

# The Sizewell C Project

6.2 Volume 1 Introduction to the Environmental Statement

Chapter 2 Overview of the Sizewell C Project

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Appendix 2A Sizewell B Relocated Facilities Environmental Statement, April 2019



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# Overview of the Sizewell C Project

### 2.1 Introduction

- 2.1.1 This chapter provides a summary of the need for the proposed Sizewell C new nuclear power station and presents an overview of all of the temporary and permanent development required to support the construction and operation of the Sizewell C nuclear power station (hereafter collectively referred to as the 'Sizewell C Project').
- 2.1.2 Descriptions of the construction, operation and decommissioning activities associated with the proposed Sizewell C Project on the main development site are provided in **Volume 2**, **Chapters 2** to **5** of the **Environmental Statement (ES)**. Descriptions of the construction, operation and removal and reinstatement (where applicable) of associated development is provided in **Chapter 2** of **Volumes 3** to **9** of the **ES**.
- 2.2 The need for new nuclear build and Sizewell C
  - a) Background
- 2.2.1 Government policy, contained within the Overarching National Policy Statement for Energy (EN-1) (NPS EN-1) (Ref. 2.1) and the National Policy Statement for Nuclear Power Generation (EN-6) (NPS EN-6) (Ref. 2.2) establish an urgent need for new nuclear power generation in the UK. The statements of established need set out in the National Policy Statements (NPSs) followed an extensive review of national energy requirements.
- 2.2.2 The combination of growth in demand, the need to replace retiring generating capacity, maximise energy security and do all this in a manner that meets the UK's commitment to reduce carbon emissions results in an urgent need for new nuclear power stations. No other technology can deliver the low carbon energy at the scale required to meet forecast need.
- 2.2.3 As confirmed in the **Planning Statement** (Doc Ref. 8.4) there are no changes in circumstances since the NPSs were designated which would cause anything other than significant weight to be given to government policy in NPS EN-1 and EN-6 in relation to the urgent need for new nuclear power generation.



# 2.3 Description of the Sizewell C Project

- a) Main development site
- 2.3.1 The main development site is located on the Suffolk coast, approximately halfway between Felixstowe and Lowestoft; to the north-east of the town of Leiston and within the administrative boundary of East Suffolk Council (ESC) (refer to **Figure 2.1**). Once constructed, the Sizewell C nuclear power station would be located directly to the north of the existing Sizewell A and B power station complex.
  - i. Permanent development
- 2.3.2 The proposed Sizewell C nuclear power station would comprise the following permanent development:

#### Nuclear islands

 Two nuclear islands, including two UK EPR™ reactor buildings and associated annexed buildings and structures containing the safety systems, fuel handing systems and access facilities, together with the adjacent emergency diesel generator (EDG) buildings.

#### Conventional islands

 Two conventional islands, each including a turbine hall and associated electrical buildings for the export and distribution of electrical power.

#### Operational building

 An operational service centre (a multi-purpose building), which allows for access into the nuclear islands, including storage areas, workshops, store rooms, laboratories, data centre, offices and associated support and welfare facilities, including the staff restaurant.

#### Cooling water pumphouses and associated buildings

 Two cooling water pumphouses with related infrastructure (one for each UK EPR™ reactor).

#### **Ancillary buildings**

- Plant, office/access, storage and fuel and waste management.
- National Grid 400 kilovolt (kV) substation.



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- Relocation of several Sizewell B buildings including the outage store, training centre; administrative buildings; visitor centre; and, office, canteen and welfare facilities.
- Associated buildings, structures and plant outside of the power station perimeter.

#### Marine works and associated infrastructure

 The cooling water system and combined drainage outfall in the North Sea.

Other site structures, infrastructure and works, including highway works and earthworks.

- Overhead power lines and pylons connecting the conventional islands to the National Grid substation.
- Relocation of an existing National Grid pylon and power line south of Sizewell C.
- Vehicular and pedestrian crossing over the Sizewell Marshes SSSI south of Goose Hill in the form of a culverted embankment.
- A beach landing facility (BLF) proposed for freight and abnormal indivisible loads (AlLs) arriving by sea.
- Relocation of several Sizewell B facilities, including: outage laydown area; operational car parking and access roads; outage car parking; and, outage car park access roads.
- Diversion of rights of way including Bridleway 19.
- Power station access road, linking the SSSI crossing with a new roundabout onto Abbey Road (B1122).
- Realignment of Lover's Lane and Eastbridge Road.
- Realignment of the junction of the B1122 Abbey Road and Lover's Lane.
- Flood defences and coastal protection measures.
- Water supply and drainage measures, including realignment of Sizewell Drain.
- Landscape restoration works and planting.



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- Fencing, lighting and other security provisions.
- Additional parking spaces at Kenton Hills car park.
- Off-site sports facilities at Leiston.
- Fen meadow compensation areas near Benhall and Halesworth.

#### ii. Temporary development

- 2.3.3 The proposed Sizewell C nuclear power station would comprise the following temporary development:
  - Earthworks, excavation and site ground preparation works.
  - Site hoardings (including perimeter enclosures and security fencing) and provision of construction and traffic signage and notices;
  - Construction vehicle access routes and provision of temporary gated site accesses.
  - Construction-related buildings, structures, facilities, plant, equipment, cranes and machinery.
  - Construction services and utilities, including electricity, telecommunications, water and power supplies (including substations) and construction lighting.
  - Landscaping, hard-standing areas and drainage works.
  - Construction areas and compounds.
  - Temporary crossing over Sizewell Marshes SSSI, prior to construction of a permanent crossing.
  - Material management areas, including borrow pits and stockpiles.
  - Common user facilities, including approximately six concrete batching plants; access and storage areas; logistical facilities, including waste handling areas; water treatment plants and water pumping stations; fabrication areas; and. pre-cast concrete production areas.
  - Railway infrastructure including railway tracks, a terminal facility for offloading goods, railway sidings, a passing loop for locomotives and associated works.



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- Temporary water resource storage area for the storage of non-potable water during the construction phase;
- Approximately 1,000 car parking spaces and approximately 75 Heavy Goods Vehicles (HGV) parking spaces at the temporary construction area:
- Accommodation campus, comprising: 3-storey and 4-storey residential buildings providing up to 2,400 bed spaces; non-residential welfare and recreation buildings; approximately 1,360 car parking spaces; 120 motorbike spaces, 120 pedal cycle spaces, plus a drop-off and pick-up area; and, associated plant and infrastructure
- 400-pitch caravan park, including serviced plots and associated facilities for staff welfare and amenity.
- Vehicular accesses onto Lover's Lane, Valley Road and King Georges Avenue.
- Freight management facility, up to 80 HGV parking spaces and associated infrastructure.
- Park and ride facility including up to 500 car parking spaces and an associated bus parking and terminal area;
- Marsh Harrier habitat improvement area (Westleton), if required¹.
- b) Off-site associated development
- 2.3.4 A series of off-site associated development are required in the local area are required for the construction of the Sizewell C nuclear power station are summarised in this section.
- 2.3.5 There are also minor works that are common to a number of work packages, under the heading "Other Associated Development". These include works such as landscaping and drainage, establishment of

However, if it is determined by the Secretary of State that additional marsh harrier habitats are required, then the marsh harrier habitat improvement area (Westleton) would be temporarily used to provide this.

<sup>&</sup>lt;sup>1</sup> The conclusion of the main DCO Shadow Habitats Regulation Assessment Report (Doc Ref. 5.10) and the DCO Shadow Habitats Regulation Assessment Volume 4 – Compensatory Measures Report is that the permanent habitat improvement area of 47.8ha that has been established, but is being further improved, at the northern edge of the EDF Energy Estate (UK grid reference: TM 46318 65222) would provide sufficient foraging to be regarded as appropriate compensation for the predicted 'loss of foraging' over the Sizewell Marshes SSSI, arising as a result of a barrier effect created by the temporary construction area. This effect is assessed within Chapter 14 of Volume 2 and also in the DCO Shadow Habitats Regulation Assessment Report.



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construction compounds, vegetation clearance, works to trees, shrubs and hedges and utilities installation.

#### i. Park and rides

- 2.3.6 The park and ride facilities would play an important role in reducing the amount of additional traffic generated by the construction workforce on local roads and through local villages. Two park and ride facilities are proposed, one at Darsham for construction workers approaching Sizewell C from the north on the A12 and the other at Wickham Market for those approaching from the south on the A12. Both park and ride facilities would also intercept traffic movements from locations west of the A12. The workforce would be transported to and from the Sizewell C main development site by bus.
- 2.3.7 Each park and ride facility would comprise:
  - car parking areas for up to 1,250 car parking spaces (of which up to 40 would be accessible spaces) and up to 12 pick up only spaces;
  - up to 10 spaces for minibuses/vans/buses;
  - up to 80 motorcycle parking spaces;
  - cycle shelters for up to 20 bicycles;
  - bus terminus area, including shelters;
  - security fencing and lighting;
  - an amenity and welfare building comprising toilets and staff room;
  - a security building including an administration office;
  - a security booth adjacent to an exit loop for errant vehicles;
  - two landscape bunds and additional planting;
  - other ancillary development, including signage, road markings, CCTV and utilities; and
  - external areas including roadways, footways, landscaping, surface water management areas and drainage infrastructure.
- 2.3.8 Once the need for the park and ride facilities has ceased, the buildings and associated infrastructure would be removed in accordance with removal and reinstatement plans, which would allow for the potential for re-use of the modular buildings and materials off-site. When the sites have been cleared, they would be returned to agricultural use.



#### Northern park and ride at Darsham

- 2.3.9 The northern park and ride at Darsham would be situated to the west of the A12, to the east of the East Suffolk line and to the north of Darsham rail station. Access to the site would be via a new three arm roundabout, with realignments of Willow Marsh Lane and the A12.
- 2.3.10 Further details are provided in **Volume 3**, **Chapter 2** of the **ES**.

#### Southern park and ride at Wickham Market

- 2.3.11 The southern park and ride would be located to the north-east of Wickham Market. Access to the site would be off the slip road from the B1078 which leads to the northbound A12.
- 2.3.12 In addition to the above described facilities, the southern park and ride would also contain the parking and buildings, postal consolidation building and traffic incident management area (TIMA).
- 2.3.13 The postal consolidation building would handle and process postal deliveries for the Sizewell C main development site. On receipt at the building, all mail and courier packages would be checked, sorted and consolidated. Outgoing mail would be collected from the Sizewell C main development site for postal or courier services.
- 2.3.14 The TIMA would be located in the northern part of the site. If there is an incident within the site or external to the site which requires deliveries to be held or diverted, the TIMA would be utilised to manage vehicles and remove them from the public road network while the incident is being resolved.
- 2.3.15 Further details are provided in **Volume 4**, **Chapter 2** of the **ES**.

#### iii. Two village bypass

2.3.16 The two village bypass would comprise a new, permanent, 2.4 kilometre (km) single carriageway road, with a design speed of 60 miles per hour (mph), that would depart from the A12 to the south-west of Stratford St. Andrew before re-joining the A12 to the east of Farnham. The two village bypass would create a new route around the south of Stratford St. Andrew and Farnham, thus bypassing the two villages. Once operational, the two village bypass is proposed to be a permanent bypass that would form a new section of the A12. The existing section of the A12 through the villages would be retained.



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- 2.3.17 Where possible, public rights of way (PRoW) would be retained on their existing alignments. However, several PRoW would require a diversion to ensure connectivity across the route of the bypass during the construction and operation of the two village bypass. In addition, agricultural accesses will be provided where necessary to maintain connectivity across the route of the bypass. Further details are provided in **Volume 5**, **Chapter 2** of the **ES**.
- 2.3.18 The two village bypass would include:
  - A 2.4km single carriageway road.
  - Provision of a four arm roundabout at the western end of the road, east of Parkgate Farm and Stratford Plantation to connect the road to the A12 and Tinker Brook.
  - A multi-span overbridge, up to 7.5m in height above ground level to the road surface, and approximately 60m in length, to allow a crossing over the River Alde.
  - Eight 5.4m, 3m wide, flood relief culverts are proposed (four on either side of the River Alde overbridge), as well as mammal migration culverts and a culvert to allow an existing watercourse and livestock access track to pass beneath a road.
  - Provision of flood compensation areas to the north of the bypass (if required).
  - Provision of a staggered junction between Nuttery Belt and Pond Wood to maintain vehicular access on both sides of the route of the proposed two village bypass.
  - West of Foxburrow Wood, a non-motorised user bridge, over the two village bypass road, would be provided to maintain connectivity across the route (referred to as the 'Foxburrow Wood footbridge').
  - Provision of a four arm roundabout at the eastern end of the road, to replace the existing junction of the A12, with the A1094 (Friday Street).

#### iv. Sizewell link road

2.3.19 The Sizewell link road would comprise a new, permanent, 6.8km single carriageway road, with a design speed of 60mph, which begins at the A12 south of Yoxford, bypasses Middleton Moor and Theberton before joining the B1122. The Sizewell link road would help to reduce traffic on the B1122



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through Middleton Moor and Theberton, and once operational would be open to the public and used by SZC Co. during the construction phase of the Sizewell C main development site to transport construction workers arriving by car, buses from both the northern and southern park and ride sites, and goods vehicles (both light and heavy) delivering freight to the Sizewell C main development site.

- 2.3.20 Where possible, PRoW would be retained on their existing alignments. However, several PRoW would require a diversion to ensure connectivity across the route of the Sizewell link road. In addition, agricultural accesses will be provided where necessary to maintain connectivity across the route. Further details are provided in **Volume 6, Chapter 2** of the **ES**.
- 2.3.21 The Sizewell link road would include:
  - a 6.8km single carriageway road;
  - a new three arm roundabout on the A12, located approximately 180m north of The Red House Farm;
  - a single span bridge, approximately 50m in length, to enable the proposed road to cross over the East Suffolk line;
  - a ghost island junction and a new link road (referred to as the 'Middleton Moor link'), from the proposed route of the Sizewell link road;
  - Fordley Road would be realigned on the south side of the proposed route of the Sizewell link road so northbound traffic could join the new road:
  - provision of a staggered crossroads ghost island junction from the proposed route of the Sizewell link road, to the B1122, to the northwest of Yankee Lodge. At the junction with the B1122, a new three arm-roundabout would be provided;
  - a new walking and cycling route from the existing Littlemore Road, which will continue along the Middleton Moor link, to allow a crossing point over the proposed Sizewell link road;
  - realignment of Hawthorn Road for approximately 150m to meet the proposed route of the Sizewell link road. Hawthorn Road would be stopped up on the north side of the proposed route of the Sizewell link road;



- a new ghost island junction would be formed with an extension of the B1125 and reconfiguration of the existing B1122 to form a suitable new junction. This includes a provision of a new link road between the route of the proposed Sizewell link road and Leiston Road (the 'B1125 link');
- a new priority junction on the west side of the Sizewell link road at Pretty Road;
- a new overbridge, single span, up to 44m long would be provided which would carry non-motorised users only (pedestrians, cyclists, equestrians) over the Sizewell link road and connect to Pretty Road on either side;
- a new junction to Moat Road would be provided to maintain access to the existing properties including Theberton Grange and Moat House; and
- a new junction to provide access to Theberton to the north, where approximately 500m of the B1122 would be realigned, with the route of the Sizewell link road joining the southern section of the B1122.
- 2.3.22 The Sizewell link road would cross two Main Rivers (referred to as Middleton Watercourse and Theberton Watercourse) as well as three unnamed watercourses; some watercourses are crossed by both the route of the Sizewell link road as well as side roads. The route of the proposed Sizewell link road crosses these watercourses at five locations where portal culverts 5.4m wide and 1.2m above bank level would be provided. These portal culverts would straddle the watercourse channel to reduce the disturbance of the bank.
  - v. Yoxford and other highway improvements
- 2.3.23 The proposed off-site highway improvement works comprise the following:
  - A12 and B1122 east of Yoxford provision of a new roundabout at the junction (referred to as the 'Yoxford Roundabout').
  - A1094/B1069 junction south of Knodishall improvements of visibility splays and provision of signage and road markings. SZC Co. would also seek to reduce the speed limit from 60mph to 40mph.
  - A12/A144 junction south of Bramfield provision of a central reservation island and waiting area.



- A12/B1119 junction at Saxmundham improvements of visibility splays, alteration of the B1119 at the junction with the A12, and provision of signage and road markings.
- 2.3.24 Road safety analysis has also identified potential highway safety issues at two sites (the B1078 and B1079 junction east of Easton and Otley College and the A140 and B1078 junction west of Coddenham). Highway safety measures at these sites will be secured by obligations in a Section 106 Agreement (see draft **Section 106 Heads of Terms** appended to the **Planning Statement** (Doc. Ref. 8.4).
- 2.3.25 All of the proposed highways improvement works listed above would form part of permanent development and would be retained following the construction of the main development site. Further details are provided in **Volume 7**, **Chapter 2** of the **ES**.
  - vi. Freight management facility
- 2.3.26 The freight management facility would assist in allowing a controlled pattern of deliveries of construction material to the Sizewell C main development site, with reduced movements during peak or sensitive hours on the network. It would provide buildings and external areas where paperwork and goods can be checked prior to delivery to the Sizewell C main development site, and be a location where heavy goods vehicles (HGVs) can be held while they wait to enter the main development site, or in the event of an accident on the local road network which prevents access to the main development site.
- 2.3.27 Once the need for the freight management facility has ceased, the buildings and associated infrastructure (including sustainable drainage systems), would be removed in accordance with a removal and reinstatement plan, which would maximise the potential for re-use of buildings, modules and materials. When the site has been cleared, the area would be returned to agricultural use.
- 2.3.28 The freight management facility would comprise:
  - space for up to 154 HGVs;
  - up to 12 car parking spaces for staff and visitors, up to one accessible space, up to 10 spaces for minibuses/vans, up to four motorcycle spaces, covered and secure cycle parking for up to 10 bicycles and up to six covered HGV spaces for screen and search activities;
  - access and circulation roads:



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- a ghost island junction on the access road to the site, which allows right turning traffic from the east to enter the site without blocking westbound traffic using Felixstowe Road;
- security fencing and lighting;
- ancillary buildings and structures including an amenity and welfare building, a security building, a security booth, a bus shelter, a smoking shelter and a shelter for cycle parking;
- other ancillary development, including signage, CCTV and utilities;
- three landscape bunds and additional planting;
- up to four swales, including adjacent to the highway, and geo-cellular storage structures beneath two of the landscape bunds forming part of the sustainable drainage system (SuDS); and
- external areas including roadways and footways.
- 2.3.29 Further details are provided in **Volume 8**, **Chapter 2** of the **ES**.
  - vii. Green rail route and rail improvements

#### Green rail route

- 2.3.30 The green rail route comprises a temporary rail extension of approximately 4.5km from the existing Saxmundham to Leiston branch line to a terminal within the Sizewell C main development site. The part of the rail extension route between the proposed B1122 (Abbey Road) level crossing and the terminal forms part of the main development site.
- 2.3.31 Following the completion of the construction of the Sizewell C Project, the green rail route would be removed and the land reinstated.
- 2.3.32 The green rail route commencing from the existing Saxmundham to Leiston branch line, would run from west to east in three main parts as follows:
  - Saxmundham Road to Buckleswood Road.
  - Buckleswood Road to B1122 (Abbey Road).
  - B1122 (Abbey Road) to Sizewell C power station site (this section forms part of the Sizewell C main development site).
- 2.3.33 The proposed green rail route also comprises:



- Automated level crossing on Buckleswood Road.
- Diversion of Footpath E-363/003/0.
- Automated level crossing where the rail extension crosses the B1122 (Abbey Road).
- Diversion of Footpath E-363/006/0.
- Diversion of Footpath E-363/010/0.
- Sustainable urban drainage system to include a swale alongside the track with the potential for a larger infiltration pond at low points or adjacent to the cuttings, if required.
- Landscaping including the provision of landscape bunds, grassed areas and other areas of proposed planting.
- 2.3.34 To facilitate the level crossing at the B1122 (Abbey Road), Lover's Lane and its junction with the B1122 (Abbey Road) will be permanently realigned. These works are required to take place before the level crossing can be constructed and form part of the works for the Sizewell C main development site.

#### Saxmundham to Leiston branch line

- 2.3.35 The proposed track replacement on the Saxmundham to Leiston branch line comprises the renewal of the entire length of track using new ballast and flat bottom continuously welded rail on concrete sleepers. The proposed upgrades would ensure that the existing track would meet Network Rail standards for freight transport.
- 2.3.36 Upgrades would also be required on eight operational level crossings on the Saxmundham to Leiston branch line between the Saxmundham junction and Sizewell Halt. This is to enable safe use of the Saxmundham to Leiston branch line for freight deliveries as part of the construction of the Sizewell C main development site. These are located at:
  - Bratts Black House.
  - Knodishall.
  - West House.
  - Snowdens.
  - Saxmundham Road.



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- Buckles Wood.
- Summerhill.
- Leiston.
- 2.3.37 Where possible, level crossing upgrades have been proposed which minimise the need for level crossing barriers to be closed and reopened manually, since this method of control necessitates longer road closures than when automatic methods of control are in operation.
- 2.3.38 All of the proposed upgrade works will ensure that the level crossings remain in use, and there are no proposals to close or divert any PRoWs whilst the branch line is in operation.
- 2.3.39 Further details are provided in **Volume 9**, **Chapter 2** of the **ES**.
  - c) Related applications
- 2.3.40 In parallel to the application for a Development Consent Order (DCO), EDF Energy has progressed two separate early works planning applications under the Town and Country Planning Act 1990 that are related to the Sizewell C Project Aldhurst Farm habitat creation scheme and Sizewell B relocated facilities project. A summary of the development brought forward under these applications is provided below. Both of these schemes are further considered in **Volume 2** of the ES.
  - i. Aldhurst Farm habitat creation scheme
- 2.3.41 A planning application for the Aldhurst Farm habitat creation scheme was submitted to Suffolk Coastal District Council (SCDC) (now East Suffolk Council) as the local planning authority in December 2014 (application ref. DC/14/4224/FUL) (Ref 2.3). The application sought permission for:

"Creation of approximately 6ha of wetland habitat, including wet reedbed, open-water and perimeter ditches within 4 ground water basins together with marginal drier reed habitat. Soils excavated to create the basins, would be used across the wider site to establish a landscape including grassland, heathland, scrub and scattered trees. Other associated works include realignment of the existing watercourse, the relocation of groundwater abstraction boreholes, a new pump house and fencing."

2.3.42 The site extends from Abbey Road in Leiston to Lover's Lane, on the edge of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) and Sizewell Marshes Site of Special Scientific Interest (SSSI).



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- 2.3.43 Permission for this application was granted in March 2015 and the physical form, including the main earthworks and waterbodies of the habitat creation scheme was created in 2015 and 2016.
- 2.3.44 The scheme was designed to compensate for future land-take from the Sizewell Marshes SSSI should the Sizewell C nuclear power station be granted consent and built; notably to compensate for the loss of reedbed and lowland ditch habitat within the SSSI, and their associated invertebrate and rare vascular plant assemblages.
- 2.3.45 Low-lying land on the site has been further lowered to create the conditions needed for wetland habitat. The excavated soil, which includes peat, has then been spread across the surrounding fields to reduce the fertility of the soils and create conditions suitable for the establishment of acidic grassland and heathland. The wetland and drier habitats are already benefitting a variety of wildlife in advance of construction activity on the main development site, including water voles, otters, eels, amphibians, reptiles and birds, as well as rare plants.
- 2.3.46 The habitats created as part of the scheme have been considered, within the Environmental Impact Assessment (EIA), to form part of the existing baseline environment. Given the purpose of the scheme was to compensate for the loss of SSSI, the scheme has also been considered to form primary mitigation for the purposes of the EIA. Further information on the assessment approach is provided in **Volume 1, Chapter 6 of** the **Environmental Statement** (Doc. Ref. 6.3).

#### ii. Sizewell B relocated facilities

2.3.47 A hybrid planning application for the relocation, demolition and replacement of a number of existing Sizewell B facilities (known as the Sizewell B relocated facilities project) was submitted to East Suffolk Council (ESC) in April 2019 by EDF Energy Nuclear Generation Company Limited who operate the Sizewell B power station (application ref. DC/19/1637/FUL) (Ref 2.4). The application sought permission for:

"In outline, comprising a Visitor Centre [maximum 2,000 square metres (sqm) GEA] and a maximum of 9,500sqm (GEA) of floorspace to provide administration, storage, welfare and canteen facilities with all matters reserved apart from access.

2. In full, for the demolition of the existing Outage Store, Laydown Area, Operations Training Centre, Technical Training Facility, Visitor Centre, and Rosery Cottage garage; removal of technical training and pool car park (63 spaces), Coronation Wood car park (21 spaces), Visitor Centre car park (16 spaces)



and northern outage car park (576 spaces); meantime use of the Technical Training Centre as an interim Visitor Centre followed by its demolition; and erection of new (all floorspace in GEA) Outage Store (2,778sqm), Laydown Area (11,990sqm) including New Western Access Road, Yardman's Office (23sqm), Training Centre (4,032sqm), Rosery Cottage garage (30sqm), Replacement Car Park (2,363sqm) providing 112 spaces, and Outage Car Park (15,525sqm) providing (576 spaces) including new access road (and alternative access to bridleway), footpath and amended junction at Sizewell Gap; and associated landscaping earthworks/recontouring, tree felling and boundary treatment."

- 2.3.48 Permission was granted by East Suffolk Council on 13 November 2019, allowing for the relocation of existing Sizewell B facilities to start prior to the determination of the DCO application for the Sizewell C Project, and therefore, allow for an overall earlier delivery of the Sizewell C nuclear power station. Nevertheless, as these are such critical elements to facilitate the construction of Sizewell C, the proposals for the above facilities are also included in the application for development consent for the Sizewell C Project.
- A standalone ES was prepared for the Sizewell B relocated facilities works for submission with the hybrid planning application under the Town and Country Planning Act 1990. This is included within **Appendix 2A** of this volume. However, as the Sizewell B relocated facilities works form part of the Sizewell C Project and consent is also sought for these works through the DCO, an assessment of the likely significant effects of these works is also presented within **Volume 2** of this **ES**, together with an explanation of the implications of any relevant project design changes made since the preparation of the standalone Sizewell B relocated facilities ES.
- 2.4 Construction of the proposed development
- 2.4.1 An indicative programme for the construction of the Sizewell C Project is provided in **Plate 2.1**, including the likely timescales and phasing for the whole project<sup>2</sup>. It is estimated that the construction of the Sizewell C Project pursuant to the DCO would last between nine to twelve years.
- 2.4.2 Prior to the construction works commencing pursuant to the DCO, the first part of the Sizewell B relocated facilities works, which is referred to as 'Phase 0', would be carried out pursuant to the planning permission granted

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<sup>&</sup>lt;sup>2</sup> The reference to FID at Plate 2.1 refers to the Final Investment Decision to undertake construction of the Project.



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by East Suffolk Council. The second part of the Sizewell B relocated facilities works would take place in Phases 1 and 2 in parallel with other DCO works due to take place at this time and would be carried out pursuant to the DCO.

- 2.4.3 Construction of the main development site is anticipated to be undertaken in the following five main phases, although these phases would overlap as work on different phases would be undertaken simultaneously in different areas across the main development site:
  - Phase 1: site establishment and preparation for earthworks.
  - Phase 2: main site earthworks and completion of temporary infrastructure.
  - Phase 3: main civil engineering works.
  - Phase 4: mechanical and electrical installation.
  - Phase 5: commissioning and land restoration.
- 2.4.4 Following construction of the units, they would undergo commissioning, with an expected phasing of 12 months between the commissioning of Unit 1 and Unit 2 of the Sizewell C nuclear power station.
- 2.4.5 Further details on the construction of Sizewell C nuclear power station are provided in **Volume 2**, **Chapter 3** of the **ES**.
- 2.4.6 The construction of the off-site associated developments would be undertaken early in the construction programme. The construction period of each associated development would vary, although each is assumed to take no longer than 24 months. As a worst-case scenario, construction of all associated development sites at the same time has been assumed for the purposes of the Environmental Impact Assessment (EIA).
- 2.4.7 Based on experience elsewhere, notably at Hinkley Point C, the forecast number of construction workers shows a peak at 7,900, plus a further 600 at the associated development sites.
- 2.4.8 Following construction, the temporary associated development sites would remain operational for approximately ten years to support and mitigate the effects of the construction of the main development site. Once these facilities are no longer required, they would be removed and the land restored, where applicable. The removal and reinstatement of the associated development sites would vary, however is assumed to take no longer than 12 months for the purposes of the EIA. The associated developments for two village bypass, Sizewell link road, Yoxford and other



## **NOT PROTECTIVELY MARKED**

highway improvements and rail improvements on Saxmundham to Leiston branch line would be retained permanently.

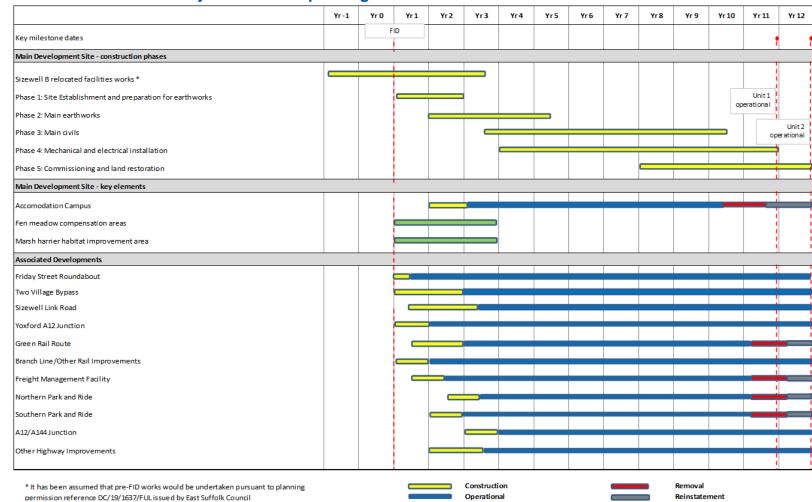
2.4.9 More detailed descriptions of the construction sequence and programmes for each of the Sizewell C Project sites are included within the site-specific volumes.



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# Plate 2.1: Sizewell C Project indicative phasing schedule.





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# 2.5 Operation of the Sizewell C power station

- 2.5.1 The Sizewell C nuclear power station would comprise two UK EPR<sup>TM</sup> reactor units with an expected net electrical output of approximately 1,670MW per unit, giving a total site capacity of 3,340MW. The UK EPR<sup>TM</sup> unit is a development of existing nuclear technology based on an evolution of the pressurised water reactor design.
- 2.5.2 The Sizewell C nuclear power station would have an operational life of 60 years. Sizewell C is designed to operate continuously 24 hours a day, save for routine maintenance outages. Therefore, access is required to the site and facilities at all times.
- 2.5.3 During operation, it is expected that approximately 900 staff would be employed. Up to 1,000 additional staff would be employed during planned refuelling and maintenance outages which take place approximately every 18 months for each UK EPR<sup>TM</sup> reactor unit and last typically between one and three months.
- 2.5.4 Further details on the operation of Sizewell C nuclear power station are provided in **Volume 2**, **Chapter 4** of the **ES**.

# 2.6 Decommissioning of the Sizewell C power station

- At the end of electricity generation, Sizewell C would be decommissioned. The decommissioning process would require the submission of a planning application and consent (including an EIA), which would be required under the Nuclear Reactors (EIA for Decommissioning) Regulations 1999 and the Marine Works (EIA) Regulations 2007.
- The process of decommissioning would be divided into a number of activities leading to the clearance and de-licensing of the site and ultimately its release for re-use. The decommissioning strategy to be employed for Sizewell C would be 'early site clearance' and would begin as soon as practicable after the end of electricity generation at the site. The decommissioning of Sizewell C, with the exception of the interim spent fuel store (ISFS), could be achieved within approximately 25 years of the end of generation. The ISFS would continue to operate until a UK geological disposal facility is available and the spent fuel is ready for disposal.
- 2.6.3 Further details on the decommissioning phase are provided in **Volume 2**, **Chapter 5** of the **ES**.





# References

- 2.1 Department of Energy and Climate Change, Overarching National Policy Statement for Energy (EN-1) (London: The Stationery Office, 2011).
- 2.2 Department of Energy and Climate Change, National Policy Statement for Nuclear Power Generation (EN-6) (London: The Stationery Office, 2011).
- 2.3 Aldhurst Farm Habitat Creation Scheme Planning application (DC/14/4224/FUL), (23 December 2014).
- 2.4 Sizewell B Relocated Facilities Planning application (DC/19/1637/FUL), (18 April 2019).