



## Wylfa Newydd Project

6.5.1 ES Volume E - Off-Site Power Station  
Facilities: AECC, ESL and MEEG E1 -  
Proposed development

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# 1 Proposed development

## 1.1 Introduction

1.1.1 This chapter provides a description of the proposed Wylfa Newydd Off-Site Power Station Facilities; the Mobile Emergency Equipment Garage (MEEG), Alternative Emergency Control Centre (AECC) and the Environmental Survey Laboratory (ESL). The chapter provides a description of the proposed site for the Off-Site Power Station Facilities, the surrounding area and environmental context. The chapter also describes the three facilities and associated infrastructure, outlining the construction, operation and decommissioning phases, details of embedded mitigation and the approach to management of waste and materials.

## 1.2 Site location and environmental context

1.2.1 The positioning of the Off-Site Power Station Facilities must meet certain locational criteria, as outlined below:

- located at a point immediately adjacent to, and which provided straightforward access to, the main road network (A5025, A55, A5);
- located in an area upwind of the Power Station Site;
- located in a zone of low seismic activity; and
- located in a radius between 1.5km and 7.5km from the Power Station Site.

1.2.2 Further detail on the locational criteria and the site selection process is described in chapter E2 (alternatives and design evolution) (Application Reference Number: 6.5.2) of the Environmental Statement and the Site Selection Report – volume 4 - Off-Site Power Station Facilities (Application Reference Number: 8.24.3).

1.2.3 The proposed site for the facilities is at Llanfaethlu, on a former bus depot that is currently being used as a garage and for vehicle parking. This site is located to the east of the existing A5025, approximately 7.5km from the Wylfa Newydd Development Area. Figure E1-1 (Application Reference Number: 6.5.27) shows the site location and boundary.

1.2.4 The site is predominantly hardstanding and houses two existing commercial garages and a motor vehicle repair building. There is an existing single-storey house in the south-west area of the site. Vegetation and scattered planting is present on the northern boundary including an evergreen shelterbelt, while earth bunds and hedgerows are present along the eastern and southern boundaries.

1.2.5 The site is bound by the A5025 to the west, residential and storage buildings to the north, and farmland to the south and east. There are residential properties located to the north and south of the existing entrance, as well as some scattered properties outside of the site boundary, to the south and east of the site.

- 1.2.6 A new school, Llanfaethlu Primary School, has just been constructed approximately 120m to the south-west of the site on the opposite side of the A5025. This school opened in autumn 2017.
- 1.2.7 Figure E1-2 (Application Reference Number: 6.5.27) shows the environmental context of the area. The site sits within an area of undulating landform gently rising to the north-west, and is at a lower elevation than the surrounding area. The site lies approximately 15m to the east of the boundary of the Ynys Môn/Anglesey Area of Outstanding Natural Beauty on the opposite side of the A5025, and is located within the Anglesey Special Landscape Area.
- 1.2.8 The vegetation pattern within the site includes hedgerows with dense linear belts of planting on the southern and eastern boundaries. Surrounding the site there are areas of vegetation around local farmsteads and areas of marsh, scrub and rocky outcrops.
- 1.2.9 A small unnamed watercourse, which is a tributary of the Afon Llanrhyddlad, is located to the south-east of the site, running in a westerly direction towards Llanfaethlu village.
- 1.2.10 The site has a very low to negligible hazard rating for natural geological hazards, such as shrink-swelling, landslides, soluble rocks, compressible ground and collapsible rocks.

### **1.3 Proposals for the Off-Site Power Station Facilities**

- 1.3.1 The following facilities have been included in the layout and design of the Off-Site Power Station Facilities (see figure E1-4, Application Reference Number: 6.5.27):
- MEEG/AECC building;
  - ESL building;
  - car parking and pedestrian walkways;
  - access and delivery areas;
  - generator;
  - pump house;
  - fuel pump and fill point;
  - substation;
  - two underground fuel tanks;
  - refuse compound;
  - portable office pods;
  - container storage;
  - security fencing; and
  - drainage swale.
- 1.3.2 Further information on the main elements of the design is provided in the following sub-sections.

## **AECC**

- 1.3.3 The AECC would provide back-up command and communications facilities that would be used to remotely manage an incident at the Power Station in the extremely unlikely event the primary facilities on the Power Station Site were untenable or if there was no access to the Power Station Site.
- 1.3.4 During normal operation of the Power Station, it is expected that the AECC would be in use only once per year for an annual incident exercise. This would normally be carried out during working hours, however in some instances a full out-of-hours exercise may be required.
- 1.3.5 In the event of an incident the AECC would be operational 24 hours a day.
- 1.3.6 Should there be an incident, there could be more than 58 staff working at the MEEG/AECC building.
- 1.3.7 Training at the AECC would be required in addition to the annual incident exercise and would take place at regular intervals, involving a small number of staff using the main AECC area for a limited period of time.
- 1.3.8 Approximately once a month, maintenance would need to be carried out at the facility, which may include running a back-up generator for a short time.

## **MEEG**

- 1.3.9 The MEEG would enable Horizon to store a number of specialist vehicles at a location close to, but separate from, the Power Station Site, allowing them to be rapidly deployed if needed to support an incident. The MEEG could also be used as a marshalling point for support arriving on Anglesey before onward dispatch to the Power Station Site in an emergency situation.
- 1.3.10 The MEEG would have an operational workforce of up to four staff and 12 drivers during training (which would happen during normal working hours approximately once a year). During an incident, the staff would be working 24 hours per day, seven days per week. During periodic vehicle checks, typically once every six months, a similar number of staff would also be required on-site. The facility would not be staffed at other times.
- 1.3.11 The MEEG and the AECC would be co-located within one building at the centre of the site, with the AECC located at the northern end of the building.

## **ESL**

- 1.3.12 The ESL will be used for environmental monitoring and would contain radiation monitoring equipment to conduct radiological surveys in the local area.
- 1.3.13 The ESL would be used for routine sampling. There would be an operational workforce of three staff at the ESL on a regular basis working normal day time hours only. In an incident, the ESL would be operational 24 hours per day.
- 1.3.14 The ESL would be located in a separate building at the north-west of the site.

### ***Architectural design***

- 1.3.15 A restricted natural palette would be adopted for the buildings, helping to link them visually with, and be unimposing on, their surroundings.
- 1.3.16 The MEEG/AECC building would be two storeys high with profile sheet cladding and large vehicle access doors.
- 1.3.17 The ESL building would be single storey with profile sheet cladding.
- 1.3.18 The buildings would be screened as far as possible and they have been orientated on the site to reduce their effect on the surrounding areas as far as practicable within operational requirements.
- 1.3.19 Further information relating to design principles for the Off-Site Power Station Facilities is described in volume 3 of the Design and Access Statement (Application Reference Number: 8.2.3).

### ***Landscaping***

- 1.3.20 The landscape design (refer to figure E1-4, Application Reference Number: 6.5.27) is made up of landscape elements which help enhance the site within the local landscape character. Landscaping includes species-rich grassland, linear belts of shrubs and trees, native hedgerow and trees.
- 1.3.21 Existing stone walling would be retained at the site boundary lines.
- 1.3.22 Landscape objectives relevant to the Off-Site Power Station Facilities buildings include:
  - native linear belt of shrubs and tree planting along the north, south and east site boundaries to provide screening and integrate the Off-Site Power Station Facilities into the surrounding landscape, using a combination of existing hedgerows and additional planting;
  - native hedgerow planting on the north-east and southern boundaries;
  - extension of the existing southern boundary hedgerow; and
  - a mixed-planting composition to complement and integrate with the adjacent A5025 Off-line and On-line Highway Improvements and surrounding landscape character of the area, including species-rich grassland, linear belts of shrubs and trees, and native hedgerows.

### ***Access and parking***

- 1.3.23 There would be 13 staff car spaces provided on the hardstanding portion of the site (including two disabled spaces) and two motorcycle spaces.
- 1.3.24 Additionally, there would be an overspill car park for 54 spaces provided in the southern portion of the site. This would be used during an incident or training exercise, and would be paved in 'grasscrete', a permeable paving material.
- 1.3.25 Access for 4x4 vehicles would be provided up to the ESL building entrance with turning space.



- 1.3.26 The site has been designed to allow for two-way heavy goods vehicle (HGV) access into and out of the site, with space for manoeuvring about the site via turning circles on both sides of the MEEG/AECC building.
- 1.3.27 Vehicle access would be via the existing site access point. The proposed entrance gate to the site would be located a sufficient distance from the road to allow an HGV to wait for the gate to open without the road being obstructed.
- 1.3.28 Pedestrian access routing has also been provided on-site, with a pedestrian/cycle gated site access separate from the vehicle access.

### ***Security and fencing***

- 1.3.29 The Off-Site Power Station Facilities would be served by closed circuit television and lighting. The perimeter of the site would be secured with a 2.4m high mesh panel security fence.
- 1.3.30 The AECC and MEEG require critical infrastructure protection status and are integral to the operation of the Power Station. The necessary security would be achieved through a strengthened exterior construction of stone walling, fencing and retaining walls, combined with vegetation barriers.

### ***Lighting***

- 1.3.31 Lighting would be provided at the buildings on-site, car park and pedestrian footpath, and entrance to the site. The lighting requirements for the MEEG/AECC building are likely to vary between day-to-day operation and emergency events and the lighting would be designed to be responsive. Lights would be switched down to a minimum at the end of the working day and through the night. When the MEEG/AECC building is unmanned, lighting at the site would be minimal.

The ESL building would generally only be in operation from 8.00 to 18.00 on weekdays during non-emergency periods. During non-emergency periods, low lighting levels (typically a 50% reduction) would be applied during evenings and on weekends. An override would be programmed into the system so that if an emergency event occurs, the lighting could be switched to a maximum for that period to facilitate safe movement of emergency vehicles, equipment and people. Lighting at the car park, which may not be required during weekends, could be deactivated or switched off during the night.

### ***Utilities***

- 1.3.32 Utilities (including water and telecommunications) would be connected to the site via existing service routes.
- 1.3.33 The buildings would be serviced with a low energy ventilation system, low energy heating and low energy lighting.

### ***Drainage***

- 1.3.34 A drainage scheme incorporating Sustainable Urban Drainage System techniques has been proposed for the site to manage surface water runoff.

- 1.3.35 A drainage swale would be located to the south of the hardstanding section of the site to accommodate surface water flows. The swale would be approximately 2.2m wide, and would channel surface water flows to the unnamed watercourse to the south-east of the site.
- 1.3.36 The vehicle hardstanding would be constructed using permeable paving and, when necessary, surface runoff would be contained in a below-ground storage system until it could be drained after a flood event.
- 1.3.37 The foul drainage systems at the site would connect into the public sewer.
- 1.3.38 An attenuation pond associated with the A5025 Off-line Highway Improvements is located in the south-east portion of the site. Please refer to volume G (Application Reference Numbers: 6.7.1 to 6.7.48) for a description of the attenuation pond and the environmental assessment.

### ***Waste and materials***

- 1.3.39 An initial forecast of waste and materials associated with construction, operation and decommissioning activities for the Off-Site Power Station Facilities is included in chapter C6 (project-wide effects – waste and materials management) (Application Reference Number: 6.3.6).
- 1.3.40 Waste and materials would arise from the construction of the Off-Site Power Station Facilities. Typical waste and materials generated through construction could include, but are not limited to:
- topsoil clearance;
  - vegetation removal;
  - bulk earthworks;
  - concrete;
  - aggregates; and
  - packaging.
- 1.3.41 All waste and materials arising from construction works at the Off-Site Power Station Facilities would be managed in a responsible manner with the clear intention of applying the principles of the waste hierarchy, as described in the waste and materials management strategy in the Wylfa Newydd Code of Construction Practice (CoCP) (Application Reference Number: 8.6).
- 1.3.42 Waste would be generated during the operation of the Off-Site Power Station Facilities, including waste arising from maintenance activities, site administration and welfare facilities. These activities would lead to generation of the following types of waste:
- packaging materials for goods entering the site, e.g. paper, card, glass, plastic and metal;
  - office and administrative materials;
  - canteen waste from the kitchen and restaurant/café facilities;
  - waste electronic and electrical equipment, e.g. computers, cookers and fridges;

- switchgear, pumps;
  - metal waste from maintenance works, garages;
  - building maintenance waste, e.g. timber, plasterboard, insulation, paint tins and metals; and
  - hazardous wastes, e.g. some chemicals, paints, fuel and oils.
- 1.3.43 The decommissioning process would involve the removal of all buildings and infrastructure, the replacement of subsoil and topsoil and, as far as reasonable to do so, landscaping of the site to restore it back to its previous condition of primarily hardstanding.
- 1.3.44 Anticipated waste arisings from the decommissioning phase are likely to include volumes of recovered structural steel and reinforcing bar, tarmac and crushed concrete rubble. It is also likely that a wide range of materials, products, equipment and furniture would be generated. At this stage, the quantities of waste and materials generated through the decommissioning phase are not known.
- 1.3.45 All waste and materials generated during decommissioning would be managed in accordance with the waste hierarchy and legislative requirements. It is unlikely that the waste arisings from the decommissioning would be suitable for re-use and therefore they would need to be taken off-site for re-use, recycling or, as a last resort, to landfill for disposal.

## 1.4 Rochdale Envelope and parameters

- 1.4.1 A description of the Rochdale Envelope and parameter approach is provided in chapter B1 (introduction to the assessment process) (Application Reference Number: 6.2.1) of the Environmental Statement.
- 1.4.2 In order to cope with potential change through the design development processes, Horizon has proposed a parameter based approach for the construction and operation of the Off-Site Power Station Facilities. As such, the application for development consent is based on bounded parameters rather than a defined design.
- 1.4.3 The parameters are contained within the following:
- **Order Limits:** these define the area within which the Off-Site Power Station Facilities may be constructed, operated and maintained under article 3 of the draft DCO (Application Reference Number: 3.1). The Order Limits are illustrated on figure E1-3 (Application Reference Number: 6.5.27).
  - **Works Plans** (Application Reference Number: 2.3): these identify the limits of deviation for, and location of, each work package (or 'work area') under Schedule 1 (authorised development) as referred to in article 4 of the draft Development Consent Order (DCO) (Application Reference Number: 3.1). The whole of the Off-Site Power Station Facilities is one work area (Work No. 5) and Schedule 1 lists the works that can take place within the defined area.

- **Parameter Plan:** this identifies the zones within which buildings, structures and works identified in the parameter table (see below) must be located. There are two parameter zones for the Off-Site Power Station Facilities as illustrated on figure E1.3 (Application Reference Number 6.5.27):
  - MEEG/AECC building
  - ESL building
- **Parameter table:** this identifies maximum building dimensions and the zones within which specific buildings, structures and works must be located (as shown on the Parameter Plan). The parameter table for the Off-Site Power Station Facilities is included as table E1-1.

**Table E1-1 Parameters for the Off-Site Power Station Facility**

| Building  | Parameter Zone | Maximum Parameter |           |            |
|-----------|----------------|-------------------|-----------|------------|
|           |                | Length (m)        | Width (m) | Height (m) |
| MEEG/AECC | 5-1            | 55                | 25        | 14         |
| ESL       | 5-2            | 30                | 19        | 8          |

- 1.4.4 The flexibility associated with buildings, structures and works is restricted through the application of the parameters. These parameters have been informed by the potential to create adverse environmental effects. For those buildings where the location is sensitive in terms of Environmental Impact Assessment, location has been limited to relatively modest limits of deviation.

### ***Indicative design***

Figure E1-4 in the volume E Figures booklet (Application Reference Number: 6.5.27), illustrates the indicative site layout which has been used, in combination with the above parameter envelope, as the basis of the Environmental Impact Assessment.

## **1.5 Development phases and activities**

### ***Construction***

- 1.5.1 Construction activities would be undertaken within the site footprint, except for works to adapt the entrance to the west of the site, which would require minor amendments to the existing A5025 such as new road markings and signage.
- 1.5.2 The two existing commercial garages, motor vehicle repair building and existing single-storey house in the south-west of the site would be demolished.
- 1.5.3 The construction of the Off-Site Power Station Facilities would commence in the third year following grant of development consent, and last for approximately two years. The Off-Site Power Station Facilities would be operated until the decommissioning of the Power Station.
- 1.5.4 The construction of the Off-Site Power Station Facilities would commence following the completion of the A5025 Highway Improvements. The

construction workforce for the Off-Site Power Station Facilities would be a maximum of 85 workers on the construction site at any one time, working in shift patterns of a minimum of six hours per day.

- 1.5.5 The construction contractor would typically undertake construction works between 08.00 to 18.00 Monday to Friday and 08.00 to 13.00 on Saturdays as necessary.
- 1.5.6 During construction, it is anticipated that the peak vehicle trip generation would be 204 two-way vehicle trips per day (i.e. 102 in and 102 out), including 48 HGV trips, 102 car trips and 54 minibus and light goods vehicle trips.
- 1.5.7 The proposed construction activities include the following:
- establish the site compound in the portable cabin office area;
  - demolish three existing buildings on-site and a single-storey house in the south-west corner of the site;
  - stripping of topsoil and subsoil (as required);
  - form foundations for the MEEG/AECC building and the ESL building;
  - undertake drainage and utility works;
  - form the new road surface moving east to west including installation of the surface water storage tank and drainage;
  - erect the MEEG/AECC building, followed by the ESL building;
  - form pedestrian routes within the site and parking areas; and
  - undertake soft landscaping.
- 1.5.8 It is anticipated that construction plant would include excavators, tipper trucks, dozers, fork lifts, rotary bored piling rig, mobile cranes and dump trucks.

### ***Operation***

- 1.5.9 The MEEG/AECC building would not be staffed day-to-day but would be accessed for training events, periodic vehicle checks, maintenance and during an emergency response event.
- 1.5.10 General activities and functions of the MEEG during the management of an incident would include:
- securing weatherproof storage of vehicles and equipment;
  - simple vehicle checks, cleaning and routine maintenance;
  - controlled deployment to the Power Station Site when required;
  - straightforward access to the road network;
  - briefing of drivers for the deployment of the vehicles and equipment;
  - recovery of vehicles and equipment; and
  - provision of accommodation and communications for the facility leadership team.

- 1.5.11 Operational vehicles required to be stationed at the MEEG are likely to include:
- 12 large emergency response multi-terrain vehicles;
  - 18 vans;
  - two excavators;
  - staff cars; and
  - forklifts.
- 1.5.12 General activities and functions at the AECC during the management of an incident would include:
- determining the site-strategic response to the incident;
  - managing protection of the public, personnel, plant and the environment while also ensuring security of the site;
  - communicating and liaising directly with the local control centre, main control room, security and all emergency facilities;
  - gathering information about the incident;
  - developing the strategy and tactics to respond to the incident and displaying information regarding the incident;
  - collating muster and roll-call information;
  - recording incident information; and
  - briefing stakeholders.
- 1.5.13 The ESL building would be staffed day-to-day during normal business hours. General operational activities and functions at the ESL would include:
- receipt of environmental samples.
  - undertaking simple radiochemical analysis
  - control of environmental survey vehicles;
  - administrative recording of the samples; and
  - storage of instrumentation used for radiological surveys in the environment.
- 1.5.14 Operational traffic for the Off-Site Power Station Facilities would primarily be associated with the day-to-day operation of the ESL, and would include 10 two-way vehicle trips per day, including four HGV trips, two car trips and four light goods vehicle or minibus trips.

### ***Decommissioning***

- 1.5.15 At present, it is assumed that the MEEG, AECC and ESL buildings would be decommissioned and removed from the site around the same time as decommissioning of the Power Station commences at the end of its operational life. Any alternative proposals for use of the buildings or the site beyond this period would need to be considered and determined as part of a future planning application at that time.

## **1.6 Embedded and good practice mitigation**

1.6.1 Environmental mitigation embedded into the design includes:

- use of appropriate massing and external surfacing on the buildings, sympathetic to the agricultural built heritage of the Isle of Anglesey;
- buildings on-site of a similar scale, height and character to existing buildings;
- landscaping of the site, including planting along the perimeter of the site to soften the boundary;
- locating the security fence 3m from existing vegetation and proposed planting and retaining the stone wall and existing trees along the boundaries, to limit the visual impact of the Off-Site Power Station Facilities;
- retention of existing features such as hedgerows, stone walls and boundary features and the unnamed watercourse to the south-east of the site;
- incorporation of Sustainable Urban Drainage Systems to reduce runoff and to reduce the risk of watercourse pollution; and
- lighting design to avoid light spill onto surrounding buildings, watercourses and boundary features such as hedgerows.

1.6.2 Chapter J1 (environmental commitments) (Application Reference Number: 6.10.1) of the Environmental Statement gives further information on how these embedded mitigation measures are being secured.

1.6.3 Good practice mitigation would be employed during construction. This mitigation would be secured through the Wylfa Newydd CoCP (Application Reference Number: 8.6) and the Off-Site Power Station Facilities sub-CoCP (Application Reference Number: 8.9), within which full information is given.

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