

Foreword

I am very pleased to be able to present the latest proposals for Sizewell C, a new nuclear power station which would be built to the north of Sizewell B on the Suffolk Coast.

Sizewell C would make a major contribution to the economy of Suffolk and beyond, while also helping to meet the nation's future need for low carbon energy.

EDF Energy and CGN are working in partnership to develop three new nuclear power stations in the UK. We are building Hinkley Point C in Somerset, and are jointly developing other proposals, with EDF Energy leading on Sizewell C and CGN leading on Bradwell B in Essex.

The proposals presented here have been shaped through feedback received from two previous stages of public consultation, on-going engagement with stakeholders, and substantial technical assessments and environmental studies. We have also learnt from Hinkley Point C, already under construction and on track to generate electricity from 2025.

Our overarching aim for the development of Sizewell C remains to support - locally, regionally, and nationally - the creation of significant business, training and job opportunities while limiting or mitigating any adverse effects from construction for local people and the environment. This is reflected in our proposals, which present refinements to our plans in some areas, along with a number of new options, particularly for the transport of people and freight to and from the construction site.

Consultation has played an important role in informing and developing our plans and I would like to thank everyone who has taken the time to give their views so far. I would encourage you to play an active part in the Stage 3 consultation as some significant choices are presented and your feedback will inform our proposals.

The Sizewell C team will be available at our consultation events to discuss our proposals and answer your questions. I hope you can join us and contribute to the further development of our plans. We look forward to receiving your views.

Jim Crawford, Sizewell C Project Development Director





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Highlights where options are presented for feedback



Highlights proposals related to the road-led strategy



Highlights proposals related to the rail-led strategy

1. The consultation

Stage 3: 4 January to 29 March 2019

Consultation process

EDF Energy intends to submit an application for development consent to build and operate a new nuclear power station, Sizewell C, along with the associated development required to enable construction and operation. Before submitting the application, we are consulting on our proposals.

NNB Generation Company (SZC)¹ Limited has been formed as a separate company to finance and construct Sizewell C. EDF Energy will seek additional shareholders in NNB Generation Company (SZC) Limited and is currently in discussion with UK pension funds. NNB Generation Company (SZC) Limited is referred to in this document as EDF Energy.

At our Stage 2 consultation - which ran from 23 November 2016 to 3 February 2017 and included direct engagement with over 4,000 people and over 70 public exhibitions, meetings, and presentations - we received 1,059 written responses.

National and local planning policy, along with feedback from our first two stages of public consultation, on-going engagement, further technical work, environmental assessment, and lessons from Hinkley Point C have helped shape our proposals.

This Stage 3 consultation seeks views on these proposals and some remaining options, which are outlined in this summary document. More detailed information is available in the Stage 3 Consultation Document, comprising:

- > Volume 1 Development Proposals;
- > Volume 2 Preliminary Environmental Information; and
- > Volume 3 Preliminary Environmental Information Figures.

The Stage 3 consultation is open until 29 March 2019 and responses must be received by this date.

We are consulting on our proposals for Sizewell C in line with our Statement of Community Consultation (SoCC), which explains how we proposed to consult the local community about our proposals. The SoCC was agreed with Suffolk Coastal District Council (SCDC) and Suffolk County Council (SCC) and is available online at www.sizewellc.co.uk.

Development Consent Order

Sizewell C is classed as a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008.

Following public consultation, we will make an application for development consent to the Planning Inspectorate for Sizewell C. The Planning Inspectorate will process and examine the application, including encouraging the submission of views from interested parties, before making a recommendation to the Secretary of State, who will make the final decision on whether or not to grant consent.

More information on the NSIP planning process is available at: http://infrastructure.planninginspectorate.gov.uk

Preliminary environmental information

The environmental sensitivities of the local area have been a key consideration in the development of our proposals. We provided preliminary environmental information as part of both the Stage 1 and Stage 2 consultations and have continued to collect information in preparation for Sizewell C. In doing so, we have started to consider how potential effects may be addressed. Further preliminary environmental information is provided in this Stage 3 consultation.

An Environmental Impact Assessment (EIA) process is ongoing and is being used to identify any likely significant effects arising as a result of Sizewell C. Where necessary, our design is being refined or mitigation measures developed to reduce the significance of these effects. The outcomes of the EIA will play a key role in finalising our proposals. A full Environmental Statement (ES) and non-technical summary will be submitted as part of our application for development consent, which will be fully accessible to the public. Further information about the EIA can be found in Volume 1, Chapter 4 and Volume 2 of the Stage 3 Consultation Document

NNB Generation Company (SZC) Limited is currently a joint venture company between EDF Energy and China General Nuclear Power Corporation (CGN).

Scope of consultation: how to find out more and respond

We have developed a preferred position on some of the key elements of our proposals, while continuing to consider options in relation to others.

We are seeking your views on all aspects of our Stage 3 strategies and proposals and encourage you to comment

- > our overall proposals for the Sizewell C nuclear power station;
- the associated development needed to support the construction and operation of the power station; and
- > the potential effects of Sizewell C both positive and negative - and proposed mitigation measures.

The principle of the need for new nuclear power stations and the choice of Sizewell as a potentially suitable site have already been determined by Parliament, following public consultation and debate, as set out in national policy. Therefore, these issues are outside the scope of this consultation. For more information, see Volume 1, Chapter 3 of the Stage 3 Consultation Document.

Copies of all the consultation documents are available to take away on USB memory sticks and to view in hard copy at our exhibitions and at the Sizewell C Information Office, open from 9.30am - 5pm Monday to Friday and 9am -12pm Saturday (48-50 High Street, Leiston, IP16 4EW) throughout the Stage 3 consultation. Hard copies will be available to view during normal office hours in the offices of Suffolk County, Suffolk Coastal District, Waveney District and Ipswich Borough Councils, as well as local public libraries. Documents are also available online: www.sizewellc.co.uk

If you require the consultation information in a different format for accessibility reasons, please call (0800 197 6102) or email info@sizewellc.co.uk.

The deadline for responses to our Stage 3 consultation is 29 March 2019.

Consultation event locations

We will be holding consultation events at the following

> Sizewell

> Saxmundham

> Leiston

> Woodbridge

> Theberton

Middleton

Yoxford

Southwold > Aldeburgh

> Darsham

> Hacheston

> Stratford St Andrew

> Wickham Market

> Trimley

Details of the times and venues can be found in our Stage 3 newsletter and online: www.sizewellc.co.uk.

Alternatively, please call 0800 197 6102 for more information about the consultation events. If you are unable to attend the exhibitions, copies of the exhibition boards are available to download from the project website: www.sizewellc.co.uk.



Learn about the proposals



Read this Stage 3 Consultation Summary Document



Find out more detail in the Stage 3 **Consultation Document**



Attend our exhibitions



Visit the Sizewell C Information Office in



Check out the website: www.sizewellc.co.uk



Call freephone **0800 197 6102** during normal office hours.



Follow us on Twitter @edfesizewellc

Respond to the consultation



Complete a questionnaire: www.sizewellc.co.uk Or in hard copy and post it to our freepost address (see below)



Email your comments to info@sizewellc.co.uk



Post your written responses to FREEPOST SZC Consultation (no stamp or further address required)



Call freephone **0800 197 610** during normal office hours. Call freephone **0800 197 6102**

2. Main changes through consultation

Along with on-going engagement, learning from Hinkley Point C, and technical and environmental work, consultation has played an important role in the development of our proposals. The table below summarises how the key Sizewell C associated developments have developed through each stage of consultation.

STAGE 1	STAGE 2	STAGE 3
JIAGE	SIAGE 2	SIAGES

Freight management strategy Proposed options	Marine-led Rail-led	Marine-led Rail-led	Road-led Rail-led
Northern park and ride Location options Car parking spaces (up to)	B1122 Yoxford Road Darsham A12/A144 1,000	Darsham A12/A144 (reserve)	Darsham 1,250
Southern park and ride Location options Car parking spaces (up to)	Wickham Market Woodbridge Potash Corner 1,000	Wickham Market Woodbridge (reserve)	Wickham Market
A12 Farnham Proposed options	Traffic controls Road widening One village bypass	No change Road widening One village bypass Two village bypass	Two village bypass
A12/B1122 Yoxford Proposed options	-	Traffic signals Roundabout	Roundabout
B1122 Proposed options	-	Minor improvements	Theberton bypass (rail-led) Sizewell link road (road-led)
Freight management facility Location options	Orwell West Orwell East Seven Hills	-	Seven Hills (road-led) Innocence Farm (road-led)
Accommodation Campus location options Number of beds Sports facilities	Development site Sizewell Gap Leiston East 2,000-3,000 Development site	Development site (east and west of Eastbridge Road) Development site (east of Eastbridge Road only) 2,400 Development site & off-site	Development site (east of Eastbridge Road only) 2,400 Off-site (Leiston)
Caravans	-	Development site, early years of construction	Development site, 400 pitches throughout construction

Main changes since the Stage 2 consultation

Main development site

SSSI crossing: we have selected a causeway over a culvert (see page 13) as our proposal.

Sea defence: designs for an effective sea defence and landscape feature have been progressed (see page 12).

Training building: proposed location at Goose Hill (north of the main platform, adjacent to the main car park, see fig 3.1).

Emergency response equipment store and backup generator: equipment store proposed to enable rapid response to an emergency event, with a Combined Heat and Power plant for the accommodation campus retained for backup power during operation.

Electrical connection: we are now proposing to connect to the Grid via an overhead line within the Sizewell C site as further work has shown significant safety and programme risks associated with the underground cables proposal.

Borrow pits: use of the proposed borrow pit field most visible from Eastbridge Road has been discounted. We are now considering - on a precautionary basis - retaining the remaining three fields from the Stage 2 options for borrow pits (see page 15).

Electrical substation: a new substation, located east of Old Abbey Farm, is required to complete the electrical connection between the Leiston substation at Sizewell Wents, the emergency equipment store and the ancillary buildings.

Transport

Movement of materials: we are now consulting on two alternative strategies to support freight movement:

- Rail-led (see page 25 for details): direct access into the main site for five trains a day using the green rail route, and a road bypass of Theberton; or
- Road-led (see page 28 for details): a new Sizewell link road from the A12 to the B1122, and a freight management facility to the east of Ipswich, along with two trains a day to Sizewell Halt or a new rail siding throughout construction.

Saxmundham - Leiston branch line: upgrades to nine level crossings (between the Saxmundham junction and Sizewell Halt) under both the rail-led and road-led strategies.

East Suffolk line: significant improvements under the rail-led strategy, including upgrades of 33, and closure and diversion of 12 level crossings. Some improvements may be required for the road-led strategy (see page 24), subject to further assessment with Network Rail.

Sizewell Halt or new rail siding: use of the existing terminal known as Sizewell Halt or construction of a new rail siding (on land east of Eastland Industrial Estate (LEEIE)) on the same Saxmundham - Leiston branch line (see page 23).

Northern park and ride: at Darsham a new entrance to the site, more car parking spaces (although the size of the site remains the same), and revised landscaping is now proposed (see page 32).

Southern park and ride: at Hacheston, the 'Wickham Market' site includes more car parking spaces (although the size of the site remains the same) and two options to mitigate potential delays on the B1078 between Border Cot Lane and River Deben bridge that may occur as a result of the southern park and ride (see page 33).

Marine-led approach: we no longer propose moving freight by sea due to the impact on marine ecology of building a jetty. Measures to limit this impact would significantly increase construction time, would not fully address impacts, or meet the Government-identified "urgent" need for new nuclear power stations. The beach landing facility remains proposed for construction and operation (see pages 14 and 22).

Accommodation

Campus: all development related to the proposed 2,400-bed accommodation campus would be located to the east of Eastbridge Road (see page 21). Only three-storey and four-storey (rather than up to five-storey) accommodation buildings are proposed. Off-site sports facilities (in Leiston) are proposed to be shared with the community during construction and left as a legacy afterwards.

Caravans: we are now proposing around 400 pitches on LEEIE, available in the early years before the campus is established and retained throughout construction as an option for workers (see page 22).

Road improvements

A12: our proposal is now a bypass of both Farnham and Stratford St Andrew (a two-village bypass), with key design changes predominantly aimed at reducing environmental impacts (see page 35).

Additional B1122 mitigation: we are proposing a bypass to reduce the impact of peak construction traffic on the B1122 through Theberton. Under the rail-led strategy, the Theberton bypass (see page 27) would run from a point between Middleton Moor and Theberton, and end on the B1122 east of Theberton. Under the road-led strategy, the bypass would be known as the Sizewell link road (see page 28). It would incorporate the route of the Theberton bypass and extend further to also bypass Middleton Moor, joining the A12 south of Yoxford.

3. Sizewell C power station

Introduction

We plan to build and operate a new nuclear power station in Suffolk on land immediately to the north of the Sizewell B power station, adjacent to an area that has had nuclear power stations operating since 1966.

Feedback from the Stage 2 consultation, on-going engagement, further technical and environmental work, and lessons from Hinkley Point C have resulted in some changes to our proposals, which are outlined in this summary document and explained in more detail in the Stage 3 Consultation Document.

Should we receive the necessary consents, we expect construction of the power station to take between 9 and 12 years.



Fig 3.1: Operational masterplan

Components of the power station

The proposed design of the Sizewell C buildings takes into account the sensitive nature of the surrounding environment while providing enough space to build and operate the power station safely and efficiently.

The permanent components of Sizewell C would be:

- > two UK EPR™ reactor units made up of reactor and associated buildings, plant and infrastructure, and turbine halls and electrical buildings;
- > fuel and waste facilities, including interim storage for radioactive waste and spent fuel;
- an operational service centre (including offices), a training building, and ancillary office and storage buildings;
- a cooling water system and combined drainage outfall in the North Sea;
- > drainage and sewerage infrastructure;
- > transmission infrastructure including 400kV overhead lines and towers (pylons), a National Grid 400kV substation and associated modifications to the existing National Grid transmission lines;
- a backup power source and emergency response equipment store at Upper Abbey Farm;
- > internal roads, a causeway to cross the Sizewell Marshes Site of Special Scientific Interest (SSSI), car parking, and a vehicle search area:
- > sea defences and a beach landing facility;

- a helipad for infrequent use by Sizewell B and Sizewell C, replacing the existing emergency landing site at Sizewell B on the outage car park;
- > an access road including a new roundabout to join the B1122; and
- > landscaping of the areas to be restored following use during construction.

Safety considerations, assessed by the Office for Nuclear Regulation (ONR), mean the design of the nuclear safety structures comprising a significant part of the power station, such as the reactor buildings, are fixed in terms of their layout, shape and external appearance.

Alongside the reactor domes, the turbine halls would be the most prominent buildings at the power station. Following feedback at Stage 2 consultation, we are continuing to develop the design of these buildings to improve their relationship with the Area of Outstanding Natural Beauty (AONB), in which they are located, the Suffolk Heritage Coast, and to the other prominent buildings at Sizewell A and Sizewell B power stations.

Environmental considerations - main development site

Construction of the power station would have an impact on the surrounding environment. Since Stage 2 consultation we have continued to undertake environmental surveys and identify likely impacts to help inform our proposals.

Where impacts are likely to be significant, we have embedded mitigation into our design, or are proposing separate measures to reduce them. The most significant effects related to the Sizewell C proposals are outlined below, with more information available in Volumes 2 and 3 of the Stage 3 Consultation Document.

Landscape and seascape character

The Sizewell C site is within the Suffolk Coast and Heaths AONB and on the Suffolk Heritage Coast. While our proposals have been designed to reduce the effects of the power station on the landscape and seascape character, it is likely they would still be significant.

During construction and operation, there would be physical impacts on the landscape and seascape character in areas within and adjacent to the main development site. Effects during construction would be temporary and we are proposing enhancements for the operational phase, including establishment of new areas of woodland, tree belts, grassland and coastal habitat.

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Visual

The scale and extent of visual impacts during construction would vary depending on the type of activity being undertaken. While views to some activity would be limited, other activities would be visible at greater distances, for example when tall cranes are in use, where works are located on the coast and in relation to the use of stockpiles for storage of fill material and top soil (see page 15 for more information).

During operation, permanent effects are likely to be experienced by walkers and visitors to Sizewell Beach and offshore areas between Sizewell Village and Minsmere Sluice, users of rights of way in close proximity to the power station, and at locations with clear views up to 2.5km away, particularly along the coast to the north. The way Sizewell C's more prominent buildings are likely to be viewed can be seen in outline in the illustrative views provided (fig 3.2 and 3.3).

Historic environment

Since the Stage 2 consultation, archaeological investigation including trial trenching has identified buried archaeological remains of low to moderate importance on parts of the main development site.

These would be investigated further ahead of construction, in accordance with mitigation schemes to be agreed with Suffolk County Council Archaeological Service and Historic England. Mitigation would reduce effects to 'not significant' by ensuring that the archaeological interest of any significant deposits and features would be appropriately investigated, recorded and disseminated.

During construction it is likely there would be significant effects on the settings of a small number of designated heritage assets nearby. The potential for adverse effects on Leiston Abbey has been reduced by our proposed campus layout, location of the sports facilities in Leiston and removal of borrow pit options west of Eastbridge Road. Following this Stage 3 consultation we will continue our assessment of effects on Leiston Abbey and Upper Abbey Farm and work with relevant stakeholders on the details of the assessment and any potential mitigation measures.

Landscape mitigation, such as screening, would reduce the magnitude of any adverse effects on other designated assets. It is not anticipated that any significant impacts would remain during the operational phase of the power station.



Fig 3.2: Illustrative view looking south from the beach



Fig 3.3: Illustrative view from junction of footpaths, The Walks

Noise and vibration

Construction noise would be greatest during the early phases of work, which would include site clearance, earthworks, and construction of site infrastructure and contractors' areas. The main sources of noise would be excavators, bulldozers, cranes, steel erection, and the asphalting plant.

Once the contractors' areas are established, the principal noise sources would be from steel fabrication, vehicle movements and deliveries, and the operation of the concrete batching plant. During later phases of construction, noise sources would be considerably further from the site boundary, meaning off-site noise levels would be lower.

Mitigation - such as screening around construction areas - would be used where necessary to reduce any significant noise effects, particularly in relation to local homes and other sensitive locations. We will continue to develop our proposals for mitigation measures following this Stage 3 consultation and through further work on our construction plans. Noise during operation is likely to be low and similar to that of Sizewell B.

A detailed analysis of vibration from construction has not yet been carried out. Piling, which is often a primary source of high levels of vibration, would occur on the main development site but at distances sufficiently far from sensitive receptors that it is unlikely to have a significant effect

Footpaths and bridleways

We understand that footpaths/bridleways and access to the beach are important. Our approach aims to limit disturbance, retain connectivity and provide appropriate diversion routes during construction.

Parts of the Suffolk Coast Path, Sandlings Walk, and some footpaths would be diverted for temporary periods during construction to ensure public safety during essential engineering works. Users of these diversion routes would experience construction noise and close views of the construction site. Visitors to Leiston Abbey and Leiston Common would also be affected, along with users of a number of public rights of way, users of the Sustrans cycle route, and visitors to the beach. Temporary diversions of Bridleway 19 (running north/south by Upper Abbey Farm) would also result in disruption for users. Advance notice would be given of any closures or diversions of footpaths and bridleways.

Once the power station is operational, we plan to restore the majority of temporary closures and diversions, improve amenity across the EDF Energy estate network and increase connectivity from Sizewell C to the wider area.

A new north/south, off-road route (running parallel to Lover's Lane and the B1122) suitable for horses, cyclists and pedestrians is proposed during construction and would be retained during operation.

Ecology

ecological sensitivity. It would require a small part of the Sizewell Marshes SSSI to be permanently used to form the western side of the main platform for the power station, as well as to provide a crossing for the main access road. To help compensate for the permanent loss of a small part of the SSSI, we are working on habitat creation schemes that would result in a substantial area of new inter-connected, semi-natural habitat (see page 39 for more information) across the wider EDF Energy estate. A small additional area of the SSSI land would also be used temporarily to build the crossing but would be restored after construction.

The main development site is bordered by areas of

Work on the potential effects of construction on birds is on-going, along with assessments of the impact of noise and lighting on bats. There is likely to be some disturbance to local bat populations during construction, however appropriate mitigation should mean the effects are not significant.

Construction of the new sea defence structures associated with Sizewell C would use some of the habitat area of the coastline that currently supports a distinctive type of beach vegetation. However, once constructed, vegetation would be allowed to re-establish. There is also potential - with sea level rise predictions - for this coastal vegetation to be lost to natural processes at some point in the future.

Work is on-going to understand the potential effects on marine ecology and fisheries. Mitigation measures would be included where appropriate.

Lighting

A construction lighting strategy would be prepared to target lighting only where it is needed, avoiding unnecessary illumination and limiting upward lighting and light spill to neighbouring areas. Lighting would also be limited adjacent to retained ecological buffers within the main development site, particularly where these are of importance to bats, and along the coastal frontage in the area of the sea defences, coast path and beach.

Air quality

Some construction works have the potential to generate emissions to the air through wind-blown dust and on-site machinery emissions.

Dust deposits may impact a small area of Minsmere-Walberswick Heaths and Marshes Special Area of Conservation (SAC), and Sizewell Marshes SSSI. Mitigation embedded into our design - for example surfaced roads, siting of dusty activities away from the boundaries of the construction area where feasible, and screening - would limit impacts from dust in these areas, meaning the overall quality of the SAC and SSSI is not expected to be significantly affected. We would also monitor deposited dust and materials, controlling them through additional mitigation measures where necessary.

Sea defence

A new sea defence is required to protect the power station from flooding during storm surges and high waves. It would consist of a large earth embankment with "rock armour" under the surface and along its length to provide extra strength and help protect it from erosion.

We are also proposing that the role of the northern mound, a substantial landscape feature to the north of Sizewell Beach (see Volume 1, Chapter 7 of the Stage 3 Consultation Document for more details), would expand to become part of the sea defence structure. It would tie into the proposed Sizewell C sea defences - which would in turn tie into the Sizewell B sea defences - to provide a continuous structure (see fig 3.4). We expect that it would need to be removed and re-built to ensure it is strong enough to provide adequate protection. Our continuing assessments will help us determine how best to protect Sizewell C while limiting effects on the local environment as far as practicable.

Coastal processes

We have been monitoring coastal processes in the area surrounding the proposed Sizewell C site for a number of years. Studies have involved the use of a number of techniques, such as radar and photography from remotely piloted aircraft.

Potential effects on coastal processes could arise if a temporary rock platform is used to build the beach landing facility (BLF) as it would block the shingle corridor (the beach) and partially block the sand transport corridor (part of the inner longshore bar). The BLF itself would be designed to ensure it has no significant effect on waves, sediment movement, or the adjacent beach.

During operation, it is possible that the Sizewell C fish recovery and return, and combined drainage outfalls could have an impact on the movement of shingle, leading to a wider beach and reduction in shingle supply. We are undertaking an assessment of shingle transport rates to understand likely drift and potential for losses and will develop mitigation measures if appropriate.

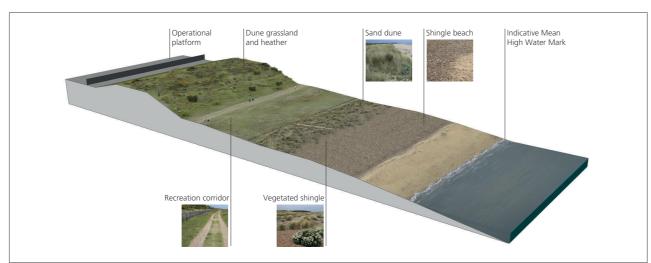


Fig 3.4: Illustrative cross-section of sea defences

Sizewell C site access

New access road

We propose to build a new, permanent, two-lane access road with a segregated route for cyclists and pedestrians to link Sizewell C to the B1122. This would be the main route to bring workers and materials onto the site during construction and the main access for Sizewell C once the power station is operational.

This access road is a regulatory requirement, as all new nuclear power stations need to have two separate entrances. The existing Sizewell power station road would provide the secondary access and would be rarely used after approximately the first year of construction. As we develop our proposals further we will continue to seek ways to limit disruption to local residents and road users during this initial period.

The proposed access arrangements include:

- a new roundabout, located slightly east of the existing alignment of the B1122, to form part of the main development site entrance;
- > at the eastern end of the road near to the power station (Goose Hill), a staff car park with approximately 735 spaces for day-to-day operational staff and an area for additional parking (approximately 600 spaces), fabrication and laydown to be used during maintenance periods (outages);
- a training building, likely to be single-storey, located in the southwestern corner of the main car park; and
- > a vehicle search area facility and other ancillary buildings.

The width of the access road would be reduced once Sizewell C is operational and would be designed with landscaped margins to tie into the adjacent habitats, including woodland blocks and hedgerows, while still allowing safe access. The access road itself would not be lit during operation. The junction with the B1122, the vehicle search area facility, the car park and associated facilities would be lit for saefty reasons.

SSSI crossing

The new access road would need to cross the Sizewell Marshes SSSI to reach the power station. With a more detailed understanding of the construction process and likely environmental impacts, our proposal for the crossing is a causeway over a culvert (see fig 3.5).

The crossing has been designed with ecology in mind, having the culvert significantly larger than required for operational purposes and leaving the bank and channel of the Leiston Drain completely intact. The culvert's size would allow the passage of bats and water voles, with a ledge installed to enable passage by otters.

The speed of construction of the crossing is critical to the overall construction programme. Our proposal allows the earliest possible construction access. We would use temporary short span panel bridges supported on the abutments of the culvert structure at the eastern end of the crossing while the causeway is built at the west. Once built, the surroundings of the crossing would be left undisturbed.

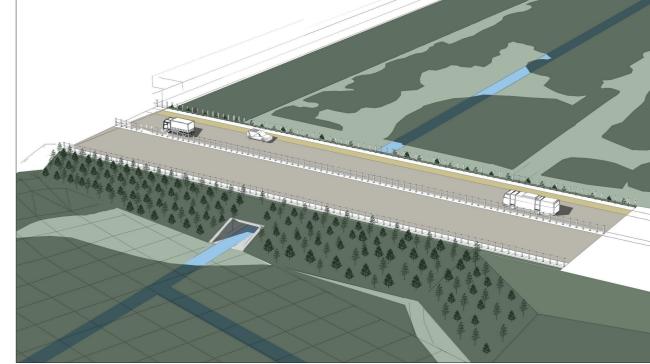


Fig 3.5: Illustrative SSSI crossing during construction

Beach landing facility (operational phase)

While our approach to the use of sea transport has changed since the Stage 2 consultation (see page 7), the need for a permanent beach landing facility (BLF) during the operational phase of Sizewell C remains. The BLF would facilitate an occasional - but essential - need to transport across the shore exceptionally large loads that are too big for transportation by road.

The BLF would be connected to Sizewell C by an access road incorporated into the northern mound, but would be largely obscured from most views once vegetation has established

We estimate that the BLF would be used infrequently during operation, approximately every 5-10 years for a few weeks at a time, during which we would endeavour to keep any beach closures to a minimum, publicising in advance where possible. We are also proposing to use the BLF during construction (see page 22).

Relocation of Sizewell B facilities

For some time, the owner of Sizewell B, Nuclear Generation Limited (NGL), a subsidiary of EDF Energy, has planned to upgrade and relocate some facilities in closer proximity to the main Sizewell B operation, allowing Sizewell C to use the land where they are currently positioned.

These works are critical for the construction of Sizewell C and NGL intends to submit a separate planning application to Suffolk Coastal District Council (SCDC) following preapplication consultation from 4 January to 1 February 2019. For more information see the Sizewell B Relocated Facilities Public Consultation document, which is available at www.rlfsizewellb.co.uk or from Sizewell B Power Station and the Sizewell C Information Office on Leiston High Street.

To maintain flexibility in the planning process and to reduce programme risks, we also intend to apply for the relocation of the Sizewell B facilities in the application for development consent for Sizewell C (for more information see Volume 1, Chapter 7 of the Stage 3 Consultation Document).

The facilities to be relocated include:

- > the Sizewell B visitor centre (which would be replaced by a facility located in Coronation Wood and serving Sizewell B and C) and the technical training centre (and their parking areas);
- an outage store, outage laydown area, and outage car park;
- > operations training centre and additional training facilities: and
- > Rosery Cottages garage, a projects office, workshop and store areas.

Construction and temporary development

Main development site

Environmental sensitivities are key considerations for us in developing proposals, including in relation to construction and temporary development. Our proposals aim to avoid significant adverse effects and, where this is not possible, embed mitigation measures in our design in a way which is environmentally responsible and sensitive to the needs of the community and local authorities.

The main development site includes:

- construction working compounds (parking, laydown areas, working areas, and related works and structures);
- an induction centre, site offices, and temporary structures, including a concrete batching plant;
- > temporary rail infrastructure (for the rail-led strategy only);
- site access, construction roads, fencing, lighting, security features, landscape bunds and screening;
- > temporary spoil management areas, including borrow pits and stockpiles;
- public access works, including permanent and temporary closures and diversions of public rights of way;
- > water management zones, utilities and services infrastructure; and
- > an accommodation campus.

The location of specific uses on the main development site during construction would depend on which of our two proposed strategies (rail-led or road-led) is chosen for the movement of materials (see page 22). Figure 5.5 shows the potential construction masterplan under the rail-led strategy, while figure 5.8 shows the potential masterplan for the road-led strategy.

Existing woodland and areas identified for early tree/
hedgerow planting would help screen activities, including
at the site entrance and along the northern perimeter.
Differences in the height of land to the north and south of
the site would also help screen construction activity from
wider views. Temporary noise screening, including bunds
and fencing would be used in a number of locations to
reduce impacts of construction noise on adjacent areas.

A site entrance hub east of the new B1122 junction would serve as an access point for goods vehicles transporting construction materials as well as for workers and visitors to the site. It would act as the 'People Hub' for the construction site, ensuring safe, secure access to the site. Operating outside the main security fence to allow more flexibility in operation, it would include a site office, induction centre, canteen and access to the accommodation campus. A freight area with a checkpoint, security checking facilities and parking is also proposed.

A secondary access from Lover's Lane would be required to connect the main development site to land east of Eastlands Industrial Estate (LEEIE), the area directly north of Sizewell Halt, which would be used to support construction. This access would also serve as an emergency access point in the event of an obstruction at the main development site entrance.

The workers' accommodation campus is an integral part of the main development site proposals. It would help mitigate potential impacts on local communities by reducing pressure on local accommodation. It offers significant benefits in terms of reducing journeys on local roads and wider worker management. More information on our accommodation strategy and the campus proposals can be found on page 20.

Managing construction materials

The deep excavation needed to build Sizewell C would generate large amounts of spoil and a need for material to replace or backfill it. Following feedback from the Stage 2 consultation and further technical work, we have confirmed our preference for keeping construction material on-site. We are satisfied it can be sensitively incorporated as part of the land restoration works and that this approach is more sustainable than shipping the material off-site.

To support the on-site approach, we are proposing to source construction material for use in building the power station from 'borrow pits' which would be backfilled with peat and clay excavated from the foundation area of the power station.

At Stage 2 we proposed using two fields (from a selection of four field options) for the borrow pit operation. Since then, we have discounted use of the field most visible from Eastbridge Road which would have required large construction vehicles to cross Eastbridge Road. Whilst it is the only borrow pit option not in the AONB, on balance we consider using this field to be the least appropriate solution for borrow pit works. We are now proposing to retain the remaining three fields from Stage 2 for borrow pits to ensure sufficient suitable material is available for the main platform (see fig 5.5 or fig 5.8).

We are also proposing a number of stockpile areas for storage of construction materials. We are now considering - on a precautionary basis - retaining the remaining three fields from the Stage 2 options for borrow pits to ensure sufficient suitable material is available for the main platform.

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4. People and economy

Introduction

A project of the scale and complexity of Sizewell C would bring significant economic and employment opportunities. It would support the security of the UK's economic future as well as producing a long-term boost for the local economy through increased employment and skills provision. Since the Stage 2 consultation we have worked closely with local authorities and other organisations to develop our proposals and we welcome feedback on our current plans.

Our expectation remains that the power station would put at least £100 million a year into the regional economy during peak construction and £40 million per year during its 60 years of operation. This is based on the Hinkley Point C application for development consent, however since construction has started its forecast has been revised to £200 million per year of local economic benefits during the construction phase. We are working to understand the extent to which the supply chain in Suffolk and the East of England is likely to be able to secure a similar package of contracts to those secured locally at Hinkley Point C.

Construction of Sizewell C would create approximately 25,000 roles on the main development site. There would also be a need for a significant workforce in nonconstruction roles, both directly and in the supply chain, including in the tourism, hospitality, food production, and business support sectors. Once operational, there would be a long-term legacy of 900 permanent jobs, as well as a regular short-term workforce of around 1,000 people during refuelling and maintenance outages.

While the potential benefits are substantial, we recognise that Sizewell C could also result in adverse social or economic effects, and our overarching approach is to avoid, mitigate, or manage these. Our work on the social and economic impacts of Sizewell C will be supported by separate Health Impact Assessment and Community Impact Reports, which will form part of our application for development consent.

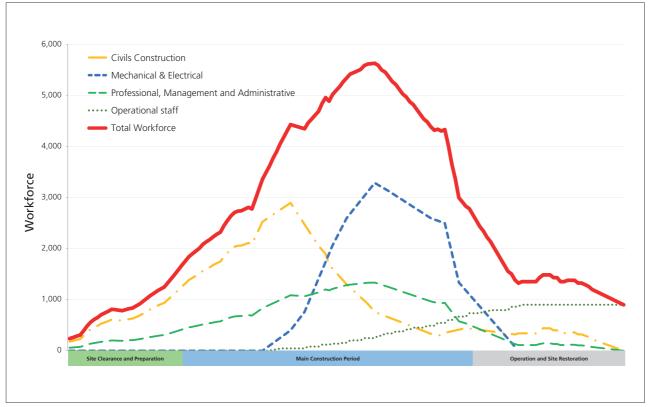


Fig 4.1: Sizewell C construction labour demand curve - estimated workforce numbers

Construction workforce

Our Stage 2 peak workforce estimate of around 5,600 workers on the main development site (with around 2,000 predicted to come from the local area or be 'home-based') remains the same at this Stage 3 consultation. We are also expecting that supporting developments (off the main site) will need a further 500 workers, all expected to be home-based. The workforce profile for Stage 3 - showing occupation types over time - also remains unchanged (see fig 4.1).

While our central assumptions about the number, type and duration of roles has not changed since Stage 2, they remain a forecast and there will always be some uncertainty over the actual number of workers. To ensure our assessment is robust, in this Stage 3 consultation we have also considered what the effects might be if the workforce numbers turned out to be higher (see Volume 1, Chapter 4 of the Stage 3 Consultation Document for more information).

Supply chain

Wherever possible, we are aiming to ensure local businesses can compete for the significant number of contracts needed to build, support and operate Sizewell C.

We are already working with Suffolk Chamber of Commerce to build and operate a supply chain database enabling local businesses to register and get 'Fit for Nuclear' - the industry benchmark for nuclear-ready manufacturers. We anticipate that the Chamber's role will expand for construction, to start matching suppliers with Sizewell C requirements, communicate contract opportunities, and connect suppliers with support to meet quality and safety standards.

A supply chain engagement strategy, setting out the steps we have taken to understand and support the local supply chain and identifying potential local benefits, will form part of our application for development consent. For more information or to register an interest, along with more than 1,300 companies already on the database, please visit: www.sizewellcsupplychain.co.uk.

Education, skills and employment

We are committed to ensuring local people are able to access the jobs and benefits Sizewell C would bring to the area. Promotion of sustainable careers in key sectors that would support the construction of Sizewell C is a fundamental part of our work.

We are aiming to build on regional plans to create a skills system to meet future economic needs, raise individual achievement and aspiration, and help people into work.

We have already helped develop a skills model - based on a network of schools, colleges, higher education and industry partners - for the East of England which has the potential to help deliver key parts of Sizewell C. It could also be extended to deliver courses at the National College for Nuclear, itself a partnership between industry (including EDF Energy), regulators, skills bodies and training providers.

We also actively promote industry careers, supporting the Suffolk Young Chamber and Suffolk Skills Show in particular, and are recruiting for our first apprentices in quantity surveying, project controls, and civil engineering, as well as for interns from local universities.

Following this Stage 3 consultation, we will continue to develop our proposals in collaboration with key stakeholders and include an employment, skills and education strategy as part of our application for development consent.

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Tourism

We recognise that tourism is an important source of jobs and income in many areas of the local economy, in particular within the Suffolk Coast and Heaths Area of Outstanding National Beauty (AONB).

We are working with key organisations, including local authorities, Suffolk Coast Destination Management Organisation, Visit Suffolk and the New Anglia Local Enterprise Partnership to understand the local tourist economy and Sizewell C's potential effects on it. We have also started identifying opportunities and mitigation measures - including a potential Tourism Fund - that could support the area's tourist economy.

We will work with local organisations and businesses which may be affected by Sizewell C to agree measures to avoid and mitigate significant effects, where predicted.

Public services and community facilities

We recognise local concerns about the impact of construction, including the size, location and activities of the workforce.

To ensure high standards of behaviour from our workforce, both on-site and in the community, all Sizewell C workers would be required to sign and comply with a strict Code of Conduct, including mandatory drug and alcohol testing. Failure to comply with the Code of Conduct may result in dismissal.

Since the Stage 2 consultation we have been working with the local authorities and emergency services to understand potential effects on healthcare, social care for adults and young people, the use of local services in settlements close to the site, and the potential effects on emergency response in the community. We have also established an

emergency services working group, which includes fire and rescue, police and ambulance services, to determine the level of additional need - and potential mitigation required - that may arise as a result of Sizewell C.

Continuing collaboration with local stakeholders will help us develop a Community Safety Management Plan to address issues that may arise and mitigation measures, which could include direct investment in infrastructure or financial contributions. We are also proposing a Community Fund for schemes, measures and projects which promote the economic, social or environmental wellbeing of communities and enhance their quality of life, as well as mitigating any intangible and residual impacts of Sizewell C.

The Community Fund would be used for reducing

impacts or helping the community take advantage of

opportunities related to Sizewell C and could include:



A Tourism Fund could deliver, for example:

- Marketing and promotion for attractions and events within the Suffolk Coast
- Support for local projects, including capital and revenue investment
- Future visitor surveys and support for tourist information centres

- Responses to effects on particularly sensitive attractions/ locations within the AONB
- Development or support of a Tourism Strategy/Action Plan

- Small grants to charities, enterprises for projects or
- voluntary groups, and social initiatives to help compensate for effects felt in the community from construction of Sizewell C
- > Strategic grants, such as for investment in local facilities or services to boost the positive and address the negative impacts on local communities







5. Accommodation and transport

Introduction

Building Sizewell C would involve the daily movement of large numbers of construction workers and significant amounts of materials and equipment. Following feedback at Stage 2, lessons from Hinkley Point C, and further technical work, we have continued to develop our plans with the aim of reducing the impact of construction on local communities and pressure on local roads.

We anticipate there would be 5,600 workers on the main development site, plus 500 workers at the associated development sites during peak construction. However, this assessment is a forecast and there will always be some uncertainty over the actual number of workers. To ensure our assessments are robust in relation to transport, environmental effects, worker accommodation and impact on services, we have considered what the effects might be if the workforce numbers turned out to be higher - up to 8,500 workers (7,900 on the main development site and 600 on associated development sites) at peak.

To do this, we have taken two different approaches to related assessments:

- > For transport, where the effects are project-wide and complex, we have based our modelling on the higher assessment number so all potential effects are captured.
- For socio-economics, the potential effects of a higher workforce are easier to anticipate, so we have maintained our assessment at the central case of 6,100 workers but considered on a topic-by-topic basis including for accommodation what the effects of a higher number might be and how those effects might be reduced.

A larger workforce would not affect the scale of the physical components of Sizewell C, although it may require additional mitigation (see Volume 1, Chapters 4 & 5, of the Stage 3 Consultation Document for more information).

A single, on-site accommodation campus for 2,400 workers remains a key part of our proposals and our commitment to providing two park and ride facilities to reduce the amount of traffic generated by the construction workforce on local roads also remains. We are now presenting two alternatives for the movement of materials during construction; either a rail-led or a road-led approach (see page 22 for full details of these two alternative strategies)

Accommodation

The overall aim of our accommodation strategy is to strike a balance between providing temporary worker accommodation and workers using existing local accommodation, in order to limit impacts on the community while promoting the economic benefits of workers living and spending in the area.

We estimate that at the peak of construction, with a workforce of 5,600, just over a third (2,000) of main site workers and a further 500 associated development workers would live at home and commute to work. The remaining 3,600 main site workers would live in temporary accommodation in the area.

While home-based workers are likely to be willing to commute up to 90 minutes, we expect that workers living in temporary accommodation would want to live closer to the site to minimise daily travelling time to within approximately a 60-minute commute. These workers would seek a range of accommodation - in the private rented and tourist sectors, as well as in our proposed purpose-built campus (see page 21) and caravan accommodation (see page 22) - depending on their role and the length of their contract.

Accommodation management

Together with local organisations, we are developing systems to allow local landlords, tourism businesses and residents to register accommodation available for workers and to guide our workers towards this accommodation.

We are also proposing to establish a Housing Fund to enable local authorities to take early measures to mitigate against potential impacts of Sizewell C on the local housing market. It would also help to boost the supply of accommodation in the local area and support housing services for local residents. For more detail and information about other initiatives under discussion with the local authorities, see Volume 1, Chapter 4 of the Stage 3 Consultation Document.

Main development site campus

We remain committed to providing a single, high quality, on-site campus to cater for a significant proportion of short and medium-term workers, within walking distance of the construction area. The campus would play an important role in helping to:

- > reduce the number of journeys made by workers on local roads;
- reduce pressure on tourist accommodation and the private rental market;
- allow flexible working patterns and out of hours working that would be necessary to maintain construction productivity and progress;
- allow us to manage worker behaviour and impacts on the wider community; and
- > bring benefits for local businesses supplying goods and services to the campus.

Following feedback from the Stage 2 consultation and further assessments, our proposal is to locate all development to the east side of Eastbridge Road (see fig 5.1) and to build the associated sports facilities remotely at a site in Leiston. We have revised the layout of the campus to address concerns of massing and height of the buildings. We are now proposing only three-storey and

four-storey (rather than up to five-storey) accommodation buildings. The three-storey buildings would be nearest to Eastbridge Road and the four-storey buildings further east, reducing impacts on Leiston Abbey and the Area of Outstanding Natural Beauty (AONB).

Located entirely outside of the AONB, the 2,400-bed campus would comprise:

- accommodation buildings of three to four storeys with self-contained rooms and en-suite facilities, a canteen/ restaurant and kitchen facilities, a laundrette/laundry service, a shop, bars and recreational areas, a gym, and central administration offices;
- parking spaces for approximately 1,500 cars;
- > refuse stores for each block, waste recycling and facilities to supply energy to the site, and other utilities and services, including a water treatment plant; and
- a site security area including fencing, a perimeter road, and appropriate lighting to ensure the safe and secure operation of the site.

Car parking would be provided at the northern end of the site on two levels and to the south of the accommodation blocks at ground level. Existing boundary trees and hedgerows along Bridleway 19 and Eastbridge Road would be maintained, with new planting proposed to the east of Eastbridge Road.

The perimeter of the campus would be fenced and there would be no 'northern' access to the site. This measure, together with landscaping, would help to screen the campus from Eastbridge, a key area of feedback from residents at the Stage 2 consultation.



Fig 5.1: Illustrative campus layout

- Main entrance / security point
- Entrance / security point
 Entrance / security point
- Dining
- Kitchen
- 6. External plant
- 7. Reception / administration / medical
- 8. Foul water pump station
- CHP generator
- 10. Recreation building
- lant
- 12. Emergency store
- 3. 10m wide security zone and fence

- 14. Landscape buffer
- 15. 3-storey accommodation buildings
- 16. 4-storey accommodation buildings17. Parking for residents
- Access street, including disabled parking
- and drop-off bays

 19. "Green Streets"
- 20. Realigned bridleway
- 21. 15m wide bat corridor22. Double-deck car park for residents
- 23. Parking for operations workforce
- 24. Landscape buffer
- 25. Emergency vehicular access

Sports facilities

Feedback at Stage 2 consultation included a desire for the campus sports facilities to be located in Leiston and retained for use after construction. We have considered community demand alongside workforce need to establish that the facilities of most benefit are:

- a full-sized synthetic turf football pitch; and
- > at least two multi-use games areas.

We are working with Suffolk Coastal District Council (SCDC) to determine whether these facilities could be provided on land between Leiston Leisure Centre and Alde Valley Academy, with shared access for Alde Valley Academy, the community, and construction workers. Following this Stage 3 consultation, we will continue to work with SCDC, Leiston Town Council and relevant local organisations on detailed plans.

Gym facilities would be provided for construction workers at the campus to help limit pressure on community facilities and an exercise route within the perimeter is also proposed.

Caravan accommodation

Our proposed caravan site on land to the east of Eastlands Industrial Estate (LEEIE) would be available in the early years, before the campus is established, and retained throughout construction as an option for workers. The current proposal would allow around 400 pitches.

We will continue to work with the local community and councils to address concerns around delivery, operation and management of the site, including the safety of workers moving between the caravan site and facilities in Leiston. Further work on pedestrian routes will be undertaken following this Stage 3 consultation.

Transport

In developing and designing our transport proposals, we have sought opportunities to limit the impact of construction of Sizewell C on the local highway network wherever possible. Our proposals include mitigation measures to limit potential effects on local communities and the environment.

The key elements of our strategy are to:

> use either a rail-led or road-led approach to moving materials onto and off-site:



Rail-led or Road-led 2 alternative strategies

- > build an on-site accommodation campus to reduce the number of workforce journeys;
- > provide park and ride facilities at key locations on the A12 for workers to travel by bus to the main site;
- > provide direct bus services from Ipswich and Lowestoft;
- > provide direct bus services to and from Saxmundham
- operate working patterns that minimise workers travelling at peak times;
- > provide local bus services from Leiston; and
- > provide road improvements where necessary to mitigate the impact of construction traffic.

We are no longer proposing to move construction materials by sea (see page 7 for details), however our proposal for a beach landing facility (for abnormally large deliveries during construction and operation) remains.

For more information on our transport strategy and traffic modelling see Volume 1, Chapters 5 and 6 respectively, of the Stage 3 Consultation Document.

Transport - movement of materials

The construction of Sizewell C would require large volumes of bulk and other materials to be delivered to the main development site.

We are now proposing two alternative strategies - rail-led or road-led - for the movement of materials. We plan to use excavated materials on-site as fill or for landscaping, and a borrow pit to source and deposit material (see Volume 1, Chapter 7 of the Stage 3 Consultation Document). A comparison of proposals under the railled and road-led strategies is shown in fig 5.4. Features common to both strategies, include:

Additional B1122 mitigation: following feedback from the Stage 2 consultation, we are proposing a bypass to reduce the impact of peak construction traffic on the B1122 through Theberton. Under the rail-led strategy, the Theberton bypass (see page 27) would run from a point between Middleton Moor and Theberton, and end on the B1122 east of Theberton. Under the road-led strategy, the bypass would be known as the Sizewell link road (see page 28). It would incorporate the route of the Theberton bypass and extend further to also bypass Middleton Moor, joining the A12 south of Yoxford.

Beach landing facility (construction phase): a permanent beach landing facility (BLF) would be needed for handling abnormally large deliveries during the operational phase of the power station (see page 14).

Although not suitable for movements of bulk aggregates, the BLF would also be used throughout the construction phase to remove the need for heavy and oversized loads to be taken on the road network. It would be designed for use by barges, loaded with deliveries elsewhere, towed to the Suffolk Coast, and moored in position before the barge is beached. The abnormally large deliveries would be transported to site along an access road incorporated into the northern mound.

Sizewell Halt or new rail siding: at Stage 2 we proposed use of the existing terminal known as Sizewell Halt and this option remains, but construction of a new rail siding on the same Saxmundham - Leiston branch line is now proposed as an alternative.

- > Option 1: reconfiguration of the existing Sizewell Halt rail terminal on the branch line to accommodate longer trains, and an overhead conveyor system to move material over King George's Avenue into land east of Eastlands Industrial Estate: or
- > Option 2: a new rail siding adjacent to the existing branch line in the land east of Eastlands Industrial Estate.



Sizewell Halt or new rail siding 2 available options

Stage 3 Consultation Boundary

Existing Public Right of Way

Buffer Zone (faded aerial)

Off-Road Cycle/Bridleway

Logistics Compound

Materials Storage Areas

Reconfigured rail head

Aggregate Conveyors

Topsoil Stockpile

Access Road



Fig 5.2: Option 1 - Reconfiguration of Sizewell Hal



Fig 5.3: Option 2 - New rail siding

Rail proposals: both the rail and road led strategies would require use of existing rail lines to deliver materials in the early years of construction. For the road-led strategy, such use would continue throughout the construction period. Upgrades would be required to nine level crossings on the Saxmundham - Leiston branch line (between the Saxmundham junction and Sizewell Halt) under both the rail-led and road-led strategies.

The rail-led strategy would include significant improvements to the East Suffolk line, including upgrades of 33 and closure and diversion of 12 level crossings. Some improvements to this line may also be required for the road-led strategy, subject to further assessment with Network Rail.

Other proposals: other proposals consistent with both rail-led and road-led strategies include the A12 two-village bypass of Farnham and Stratford St Andrew (page 35), park and ride sites at Darsham (page 32) and Wickham Market (page 33), and other highway improvements (pages 36-37).

Both strategies would also be supported by a number of other activities to manage heavy goods vehicle (HGV) deliveries and movements to and from the main development site, including:

- > An electronic web-based Delivery Management System (DMS) to allocate HGV delivery slots and ensure compliance with agreed controls and limits. It would also allow rapid electronic communication with suppliers should deliveries need to be delayed or rescheduled due to issues on the highway network.
- Use of mandatory routes for Sizewell C HGV construction traffic, enforced with the use of Automatic Number Plate Recognition (ANPR) cameras; and temporary holding or controlled release of HGVs from the Sizewell C site.

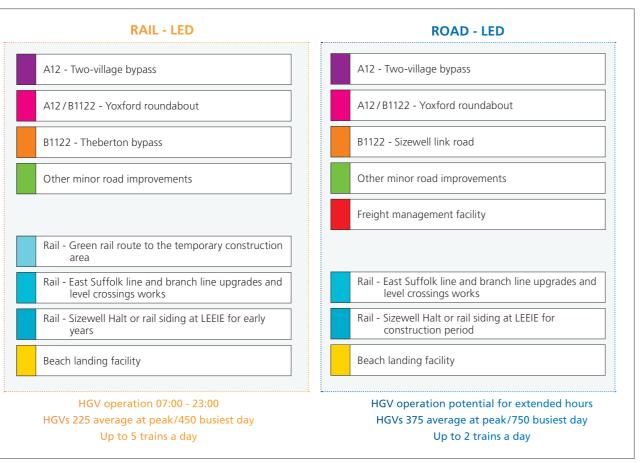


Fig 5.4: Comparison of rail-led and road-led straegies

Rail-led strategy



A rail-led strategy would provide direct access into the main site for five trains a day (10 movements) along a proposed new rail route (known as the green route) off the Saxmundham

- Leiston branch line, together with road improvements including a bypass of Theberton.

We do not yet know with certainty whether the rail-led strategy is fully feasible or could be delivered on time. The work undertaken by Network Rail to date has focused on high level scheme feasibility, from which we anticipate that the rail-led strategy is likely to involve greater delivery risk than the road-led strategy.

The rail-led strategy in particular involves significantly greater works to rail infrastructure. Ongoing feasibility work requires additional physical surveys, site assessments and detailed design work. In addition to considering the Stage 3 consultation responses, we will need to further assess these risks and any potential implications on programme with Network Rail's assistance, as part of our decision on which strategy to pursue in the application for development consent. We welcome your feedback on the rail-led proposals to help us make a fully informed decision.

Along with the proposals common to both strategies (see page 22), other key rail elements include:

- a new level crossing where the new railway line crosses the B1122 (Abbey Road) and relocation of the junction of the B1122 (Abbey Road) and Lover's Lane;
- upgrading 33 or closing and diverting 12 level crossings (see Volume 1, Chapter 9 of the Stage 3 Consultation Document for details), signalling works and undertaking bridge strengthening works, diverting some public rights of way (PRoW);

- > a passing loop or section of double tracking on the East Suffolk line at a location between Melton and Wickham Market stations;
- > a track crossover at Saxmundham;
- repairs or replacement of existing track to freight standard where needed and signalling upgrades in some areas; and
- > diversion of some footpaths including the north-south footpaths between Leiston and Abbey Lane across the new railway line via the new B1122 Abbey Road level crossing.

Once construction of the power station is complete, the green rail route would be removed and the land on which it was located would be restored.

Proposals under the rail-led strategy are likely to have some effects on the environment during construction, operation and removal of the green rail route and reinstatement of the land. Key environmental considerations include the effects on protected species, landscape, PRoWs, and views. For more information on potential environmental effects and our proposed mitigation measures, see Volume 2, Chapters 3 and 4 of the Stage 3 Consultation Document.

We have been working with Network Rail to identify where 12 footpath level crossings need to be closed on the East Suffolk line and PRoWs diverted. The locations of these level crossings are on the map on the inside cover of this document and detail of potential route diversions are available in Volume 1, Chapter 9 of the Stage 3 Consultation Document.

In addition, two options are being considered where the new rail route crosses Buckleswood Road.

Level crossings

The rail-led strategy would require the closure of 12 level crossings and a diversion of public rights of way, along with the upgrade of 33 other level crossings. The crossings proposed to be closed with the public rights of way diverted are:

> Westerfield Footpath
> Melton Bromswell

> Lacy's Footpath > Pettistree

> Stennetts 1 > Orchard

> Stennetts 2 > Wickham Market

> Gamekeepers > Blaxhall 2

> Martlesham > Saxmundham

We are considering two options where the new rail route would cross Buckleswood Road:

Option 1: temporary closure of Buckleswood Road to vehicles, with a new footbridge to provide a pedestrian connection; or

Option 2: a new level crossing on Buckleswood Road.



Buckleswood Road 2 available options



Main Development Site Boundary

Main Power Station Platform

Contractor Compounds

Materials Storage Areas

Accommodation Campus
Site Entrance Hub
Water Management Zone

Existing / Alternative Rail Head

Existing principal woodland areas outside redline boundary

Rail Route and Corridor

Borrow Pit Areas

Main Land Uses

Site Infrastructure

Other Land Uses

Access Road

Haul Road

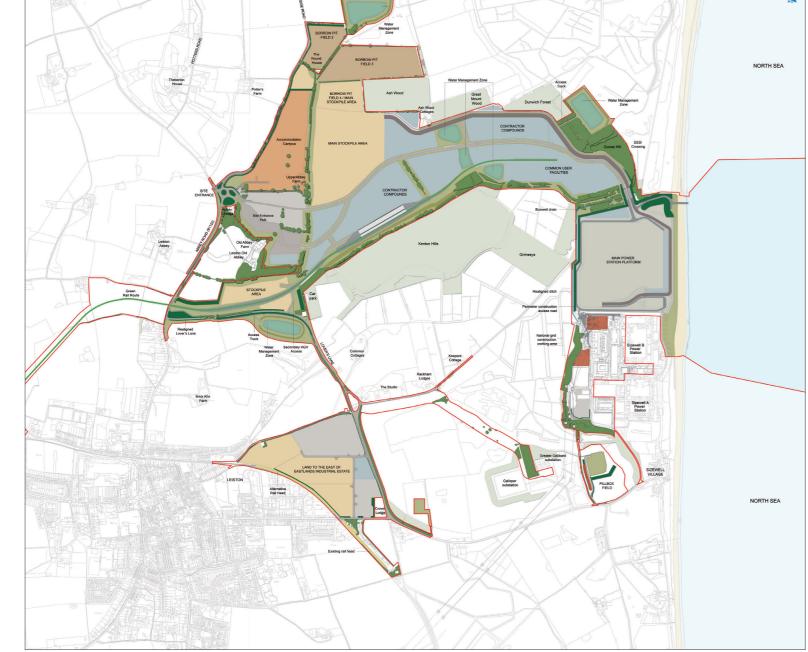


Fig 5.5: Rail-led strategy construction masterplan

Theberton bypass

We estimate that there would be an average of 225 HGV deliveries (450 movements) a day at peak construction under the rail-led strategy. At many periods in the construction phase, the number of HGV deliveries would be lower than the average, however on the busiest days, the number of movements could be up to twice the average.

Following feedback from the Stage 2 consultation and further technical studies, we are proposing a bypass of Theberton as part of the rail-led strategy. It replaces Stage 2 proposals for a number of small-scale improvements in Theberton, however we are proposing improvements to the junction of the B1122 with Mill Street (reducing the road level to the west of the junction to improve visibility for traffic on the B1122 and help traffic exiting Mill Street).

The Theberton bypass would be a single carriageway running from a point between Middleton Moor and Theberton, and ending on the B1122 east of Theberton, close to the main construction site entrance. It would be approximately 2.6km long and cross predominantly agricultural land.

The bypass would relieve the B1122 through Theberton of peak construction period traffic, substantially reducing impacts associated with Sizewell C. It would be open for use by the general public during and after construction, relieving Theberton of through traffic.

Key environmental considerations include the effects on protected species, PRoWs, local road character, heritage assets, landscape designations, landscape character, views and residential amenity. A number of mitigation measures have been identified and incorporated into the design to help reduce effects, including retention of existing landscaping along the route and new planting to further screen the bypass from adjoining properties and PRoWs. For more information see Volume 1, Chapter 11 of the Stage 3 Consultation Document.

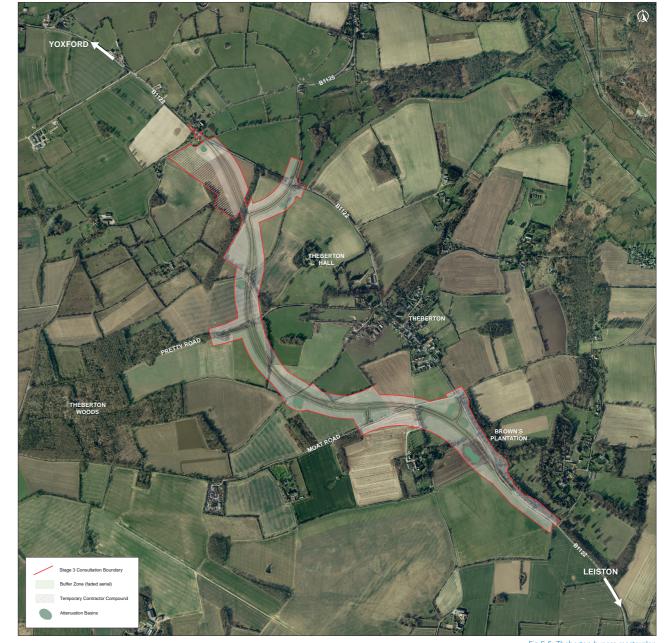


Fig 5.6: Theberton bypass masterplan

Road-led strategy

Under the road-led strategy, we are proposing a new Sizewell link road from the A12 to the B1122 east of Theberton, and a freight management facility to the east of Ipswich, along with two trains a day (to Sizewell Halt or a new rail siding on LEEIE) throughout construction.

We estimate that there would be an average of 375 HGV deliveries (750 movements) a day under the road-led strategy at peak construction. At many periods in the construction phase, the number of HGV deliveries would be lower than the average, however on the busiest days, the number of movements could be up to twice the average.

As proposals common to both strategies, the A12 two village bypass of Farnham and Stratford St Andrew (see page 35) and other road improvements (see pages 36-37) are also part of the road-led option.

Sizewell link road

Originating south of Yoxford, the Sizewell link road would run approximately 6.8km across predominantly agricultural land to the south-west of the existing B1122.

The route would incorporate the design of the Theberton bypass (proposed as part of the rail-led strategy, see page 27), extending further to bypass Middleton Moor, and joining the A12 south of Yoxford. It would substantially reduce Sizewell C traffic volumes passing through Yoxford, Middleton Moor and Theberton, reducing noise, vibration and severance impacts and providing a major and permanent legacy benefit to the residents of these villages.

Traffic travelling from the south (Ipswich) on the A12 will turn onto the Sizewell link road prior to Yoxford, thereby avoiding the village. Traffic travelling from the north (Lowestoft) will utilise the proposed new roundabout A12/B1122 junction and follow the B1122 for a short distance before accessing the Sizewell link road from a new roundabout located to the west of Middleton Moor.

The existing B1122 would remain open but would largely be used to access Theberton, Middleton Moor, and properties fronting the existing road.

Key environmental considerations include the effects on protected species, PRoWs, local road character, heritage assets, landscape designations, landscape character, views and residential amenity (see Volume 2, Chapter 5 of the Stage 3 Consultation Document for more information). Design and mitigation proposals are yet to be fully finalised but would be included in the proposals in our application for development consent.



Fig 5.7: Sizewell link road masterplan



Main Development Site Boundary

National Grid Construction Working Area

Materials Storage Areas

Borrow Pit Areas

Main Power Station Platform

Accommodation Campus

Water Management Zone

Existing / Alternative Rail Head

Existing principal woodland areas outside redline boundary

Site Entrance Hub

Access Road

Haul Road

Buffer zone

Other Land Uses

Main Land Uses

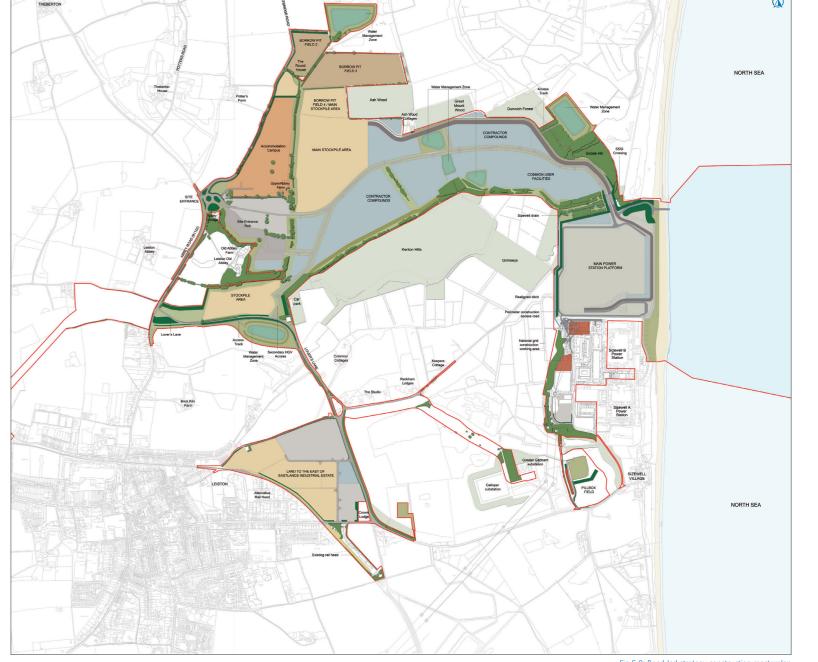


Fig 5.8: Road-led strategy construction masterplan

Freight Management Facility

Under the road-led strategy we are proposing a freight management facility near lpswich to serve as a holding area for HGVs, helping to regulate timing and flow of vehicles to the main development site. It would be a secure facility accommodating up to 150 parking spaces for HGVs, along with toilets, a rest room, and administration and security offices. Landscape planting would form part of the design and we would maintain a 5-10m buffer between buildings and the site boundary.

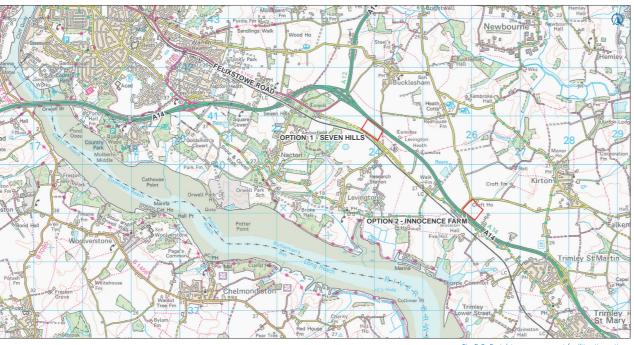
We are considering two sites for the freight management facility (see fig 5.9):

- > Option 1: a site of approximately 9.9 hectares close to the A12/A14 Seven Hills Junction (see fig 5.10) which would be accessed off the Old Felixstowe Road: or
- > Option 2: a site of approximately 9 hectares at Innocence Farm, located immediately to the north of the A14 (see fig 5.11).

Whichever location is chosen, the proposals are likely to have some effects on the environment during construction, operation, and removal and restoration, although most of the effects are unlikely to be significant. Details of our assessment of impacts, including the environmental baseline, environmental effects, and proposed mitigation, can be found in Volume 2, Chapter 10 of the Stage 3 Consultation Document.



Freight management facility
2 available options



ig 5.9: Freight mananagment facility site options



Fig 5.10: Option 1 - Seven Hills



Fig 5.11: Option 2 - Innocence Farm

Transport - movement of people

Reducing the amount of additional traffic generated by the movement of the construction workforce remains a key part of our transport plans. In addition to the accommodation campus, our proposals to support the movement of people remain as previously presented at Stage 2 and include:

- > two temporary park and ride facilities on the A12 to intercept traffic coming from the north and south;
- > direct bus services operating from Leiston (in response to feedback from Stage 2, lessons from Hinkley Point C and further technical work), Ipswich and Lowestoft; and
- > bus pick-up services from Saxmundham station for workers using rail services on the East Suffolk line.

Our proposed locations for the park and ride facilities -Darsham in the north and Wickham Market in the south - remain, however further technical work, along with feedback from Stage 2 consultation has resulted in some design changes.

When the construction phase is at its peak, the park and ride sites would operate seven days a week, with the movement of buses responding to the shift patterns of workers coming to and from the main development site. see Volume 1, Chapters 13 and 14 of the Stage 3 Consultation Document.

When no longer needed, the buildings and associated infrastructure would be removed and the area returned to agricultural use.

Our traffic modelling now shows a need for more car parking spaces at each site than were previously proposed, however the size of the sites remains the same. Both the northern and southern sites would have:

- parking for around 1,250 cars (40 of which would be accessible spaces and 10 would be pick-up only spaces),
 10 minibuses/buses/vans, 80 motorcycles, and around
 20 bicycles;
- > a secure bus terminus and parking, shelters, a welfare building (comprising toilets, bus drivers' rest room, security and administration offices), a security building and security booth, with buildings likely to be single storev:
- sensitive lighting that will seek to limit the potential impact of light pollution;
- on-site soil storage to support site restoration when the facility is no longer needed.

Further detail on our strategy for moving the construction workforce is set out in Volume 1, Chapter 5 of the Stage 3 Consultation Document.

Northern park and ride - Darsham

Our proposed site for the northern park and ride is mainly agricultural land located west of the village of Darsham (see fig 5.12). The site has been designed, as far as possible, to keep buildings near the existing built-up area and railway station.

Following feedback from residents and the local authority at the Stage 2 consultation, we are now proposing a relocated access route further north along the A12 near Willow Marsh Lane.

Additional proposals for the northern park and ride include:

- > a new roundabout on the A12 situated to the north of the existing Willow Marsh Lane junction; and
- > a 20m minimum buffer and sustainable drainage infrastructure to separate the parking area from Little Nursery woodland and nearby properties.

The proposals are likely to have some effects on the environment during construction, operation, and removal and restoration, with landscape a key area for consideration. Details of our assessment of impacts, including the environmental baseline, environmental effects, and proposed mitigation, can be found in Volume 2, Chapter 8 of the Stage 3 Consultation Document.



Fig 5.12: Northern park and ride (Darsham) masterplan

Southern park and ride - Wickham Market

Our proposed site for the southern park and ride is mainly agricultural land located to north-east of Wickham Market (see fig 5.13). Following feedback at the Stage 2 consultation and further technical work, we are proposing two options for mitigation measures to address concerns raised about traffic flows on the B1078 between Border Cot Lane and River Deben bridge.

Additional proposals for the southern park and ride include:

- a postal consolidation facility;
- » a Traffic Incident Management Area to enable HGVs to be held in the event of an emergency;
- reducing two lanes to one on the A12 northeast of Wickham Market before the northbound slip road joins the A12 (to avoid the A12 reducing from three lanes of traffic to one);
- > requesting that Suffolk County Council reduces the speed limit from 60mph to 30mph on the B1078 that crosses the A12 northeast of Wickham Market;
- > security fencing at the perimeter of the site;
- > a layout designed to maximise use of existing screening provided by woodland, and additional hedgerow planting and screening mounds; and
- > external areas including roadways, footways, landscaping, surface water management areas and drainage infrastructure.

The proposals are likely to have some effects on the environment during construction, operation, and removal and restoration. Details of our assessment of impacts, including the environmental baseline, environmental effects, and proposed mitigation, can be found in Volume 2, Chapter 9 of the Stage 3 Consultation Document.



Fig 5.13: Southern park and ride (Wickham Market) masterplan

Wickham Market mitigation options

There are two options proposed to mitigate potential delays on the B1078 between Border Cot Lane and the River Deben bridge that may occur as a result of the southern park and ride.

Option 1: temporary removal - and provision elsewhere of on-street parking spaces on the B1078 between Border Cot Lane and River Deben bridge to create a continuous two-way road that would minimise delays. On-street parking would be reinstated when the park and ride is no longer needed; or

Option 2: improvements to Valley Road and Easton Road to allow Sizewell C traffic from the B1078 to be diverted north of Wickham Market via Valley Road, Easton Road and the B1116 to reduce the potential for congestion on the B1078. This would include realigning Valley Road, formalising junctions, improving road markings, resurfacing and drainage improvements, and extending Easton Road to move the B1116 junction north for improved visibility.



Wickham Market mitigation 2 available options

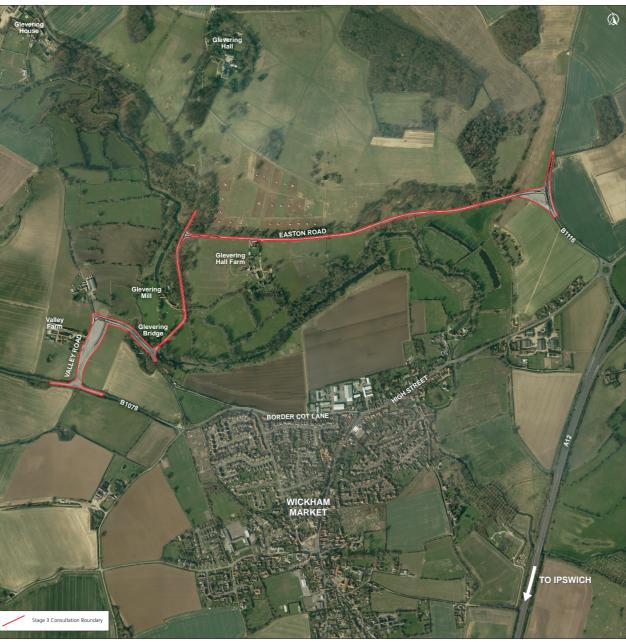


Fig 5.14: Option 2 - Wickham Market diversion masterplan

Road improvements

While our proposals have been designed to limit potential impacts on the local road network, we recognise that the A12 and B1122 are particularly likely to be affected by construction traffic. To limit adverse effects and address potential capacity and safety issues, we are proposing a number of mitigation measures separate to those proposed under the rail-led (see page 25) or road-led (see page 28) strategies.

A12 - two-village bypass

We recognise that Sizewell C traffic would exacerbate an existing problem on the A12 at the Farnham bend and are proposing mitigation to significantly reduce the traffic passing through the narrow bend. Following feedback at the Stage 2 consultation, discussions with Suffolk County Council, and further technical work, our proposal is a bypass of Farnham and Stratford St Andrew (a two-village bypass), with key design changes aimed at reducing environmental impacts.

The single carriageway would leave the A12 to the west of Stratford St Andrew via a new roundabout near Parkgate Farm, following the route shown on figure 5.15, and re-join the A12 with a roundabout to the east of Farnham at the A12/A1094 Friday Street junction (for more information see Volume 1, Chapter 12 of the Stage 3 Consultation Document).

The route would be approximately 2.4km long, crossing agricultural land, floodplain, and the River Alde. It has been realigned considerably further south since Stage 2 to avoid impact on Nuttery Belt and Pond Wood. The bypass would cross existing local roads, for example the access road to Pond Barn Cottages and the access to Farnham Hall. It would also cross public rights of way (PRoW), and at four locations.

Key environmental considerations include effects on protected species, landscape, PRoWs, and the River Alde valley. Details of our assessment of impacts, including the environmental baseline, environmental effects, and proposed mitigation, can be found in Volume 2, Chapter 7 of the Stage 3 Consultation Document.



A12/B1122 junction

The B1122 would experience a significant increase in traffic as a result of Sizewell C. Following feedback at Stage 2 consultation and further technical work, our proposal to improve the junction of the B1122 with the A12 at Yoxford is a roundabout. It would replace the existing priority junction and is considered to be safer and more efficient than signalising the existing A12/B1122 junction. For more information see Volume 1, Chapter 16 of the Stage 3 Consultation Document.

An illustrative sketch of the roundabout is at fig 5.16 and the proposed layout, which would be retained after construction, is at fig 5.17.

The roundabout proposals are likely to have some effects on the environment during construction and operation. Details of our assessment of impacts, including the environmental baseline, environmental effects, and proposed mitigation, can be found in Volume 2, Chapter 11 of the Stage 3 Consultation Document.



Fig 5.16: Illustration of proposed roundabout



Fig 5 17: A12/R1122 junction mastern

Other proposals

We are proposing a number of other road improvements at key locations including:

- A140/B1078 west of Coddenham: changes to signage and road markings, as well as vegetation maintenance to improve visibility and safety at the junction;
- > B1078/B1079 east of Easton and Otley College: changes to signage and road markings, as well as vegetation maintenance to improve visibility and safety at the junction;
- A12/B1119 at Saxmundham: changes to signage as well as road markings, and vegetation maintenance to improve visibility and safety at the junction;
- A1094/B1069 south of Knodishall: changes to signage as well as road markings, and vegetation maintenance to improve visibility and safety at the junction. We would also ask Suffolk County Council to promote a reduction in the speed limit at the junction to 40mph to assist vehicles turning right out of the B1069 to find suitable gaps in the A1094 traffic and safely complete the manoeuvre:
- > A12/A1094 Friday Street, north of Farnham: our proposed two-village bypass of Stratford St Andrew and Farnham (see page 35) includes a roundabout at this junction. We propose to build and open the roundabout before completion of the bypass to improve safety and mitigate the impact of construction traffic in the early years; and

> A12/A144 south of Bramfield: adding a central reservation island and waiting area to increase junction capacity (see fig 5.18).

For all of these junctions we are also proposing to work with Suffolk County Council to undertake a regular monitoring and review process. Volume 1, Chapter 17 of the Stage 3 Consultation Document includes more information about each of these proposals.

These permanent road improvement works are likely to have some effects on the environment during construction and operation, although the effects are unlikely to be significant. Details of our assessment of impacts, including the environmental baseline, environmental effects, and proposed mitigation, can be found in Volume 2, Chapter 12 of the Stage 3 Consultation Document.



Fig 5.18: Changes to A1094/B1069 south of Knodishall:

6. Additional information

As outlined in this document, developing a new nuclear power station is a significant task and there are a number of consents and permissions required for the construction and operation of Sizewell C. In addition, there are other elements that, although not part of this consultation, provide useful context.

UK EPR™ technology

The Sizewell C site would include two reactors, known as the UK EPR™, capable of generating enough electricity to supply approximately six million homes in Britain.

The design of the UK EPR™ is based on pressurised water reactor (PWR) technology that has been used successfully and safely around the world for many years, currently operating in over 80%² of nuclear power stations worldwide.

The UK EPR™ underwent a Generic Design Assessment (GDA) process, which concluded when the Office for Nuclear Regulation (ONR) issued a Design Acceptance Confirmation (DAC) and the Environment Agency issued a Statement of Design Acceptability (SoDA) in December 2012. For more information on GDA see: www.onr.org.uk/new-reactors.

Fig 6.1: EPR nuclear power plant

Safety

We make safety our overriding priority. Nuclear power is one of the most rigorously regulated industries in the UK. In addition to the Development Consent Order, in order to construct and operate Sizewell C we would require a nuclear site licence from the ONR and environmental permits from the Environment Agency.

Fuel and waste

The design of the UK EPR™ makes more efficient use of nuclear fuel than current reactor designs, reducing the amount of spent fuel produced. The spent fuel and intermediate level radioactive waste would be kept on-site until a national geological disposal facility becomes available.

Low-level waste would be treated on-site to limit its volume and, after appropriate conditioning and packaging, it would be removed for disposal.

Decommissioning

At the end of its electricity generation lifetime, Sizewell C would be decommissioned in a process likely to take about 20 years and requiring consent from the Office for Nuclear Regulation (ONR) before it can take place. However, the interim spent fuel store would continue to operate until a national geological disposal facility is available and the spent fuel is ready for disposal.

Wildlife habitat creation

We have created a new wildlife habitat at Aldhurst Farm, Leiston, to benefit both people and wildlife, and help compensate for any future potential land-take from the Sizewell Marshes Site of Special Scientific Interest (SSSI). Suffolk Coastal District Council granted planning permission for this in March 2015 following a period of public consultation.

The 67-hectare site has been converted into a new wetland habitat that will benefit a variety of wildlife, including water voles, otters, eels, amphibians, reptiles and birds, as well as rare plants.

In addition to Aldhurst Farm we are proposing to create heath and grassland, at a site to be identified, to establish suitable habitat for reptiles that would need to be removed from the development site before construction begins.

Purchase of land

To enable Sizewell C to go ahead, we would need to make use of some land outside the EDF Energy estate - temporarily or permanently - for construction activities as well as associated development.

We are committed to acquiring the rights to use this land through private negotiations. Should it not be possible to reach agreement to acquire land by private treaty, we will apply for powers of compulsory purchase or rights of access as part of our application for development consent.

If you believe you have a legal interest in any of the land required for our proposals and have not been approached by our agents, please contact us by one of the means listed on page 5.

² Source: World Nuclear Association and International Atomic Energy Agency

7. Next steps

Responding to the consultation

We encourage you to respond to this Stage 3 consultation in one of the following ways:





Post your written responses to FREEPOST SZC Consultation (no stamp or further address required)



Call freephone **0800 197 6102** during normal office hours.

Copies of all the consultation documents are available in hard copy and on USB memory sticks at the exhibitions, and at the Sizewell C Information office, open from 9.30am - 5pm Monday to Friday and 9am-12pm Saturday (48-50 High Street, Leiston, IP16 4EW).

They will also be available to view during normal office hours in the offices of Suffolk County, Suffolk Coastal District, Waveney District and Ipswich Borough Councils, and at a number of local public libraries.

Our website, www.sizewellc.co.uk, contains all Stage 3 consultation documents.

If you require the consultation information in a different format for accessibility reasons, please call 0800 197 6102 or email info@sizewellc.co.uk.

The deadline for responses to Stage 3 of our consultation is 29 March 2019.

What happens next

Some significant decisions remain on the content of the proposals to be included in our application for development consent.

Following Stage 3 we will consider all responses and use them - along with our environmental assessments, continued engagement with statutory authorities and others, and lessons from Hinkley Point C - to further inform the development of our plans. We will then prepare and submit our application to the Planning Inspectorate for development consent for Sizewell C.



If you need help to understand this information in another language please call 0800 197 6102.

Portuguese

Se precisar de ajuda para ler estas informações em outra língua, por favor telefone para o número abaixo 0800 197 6102.

Polish

Jeżeli potrzebujesz pomocy w zrozumieniu tych informacji w swoim języku zaadzwoń na podany poniżej numer 0800 197 6102.

Bengali

এই লেখাটি যদি অন্য ভাষাতে বুঝতে চান তাহলে নিচের নম্বরে ফোন করুন ০৪০০ 197 6102.

Lithuanian

Jeigu jums reikia sios informacijos kita kalba, paskambinkite 0800 197 6102.

Romanian

Dacă aveți nevoie de ajutor pentru a înțelege această informație într-o altă limbă, vă rugăm să telefonați la numărul 0800 197 6102.

If you would like this information in another format, including audio or large print, please call 0800 197 6102.

edfenergy.com

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