. Any proposed works consented under regimes other than the Planning Act 2008 processes may generate cumulative effects with the project which must be addressed in the ES.

- 2.44 The SoS recommends that the ES should include a clear description of all aspects of the proposed development, at the construction, operation and decommissioning stages, and include:
- Land use requirements;
 - Site preparation;
 - Construction processes and methods;
 - Transport routes;
 - Operational requirements including the main characteristics of the production process and the nature and quantity of materials used, as well as waste arisings and their disposal;
 - Maintenance activities including any potential environmental impacts; and
 - Emissions- water, air and soil pollution, noise, vibration, light, heat, radiation.
- 2.45 The environmental effects of all wastes to be processed and removed from the site should be addressed. The ES will need to identify and describe the control processes and mitigation procedures for storing and transporting waste off site. All waste types should be quantified and classified.

Flexibility

- 2.46 The SoS notes the comments in the Scoping Report that the detailed design of the power station is still being developed and that the draft description of development contains a number of variables. The SoS welcomes the intention to firm up the proposals during the pre-application stages and encourages consultation with relevant bodies. The description of the proposed development in the ES will need to be as accurate and firm as possible so that the EIA can robustly support the DCO application.
- 2.47 The Applicant's attention is drawn to the 'Flexibility' section in Appendix 3 of this Opinion which provides additional details.
- 2.48 The Applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the scheme have yet to be finalised and provide the reasons. At the time of application, any proposed scheme parameters should not be so wide ranging as to represent effectively different schemes. The scheme parameters will need to be clearly defined in the draft DCO and therefore in the accompanying ES. It is a matter for the Applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number of undecided parameters. The description of the proposed development in the ES must not be so wide that it is insufficiently certain to comply with requirements of paragraph 17 of Schedule 4 Part 1 of the EIA Regulations.

- 2.49 It should be noted that if the proposed development changes substantially during the EIA process, prior to application submission, the Applicant may wish to consider the need to request a new Scoping Opinion.

Proposed Access

- 2.50 It is noted that the access arrangements for the gas and electricity connections have not been determined and will be developed through further studies. The SoS would anticipate a comprehensive description of the temporary and permanent access to all sites to be provided within the ES.

Construction

- 2.51 The SoS considers that information on construction including: phasing of programme; construction methods and activities associated with each phase; siting of construction compounds (including on and off site); lighting equipment/requirements; and number, movements and parking of construction vehicles (both HGVs and staff) should be clearly indicated in the ES.
- 2.52 The SoS that an outline Construction Environmental Management Plan (CEMP) be appended to the ES providing details of specific mitigation measures required to reduce construction related impacts.

Operation and Maintenance

- 2.53 The Scoping Report does not provide information regarding the operation and maintenance requirements for the power station or the electricity and gas connections. The ES should clearly describe these requirements for all elements of the development and should cover but not be limited to such matters as: the number of full/part-time jobs; the operational hours and if appropriate, shift patterns; the number and types of vehicle movements generated during the operational stage.

Decommissioning

- 2.54 In terms of decommissioning, the SoS welcomes the initial consideration of decommissioning. Whilst it is acknowledged that information on the decommissioning strategy may not be fully developed at this early stage, the purpose of such a long term assessment is to enable the decommissioning of the works to be taken into account in the design and use of materials such that structures can be taken down with the minimum of disruption. The SoS advises that as much detail as possible on the proposed approach, including the process and methods of decommissioning, is provided within the ES to ensure that the long term assessment can consider the impacts of decommissioning for each element of the proposed scheme.

3.0 EIA APPROACH AND TOPIC AREAS

Introduction

- 3.1 This section contains the SoS's specific comments on the approach to the ES and topic areas as set out in the Scoping Report. General advice on the presentation of an ES is provided at Appendix 3 of this Scoping Opinion and should be read in conjunction with this Section.
- 3.2 Applicants are advised that the scope of the DCO application should be clearly addressed and assessed consistently within the ES.

ES Approach

- 3.3 The information provided in the Scoping Report sets out the proposed approach to the preparation of the ES in Table 4.1 of the Scoping Report. Whilst early engagement on the scope of the ES is to be welcomed, the SoS notes that the level of information provided at this stage is not always sufficient to allow for detailed comments from either the SoS or the consultees.
- 3.4 The Applicant should ensure that appropriate consultation is undertaken with the relevant consultees in order to agree wherever possible the timing and relevance of survey work as well as the methodologies to be used. The SoS notes and welcomes the intention to finalise the scope of investigations for some topics in conjunction with ongoing stakeholder liaison and consultation with the relevant regulatory authorities and their advisors. The SoS recommends that this approach be applied to all the topics within the ES.
- 3.5 The SoS recommends that the physical scope of the study areas should be identified under all the environmental topics and should be sufficiently robust in order to undertake the assessment. The extent of the study areas should be on the basis of recognised professional guidance, whenever such guidance is available. The study areas should also be agreed with the relevant consultees and, where this is not possible, this should be stated clearly in the ES and a reasoned justification given. The scope should also cover the breadth of the topic area and the temporal scope, and these aspects should be described and justified.

Matters to be Scoped Out

- 3.6 The Applicant has identified in the relevant sections of the Scoping Report the matters proposed to be 'scoped out'. These include:
 - Odours generated by the operation of the Power Generation Plant;

- Noise resulting from the operation of the gas connection;
 - Noise resulting from the operation of the electrical connection if the connection is underground;
- 3.7 Matters are not scoped out unless specifically addressed and justified by the Applicant, and confirmed as being scoped out by the SoS.
- 3.8 The Scoping Report states that it is unlikely that there will be any noticeable odours associated with the operation of the Power Generation Plant at or beyond the boundary of the project site. As a result, it is not considered necessary to carry out a detailed assessment of odour. The SoS is satisfied that these effects can be scoped out.
- 3.9 The SoS notes the comments regarding the assessment of noise during operation for the gas and the electricity connections. Based on the assumption that the connections will be below ground, the SoS agrees to this. The noise generated by the operation of all above ground installations will require assessment within the ES.
- 3.10 Where topics are scoped out prior to submission of the DCO application, the ES should still explain the reasoning and justify the approach taken, in order to demonstrate that topics have not simply been overlooked.

ES Structure

- 3.11 Section 4.2 of the Scoping Report sets out the proposed structure of the ES. The SoS notes that the gas and electrical connections will be reported on separately to the main impacts of the Power Generation Plant. The SoS advises that the Applicant must ensure that any cumulative effects generated by interactions of different project elements are fully addressed.
- 3.12 The SoS notes the reference to National Policy Statements (NPS) in section 2.4 of the Scoping Report. The Applicant is reminded that they must ensure that their ES provides the necessary evidence to allow the SoS to assess the potential impacts of the project as outlined in the relevant NPS.
- 3.13 The SoS notes from Table 4.1 of the Scoping Report that the EIA would cover a number of assessments under the broad headings of:
- Air quality;
 - Noise and vibration;
 - Ecology;
 - Water resources;
 - Geology, ground conditions and land use;

- Landscape and visual;
 - Waste Management;
 - Traffic, Transport and Access;
 - Cultural heritage and archaeology;
 - Socio-economics;
 - Electromagnetic fields (EMF), and
 - Cumulative assessment.
- 3.14 The SoS recommends that the ES should include a description of the proposed construction programme and methods and any additional land needed during the construction period if this is part of the DCO application. This information should be used to inform the assessment of construction impacts.
- 3.15 Table 4.2 of the Scoping Report lists additional environmental information that will be supplied with the DCO in addition to the ES:
- Design and access statement;
 - Flood risk assessment;
 - Planning statement;
 - Climate change/sustainability assessment;
 - Consultation report;
 - Statement to inform Habitats Regulations Assessment;
 - Site Waste Management Plan;
 - Surface Water Management Plan.
- 3.16 In this regard, the SoS draws attention to recent guidance: <https://www.gov.uk/government/publications/planning-act-2008-application-form>.
- 3.17 The flood risk assessment does not need to be a completely separate plan or report but could be included as an Appendix to the relevant chapter of the environmental statement, provided it is appropriately referenced
- 3.18 The SoS welcomes the Applicant's proposal to take into account the effects of climate change and requires any adaptation measures to be based on the latest set of UK Climate Projections, the Government's latest UK Climate Change Risk Assessment and in consultation with Natural Resources Wales.
- 3.19 The SoS notes the inclusion of Section 3.6 of the Scoping Report which deals with site selection and design evolution. The SoS welcomes the proposal to include a more detailed appraisal of the site selection process and design evolution in the ES. The

Applicant is reminded of the requirement to provide an outline of the main alternatives studied as described in Schedule 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations.

Topic Areas

Air Quality (see Scoping Report Section 5.3)

- 3.20 The use of atmospheric dispersion modelling is welcomed. The SoS notes the intention to discuss the exact study area and detailed methodology with statutory consultees. The SoS recommends that both the assessment methodology and the sensitive receptors are agreed in consultation with Rhondda Cynon Taf County Borough Council (RCTCBC), Natural Resources Wales (NRW) and the Brecon Beacons National Park Authority (BBNPA). The Applicant's attention is drawn to the comments from the BBNPA (see Appendix 2) on the need to include methane in the air quality assessment.
- 3.21 It is noted that the air quality modelling and assessment will consider impacts at European and nationally designated wildlife sites and other ecological sites within 10km of the proposed development. The Applicant's attention is drawn to the comments from NRW (see Appendix 2) on the need to ensure that all the relevant wildlife sites and habitats are considered within the air quality assessment.
- 3.22 All assumptions and limitations to assessments, including the number, location and height of flue stacks should be clearly specified in all relevant sections of the ES. If details including the number, location and height of the flue stacks are not confirmed at the point of application the ES should assess operational air quality based on a worst case scenario, taking into account other nearby pollution sources (existing and proposed). The implications of stack height and dispersion of the discharge should also be clearly explained..
- 3.23 Predicted pollutant concentrations should be assessed against the applicable standard guideline value (eg relevant European air quality limit values and National Air Quality Objectives).
- 3.24 The assessment should take account of the air emissions from the proposed development and emissions related to increased vehicular movements associated with the proposed development. Such information should also inform the ecological assessment.
- 3.25 Changes in air quality and dust levels should be considered not only on site but also off site, including along access roads, local footpaths and other Public Rights of Way (PROW). The Applicant's attention is drawn to the comments from NRW (see Appendix 2)

on the need to give particular consideration to the impacts of dust on habitats and designated wildlife sites.

- 3.26 The SoS notes the references to embedded mitigation measures that will be employed during the construction phase of the project in addition to any project specific measures that may be required. The SoS advises that the ES must make it clear what mitigation measures are proposed, how they will be delivered, how effective they will be and what the residual effects would be.
- 3.27 Consideration should be given to monitoring dust complaints.
- 3.28 The ES should also address the inter-relationships with other topics within the ES particularly ecology and water quality. The Applicant should also consider whether air quality and health issues should be addressed within the ES. The Applicant's attention is drawn to the advice from Public Health England in Appendix 2. The SoS notes that a worst case assessment of stack height in respect of air quality may not constitute a worst case assessment in respect of other topic areas.

Noise and vibration (see Scoping Report Section 5.4)

- 3.29 The SoS recommends that the methodology and choice of noise receptors should be agreed with the relevant Environmental Health Department of RCTCBC and with NRW. The extent of the study area should be justified; at present the Scoping Report states that it will be defined as the region within 1000m of the proposed Power Generation Plant but does not explain the reasoning for this choice. It is also not clear, given that the site layout and technology have not been finally identified, how the 1000m study area would be established. These points must be addressed in the ES.
- 3.30 Information should be provided on the types of vehicles and plant to be used during the construction phase. The noise and vibration assessments should take account of the traffic movements along access routes, especially during the construction phase. The results from the noise and vibration assessments will also provide information to inform the ecological assessments. Exceptional but essential operations should be included in the assessment.
- 3.31 The SoS notes that noise monitoring will be undertaken to establish the baseline which will then be used in a model, together with the sound power levels of proposed plant. Where sound power levels are not available suitable data will be substituted although a realistic worst case scenario would always be considered. The SoS advises that the choice of data for use in the model and the worst case scenario must be clearly defined and justified in the ES. If aspects of the project have not been fully defined at the time of justification (such as the choice of

technology or electrical connection) then the ES should cover each of the likely scenarios.

- 3.32 Noise impacts on people should be specifically addressed, and particularly any potential noise disturbance at night and other unsocial hours such as weekends and public holidays.
- 3.33 Where appropriate, effective measures should be provided to mitigate against noise nuisance. Negative effects of any proposed mitigation on other areas of assessment in the EIA should also be assessed, such as the contribution of noise barriers or bunds to visual impact. The ES should clearly identify what these measures are, how they will be delivered and any residual effects.
- 3.34 Consideration should be given to monitoring noise complaints during construction and when the development is operational.

Ecology (see Scoping Report Section 5.5)

- 3.35 The SoS recommends that surveys should be thorough, up to date and take account of other development proposed in the vicinity. The Applicant's attention is drawn to the comments from NRW in Appendix 2. The SoS also recommends that the methodology for any surveys should be agreed with NRW and the ecologist from RCTCBC.
- 3.36 The reference to Extended Phase 1 Habitat Survey in paragraph 5.5.23 of the Scoping Report appears to be incorrect; from the context it appears that this should actually refer to the Desk Based Analysis. The SoS welcomes the intention to carry out extended Phase 1 habitat surveys of the gas and electrical connections. The results of these surveys, along with the existing Phase 1 survey and any Phase 2 surveys should be reported in the ES.
- 3.37 The potential impacts on international and nationally designated sites should be addressed as well as county level habitats. The SoS notes the possible need for Statement to Support an Appropriate Assessment in view of the development site's location in relation to Blaen Cynon Special Area of Conservation. The Applicant's attention is also drawn to the comments from NRW in Appendix 2 on the need to consider potential effects on Coedydd Nedd a Mellte and Cwm Cadlan Special Areas of Conservation, Cwm Cadlan National Nature Reserve and various Sites of Special Scientific Interest. The Applicant should also take note of the advice in Section 4 of this report.
- 3.38 The operational and decommissioning phases of the works should be addressed. The SoS recommends the need to consider cumulative and combined impacts and advises this is particularly relevant in terms of assessing the impacts on ecology.

- 3.39 The SoS recommends that the proposals should address fully the needs of protecting and enhancing biodiversity. The assessment should cover habitats, species and processes with the sites and surroundings. The Applicant's attention is drawn to the comments from NRW (see Appendix 2) on the particular need to consider legally protected species. The Applicant should also take note of the advice in Section 4 of this report on European Protected Species.
- 3.40 The SoS welcomes the proposal to undertake assessment and reporting using the Institute of Ecology and Environmental Management's 'Guidelines for Ecological Impact Assessment'. The SoS draws the Applicants attention to the requirements of this guidance, which includes definition of a Zone of Ecological Influence, based on the distance over which ecological effects occur, rather than on an arbitrary distance.
- 3.41 The SoS notes the references to embedded mitigation measures that will be employed during the construction phase of the project in addition to any project specific measures that may be required. The SoS advises that the ES must make it clear what mitigation measures are proposed, how they will be delivered, how effective they will be and what the residual effects would be. The ES should make clear which measures are being proposed for the mitigation of the effects of the project and which are being proposed as compensation where mitigation is not possible. Paragraph 5.5.29 appears to confuse mitigation and compensation.
- 3.42 The proposal to produce a Method Statement for undertaking works within the Hirwaun Industrial Estate Site of Importance for Nature Conservation (SINC) is welcomed. At least a preliminary Method Statement should be attached to the ES to provide the SoS with the confidence that any effects from the project on the SINC will be adequately addressed.
- 3.43 The ES should also address the inter-relationships with other topics within the ES particularly air and water quality.

Water Resources (see Scoping Report Section 5.6)

- 3.44 The methodology used, and any assumptions behind the conclusions of the assessment should be clearly stated in the ES. The SoS recommends that the methodology used for assessing the effects of the project on water resources are agreed with NRW and Dwr Cymru Welsh Water.
- 3.45 The intention to identify surface water bodies in the vicinity of the Power Generation Plant is noted. The SoS advises that the ES must address potential effects on the water environment, particularly in relation to potable water. The Applicant's attention is drawn to the comments from Dwr Cymru Welsh Water in relation to the Penderyn Reservoir and the Hirwaun Treatment

Works and also to the general comments from Public Health England (Appendix 2).

- 3.46 NRW (Appendix 2) also advise of the existence of licensed groundwater abstractions and private water supplies within the local area. The SoS notes that abstraction points and licences in the area will be investigated and potential impacts on these abstractions quantified in the ES. The SoS recommends that the scope of the investigation is agreed with NRW.
- 3.47 Potential sources of pollution should be identified, as well as pathways to potential hydrological and surface water receptors. The Applicant's attention is drawn to the advice from NRW in Appendix 2 on the presence of a Secondary A aquifer, and the existence of a Source Protection Zone 1 approximately 2km to the north east of the site.
- 3.48 The intention to produce a Water Framework Directive Report if required by NRW is noted. The Applicant should take note of the advice from NRW in Appendix 2 on the presence of the River Camnant beneath the site. The SoS recommends that the Applicant consults NRW on the requirements for a Water Framework Directive Report.
- 3.49 The rates of potable use at each stage of development should be fully assessed. Sufficient evidence must be provided for the SoS to be able to assess the effects of the development on the environment and to have confidence that any necessary abstraction could be licensed. The Applicant's attention is drawn to the comments from NRW in Appendix 2.
- 3.50 If, at the time the application is submitted, it has not been confirmed that the Power Generation Plant will use air cooling then the extra requirements for cooling water should also be addressed in the ES. If the choice of technology has not been finalised at the time of application then the different water requirements of each of the likely technologies should be assessed, or a realistic worst case scenario assessed. The choice of the scenario should be fully defined and justified in the ES.
- 3.51 Mitigation measures should be addressed and the SoS advises that reference should be made to other regimes (such as pollution prevention from NRW). On-going monitoring should also be addressed and agreed with the relevant authorities to ensure that any mitigation measures are effective.
- 3.52 The SoS welcomes the commitment to provide a Flood Risk Assessment (FRA) in accordance with the Applications Prescribed Forms and Procedures Regulations (APFP). The FRA should cover ground water, surface water and fluvial impacts and the scope should be agreed with NRW. The SoS recommends that a Surface Water Management Plan should be prepared which may include a

review of existing drainage facilities and the provision of interceptors on site.

- 3.53 The FRA should form an appendix to the ES. The SoS recommends that the sections considering the water environment in the ES should be cross referenced to the FRA.
- 3.54 The ES should also address the inter-relationships with other topics within the ES particularly air quality and ecology.

Geology, ground conditions and land use (see Scoping Report Section 5.7)

- 3.55 The SoS welcomes the proposal to undertake assessment of ground and groundwater contamination. The baseline for the ES should explain in detail the extent of the study area, ensuring that the effects are considered over a sufficiently wide area.
- 3.56 The SoS also welcomes the proposal to investigate the underlying ground conditions and to obtain a Coal Authority Report. The Applicant's attention is drawn to the advice from the Coal Authority in Appendix 2.
- 3.57 The SoS recommends that the methodology used for the assessment should be agreed with NRW and RCTCBC. The Applicant is referred to the comments from NRW (Appendix 2).
- 3.58 The Scoping Report states that the main impact of the gas connection is the sterilisation of agricultural land and that an assessment of the amount of land affected will be included in the ES. The Applicant is reminded of the requirements in paragraph 5.10.8 of National Policy Statement EN-1 to seek to minimise impacts on the best and most versatile agricultural land. The SoS advises that the ES should identify the grade of land likely to be affected by the project and the measures taken to minimise impacts on land grades 1, 2 and 3a of the Agricultural Land Classification.
- 3.59 The SoS notes the references to embedded mitigation measures that will be employed in addition to any project specific measures that may be required. The SoS advises that the ES must make it clear what mitigation measures are proposed, how they will be delivered, how effective they will be and what the residual effects would be.

Landscape and Visual (see Scoping Report Section 5.8)

- 3.60 The SoS notes that the landscape assessment will be undertaken using the second edition of the 'Guidelines for Landscape and Visual Impact Assessment' (Landscape Institute and Institute of Environmental Management). The Applicant's attention is drawn to the recent publication of the third edition of the guidance; the

SoS recommends that this edition is used rather than the second edition.

- 3.61 The ES should identify landscape planning designations, landscape character areas and potentially sensitive receptors. The choice of receptors should be explained and justified in the ES. Reference to any LANDMAP landscape character assessment produced for the area is also recommended.
- 3.62 The SoS advises that the assessment within the ES must address the full range of visual effects from the project, including the construction and decommissioning phase. Effects at night as well as during the day should be addressed, particularly in view of the Brecon Beacons National Park status as an International Dark Sky Reserve.
- 3.63 The SoS draws the attention of the Applicant of the need to liaise with the local planning authorities to ensure use is made in the EIA of the most up to date policy documents.
- 3.64 The landscape and visual assessment in the scoping report refers to the Zone of Theoretical Visibility (ZTV). The SoS advises that the ES should describe the methodology and model used, provide information on the area covered and the timing of any survey work. Having regard to local topography, the ZTV should seek to ensure that all potential sensitive receptors are considered and viewpoints are agreed with RCTCBC and BBNPA. The Applicant's attention is drawn to the comments from BBNPA and NRW in Appendix 2.
- 3.65 All parameters, including the assumptions for the number and heights of stacks used in the assessment should be clearly detailed and justified. Care should be taken to ensure that the worst case scenario for stack height is reflected as appropriate. The SoS notes that this may represent a different worst case to that considered for other topic areas. The effect of visible vapour plumes should also be considered.
- 3.66 The proposals will be for large structures. The SoS requests that careful consideration should be given to the form, siting, and use of materials and colours in terms of minimising the adverse visual impact of these structures. This should include night time views, including the impact of lighting.
- 3.67 Appropriate use of photomontages will help to illustrate the views prior to development, upon completion and at an agreed future date when mitigation measures are fully established. Photographs, photomontages and wireframes should be presented in a clear and readable format that includes clear points of reference to allow the reader to readily identify and fully understand the potential effects of the proposed development.

- 3.68 The SoS recommends that the location and the timing of viewpoints, photographs and visualisations should be agreed with RCTCBC and BBNPA.
- 3.69 The SoS notes the references to embedded mitigation measures that will be employed in addition to any project specific measures that may be required. The SoS advises that the ES must make it clear what mitigation measures are proposed, how they will be delivered, how effective they will be and what the residual effects would be.
- 3.70 The ES should also address the inter-relationships with other topics within the ES including effect of lighting, proposed planting or screening structures on ecology.

Waste (see Scoping Report Section 5.9)

- 3.71 The SoS welcomes the proposal to undertake a waste assessment and to produce a Site Waste Management Plan. This should be provided as an appendix to the ES.
- 3.72 The SoS considers it essential to also take account of materials to be removed from the site and to identify where potential traffic movements would be routed.
- 3.73 The SoS advises that the ES should clarify the types of all wastes to be processed and that the effect of the proposal, in terms of waste, should be included in the ES.
- 3.74 The SoS notes the references to embedded mitigation measures that will be employed in addition to any project specific measures that may be required. The SoS advises that the ES must make it clear what mitigation measures are proposed, how they will be delivered, how effective they will be and what the residual effects would be.

Transport and Access (see Scoping Report Section 5.10)

- 3.75 The SoS welcomes the proposal to develop the assessment of transport impacts in association with the local highways authority (RCTCBC) and the body responsible for the strategic road network. It should be noted that this is the Welsh Government and not the Highways Agency as stated in the Scoping Report. The SoS would expect on-going discussions and agreement, where possible, with such bodies.
- 3.76 Information should be provided on the types of vehicles and plant to be used and the number of vehicle trips during construction and operation phases. This should include vehicular movements required during shut down and maintenance periods, and any requirements for the delivery of abnormal indivisible loads.

- 3.77 The SoS welcomes the proposals to take account of potential impacts on pedestrians. The SoS recommends that the ES should take account of the location of footpaths and any public rights of way (PROW) including bridleways and byways. The ES should clearly set out impacts on them including within the wider area. It is important to minimise hindrance to them where possible.
- 3.78 The SoS welcomes the proposal to produce a Travel Plan for the construction and operational phases of the proposed development. If this is to form a separate document to the ES, the Applicant should ensure that sufficient information is contained within the ES for it to be a stand alone document.
- 3.79 The ES should also address the inter-relationships with other topics within the ES particularly air quality, noise and vibration, socio-economics and waste assessments.

Cultural Heritage including Archaeology (see Scoping Report Section 5.11)

- 3.80 The SoS notes that the archaeological investigations will be based on a Desk Based Assessment (DBA); intrusive investigations will be considered if the DBA suggests they are required and in consultation with the Glamorgan and Gwent Archaeological Trust (GGAT) and CADW. The ES should confirm the role of GGAT, and whether they are acting on behalf of RCTCBC and BBNPA. If this is not the case then the SoS recommends that these bodies are also consulted on the approach that should be used for archaeological assessment. It is noted that the Scoping Report states that land affected by the gas and electrical connections is less likely to be disturbed by past activities on the site than the land in the industrial estate. The SoS advises that these areas should be subject to detailed assessment if necessary.
- 3.81 The setting of cultural heritage resources could be affected; this includes historic buildings, historic landscapes and archaeological sites and the SoS considers that these should be addressed in the ES. The Applicant's attention is drawn to the comments from BBNPA in Appendix 2 on the need to fully consider the various statutory and non-statutory historic monuments and landscapes.
- 3.82 The Scoping Report states (paragraph 5.11.27) that an initial study will be undertaken making reference to desk-based research and the Zone of Theoretical Visibility. However paragraph 5.11.29 states that the search area for historic assets will be limited to 5 km from the centre of the proposed Power Generation Plant. The ES should clearly explain what approach has been used and justify the extent of the search area.
- 3.83 The ES should identify the names and characteristics of the important heritage assets that could be affected by the proposed development. Any cultural heritage or archaeological features

likely to be affected, directly or indirectly, by the project should be clearly identified in the plans of the ES. This should include assets considered to be of national, regional or local importance.

- 3.84 The SoS advises that the ES must make it clear what mitigation measures are proposed, how they will be delivered, how effective they will be and what the residual effects would be.
- 3.85 The ES should also address the inter-relationships with other topics within the ES particularly landscape and visual impact assessment.

Socio-economics (see Scoping Report Section 5.12)

- 3.86 The SoS recommends that the types of jobs generated should be considered in the context of the available workforce in the area, this applies equally to the construction and operational stages.
- 3.87 The SoS notes the proposal to study the socio-economic impacts for construction, operation and decommissioning, with a potential workforce of between 150 and 250 persons during construction and up to 30 full time staff during operation. Subject to procurement rules, much of this workforce will be recruited locally. The SoS recommends that the assessment includes direct and indirect impact with full explanation and justification for any presumptions used.
- 3.88 The SoS recommends that the assessment criteria should be locationally specific and consider the potential significance of the impacts of the proposal within the local and regional context.

Electromagnetic Fields (see Scoping Report Section 5.13)

- 3.89 The intention of this section of the Scoping Report is not entirely clear. The SoS recommends that the ES should include either an appropriate assessment that meets the requirements of the relevant National Policy Statements or evidence that supports a conclusion that effects are unlikely. The Applicant's attention is drawn to the comments from Public Health England in Appendix 2.

Cumulative assessment (see Scoping Report Section 5.14)

- 3.90 The SoS notes the intention to take into account the cumulative impact of other existing and planned developments within the area. The SoS recommends that the ES should make it clear which developments are covered within the existing environmental baseline and which are covered by the cumulative assessment. The Applicant's attention is drawn to the 'Guidance on the pre-application process' produced by the Department of Communities and Local Government. Paragraph 86 outlines which projects should be considered in cumulative impacts.

3.91 The SoS welcomes the proposal to consult with the local planning authority to identify any other development in the area which should be considered.

Other matters

3.92 The Applicant's attention is drawn to the comments from the Ministry of Defence on the need to notify UK DVOF and Powerlines at the Defence Geographic Centre with information prior to development commencing (Appendix 2).

3.93 The Applicant should take note of the advice from National Grid (Appendix 2), particularly in relation to the impact of the project on National Grid's existing assets within the area.

3.94 The Applicant should take note of the advice from South Wales Fire and Rescue Service on the need to take fire safety requirements into account.

3.95 The Applicant's attention is drawn to the advice from the Civil Aviation Authority in Appendix 2, particularly in respect of:

- the need to check for aerodrome safeguarding maps;
- the potential requirement for aviation warning lighting on tall structures;
- if gas venting is intended the need to have further discussions with the Civil Aviation Authority; and
- the need to consult local emergency services air support units.

4.0 OTHER INFORMATION

- 4.1 This section does not form part of the SoS's opinion as to the information to be provided in the environmental statement. However, it does respond to other issues that the SoS has identified which may help to inform the preparation of the application for the DCO.

Habitats Regulations Assessment (HRA)

- 4.2 The SoS notes that European sites may be located close to the proposed development. It is the Applicant's responsibility to provide sufficient information to the Competent Authority (CA) to enable them to carry out a HRA if required. The Applicant should note that the CA is the SoS.
- 4.3 The Applicant's attention is drawn to The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) (The APFP Regulations) and the need to include information identifying European sites to which the Habitats Regulations applies or any Ramsar site or potential SPA which may be affected by a proposal. The submitted information should be sufficient for the competent authority to make an appropriate assessment (AA) of the implications for the site if required by Regulation 61(1) of the Habitats Regulations.
- 4.4 The report to be submitted under Regulation 5(2)(g) of the APFP Regulations with the application must deal with two issues: the first is to enable a formal assessment by the CA of whether there is a likely significant effect; and the second, should it be required, is to enable the carrying out of an AA by the CA.
- 4.5 When considering aspects of the environment likely to be affected by the proposed development; including flora, fauna, soil, water, air and the inter-relationship between these, consideration should be given to the designated sites in the vicinity of the proposed development.
- 4.6 Further information with regard to the HRA process is contained within Planning Inspectorate's Advice Note 10 available on the National Infrastructure Planning's website.

Sites of Special Scientific Interest (SSSIs)

- 4.7 The SoS notes that a number of SSSIs are located close to or within the proposed development. Where there may be potential impacts on the SSSIs, the SoS has duties under sections 28(G) and 28(I) of the Wildlife and Countryside Act 1981 (as amended) (the W&C Act). These are set out below for information.

- 4.8 Under s28(G), the SoS has a general duty ‘... to take reasonable steps, consistent with the proper exercise of the authority’s functions, to further the conservation and enhancement of the flora, fauna or geological or physiographical features by reason of which the site is of special scientific interest’.
- 4.9 Under s28(I), the SoS must notify the relevant nature conservation body (NCB), Natural Resources Wales (NRW) in this case, before authorising the carrying out of operations likely to damage the special interest features of a SSSI. Under these circumstances 28 days must elapse before deciding whether to grant consent, and the SoS must take account of any advice received from the NCB, including advice on attaching conditions to the consent. The NCB will be notified during the examination period.
- 4.10 If applicants consider it likely that notification may be necessary under s28(I), they are advised to resolve any issues with the NCB before the DCO application is submitted to the SoS. If, following assessment by applicants, it is considered that operations affecting the SSSI will not lead to damage of the special interest features, applicants should make this clear in the ES. The application documents submitted in accordance with Regulation 5(2)(I) could also provide this information. Applicants should seek to agree with NE the DCO requirements which will provide protection for the SSSI before the DCO application is submitted.

European Protected Species (EPS)

- 4.11 The Applicant should also be aware that the decision maker under the Planning Act 2008 (PA 2008) has, as the CA, a duty to engage with the Habitats Directive.
- 4.12 The SoS considers that there is potential for the presence of EPS within the study area for the proposed development. Where a potential risk to an EPS is identified and before making a decision to grant development consent the CA must, amongst other things, address the derogation tests in Regulation 53 of the Habitats Regulations. Therefore the Applicant may wish to provide information which will assist the decision maker to meet this duty. Where required the Applicant should, in consultation with NRW, agree appropriate requirements to secure necessary mitigation.
- 4.13 If the Applicant has concluded (in consultation with NRW) that an EPS licence is required the SoS will need to understand whether there is any impediment to the licence being granted. It would assist the examination if the Applicant could provide with the application confirmation from NRW whether they intend to issue the licence in due course.

Health Impact Assessment

- 4.14 The SoS considers that it is a matter for the Applicant to decide whether or not to submit a stand-alone Health Impact Assessment (HIA). However, the Applicant should have regard to the responses received from the relevant consultees regarding health, and in particular to the comments from the Health and Safety Executive in relation to electrical safety issues (see Appendix 2).
- 4.15 The methodology for the HIA, if prepared, should be agreed with the relevant statutory consultees and take into account mitigation measures for acute risks.

Other regulatory regimes

- 4.16 The SoS recommends that the Applicant should state clearly what regulatory areas are addressed in the ES and that the Applicant should ensure that all relevant authorisations, licences, permits and consents that are necessary to enable operations to proceed are described in the ES. Also it should be clear that any likely significant effects of the proposed development which may be regulated by other statutory regimes have been properly taken into account in the ES.
- 4.17 It will not necessarily follow that the granting of consent under one regime will ensure consent under another regime. For those consents not capable of being included in an application for consent under the PA 2008, the SoS will require a level of assurance or comfort from the relevant regulatory authorities that the proposal is acceptable and likely to be approved, before they make a recommendation or decision on an application. The Applicant is encouraged to make early contact with other regulators. Information from the Applicant about progress in obtaining other permits, licences or consents, including any confirmation that there is no obvious reason why these will not subsequently be granted, will be helpful in supporting an application for development consent to the SoS.

APPENDIX 1
List of Consultees

APPENDIX 1

LIST OF BODIES FORMALLY CONSULTED DURING THE SCOPING EXERCISE

CONSULTEE	ORGANISATION
The Welsh Ministers	Welsh Government
The Health and Safety Executive	Health and Safety Executive
The relevant Strategic Health Authority	Public Health Wales
The Health Protection Agency	Public Health England
The Relevant Health Board	Cwm Taf Health Board
The relevant fire and rescue authority	Mid & West Wales Fire & Rescue Service South Wales Fire & Rescue Service
The relevant police authority	South Wales Police & Crime Commissioner
The relevant Parish Council	Glyncorrwg Community Council Glynneath Community Council Blaengwrach Community Council Vaynor Community Council Cyfarthfa Community Council Llanfrynach Community Council Ystradfellte Community Council Hirwaun & Penderyn Community Council Treherbert Community Council Maerdy Community Council Aberdare Community Council Rhigos Community Council Llwydcoed Community Council Pen-y-Waun Community Council
The Environment Agency Wales	Natural Resources Wales
The Equality and Human Rights Commission	Equality and Human Rights Commission
Royal Commission	Royal Commission on Ancient and Historical Monuments Of Wales

CONSULTEE	ORGANISATION
on Ancient and Historical Monuments Of Wales	
The Countryside Council for Wales	Natural Resources Wales
The Civil Aviation Authority	Civil Aviation Authority
The relevant Highways Authority	Rhondda Cynon Taf County Borough Council
The Passengers Council	Passenger Focus
The Disabled Persons Transport Advisory Committee	The Disabled Persons Transport Advisory Committee
The Coal Authority	The Coal Authority
The Office of Rail Regulation	Office of Rail Regulation
Approved Operator	Network Rail Infrastructure Ltd Network Rail (CTRL) Ltd
The Gas and Electricity Markets Authority	OFGEM
The Water Services Regulation Authority	OFWAT
The Relevant Waste Regulation Authority	Natural Resources Wales
The Canal and River Trust	The Canal and River Trust
The Forestry Commission (Wales)	Natural Resources Wales
Relevant Statutory Undertakers	
Health Bodies (s.16 of the Acquisition of Land Act (ALA) 1981)	

CONSULTEE	ORGANISATION
The National Health Service Trusts	Public Health Wales Velindre NHS Trust
NHS Foundation Trusts	Cwm Taf Health Board
Public Health Wales	Public Health Wales
Ambulance Trusts	Welsh Ambulance Services NHS Trust
Relevant Statutory Undertakers (s.8 ALA 1981)	
Railways	BRB Residuary Limited Network Rail CTRL Ltd
Water Transport	The Canal and River Trust
Canal or Inland Navigation Authorities	Company of Proprietors of the Neath Canal Navigation
Universal Service Provider	Royal Mail Group
Licence Holder (Chapter 1 of Part 1 of Transport Act 2000)	NATS En-Route (NERL) Safeguarding
Water and Sewage Undertakers	Dwr Cymru Welsh Water
Public Gas Transports	British Gas Pipelines Ltd Energetics Gas Ltd ES Pipelines Ltd ESP Connections Ltd ESP Networks Ltd ESP Pipelines Ltd Fulcrum Pipelines Limited GTC Pipelines Limited Independent Pipelines Limited LNG Portable Pipeline Services Limited National Grid Gas Plc Plc National Grid Plc Quadrant Pipelines Limited Severn Gas Transportation Limited SSE Pipelines Ltd The Gas Transportation Company Limited Utility Grid Installations Limited Wales and West Utilities Limited

CONSULTEE	ORGANISATION
Electricity Licence Holders having CPO Powers	ESP Electricity Limited Energetics Electricity Limited Independent Power Networks Limited The Electricity Network Company Limited Western Power Distribution (South Wales) Plc
Electricity Transmitters with CPO Powers	National Grid Electricity Transmission Plc National Grid Plc
Local Authorities (s.43)	
Brecon Beacons National Park Authority Bridgend Council Caerphilly Council Cardiff Council Merthyr Tydfil Council Powys County Council Rhondda Cynon Taf County Borough Council Vale of Glamorgan Council	
Non Prescribed Consultees	
South East Wales Transport Alliance (SEWTA) Cadw Welsh Language Commissioner	

Note: the Prescribed Consultees have been consulted in accordance with the Planning Inspectorate's Advice Note 3 'Consultation and notification undertaken by the Planning Inspectorate' (April 2012).

APPENDIX 2

Respondents to Consultation and Copies of Replies

APPENDIX 2

LIST OF BODIES WHO REPLIED BY THE STATUTORY DEADLINE

Brecon Beacons National Park
The Coal Authority
The Civil Aviation Authority
Defence Infrastructure Organisation (MOD)
Dwr Cymru Welsh Water
ES Pipelines Ltd
Fulcrum Pipelines Limited
Health and Safety Executive
Hirwaun & Penderyn Community Council
Ministry of Defence
National Grid
NATS
Natural Resources Wales
Network Rail
Public Health England
South Wales Fire & Rescue Service



**PARC CENEDLAETHOL BANNAU BRYCHEINIOG
BRECON BEACONS NATIONAL PARK**

Jill Warren
The Planning Inspectorate
3/18 Eagle Wing
Temple Quay House
2 The Square
Bristol
BS1 6PN

Date: 1st July 2013
Contact: Mrs Helen Rice
Our Ref: 13/09620/IPC
Your Ref: 130603_EN010059_1748
484

By email only :
environmentalservices@infrastructure.gsi.gov.uk

Dear Ms Warren,

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009

Proposal: Hirwaun Power Station

Address: Land at Hirwaun Industrial Estate

I refer to your letter dated 3 June 2013 enclosing the Environmental Impact Assessment Scoping Report for the Hirwaun Power Project. The Brecon Beacons National Park Authority (the BBNPA) has not been contacted by the applicant in relation to this project to date, despite the fact that the site is in very close proximity to the Park's boundary and at one point extends right up to the Park's boundary. The BBNPA therefore welcomes the opportunity to comment on the submitted scoping report. The below comments refer to the relevant chapters in chronological order, if chapters are not referred to, the BBNPA have no comments to offer.

Chapter 2: Regulatory and Policy Background

The BBNPA would request, given the very close proximity of the project to the National Park and the likely impacts such a development may have on the National Park, that the BBNPA Management Plan and relevant policies of the BBNPA Development Plan are also taken into account.

At present, the BBNPA Development Plan comprises the Brecon Beacons National Park Local Plan (Adopted 1999) (the Local Plan) and the Brecon Beacons National Park Unitary Development Plan (approved for development control purposes in 2007) (the UDP). However, the Brecon Beacons National Park Local Development Plan (the LDP) is currently in the last stages of its examination, and whilst little weight can be given to these emerging policies at present, it is likely that the plan, subject to the Examination Inspector's findings, will have been adopted by the end of 2013.

The adoption of the LDP will supersede the Local Plan and UDP. It is therefore requested that the EIA should refer to the LDP policies if it has been approved at the time of writing the EIA. It is also noted that this chapter omits legislation set out in the Environment Act 1995, Section 62 (2) of which requires all public bodies to have regard to the two statutory purposes of a National Park when making decisions or carrying out activities in relation to or so as to affect land within a National Park. Specific reference to this should be included in the EIA.

Chapter 3: Project Description

There are a number of different options put forward for the actual project within this section. Evidently some options may have more limited effects on the National Park than others. It is not clear from the report when the project design will be finalised. This raises concern that the scope and methodologies set out in the scoping report may not be sufficient in relation to each of the various options and therefore the end design for the development. Whilst the report suggests that the various options would not necessarily affect the scope and methodologies of the EIA, the BBNPA are concerned that consultees are being asked to comment on a report for which the development it relates to is yet to be finalised. The BBNPA therefore reserve the right to comment further during the EIA process once the project design is finalised.

It is noted that for the EIA it is to be assumed that the power plant will be decommissioned after 25 years and that the land would be returned to the same condition as when the site was taken over by HPL. However, there is no mention in the proceeding chapters about any restoration strategies or plans and the various impacts such strategies and plans may have. It is considered that the EIA should have regard to the long term impacts of the development even following decommissioning.

With regards paragraph 3.3.38, it appears that the applicants are designing the power plant to ensure that its output just falls short (by 1MWe) of the thresholds set out in EU Directives on Geological Storage of Carbon Dioxide. The BBNPA question this assumption, especially given statistical uncertainty and recent comments in the media setting out that the power plant is in fact a 300MWe facility. The EIA should fully justify the intended power output and confirm that it would not fall to be considered under the EU Directive.

The BBNPA welcomes the inclusion of ancillary works and connections in the project description and strongly encourage that these works and connections are all considered as part of the EIA process even though they may not formally form part of the DCO. It is considered essential to assess the project's impacts as a whole.

Chapter 5 Section 5.3 : Air quality

The reference to the BBNP as a receptor is welcomed. However, given that there will be emissions of air pollutants from the power plant, even if they are less than those from coal-fired power plants, the BBNPA believe that emissions of CO₂, NO_x and methane should be scrutinised carefully. However low they may be, they will still contribute to the degradation of local air quality, and continue to add to the cumulative deposition that has occurred and is still occurring.

In relation to paragraph 5.3.2, the EIA should also consider the release of methane because of its contributions to air quality and greenhouse gases. Methane, a primary component of natural gas and a greenhouse gas, can also be emitted into the air when natural gas is not burned completely or from leaks in the system which will exist and/or develop over time.

It is recognised that this project on its own and in combination with other projects in the vicinity, has the potential to further impact upon the degradation of sensitive receptors in the area including within the National Park. It should be recognised that some receptors are already at or nearing capacity and thus any additional pollutants must be heavily mitigated. The Scoping Report is somewhat conflicting in this regard as the project description in Chapter 3 sets out that no flue gas cleaning equipment would be required whereas paragraph 5.3.30 sets out that flue gas cleaning equipment will be used. These conflicting statements casts doubt over the potential magnitude of air quality impacts of this development and therefore needs to be formally clarified. Notwithstanding this, it is requested that as part of the mitigation measures that an air quality monitoring network is set up to measure the in-combination actual impacts of the development and other developments within vicinity when operational on ecosystems and communities upwind of the site within the National Park.

Chapter 5, Section 5.5 : Ecology

Whilst the BBNPA recognise that the immediate ecological effects of the project would be local species, there is the potential for adverse effects on mobile species such as bats, butterflies and birds, which originate in the National Park but use this area for foraging, movement or commuting, most notably those species listed in paragraph 5.5.8. The mobile nature of these species and the close proximity of the development to the National Park seems to indicate that there is a likelihood that these species may be affected and therefore needs to be fully considered as part of the EIA.

It is also requested that the impact of light spillage from this proposed development be considered, alone and in combination with other existing and future developments, with respect to their effects on species and habitats within the area and proposed mitigation measure associated with other developments within the vicinity. The adverse effects of light on species, particularly nocturnal mammal, diurnal birds and some invertebrates, are well-documented. Consequently, the EIA should assess how to minimise such effects where possible and compensate for likely adverse effects accordingly.

Chapter 5, Section 5.8 Landscape and Visual

The Landscape and Visual Impact of the development is the dominant impact on the National Park, and as such the BBNPA in general welcomes the scope and methodology set out in Section 5.8 of the Scoping Report. Given the likely impact of the development on the National Park, the BBNPA, in conjunction with NRW have commissioned a Landscape Consultant to review the Scoping Report which has informed the below requests to further refine the landscape and visual impact assessments of the EIA.

It will be essential that the LVIA and CLVIA elements of the ES deal comprehensively with the proposed building material and finishes of all aspects of the proposed development, including the potential visual impacts of reflective glazed and metallic surfaces and their potential to exacerbate visual intrusion in certain climatic conditions. This factor is especially important for chimney stacks and other tall structures.

As referred to above, the BBNPA is concerned that the project details are yet to be finally confirmed and include options that may have a significantly greater landscape and visual impact on the National Park than others (e.g. 30m high stacks or 90m stack, overhead powerlines). It is essential therefore that a full comprehensive and cumulative assessment of the landscape and visual effects of the overall proposal including associated works such as the connections and

various options is undertaken. It is requested that formal consultation with the BBNPA and NRW is undertaken by the applicants to confirm the relevant viewpoints to be assessed.

Whilst the BBNPA welcomes reference to the fact that a great proportion of the landscape and visual assessment will be focused on the impacts on the protected landscape of the Park, the inference that the local baseline landscape condition has been degraded by the Pen y Cymoedd wind farm is refuted. This needs to be fully and comprehensively assessed within the landscape and visual impact assessment.

In terms of the relevant documentation to be reviewed, it is requested that the following documents are included:

- Brecon Beacons National Park Management Plan : managing change together 2010 – 2015 (2010) (copy available via <http://www.beacons-npa.gov.uk/the-authority/planning/strategy-and-policy/nmpmp>):
- Brecon Beacons National Park Authority Landscape Character Assessment (2012) (copy available via <http://www.beacons-npa.gov.uk/the-authority/planning/strategy-and-policy/landscape-character-assessment>)
- Current LANDMAP data - with reference to all 5 constituent Aspect data sets, not just the Visual and Sensory Aspect.

Furthermore, the Scoping Report at paragraph 5.8.19 refers to the *Guidelines for Landscape and Visual Impact Assessment 2nd Edition, 2002*. This Guidance was superseded by the *Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3)* with effect from April 2013. It is therefore requested, in line with guidance issued by the Landscape Institute that GLVIA3 should be used rather than GLVIA2.

In terms of a Zone of Theoretical Visibility (ZTV) Plan as part of the assessment it is suggested that the minimum radius for the ZTV should be 7.5kms from the edge of the proposed Power Generation Plant site. This plan should indicate the differences in theoretical visibility for a 30-metre and a 90-metre high chimney stack if these options are yet to be finalised prior to the assessment being undertaken.

It is also requested that the assessment of the scheme includes the potential for visual effects arising from vapour plumes from stacks during particular atmospheric conditions. Furthermore, the BBNP has recently been designated as an International Dark Sky Reserve, the fifth in the world, and thus it is essential that any assessment includes a comprehensive assessment of the night time light pollution effects of the proposed development both on its own and in combination with other developments. The EIA should include appropriate mitigation measures to ensure that the development does not prejudice the Park's Dark Sky status.

With regards the potential viewpoints to be included within the LVIA and CLVIA, it is disappointing that the applicants have not as yet consulted the Authority with a view of agreeing such locations prior to the Scoping Report. It is considered that the list of viewpoints provided in the Scoping Report is inadequate and as such it is requested that the applicant contacts both the BBNPA and NRW to seek agreement on the relevant viewpoints prior to the commencement of the assessment work.

In terms of photomontages, it is considered that additional photomontages are likely to be required to fully understand the landscape and visual implications of the proposal on the National Park. Such photomontages must be produced to reflect the relevant development options, the proposed materials and finishes as well as vapour plumes. Again, it is requested that the applicant consult with the BBNPA and NRW to discuss the number of photomontages to be produced prior to and during the assessment process.

Chapter 5, Section 5.11: Cultural Heritage and Archaeology

The proposal has the potential to affect the setting of archaeological resources within the BBNP, therefore the assessment of the potential impacts of the development on the setting of a variety of heritage asset types, including a 5km theoretical zone of visibility is welcomed. The 5km zone would include the archaeological significant area of Mynydd-y-Glog; an area with a proliferation of Bronze Age ritual activity including round cairns and ring cairns, as well as later activity including medieval and industrial activity. The archaeological significance of Mynydd-y-Glog is highlighted by the concentration of Scheduled Ancient Monuments in close proximity to each other on the mountain. These include:

SAM No.	SAM Name
GM562	Wernlas hut circle
GM558	Wernlas ring cairn and cairnfield
GM520	Pant Sychbant Medieval Hamlet
GM521	Round Cairn North of Mynydd-y-Glog
GM522	Four Round Cairns on Mynydd-y-Glog
GM525	Three Round Cairns on the Southern Side of Mynydd-y-Glog
GM526	Two Round Cairns on the Summit of Mynydd-y-Glog
GM524	Ring Cairn and Round Cairn on Southern Side of Mynydd-y-Glog
GM523	Round Cairn and Ring Cairn South of Twyn-y-Glog

It is requested that the impact of the proposed development on these SAMs should be considered in the EIA.

The scoping report does not include the need to assess the impact of the development on the setting of the many undesignated archaeological remains. The National Park's first purpose is to conserve and enhance the special qualities of the National Park, which includes its heritage (undesignated as well as designated remains), as such it is requested that the impact of the development on the setting of undesignated as well as designated sites that fall within the 5km theoretical zone of visibility is undertaken; particularly those undesignated archaeological remains on the south and south-east facing slopes of Mynydd-y-Glog.



The scoping report does not include as part of the EIA the need to assess the impact of the development on the setting of the nationally important and designated East Fforest Fawr and Mynydd-y-Glog Registered Historic Landscape of Special Historic Interest just 2km from the proposed development site. As the proposed development may potentially impact upon the setting of and views from the Registered Historic Landscape as a heritage asset in its own right, as well as from individual sites and SAMs within it, it is important that this impact is assessed in the EIA.

As well as assessing the impact of the proposed development on the setting of the heritage assets (designated and undesignated) within the Brecon Beacons National Park, appropriate mitigation strategies to minimise such impacts also need to be considered in the EIA.

In summary, the applicant is requested to contact the BBNPA to discuss the proposals further, particularly in relation to the landscape and visual impacts of the proposal on the special qualities of the National Park to ensure that a robust and fully informed assessment is undertaken from the outset.

In the meantime, I trust that the above comments are of assistance. a

Yours sincerely,


 Christopher Morgan
Director of Planning

Directorate of Airspace Policy

Ms Jill Warren (via e-mail)
The Planning Inspectorate

12 June 2013

Reference: ERM/DAP/Planning/HirwaunPowerStation

Dear Ms Warren,

Proposed Hirwaun Power Station – Scoping Opinion

Thank you for the recent Planning Inspectorate correspondence which sought Civil Aviation Authority scoping comment relating to the subject development. I trust the following is useful.

From the associated Scoping Report (SR) I gather that the height of the tallest structure associate with the Progress Power Station project is expected to be an as yet undecided number of chimney stacks that will be a maximum of 90m in height. On that basis, I trust the following comment is useful:

- **Aerodromes.** In respect of any potential aerodrome related issue, I should highlight the need to check any safeguarding maps lodged with relevant planning authorities to identify any aerodrome specific safeguarding issues. Noting the presence that aerodrome safeguarding responsibility rests in all cases with the relevant aerodrome operator / licensee, not the CAA, it is important that the related viewpoints of any relevant aerodrome license holders / operators is established and planning deliberations take appropriate consideration of any issues highlighted. To that end I note the close proximity of Rhigos Airfield, the home of the Vale of Neath Gliding Club, the operators of which are likely to have a related interest.
- **Aviation Warning Lighting.** Given the assumed maximum height of associated structures (90m) I believe there to be a need for aviation warning lighting. For background:
 - In the UK, the need for aviation obstruction lighting on 'tall' structures depends in the first instance upon any particular structure's location in relationship to an aerodrome. If the structure constitutes an 'aerodrome obstruction' it is the aerodrome operator that with review the lighting requirement. For civil aerodromes, they will, in general terms, follow the requirements of CAP 168 - Licensing of Aerodromes. This document can be downloaded from the CAA website - Chapter 4 (12.8) refers to obstacle lighting.
 - Away from aerodromes Article 219 of the UK Air Navigation Order (ANO) applies. This Article requires that for en-route obstructions (ie away from aerodromes) lighting only becomes legally mandated for structures of a height of 150m or more. However, structures of lesser high might need aviation obstruction lighting if, by virtue of their location and nature, they are considered a significant navigational hazard.
 - Cranes, whether in situ temporarily or long term are captured by the points heighted above. Note that if a crane is located on top of another structure, it is the overall height (structure + crane) than is relevant.
 - In this case, even in the event that there proves to be no aerodrome related lighting requirement and the clear non applicability of Article 219, as the chimneys are likely to be the tallest structures in the immediate vicinity, I believe that the 'by virtue of their

Civil Aviation Authority

CAA House 45-59 Kingsway London WC2B 6TE www.caa.co.uk
Telephone 0207 453 6545 Fax 0207 453 6565 marks.smailes@caa.co.uk

location and nature' holds true and that the developer considers the employment of aviation warning lighting.

- Gas Venting and/or Flaring. It is assumed that the Hirwaun Power Station is not intended to vent or flare gas either routinely or as an emergency procedure such as to cause a danger to overlying aircraft. If that is not the case parties are invited to use myself as an appropriate point of contact for any further related discussion.
- Aviation Promulgation. There is a civil aviation requirement in the UK for all structures over 300 feet high to be charted on aviation maps. It follows that, at a maximum of 90m (295 feet) high, there is no en-route (ie non-aerodrome specific) civil aviation charting requirement.
- Military Aviation. For completeness, the Ministry of Defence position in regards to the proposed development and military aviation activity should be established.
- I should also add that that due to the unique nature of associated operations in respect of operating altitudes and potentially unusual landing sites, it would also be sensible to establish the related viewpoint of local emergency services air support units.

Any associated Environmental Statement / Development Consent Order (or equivalent / similar) would be expected to acknowledge and where applicable address the issues highlighted above and accordingly the scoping opinion should make related comment.

Whilst none of the above negates any aforementioned need to consult in line with Government requirements associated with the safeguarding of aerodromes and other technical sites (Government Circular 1/2003 refers), I hope this information matches your requirements. Please do not hesitate to get in touch if the Planning Inspectorate requires any further comment or needs clarification of any point.

Yours sincerely,

{original signed}

Mark Smailes
ORA5

UNCLASSIFIED



**The Coal
Authority**



INVESTOR IN PEOPLE

200 Lichfield Lane
Berry Hill
Mansfield
Nottinghamshire
NG18 4RG

Tel: 01623 637 119 (Planning Enquiries)

Email: planningconsultation@coal.gov.uk

Web: www.coal.decc.gov.uk/services/planning

For the Attention of: Ms Jill Warren – Senior EIA and Land Rights Adviser
The Planning Inspectorate

[By Email: environmentalservices@infrastructure.gsi.gov.uk]

1 July 2013

Dear Ms Warren

INFRASTRUCTURE PLANNING (EIA) REGULATIONS 2009 SI 2263

Proposed Hirwaun Power Station

Thank you for your consultation letter of 3 June 2013 seeking the views of The Coal Authority on the EIA Scoping Opinion for the above proposal.

The Coal Authority is a non-departmental public body sponsored by the Department of Energy and Climate Change. As a statutory consultee, The Coal Authority has a duty to respond to planning applications and development plans in order to protect the public and the environment in mining areas.

The Coal Authority Response

The proposed EIA development is located within the defined Development High Risk Area; the site therefore has been subject to past coal mining activity and is located within an area of surface coal resource.

In accordance with the agreed risk-based approach to development management in Development High Risk Areas, the past coal mining activities and the presence of surface coal resources within the site should be fully considered as part of the Environmental Statement (ES); this should take the form of a risk assessment, together with any necessary mitigation measures.

The Coal Authority is therefore pleased to note that Section 5.7 of the Scoping Report submitted acknowledges the coal mining legacy of the site and commits to assessing the impacts of ground conditions on the proposed development and identifying appropriate remedial measures, if necessary.

Consideration of Coal Mining Issues in the ES

There are a number of coal mining legacy issues that can potentially pose a risk to new development and therefore should be considered as part of an Environmental Statement for development proposals within coalfield areas:

- The location and stability of abandoned mine entries
- The extent and stability of shallow mine workings
- Outcropping coal seams and unrecorded mine workings
- Hydrogeology, minewater and minegas

In addition, consideration should be afforded as part of development proposals and the ES to the following:

- If surface coal resources are present, whether prior extraction of the mineral resource is practicable and viable
- Whether Coal Authority permission is required to intersect, enter, or disturb any coal or coal workings during site investigation or development work

Coal Mining Information

Information on these issues can be obtained from The Coal Authority's Property Search Services Team (Tel: 0845 762 6848 or via the website: www.groundstability.com) or book an appointment to visit The Coal Authority's Mining Records Centre in Mansfield to view our mining information (Tel: 01623 637 233).

An assessment of the risks associated with the presence of coal mining legacy issues on a proposed development should be prepared by a "competent body". Links to the relevant professional institutions of competent bodies can be found at:

<http://coal.decc.gov.uk/en/coal/cms/services/planning/strategy/strategy.aspx>

In accordance with our consultation requirements, we look forward to receiving the planning application and Environmental Statement for comment in due course.

I trust this is acceptable, please do not hesitate to contact me if you require any additional information or would like to discuss this matter further.

Yours sincerely

Mark Harrison

Mark E. N. Harrison *B.A.(Hons), DipTP, LL.M, MInstLM, MRTPI*
Planning Liaison Manager

The Planning Inspectorate
3/18 Eagle Wing
Temple Quay House
2 The Square
Bristol
CF46 6LY

Your ref: 130603_EN010059_1748484

Our ref: DS/NSIP/JP

Enquiries: Maria Evans

Telephone: 0800 917 2652

For the attention of Jill Warren

1st July 2013

Dear Sir / Madam

**Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 SI 2263 (as amended)
Proposed Hirwaun Power Station**

We refer to your correspondence dated 3rd June 2013, regarding the above and wish to comment as follows.

Our Hirwaun Water Treatment Works (WTW) and Penderyn Reservoir are close to the proposed development site. This WTW is of strategic importance providing water supplies to approximately 15,000 properties along the Cynon Valley to Aberdare and the surrounding areas.

As a statutory water undertaker we have a duty to provide wholesome water to our customers with water quality regulated by the Drinking Water Inspectorate. This enables us to abstract and treat raw water to the required potable standards. Any changes to the raw water quality could make the water untreatable and/or have an impact upon control at our WTW. Should there be a potential derogation of water supply, then our customers would suffer severe disruption with loss of supply from a prolonged works shut down.

In light of the above, our comments in relation to the submitted EIA Scoping Report are as follows:

- The Environmental Statement (ES) should acknowledge the existence and possible impacts of the development on Penderyn Reservoir as a public water supply reservoir and Hirwaun water Treatment Works.

- We would expect the ES to consider the impact of the development on **air quality** in the vicinity of the Hirwaun Treatment Works and Penderyn Reservoir and its tributaries; Nant Bodwigiad and Nant Bwlfa.
- The Scoping Report does not propose any monitoring of **water quality** of Penderyn Reservoir and its tributaries during the construction, operation and decommissioning phases. In the absence of a scheme of monitoring the impact of the proposed development on the identified water resources cannot be fully considered. Accordingly, we would expect the ES to include a programme of water quality monitoring for the reservoir and its tributaries.
- We would expect details of proposed mitigation and/or contingency measures in the event that the proposed development has a detrimental impact on air quality and/or water quality to be fully considered and included in the Environmental Statement.
- Further details are required in respect of the 'Blowdown' process, including details of the chemical composition, volume and frequency of the discharge.
- The report does not state the chemical composition of the emissions from the proposed stack(s), their concentrations, and their dispersal rates, and we would expect these details to be provided and their potential impact considered in full.
- It is stated that details of the stack are to be determined after an air quality modelling exercise is completed; we consider that the impact upon Penderyn Reservoir and Hirwaun WTW should be included in this modelling exercise.
- The ES does not take into account adjacent and forthcoming development in its consideration of other significant sources of emission.

Notwithstanding the above, we advise that the impact of the proposed development should not be considered in isolation. To comprehensively consider the impact of the proposed development the Environmental Statement should have regard to possible cumulative impact of existing and proposed development within the Hirwaun Industrial Estate area.

We trust the above is helpful in the consideration of this scoping report. In light of the issues raised, we would encourage the developer to engage with us at the earliest opportunity to discuss the above. If you have any further queries please do not hesitate to contact Jason Price on the above number.

Yours faithfully,



Jason Price
Development Control Officer
Developer Services

From: [Alan Slee](#)
To: [Environmental Services;](#)
Subject: RE: Hirwaun Power Station EN010059 Scoping Consultation
Date: 04 June 2013 14:07:12

Hi Jill,

**INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT)
REGULATIONS 2009 SI 2263 (as amended) (the EIA Regulations)
PROPOSED Hirwaun Power Station (the project)
PROPOSAL BY Hirwaun Power Limited (the applicant)**

Your ref: 130603_EN010059_1748484
ESP Ref: PE109684

Further to your email communication to E S Pipelines Ltd, ESP Networks Ltd, ESP Pipelines Ltd, ESP Electricity Ltd and ESP Connections Ltd dated 3 June 2013 I can confirm that our businesses have no comments at this stage.

Regards,

Alan Slee
Operations Manager

DD 01372 227567
Mobile 07766 802070
Fax 01372 386203
www.espipelines.com

From: [&box_FPLplantprotection_conx,](#)
To: [Environmental Services;](#)
Subject: RE: Hirwaun Power Station EN010059 Scoping Consultation
Date: 04 June 2013 16:16:13
Attachments: [image003.png](#)

Thank you for asking Fulcrum Pipelines Limited to examine your consultation document for the above project.

We can confirm that Fulcrum Pipelines Limited have no comments to make on this scoping report. Please note that we are constantly adding to our underground assets and would strongly advise that you consult us again prior to undertaking any excavations.

Please note that other gas transporters may have plant in this locality which could be affected.

We will always make every effort to help you where we can, but Fulcrum Pipelines Limited will not be held responsible for any incident or accident arising from the use of the information associated with this search. The details provided are given in good faith, but no liability whatsoever can be accepted in respect thereof.

If you need any help or information simply contact Graham Penlington directly on 01142 804175.

To save you time, any future requests for information about our plant, can be emailed to FPLplantprotection@fulcrum.co.uk

GRAHAM PENLINGTON
Process Assistant



FULCRUM

Tel: 0845 641 3010 ext: 4175

Direct Dial:

Email: Graham.Penlington@fulcrum.co.uk

Web: www.fulcrum.co.uk



FULCRUM NEWS

HID Policy - Land Use Planning
NSIP Consultations
Building 5.S.2, Redgrave Court
Merton Road, Bootle
Merseyside, L20 7HS

Your ref: 130603_EN010059_1748484
Our ref: 4.2.1.3645

HSE email: NSIP.applications@hse.gsi.gov.uk

FAO Jill Warren
The Planning Inspectorate
3/18 Eagle Wing, Temple Quay House
2 The Square, Bristol
BS1 6PN

Dear Ms Warren,

24th June 2013

**PROPOSED HIRWAUN POWER STATION (the project)
PROPOSAL BY HIRWAUN POWER LIMITED (the applicant)
INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2009 SI
2263 (as amended) (the EIA Regulations)**

Thank you for your letter of 3rd June 2013 regarding the information to be provided in an environmental statement relating to the above project.

Major Hazard Installations

This proposal does not fall within the consultation distance of any major hazard sites or pipelines.

Hazardous Substances Consent

As this is indicated as a 'gas-fired power generating station', the applicant may need to consider whether or not they need Hazardous Substances Consent, if the qualifying quantity of a dangerous substance is reached or exceeded. If this is the case, they should apply to the local hazardous substances authority who should consult HSE in the usual manner.

Explosives sites

The Hirwaun Power Station development does not impinge on the separation distances of any explosives site licensed by HSE.

Electrical Safety

This project may create or have an impact on existing generation, transmission and distribution assets. It needs to satisfy general UK health and safety legislation (i.e. Health and Safety at Work etc Act 1974 and supporting regulations), and the proposed design and future operations must comply with the Electricity at Work Regulations 1989 and Electrical Safety, Quality and Continuity Regulations 2002, as amended. Generators, distributors, their contractors and others have defined duties in order to protect members of the public from the dangers posed by the electrical equipment used. HSE enforces the safety aspects of these regulations. If you have any doubts about the particular application of these regulations in terms of either the operation or construction of substations, overhead lines or underground cables, please contact Mr J C Steed, Principal Specialist Inspector (Electrical Networks), either at john.steed@hse.gsi.gov.uk or Rose Court GSW, 2 Southwark Bridge Road, London SE1 9HS.

Please send any further electronic communication on this project directly to the HSE's designated e-mail account for NSIP applications. Alternatively any hard copy correspondence should be sent to:

Miss Laura Evans
NSIP Consultations
5.S.2 Redgrave Court
Merton Road
Bootle
Merseyside
L20 7HS

Yours sincerely,



Laura Evans
HID Policy - Land Use Planning

From: [Neale Thomas. clerk Hirwaun & Penderyn Community Council.](#)
To: [Environmental Services;](#)
Subject: FW: proposed Hirwaun Power Station
Date: 01 July 2013 15:53:08

Dear Sirs

Your reference 130603 EN010059_1748484

The Hirwaun and Penderyn Community Council was grateful for your communication on this subject .

The Council has no observations at this stage would be grateful to be kept informed and the opportunity to make representations in the future.

Please note Mr Burke has now retired as the clerk to the council and all further correspondence should be directed to me.

Yours Faithfully

Neale Thomas
Clerk to the community council.



Ministry
of Defence

PINS RECEIVED

27 JUN 2013

Defence
Infrastructure
Organisation

Jill Warren
The Planning Inspectorate
3/18 Eagle Wing
Temple Quay House
2 The Square
Bristol
BS1 6PN

Safeguarding Department
Statutory & Offshore

Defence Infrastructure Organisation
Kingston Road
Sutton Coldfield
West Midlands
B75 7RL

Tel: +44 (0)121 311 3818 Tel (MOD): 94421 3818

Fax: +44 (0)121 311 2218

E-mail: DIO-safeguarding-statutory@mod.uk

Your Reference: **130603_EN010059_1748484**
Our reference: DIO/SUT/43/20 (2013/542)

www.mod.uk/DIO

24 June 2013

Dear Jill Warren

MOD Safeguarding – SOSA

Proposal: Propose Hirwaun Power Station
Location: Aberdare, Mid Glamorgan, South Wales
Grid Ref: 293622, 206279
Planning Ref: **130603_EN010059_1748484**

Thank you for consulting Defence Infrastructure Organisation (DIO) on the above proposed development. This application relates to a site outside of Ministry of Defence (MOD) statutory safeguarding areas. We can therefore confirm that the MOD has no safeguarding objections to this proposal.

Whilst we have no safeguarding objections to this application, the height of the development will necessitate that aeronautical charts and mapping records are amended. Defence Infrastructure Organisation (DIO) Safeguarding therefore requests that, as a condition of any planning permission granted, the developer must notify UK DVOF & Powerlines at the Defence Geographic Centre with the following information prior to development commencing:

- a. Precise location of development.
- b. Date of commencement of construction.
- c. Date of completion of construction.
- d. The height above ground level of the tallest structure.
- e. The maximum extension height of any construction equipment.
- f. Details of aviation warning lighting fitted to the structure(s)

You may e-mail this information to UK DVOF & Powerlines at icgdgc-prodaisafdb@mod.uk, or post it to:

D-UKDVOF & Power Lines
Air Information Centre
Defence Geographic Centre
DGIA
Elmwood Avenue
Feltham
Middlesex
TW13 7AH

I trust this adequately explains our position on this matter, however should you have any questions regarding this matter please do not hesitate to contact me.

Yours sincerely



Claire Duddy

SUBMITTED VIA EMAIL TO:

environmentalservices@infrastructure.gsi.gov.uk

Land and Development Group

Vicky Stirling

Town Planner

Land & Development

vicky.stirling@nationalgrid.com

Direct tel: +44 (0)1926 653746

www.nationalgrid.com

01 July 2013

Our Ref:

Your Ref:

Dear Sir/Madam,

**INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT)
REGULATIONS 2009 SI 2263 (as amended) (the EIA Regulations)
PROPOSED Hirwaun Power Station (the project)
PROPOSAL BY Hirwaun Power Limited (the applicant)**

I refer to your letter dated 3rd June 2013 regarding the above proposed application. Having reviewed the Scoping Report documents, I would like to make the following comments:

National Grid Infrastructure within or in close proximity to the Proposed Order Limits

National Grid Electricity Transmission

National Grid Transmission has a high voltage electricity overhead transmission line which lies within or in close proximity to the proposed order limits. This line forms an essential part of the electricity transmission network in England and Wales and include the following:

- 4YU 400kV Overhead Line

The following substation is also located within the proposed order limits:

- New Rhigos Substation

I enclose plans showing the routes of our overhead lines and the location of our substation within the area shown in the consultation documents.

The following points should be taken into consideration:

- Statutory electrical safety clearances must be maintained at all times. Any proposed buildings must not be closer than 5.3m to the lowest conductor. National Grid recommends that no permanent structures are built directly beneath overhead lines. These distances are set out in EN 43 – 8 Technical Specification for “overhead line clearances Issue 3 (2004) available at: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/devnearohl_final/appendixIII/applIII-part2
- If any changes in ground levels are proposed either beneath or in close proximity to our existing overhead lines then this would serve to reduce the safety clearances for such

overhead lines. Safe clearances for existing overhead lines must be maintained in all circumstances.

- Further guidance on development near electricity transmission overhead lines is available here: <http://www.nationalgrid.com/NR/rdoonlyres/1E990EE5-D068-4DD6-8C9A-4D0B06A1BA79/31436/Developmentnearoverheadlines1.pdf>
- The relevant guidance in relation to working safely near to existing overhead lines is contained within the Health and Safety Executive's (www.hse.gov.uk) Guidance Note GS 6 "Avoidance of Danger from Overhead Electric Lines" and all relevant site staff should make sure that they are both aware of and understand this guidance.
- Plant, machinery, equipment, buildings or scaffolding should not encroach within 5.3 metres of any of our high voltage conductors when those conductors are under their worse conditions of maximum "sag" and "swing" and overhead line profile (maximum "sag" and "swing") drawings should be obtained via the National Grid's Asset Protection Team at Warwick.
- Drilling or excavation works should not be undertaken if they have the potential to disturb or adversely affect the foundations or "pillars of support" of any existing tower. These foundations always extend beyond the base area of the existing tower and foundation ("pillar of support") drawings can be obtained via the Asset Protection Team at Warwick.

To view the Development Near Lines Documents. Please use the link below:

http://www.nationalgrid.com/uk/LandandDevelopment/SC/devnearohl_final/

To view the National Grid Policy's for our Sense of Place Document. Please use the link below:

<http://www.nationalgrid.com/uk/LandandDevelopment/DDC/>

National Grid Gas Transmission

National Grid has a high pressure gas transmission pipeline located within or in close proximity to the proposed order limits. The high pressure gas pipeline located within this area is:

- FM02 – Dowlais to Dyffryn Clydach

Specific Comments – Gas Infrastructure

The following points should be taken into consideration:

- National Grid has a Deed of Grant of Easement for each pipeline, which prevents the erection of permanent / temporary buildings, or structures, change to existing ground levels, storage of materials etc.

Pipeline Crossings:

- Where existing roads cannot be used, construction traffic should ONLY cross the pipeline at previously agreed locations.
- The pipeline shall be protected, at the crossing points, by temporary rafts constructed at ground level. The third party shall review ground conditions, vehicle types and crossing frequencies to determine the type and construction of the raft required.

- The type of raft shall be agreed with National Grid prior to installation.
- No protective measures including the installation of concrete slab protection shall be installed over or near to the National Grid pipeline without the prior permission of National Grid.
- National Grid will need to agree the material, the dimensions and method of installation of the proposed protective measure.
- The method of installation shall be confirmed through the submission of a formal written method statement from the contractor to National Grid.
- Please be aware that written permission is required before any works commence within the National Grid easement strip.
- A National Grid representative shall monitor any works within close proximity to the pipeline to comply with National Grid specification T/SP/SSW22.
- A Deed of Indemnity is required for any crossing of the easement

Cables Crossing:

- Cables may cross the pipeline at perpendicular angle to the pipeline i.e. 90 degrees.
- A National Grid representative shall supervise any cable crossing of a pipeline.
- Clearance must be at least 600mm above or below the pipeline.
- Impact protection slab should be laid between the cable and pipeline if cable crossing is above the pipeline.
- A Deed of Indemnity is required for any cable crossing the easement.
- Where a new service is to cross over the pipeline a clearance distance of 0.6 metres between the crown of the pipeline and underside of the service should be maintained. If this cannot be achieved the service shall cross below the pipeline with a clearance distance of 0.6 metres.

General Notes on Pipeline Safety:

- You should be aware of the Health and Safety Executives guidance document HS(G) 47 "Avoiding Danger from Underground Services", and National Grid's specification for Safe Working in the Vicinity of National Grid High Pressure gas pipelines and associated installations - requirements for third parties T/SP/SSW22.
- National Grid will also need to ensure that our pipelines access is maintained during and after construction.
- Our pipelines are normally buried to a depth cover of 1.1 metres however; actual depth and position must be confirmed on site by trial hole investigation under the supervision of a National Grid representative. Ground cover above our pipelines should not be reduced or increased.

- If any excavations are planned within 3 metres of National Grid High Pressure Pipeline or, within 10 metres of an AGI (Above Ground Installation), or if any embankment or dredging works are proposed then the actual position and depth of the pipeline must be established on site in the presence of a National Grid representative. A safe working method agreed prior to any work taking place in order to minimise the risk of damage and ensure the final depth of cover does not affect the integrity of the pipeline.
- Excavation works may take place unsupervised no closer than 3 metres from the pipeline once the actual depth and position has been confirmed on site under the supervision of a National Grid representative. Similarly, excavation with hand held power tools is not permitted within 1.5 metres from our apparatus and the work is undertaken with NG supervision and guidance.

To view the SSW22 Document, please use the link below:

<http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW/safeworking.htm>

To view the National Grid Policy's for our Sense of Place Document. Please use the link below:

<http://www.nationalgrid.com/uk/LandandDevelopment/DDC/>

To download a copy of the HSE Guidance HS(G)47, please use the following link:

<http://www.hse.gov.uk/pubns/books/hsg47.htm>

Further information in relation to National Grid's gas transmission pipelines can be accessed via the following internet link:

<http://www.nationalgrid.com/uk/LandandDevelopment/DDC/gastransmission/gaspipes/>

Further Advice

We would request that the potential impact of the proposed scheme on National Grid's existing assets including habitat surrounding the new Rhigos substation is considered in any subsequent reports, including in the Environmental Statement, and as part of any subsequent application.

Where the promoter intends to acquire land, extinguish rights, or interfere with any of National Grid apparatus protective provisions will be required in a form acceptable to it to be included within the DCO.

Where any diversion of apparatus may be required to facilitate a scheme, National Grid is unable to give any certainty with the regard to diversions until such time as adequate feasibility and conceptual design studies have been undertaken by National Grid. Further information relating to this can be obtained by contacting the email address below.

National Grid requests to be consulted at the earliest stages to ensure that the most appropriate protective provisions are included within the DCO application to safeguard the integrity of our apparatus and to remove the requirement for objection. All consultations should be sent to the following: DCOConsultations@nationalgrid.com as well as by post to the following address:

The Company Secretary

National Grid is a trading name for:
National Grid Electricity Transmission plc
Registered Office: 1-3 Strand, London WC2N 5EH
Registered in England and Wales, No 2366977

National Grid is a trading name for:
National Grid Gas plc
Registered Office: 1-3 Strand, London WC2N 5EH
Registered in England and Wales, No 2006000

1-3 The Strand

London

WC2N 5EH

In order to respond at the earliest opportunity National Grid will require the following:

- Draft DCO including the Book of Reference and relevant Land Plans
- Shape Files or CAD Files for the order limits

I hope the above information is useful. If you require any further information please do not hesitate to contact me.

The information in this letter is provided notwithstanding any discussions taking place in relation to connections with electricity or gas customer services.

Yours sincerely



Vicky Stirling

(Submitted Electronically)



nationalgrid

↑

- Aerial Photography
- Eagles Enquiry**
- Electricity Tx Assets**
- Cables and Accessories**
- OHL and Towers**
- 400kV
- 275kV
- 132kV and Less
- Towers
- Substations and Stations**
- Cooling Station
- Substation
- Electricity Tx Capital Schemes**
- Gas Tx Assets**
- AGI's**
- Gas Pipe
- Gas Site**
- Transformer Rectifier
- Land Tenure**
- Proposed HS2 Route
- Maps**

1 km 1 : 15000

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National Grid UK Transmission. The asset position information represented on this map is the intellectual property of National Grid PLC, Warwick Technology Park, Warwick, CV346DA

From: [ROSSI, Sacha](#)
To: [Environmental Services;](#)
cc: [NATS Safeguarding;](#)
Subject: RE: Hirwaun Power Station EN010059 Scoping Consultation
Date: 05 June 2013 12:34:18

Dear Sir/Madam,

NATS does not anticipate any impact from this development and has no comments to make.

Regards
S. Rossi
NATS Safeguarding Office

NATS

Mr Sacha Rossi
ATC Systems Safeguarding Engineer

' : 01489 444 205
* : sacha.rossi@nats.co.uk

NATS Safeguarding
4000 Parkway,
Whiteley, PO15 7FL

<http://www.nats.co.uk/windfarms>

Jill Warren
The Planning Inspectorate
3/18 Eagle Wing
Temple Quay House
2 The Square
Bristol
BS1 6PN

Ein cyf / Our ref: File ref/ISIS ref/NJS/CW
Eich cyf / Your ref: 130603_EN010059_1748484

01 July 2013

Dear Ms Warren

**INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2009
SI 2263 (AS AMENDED) (THE EIA REGULATIONS).**

**PROPOSED HIRWAUN POWER STATION (THE PROJECT) PROPOSAL BY HIRWAUN POWER
LIMITED (THE APPLICANT).**

NATURAL RESOURCES WALES (NRW) SCOPING OPINION ON PROPOSED DEVELOPMENT.

Thank you for your consultation dated 3 June 2013, seeking Natural Resources Wales (NRW) comments on the information that should be included in an Environmental Impact Assessment (EIA) for the above proposal.

Please note that our comments are without prejudice to any comments we may wish to make when consulted on the Preliminary Environmental Information (PEI) or on the submission of the full Environmental Statement (ES). At the time of any application for a Development Consent Order (DCO) application there may be new information available which we will need to take into account in making a formal response to the Planning Inspectorate.

The EIA for this development should include sufficient information to enable the planning authority (in this instance the Planning Inspectorate on behalf of the Secretary of State) to determine fully the extent of any environmental impacts arising from the proposed scheme on statutory designated sites, protected species, air quality, waste and water management, contaminated land, flood risk and landscape interests.

NRW welcomes submission of the scoping report produced by Parsons Brinckerhoff; we have a number of comments to make on its content and these are outlined below.

We intend to meet with the applicant soon to discuss some of the finer details of the proposals in relation to the various sections of the EIA listed below and the specifics of the information we consider is required for each.

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Correspondence welcomed in Welsh and English

In general terms, we advise that the EIA considers the potential impact on the following issues for all phases of the project (e.g. construction, operation and decommissioning phases).

- Statutory Nature Conservation Sites (SAC, SPA, SSSI, NNR, LNR etc.)
- Non-statutory Nature Conservation Sites of importance (e.g. SINC or sites containing UKBAP habitats)
- Air Quality (impacts on the above receptors)
- Legally Protected Species
- UK and Local Biodiversity Action Plan Habitats and Species
- Water Management (to include water resources, foul water disposal, surface water management and impact on receiving waters)
- Land affected by contamination
- Pollution prevention
- Flood risk
- Landscape and visual impact
- Access and recreation.

Further detail for each is provided in turn below:

Statutory Nature Conservation Sites

There are a number of statutory designated sites within 15km of the proposals site. Special Areas of Conservation (SAC) and Sites of Special Scientific Interest (SSSI) within 15 and 10km radii of the main proposed power plant building respectively are illustrated on the maps provided in Appendix 1.

In particular, sufficient information is required to assist the determining authority in reaching a view on the possible significant effect of these proposals in the context of Regulation 61 (3) of the Conservation of Habitats and Species Regulations 2010 (as amended).

The relevant sites are also listed below:

(in addition an interactive map of protected statutory sites can be found on the CCW website)

Special Areas of Conservation (SAC)

- Blaen Cynon
- Coedydd Nedd a Mellte
- Cwm Cadlan

Sites of Special Scientific Interest (SSSI)

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- Blaen Nedd
- Blaenrhondda Road Cutting
- Bryn-Bwch
- Bryncarnau Grasslands, Llwydcoed
- Caeau Nant y Llechau
- Caeau Ton y Fildre
- Cors Bryn-y-Gaer
- Craig-y-Llyn
- Cwm Cadlan
- Cwm Glo a Glyndyrys
- Cwm Gwrelych and Nant Llyn Fach Streams
- Cwm Taf Fechan Woodlands
- Daren Fach
- Dyffrynnoedd Nedd a Mellte a Moel Penderyn
- Gorsllwyn, Onllwyn
- Gweunydd Dyffryn Nedd
- Mynydd Ty Isaf, Rhondda
- Ogof Ffynnon Ddu-Pant Mawr
- Penmoelallt
- Plas y Gors
- Tir Mawr a Dderi Hir, Llwydcoed
- Waun Ton-y-Spyddaden
- Woodland Park and Pontpren

National Nature Reserves

- Cwm Cadlan

National Parks

- Brecon Beacons National Park

Where potential significant impacts are identified, measures to avoid and mitigate impacts should be identified and the residual impacts assessed. Compensation should be identified where residual impacts remain. Assessments should be made using good quality information and enhancements should also be identified, in accordance with *TAN5: Nature Conservation and Planning September 2009*. Similarly, this approach/requirement will apply to all other environmental impacts or sites, habitats, species, aspects affected, whether outlined below or otherwise identified.

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Non-Statutory Nature Conservation Sites

The EIA should identify any impacts and necessary measures on any non-statutory nature conservation sites/Sites of Importance for Nature Conservation (SINC), identified/designated because of their importance at the county level for their biodiversity/nature conservation interest.

Air Quality Impacts

NRW welcomes the general approach to air quality assessment suggested in the EIA scoping document. We have a number of comments and recommendations on the various relevant sections of the report which are detailed below:

List of abbreviations (p4)

NOx is the abbreviation for nitrogen oxides not nitrous oxides (N₂S), which is laughing gas.

5.3 Air Quality

5.3.5 (p78)

We strongly advise that the developer collect their own baseline data for NO_x, NO₂, nitrogen deposition, acid deposition and dusts as these would be the main aerial pollutants that would be of concern at the designated sites. On-going monitoring during construction would also provide important data to determine whether any on site embedded mitigation measures (5.3.29) are working, particularly for dusts.

5.3.7 (p77)

As stated in our advice in 5.3.5 we strongly recommend the developer collect their own data in addition to the available information from the websites listed as this would provide site specific data.

5.3.8 (p77)

As stated in 5.3.15 Horizontal Guidance Note H1 Annex (f): Air Emissions will be used then a screening distance of 10km is required. Cwm Cadlan SAC is approximately 3km to the northeast of this development and must be included in the assessment process. We agree that the impact of nitrogen deposition on the features of the designated sites will need to be assessed.

5.3.14 (p78)

Dusts: The majority of literature indicates that large dust particles (>30µm) deposit within 100m of source and deposit quite quickly, whereas intermediate sized particles (10 – 30µm) are likely to travel 200 – 500m and small particles (<10µm) may travel 1000m from source and deposit more slowly. Blaen Cynon SAC (also designated Cors Bryn-y-Gaer SSSI) is approximately 400m from the edge of development.

For dust particles to become airborne the minimum wind speed must be 5.3m/s (19km/h). Also, precipitation rates of >2mm/hour will reduce dust migration. Conversely, precipitation rates <2mm/hr

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will not discourage dust movement. Therefore, it is important to determine how often the wind speed is $\geq 5.3\text{m/s}$ with a rainfall of $< 2\text{mm/hr}$ in the direction of the designated sites. From this the rate of dust deposition (in $\text{g/m}^2/\text{day}$) and can be calculated and also how often it could occur in the direction of the designated sites.

Traffic: The DMRB uses the volume of traffic as an indicator of significance. This may be entirely appropriate for determining nuisance to humans but it is inappropriate for determining the impact on sensitive habitats. It is the pollution produced by the traffic that is of concern rather than the volume of traffic, though the two are correlated. We therefore advise that NO_x concentrations and nitrogen deposition be assessed against the relevant critical level and critical loads. This form of assessment was completed recently for the A465 dualling. See advice 5.10 below.

5.3.15 (p79)

We welcome the use of the H1 Annex (f) guidance to assess impacts from aerial emissions. Annex (f) also highlights the need to assess nitrogen deposition and acid deposition against the relevant critical loads of the features in the designated sites.

5.3.18 (p79)

Please clarify the meaning of 'base load'. Worst case scenarios are usually assessed on full load running continuously 24 hours per day, 365 days per year. A realistic scenario would be based on the expected actual running of the installation. Please clarify the meaning of 'realistic worst case scenario'.

5.3.21 (p80)

It is encouraging to note that both EPUK 2010 and EA H1 will be used in conjunction with one another. We remind you that EPUK accept the use of a contribution of 1% or less as the criterion for an 'imperceptible' change and this is consistent with the screening methods promoted by the Environment Agency, Natural England and Natural Resources Wales (i.e. H1).

5.3.22 (p80)

See advice 5.3.8 for screening distance. We welcome the use of AQTAG06 and that an assessment of acid and nutrient nitrogen deposition will be completed.

5.3.25 & 5.3.27 (p81)

We do not agree that dust is 'unlikely to have any impact upon...ecological receptors' but we welcome the fact that an assessment will be completed (5.3.26 & 5.3.28).

NRW assumes that construction dust will primarily consist of cement dusts and, like dusts in general, will affect vegetation by both physical and chemical processes. Physically, dust may cover the leaf surface and reduce the amount of light available for photosynthesis, or it may occlude stomata. Occlusion may lead to increased resistance to gas exchange, or may prevent full stomatal closure, leading to water stress.

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Increased transpiration is a common response to dust exposure. Chemically, cement dusts are strongly alkaline, and may have detrimental effects on leaf surfaces. Infestation by pests and pathogens is also likely to be enhanced.

Trees and woodlands receive greater deposition of dust than adjacent short vegetation because of increased air turbulence. In extreme cases, dust deposition may lead to tree death, but less severe symptoms are changes in pigments, sugars, and overall growth, detectable over a few km from a major source (Mandre *et al.*, 1999).

Indirect effects may be caused through the soil, especially on acid soils, where the cement dust can increase the pH and available calcium, leading to changes in vegetation composition. The subject has been reviewed in depth by Farmer (1993).

Effects of cement dust have been observed for deposition rates as low as 0.5 g/m²/day. Often, deposition rates are not measured, and exposure is judged by amounts retained on leaves. Removal of dust from leaves by rain however, varies very greatly among plant species, from those that are 'self-cleaning' (the lotus effect) to those that accumulate large quantities. Most industrial processes are regulated to prevent the emission of cement dust. (See dust advice 5.3.14 above.)

5.10 Traffic, Transport and Access

5.10.1 (p111)

We assume that the NO_x, dust and other relevant pollutants from transport prior to and during construction will be assessed as part of the proposed on-going monitoring programme as advised for 5.3.5, 5.3.14, 5.3.25 & 5.3.27 above.

Please note that the critical loads presented in Table F1 of the DMRB Volume 11, Chapter 3, Section 3, Annex F are incorrect and should not be used. The nitrogen critical loads were reviewed and revised by the UNECE in 2010. The correct values are available from the APIS website.

5.14 Cumulative Assessment

5.14.1 (p124)

What search radius will be used to determine which existing and planned developments to include? We suggest the 10km radius already stated in 5.3.22 (p80) and recommended in H1 Annex (f).

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Legally Protected Species

A request should be made to the South-East Wales Biological Records Centre (SeWBReC) and the ecologists of the relevant local planning authorities should be consulted for records to provide a full scoping of species and sites for species that may need to be addressed within the EIA.

The EIA should include a detailed and comprehensive assessment of those protected species likely to be significantly affected. New surveys should be undertaken where their presence is likely but existing records are insufficient to allow a meaningful assessment. Survey work should be carried out in accordance with published guidance, where this exists and at the appropriate time(s) of year. It is possible that survey may be required in more than one year to allow proper assessment. Surveys should be undertaken by suitably qualified ecologists, under licence as required.

UK and Local Biodiversity Action Plan (BAP) Habitats & Species

Phase II habitat surveys using standard National Vegetation Classification (NVC) methodology of any semi natural habitats to be affected by the proposed development and its associated infrastructure should be carried out and a search/survey for notable plant and animal species undertaken. Surveys should be carried out at appropriate times of year and in appropriate weather conditions. This information should be used to identify the presence of and scale of impact upon National and Local Biodiversity Action Plan Species.

Water Management

Water Resources

The Environmental Statement will need to assess how the proposed development is likely to affect water resources. Information is needed on how the proposed development intends to be supplied with water, during the construction phase and subsequent operation of the development. The Environmental Statement should also address how the proposed development will make the most efficient use of water on the site.

If water is to be abstracted directly from the environment then this should be detailed in the Environmental Statement; an abstraction licence is likely to be required. If this is the case, we recommend that the applicant contacts our Permitting Support Centre on 08708 506 506 to discuss this matter.

The proposed development site is located on Secondary A aquifer. There is a Source Protection Zone 1 approximately 2km to the north east of the site for the Dŵr Cymru Welsh Water abstraction at Penderyn. There are also licensed groundwater abstractions and private water supplies within the local area. We advise that a water feature survey should be undertaken as part of the Environmental Statement. This

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should have a radius of 1km from the site boundary (also including the proposed development site). The Water Feature Survey should include the following:

- Identification of all water features both surface and groundwater (ponds, springs, ditches, culverts etc.) within a 1000 metre radius of the site.
- Use made of any of these water features. This should include the construction details of wells and boreholes and details of the lithology in which they are installed;
- An indication of the flow regime in the spring or surface water feature, for example whether or not the water feature flows throughout the year or dries up during summer months;
- Accessibility to the spring/well;

This information should be identified on a suitably scaled map (i.e. 1:10,000), then tabulated and submitted to Natural Resources Wales. It would be useful for the developer to photograph each of the identified water features during the survey.

Based on the results of the survey the developer should assess the likely impacts from the development on both quantity and quality of the surface water and groundwater. This should take into consideration both the preferred methods of construction and the assumed hydrogeology in the vicinity of the development.

We may require identified groundwater features to be monitored during the proposed workings. We would therefore recommend that the survey be undertaken as soon as possible to enable the developer to carry out suitable baseline monitoring prior to the commencement of workings at the site.

Foul Water Disposal

Full details will be required of the pollution prevention and environmental controls to be deployed during the following phases of the proposed development:

- Demolition of existing buildings and removal/making good of infrastructure. As the proposed site has a historic industrial use, have the appropriate contamination assessments been undertaken? Will remediation techniques need to be deployed prior to construction?
- Construction process to include: temporary vehicle parking arrangements, welfare facilities, material lay down area, access route, pipeline and cable route installation.
- Infrastructure specified for the operational phase to include support facilities such as electricity sub stations and switch gear, storage of substances etc.
- Full details relating to the proposed design of the: surface water, foul water and effluent collection and treatment systems will be required.
- Decommissioning and site restoration post construction phase and site operation.

The River Camnant appears to be culverted directly under the proposed development site. The scoping report appears not to have referred to the existence of this watercourse, whilst other surface water bodies

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have been identified within the project outline. NRW would expect a WFD assessment to be carried out on this waterbody by the developer.

We require further information and proposals relating to the implications on water resources as a consequence of this development, such as: identification of the source (abstraction) and potential water supply, will water require treatment prior to use within the process, what are the estimated volumes of water required and volumes of effluent produced, what is the composition of the effluent likely to be? What are the effluent treatment and disposal options?

Surface Water Management

A surface water management plan should be included as part of the Environmental Statement to address the management of any risk of polluting the water environment. This should link to and/or incorporate any surface water drainage strategy, and consider matters such as any on-site treatment and interceptors for hard standing areas such as car parks.

Land Potentially Affected by Contamination

Within the proposed red line boundary (as defined in Figure 1 of the EIA Scoping Report), there is a historical landfill on the industrial estate. If works are to be undertaken in this area then site investigation and risk assessment will be required.

We also note from section 3.2 of the Scoping Report that the site has previously been a Royal Ordnance Factory, electrical goods manufacturing factory and a distribution and storage centre. Given the potentially contaminative nature of the previous uses of the site we will require, as a minimum, a preliminary risk assessment and preferably site investigation and risk assessment (as required) to establish whether contamination is present within the soil and groundwater that may have an impact on controlled water within the local area. These investigations should follow British Standards, CLR11 and our guidance “Guiding Principles for Land Contamination (2010)”.

We recommend that developers should:

- a. Follow the risk management framework provided in CLR11, Model Procedures for the Management of Land Contamination, when dealing with land affected by contamination.
- b. Refer to Natural Resources Wales guiding principles for land contamination for the type of information that we require in order to assess risks to controlled waters from the site. The Local Authority will be able to advise on risks posed to other receptors, such as human health.

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Pollution Prevention

Environmental Permitting

The proposal will require an environmental permit to operate and an application will need to be made under the Environmental Permitting (England & Wales) Regulations 2010 (as amended). Pre-application discussions with Natural Resources Wales are recommended.

Technology selection

Open (simple) cycle gas turbine (GT) operation is not usually considered to represent Best Available Technique (BAT) for normal power plant GT operation and rigorous justification of efficiency penalties would be required if this type of operation were to be proposed.

The technology selection process should also consider the best achievable efficiency, in particular the potential for CHP (see below).

It is noted that air cooled condensers or coolers are proposed as the cooling system for the project. Alternative cooling options should be considered and technique selection justified based upon efficiency, water resources and waste water discharge as well as economic considerations.

Combined heat and power (CHP)

The intention to keep options for local heat utilisation under review is noted. Guidance on determining BAT for CHP readiness can be found in the following Environment Agency guidance document:

<http://www.environment-agency.gov.uk/business/sectors/117470.aspx>

CHP should be considered for all technology options.

This link also includes references to other guidance relevant to environmental permitting of power generation activities.

Noise impact assessment

The limitation of the proposed operational noise assessment to within 1000 m of the development should be justified, in particular with reference to abnormal operating conditions, including commissioning, full load steam turbine by-pass operation for CCGT option and plant trip scenarios.

Noise mitigation measures should also include reference to use of acoustic enclosures and cladding for plant and pipe work or ducting likely to produce noise under all operating conditions including abnormal operation.

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Water Quality (WQ) impact assessment

Assessment of WQ impacts should also include consideration of periodic or intermittent waste water effluent arising from commissioning procedures, HRSG make up water treatment, plant maintenance and cleaning procedures and cooling system blow down in the event that wet or hybrid cooling technology is considered to be appropriate.

Water treatment and recovery options should be considered in addition to treatment and discharge.

Site condition

Site survey work undertaken should take into account current environmental permitting and likely future requirements under the Industrial Emissions Directive (IED) to undertake intrusive works to gather baseline contamination data as part of the environmental permitting process.

Flood Risk

(See also 'Water Management' section above)

The proposed development site is in Zone A, as indicated by the Welsh Government's Development Advice Maps. This Zone is considered to be at little or no risk of fluvial flooding. Where there is reason to believe that proposed developments in Zone A or B would be prone to flooding, or that such developments could have an impact on other people or their property, we would advise that a Flood Consequence Assessment (FCA) be undertaken.

Although our understanding is that the guidance set out in TAN15 would not require a detailed FCA to be undertaken for this proposed development, we do note the intention to provide one as part of the Environmental Statement (see section 5.6 of the EIA Scoping Report). We are pleased to note this as we consider it to be good practice as there will need to be an assessment of the surface water implications of this proposed development on the catchment, and consideration of flooding from other sources. The assessment will need to demonstrate that surface water discharges will not cause or exacerbate any flooding within this area of the catchment. We encourage investigation of improvements/enhancements where existing problems of flooding have been identified in the catchment.

We advise that a surface water assessment should consider the following:

- How the principles of Sustainable Drainage Systems (SuDS) have been applied to the development and identify what techniques will be used.
- Estimate the discharge rate for the site. Greenfield discharge rates should be sought on Greenfield sites, and also on Brownfield sites (where possible). Notwithstanding this, the local sewerage undertaker or drainage operating authority may specify a lower maximum discharge rate.

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- Estimate the volume of 1 in 100 year attenuation to be provided and what techniques will be used to provide the attenuation.
- Take into account TAN 15 climate change requirements.

Landscape and Visual Impact

The EIA should consider protected landscapes in the vicinity of the proposals. With respect to the Brecon Beacons National Park this should also consider the statutory purposes of the designation.

The landscape and visual impact assessment (LVIA) should utilise appropriate viewpoints to consider the impacts of the proposals on these protected landscapes, particularly given the potential for the proposals to be visible from a wide area.

5.8.3 Introduction - Power Generation Plant

Much of the Hirwaun Industrial Estate, although reasonably well assimilated by blocks and belts of maturing woodland, is highly visible in medium to long range views, as a direct consequence of the pale colours of the roof and wall cladding used on many of its larger buildings, including apparently recent developments. Therefore, it will be essential that the LVIA and CLVIA elements of the ES deal comprehensively with this very important aspect of the proposed development, including the potential visual impacts of reflective glazed and metallic surfaces and their potential to exacerbate visual intrusion in certain climatic conditions. This factor is especially important for chimney stacks and other tall structures. Potential effects of any proposed materials and finishes will need to be fully assessed.

5.8.4 to 5.8.6 Introduction - Gas and Electricity Connections

We note that it is not anticipated the connections would give rise to 'significant visual impacts', since they would be mostly placed underground, although the report states in 5.8.6 that there is an option to use an overhead connection for electricity. We would advise that there is the potential for significant landscape and visual effects arising during the construction stage of these works. In addition, there are potentially significant adverse cumulative landscape and visual effects in the operational stage of the project in the event of an overhead electricity connection being constructed. These would be likely to occur in combination with the existing and proposed high-voltage overhead lines infrastructure in the locality - especially the new grid connection and sub-station to be constructed to serve the consented Pen y Cymoedd wind farm.

5.8.8 Introduction - Electrical Connection

NRW welcomes the fact that 'a full visual impact assessment of this infrastructure will be carried out following guidelines set out in EN-1 and EN-5.'¹

¹ National Policy Statements

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5.8.10 Baseline - Power Generation Plant

In the scoping report it is noted that the Brecon Beacons National Park (BBNP) would be 'situated approximately 0.3km to the north of the proposed Power Generation Plant site at its closest point.' NRW agrees that the BBNP rural setting and protected landscape is a major landscape receptor and we would add that the potential impacts upon it are significant.

However, we disagree with the implication that the presence of the Pen y Cymoedd wind farm on the higher ground 5km beyond the industrial developments to the south has the effect of degrading the local baseline landscape condition. We would comment on two specific matters in this regard:

- The stated area of 46.8 km² of the Pen y Cymoedd wind farm is not seen in full from this location - there will be turbines visible above a proportion of the ridge forming the southern horizon, but this is only a small proportion of the total area of the wind farm, so the scale argument is misleading.
- Views from the high ground on the ridge - including the promoted viewpoint car park above Craig y Llyn on the A4061 Treherbert to Rhigos mountain road have the turbines behind and therefore not in the view; so the cumulative landscape and visual effects of the proposed Power Generation Plant and associated electricity grid connection infrastructure are potentially significant in views northwards towards the BBNP, which forms the northern horizon and the land backdrop to the Hirwaun Industrial Estate.

To have regard for wider enjoyment of the countryside the LVIA and CLVIA documents will need to address potential impacts upon views towards the BBNP from the higher ground to the south. This should consider, in particular promoted viewpoint areas easily accessible by the public with a wide range of levels of personal mobility in addition to Open Access Land as well as land within identified Special Landscape areas in the wider locality.

5.8.13 Baseline - Electricity Grid Connection

In the scoping report it is written that, in the event of an overhead line grid connection being implemented, 'the visual impact would be considerably greater, and it would be likely be visible from number of viewpoints'. We note that no supporting text is provided to either qualify or clarify this statement and no viewpoints are described. The viewpoints to be used in the LVIA and CLVIA should take account of this potential impact.

5.8.18 Assessment - Power Generation Plant

We would recommend that the stated 'desk review of all related documents and landscape planning policy and guidance' specifically includes reference to the following documents:

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- Managing Change Together: Brecon Beacons National Park Draft Management Plan 2009 – 2014; 2008, Brecon Beacons National Park Authority;
- Brecon Beacons National Park Authority Landscape Character Assessment - we understand that this document is currently in draft form and it is intended to become Supplementary Planning Guidance in due course, following appropriate consultations. We consider this to be important information in describing the baseline condition of nearby areas of the BBNP and identifying landscape and visual sensitivities to developments outwith but adjoining the National Park;
- Current LANDMAP data - with reference to all 5 constituent Aspect data sets, not just the Visual & Sensory Aspect. We consider that this is essential material for proper description of the landscape baseline condition in the wider landscape of the proposed study area.

5.8.19 Assessment – Power Generation Plant

Reference is made to use of the 'Guidelines for Landscape and Visual Impact Assessment 2nd Edition, 2002'. This Guidance was superseded by the Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3), with effect from April 2013. Recent information on the use of the Guidance has been issued by the Landscape Institute, to the effect that all assessments being undertaken from April 2013 should use GLVIA3.

We welcome the proposal to use, in addition to the above, the Countryside Council for Wales/Cadw (2007) Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process.

5.8.21 Assessment – Power Generation Plant

NRW welcomes the intention to produce a Zone of Theoretical Visibility (ZTV) Plan as part of the assessment. We would suggest that the minimum radius for the ZTV should be 7.5km from the edge of the proposed Power Generation Plant site. This plan should indicate the differences in theoretical visibility for a 30-metre and a 90-metre high chimney stack. We would also expect the assessment of the scheme to comment upon the potential for enhanced visual effects arising from vapour plumes issuing from stacks during particular atmospheric conditions.

5.8.24 to 5.8.27 Assessment – Power Generation Plant

NRW considers the list of viewpoints provided to be inadequate; viewpoints relevant to the remit of both NRW and the BBNPA will need to be agreed with each of the organisations prior to the commencement of the assessment work. We suggest that the starting point for these discussions should be the viewpoints used for the LVIA and CLVIA for the nearby 'Enviroparks' scheme.

With regard to photomontages, we consider that it is premature to suggest that 'up to six photomontages would be produced to illustrate the development from key views' would be adequate or reasonable

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without further dialogue with NRW and BBNPA. The precise number and location of the viewpoints from which photomontages will be produced should be agreed between the relevant parties.

Access and Recreation

The EIA should consider the implications of the proposals in terms of people's access to and enjoyment of public open space and the countryside. It should assess the likely effects of the proposals on the local Public Rights of Way network as well as open access land and public open space in the area.

If the proposals are likely to affect the local Public Rights of Way network or people's access to Open Access Land or public open space, the EIA should detail the measures that will be implemented to ensure that satisfactory alternatives are provided so that, overall the general public's accessibility to public open space and the countryside is maintained and enhanced.

I hope these comments are of assistance. Please do not hesitate to contact us if you have any queries or require any further information.

Yours Sincerely,



**Nick Sharp
Conservation Officer
Vale and Valleys**

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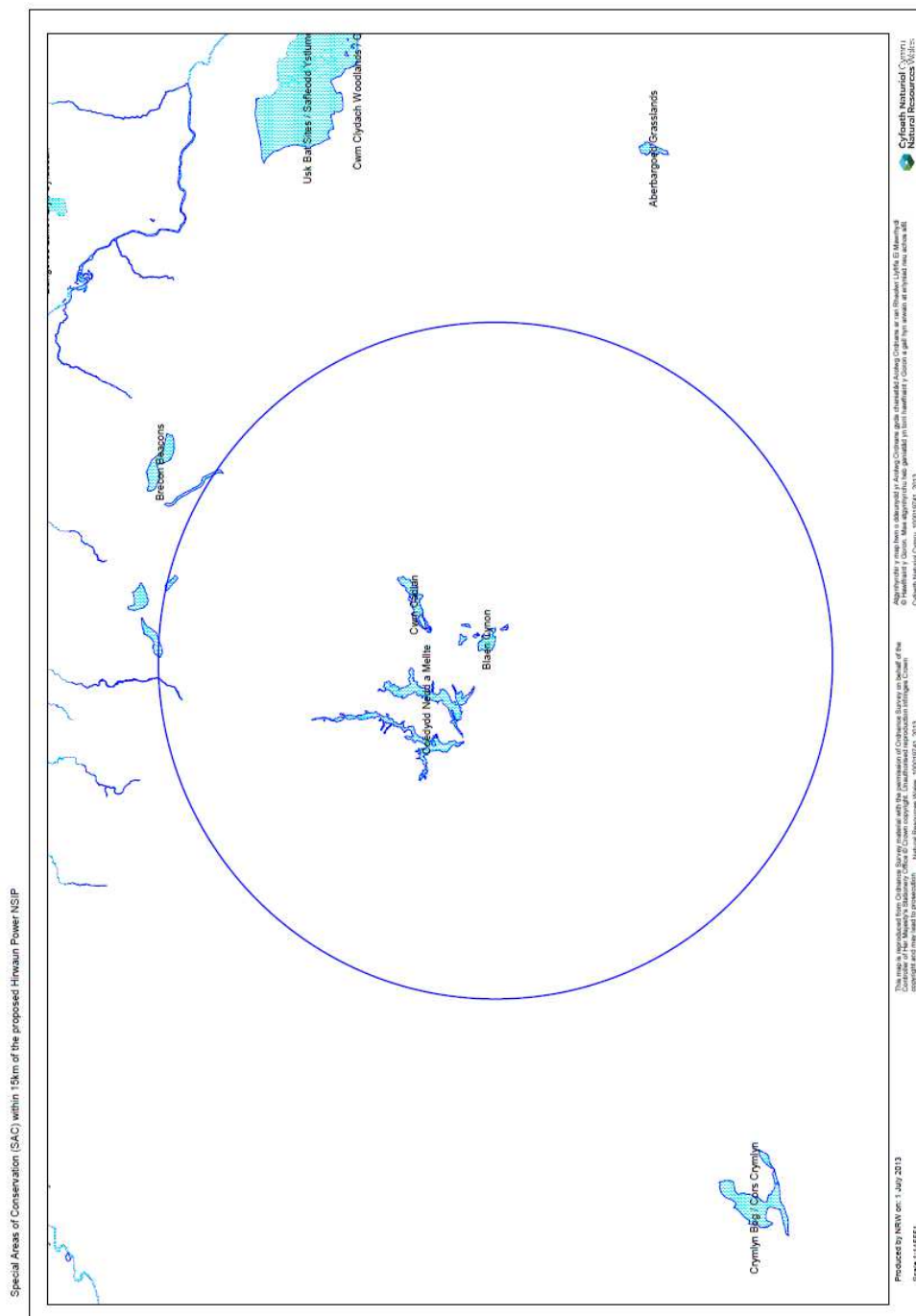
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Appendix 1



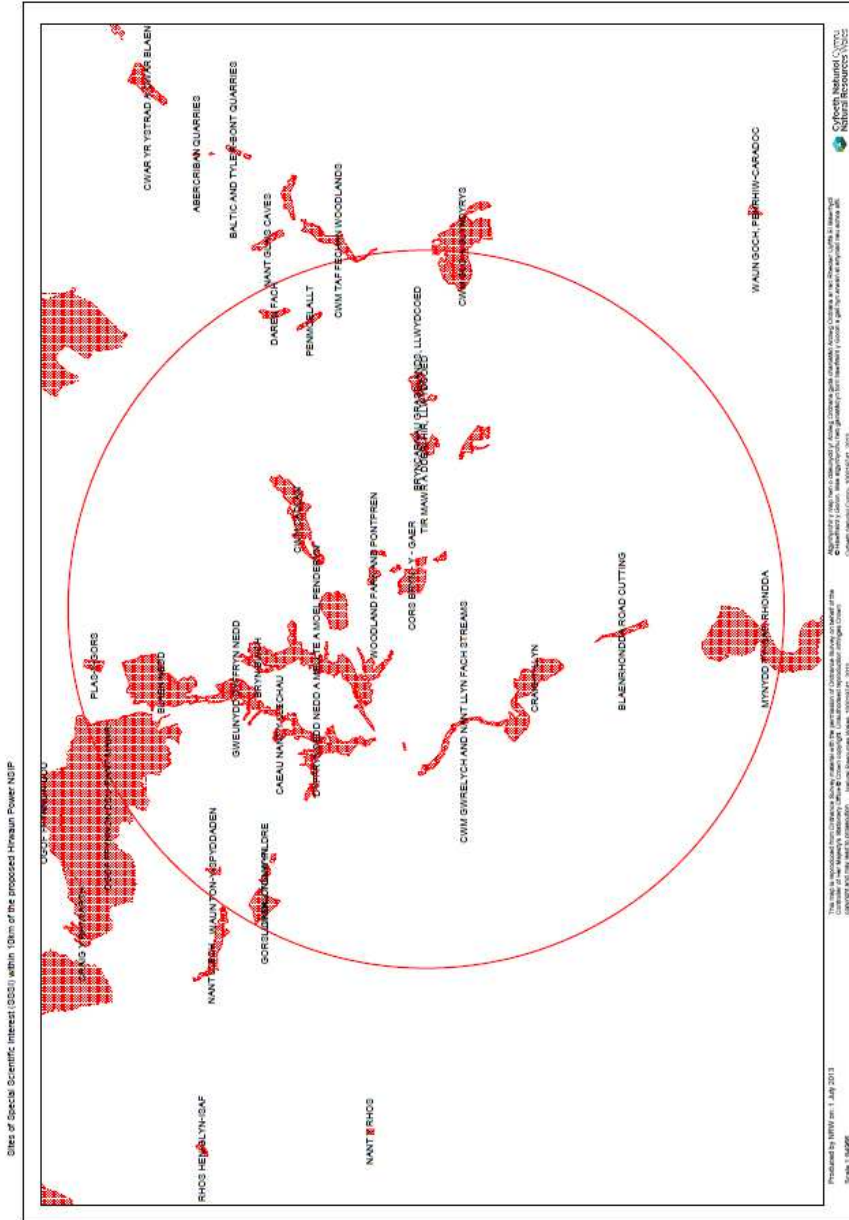
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From: [Morgan Barbara](#)
To: [Environmental Services:](#)
Subject: FW: 130603-EN010059-1748484
Date: 01 July 2013 11:41:07



Network Rail
3rd Floor
Bristol Temple Point
Bristol
BS1 6NL

Ask for : Barbara Morgan
Tel : 0117 3721118

My Ref : P/TP13/0202/BM
Your Ref : 130603-EN010059-1748484

Date : 1st July 2013

Dear Jill Warren

**INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT)
REGULATIONS 2009 SI 2263 (as amended) (the EIA Regulations)
PROPOSED Hirwaun Power Station (the project)
PROPOSAL BY Hirwaun Power Limited (the applicant)**

I refer to the Environmental Impact Assessment received by Network Rail with regard to the above proposal.

Network Rail has a statutory obligation of ensure the availability of safe train paths and as such we are required to take an active interest in any development adjacent to our infrastructure that potentially could affect the safe operation of the railway.

On specific matters, clearly our interest is to protect the physical railway infrastructure and we need to be satisfied there will be no adverse safety issues arising as a result of the development to rail users.

The only area affecting Network Rail's infrastructure is the Gas Route 4 Corridor. Any under track crossing required across Network Rail's land will be subject to an easement with the appropriate utility company and Network Rail's clearance process will apply which may not be conclusive.

Full technical requirements will be provided once an easement is in place and ground investigation reports have been provided.

Network Rail would need to be consulted on any planning application submitted as our primary concern is the safety of the operational railway.

Please feel free to get in contact if you have any questions.

Yours sincerely,



Barbara Morgan

Town Planning Technician (Western)

www.networkrail.co.uk/property

Please send all Notifications and Consultations to townplanningwestern@networkrail.co.uk or by post to Network Rail, Town Planning, 3rd Floor, Bristol Temple Point, Redcliffe Way, Bristol BS1 6NL



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The Planning Inspectorate
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Temple Quay House
2 The Square
Bristol
BS1 6PN

Your Ref: 130603_EN010059_1748484

Our Ref: EN FF GS 130606 236

5th June 2013

Dear Ms Warren,

**Re: Proposed Hirwaun Power Station
Request for Scoping Opinion**

Hirwaun Power Ltd has asked the Planning Inspectorate (PIN) for its opinion ("scoping opinion") on the information to be provided in an Environmental Statement (ES) relating to a proposal for a Nationally Significant Infrastructure Project (NSIP) of a 299 MWe Natural Gas fuelled power station, electrical Connection and Gas pipeline at Hirwaun Industrial Estate, near Rhigos and Hirwaun, South East Wales. The request for a scoping assessment of the environmental opinion is a precursor to an intensive and detailed independent impact of the proposed development.

Public Health England (PHE) is a statutory consultee at the pre-application and application stages for NSIPs "which are likely to involve chemicals, poisons or radiation which could potentially cause harm to people."¹ For those NSIP applications subject to Environmental Impact Assessment (EIA), PHE is a consultation body under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009.

The PIN must therefore consult PHE on the information that PHE considers should be provided in the ES (or confirm that PHE has no comments) before the PIN adopts its scoping opinion.

PHE's enclosed response focuses on health protection issues relating to chemicals and radiation. The advice offered by PHE is impartial and independent.

The Appendix outlines generic considerations that PHE advises are addressed by all promoters when they are preparing ESs for NSIPs. In terms of the level of detail to be included in ESs, PHE recognises that the differing nature of projects is such that their impacts will vary. PHE's view is that the assessments undertaken to inform the

¹ Cited in the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

ES should be proportionate to the potential impacts of the proposal. Where a promoter determines that it is not necessary to undertake detailed assessment(s) (e.g. undertakes qualitative rather than quantitative assessments), if the rationale for this is fully explained and justified within the application documents, then PHE considers this to be an acceptable approach.

Specific Comments Relating to submitted Documentation

The Welsh Government regards the inclusion of a Health Impact Assessment (HIA) within the scoping and environmental assessments as a best practice requirement. The applicant is therefore advised that any subsequent application for a Development Consent Order must include a detailed HIA as part of the supporting documentation.

It is noted that section 5.14 of the Environmental Impact Assessment Scoping Report (Cumulative Assessment) outlines the intention to take into account the potential cumulative impact the plant will have on local air quality and sensitive receptors. The applicant is advised that any other sources of local air pollution (existing or planned) should be included in the assessment and in any air dispersion modelling undertaken as part of the application process.

Yours sincerely

A black rectangular redaction box covers the signature of Allister Gittins. A thin dotted line extends from the top right corner of the box towards the right margin of the page.

Allister Gittins

Environmental Public Health Scientist

nsipconsultations@phe.gov.uk

Please mark any correspondence for the attention of National Infrastructure Planning Administration.

Appendix: PHE recommendations regarding the scoping document

General approach

The EIA should give consideration to best practice guidance such as the Government's Good Practice Guide for EIA². It is important that the EIA identifies and assesses the potential public health impacts of the activities at, and emissions from, the installation. Assessment should consider the development, operational, and decommissioning phases.

The EIA Directive³ requires that ESs include a description of the aspects of the environment likely to be significantly affected by the development, including "population". The EIA should provide sufficient information for PHE to fully assess the potential impact of the development on public health. **PHE will only consider information contained or referenced in a separate section of the ES summarising the impact of the proposed development on public health:** summarising risk assessments, proposed mitigation measures, and residual impacts. This section should summarise key information and conclusions relating to human health impacts contained in other sections of the application (e.g. in the separate sections dealing with: air quality, emissions to water, waste, contaminated land etc.) without undue duplication. Compliance with the requirements of National Policy Statements and relevant guidance and standards should be highlighted.

It is not PHE's role to undertake these assessments on behalf of promoters as this would conflict with PHE's role as an impartial and independent body.

Consideration of alternatives (including alternative sites, choice of process, and the phasing of construction) is widely regarded as good practice. Ideally, EIA should start at the stage of site and process selection, so that the environmental merits of practicable alternatives can be properly considered. Where this is undertaken, the main alternatives considered should be outlined in the ES⁴.

The following text covers a range of issues that PHE would expect to be addressed by the promoter. However this list is not exhaustive and the onus is on the promoter to ensure that the relevant public health issues are identified and addressed. PHE's advice and recommendations carry no statutory weight and constitute non-binding guidance.

Receptors

The ES should clearly identify the development's location and the location and distance from the development of off-site human receptors that may be affected by emissions from, or activities at, the development. Off-site human receptors may include people living in residential premises; people working in commercial, and

² Environmental Impact Assessment: A guide to good practice and procedures - A consultation paper; 2006; Department for Communities and Local Government. Available from:

<http://www.communities.gov.uk/archived/publications/planningandbuilding/environmentalimpactassessment>

³ Directive 85/337/EEC (as amended) on the assessment of the effects of certain public and private projects on the environment. Available from: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1985L0337:20090625:EN:PDF>

⁴ DCLG guidance, 1999 <http://www.communities.gov.uk/documents/planningandbuilding/pdf/155958.pdf>

industrial premises and people using transport infrastructure (such as roads and railways), recreational areas, and publicly-accessible land. Consideration should also be given to environmental receptors such as the surrounding land, watercourses, surface and groundwater, and drinking water supplies such as wells, boreholes and water abstraction points.

Impacts arising from construction and decommissioning

Any assessment of impacts arising from emissions due to construction and decommissioning should consider potential impacts on all receptors and describe monitoring and mitigation during these phases. Construction and decommissioning will be associated with vehicle movements and cumulative impacts should be accounted for.

We would expect the promoter to follow best practice guidance during all phases from construction to decommissioning to ensure appropriate measures are in place to mitigate any potential impact on health from emissions (point source, fugitive and traffic-related). An effective Construction Environmental Management Plan (CEMP) (and Decommissioning Environmental Management Plan (DEMP)) will help provide reassurance that activities are well managed. The promoter should ensure that there are robust mechanisms in place to respond to any complaints of traffic-related pollution, during construction, operation, and decommissioning of the facility.

Emissions to air and water

Significant impacts are unlikely to arise from installations which employ Best Available Techniques (BAT) and which meet regulatory requirements concerning emission limits and design parameters. However, PHE has a number of comments regarding emissions in order that the EIA provides a comprehensive assessment of potential impacts.

When considering a baseline (of existing environmental quality) and in the assessment and future monitoring of impacts these:

- should include appropriate screening assessments and detailed dispersion modelling where this is screened as necessary
- should encompass all pollutants which may be emitted by the installation in combination with all pollutants arising from associated development and transport, ideally these should be considered in a single holistic assessment
- should consider the construction, operational, and decommissioning phases
- should consider the typical operational emissions and emissions from start-up, shut-down, abnormal operation and accidents when assessing potential impacts and include an assessment of worst-case impacts
- should fully account for fugitive emissions

- should include appropriate estimates of background levels
- should identify cumulative and incremental impacts (i.e. assess cumulative impacts from multiple sources), including those arising from associated development, other existing and proposed development in the local area, and new vehicle movements associated with the proposed development; associated transport emissions should include consideration of non-road impacts (i.e. rail, sea, and air)
- should include consideration of local authority, Environment Agency, Defra national network, and any other local site-specific sources of monitoring data
- should compare predicted environmental concentrations to the applicable standard or guideline value for the affected medium (such as UK Air Quality Standards and Objectives and Environmental Assessment Levels)
 - If no standard or guideline value exists, the predicted exposure to humans should be estimated and compared to an appropriate health-based value (a Tolerable Daily Intake or equivalent). Further guidance is provided in Annex 1
 - This should consider all applicable routes of exposure e.g. include consideration of aspects such as the deposition of chemicals emitted to air and their uptake via ingestion
- should identify and consider impacts on residential areas and sensitive receptors (such as schools, nursing homes and healthcare facilities) in the area(s) which may be affected by emissions, this should include consideration of any new receptors arising from future development

Whilst screening of impacts using qualitative methodologies is common practice (e.g. for impacts arising from fugitive emissions such as dust), where it is possible to undertake a quantitative assessment of impacts then this should be undertaken.

PHE's view is that the EIA should appraise and describe the measures that will be used to control both point source and fugitive emissions and demonstrate that standards, guideline values or health-based values will not be exceeded due to emissions from the installation, as described above. This should include consideration of any emitted pollutants for which there are no set emission limits. When assessing the potential impact of a proposed installation on environmental quality, predicted environmental concentrations should be compared to the permitted concentrations in the affected media; this should include both standards for short and long-term exposure.

Additional points specific to emissions to air

When considering a baseline (of existing air quality) and in the assessment and future monitoring of impacts these:

- should include consideration of impacts on existing areas of poor air quality e.g. existing or proposed local authority Air Quality Management Areas (AQMAs)
- should include modelling using appropriate meteorological data (i.e. come from the nearest suitable meteorological station and include a range of years and worst case conditions)
- should include modelling taking into account local topography

Additional points specific to emissions to water

When considering a baseline (of existing water quality) and in the assessment and future monitoring of impacts these:

- should include assessment of potential impacts on human health and not focus solely on ecological impacts
- should identify and consider all routes by which emissions may lead to population exposure (e.g. surface watercourses; recreational waters; sewers; geological routes etc.)
- should assess the potential off-site effects of emissions to groundwater (e.g. on aquifers used for drinking water) and surface water (used for drinking water abstraction) in terms of the potential for population exposure
- should include consideration of potential impacts on recreational users (e.g. from fishing, canoeing etc) alongside assessment of potential exposure via drinking water

Land quality

We would expect the promoter to provide details of any hazardous contamination present on site (including ground gas) as part of the site condition report.

Emissions to and from the ground should be considered in terms of the previous history of the site and the potential of the site, once operational, to give rise to issues. Public health impacts associated with ground contamination and/or the migration of material off-site should be assessed⁵ and the potential impact on nearby receptors and control and mitigation measures should be outlined.

Relevant areas outlined in the Government's Good Practice Guide for EIA include:

- effects associated with ground contamination that may already exist

⁵ Following the approach outlined in the section above dealing with emissions to air and water i.e. comparing predicted environmental concentrations to the applicable standard or guideline value for the affected medium (such as Soil Guideline Values)

- effects associated with the potential for polluting substances that are used (during construction / operation) to cause new ground contamination issues on a site, for example introducing / changing the source of contamination
- impacts associated with re-use of soils and waste soils, for example, re-use of site-sourced materials on-site or offsite, disposal of site-sourced materials offsite, importation of materials to the site, etc.

Waste

The EIA should demonstrate compliance with the waste hierarchy (e.g. with respect to re-use, recycling or recovery and disposal).

For wastes arising from the installation the EIA should consider:

- the implications and wider environmental and public health impacts of different waste disposal options
- disposal route(s) and transport method(s) and how potential impacts on public health will be mitigated

Other aspects

Within the EIA PHE would expect to see information about how the promoter would respond to accidents with potential off-site emissions e.g. flooding or fires, spills, leaks or releases off-site. Assessment of accidents should: identify all potential hazards in relation to construction, operation and decommissioning; include an assessment of the risks posed; and identify risk management measures and contingency actions that will be employed in the event of an accident in order to mitigate off-site effects.

The EIA should include consideration of the COMAH Regulations (Control of Major Accident Hazards) and the Major Accident Off-Site Emergency Plan (Management of Waste from Extractive Industries) (England and Wales) Regulations 2009: both in terms of their applicability to the installation itself, and the installation's potential to impact on, or be impacted by, any nearby installations themselves subject to the these Regulations.

There is evidence that, in some cases, perception of risk may have a greater impact on health than the hazard itself. A 2009 report⁶, jointly published by Liverpool John Moores University and PHE, examined health risk perception and environmental problems using a number of case studies. As a point to consider, the report suggested: "Estimation of community anxiety and stress should be included as part of every risk or impact assessment of proposed plans that involve a potential environmental hazard. This is true even when the physical health risks may be negligible." PHE supports the inclusion of this information within EIAs as good practice.

⁶ Available from: <http://www.cph.org.uk/showPublication.aspx?pubid=538>

Electric and magnetic fields (EMF)

There is a potential health impact associated with the electric and magnetic fields around substations and the connecting cables or lines. The following information provides a framework for considering the potential health impact.

In March 2004, the National Radiological Protection Board, NRPB (now part of PHE), published advice on limiting public exposure to electromagnetic fields. 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):-

<http://www.hpa.org.uk/Publications/Radiation/NPRBArchive/DocumentsOfTheNRPB/Absd1502/>

The ICNIRP guidelines are based on the avoidance of known adverse effects of exposure to electromagnetic fields (EMF) at frequencies up to 300 GHz (gigahertz), which includes static magnetic fields and 50 Hz electric and magnetic fields associated with electricity transmission.

PHE notes the current Government policy is that the ICNIRP guidelines are implemented in line with the terms of the EU Council Recommendation on limiting exposure of the general public (1999/519/EC):

http://www.dh.gov.uk/en/PublicHealth/Healthprotection/DH_4089500

For static magnetic fields, the latest ICNIRP guidelines (2009) recommend that acute exposure of the general public should not exceed 400 mT (millitesla), for any part of the body, although the previously recommended value of 40 mT is the value used in the Council Recommendation. However, because of potential indirect adverse effects, ICNIRP recognises that practical policies need to be implemented to prevent inadvertent harmful exposure of people with implanted electronic medical devices and implants containing ferromagnetic materials, and injuries due to flying ferromagnetic objects, and these considerations can lead to much lower restrictions, such as 0.5 mT as advised by the International Electrotechnical Commission.

At 50 Hz, the known direct effects include those of induced currents in the body on the central nervous system (CNS) and indirect effects include the risk of painful spark discharge on contact with metal objects exposed to the field. The ICNIRP guidelines give reference levels for public exposure to 50 Hz electric and magnetic fields, and these are respectively 5 kV m^{-1} (kilovolts per metre) and $100 \text{ } \mu\text{T}$ (microtesla). If people are not exposed to field strengths above these levels, direct effects on the CNS should be avoided and indirect effects such as the risk of painful spark discharge will be small. The reference levels are not in themselves limits but provide guidance for assessing compliance with the basic restrictions and reducing the risk of indirect effects. Further clarification on advice on exposure guidelines for 50 Hz electric and magnetic fields is provided in the following note on PHE website:

http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1195733805036

The Department of Energy and Climate Change has also published voluntary code of practices which set out key principles for complying with the ICNIRP guidelines for the industry.

http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/consents_planning/codes/codes.aspx

There is concern about the possible effects of long-term exposure to electromagnetic fields, including possible carcinogenic effects at levels much lower than those given in the ICNIRP guidelines. In the NRPB advice issued in 2004, it was concluded that the studies that suggest health effects, including those concerning childhood leukaemia, could not be used to derive quantitative guidance on restricting exposure. However, the results of these studies represented uncertainty in the underlying evidence base, and taken together with people's concerns, provided a basis for providing an additional recommendation for Government to consider the need for further precautionary measures, particularly with respect to the exposure of children to power frequency magnetic fields.

The Stakeholder Advisory Group on ELF EMFs (SAGE) was then set up to take this recommendation forward, explore the implications for a precautionary approach to extremely low frequency electric and magnetic fields (ELF EMFs), and to make practical recommendations to Government. In the First Interim Assessment of the Group, consideration was given to mitigation options such as the 'corridor option' near power lines, and optimal phasing to reduce electric and magnetic fields. A Second Interim Assessment addresses electricity distribution systems up to 66 kV. The SAGE reports can be found at the following link:

<http://sagedialogue.org.uk/> (go to "Document Index" and Scroll to SAGE/Formal reports with recommendations)

The Agency has given advice to Health Ministers on the First Interim Assessment of SAGE regarding precautionary approaches to ELF EMFs and specifically regarding power lines and property, wiring and electrical equipment in homes:

http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1204276682532?p=1207897920036

The evidence to date suggests 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 levels. The scientific evidence, as reviewed by PHE, supports the view that precautionary measures should address solely the possible association with childhood leukaemia and not other more speculative health effects. The measures should be proportionate in that overall benefits outweigh the fiscal and social costs, have a convincing evidence base to show that they will be successful in reducing exposure, and be effective in providing reassurance to the public.

The Government response to the SAGE report is given in the written Ministerial Statement by Gillian Merron, then Minister of State, Department of Health, published on 16th October 2009:

<http://www.publications.parliament.uk/pa/cm200809/cmhansrd/cm091016/wmstext/91016m0001.htm>

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_107124

PHE and Government responses to the Second Interim Assessment of SAGE are available at the following links:

http://www.hpa.org.uk/Publications/Radiation/HPAResponseStatementsOnRadiationTopics/rpdadvice_sage2

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_130703

The above information provides a framework for considering the health impact associated with the proposed development, including the direct and indirect effects of the electric and magnetic fields as indicated above.

Liaison with other stakeholders, comments should be sought from:

- the local authority for matters relating to noise, odour, vermin and dust nuisance
- the local authority regarding any site investigation and subsequent construction (and remediation) proposals to ensure that the site could not be determined as 'contaminated land' under Part 2A of the Environmental Protection Act
- the local authority regarding any impacts on existing or proposed Air Quality Management Areas
- the Food Standards Agency for matters relating to the impact on human health of pollutants deposited on land used for growing food/ crops
- the Environment Agency for matters relating to flood risk and releases with the potential to impact on surface and groundwaters
- the Environment Agency for matters relating to waste characterisation and acceptance
- The Local Authority Director of Public Health at Suffolk County Council for matters relating to wider public health.

Environmental Permitting

Amongst other permits and consents, the development will require an environmental permit from the Environment Agency to operate (under the Environmental Permitting (England and Wales) Regulations 2010). Therefore the installation will need to comply with the requirements of best available techniques (BAT). PHE is a consultee for bespoke environmental permit applications and will respond separately to any such consultation.

Annex 1

Human health risk assessment (chemical pollutants)

The points below are cross-cutting and should be considered when undertaking a human health risk assessment:

- The promoter should consider including Chemical Abstract Service (CAS) numbers alongside chemical names, where referenced in the ES
- Where available, the most recent United Kingdom standards for the appropriate media (e.g. air, water, and/or soil) and health-based guideline values should be used when quantifying the risk to human health from chemical pollutants. Where UK standards or guideline values are not available, those recommended by the European Union or World Health Organisation can be used
- When assessing the human health risk of a chemical emitted from a facility or operation, the background exposure to the chemical from other sources should be taken into account
- When quantitatively assessing the health risk of genotoxic and carcinogenic chemical pollutants PHE does not favour the use of mathematical models to extrapolate from high dose levels used in animal carcinogenicity studies to well below the observed region of a dose-response relationship. When only animal data are available, we recommend that the 'Margin of Exposure' (MOE) approach⁷ is used

⁷ Benford D et al. 2010. Application of the margin of exposure approach to substances in food that are genotoxic and carcinogenic. Food Chem Toxicol 48 Suppl 1: S2-24



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Our Ref: DF/16C-15050 BR13
Your Ref: 130603-EN010059-174884

Date: 12 June 2013

Contact: Watch Manager Don Freeman
Tel: 07747693345

E-mail: firesafety@southwales-fire.gov.uk

Dear Sir/Madam

**TOWN AND COUNTRY PLANNING ACT 1990
PROPOSAL: HIRWAUN POWER STATION
LOCATION: HIRWAUN POWER LIMITED**

I acknowledge receipt of the notification to the South Wales Fire and Rescue Authority in relation to the above application.

The proposed site plan in relation to the above has been examined and the Fire and Rescue Authority wish the following comments to be brought to the attention of the committee/applicant. It is important that these matters are dealt with in the early stages of any proposed development.

The developer should consider the need for the provision of:-

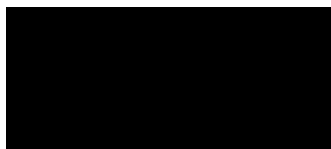
- a. adequate water supplies on the site for firefighting purposes; and
- b. access for emergency firefighting appliances.

Should the applicant require further information in relation to these matters they should contact the above named fire safety officer.

Yours faithfully,

Duly signed and authorised by

Signed



D Freeman

for Chief Fire Officer

Appendix

1.0 Access For Fire Appliances

Typical vehicle access route requirements:

Appliance Type	Min Width Road	Min Width Gate	Min Turning Circle between Kerb
Pump	3.7m	3.1m	16.8m
Aerial Appliance	3.7m	3.1m	26.9m
Min Turning between Wall	Min Height Clearance	Min Capacity Tonnes	
19.2	3.7m	12.5	
29.0	4.0m	23	

Pedestrian Priority

Pedestrian schemes must take into account the need for permanent and unobstructed access for firefighting appliances. The siting of ornamental structures such as flower beds, must take account, not only of the access requirements of the fire appliances but the need to be able to site them in strategic positions; in particular, account must be taken of the working space requirements for aerial appliances. Consultation must take place with the Fire Authority during the earliest planning stages of any development to ensure adequate access for fire appliances, their siting and use.

2.0 Water Supplies for Firefighting

The existing output of the statutory water supply network may need to be upgraded in certain parts of the local plan area to cater for firefighting needs of new developments. It is recommended that this provision be a condition of planning consent.

Access to Open Water Supplies

Where development of water front sites takes place, the need for permanent and unobstructed access for firefighting appliances to the water should be made a condition of any planning consent.

Consultation must take place with the Fire Authority during the earliest planning stages of any development to ensure access for fire pumping appliances is satisfactory.

2.1 Housing

Minimum main size 100mm. Housing developments with units of detached or semi-detached houses of not more than two floors should have a water supply

capable of delivering a minimum of eight litres per second through any hydrant on the development.

Housing developments with units of more than two floors should have a water supply capable of delivering a minimum of 20 to 35 litres per second through any hydrant on the development.

2.2 **Transportation**

Lorry/Coach Parks - Multi-Storey Car Parks-Service Stations

Minimum main size 100mm. All of these amenities should have a water supply capable of delivering a minimum of 25 litres per second through any hydrant on the development or within a vehicular distance of 90 metres from the complex.

2.3 **Industry**

In order that an adequate supply of water is available for use by the Fire Authority in case of fire, it is recommended that the water supply infrastructure to any Industrial estate is as follows:

Light Industrial

Minimum Main Size 100mm
Up to one hectare, 20 litres per second

Commercial/Industrial

Up to two hectares, 35 litres per second - Minimum Main Size 150mm

High Risk Industrial

Two to three hectares 50 litres per second - Minimum Main Size 150mm. Over three hectares, 75 litres per second.

In rural areas it may not be possible to provide sufficient mains water. To overcome this, static or river supplies would be considered on site at the above flow rates for at least one hour.

The Fire Authority should be consulted at the outline planning stage of any proposed projects to ascertain the exact requirements, as high risk units may require a greater flow.

2.4 Shopping, Health and Community Facilities

Village Halls

Should have a water supply capable of delivering a minimum of 15 litres per second through any hydrant on the development or within a vehicular distance of 100 metres from the complex.

Primary Schools and single storey Health Centres

Should have a water supply capable of delivering a minimum of 20 litres per second through any hydrant on the development or within a vehicular distance of 70 metres from the complex.

Secondary Schools, Colleges, Large Health and Community Facilities

Should have a water supply capable of delivering a minimum of 35 litres per second through any hydrant on the development or within a vehicular distance of 70 metres from the complex.

2.6 Distances Between Fire Hydrants

The distance between fire hydrants should not exceed the following:

Residential areas	-	200 metres
Industrial Estates (Subject to operational needs)	-	150 metres
Town centre areas	-	90 metres
Commercial (Offices & Shops)	-	100 metres
Residential Hotels	-	Adjacent to access
Hotels	-	Adjacent to access
Institutional (Hospitals & Old Persons Homes)	-	Adjacent to access
Old Persons Homes	-	Adjacent to access
Educational (Schools & Colleges)	-	Adjacent to access

2.7 Conclusion

Developers should hold joint discussion with Dwr Cymru - Welsh Water or the National Rivers Authority and the Fire Authority to ensure that adequate water supplies are available in case of fire. The Fire Authority reserve the right to ask for static water supplies for firefighting on site as a condition of planning consent, if the supply infrastructure is inadequate for any given risk.

APPENDIX 3

Presentation of the Environmental Statement

APPENDIX 3

PRESENTATION OF THE ENVIRONMENTAL STATEMENT

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (SI 2264) (as amended) sets out the information which must be provided for an application for a development consent order (DCO) for nationally significant infrastructure under the Planning Act 2008. Where required, this includes an environmental statement. Applicants may also provide any other documents considered necessary to support the application. Information which is not environmental information need not be replicated or included in the ES.

An environmental statement (ES) is described under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (SI 2263) (as amended) (the EIA Regulations) as a statement:

- a) 'that includes such of the information referred to in Part 1 of Schedule 4 as is reasonably required to assess the environmental effects of the development and of any associated development and which the applicant can, having regard in particular to current knowledge and methods of assessment, reasonably be required to compile; but
- b) that includes at least the information required in Part 2 of Schedule 4'.

(EIA Regulations Regulation 2)

The purpose of an ES is to ensure that the environmental effects of a proposed development are fully considered, together with the economic or social benefits of the development, before the development consent application under the Planning Act 2008 is determined. The ES should be an aid to decision making.

The SoS advises that the ES should be laid out clearly with a minimum amount of technical terms and should provide a clear objective and realistic description of the likely significant impacts of the proposed development. The information should be presented so as to be comprehensible to the specialist and non-specialist alike. The SoS recommends that the ES be concise with technical information placed in appendices.

ES Indicative Contents

The SoS emphasises that the ES should be a 'stand alone' document in line with best practice and case law. The EIA Regulations Schedule 4, Parts 1 and 2, set out the information for inclusion in environmental statements.

Schedule 4 Part 1 of the EIA Regulations states this information includes:

- '17. *Description of the development, including in particular—*

- (a) *a description of the physical characteristics of the whole development and the land-use requirements during the construction and operational phases;*
 - (b) *a description of the main characteristics of the production processes, for instance, nature and quantity of the materials used;*
 - (c) *an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc) resulting from the operation of the proposed development.*
18. *An outline of the main alternatives studied by the applicant and an indication of the main reasons for the applicant's choice, taking into account the environmental effects.*
19. *A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors.*
20. *A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from:*
- (a) *the existence of the development;*
 - (b) *the use of natural resources;*
 - (c) *the emission of pollutants, the creation of nuisances and the elimination of waste,*
- and the description by the applicant of the forecasting methods used to assess the effects on the environment.*
21. *A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.*
22. *A non-technical summary of the information provided under paragraphs 1 to 5 of this Part.*
23. *An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information'.*

EIA Regulations Schedule 4 Part 1

- 4.18 The content of the ES must include as a minimum those matters set out in Schedule 4 Part 2 of the EIA Regulations. This includes the consideration of 'the main alternatives studied by the applicant' which the SoS recommends could be addressed as a separate chapter in the ES. Part 2 is included below for reference:

4.19 Schedule 4 Part 2

- A description of the development comprising information on the site, design and size of the development
- A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects
- The data required to identify and assess the main effects which the development is likely to have on the environment
- An outline of the main alternatives studied by the applicant and an indication of the main reasons for the applicant's choice, taking into account the environmental effects, and
- A non-technical summary of the information provided [*under the four paragraphs above*].

Traffic and transport is not specified as a topic for assessment under Schedule 4; although in line with good practice the SoS considers it is an important consideration *per se*, as well as being the source of further impacts in terms of air quality and noise and vibration.

Balance

The SoS recommends that the ES should be balanced, with matters which give rise to a greater number or more significant impacts being given greater prominence. Where few or no impacts are identified, the technical section may be much shorter, with greater use of information in appendices as appropriate.

The SoS considers that the ES should not be a series of disparate reports and stresses the importance of considering inter-relationships between factors and cumulative impacts.

Scheme Proposals

The scheme parameters will need to be clearly defined in the draft DCO and therefore in the accompanying ES which should support the application as described. The SoS is not able to entertain material changes to a project once an application is submitted. The SoS draws the attention of the applicant to the DCLG and the Planning Inspectorate's published advice on the preparation of a draft DCO and accompanying application documents.

Flexibility

The SoS acknowledges that the EIA process is iterative, and therefore the proposals may change and evolve. For example, there may be changes to the scheme design in response to consultation. Such changes should be addressed in the ES. However, at the time of the application for a DCO, any proposed scheme parameters should not be so wide ranging as to represent effectively different schemes.

It is a matter for the applicant, in preparing an ES, to consider whether it is possible to assess robustly a range of impacts resulting from a large number of undecided parameters. The description of the proposed development in the ES must not be so wide that it is insufficiently certain to comply with requirements of paragraph 17 of Schedule 4 Part 1 of the EIA Regulations.

The Rochdale Envelope principle (see *R v Rochdale MBC ex parte Tew (1999)* and *R v Rochdale MBC ex parte Milne (2000)*) is an accepted way of dealing with uncertainty in preparing development applications. The applicant's attention is drawn to the Planning Inspectorate's Advice Note 9 'Rochdale Envelope' which is available on the Advice Note's page of the National Infrastructure Planning website.

The applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the scheme have yet to be finalised and provide the reasons. Where some flexibility is sought and the precise details are not known, the applicant should assess the maximum potential adverse impacts the project could have to ensure that the project as it may be constructed has been properly assessed.

The ES should be able to confirm that any changes to the development within any proposed parameters would not result in significant impacts not previously identified and assessed. The maximum and other dimensions of the proposed development should be clearly described in the ES, with appropriate justification. It will also be important to consider choice of materials, colour and the form of the structures and of any buildings. Lighting proposals should also be described.

Scope

The SoS recommends that the physical scope of the study areas should be identified under all the environmental topics and should be sufficiently robust in order to undertake the assessment. The extent of the study areas should be on the basis of recognised professional guidance, whenever such guidance is available. The study areas should also be agreed with the relevant consultees and local authorities and, where this is not possible, this should be stated clearly in the ES and a reasoned justification given. The scope should also cover the breadth of the topic area and the temporal scope, and these aspects should be described and justified.

Physical Scope

In general the SoS recommends that the physical scope for the EIA should be determined in the light of:

- the nature of the proposal being considered
- the relevance in terms of the specialist topic

- the breadth of the topic
- the physical extent of any surveys or the study area, and
- the potential significant impacts.

The SoS recommends that the physical scope of the study areas should be identified for each of the environmental topics and should be sufficiently robust in order to undertake the assessment. This should include at least the whole of the application site, and include all offsite works. For certain topics, such as landscape and transport, the study area will need to be wider. The extent of the study areas should be on the basis of recognised professional guidance and best practice, whenever this is available, and determined by establishing the physical extent of the likely impacts. The study areas should also be agreed with the relevant consultees and, where this is not possible, this should be stated clearly in the ES and a reasoned justification given.

Breadth of the Topic Area

The ES should explain the range of matters to be considered under each topic and this may respond partly to the type of project being considered. If the range considered is drawn narrowly then a justification for the approach should be provided.

Temporal Scope

The assessment should consider:

- environmental impacts during construction works
- environmental impacts on completion/operation of the development
- where appropriate, environmental impacts a suitable number of years after completion of the development (for example, in order to allow for traffic growth or maturing of any landscape proposals), and
- environmental impacts during decommissioning.

In terms of decommissioning, the SoS acknowledges that the further into the future any assessment is made, the less reliance may be placed on the outcome. However, the purpose of such a long term assessment, as well as to enable the decommissioning of the works to be taken into account, is to encourage early consideration as to how structures can be taken down. The purpose of this is to seek to minimise disruption, to re-use materials and to restore the site or put it to a suitable new use. The SoS encourages consideration of such matters in the ES.

The SoS recommends that these matters should be set out clearly in the ES and that the suitable time period for the assessment should be agreed with the relevant statutory consultees.

The SoS recommends that throughout the ES a standard terminology for time periods should be defined, such that for example, 'short term' always refers to the same period of time.

Baseline

The SoS recommends that the baseline should describe the position from which the impacts of the proposed development are measured. The baseline should be chosen carefully and, whenever possible, be consistent between topics. The identification of a single baseline is to be welcomed in terms of the approach to the assessment, although it is recognised that this may not always be possible.

The SoS recommends that the baseline environment should be clearly explained in the ES, including any dates of surveys, and care should be taken to ensure that all the baseline data remains relevant and up to date.

For each of the environmental topics, the data source(s) for the baseline should be set out together with any survey work undertaken with the dates. The timing and scope of all surveys should be agreed with the relevant statutory bodies and appropriate consultees, wherever possible.

The baseline situation and the proposed development should be described within the context of the site and any other proposals in the vicinity.

Identification of Impacts and Method Statement

Legislation and Guidelines

In terms of the EIA methodology, the SoS recommends that reference should be made to best practice and any standards, guidelines and legislation that have been used to inform the assessment. This should include guidelines prepared by relevant professional bodies.

In terms of other regulatory regimes, the SoS recommends that relevant legislation and all permit and licences required should be listed in the ES where relevant to each topic. This information should also be submitted with the application in accordance with the APFP Regulations.

In terms of assessing the impacts, the ES should approach all relevant planning and environmental policy – local, regional and national (and where appropriate international) – in a consistent manner.

Assessment of Effects and Impact Significance

The EIA Regulations require the identification of the 'likely significant effects of the development on the environment' (Schedule 4 Part 1 paragraph 20).

As a matter of principle, the SoS applies the precautionary approach to follow the Court's² reasoning in judging 'significant effects'. In other words

² See Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw (Waddenzee Case No C 127/02/2004)

'likely to affect' will be taken as meaning that there is a probability or risk that the development will have an effect, and not that a development will definitely have an effect.

The SoS considers it is imperative for the ES to define the meaning of 'significant' in the context of each of the specialist topics and for significant impacts to be clearly identified. The SoS recommends that the criteria should be set out fully and that the ES should set out clearly the interpretation of 'significant' in terms of each of the EIA topics. Quantitative criteria should be used where available. The SoS considers that this should also apply to the consideration of cumulative impacts and impact inter-relationships.

The SoS recognises that the way in which each element of the environment may be affected by the proposed development can be approached in a number of ways. However it considers that it would be helpful, in terms of ease of understanding and in terms of clarity of presentation, to consider the impact assessment in a similar manner for each of the specialist topic areas. The SoS recommends that a common format should be applied where possible.

Inter-relationships between environmental factors

The inter-relationship between aspects of the environments likely to be significantly affected is a requirement of the EIA Regulations (see Schedule 4 Part 1 of the EIA Regulations). These occur where a number of separate impacts, e.g. noise and air quality, affect a single receptor such as fauna.

The SoS considers that the inter-relationships between factors must be assessed in order to address the environmental impacts of the proposal as a whole. This will help to ensure that the ES is not a series of separate reports collated into one document, but rather a comprehensive assessment drawing together the environmental impacts of the proposed development. This is particularly important when considering impacts in terms of any permutations or parameters to the proposed development.

Cumulative Impacts

The potential cumulative impacts with other major developments will need to be identified, as required by the Directive. The significance of such impacts should be shown to have been assessed against the baseline position (which would include built and operational development). In assessing cumulative impacts, other major development should be identified through consultation with the local planning authorities and other relevant authorities on the basis of those that are:

- under construction
- permitted application(s), but not yet implemented
- submitted application(s) not yet determined
- projects on the National Infrastructure's programme of projects

- identified in the relevant development plan (and emerging development plans - with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals will be limited, and
- identified in other plans and programmes (as appropriate) which set the framework for future development consents/approvals, where such development is reasonably likely to come forward.

Details should be provided in the ES, including the types of development, location and key aspects that may affect the EIA and how these have been taken into account as part of the assessment.

The SoS recommends that offshore wind farms should also take account of any offshore licensed and consented activities in the area, for the purposes of assessing cumulative effects, through consultation with the relevant licensing/consenting bodies.

For the purposes of identifying any cumulative effects with other developments in the area, applicants should also consult consenting bodies in other EU states to assist in identifying those developments (see commentary on Transboundary Effects below).

Related Development

The ES should give equal prominence to any development which is related with the proposed development to ensure that all the impacts of the proposal are assessed.

The SoS recommends that the applicant should distinguish between development for which development consent will be sought and any other development. This distinction should be clear in the ES.

Alternatives

The ES must set out an outline of the main alternatives studied by the applicant and provide an indication of the main reasons for the applicant's choice, taking account of the environmental effect (Schedule 4 Part 1 paragraph 18).

Matters should be included, such as *inter alia* alternative design options and alternative mitigation measures. The justification for the final choice and evolution of the scheme development should be made clear. Where other sites have been considered, the reasons for the final choice should be addressed.

The SoS advises that the ES should give sufficient attention to the alternative forms and locations for the off-site proposals, where appropriate, and justify the needs and choices made in terms of the form of the development proposed and the sites chosen.

Mitigation Measures

Mitigation measures may fall into certain categories namely: avoid; reduce; compensate or enhance (see Schedule 4 Part 1 paragraph 21); and should be identified as such in the specialist topics. Mitigation measures should not be developed in isolation as they may relate to more than one topic area. For each topic, the ES should set out any mitigation measures required to prevent, reduce and where possible offset any significant adverse effects, and to identify any residual effects with mitigation in place. Any proposed mitigation should be discussed and agreed with the relevant consultees.

The effectiveness of mitigation should be apparent. Only mitigation measures which are a firm commitment and can be shown to be deliverable should be taken into account as part of the assessment.

It would be helpful if the mitigation measures proposed could be cross referred to specific provisions and/or requirements proposed within the draft development consent order. This could be achieved by means of describing the mitigation measures proposed either in each of the specialist reports or collating these within a summary section on mitigation.

The SoS advises that it is considered best practice to outline in the ES, the structure of the environmental management and monitoring plan and safety procedures which will be adopted during construction and operation and may be adopted during decommissioning.

Cross References and Interactions

The SoS recommends that all the specialist topics in the ES should cross reference their text to other relevant disciplines. Interactions between the specialist topics is essential to the production of a robust assessment, as the ES should not be a collection of separate specialist topics, but a comprehensive assessment of the environmental impacts of the proposal and how these impacts can be mitigated.

As set out in EIA Regulations Schedule 4 Part 1 paragraph 23, the ES should include an indication of any technical difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.

Consultation

The SoS recommends that any changes to the scheme design in response to consultation should be addressed in the ES.

It is recommended that the applicant provides preliminary environmental information (PEI) (this term is defined in the EIA Regulations under regulation 2 'Interpretation') to the local authorities.

Consultation with the local community should be carried out in accordance with the SoCC which will state how the applicant intends to consult on the

preliminary environmental information (PEI). This PEI could include results of detailed surveys and recommended mitigation actions. Where effective consultation is carried out in accordance with Section 47 of the Planning Act, this could usefully assist the applicant in the EIA process – for example the local community may be able to identify possible mitigation measures to address the impacts identified in the PEI. Attention is drawn to the duty upon applicants under Section 50 of the Planning Act to have regard to the guidance on pre-application consultation.

Transboundary Effects

The SoS recommends that consideration should be given in the ES to any likely significant effects on the environment of another Member State of the European Economic Area. In particular, the SoS recommends consideration should be given to discharges to the air and water and to potential impacts on migratory species and to impacts on shipping and fishing areas.

The Applicant's attention is also drawn to the Planning Inspectorate's Advice Note 12 'Development with significant transboundary impacts consultation' which is available on the Advice Notes Page of the National Infrastructure Planning website

Summary Tables

The SoS recommends that in order to assist the decision making process, the applicant may wish to consider the use of tables:

Table X to identify and collate the residual impacts after mitigation on the basis of specialist topics, inter-relationships and cumulative impacts.

Table XX to demonstrate how the assessment has taken account of this Opinion and other responses to consultation.

Table XXX to set out the mitigation measures proposed, as well as assisting the reader, the SoS considers that this would also enable the applicant to cross refer mitigation to specific provisions proposed to be included within the draft Development Consent Order.

Table XXXX to cross reference where details in the HRA (where one is provided) such as descriptions of sites and their locations, together with any mitigation or compensation measures, are to be found in the ES.

Terminology and Glossary of Technical Terms

The SoS recommends that a common terminology should be adopted. This will help to ensure consistency and ease of understanding for the decision making process. For example, 'the site' should be defined and used only in

terms of this definition so as to avoid confusion with, for example, the wider site area or the surrounding site.

A glossary of technical terms should be included in the ES.

Presentation

The ES should have all of its paragraphs numbered, as this makes referencing easier as well as accurate.

Appendices must be clearly referenced, again with all paragraphs numbered.

All figures and drawings, photographs and photomontages should be clearly referenced. Figures should clearly show the proposed site application boundary.

Bibliography

A bibliography should be included in the ES. The author, date and publication title should be included for all references. All publications referred to within the technical reports should be included.

Non Technical Summary

The EIA Regulations require a Non Technical Summary (EIA Regulations Schedule 4 Part 1 paragraph 22). This should be a summary of the assessment in simple language. It should be supported by appropriate figures, photographs and photomontages.