Initial Proposals and Options Consultation Document

Sizewell C
Proposed Nuclear Development
Stage 1 Pre-Application Consultation

November 2012
EDF Energy is delighted to begin the formal consultation for our proposed new nuclear power station, Sizewell C. We look forward to discussing our plans with local communities in Suffolk and with other stakeholders.

Sizewell C would generate enough electricity to supply one in five homes in Britain. It would make an important contribution to the UK’s future needs for low carbon, secure and affordable energy.

It would also create significant business, training and employment opportunities locally, regionally and throughout the UK.

I urge you to play an active role in this consultation process and encourage you to visit one of our consultation events (see Chapter 7 for dates and locations). The Sizewell C project team will be available at these events to help you understand the proposals and answer your questions.

We will undertake to consider your feedback and to take it into account as we prepare detailed plans for Sizewell C.

Richard Mayson
Director of Planning and External Affairs
Nuclear New Build, EDF Energy
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EDF Energy is now beginning consultation on plans for a new nuclear power station at Sizewell in Suffolk. This chapter summarises the Sizewell C Project and our current proposals. It includes answers to questions you may have about the Project and directs you to the parts of the document where you can find more information on these questions.
1.1 Introduction

1.1.1 The Government has decided that new nuclear power stations should play a significant role in the future generation of electricity in the UK.

1.1.2 The National Policy Statement for Nuclear Power Generation (EN-6), designated in July 2011, concluded that there is a need for new nuclear power stations and identified Sizewell as a potentially suitable site for a new nuclear power station.

1.1.3 EDF Energy is proposing to build and operate a new nuclear power station, Sizewell C, on land immediately to the north of the existing station Sizewell B. Once operational it would be able to generate enough electricity to supply approximately five million, about 20%, of Britain’s homes.

1.1.4 Once we have completed pre-application consultation, EDF Energy intends to submit an application to the Secretary of State for development consent to construct and operate Sizewell C and its associated development.

The purpose of this document

1.1.5 We are currently in Stage 1 of our pre-application consultation. This document sets out our broad plans for the new power station and the associated development - such as park and ride facilities and an accommodation campus - which would be necessary to support its construction and operation. This is your first opportunity to obtain information on our initial proposals and options and to give us feedback on our work so far. A summary document is also available.

1.1.6 In addition, we are publishing an Environmental Report and a Transport Strategy and Supporting Information document that provide further information on these aspects of our proposals.

Scope of consultation

1.1.7 We welcome comments from all those with an interest in the development. Your feedback is important and it will help inform our decisions about the Sizewell C Project.

1.1.8 The Stage 1 proposals fall into two broad groups. There are those where we set out proposals unlikely to change (for example the location of the power station or the design of the reactors). Then there are those where the proposals could be changed as a result of responses to our consultation or further technical or environmental studies.

1.1.9 The principle of the need for new nuclear power stations and the choice of Sizewell as a potentially suitable site have already been determined and voted on by Parliament, following public consultation and debate. These are outside the scope of this consultation.

1.1.10 While some details of the Sizewell C design are still to be decided, the power station layout is largely fixed. The UK EPR design is going through a rigorous safety assessment (see Chapter 2 – Generic Design Assessment).

1.1.11 There are some areas where we propose a number of options for the location of associated development and we encourage you to comment and share your views on these throughout the consultation process.

1.1.12 At this stage, we are seeking views on:

› our overall proposals for Sizewell C;
› options for associated development needed to support the construction and/or operation of the power station; and
› the potential effects on the local community, both positive and negative.

1.1.13 This first stage of consultation will run from 21 November 2012 to 6 February 2013.

1.1.14 Following Stage 1 of the consultation we will consider all responses and feedback we have received and use it to inform the development of our plans. We will then publish our preferred options in a Stage 2 consultation. Stages 1 and 2 may be supplemented by limited, focused stages of further consultation where necessary.

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1 NNB Generation Company Limited, whose registered office is at 40 Grosvenor Place, London, SW1X 7EN (referred to in this document as “EDF Energy”)

2 Please note: throughout this report all uses of ‘we’, ‘us’, ‘our’, and ‘the company’ refer to EDF Energy
How to respond to this consultation

1.1.15 We are inviting comments from the local community, including all those living in, working in or otherwise using the local area around the Sizewell C and associated development sites.

1.1.16 We also welcome feedback from all relevant organisations, as well as from landowners who may be affected by the proposals.

1.1.17 Comments must be received by 6 February 2013 and can be submitted in any of the following ways:

› a public questionnaire can be found in the Consultation Document: Summary and online at: http://sizewell.edfenergyconsultation.info
› you can email your comments on this document to: sizewell@edfconsultation.info
› written responses can be posted to Sizewell Nuclear New Build, FREEPOST LON20574, London, W1E 3EZ; and
› you can also submit your comments via our freephone number 0800 197 6102 (9.30am-5.30pm Monday-Friday - excluding bank holidays).

1.1.18 Hard copies of all the documents are available to view at the Sizewell C Information office (48-50 High Street, Leiston, IP16 4EW); in the offices of Suffolk County, Suffolk Coastal District, Waveney District and Ipswich Borough Councils; and at the public exhibitions and events that will be held during the consultation period. Documents will also be available in a number of local public libraries, on disc and to download by visiting the Project website: http://sizewell.edfenergyconsultation.info.

1.2 Project aims

1.2.1 We plan to build a nuclear power station, Sizewell C, on land to the north of Sizewell B power station in Suffolk. It would make a substantial contribution to the nation’s energy needs in a reliable and sustainable way. This would help the UK to meet its climate change targets by supporting the transition to a low carbon economy.

1.2.2 We would work closely with our stakeholders and partner organisations to ensure that the benefits of our investment in Sizewell C, as far as practicable, are realised within the local and regional economy.

1.2.3 The planning, construction, operation and ultimate decommissioning of the power station would be undertaken efficiently and in a manner which respects the sensitivities of the local environment and of local communities. At Sizewell C, as in all our activities, safety would be our overriding priority.

1.2.4 Therefore our objectives are to:

› Provide information on our proposals, respond to questions and listen to suggestions, then take what we hear into account as we prepare our application.
› Comply with regulatory requirements and apply company standards of safety, reliability and sustainability over the whole life of the Sizewell C Project.
› Make the most of the social and economic benefits of the Project for the local and regional community through, for example, training, employment and the supply chain, where practicable.
› Avoid significant adverse environmental effects from the Project where practicable, and where these are unavoidable, work to mitigate them.
1.3 Project description

1.3.1 Sizewell is on the Suffolk coast, roughly halfway between Felixstowe and Lowestoft. The site already contains two nuclear power stations, Sizewell A and Sizewell B. Sizewell A, owned by the Nuclear Decommissioning Authority and managed by Magnox Limited, is currently being decommissioned. Sizewell B is owned and operated by EDF Energy and has been in operation since 1995.

1.3.2 Once completed the permanent Sizewell C site within the perimeter fenced area, including two reactors known as UK EPRs, would occupy approximately 32 hectares of land immediately to the north of Sizewell B. There would also be some buildings located off-site.

1.3.3 The design of the UK EPR is based on technology used successfully and safely around the world for many years. It includes innovations to enhance performance and safety. It is the same reactor design we are adopting for our proposed power station at Hinkley Point in Somerset. EDF is also currently constructing an EPR in France and is involved in other international projects.

1.3.4 The principal access to Sizewell C would be via a new road linking the site to the B1122. It would be the primary means of bringing workers and materials into the site during construction and provide the main access to Sizewell C once construction is complete and the station operational. The existing access to Sizewell B would be the secondary access for Sizewell C during operation.

1.3.5 In order to build and operate Sizewell C we would also need to carry out some associated development – mostly temporary – in the surrounding area. For example we would need to develop accommodation for the construction workers and manage transport impacts. In advance of the main development, we would also need to relocate some Sizewell B supporting facilities to clear the construction site for Sizewell C (see Chapter 3 – Clearing and preparing the site).

1.3.6 The approximate site locations of the various options we are proposing are shown in Figure 1.1. Details of the proposals are provided in Chapters 2 to 6 of this document and in the Environmental Report and Transport Strategy and Supporting Information document.
Figure 1.1: Indicative proposed site locations
1.4 Project Q&A

Q: Why does the UK need new nuclear power stations?

1.4.1 A: By the end of this decade several of Britain’s existing power stations, producing about a quarter of total electricity output, will need to close. This comes at a time when demand for electricity is expected to rise as Britain makes the transition to becoming a low-carbon economy. The Government has decided that new nuclear power stations will help maintain security of energy supply while also helping to meet the UK’s climate change targets.

Q: Why has Sizewell been chosen for a new nuclear power station?

1.4.2 A: Sizewell has been designated by the Government as one of eight sites considered potentially suitable for the deployment of new nuclear power stations before the end of 2025. In developing its policy, the Government looked in some detail at a wide range of factors before deciding that Sizewell could potentially be suitable as the site for a new nuclear power station.

Q: What about safety at Sizewell C?

1.4.3 A: We make safety our overriding priority. This is part of the company’s ambition for a ‘zero harm’ safety record. Nuclear power is one of the most rigorously regulated industries in the UK. In order to operate the proposed new nuclear power station we would require a nuclear site licence from the Office for Nuclear Regulation and environmental permits from the Environment Agency.

Q: What about spent fuel and radioactive waste?

1.4.4 A: We would ensure that the spent fuel and radioactive waste produced at Sizewell C is managed in a manner that protects people and the environment and is in accordance with the relevant UK policy and legislation. The UK EPR design optimises use of fuel, while both design and operation/maintenance best practices help to reduce the amount of radioactive waste produced.

Q: When will the new power station be operational?

1.4.5 A: At this early stage of the development and consultation process, it is not possible to say with certainty when generation of electricity would start. Should we receive the necessary consents and once the site has been prepared we expect that construction of the power station would take approximately seven to nine years. Feedback from this stage of consultation will help to inform our decision making as we develop detailed proposals for future consultation and our development consent order application.

Q: What is the consultation process?

1.4.6 A: We will consider all responses and feedback gathered from Stage 1 and use this to inform the development of our plans. Figure 1.2 opposite provides an indicative chart of the process.

1.4.7 We are keen to hear your views on the Sizewell C Project and we encourage your feedback. Details of how to respond to this Stage 1 consultation are on page 3.
**Sizewell C consultation: where are we now?**

![Flowchart showing the consultation process](image)

**Government consultation on the strategic siting of new nuclear in the UK**

- July 08
- Nov 09 – Dec 10
- Oct 10 – Jan 11
- June 11
- July 11
- Nov 12

**Government consultation on Nuclear National Policy Statement (NPS) including potential sites**

**Second consultation on Nuclear NPS**

**Nuclear NPS laid before Parliament**

**Nuclear NPS designated by the Secretary of State**

**Statement of Community Consultation published**

**Stage 1 consultation**

**Stage 2 consultation**

**Application submitted**

**Planning Inspectorate Examination**

**Decision by the Secretary of State**

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**Q: What about the impact of Sizewell C on the environment and the landscape?**

**1.4.8 A:** The area around Sizewell is environmentally sensitive. The site lies within the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) and there are a number of European, national and local ecologically designated sites which are close to, or partly within, the proposed Development Site.

**1.4.9** We have been carrying out a series of studies of the local environment to gain further knowledge of the site characteristics, understand its sensitivities and the current environmental conditions of the site. This will enable us to assess the potential environmental impact of Sizewell C and design appropriate mitigation. We are also preparing a landscape strategy for the areas to be restored and enhanced. This strategy would also cover the wider EDF Energy estate.

For more information on The Sizewell C Site go to page 20
Q: Will you be building on the Sizewell Marshes?

1.4.10 A: Our proposals include using a part of the Sizewell Marshes Site of Special Scientific Interest (SSSI). We would seek to use as little SSSI land as practicable and to protect the integrity of the remaining marshes and the wetland corridor that connects this part of the marshes to Minsmere to the north. We are actively exploring opportunities to provide replacement land nearby.

Q: How many jobs will Sizewell C create?

1.4.13 A: Around 5,600 people would be working on-site at the peak of construction of Sizewell C. Over the lifetime of the construction, we estimate that 25,000 on-site roles would be created. In addition, significant employment would also be created by businesses supplying goods and services to the Project.

1.4.14 Once the construction phase is over, about 900 people would be employed in operating Sizewell C. Many of the skills needed to develop Sizewell C would be transferable and should enable Sizewell C workers to find employment once construction is complete.

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Q: What about historic buildings and archaeological remains?

1.4.11 A: There are a number of heritage assets, such as Leiston Abbey, in the vicinity of the site and there may be buried archaeology within the site. We are working closely with the local authorities and English Heritage to identify these features and develop a comprehensive plan for managing any impacts, including recording and preserving key findings.

Q: Will there be job opportunities for people from the surrounding area?

1.4.15 A: We are keen that local people are able to take advantage of the opportunities available as a result of Sizewell C. We will work closely with schools, colleges and training providers to help ensure that people from the surrounding area have the right skills to give them the best chance of securing the available jobs.

Q: Will there be any impact on public footpaths and access to the beach?

1.4.12 A: Some public footpaths, including a small section of the Suffolk Coast Path, would be closed or diverted during the construction phase. We recognise that footpaths and access to the beach are important and would aim to restrict access only when absolutely necessary to ensure public safety during essential engineering works. Any closures of public footpaths would be agreed with the local authorities, and the public would be given advance notice.

Q: Will there be opportunities for local businesses?

1.4.16 A: We will work with businesses in the area and with the Suffolk and Norfolk Chambers of Commerce and the New Anglia Local Enterprise Partnership to help them make the best use of the opportunities to supply the Sizewell C Project with goods and services.
Q: What other developments are needed for the construction of the power station itself?

1.4.17 A: To support the construction of Sizewell C we would need some additional facilities near the power station site called associated development. This may include a temporary accommodation campus; enhancements to rail infrastructure; two temporary park and ride sites; a temporary lorry park; and road or junction improvements in the local area.

1.4.18 We have been through a robust process to identify potentially suitable sites and to consider their advantages and disadvantages in terms of their location, size and technical and environmental considerations. On the basis of this work, we are presenting a number of site options.

Q: Where will all the construction workers live?

1.4.19 A: While we will make every reasonable effort to recruit from the local area, during the peak construction period we would expect about 3,700 workers to be non-local and hence need temporary accommodation. We are therefore proposing to build an accommodation campus for between about 2,000 and 3,000 people. There would also be opportunities for private rental, owner occupation, caravan and tourist accommodation to be used by Sizewell C workers.

Q: What is being done to reduce pressure from construction traffic on local roads?

1.4.20 A: We are developing a comprehensive and sustainable transport strategy for Sizewell C. Further details of this can be found in the Transport Strategy and Supporting Information document published as part of Stage 1 consultation.

1.4.21 Our proposed accommodation campus would significantly reduce commuter traffic from construction workers. We would also run bus services from selected locations, encourage people to walk or cycle to and from the site. We are also proposing temporary park and ride facilities as a further way to reduce worker commuter traffic on local roads during peak construction.

1.4.22 Our transport strategy envisages that both sea and rail would play major roles in the delivery of construction materials to the site – helping to relieve pressure on the road network. The proposed jetty would allow large loads and bulk materials to be shipped in and out. Our proposed upgrade and extension of parts of the local rail network would increase its potential capacity for carrying freight.

For more information on Accommodation go to page 40

For more information on Associated development go to page 52

For more information on Transport go to page 52

25,000 on-site roles created over construction period

900 people employed in operating Sizewell C

3000 companies involved in building Sizewell B

5m or 20% of Britain’s homes will be powered by Sizewell C

50m hours used to build Sizewell C
2 Background

› 2.1 The need for new nuclear
› 2.2 Wider framework
› 2.3 Planning and public consultation
2.1 The need for new nuclear

2.1.1 By the end of this decade several existing power stations producing about a quarter of Britain’s electricity will close, while the Government estimates that demand for electricity could double by 2050 as more of our transport and heating systems become electrified.

2.1.2 Without low carbon sources, Britain will not be able to produce all the electricity it needs in sustainable ways to enable the nation to meet its climate change targets.

2.1.3 The Government has decided that new nuclear will help:

› the UK meet its carbon reduction commitments;
› ensure that the UK has secure, clean and affordable energy to meet rising demand in the future; and
› strengthen the UK’s energy security.

The policy context

2.1.4 In 2011 the Government published its plans for maintaining security of energy supply as Britain moves to a low carbon economy. The proposals identified an urgent need for new nuclear power stations to be built.

2.1.5 The Government’s National Policy Statement for Nuclear Power Generation (EN-6) identified eight sites considered potentially suitable for the deployment of new nuclear power stations before the end of 2025. This includes Sizewell in Suffolk.

2.1.6 The Government took sustainability factors into account before deciding to include Sizewell as a potentially suitable site. It did this through an Appraisal of Sustainability. This assessed the potential high-level environmental, social and economic impacts of building a new nuclear power station at Sizewell.

2.1.7 The Appraisal of Sustainability noted that there could be positive and negative impacts of a new nuclear power station in this location. Positive impacts could include new jobs and making local economies more viable. Negatives could include impacts on biodiversity and on the surrounding Area of Outstanding Natural Beauty (AONB).

2.1.8 However, the Government concluded that none of the potentially adverse factors should rule out Sizewell as a potentially suitable site for a new nuclear power station.

EDF Energy’s role

2.1.9 We are working hard to help Britain achieve energy security at the same time as it reduces greenhouse gas emissions. In the UK, EDF Energy already operates two coal-fired power stations, eight nuclear power stations and 20 wind farms. We also own and operate one gas-fired power station and are in the process of commissioning a second.

2.1.10 We plan to build two new nuclear power stations – Sizewell C and Hinkley Point C (for which a separate development consent application was submitted in October 2011). Each would have two reactors. We are confident that we can build these new nuclear plants safely and economically. By doing so we believe we can help Britain improve the security, availability and affordability of energy in a sustainable way.

2.1.11 Sizewell C should bring some very significant economic benefits to the local area, including:

› Thousands of construction and engineering jobs created over the years it would take to build Sizewell C.
› Significant job opportunities for the companies supplying the Project – everything from small and medium-sized engineering firms, to taxis and security guards, catering and accounting services.
› An estimated 50 million hours to build Sizewell C, involving up to 25,000 on-site employment opportunities.
› Opportunities for local businesses.
› Helping to build up the skills and expertise of the local workforce and our suppliers.
› Once construction has been completed, 900 staff would operate the new power station.
› There would also be wider economic benefits from increased demand for local goods and services, during both construction and operation.

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2.2 The wider context

Safety and security

2.2.1 Nuclear power is one of the most strictly regulated industries in the UK. Specific laws govern the handling, transport and use of nuclear materials.

2.2.2 The independent nuclear regulators for safety, security and environmental issues at UK nuclear sites in England are the Office for Nuclear Regulation and the Environment Agency. Together they issue, and monitor, compliance with the licences and permits that are necessary for the construction and operation of nuclear facilities.

2.2.3 We place a very high priority on ensuring the security of our nuclear installations.

2.2.4 Operators of licensed nuclear sites must have site security plans approved by the Office for Nuclear Regulation. These confidential plans detail the security arrangements for the protection of nuclear sites, nuclear and other radioactive material and sensitive nuclear information on such sites.

Generic Design Assessment

2.2.5 The design of the UK EPRs (Figure 2.1) we would use at Sizewell C is currently undergoing a Generic Design Assessment process. Generic Design Assessments are carried out by the Office for Nuclear Regulation and the Environment Agency in order to assess the safety, security and environmental aspects of proposed reactor designs.

2.2.6 The Generic Design Assessment process for the UK EPR design began in 2007 and is now nearing its conclusion.

2.2.7 Progress with the Generic Design Assessment process is reported on a quarterly basis by the Office for Nuclear Regulation and the Environment Agency. These reports are accessible via the Health and Safety Executive website: www.hse.gov.uk/newreactors.

Nuclear site licence

2.2.8 A nuclear site licence must be granted before a new reactor can be built and operated on a specific site. This is done through a system of regulatory control under the Nuclear Installations Act 1965 (as amended).

2.2.9 Under this Act the Office for Nuclear Regulation, on behalf of the Health and Safety Executive, has the power to regulate the design, construction, operation and decommissioning of any nuclear installation. The Office for Nuclear Regulation sets out a series of licence conditions and assesses licensees against them. More information on the Health and Safety Executive and the Office for Nuclear Regulation can be found at www.hse.gov.uk/nuclear.

2.2.10 Legislation is proposed in the Energy Bill published in May 2012 to enable the Office for Nuclear Regulation to become a new independent statutory body, outside the Health and Safety Executive, to regulate the nuclear power industry.
Sustainability

2.2.11 Many definitions of sustainable development exist. The common objective is to strike a balance between social, economic and environmental objectives to meet the needs and aspirations of people today, without compromising the ability to meet those of future generations.

2.2.12 This is captured within EDF Energy’s sustainability commitments progress report (spring 2012), which states:

‘Sustainability leadership means responding courageously and constructively to the world’s most critical social, ecological and economic challenges. It means enhancing life today without compromising life tomorrow. It means operating our business in a genuinely sustainable way’.

2.2.13 New nuclear build is sustainable because of its low carbon emissions and because it would provide secure electricity supply at a stable, affordable cost. Building on these inherent benefits, we would work to enhance the sustainability of the Project through its design, construction and operation.

2.2.14 In defining our approach we would have full regard to:

› our own corporate sustainability ambitions;
› experience from Hinkley Point C in Somerset, where we have already brought forward proposals for a new nuclear power station;
› relevant planning policy and best practice to influence the sustainability of the Project;
› local stakeholders’ needs and expectations; and
› the impact of climate change.

Spent fuel and radioactive waste

2.2.15 We would ensure that the management of spent fuel and radioactive waste generated at Sizewell C protects both people and the environment and is consistent with UK policy and legislation.

2.2.16 The UK EPR design generates less spent fuel than other nuclear reactors in the UK per unit of electricity generated. It optimises fuel use which, when coupled with fuel design and manufacture, ensures that less radioactive spent fuel is created.

2.2.17 Spent fuel removed from the reactor would initially be stored underwater in a reactor fuel pool. Following this initial storage period, the spent fuel assemblies would be transferred to the separate on-site Interim Spent Fuel Store (ISFS) where they would be safely stored until a UK Geological Disposal Facility is available and the spent fuel is suitable for final disposal.

2.2.18 The ISFS would be designed for a life of at least 100 years, which could be extended if necessary. The ISFS would be designed to be capable of operating independently of other parts of the power station in recognition that its lifetime would, under current assumptions, extend beyond the operational life and decommissioning of the other facilities on-site.

2.2.19 The design of the UK EPR planned for Sizewell C includes a number of measures aimed at limiting the amount of radioactive waste generated. Radioactive waste generated at Sizewell C would fall into two categories – Low Level Waste (LLW) or Intermediate Level Waste (ILW).

2.2.20 LLW would be disposed of as soon as reasonably practicable, following treatment to limit its volume and then appropriate conditioning or packaging.

2.2.21 ILW would be conditioned and packaged on-site throughout the operational phase. The packages would be safely stored in the ILW Interim Storage Facility until a UK Geological Disposal Facility is available to accept waste from Sizewell C for disposal.

2.2.22 As with the ISFS, the ILW Interim Storage facility would be capable of life extension if necessary.

Emergency preparedness

2.2.23 We make the safety of our nuclear power stations our overriding priority. At all of our operating power stations we have well-developed plans to deal with emergencies, including contingency plans in the extremely unlikely event of an unplanned release of radioactive material off-site. These plans are underpinned by our legal obligation to demonstrate that the risks are as low as reasonably practicable.

2.2.24 We would work with the local authorities to ensure there would be appropriate off-site emergency plans to cover Sizewell C (including its workers during the construction phase), in order to comply with the relevant provisions of the Radiation (Emergency Preparedness and Public Information) Regulations 2001. These emergency arrangements would be regularly reviewed, practised and updated, and assessed by our regulator, the Office for Nuclear Regulation.

2.2.25 Information and advice on the existing power stations’ off-site plans can be found at: www.suffolkresilienceforum.onesuffolk.net/information-and-advice/sizewell.
Decommissioning

2.2.26 At the end of electricity generation at Sizewell C, the site would be decommissioned. The process of decommissioning would be divided into a number of activities leading to the clearance and de-licensing of the site and ultimately its release for re-use.

2.2.27 The UK EPR has been designed with decommissioning in mind, enabling radioactive waste quantities to be limited when decommissioning takes place.

2.2.28 The decommissioning strategy to be employed for Sizewell C would be “early site clearance”. Decommissioning would begin as soon as practicable after the end of electricity generation at the site. The decommissioning of Sizewell C, with the exception of the ISFS, could be achieved within approximately 20 years of the end of generation.

2.2.29 The ISFS would continue to operate until a UK Geological Disposal Facility is available and the spent fuel is ready for disposal.

2.2.30 Before decommissioning could take place, we would need to obtain separate consent from the Office for Nuclear Regulation under the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999. This requires the submission of an Environmental Statement following an Environmental Impact Assessment and a period of public consultation.

Funding of decommissioning and waste disposal

2.2.31 The Energy Act 2008 requires that the operator of a new nuclear power station has a Funded Decommissioning Programme (FDP), approved by the Secretary of State, in place before construction work on buildings with nuclear safety significance commences.

2.2.32 The costs of decommissioning, waste and spent fuel management (after the end of electricity generation) and disposal of all ILW and spent fuel waste would be funded through the FDP. Under these arrangements, we would ensure that funds are set aside over the operating life of the power station to cover these costs in full.

2.2.33 In parallel with the FDP arrangements, it is proposed that there would be a waste transfer contract with the Government. Under this, the Government would ultimately take title to - and liability for - the ILW and spent fuel in exchange for a payment to cover the costs of management, storage and disposal post-decommissioning.

2.2.34 The Government has created the independent Nuclear Liabilities Financing Assurance Board (NLFAB) to provide impartial scrutiny and advice on the suitability of the FDP submitted by operators of new nuclear power stations. NLFAB would advise the Secretary of State on the financial arrangements that operators submit for approval.

Acquiring land

2.2.35 We currently own the proposed Sizewell C operational site, which forms part of the EDF Energy estate. However, we would need to acquire further land to enable some of the necessary construction activities and associated development to take place.

2.2.36 We are committed to acquiring the land necessary for the development through private agreement with the land owners. However, as part of the development consent application, we would apply for powers of compulsory purchase. If granted, we would only use these powers as a last resort.

Hinkley Point C, Somerset

2.2.37 After completing extensive pre-application consultation, we submitted an application for development consent for our proposals for a new nuclear power station at Hinkley Point in October 2011. These proposals were examined by the Planning Inspectorate which will submit its recommendations to the Secretary of State by 21 December 2012, after which the Secretary of State will announce his decision within three months. More information can be found at: http://infrastructure.planningportal.gov.uk/projects/south-west/hinkley-point-c-new-nuclear-power-station.

Other local development proposals

2.2.38 Galloper Wind Farm Limited (GWFL) have submitted a development consent order application for a new offshore wind farm off the Suffolk coast. The electrical export cables are planned to come ashore at Sizewell and connect to the national electricity transmission network at a new substation adjacent to the Greater Gabbard Wind Farm substation to the west of Pillbox field. Agreement has been reached between GWFL and EDF Energy on how the two projects can co-exist satisfactorily.

4 The EDF Energy estate means all the land EDF Energy owns in the area - some 650 hectares in all.
2.3 Planning and public consultation

2.3.1 We are still in the early stages of the planning and consultation process for Sizewell C. Many key decisions are still to be made, following this Stage 1 consultation, and this consultation is your first opportunity to obtain information about the plans and give us formal feedback on our work to date. We encourage you to share your views and feedback in order to help us develop our proposals.

2.3.2 In applying for consent to build Sizewell C, we will follow the usual procedures for what are known as ‘nationally significant infrastructure projects’ or NSIPs. These include developments such as airports, reservoirs and power stations.

2.3.3 We will apply to the Secretary of State under the Planning Act 2008 for development consent to construct and operate the power station and its associated development. This application will contain details of all our development proposals, an environmental statement, and a report on our pre-application consultation activities.

2.3.4 The Planning Inspectorate, acting as the examining authority, will examine our application and make recommendations to the Secretary of State who will make the final decision. The Secretary of State will make his/her decision in accordance with national policy, taking into account the local impacts of the proposals.

The consultation

2.3.5 Our approach to consultation is to provide information, respond to questions and listen to suggestions as we prepare the development consent application that we intend to submit to the Secretary of State. This does not mean that we undertake to agree with every comment or accept every suggestion but it does mean that we will give them proper consideration.

2.3.6 Planning legislation requires NSIP developers to carry out extensive consultation before submitting their development consent application. The pre-application consultation is the best time for consultees to influence a project – by indicating whether or not they support it and suggesting ways of improving it or ways to mitigate its impacts.

2.3.7 Your feedback is encouraged. We want to hear your views and learn from your knowledge and experience in order to develop our strategy and proposals.

Statement of Community Consultation

2.3.8 Before we began the formal consultation of which this document is part, we published a Statement of Community Consultation in accordance with our statutory obligations. In preparation for this we consulted the relevant local authorities about what it should contain. For more information see http://sizewell.edfenergyconsultation.info.

2.3.9 In preparing and planning this consultation exercise we have taken account of all the relevant Government and Planning Inspectorate guidance. For more information see http://infrastructure.planningportal.gov.uk/legislation-and-advice.

The formal consultation process

2.3.10 The consultation will be an iterative and interactive process, consisting of the following stages:

Stage 1 consultation

2.3.11 We are currently in Stage 1, consulting on our initial proposals and options and setting out our broad plans for the new nuclear power station and the associated development supporting it.

2.3.12 The Stage 1 proposals fall into two broad groups. There are those where we set out proposals unlikely to change (for example the location of the power station or the design of the reactors). Then there are those where the proposals could be changed as a result of responses to our consultation or further technical or environmental studies.

2.3.13 An Environmental Report has been published alongside this Stage 1 consultation document. The purpose of the Environmental Report is to provide preliminary environmental information as part of the Stage 1 consultation process.

2.3.14 A Transport Strategy and Supporting Information document has also been published alongside this Stage 1 consultation document. This explains that we are following a robust and evidence-based process for assessing the likely traffic impacts of Sizewell C.

2.3.15 We have also published a short summary document for local communities. This outlines the main proposals and key areas for feedback.

2.3.16 Copies of all these documents are available online at: http://sizewell.edfenergyconsultation.info and in hard copy at the locations listed in Chapter 1 – How to respond to this consultation.

Further stages of consultation

2.3.17 Following Stage 1 of the consultation, we will consider all responses and feedback and take this into account to inform the development of our plans. We will then publish our preferred options in a Stage 2 consultation, where we will set out our preferred proposals taking account of the feedback received. Stages 1 and 2 may be supplemented by further limited, focused stages of consultation if necessary.
This chapter sets out information on the Sizewell C site, its key environmental characteristics and our proposed permanent and temporary developments on the development site. We want to hear your views on the proposed development.
3.1 Introduction

3.1.1 The main Development Site would comprise the nuclear power station and related infrastructure, as well as construction areas to the north-west and land adjacent to Eastlands Trading Estate (Figure 3.1). This chapter sets out:

› the characteristics of the site, including some key environmental considerations;
› permanent development; and
› temporary land use during construction.

3.1.2 The permanent development would include:

› two UK EPR reactor units comprising reactor buildings and associated buildings (the ‘Nuclear Island’), turbine halls and electrical buildings (the ‘Conventional Island’);
› cooling water infrastructure including pumphouses, associated buildings, tunnels extending out to sea and headworks;
› fuel and waste storage facilities including interim storage for nuclear waste and spent fuel;
› external plant including bulk storage tanks;
› operational Service Centre and ancillary, office and storage buildings;
› transmission infrastructure including a National Grid 400kV substation, removal and relocation of one existing national grid pylon/tower and associated realignment of power lines;
› internal roads, a bridge, car parking and a helipad;
› access road to adjoin the B1122 and related junction improvements;
› sea protection;
› Simulator Building/Training Centre;
› a Sizewell Visitor Centre; and
› landscaping of the areas to be restored following their use during construction.

3.1.3 Temporary land use for construction purposes (development that would last for around the length of the construction period) would include:

› construction working areas – laydown areas, workshops, storage and offices;
› temporary structures including a concrete batching plant;
› spoil/stockpile storage;
› temporary bridges between the power station and associated works areas;
› a jetty - part of which could remain permanently;
› a temporary rail extension into the construction site (see Chapter 6, Freight by rail);
› works areas on the foreshore for the installation of cooling water infrastructure and sea protection;
› construction roads, fencing, lighting and security features;
› site access arrangements and coach, lorry and car parking; and
› a Development Site accommodation campus (see Chapter 5 – Option 1: Development Site Campus).

3.1.4 Some associated development would also be needed outside of the main site to support accommodation and transport of some of the workforce and to ensure efficient movement of construction materials. Details of this associated development can be found in Chapters 5 and 6.
Figure 3.1: Indicative Sizewell C Development Site location plan
3.2 Site character and environment

3.2.1 The main Sizewell C site lies immediately north of the existing nuclear power station complex. The development we are proposing includes the power station itself and related infrastructure, together with areas temporarily required for construction.

3.2.2 The site, located in an area involved in nuclear energy generation since 1966, is in close proximity to the hamlet of Sizewell and is near to the town of Leiston. It is within the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) and on the Suffolk Heritage Coast. It also borders – and lies partly within – an area of ecological sensitivity, the Sizewell Marshes Site of Special Scientific Interest (SSSI). A number of other European, national and local environmentally designated sites are close to, or partly within, the proposed Development Site.

3.2.3 In preparation for Sizewell C, we have been carrying out a series of studies of the environment on and around our estate. These studies have given us an understanding of what exists now and will establish a benchmark against which we can assess the potential environmental impact of Sizewell C, should it go ahead.

3.2.4 Details of the environmental designations and initial studies can be found in the Environmental Report published alongside this consultation document.

3.2.5 Some key environmental considerations arising from Sizewell C and outlined in this section are:

› Landscape;
› Ecology;
› Recreation;
› Historic environment;
› Noise and vibration;
› Coastal processes;
› Marine ecology and water quality;
› Fisheries; and
› Flood risk assessment.

3.2.6 These and other environmental considerations are also addressed in the Environmental Report.

Landscape

3.2.7 A key consideration for the siting of the development has been to take account of local landscape sensitivity during the phases of construction and operation.

3.2.8 We will consult with key stakeholders, including Natural England, the local authorities and the local AONB Partnership, as we prepare a landscape strategy for the development.

3.2.9 Our aim is to accommodate the power station development appropriately within the AONB, and to make long-term landscape improvements once the power station is built (see Figure 3.2).
Figure 3.2: Indicative operational landscape plan
3.2.10 Our studies have identified a broad range of animal and plant species in and around the EDF Energy estate including bats, reptiles, insects, badgers, otters and water voles, as well as important breeding and wintering bird species such as the Red-throated Diver. We are committed to working to limit potential impacts on all these species and their habitats which may arise from the Sizewell C development.

3.2.11 Sizewell C also adjoins the Sizewell Marshes SSSI, a small part of which we propose to develop. Approximately 6.4 hectares of the SSSI would be disturbed during construction and approximately 4.6 hectares would be removed permanently.

3.2.12 We are actively exploring opportunities to provide replacement habitat of similar quality to the existing SSSI. Detailed proposals will be drawn up in consultation with the local authorities, Natural England and the Environment Agency.

3.2.13 Within the SSSI, there is an ecological and hydrological corridor between the proposed Sizewell C site and Goose Hill and other woodland north of the Sizewell marshes. The corridor connects the Sizewell Marshes SSSI to the Minsmere-Walberswick Heaths and Marshes SSSI/Special Area of Conservation (SAC) and provides a drainage channel, allowing water from the marshes to flow north to the sea at Minsmere Sluice.

3.2.14 The proposed development of Sizewell C includes building bridges across the Sizewell Marshes SSSI watercourses, as discussed later in this chapter. The environmental and ecological qualities of the SSSI will be taken into account in the bridge design.

Recreation

3.2.15 The area around Sizewell is used for a range of recreational activities, including walking, fishing, horse-riding, cycling and bird watching. The AONB has a network of footpaths, including the long-distance Sandlings Walk and Suffolk Coast Path.

3.2.16 Minsmere Nature Reserve, north of the Sizewell C site, is owned by the Royal Society for the Protection of Birds (RSPB) and is home to a range of birds. Leiston Abbey, west of the Sizewell site, is an English Heritage Guardianship site. It houses and is owned and managed by the Pro Corda Music School. Other recreational resources near Sizewell include the leisure and tourist facilities of the town of Leiston.

3.2.17 There would be potential impacts on these recreational resources during the Project, with most occurring temporarily during the construction period. We would seek to reduce these impacts where practicable and mitigate impacts where necessary.

3.2.18 During the construction phase of Sizewell C, we would need to close or temporarily divert some footpaths in and around the construction site. A small section of the Suffolk Coast Path would need to be closed during the construction phase. However we would aim to close this path only when necessary during essential engineering works.

3.2.19 For the operational period we would look at opportunities for enhancing the footpath network in consultation with key stakeholders.

Historic environment

3.2.20 We are committed to taking the historic environment – including archaeology and heritage assets such as Leiston Abbey – into full consideration in the development of the Sizewell C Project.

3.2.21 On the Sizewell C site, we would consider impacts on any buried archaeology (both near surface and at depth in the case of the substantial peat deposits beneath the proposed reactor site), historic landscape and submerged (offshore) remains.

3.2.22 A range of surveys have already been undertaken to identify potential features and these will continue in 2013. If features of archaeological interest are found, an appropriate strategy for excavation and recording will be agreed with the local authorities and English Heritage.

3.2.23 We will also be considering heritage assets (including listed buildings, scheduled monuments, and conservation areas) in the vicinity of the site which may have their settings impacted by the development.

3.2.24 We have undertaken initial baseline surveys of these heritage assets and will undertake further studies to identify the sites most affected. We will discuss measures for managing any impacts with the local authorities and English Heritage.

Noise and vibration

3.2.25 The construction of Sizewell C has the potential to cause adverse effects on background noise levels. In order to give us a better understanding of the likely scale of these impacts, initial baseline surveys have been carried out and further surveys are planned.

3.2.26 We are conscious that there could be off-site noise and vibration impacts from Heavy Goods Vehicle (HGV) traffic and rail movements and we will consider this carefully in developing our transport strategy (see Chapter 6).

3.2.27 Further details of these baseline surveys can be found in the Environmental Report published alongside this document.
Coastal processes

3.2.28 We have been monitoring coastal processes in the area surrounding Sizewell C for a number of years and we play an active role in the Sizewell Shoreline Management Steering Group (SSMSG), a review body for matters of coastal significance that advises Sizewell A and Sizewell B. We have a variety of studies under way to improve our understanding of these processes and guide the development towards appropriate engineering solutions.

3.2.29 These studies will help us decide how best to protect Sizewell C while limiting effects on the local environment as far as practicable. The future evolution of the coastline itself and the offshore Sizewell and Dunwich Banks are being considered as part of these studies.

3.2.30 Minsmere Sluice is an important feature to the north of Sizewell. As described in the local Shoreline Management Plan, the seaward extension of the sluice acts as a control point on the alignment of the local shoreline.

3.2.31 Our studies will consider any potential long-term interactions between the Minsmere Sluice, local shores and Sizewell C. We will consult with key stakeholders, including the Environment Agency, local authorities, and the RSPB.

Marine ecology and water quality

3.2.32 The construction and operation of Sizewell C would also require some offshore and cross-shore development, including a jetty (see later section) and cooling water infrastructure. During the operation of Sizewell C, water would be drawn from the sea to provide plant cooling and then returned to the sea. This process has the potential to impact marine ecology and marine water quality.

3.2.33 We are running an extensive programme of marine studies to develop our understanding of potential impacts on the marine environment and guide engineering design. The cumulative effects from other developments, such as Sizewell B power station and offshore wind farms, have been carefully considered. We will consult on our proposals with key stakeholders, including the Environment Agency, Natural England and the Marine Management Organisation.

Fisheries

3.2.34 Commercial fishing boats from Lowestoft, Southwold, Dunwich, Aldeburgh, Orford and Felixstowe may at various times of the year fish along the 25km stretch of coastline between Thorpeness and Dunwich. This includes fishing by longline, fixed and drift nets, and the use of pots. The most important species include cod, sole, thornback ray, bass, brown crab, herring and lobster.

3.2.35 At both Sizewell and Dunwich a single commercial boat (less than 10m long) is operated off the sand and shingle beach. Angling charter boats use the area and there is recreational fishing along the Sizewell and Dunwich beaches.

3.2.36 The potential impacts on fisheries from the construction of Sizewell C relate to the likely presence of exclusion zones around offshore construction areas and vessel movements to and from the site. These could affect inshore fishing grounds and activities. During operation, potential fisheries impacts would be associated with the abstraction and discharge of cooling water.

3.2.37 The impacts on fisheries of other operations such as Sizewell B and offshore wind farms are also being carefully considered.

Flood risk assessment

3.2.38 Our proposals for Sizewell C will take into account risks associated with flooding from the North Sea and nearby rivers and other watercourses, including any risks that may arise through climate change.

3.2.39 The development of the site could have the potential to increase flood risk resulting from changes to local land levels, physical works in or near existing surface watercourses and changes to surface water run-off.

3.2.40 To develop a flood risk assessment for Sizewell C that addresses impacts arising from its construction and operation, we will need to consider flood risk scenarios that include:

- requirements for site safety and access;
- site drainage strategy;
- sea level rise;
- coastal and flood defence management;
- the local Shoreline Management Plan and in particular, the existing and future status of Minsmere Sluice - its drainage function and its physical impact upon coastal processes; and
- suitable mitigation measures and possible allowance for future flood defence adaptation.

3.2.41 We will work closely with the Environment Agency and other key stakeholders, including the local authorities and the local Internal Drainage Board, to develop a robust flood risk assessment and to agree suitable mitigation measures.
3.3 Permanent development

Siting considerations for the power station

3.3.1 The key operational elements of the power station site lie within the approved Sizewell Strategic Siting Assessment (SSA) area included in the National Policy Statement for Nuclear Power Generation (EN-6). Furthermore, in accordance with clause 2.3.4 of EN-6, the proposals include land additional to that identified in the SSA for other elements of the power station, including for car parks, access roads and marine landing facilities, and for the construction of the power station. Our proposed location for the permanent development has also been guided by the need to:

› limit usage of the Sizewell Marshes SSSI, including avoiding key woodland belts within the designation;
› retain the screening and landscape value of the northern mound, a landscape feature created as part of development of Sizewell B, which provides a substantial buffer between the power station site and the Minsmere–Walberswick Special Protection Area (SPA) to the north; and
› maintain the Sizewell A and B eastward building structure limit to maintain a general north-south alignment along the foreshore.

3.3.2 Taking these considerations into account, our proposed permanent footprint for Sizewell C would be contained within the key landscape boundary features surrounding the site (see Figure 3.3).

Approach to power station layout and design

3.3.3 The layout of the key building groupings proposed for Sizewell C, including the Nuclear Island and Conventional Island, is the same as the one we are adopting for our proposed power station at Hinkley Point in Somerset.

3.3.4 While some details of the Sizewell C design are still to be decided, the essential power station layout is largely fixed. The UK EPR design is undergoing a rigorous safety assessment (see Chapter 2 – Generic Design Assessment).

3.3.5 Our approach to the proposed design and layout of Sizewell C takes into account the sensitive nature of the surrounding environment. The amount of land needed for the permanent development on the main site would be less than that proposed for Hinkley Point C. This has been achieved mainly by locating some of the buildings and uses away from the main site including the Simulator Building/Training Centre, the Visitor Centre and car parking.
Figure 3.3: Indicative operational masterplan
Power station platform levels

3.3.6 We envisage that the power station would be built at a platform level similar to Sizewell B (6.4m Above Ordnance Datum). Further technical and environmental studies are required to establish the final level.

Cooling water infrastructure

3.3.7 The development of Sizewell C would include installation of sea water intake and outfall tunnels and associated infrastructure to ensure the safe and efficient operation of the plant (see Figure 3.4). This would mean using an area of the foreshore for construction works. Work to determine the location for these structures is well advanced and there is a high level of certainty over the positioning of key structures including intake and outfall heads.

Supporting infrastructure

3.3.8 Some work to the National Grid high voltage transmission system would be needed. As part of our application for development consent we will propose a new National Grid 400kV substation on land currently used by Sizewell B. This would provide the connection for Sizewell C to the transmission system.

3.3.9 One National Grid pylon would be removed and relocated to allow the overhead lines to connect to the new substation.

3.3.10 Flood defences and coastal protection would be implemented along the sea frontage of Sizewell C. Technical studies are under way to help determine the design. These studies will take into account the landscape, ecological and nature conservation needs, hydrological and coastal processes, and the recreational value of maintaining the Coast Path as an integral part of the foreshore.

Access

3.3.11 Our plans include a new access road linking the proposed Sizewell C site to the B1122.

3.3.12 The new road would be the principal means of bringing workers and materials into the site during construction and would provide the main access for Sizewell C once construction is complete and the station is operational (see Figure 3.3).

3.3.13 The new road would meet the regulatory requirement that all new nuclear power station sites have two separate accesses. It would provide the primary access to the site, with the current route to the existing Sizewell power stations providing a secondary access.

3.3.14 We are proposing to build a permanent bridge (as well as two temporary bridges, see Chapter 3 – Other requirements) across the SSSI watercourses between the main power station and the new access road and planned permanent facilities to the north such as car parking. The permanent bridge would also be used during construction to facilitate traffic movement across the SSSI.
3.3.15 The bridge would be located to the north-west of the main power station. The design would take into account the environmental and technical constraints.

**Security fencing and lighting**

3.3.16 Security fencing would be installed in and around the operational areas to control access to the site in accordance with regulatory requirements.

3.3.17 Lighting would be needed across the main platform area and other areas including the car park. Security lighting would also be needed at the fence lines. The design of the lighting would take account of the environmental sensitivities of the area.

**Visitor Centre**

3.3.18 Our proposals include a new Visitor Centre for Sizewell. This would be shared with Sizewell B, eventually replacing the temporary Visitor Centre at the existing station. It would mostly be an education centre, although some of the site location options included in this consultation would offer views of the power stations as well.

3.3.19 We have identified potentially suitable sites for a Visitor Centre and considered their advantages and disadvantages in terms of their location, size and technical and environmental considerations.

3.3.20 We would like to hear your views on the following three options, whose general locations are shown in Figure 3.5:

- Option 1: Lover’s Lane;
- Option 2: Sizewell Beach; and
- Option 3: Goose Hill.

3.3.21 Option 1 is located north of Lover’s Lane and close to the road. This site is next to one of the proposed accommodation campus options (Sizewell Gap Campus – see Chapter 5) and if both developments are taken forward they would share the same road access. One of the advantages of this site is that there would be distant views of the existing power stations and Sizewell C. There is also the potential to link the site with existing footpaths.

3.3.22 Option 2 is located at the end of Sizewell Gap road close to the Sizewell Beach car park and café. The advantages of this site are that it would be likely to attract wider tourist interest given its proximity to the beach. In addition, visitors would be able to view the power stations on short walks along the beach. While this site would be near to Sizewell A, there would be no direct views of either Sizewell B or C.

3.3.23 Option 3 is located in Goose Hill next to the proposed car park for Sizewell C and on the proposed new northern access road. It would provide the best view of Sizewell C of any of the options and would be well placed for visitors to walk to the beach.
Figure 3.5: Indicative Visitor Centre location options

1. Lover’s Lane
2. Sizewell Beach
3. Goose Hill

Sizewell Gap
Sizewell A
Sizewell B
North Sea
3.4 Construction and temporary development

Construction principles

3.4.1 Our proposed construction would be guided by the following principles:

- Being a good neighbour and ensuring that the needs and views of the community are taken into account.
- Creating long-term, sustainable opportunities for the community where practicable, for example through training, employment and support for joining our supply chain.
- Applying regulatory and company standards of safety, quality, sustainability and operational efficiency and construction practice.
- Reducing, as far as is practicable, potentially significant negative impacts and mitigating their effects.

Clearing and preparing the site

3.4.2 In order to prepare the Sizewell C site for development, some works would need to take place before construction of the power station starts.

3.4.3 These works would include relocation of some buildings and activities at the northern end of the Sizewell B site to make space for the new power station. Areas being considered for relocation include Sizewell A, Sizewell B and part of Coronation Wood. We are also considering the potential use of part of the field known as Pillbox (see Figure 3.6) near the existing power station complex, for temporary purposes in connection with these early works.

3.4.4 We are also considering the scope and feasibility of other preparatory works which could include early site preparation activities for Sizewell C.

Sizewell A and Sizewell B

3.4.5 Part of the detailed planning for Sizewell C would include ensuring that operations at Sizewell B and decommissioning of Sizewell A would not be adversely affected during the construction or operation of Sizewell C.
Figure 3.6: Indicative construction masterplan
Siting considerations for the construction area

3.4.6 The proposed location of land required temporarily for the construction of Sizewell C has been guided by the following considerations where practicable:

- To locate construction activities with the potential to cause disturbance away from where people live.
- To avoid the most sensitive landscapes within the AONB.
- To limit the use of deciduous woodlands and significant hedgerows and tree belts.
- To avoid the non-essential use of land along the foreshore (in front of the proposed power station) that forms part of the Suffolk Heritage Coast.
- To be as near as possible to the power station construction site to reduce the logistical challenges of moving workers and construction materials, storing and backfilling spoil material and supporting construction activity.
- To locate construction areas near to the proposed new access road into the site.
- To use flat and well-drained land to avoid substantial regrading.
- To limit disturbance to bat habitats, feeding grounds and commuting corridors.
- To limit use of land within sites nationally designated for their nature conservation value.
- To give consideration to the potential for disturbance on European designated habitats, especially the Minsmere-Walberswick SPA located to the north of the power station site and the Outer Thames SPA located offshore where cooling water infrastructure is proposed to be located.
- To maintain access to recreation and amenity areas including public and permissive rights of way.
- To have regard to the setting of key heritage assets.

3.4.7 Given these considerations, we believe the optimum location for the majority of construction land would be an area within the Goose Hill plantation to the north-west of the construction site and, further west, farmland to the north of Kenton Hills and around Ash Wood. The land identified lies either side of the proposed route of the new access road from the B1122 to the power station site.

3.4.8 We recognise that our proposed area is in close proximity to some residential properties and we would work sensitively and sympathetically with those residents – with the objective of ensuring a satisfactory solution for those most affected.

3.4.9 There would be some loss of woodland in the Goose Hill area. However, the impact on the landscape would be limited because this area is well screened by the natural topography and by the woodland that would remain. The areas to the north of Kenton Hills and around Ash Wood are screened by the topography and by the existing woodlands and hedges.

3.4.10 We would retain the established woodland corridors running generally north to south, including the broad corridor of woodland and scrub from Great Mount Wood to Kenton Hills. Kenton Hills itself would be left un-developed in recognition of its ecological, landscape and local amenity value. The construction areas would be located well away from the boundary of the Minsmere-Walberswick SPA.

3.4.11 We propose to use land in Leiston immediately to the east of the Eastlands Trading Estate for construction purposes. This land could also be used for the potential rail extension (see Chapter 6 – New rail terminal).

3.4.12 Other land proposed for construction support purposes is as follows:
- Land either side of the public road to Eastbridge.
- Land to the north of Lover’s Lane and south of Leiston Old Abbey.
- Land next to the access road to the south of Upper Abbey Farm.

3.4.13 These areas are outside the AONB and generally have good field boundary screening.

Construction requirements

Construction working areas

3.4.14 Most of the land needed for construction would be occupied by the various contractors building the power station. Typical uses would include areas for storage of building materials and plant; land needed for fitting and pre-assembly of components; and more general requirements such as office and welfare facilities.

3.4.15 Key construction requirements that would be necessary on the power station construction site on a daily basis, such as concrete batching, would be sited as near as possible, while those requiring less interaction with the site would be located further away. Soil storage, for example, would fall into this category and would likely be located at the periphery of the Development Site. This type of use may offer opportunities to provide further physical separation between where people live and the busier elements of the construction site, and in doing so, help afford additional environmental protection.

Spoil handling

3.4.16 The construction of Sizewell C would involve deep excavations in order to reach suitable foundation conditions for the power station. This would produce a large amount of spoil.
3.4.17 Although some of the spoil might be suitable for fill and landscaping, a significant proportion would be unsuitable and need to be removed due to its peat and clay content.

3.4.18 One option being examined for management of this unsuitable material would be to transport it by rail or sea to a new coastal nature reserve in the Crouch Estuary (Wallasea Island) that is being established by the RSPB.

3.4.19 While this and other options are being considered we have nevertheless allocated sufficient land onsite for storing and managing spoil. This could include the use of local material for backfilling purposes and a borrow pit.

**Bulk storage and concrete production**

3.4.20 Land would also be required for bulk storage of materials such as sand, aggregates and steel reinforcement bars, as well as areas for making concrete. Mechanical conveyors may also be required.

**Other requirements**

3.4.21 Two temporary bridges would be needed during the construction period to provide access between the main platform area and construction areas to the north-west across the SSSI corridor. The bridges, spanning the SSSI watercourses, would carry construction traffic, workers, construction materials and other services to the construction site.

3.4.22 The bridges would be located to the north-east of the main platform; positioned where they could cross the SSSI watercourses with a single span and be screened from Goose Hill to the north.

3.4.23 During construction, fencing would be needed along the perimeter of the construction area in order to contain the site activities and for security purposes. Fencing might also be used to protect natural features such as wildlife corridors through the construction area. Security lighting might be required at the fence line.

3.4.24 Lighting would also be needed during construction for the safety of work across the construction site. The design of the lighting would take into account environmental sensitivities.

**Jetty**

3.4.25 We plan to build a jetty (known technically as a Marine Off-Loading Facility or MOLF) at the construction site. This would be used to deliver very large loads and bulk construction materials, and to export unusable excavated soil.

3.4.26 The design of the jetty would take account of the environmental and ecological properties of the foreshore. It might be necessary to retain some elements of the jetty structure on a permanent basis.

3.4.27 You can find more information about the overall transport issues in Chapter 6 and the Transport Strategy and Supporting Information document.

**Development Site accommodation campus**

3.4.28 Our strong preference is to locate an accommodation campus adjacent to the construction site. Details of this and the other possible sites are in Chapter 5 – Campus site options.

**Environmental buffers and wildlife corridors**

3.4.29 During construction of Sizewell C, we would aim to protect important landscape and ecological features in or near the construction areas.

3.4.30 In particular, we would retain established broadleaf woodland belts which are corridors for bats connecting the more sensitive areas to the north and south of the site.

**3.5 Restoration**

3.5.1 The land used for construction purposes would be restored once Sizewell C is operational. We are preparing a landscape strategy for the areas to be restored and enhanced. This strategy would also cover the wider EDF Energy estate.

3.5.2 The landscape strategy is likely to include the creation of some heathland-type habitat and reinstatement, where appropriate, of existing fields. We will be developing the strategy throughout the pre-application period. See Figure 3.2 for an illustration of the indicative landscape proposals.
People and Economy

› 4.1 Introduction
› 4.2 Workforce profile
› 4.3 Skills, education and training
› 4.4 Local business opportunities

This chapter sets out the employment, education, training and long-lasting opportunities arising from the construction and operation of the Sizewell C Project. We would like to hear your views on these opportunities and would welcome your feedback on our proposals for working with the local communities.
4.1 Introduction

4.1.1 The Sizewell power station complex has been a major employer in the area for more than half a century, ever since the construction of Sizewell A began. Sizewell B currently employs about 750 people (and many more during its regular routine maintenance periods known as outages). The construction and operation of Sizewell C would maintain and expand Sizewell’s contribution to employment and to the economy of the area for many years to come.

Creating long-lasting opportunities

4.1.2 Sizewell C would be one of the biggest and most technologically complex construction projects ever built in the UK. A key benefit for the community would be the high quality employment and training it would generate. Many of the skills needed would be transferable.

4.1.3 Our approach throughout the construction and operation of Sizewell C would be shaped by our determination to build long-term sustainable skills for future generations as well as for those who work on the Project itself.

4.1.4 Sizewell C would also create many opportunities for businesses to supply their goods and services while the power station is being built and once it is operational.

4.1.5 We are committed to working with businesses in and around the Sizewell area to ensure they are in a strong position to make the most of these opportunities.

4.1.6 Some of the development associated with Sizewell C could also generate lasting and sustainable benefits for the community.

4.1.7 We are interested in hearing views from local people on how they think their communities could benefit from Sizewell C. This will help us as we work on the detailed proposals which would be presented at our Stage 2 consultation.

4.2 Workforce profile

4.2.1 The size of the Sizewell C workforce would vary over the course of the construction. At its peak the construction workforce would be about 5,600 people, see Figure 4.1.

4.2.2 Altogether, approximately 25,000 on-site roles would be created during construction of Sizewell C, and further opportunities would be created off-site via the supply chain and through increased economic activity (see later section on local business opportunities).

4.2.3 Individuals’ careers at Sizewell C would be developed by moving from one role to another over the course of the Project.
4.2.4 Employment at Sizewell C during construction falls into five main groups:
› civil construction;
› mechanical and electrical;
› professional;
› managerial; and
› administrative and others.

4.2.5 Many other kinds of employees would be needed, in addition to construction workers, including canteen staff, secretaries and transport operatives, as well as professional and managerial staff. Jobs would also be created at the associated development sites, for example at the accommodation campus.

4.2.6 During the operation of the power station there would be about 900 roles available. Further employment would come during planned ‘outages’ – when, for four to six weeks every 18 months, each reactor would be shut down for routine maintenance. Around a further 1,000 people would be employed during each reactor outage, boosting spending in the area and expanding the demand for local accommodation.

**Shift patterns**

4.2.7 Our current proposals are for a range of shift patterns to operate on the Sizewell C Project. These include ‘double shift’ arrangements, where we anticipate a first construction shift starting between 0600 and 0730, and a second construction shift finishing between 2200 and midnight. Shift handover would generally happen between 1330 and 1600, while there would be other arrangements for office personnel and construction workers on a single day shift. Some night working would also be required, which would involve smaller numbers of workers.

4.2.8 These shift patterns would aim to ensure efficient working while spreading movement of workers across the day and reducing travel during peak hours.

4.2.9 Different shift patterns would apply at weekends. Some construction staff might work a Saturday morning shift and others an alternating pattern – working one weekend and being off the following weekend. These arrangements would give non-home-based workers regular opportunities to return home.

4.2.10 We are committed to ensuring our workers integrate properly with the local community. We would put in place a code of conduct to which they would be expected to adhere, and there would be a robust and responsive system to investigate any complaints.

4.2.11 We recognise that the construction workforce would have an impact on local services, such as health and education, and therefore plans would be developed to support these services and help manage demand. We will work closely with the local authorities to find the most appropriate solutions.

4.2.12 Our plans will be informed by studies that are currently being undertaken to give us a good understanding of the services that currently exist.

4.3 Skills, education and training

4.3.1 In order to ensure people would be able to take up jobs on Sizewell C, it is important that we work in close partnership with local schools, colleges, businesses and other agencies to encourage and enable people to acquire the necessary skills.

4.3.2 We would also create an employment brokerage service to support local people seeking employment at Sizewell C.

4.3.3 A particular emphasis would be placed on helping people who are currently unemployed or economically inactive, or who need new skills or their current skills upgraded (see Figure 4.2 for the employment pipeline).

**Education and skills for employment**

4.3.4 We will work in partnership with schools, colleges, businesses, training providers, local authorities and central government to help build education programmes and skills appropriate for the area. We will seek to do this by:
› raising awareness of the opportunities which will be available to people during the construction and operation phases of the development;
› investing in people and resources to support the education, skills and employment programmes;
› working with providers to develop timely interventions;
› facilitating ‘entry to the workforce’ through apprenticeships, graduate schemes and skills development programmes focussing on developing access for the economically inactive and unemployed via up- and re-skilling;
› ensuring workers at Sizewell C are able to develop a career and be involved in a number of different roles over the construction period; and
› giving workers the transferable skills which can be used in other professions and industries in the future.
4.3.5 Our aim would be to find ways to bring the best out of the education and training available in the area by acting as a catalyst and an enabler. This could be through funding education and skills programmes, or by bringing together organisations to get the best out of the available opportunities.

4.3.6 Skills in science and technology will be in high demand. For example apprenticeships would be offered to those people with qualifications in the STEM subjects – science, technology, engineering and maths. Skills would also be needed in many other areas, ranging from business administration to carpentry, hospitality and catering.

4.3.7 Wherever practicable, we would also seek to collaborate with other organisations within the energy and construction sector in developing our education and skills proposals.

4.4 Local business opportunities

4.4.1 In addition to equipping local people with the skills and training they will need to make the most of the benefits provided by Sizewell C, we are also establishing the necessary supply chain for Sizewell C – and setting out the steps businesses can take to be considered as potential suppliers.

4.4.2 There would be a wide variety of commercial opportunities for a broad range of businesses, large and small. When Sizewell B was built, more than 3,000 UK companies were involved, nearly 700 of them based in East Anglia.

4.4.3 Some of the supply-chain opportunities would be highly specialised – for example supplying critical nuclear parts for the reactors. However, around 80% of the value of all the contracts for Sizewell C would relate to non-nuclear activities.

4.4.4 Suppliers should consider what is in their existing capacities as some work will have long lead-times and demand significant investment by the supplier.

4.4.5 It is worth noting that Sizewell C would be a large and complex project taking years to complete. While some supply-chain opportunities would be available from day one, others would not emerge until the Project had been under way for some time.

4.4.6 We have appointed Suffolk Chamber of Commerce to work with us, in partnership with Norfolk Chamber of Commerce. They have set up a website where businesses can register their interest in becoming suppliers: www.sizewellcsupplychain.co.uk.

4.4.7 Other organisations will also be able to provide specialist help and guidance to businesses as the Project progresses.

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**Pathway from education to employment**

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*Figure 4.2: Employment pipeline*
This chapter sets out our plans for accommodating the large number of people who would build Sizewell C and who would not commute from home. We would like to hear your views on our approach to housing our workers and on the potential locations for our proposed accommodation campus.
5.1. Need for accommodation

5.1.1 At the start of the construction phase, we would expect the majority of the construction workforce to be recruited locally and to live at home. This proportion would then fall as the size of the workforce grows and more specialised skills are required (see Chapter 4 – Workforce profile). As construction moves towards completion, we would expect the proportion living at home to rise once again.

5.1.2 When construction is at its peak, we estimate that about 34% of the construction workforce would live at home and commute to work on a daily basis. The remaining 66% would live in temporary accommodation in the area.

5.1.3 We propose to provide a substantial proportion of this temporary accommodation in a specially-built campus for between about 2,000 and 3,000 people.

5.1.4 The remaining non-home-based construction workforce would live in a variety of different types of accommodation, including owner-occupation, privately-rented housing, tourist accommodation and caravans.

5.2 Campus accommodation

5.2.1 We believe our campus proposal offers significant benefits for our workers and for nearby local communities, as well as benefits for the Project:

- The campus would benefit surrounding communities by significantly reducing the amount of travel by construction workers going to and from Sizewell C.
- We know from experience it would be likely to be popular with Sizewell C construction workers – a similar, smaller, campus created for the construction of Sizewell B had a waiting list of people wanting to stay in it.
- It would also reduce the pressure on other local accommodation.
- Housing our construction workers close to the site would also bring efficiency and productivity gains for the Project - for example, it would facilitate flexible shift working to meet particular construction needs.
- Workers’ response times would be shorter with key personnel nearby.
- A single large campus would make it easier to ensure that the codes of behaviour for our workers are adhered to.

5.2.2 The campus would consist of three or four storey accommodation buildings, plus indoor and outdoor recreation and leisure facilities, car parking and building services (including waste and utilities).

5.2.3 The accommodation would be similar to modern student accommodation, with self-contained rooms and en-suite facilities. The campus would be finished to a high standard.

5.2.4 The environmental sensitivities of the chosen site and the surrounding area would be taken into account in decisions on the layout of the campus, especially the design and siting of the buildings.

5.2.5 All car parking for workers and staff would be on the campus site, both dispersed among the buildings and in car parks.

5.2.6 Indoor facilities close to the sleeping accommodation would include a canteen, TV lounge, bar and games room, gym, shop and laundry.

5.2.7 Wherever practicable, outdoor recreational facilities would be sited to allow for potential public use.

5.2.8 The accommodation and indoor facilities would be in secure, fenced areas, lit during the hours of darkness. Where practicable, fencing would be erected behind existing or new landscape screening, and the design of the lighting would take into account the need to reduce its impact outside the site, especially along sensitive boundaries.

5.2.9 We would work to avoid and reduce (as far as practicable) the potential adverse environmental effects of the campus on the surrounding area.
Views across the Sizewell C Development Site
5.3 Campus site options

5.3.1 We have identified three possible sites for the proposed campus. These are described below. Further details on their potential environmental effects can be found in the Environmental Report.

5.3.2 Our strong preference is for the campus to be located adjacent to the Development Site. However two alternative near-site locations – selected after consideration of a large number of potential sites within a study area defined to the north by Theberton and to the south by Leiston – are also proposed.

5.3.3 We believe that the three campus options strike the best balance between meeting our strategic need and having the least potential for adverse environmental effects.

5.3.4 Figure 5.1 shows the site options we are considering for the temporary accommodation campus. We would like to hear your feedback on these options:

› Option 1: Development Site Campus (preferred option)
› Option 2: Sizewell Gap Campus
› Option 3: Leiston East Campus
Figure 5.1: Campus site options map
Option 1: Development Site Campus

Location & surroundings

5.3.5 We have a strong preference for this option. Its location next to the proposed construction site entrance (see Figure 5.2) would mean that workers could walk to work, avoiding the need for buses and thereby improving the efficiency of the construction, while also limiting the traffic impacts.

5.3.6 The 34 hectare site is currently farmland. It is split by a minor road that runs between the B1122 road and Eastbridge and would be kept open during construction and operation of the campus.

5.3.7 There are a small number of properties close to the site, some of which are listed buildings. The design of the campus would take careful account of the amenity and setting of these properties.

5.3.8 The site lies outside the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) and is further away from designated ecological sites than the other two campus options. The site’s eastern boundary forms an important wildlife corridor, especially for bats.

5.3.9 Upper Abbey - including the Grade II listed farmhouse and barn - is located in the site’s south-eastern corner. We would consider ways of bringing these buildings into productive use within the campus. The campus design would also take account of the nearby Leiston Abbey, for example through sensitive siting and the provision of screening.

5.3.10 The site lies outside the 2.4km Detailed Emergency Planning Zone (DEPZ) for Sizewell. The DEPZ is an area surrounding a nuclear licensed site for which detailed plans for emergencies have been prepared (see Chapter 2 – Emergency preparedness).

Indicative layout

5.3.11 We envisage that the built development (see Figure 5.3), including the accommodation, would be located on the eastern side of the site. The western side would mainly be used for outdoor recreational areas, additional car parking, and soil stockpiles which would be grassed over.

5.3.12 The accommodation would be grouped into two main areas around centrally located indoor facilities. This would limit the distance residents would have to walk between their accommodation and the other facilities, avoiding the need for duplication of services and buildings within the site.

5.3.13 Access to the campus would be via the proposed new Sizewell C northern access road. There would be two entrances. One, nearest to the B1122, would lead to the recreation facilities. The second, further to the east, would be the main entrance to the accommodation area.

5.3.14 We envisage that once Sizewell C had been built, we would remove the campus and restore the site to farmland, leaving the restored Upper Abbey.
Figure 5.2: Development Site Campus location plan (Option 1)

Figure 5.3: Development Site Campus zoning diagram (Option 1)
Option 2: Sizewell Gap Campus

Location & surroundings

5.3.15 This option is located south of Sandy Lane and north of Sizewell Gap, about 2.5km from the Sizewell C Development Site entrance (see Figure 5.4). Its location means that most workers would have to be bussed to and from the Development Site. This is a disadvantage compared with Option 1, although the journey would be relatively short.

5.3.16 The site covers about 45 hectares and would be accessed from Lover’s Lane. The site is farmland located adjacent to the Greater Gabbard Substation and the proposed Galloper Offshore Wind Farm development, within the Suffolk Coast and Heaths AONB. There are a number of important ecological sites in the local area – to the north, the Sizewell Marshes Site of Special Scientific Interest (SSSI), and to the south, the Leiston-Aldeburgh SSSI and the Sandlings Special Protection Area (SPA).

5.3.17 There are a few properties to the south of the site along Sizewell Gap and others to the north of the site along Sandy Lane.

5.3.18 This site could be used either for our proposed campus or Visitor Centre (see Chapter 3 – Visitor Centre), or potentially for both.

5.3.19 The site lies within the 2.4km DEPZ for Sizewell.

Indicative layout

5.3.20 We envisage that the built development (see Figure 5.5), including the accommodation, would be positioned on the lower ground in the southern half of the site along Sizewell Gap. The northern half of the site would be used for soil storage (that would be grassed over) and landscape planting. This northern area would also be used for creating ecological habitats.

5.3.21 The indoor facilities would be located close to the site entrance, with the accommodation located next to them. The existing mature planting along Sizewell Gap would help to screen the buildings.

5.3.22 Most of the car-parking would be interspersed between the buildings in the accommodation area, although some additional car parking would be needed. This would be located in the south-eastern part of the site.

5.3.23 The campus buildings would be sited to avoid existing hedgerows and landscape planting at the perimeter of the site. In addition, building heights could be varied to reduce visual impacts from outside the site – especially when viewed from within the AONB to the north and east.

5.3.24 We envisage that once Sizewell C had been built, we would remove the campus and restore the site to farmland.
Figure 5.4: Sizewell Gap Campus location plan (Option 2)

Figure 5.5: Sizewell Gap Campus zoning diagram (Option 2)
Option 3: Leiston East Campus

Location & surroundings

5.3.25 This option is located to the east of Leiston, approximately 3km from the Sizewell C Development Site entrance (see Figure 5.6). Construction workers would have to be bussed to the Development Site as with Option 2. This is a disadvantage of this site in comparison with our preferred option, although the journey would be relatively short.

5.3.26 The 41 hectare site is currently farmland. It would be accessed via a new road off Sizewell Gap. The rest of the development would be located in the two fields to the south of the Sizewell Sports and Social Club. These fields are separated by a bridleway (Grimsey's Lane). If this site were to be taken forward, we would keep this bridleway open.

5.3.27 Since this option is closest to Leiston, it has the highest potential to benefit local shops, cafes and other businesses in the town.

5.3.28 The proposed new access road lies within the Suffolk Coast and Heaths AONB. It is also in close proximity to the ecologically important Leiston-Aldeburgh SSSI and Sandlings SPA.

5.3.29 There are numerous properties to the north-west of the site and a few scattered properties around the rest of the site. The new access road would run between two properties on Sizewell Gap.

5.3.30 There are a number of public rights of way within and around the site.

5.3.31 The site lies within the 2.4km DEPZ for Sizewell.

Indicative layout

5.3.32 We envisage that the field next to the Sizewell Sports and Social Club would be used for outdoor recreation and soil storage that would be grassed over. The larger field to the south of Grimsey's Lane would be used for the built development, including the accommodation (see Figure 5.7).

5.3.33 The indoor facilities would be located in the northern part of this area close to the site entrance with the accommodation buildings located further south, set back from the existing high voltage overhead power lines. The area beneath the power lines would be used for car parking.

5.3.34 We would explore the possibility of building a secondary access road into the outdoor recreation area via the Sizewell Sports and Social Club in order to allow potential public use of the new sports facilities.

5.3.35 Once Sizewell C had been built, there may be the potential for the outdoor recreation area to remain for local community use. It is envisaged that the rest of the campus, including the new access road via Sizewell Gap, would be removed and the site returned to farmland.
5.4 Other types of accommodation

5.4.1 Even with the campus, there would be a need for additional temporary accommodation for about 700 to 1,700 people during the peak construction phase.

5.4.2 Options include owner-occupation, privately-rented housing, caravans, and tourist accommodation. In addition, there might be opportunities for people not currently in the rental market to rent out a spare room. All in all, this represents a significant business opportunity for those people offering rental accommodation in the area.

5.4.3 We have carried out some preliminary studies and our assessment indicates that there is sufficient capacity within the existing provision to meet these needs while also continuing to provide capacity for tourists visiting the area.

5.5 Accommodation office

5.5.1 In order to facilitate accommodation provision, we would set up an accommodation management office for Sizewell C. This would act as a point of entry for local providers (or potential providers) who would register their accommodation with the office.

5.5.2 The office would offer information to providers on, for example, safety requirements, and also provide information to workers seeking accommodation.

Demand for tourist accommodation

5.4.4 Providers of tourist accommodation are likely to benefit from the increased demand from Sizewell C workers seeking temporary accommodation. This could bring particular benefits in off-season periods, where occupancy of tourist accommodation can fall to around 30% of capacity according to figures from the Suffolk Choice and East of England Self Catering Accommodation Occupancy Report.

5.4.5 Our projections suggest that the increased demand from Sizewell C workers during the construction phase would generate a demand for around 5% of tourist accommodation in Suffolk. This would be enough to produce economic benefit for providers, but not sufficiently large to crowd out existing demand for tourist accommodation.
This chapter sets out EDF Energy’s transport strategy for Sizewell C. It describes how we would move our construction workforce and our freight, and how we propose to limit the traffic impact on the local road network. We want to hear your response to these proposals and your views on the possible locations of our park and ride facilities and lorry park sites, our plans to address traffic impacts through the village of Farnham, and our proposed rail options.
6.1 Our approach

6.1.1 The construction of Sizewell C would involve the transport of large numbers of construction workers and very large amounts of building materials.

6.1.2 We recognise that the potential transport and traffic impact of Sizewell C is of concern to local people. We will not be able to remove all of these impacts. We have, however, proposed some major associated developments to reduce and manage them. These are:

› A jetty to facilitate sea delivery of large loads and bulk materials.
› A large near-site temporary accommodation campus which would substantially reduce commuter traffic during construction.
› Two temporary park and ride sites near the A12 to reduce pressure on the local road network from people travelling to and from the construction site. Other facilities might also be located there including a temporary workers’ induction centre and a temporary postal consolidation facility.
› A temporary lorry park with spaces for about 50 to 100 trucks to manage traffic flow and to hold trucks if there is a problem on the network. We would prefer to co-locate this with the southern park and ride, although stand-alone sites are also being considered.
› Improvements to and extension of the Saxmundham – Leiston branch line to improve the capacity of the railway line to carry freight, and the efficiency of the construction of the power station.
› A ‘passing loop’ at Wickham Market Station on the East Suffolk line to increase capacity on this line.
› Potential road or junction improvements to alleviate transport impacts.

6.1.3 Further information on our transport proposals can be found in the Transport Strategy and Supporting Information document published alongside this document.

6.2 Moving our workers

6.2.1 A range of approaches would be adopted to bring the construction workforce to and from the site on a daily basis. The different shift patterns operating during construction (see Chapter 4 – Shift patterns) would help to spread movements across the day and reduce traffic impacts at peak network periods.

6.2.2 Our proposed accommodation campus would mean that between about 2,000 and 3,000 workers – around half the peak construction workforce – could reach the site every day on foot, by bicycle or via short bus journeys that would not go through local communities. A campus of this scale would very significantly reduce the daily traffic generated during the peak years of Sizewell C construction. It is one of the most significant practical investments we can make to reduce traffic impacts.

6.2.3 Transport for workers not living on the campus would include a number of options:

› Those living close to Sizewell C would be encouraged to walk or cycle where practicable. We would look at ways to encourage cycling and walking – for example by improving footpaths and cycleways.
› Some workers would drive directly to the site. This would include those who, for operational reasons, need to use a car while at work on the site. It would also include people living in the towns and villages relatively close to the site and east of the A12 for whom it would not be sensible to drive away from the construction area to use the nearest park and ride site. We believe a site car park of around 1,000 spaces would cater for these people. We would encourage car-sharing to make the most effective use of the car park.
› The Development Site car park would also cater for car drivers in the early and later phases of the construction programme when our park and ride facilities would be under construction or being dismantled and removed.

6.2.4 In addition to the transport options above, during the years of peak construction we would provide a range of bus services. These would include:

› Dedicated direct buses from a small number of locations where there are enough workers to justify regular services. These are expected to include central Ipswich and Lowestoft.
› Bus pick-up services from nearby railway stations on the East Suffolk line (Darsham and Saxmundham). This would encourage the use of local rail services on the East Suffolk line.
› Buses from park and ride sites north and south of the construction site near the A12.
6.2.5 Park and ride facilities would significantly reduce the amount of commuter traffic on local roads during the peak years of construction when traffic levels would be at their highest.

6.2.6 Our assessment of where the peak construction workforce would be likely to live suggests that substantial numbers of workers would travel on the A12 from north and south of the Development Site.

6.2.7 We would therefore propose to build two temporary park and rides near the A12 – one for drivers approaching Sizewell from the north and the other for those approaching from the south. The northern park and ride would aim to reduce traffic through the villages of Theberton, Blythburgh, Westleton and Middleton. These park and rides would reduce construction related traffic through the towns and villages closer to the Sizewell C Development Site.

6.2.8 Potential site options within two study areas have been considered for the park and rides. For the northern options, the study area was the B1122/A12 corridor north of Theberton. For the southern options, the area was bounded by the A12 south of its junction with Friday Street (the A1094). The three options for each that best meet our strategic need while offering the least potential for adverse environmental effects are set out in the following sections.

6.2.9 The park and ride facilities would have spaces for up to approximately 1,000 cars together with space for minibuses, motorcycles and bicycles. There would be a bus interchange with shelters and a small welfare building. The sites would have a controlled access and would be fenced and lit throughout the hours of darkness for operational and security reasons.

6.2.10 Where practicable, fencing would be located behind existing or new landscape screening and lighting would be designed to take account of environmental sensitivities, especially along sensitive boundaries.

6.2.11 We are considering co-locating other temporary facilities – including a postal consolidation facility and a construction workers’ induction centre - at one of the park and ride sites.

6.2.12 It is envisaged that the postal consolidation facility would be a modest single storey building where post and courier deliveries for Sizewell C would be combined to reduce the number of courier deliveries to site.

6.2.13 The induction centre is likely to be a two storey building where construction workers would be given health, safety and environmental training. We are also exploring other options for the induction centre, including using or refurbishing an existing facility in Ipswich or elsewhere.

6.2.14 Figures 6.1 and 6.2 overleaf show the site options we are considering for the northern and southern park and rides. We would like to hear your views on these options:
Northern park and ride

- Option 1: Yoxford Road
- Option 2: Darsham
- Option 3: A12/A144 Junction
Figure 6.1: Northern park and ride site options map
Southern park and ride

› Option 1: Wickham Market (preferred option)
› Option 2: Woodbridge
› Option 3: Potash Corner
Figure 6.2: Southern park and ride site options map
Northern Option 1: Yoxford Road

Location & surroundings

6.2.15 Situated 1.5km south-east of Yoxford on the B1122, this option is ideally placed to intercept southbound commuter traffic from the A12 near Yoxford (see Figure 6.3). It is also well placed to intercept commuters travelling east along the A1120 without the need to divert north along the A12, as would be required with the Darsham and A12/A144 Junction proposals.

6.1.16 The site would reduce traffic passing through Theberton but would not have any beneficial impact on traffic flows through Yoxford.

6.2.17 The site covers approximately 23 hectares and is currently arable farmland. It would be accessed directly off the B1122 Yoxford Road.

6.2.18 A residential property and a care home are located next to the site’s eastern boundary. The care home provides care for older people, including those suffering from dementia. Both properties are recognised as important constraints on any development of the site. Landscape and visual issues would also be important considerations because there are good views of the site from the open countryside to the north.

Indicative layout

6.2.19 We envisage that the built development (see Figure 6.4) would be designed to avoid, as far as possible, the more visible central part of the site that slopes down towards the B1122. In order to reduce visual impact, development would be positioned on the flatter parts of the site.

6.2.20 The induction centre and the postal consolidation building would be located on the lower ground next to the B1122, away from the properties at the eastern corner of the site. These facilities would benefit from screening by the existing hedgerow along the road that would be substantially retained, where practicable.

6.2.21 The car park would be set back from the road behind another hedgerow that would also be retained as far as possible. Much of the rest of the site would either be used for soil storage that would be grassed over or used for landscape planting, and boundary vegetation would be reinforced.

6.2.22 We envisage that once Sizewell C had been built, we would remove the new infrastructure and restore the site to farmland.
Northern Option 2: Darsham

Location & surroundings

6.2.23 This site is located next to Darsham Station and is a large, triangular arable field approximately 28 hectares in area (see Figure 6.5).

6.2.24 It is well positioned to intercept southbound traffic on the A12 as well as traffic travelling along the A144 from Halesworth. It would also reduce Sizewell C related commuter traffic through Yoxford. Its disadvantage compared with Option 1 is that workers travelling east along the A1120 would need to divert some 1.7km along the A12 from Yoxford to reach it.

6.2.25 This site would make a good collection point for rail commuters travelling on the East Suffolk line as it is next to the railway station.

6.2.26 The site would be accessed directly off the A12. This may require removal or relocation of the existing layby on the northbound carriageway and possibly the southbound layby as well.

6.2.27 The site is quite open in aspect, hedgerows being sparse or absent along much of the site perimeter. There are a number of properties along the site’s A12 frontage which are screened from the site by mature planting. A large block of woodland extends across half of the site’s western side. Surveys indicate that the woodland is an important habitat for bats.

Indicative layout

6.2.28 We envisage that the postal consolidation and induction facilities would be located in the southern part of the site with the park and ride occupying the rest of the site and surrounded by grassed soil mounds around it (see Figure 6.6).

6.2.29 Additional screening would be provided around the perimeter. A new hedge would be planted along the road to the north of the site and the boundary to the A12 would be reinforced with tree and hedge planting.

6.2.30 We envisage that once Sizewell C had been built, we would remove most of the new infrastructure and restore the site to farmland. However, there may be scope for retention of some limited infrastructure at the southern end of the site next to the railway station.
Northern Option 3: A12 / A144 Junction

Location & surroundings

6.2.31 Situated at the junction between the A12 and A144, this site extends across arable fields and covers some 15 hectares (see Figure 6.7). The site would be accessed off the A12 via a new junction north of the A144.

6.2.32 The advantages of this site are that it would intercept traffic travelling south on the A12, as well as that travelling along the A144 from Halesworth. It would also reduce commuter traffic through Yoxford.

6.2.33 Its main disadvantage is that workers travelling east along the A1120 would need to divert approximately 3.2km along the A12 to reach it, which is significantly longer than the diversion to reach Option 2.

6.2.34 The site is bounded to the west by the A12 and includes the former Little Chef (now closed) on the existing minor road junction. The site extends behind the gardens of a row of properties on the A12. These properties are screened from the site by mature woodland.

6.2.35 Other properties close to the site include two new residential houses adjacent to the site’s northern boundary which are partially screened.

6.2.36 There are a number of listed buildings in the site’s vicinity including one (Stone Cottage) at the junction between the A12 and the A144.

Indicative layout

6.2.37 We envisage that the postal consolidation and induction facilities would be set back into the northern part of the site behind screen planting (see Figure 6.8). The existing hedgerow between these two areas would be retained and reinforced where appropriate. This would help screen the site during its operation as well as facilitating its ultimate restoration.

6.2.38 The park and ride would extend across the fields from the A12. Existing hedgerows in this area would also be retained where possible.

6.2.39 Soil stockpiles that would be grassed over would be located to the rear of the adjacent properties located along the A12. Additional screen planting would also be provided where appropriate along this boundary.

6.2.40 We would explore options to use the former Little Chef building for welfare and/or other facilities associated with the park and ride.

6.2.41 We envisage that once Sizewell C had been built, we would remove the new infrastructure and restore the site to farmland. Separate consideration would be given to the former Little Chef site.
Figure 6.7: A12/A144 Junction location plan (Option 3)

Figure 6.8: A12/A144 Junction zoning diagram (Option 3)
Southern Option 1: Wickham Market (preferred option)

Location & surroundings

6.2.42 The site is located at the junction between the A12 and the B1078/B1116 to the north-east of Wickham Market (see Figure 6.9).

6.2.43 This is our preferred southern park and ride option because it is significantly closer to Sizewell C than the other two options. Journey times to site would therefore be shorter.

6.2.44 The site is made up of two areas - one to the north of the northbound A12 merge slip road and one between the slip road and the A12. The combined site area is approximately 25 hectares.

6.2.45 The site would be accessed off the existing slip road for the A12.

6.2.46 The larger area to the north is arable farmland. Hedgerows and woodland belts mark some field boundaries. Further woodland is present in the locally registered Glevering North Park to the west, beyond the B1116. Despite the site’s relatively open aspect, it is generally not highly visible from the surrounding area because it occupies elevated ground. However there are long-distance views of the site from the south and south-west and these boundaries would need to be screened.

6.2.47 The site is likely to contain buried unrecorded archaeology. A Romano-British settlement (Hacheston) was partly excavated in the 1970s along the line of the A12 forming the Wickham Market Bypass. Any archaeology would need to be investigated and preserved before the park and ride is built but would not preclude development of the site.

Indicative layout

6.2.48 We envisage that the lorry park could be sited in the eastern side of the site, set back from the woodland that exists along the eastern boundary (see Figure 6.10).

6.2.49 The park and ride would occupy the western half of the site with landscape screening buffering views from the west.

6.2.50 It is anticipated that the postal and induction facilities would be located in the south-west corner near the site entrance.

6.2.51 The northern part of the site – opposite Glevering North Park – would be used for soil storage, which would be grassed over. The existing recent tree planting along this frontage would be retained.

6.2.52 It is envisaged that the small ‘tear-drop’ shaped site would be used for soil storage although it could also serve other uses such as a construction compound for building the park and ride.

6.2.53 We envisage that once Sizewell C had been built, we would remove the new infrastructure and restore the site to farmland. However other uses might be appropriate for the small ‘tear-drop’ plot next to the A12, for example as an area for lorry parking, should the site be suitable.
Figure 6.9: Wickham Market location plan (Option 1)

Figure 6.10: Wickham Market zoning diagram (Option 1)
Southern Option 2: Woodbridge

**Location & surroundings**

6.2.54 The proposed Woodbridge site is located to the west of the A12 at the A12/A1152 Woods Lane Junction, north-west of Woodbridge (see Figure 6.11).

6.2.55 The site comprises arable fields covering approximately 34 hectares.

6.2.56 The site has been selected because it would be well placed to intercept Sizewell C bound traffic heading north along the A12. In addition, it can be readily accessed from the existing roundabout.

6.2.57 However journey times to Sizewell C would be longer than from our preferred southern park and ride option near Wickham Market.

6.2.58 The site falls from east to west towards the bottom of a shallow valley, with the eastern half of the site relatively flat. There are long-distance views of the site from the west that would need to be screened.

6.2.59 We therefore envisage that, as far as practicable, development would focus on the flatter, higher ground on the eastern half of the site.

6.2.60 There is a small stream running north along the valley to the west that provides an opportunity for drainage of the site. This is the only associated development site option with access to a watercourse.

6.2.61 There are very limited views of the site from the eastern (Woodbridge) side of the A12 owing to the intervening mature planting.

6.2.62 There are two public rights of way crossing the site – one running from the A12 opposite Haugh Lane along a hedgerow that marks a field boundary, and another running parallel with the stream in the north-west of the site. We would try to retain both of these along their existing alignments although temporary diversions might be needed.

**Indicative layout**

6.2.63 We envisage that the proposed facilities would be positioned in the north-east of the site, near the A12, to limit long distance views (see Figure 6.12).

6.2.64 The postal consolidation and induction facilities would sit next to the A12 and would be screened to the east by existing hedgerows which would be reinforced with new planting where appropriate.

6.2.65 The park and ride would be positioned to the west of these facilities and screened to the west by grassed soil mounds and landscape planting. The lorry park could be located south of the park and ride and would be screened from the adjacent public right of way by an existing hedgerow and trees; this screening would be reinforced where appropriate.

6.2.66 We propose that the field to the south of the site would be used for soil storage that would be grassed to buffer views from the Manor House.

6.2.67 We envisage that once Sizewell C had been built, we would remove the new infrastructure and restore the site to farmland.
Figure 6.11: Woodbridge location plan (Option 2)

Figure 6.12: Woodbridge zoning diagram (Option 2)
Option 3: Potash Corner

Location & surroundings

6.2.68 The site is located at Potash Corner on Scott’s Lane, to the west of the A12 close to the village of Bredfield which lies to the north (see Figure 6.13).

6.2.69 The flat site consists of farmland covering approximately 24 hectares.

6.2.70 The site has been selected because it would be well placed to intercept Sizewell C bound traffic heading north along the A12. However, as with Option 2, journey times to Sizewell C would be longer than from our preferred southern park and ride option near Wickham Market.

6.2.71 Hedgerows and woodland mark some of the site perimeter and provide some screening. There are a few residential properties near the site, including a number at Potash Corner and others to the north-west. There are also a number of listed buildings in the vicinity.

6.2.72 There are two public rights of way within the site boundary that would need to be accommodated within the layout and/or diverted.

6.2.73 There are a number of ditches within the site that contain standing water. It is possible that these ditches are of ecological interest.

Indicative layout

6.2.74 We envisage that the proposed facilities would be located in the south-east of the site, close to the A12, to keep the built development as far away as possible from the residential properties located to the west (see Figure 6.14).

6.2.75 It is anticipated that access would be via a new junction on the A12 with the lorry park positioned to the north of the access and the park and ride to the south. The postal and induction facilities would be positioned to the west of the lorry park, separated from the adjacent public right of way by new screen planting. Existing hedgerows within the site would be retained where practicable. This would help screen the site during use and would help to facilitate its restoration.

6.2.76 The western part of the site would be used for soil storage and be grassed over. This would help buffer the facility from local properties. Extensive new planting is also proposed in this area to buffer the site.

6.2.77 There are buried utilities within the site, including gas mains. We do not envisage that any utility diversions would be necessary, although if this site were taken forward, we would consult with the relevant utility companies on site layout and design.

6.2.78 We envisage that once Sizewell C had been built, we would remove the new infrastructure and restore the site to farmland.
Figure 6.13: Potash Corner location plan (Option 3)

Figure 6.14: Potash Corner zoning diagram (Option 3)
6.3 Moving freight

6.3.1 Very large volumes of construction materials would be needed to build Sizewell C. The vast majority of these would be bulk materials such as sand, cement and aggregates - although a very wide variety of other types of freight would also be needed. We may also have to remove large volumes of surplus peat and clay during the earthworks stage of the Project.

6.3.2 We propose to use sea and rail to move much of these materials. This would very significantly reduce the burden on the roads. The infrastructure needed to achieve this is set out below.

Freight by sea

6.3.3 We are proposing to build a jetty at the construction site. This facility would allow the sea delivery of very large items known as Abnormal Indivisible Loads (AILs) as well as the export by sea of surplus excavated material and the import of bulk and containerised materials.

6.3.4 The jetty would be a significant development in its own right. We are working on its detailed design to ensure that it can play a major role in the import and export of materials during the construction programme. At this stage we know that the jetty would:
- be a partly piled structure;
- have a number of berths;
- be designed to allow roll-on roll-off (Ro-Ro) operations; and
- be designed to reduce impacts on the foreshore.

6.3.5 Once Sizewell C is operational, AILs would occasionally need to be brought to site - for example to replace a major item of equipment. This might require permanent retention of some elements of the jetty structure.

6.3.6 The proposed location of the jetty is identified in Figure 3.4.

Freight by rail

6.3.7 We believe that rail should play an important role in the delivery of freight during construction, offering an alternative non-road option to the jetty for delivery of many kinds of construction materials and potentially to remove some surplus excavated material. This would reduce the number of HGV movements on the local road network and provide a mode of transport unlikely to be disturbed by weather conditions.

Existing rail infrastructure

6.3.8 There is an existing rail terminal at Leiston (south of King George’s Avenue) at the end of a rail line between Saxmundham and Leiston (see Figure 6.15). This line is no longer part of the passenger rail network but is used for occasional movements associated with the decommissioning of Sizewell A. The rail terminal was also used to bring materials close to site during the construction of Sizewell B.

6.3.9 With a modest amount of refurbishment it would be possible to use the existing rail terminal to bring freight deliveries to the site by rail. However the capacity of this terminal and the existing local rail infrastructure is currently limited to around one freight train per day, which would be insufficient for achieving our aim of substantially reducing road freight.

6.3.10 We are therefore exploring options to enhance the scope for transporting freight by rail and are asking for feedback on the two rail options in the following pages. We have also included our proposal for a passing loop at Wickham Market Station.
Option 1: New rail terminal and freight laydown area north of King George’s Avenue

6.3.11 One option would be to develop a new and larger rail terminal north of King George’s Avenue (see Figure 6.16). This would be located on part of the land to the north-east of Leiston industrial estate.

6.3.12 A new rail terminal at this location would create substantial additional space for unloading and storing rail freight for onward delivery to the Sizewell C Development Site. This location would also avoid use of the level crossing on King George’s Avenue and unloading operations would take place further away from residential areas of Leiston than the existing terminal.

6.3.13 In addition, we are also considering this land as a temporary area for freight storage, pre-fabrication and laydown during the construction phase, irrespective of whether it becomes the location for a new rail head.
Figure 6.16 New rail terminal location plan (Option 1)
Option 2: Temporarily extending the rail line into the Development Site

6.3.14 An alternative option would be a temporary extension of the rail-line into the construction area. This option would have the same advantages as Option 1 (a new rail terminal in Leiston) as well as:
› avoiding the need for additional HGV trips on Lover’s Lane;
› allowing rail freight to be brought directly and efficiently to its point of use in the Development Site by removing double handling and road transfer; and
› facilitating the potential rail export of surplus excavated material.

6.3.15 We consider this option would further encourage the efficient use of rail for freight deliveries over road alternatives, offering benefits for the construction programme and further reductions in HGV traffic. For these reasons it is our strongly preferred option.

6.3.16 We have looked at a number of route options for such an extension and a general indication of three potential routes is shown in Figure 6.17. The routes are referred to as the:
› Red route;
› Green route; and
› Blue route.

6.3.17 Two of the routes (the blue and green) would spur off the existing track west of Leiston and run through open countryside into the Development Site. The third (red) route would spur off north of Leiston industrial estate.

6.3.18 Each route has potential advantages and disadvantages. The blue and green routes would avoid trains running through Leiston – which could be of particular benefit as some freight train movements may need to occur at night. However these routes would also have the greater potential landscape and visual impacts on the surrounding countryside, including potential impacts on views from Leiston Abbey. The red route is the shortest of the routes with potentially reduced visual impacts.

6.3.19 At the present time we favour the green or the red route option. The blue route (which is the longest) would not be preferred as it has the greatest visual impact on surrounding countryside and would need to enter the Development Site at our preferred location for campus accommodation (see Chapter 5 – Campus site options).

6.3.20 The routes shown in the map are indicative at this stage and we anticipate that further work will be undertaken on the alignment and design options for the routes and how they would integrate into the construction area. This work will carefully consider issues of landscape, heritage, ecology and residential amenity and will take account of consultation feedback.

6.3.21 We envisage that once Sizewell C had been built, we would remove the new infrastructure and restore the land.
Passing Loop at Wickham Market Station

6.3.22 To allow either of the two rail options to be built, we would provide support to Network Rail to help construct a ‘passing loop’ on the East Suffolk line between Ipswich and Lowestoft at Wickham Market Station (see Figure 6.18). Much of the existing East Suffolk line is single track, which significantly restricts its capacity as it can only run trains in one direction at a time.

6.3.23 Adding a passing loop would enable a train running in one direction to wait while another train running in the other direction goes past. This would increase the freight capacity of the East Suffolk Line to at least the levels that might be required for Sizewell C (up to around five freight trains per day). It would also offer a potential legacy benefit for passenger and freight services on the East Suffolk line.

6.3.24 We anticipate that all the work required to construct the passing loop would be on land already owned by Network Rail. Our initial discussions with Network Rail suggest that they would support this development.

6.3.25 We are also discussing further with Network Rail the need for some smaller scale refurbishment and changes to the existing branch line between Saxmundham and Leiston to ensure it is able to cope with the increased traffic.
Figure 6.18: Passing loop at Wickham Market Station
Freight by road

6.3.26 Although we would plan to transport large amounts of freight by sea and rail, there would still be a certain amount of freight that could not practicably be moved other than by road.

6.3.27 In order to reduce the impact on local residents we would agree with Suffolk County Council approved HGV routes for all our construction traffic. These would avoid local or rural roads as far as is practicable.

6.3.28 We anticipate that the approved route to and from the Sizewell C site for HGV traffic would be the A12 and then the B1122 (see Figure 6.19). This was the approved route during the construction of Sizewell B. It avoids HGVs passing through Leiston, Saxmundham and most other local villages. We expect that the majority of HGVs would be coming from the south on the A12.

6.3.29 Our current work suggests that the construction of Sizewell C might require an average of between 100 and 300 deliveries per day during the peak years of construction (representing between 200 and 600 two-way movements).

6.3.30 We are very conscious of the strong desire to reduce HGV movements and therefore reduce the impacts on residents and communities. We will continue to pursue the objective of reducing movements where practicable.

6.3.31 We anticipate that controls on the number and timing of HGV movements through the local road network, to avoid or reduce movements at sensitive hours, would be agreed as part of the planning process for Sizewell C.

Lorry Park

6.3.32 In order to support the management of road deliveries to the Sizewell C Development Site, we are considering the construction of a lorry park, known technically as a freight management facility (FMF).

6.3.33 A lorry park such as this would provide short-term parking for around 50 to 100 HGVs along with associated facilities. The lorry park would help us manage and control deliveries to the construction site – and provide a location where lorries could be held in the event of an incident on the route to the Sizewell C Development Site.

6.3.34 It is possible that many of these functions could be achieved via automated monitoring and communication systems. Therefore, the need for a dedicated lorry park would in part depend on the final anticipated number of HGV movements, taking account of our proposed investment in sea and rail.

6.3.35 If an FMF were needed, there are a number of places it could be located. Our preferred option would be to co-locate the lorry park with the southern park and ride facility (see Chapter 6 – Park and ride). This would be relatively close to the construction site and avoid the need for an additional development with consequential environmental impacts.

6.3.36 Alternatively, a site to the south-east of Ipswich could potentially be found. This would control HGV movements before the A12. We are aware that a site in this location could offer potential advantages to Suffolk County Council as it could also provide a location where container lorries could be held when the Port of Felixstowe is closed (Operation Stack).
Figure 6.19: Road freight routes
6.3.37 The additional site options we are considering for freight management are shown in Figure 6.20. We would like to hear your views on these:

› Option 1: A14 Orwell Lorry Park West
› Option 2: A14 Orwell Lorry Park East
› Option 3: A12/A14 Seven Hills Junction
Figure 6.20: Lorry park site options map
Options 1 and 2: Orwell Lorry Park (Options West and East)

Location & surroundings

6.3.38 The Orwell Crossing Lorry Park is an existing privately-operated facility located on the A14 to the south-east of Ipswich and 4km east of the Orwell River. There are also a number of other businesses located in the central area of the site to the north of the lorry park. There is vacant land to the west and east of this central area which is proposed here as Option 1 (West) and Option 2 (East), although we would only need to use one of these.

6.3.39 The entire vacant site covers approximately 23 hectares (see Figure 6.21). The western site is presently allocated for employment use and adjoins the Ransomes Europark industrial estate. There is residential housing to the north of the site, fronting the A1156 to the north of the railway line.

6.3.40 The eastern site is unallocated. It lies within an isolated fragment of the Suffolk Coast and Heaths AONB, separated from the rest of the AONB by the A14 corridor. There is a public footpath running through the centre of the site, which would require a diversion. There is residential housing along the site’s northern boundary to the north of the railway.

6.3.41 We consider that the main advantages of the western site are that it is already allocated for employment use and lies outside of the Suffolk Coast and Heaths AONB. The residential properties to the north are located on the other side of a railway and a road and are therefore relatively well separated from the site. The advantage of the eastern site is that the use of land in this area is likely to be required in any event in order to construct a new access into the site from the A14. Its disadvantages are that it is located within the AONB and the residential properties to the north are separated from the site only by a railway.

Indicative layout

6.3.42 We believe that both sites could best be accessed by a new junction off the A14 located to the east of the existing site entrance which would be closed (see Figures 6.22 and 6.23). The new access could also serve the existing lorry park.

6.3.43 In each option the facility would be centrally positioned with grassed earth mounds surrounded by screen planting. In the case of the Eastern option the footpath would be diverted around the site’s perimeter.

Figure 6.21: Orwell lorry park location plan (Options West and East)
**Option 3:**
**A12/A14 Seven Hills Junction**

**Location & surroundings**

6.3.44 This site is located at the A12/A14 junction to the south-east of Ipswich, between the A14 to the north and the A1156 Old Felixstowe Road to the south (see Figure 6.24). It would be accessed off the Old Felixstowe Road.

6.3.45 The site covers 12 hectares and is part of a large arable field. Seven Hills Crematorium is located immediately to the west of the site.

**Indicative layout**

6.3.46 We envisage that the lorry park would be positioned so that there would be adequate space to the west to provide an effective landscape screen. Screening would also be provided along the site’s other boundaries (see Figure 6.25).

6.3.47 Once Sizewell C had been built this site could be restored to farmland. Alternatively, it would be well positioned to potentially be used for lorry parking, if needed, given its strategic location next to the A12/A14.
Figure 6.24: A12/A14 Seven Hills Junction location plan (Option 3)

Figure 6.25: A12/A14 Seven Hills Junction zoning diagram (Option 3)
6.4 Traffic impacts of Sizewell C

6.4.1 As part of the planning process, we are required to assess in detail the likely significant traffic impacts of Sizewell C. This process is underway. We are working closely with Suffolk County Council, the highway authority for the local road network. We are in the process of building a detailed traffic model of the local area, which will be used to assess in detail the anticipated traffic impacts under a range of scenarios.

6.4.2 We have conducted preliminary modelling of the potential impact of Sizewell C and this work will continue to be developed and refined. We recognise that some of the most likely areas of potential traffic impact during the construction are on the A12 and the B1122 - the route that would be taken by our HGVs. Many cars and buses would also use this route to reach the site.

6.4.3 The A12 between Ipswich and Lowestoft would be the main corridor for a lot of Sizewell C traffic. Much of the A12 is dual carriageway and our initial analysis suggests that Sizewell C traffic would not create capacity or congestion concerns on the large majority of the road – including both dual carriageway and single carriageway sections.

6.4.4 We recognise that the single carriageway ‘four villages’ section of the A12 through the villages of Marlesford, Little Glemham, Stratford St Andrew and Farnham is one of the more sensitive stretches of the A12 and that a bypass of these villages has the support of Suffolk County Council and has been publicly linked to the construction of Sizewell C.

6.4.5 We are therefore carefully examining whether the traffic impacts of Sizewell C would be likely to justify or require a bypass of some or all the villages in this area. Our view at this time is that a full four village bypass is not possible to justify on this basis.

6.4.6 A key consideration is that the additional traffic generated by Sizewell C would represent only a relatively modest addition to existing traffic flows.

6.4.7 Our current estimates are that the total traffic impact would be in the region of between a 5% and a 15% addition to all-vehicle daily traffic flows at the period of peak construction. While these estimates will be subject to further detailed work, they are not of a scale likely to cause major changes to traffic or environmental conditions on this stretch of road or justify a major intervention in the form of a bypass.

6.4.8 We appreciate that there is a view that a bypass of the four villages should be built regardless of the Sizewell C Project. However, it is not for EDF Energy to fund or sponsor a bypass which could not be justified by or related to the impacts of Sizewell C.

6.4.9 The most recent study into a bypass, commissioned by Suffolk County Council in 2006, concluded that the combined environmental, landscape and heritage impacts of constructing a full bypass would be such that they would not be likely to be deemed acceptable against the tests set by planning policies at that time. We are not aware of any changes to relevant planning policies since 2006 likely to change this conclusion.

6.4.10 Although we are of the view that a bypass could not be justified by Sizewell C traffic, we are seeking through our transport strategy proposals to reduce the impacts of our traffic through this single-carriageway stretch of the A12, just as with other local villages which could be impacted by the development.

6.4.11 The major investment proposals set out above to use rail and sea for freight deliveries are indicative of that commitment. Our proposals to locate a park and ride development south of Marlesford would also significantly reduce peak traffic impacts.

Farnham bend

6.4.12 The narrow bend at Farnham is widely recognised to be the most significant existing issue on the ‘four villages’ stretch of the A12. It is the area which is closest to capacity and the narrow bend creates a potential safety concern, particularly when two large vehicles are passing at once.

6.4.13 In this area our preliminary conclusions are that Sizewell C traffic could have the potential to cause some additional capacity constraints and congestion at the Farnham bend at peak periods. We also consider that the additional HGV traffic associated with our development could exacerbate safety concerns associated with the narrow bend.

6.4.14 For these reasons we consider that mitigation measures to improve the position at Farnham bend might be justified by our proposed development of Sizewell C. We are therefore inviting views on a number of potential alternative mitigation options for Farnham bend.
Option 1: Farnham bypass

6.4.15 A bypass of Farnham has been considered in earlier studies of options for bypassing the four villages. The route considered in the 2006 study ran to the northwest of Farnham. We consider that this would be the most appropriate route for any bypass of Farnham. An indicative alignment for such a bypass is set out in Figure 6.26.

6.4.16 A bypass of Farnham would be approximately 1km in length and composed of a single lane in each direction with accompanying landscaping. At the southern end of the route it would adjoin the existing A12 close to Stratford St Andrew and at the northern end it would adjoin the existing A12 north of Farnham.

6.4.17 Details of the bypass and junction arrangements would be subject to further work if this option were progressed.

6.4.18 A bypass of this kind would remove existing capacity and safety concerns associated with the current bend at Farnham, improve traffic flow and reduce accident risks. Properties near the road in Farnham would benefit from a large reduction in traffic flows through the village.

6.4.19 Equally, it is recognised that there would be some environmental impacts (in particular landscape, ecology and heritage) associated with constructing a short new stretch of road through what is currently an area of farmland and open countryside. These impacts could be reduced through sensitive design and landscaping.
Option 2: Road widening at Farnham bend

6.4.20 An alternative proposal to improve Farnham bend would be to widen and smooth the existing bend to reduce the potential for traffic congestion at peak times and remove safety concerns associated with the narrowness of the bend.

6.4.21 However to implement this option would require us to acquire and demolish a small number of properties closest to the bend. A number of different schemes of this kind were considered in the 2006 study. The scheme shown in Figure 6.27 is the minimum which we consider would be required to achieve a satisfactory degree of widening of the bend and would involve the demolition of two properties including one Grade II listed building.

6.4.22 Were we to take forward this option we would work sensitively and sympathetically with those residents who would need to relocate – with the objective of ensuring a satisfactory alternative solution for all those directly impacted.

6.4.23 A road widening scheme at Farnham bend would produce fewer environmental and landscape impacts than a bypass. It could be effective in addressing the current safety concerns associated with the bend and improve traffic flow to some degree, but it would not have the effect of removing traffic from the village of Farnham.

Figure 6.27: Indicative Farnham bend alteration
Option 3: HGV traffic controls at Farnham bend

6.4.24 We have considered a limited form of intervention at Farnham bend involving some form of traffic control to prevent two HGVs passing through the bend at once.

6.4.25 Such a system could be relatively effective in reducing safety risks at Farnham bend and improve the ability of pedestrians and other road users to cross the A12 in this area.

6.4.26 However this option would have no positive effect on traffic flow through the bend and indeed would worsen the potential for congestion. As with a road widening scheme, all A12 traffic would continue to route through Farnham. For these reasons we consider it to be a less attractive option.

Farnham bend - Summary

6.4.27 In summary, we do consider that intervention to improve the situation at Farnham bend could be justified by extra Sizewell C traffic, in particular additional HGVs.

6.4.28 We have presented a number of mitigation options for Farnham bend and we invite views on the case for intervention and the options presented.

6.4.29 We recognise that there is no simple solution to this issue and that all options have some positives and negatives. We will take careful note of responses to this consultation – and in particular from those who would be most directly affected by the different proposals.

Road traffic impacts on the B1122

6.4.30 As noted previously, we anticipate that the B1122 would be the approved HGV route for traffic between the A12 and the Sizewell C construction site. It would also be the route taken by some cars and buses.

6.4.31 Current traffic flows on the B1122 are relatively modest and much lower than on the A12. As such, Sizewell C traffic is not likely to cause any capacity or congestion problems on most of the B1122.

6.4.32 We do however consider that the junction of the A12 with the B1122 at Yoxford is likely to require improvement to ensure a smooth flow of traffic and avoid disruption to flows on the A12. We will bring forward more detailed proposals at a future stage of consultation but at this stage our initial assessment suggests that a roundabout could be required.

6.4.33 We also recognise that, in percentage terms, the impact of Sizewell C traffic would be much greater on the B1122 than on the A12, or indeed almost any other local road. We recognise the potential for this traffic to cause negative noise and amenity impacts to a relatively small number of properties near the B1122 and in the village of Theberton.

6.4.34 We will consult with the residents of these properties and the villagers of Theberton to discuss the form of mitigation which might be most appropriate to their circumstances and the impacts of Sizewell C. Any specific proposals in this area would be subject to further consultation.

Other road traffic impacts from Sizewell C

6.4.35 The process of assessing the likely traffic impacts of Sizewell C will continue throughout the pre-application consultation process. As our proposals develop, and decisions are made on the size, nature and location of any proposed associated development, this will impact on the precise traffic impacts to be expected. We will also continue to improve and refine the traffic modelling which will inform our position.
7.1 Consultation events

What happens next? —

› 7.1 Consultation events
7.1 Consultation events

7.1.1 We encourage you to visit one of our consultation events (see Figure 7.1 for dates and locations). The Sizewell C project team will be available at these events to help you understand the proposals and answer your questions.

7.1.2 We will undertake to consider your feedback and to take it into account as we prepare detailed plans for Sizewell C.

<table>
<thead>
<tr>
<th>Town</th>
<th>Venue</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leiston</td>
<td>Leiston United Church, High Street</td>
<td>Friday 23 November</td>
<td>2 - 8pm</td>
</tr>
<tr>
<td>Leiston</td>
<td>Leiston United Church, High Street</td>
<td>Saturday 24 November</td>
<td>12.30 - 4.30pm</td>
</tr>
<tr>
<td>Theberton</td>
<td>St Peters Church</td>
<td>Monday 26 November</td>
<td>2 - 8pm</td>
</tr>
<tr>
<td>Westleton</td>
<td>The Village Hall, Darsham Road</td>
<td>Tuesday 27 November</td>
<td>2 - 8 pm</td>
</tr>
<tr>
<td>Saxmundham</td>
<td>Market Hall, High Street</td>
<td>Thursday 29th November</td>
<td>2 - 8pm</td>
</tr>
<tr>
<td>Yoxford</td>
<td>The Village Hall, Old High Road</td>
<td>Friday 30th November</td>
<td>12 - 5pm</td>
</tr>
<tr>
<td>Stratford St Andrew</td>
<td>The Riverside Centre, Great Glenham Road</td>
<td>Saturday 1 December</td>
<td>10am - 4pm</td>
</tr>
<tr>
<td>Southwold</td>
<td>The Methodist Church, East Green</td>
<td>Tuesday 4 December</td>
<td>2 - 8pm</td>
</tr>
<tr>
<td>Halesworth</td>
<td>The Rifle Hall, London Road</td>
<td>Wednesday 5 December</td>
<td>2 - 8pm</td>
</tr>
<tr>
<td>Wickham Market</td>
<td>The Village Hall, High Street</td>
<td>Thursday 6 December</td>
<td>2 - 8pm</td>
</tr>
<tr>
<td>Aldeburgh</td>
<td>The Baptist Church, High Street</td>
<td>Friday 7 December</td>
<td>2 - 8pm</td>
</tr>
<tr>
<td>Melton - Woodbridge</td>
<td>The Lindos Centre, Saddlemakers Lane</td>
<td>Saturday 8 December</td>
<td>10am - 4pm</td>
</tr>
</tbody>
</table>

Figure 7.1: Consultation events