

Hinkley Point C | Proposed Nuclear Development

Pre-Application Consultation
Stage 1

INITIAL PROPOSALS AND
OPTIONS SUMMARY DOCUMENT
NOVEMBER 2009



Foreword



Richard Mayson

The Government has decided that new nuclear power stations should have a role in the future electricity generating mix for the UK¹.

EDF Energy supports this policy and believes there is an urgent need to invest in new nuclear power stations, both to reduce carbon emissions and to increase the security of our energy supplies.

We estimate that the new nuclear power station we propose at Hinkley Point could provide more than 6% of the nation's electricity – a major contribution towards a low carbon future.

But we must ensure that development at Hinkley Point is carried out in the best possible way, recognising the potential impact on people living in the area. I hope this public consultation will help us understand how we can achieve this.

A potential multi-billion pound investment at Hinkley Point will provide huge opportunities for local people and businesses during construction and operation of the new power station.

We look forward to receiving your views on our 'Initial Proposals and Options'. They will help us prepare our final plans and make sure that the benefits of new nuclear development at Hinkley Point are maximised.

Thank you for your interest in this project.

A handwritten signature in black ink, appearing to read 'Richard Mayson'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Richard Mayson
Director of Planning & External Affairs

¹ See 'Meeting the Energy Challenge', a White Paper on Nuclear Power, BERR, January 2008 and 'The UK Low Carbon Transition Plan, National Strategy for Climate and Energy', HMG, July 2009.

1 This Consultation

EDF Energy is seeking the views of people living in the vicinity of Hinkley Point and surrounding communities on plans to build a new nuclear power station.

Why Hinkley Point?

- There have been nuclear power stations at Hinkley Point since 1965
- In 1990 permission was granted to build a new nuclear reactor on part of the EDF Energy site
- EDF Energy consulted in 2008 about plans to nominate land close to the existing power stations into the Government's Strategic Siting Assessment
- Hinkley Point was nominated for new nuclear power development in March 2009

Consultation Process

At this stage we are consulting on 'Initial Proposals and Options' for the new nuclear power station. The consultation will be open until 11 January 2010 and responses must be received by this date.

All comments are welcome. However, to help you respond, we have highlighted some key questions about our Initial Proposals and Options. You can respond to these online via our website www.edfconsultation.info or by filling out the questionnaire at one of our public exhibitions.

There are a number of other ways that you can give us your views – please see section 6 for full details.

The comments and views received will help us to prepare our 'Preferred Proposals'. We will then hold a further consultation on those proposals between mid March and mid May 2010.



Aerial photograph of Hinkley Point

After that, we intend to prepare our application and submit this to the new Infrastructure Planning Commission (IPC).

The IPC is a new, independent body set up to consider projects of national importance. Its decisions must be taken in accordance with national policy but will take into account the local impact of any proposal.

The IPC will receive comments and hold public hearings into our plans before reaching its final decision.

Scope of Consultation

We are seeking views on:

- Proposals for the main power station development at Hinkley Point
- Associated development that we believe is necessary to support the construction and operation of the power station
- Dealing with the impacts on, and potential benefits for, the local community
- Preliminary site works

The principle of whether the site at Hinkley Point is suitable for a new nuclear power station will be decided by the Government.

The safety, security and environmental aspects of the type of nuclear power station we are proposing to build at Hinkley Point C are being considered under the Generic Design Assessment (GDA) process, undertaken jointly by the Health & Safety Executive (HSE) and the Environment Agency, and by site-specific regulatory processes.

Consultation Events

We will be holding a series of public exhibitions, staffed by members of the EDF Energy project team, to help people understand and comment on our proposals.

The exhibition can then be viewed from Tuesday, 15 December to Monday, 11 January between 2pm and 5pm, Monday to Friday (excluding bank holidays), in EDF Energy's Bridgwater office at 14 King Square, Bridgwater, TA6 3DG.

A full set of the consultation documents may be examined at our Bridgwater office throughout the consultation, as well as online at www.edfconsultation.info and at local libraries and Council offices.

We will also be holding a series of other consultation meetings with community and stakeholder groups – for example, local Parish and Town Councils – some of which may be open to the public.



Public meeting in Cannington (22 September 2009)

Date	Event & Location	Timings
Saturday, 28 November	Cannington Village Hall, High Street, Cannington, TA5 2HE	10am - 4pm
Wednesday, 2 December	Stogursey [jointly with National Grid] Victory Hall, Tower Hill, Stogursey, TA5 1PR	2pm - 8pm
Thursday, 3 December	Otterhampton Otterhampton Village Hall, Riverside, Combwich, TA5 2QS	2pm - 6pm
Saturday, 5 December	Williton Danesfield School, North Rd, Williton, TA4 4SW	10am - 4pm
Monday, 7 December	South Bridgwater Community Centre, Fore Street, North Petherton, TA6 6QA	11am - 7pm
Wednesday, 9 December	North Bridgwater The Exchange, Express Park Bridgwater, TA6 4RR	2pm - 8pm
Friday, 11 December	Burnham-on-Sea The Princess Theatre, Princess St, Burnham-on-Sea, TA8 1EH	2pm - 8pm
Monday, 14 December	Bridgwater EDF Energy office, 14 King Square, Bridgwater, TA6 3DG	12pm - 6pm

2 Hinkley Point C Power Station

Location of the Power Station

The new power station complex is proposed immediately to the west of the existing Hinkley Point power stations.

This location has been chosen because:

- It is close to the existing power stations
- It has access to cooling water from Bridgwater Bay
- It is mainly outside designated sites of ecological importance
- It is mostly above the flood risk zone and at a suitable level for permanent development
- It is able to utilise the existing road access

UK EPR

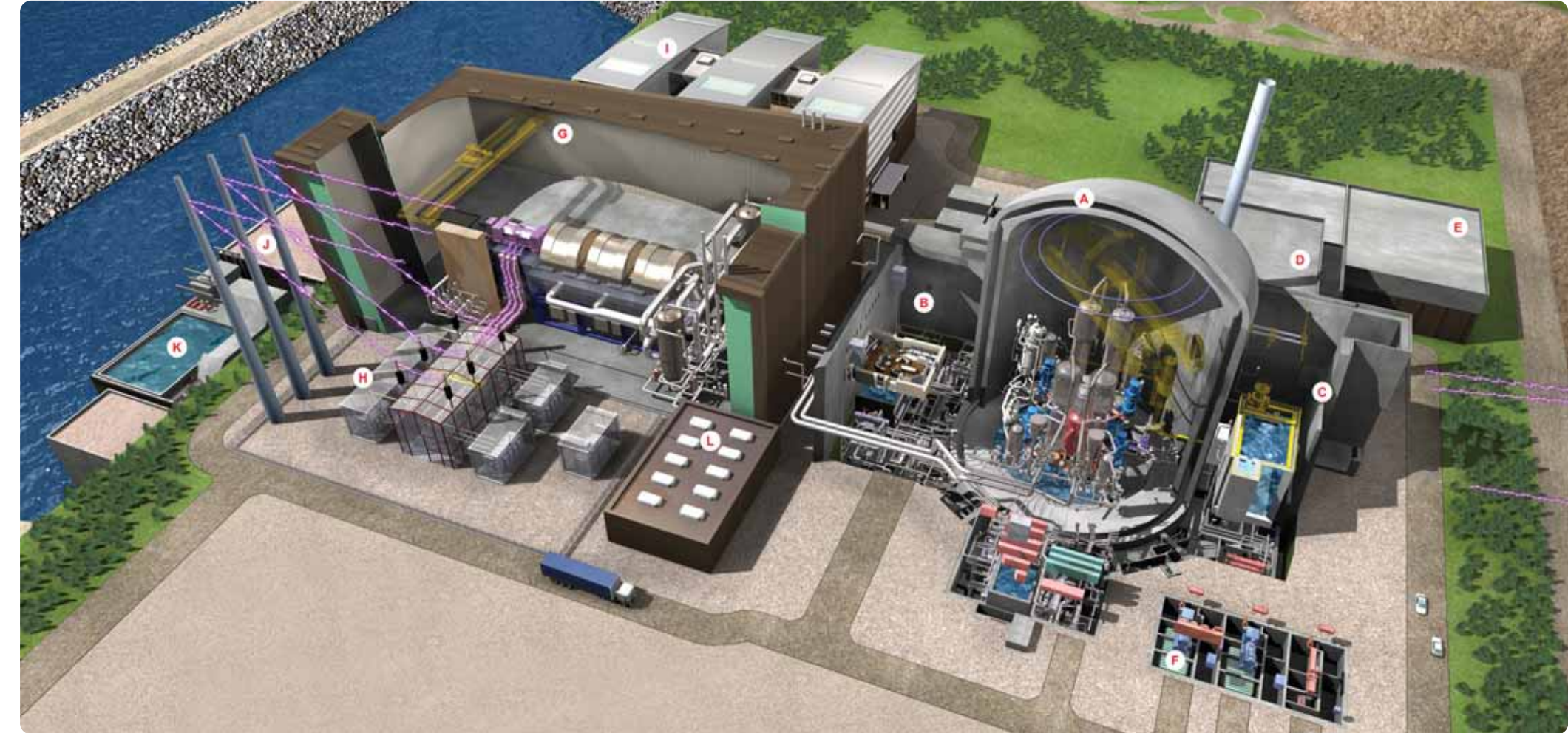
Hinkley Point C power station will incorporate two UK EPRs, pressurised water reactors together capable of generating electricity for approximately 5 million homes, and a range of shared facilities.

The UK EPR has been designed using the latest technology in nuclear reactors to enhance safety, environmental protection, technical and economic performance. Further information is available via our website:

www.edfconsultation.info



Indicative Plan of Hinkley Point C Development (completed)



Cut away drawing of a single UK EPR (illustrative layout)

Key

A Reactor building

B Four safeguard buildings

C Fuel building

D Nuclear auxiliary building

E Radioactive waste processing building

F Emergency diesel generator building

G Turbine building

H Power transmission platform

I Operator building

J Pumphouse building

K Outfall structure

L Conventional electrical building

Hinkley Point C Power Station continued

Components of the Power Station

The key permanent components of the power station are:

- Main station buildings including the reactor buildings, fuel building, nuclear auxiliary building, turbine halls and ancillary buildings
- Supporting infrastructure including cooling water tunnels and pump houses, fuel and waste management facilities, overhead lines to a new on-site electricity sub-station, staff facilities, administration and stores
- A public information centre to provide educational and visitor facilities
- Access from the main Hinkley Point road and on-site parking
- A secondary emergency access road to the power station connecting into the Shurton Road to the south

National Grid will be responsible for providing overhead power lines to connect the new on-site sub-station to transmission lines near Hinkley Point.

The power station will be bounded by security fencing and lighting. A new sea wall will be constructed, incorporating the existing coastal footpath.

Fuel and Waste

The reactor will be shut down periodically for maintenance and refuelling. New nuclear fuel will be handled in a fuel building adjacent to each reactor. The spent fuel removed during refuelling will be stored underwater in a fuel pond, which will provide cooling and radioactive shielding.

The radioactive waste will be treated and packaged in a waste building serving both UK EPR units. The spent fuel and higher level radioactive waste will be kept on-site, in stores capable of lasting for at least 100 years, pending despatch to a national geological disposal facility.

Low-level waste will be despatched off-site promptly after it

has been generated and disposed of in a suitable disposal facility, such as the one already operating in Cumbria.

Decommissioning

Hinkley Point C is designed to operate for 60 years. It will be built with decommissioning in mind, which should take no more than 20 to 25 years.

Landscaping and Wildlife

We propose to create a landscape buffer along the southern boundary of the site to minimise the impact of the development, particularly during the construction period. This could become a permanent feature, or we could remove it once development is completed.



Nature reserve

Our initial proposals for landscaping and restoration of the southern part of the site, used during the construction period, include:

- Earth embankments with planting to screen the development from nearby areas

- Woodland and other planting to protect long-distance views and create new wildlife habitats
- Reinstatement of grass meadows
- Reinstatement of streams
- Creation of grass meadows and new wetland areas

We intend to retain the Hinkley Point Nature Reserve to the south of the existing power stations.

Footpaths

Our overall objectives for footpaths and other rights of way are:

- Where possible during construction we will maintain a coastal path, although this will need to be diverted for part of the time
- After construction we will provide rights of way to the south of the new power station

Plans for the footpaths that cross the site are still being considered, although some rights of way will need to be closed or diverted.

Construction of the Power Station

The overall construction programme, including preliminary works, will take around ten years.

We estimate that the number of people working on the site will peak at around 4,000 although, for transport planning purposes, we have added a contingency and assumed that the maximum number could be 4,800.

Some areas of the site will be used on a temporary basis for the following:

- A campus with living quarters and amenities for up to 700 construction workers. This will be located in the southeast corner of the site away from most residential properties
- Contractors' working areas including: open storage; stores; offices; canteen; and car parking



Cooling pipes being installed at EDF's new nuclear plant in Normandy

- Areas for the storage of spoil
- Roads, fencing, lighting and security
- Jetty for bulk materials delivery by sea

Key Consultation Questions

1. Do you agree that EDF Energy's proposal to provide a landscape buffer on the southern boundary of the site is the best way of minimising the potential impact of the construction site for nearby local residents? If yes, should this be retained as a permanent feature once construction is completed?
2. There are a number of options for the restoration of the site at the end of the construction phase. What sort of landscape and wildlife features would you like to see included (e.g. return land to its previous use, creation of wildlife habitats, grassland, woodland etc).
3. Do you have any comments on the strategy for rights of way across the site during and following construction?

3 Associated Development

EDF Energy is proposing a package of off-site developments to deal with the demands of construction and operation of Hinkley Point C power station.

Accommodation Strategy

At the peak of construction we estimate local accommodation will need to be found for around 2,400 workers.

Our strategy is to:

- Minimise the distances they need to travel and ensure they have access to non-car modes of transport, including park and ride facilities
- Where possible provide accommodation at locations identified by the local authorities as suitable for development
- Provide purpose-built accommodation with excellent facilities such as restaurants, sports facilities, laundries and a TV in rooms
- Where appropriate, ensure purpose-built accommodation can be adapted for future use by the local community
- Keep numbers in any town or village within a manageable capacity
- Make use of existing accommodation provision in the local area, without displacing the local tourist industry
- Encourage high standards of conduct in the local community
- Provide support for local services to meet workers' needs, such as health and education facilities

We are discussing with local councils whether accommodation for construction workers could subsequently be used to provide affordable homes or other residential facilities in Bridgwater and Williton, and a hotel in Bridgwater.

We are also talking to Bridgwater College about the provision of accommodation for up to 120 construction workers on the Cannington campus that could be used subsequently by the College

Travel Plan











A comprehensive plan is needed to move workers to and from the site and bring in construction materials, while minimising disruption to local residents and businesses.

The key measures proposed in our travel plan are to:

- Introduce shift patterns for construction workers so they avoid travel at peak times
- Provide campuses for workers at key locations
- Create park and ride sites that provide frequent and reliable bus connections to the Hinkley Point site
- Build freight handling facilities where materials can be transferred from vans and small lorries onto larger vehicles for transportation outside peak periods
- Build a bypass for Cannington to divert construction traffic away from the centre of the village
- Build a temporary jetty in the Bridgwater Bay and improve Combwich Wharf to allow goods to be delivered by sea
- Carry out other minor road improvements

Associated Development continued

Key

-  Hinkley Point C development site – indicative boundary
- East**  Cannington bypass options – eastern and western
- West**  Cannington North West search area:
 - a park and ride facility for up to 900 cars
 - a freight consolidation facility
 - a spoil disposal site
-  Cannington South and Central search areas:
 - accommodation up to 320 people (including Cannington College)
 - a park and ride facility for up to 900 cars
 - a freight consolidation facility
-  Junction 23 search areas:
 - a park and ride facility for up to 750 cars
 - a freight consolidation facility
-  Junction 24 search areas:
 - a park and ride facility for up to 350 cars
 - a freight consolidation facility
-  Bridgwater search areas:
 - campus accommodation for up to 500 people
-  Williton search areas:
 - campus accommodation for up to 200 people
 - a park and ride facility for up to 350 cars
-  Combwich Wharf search area:
 - refurbishment of Combwich Wharf
 - a freight consolidation facility
-  Alternative emergency access route on public highway



Cannington Bypass

As the main route for traffic to Hinkley Point is through Cannington, we believe that a bypass will be needed to link the A39 to the existing Hinkley Point road.

Two options are being considered – an eastern and a western route shown on the plan. Some features of these two routes are shown in the table.

Cannington by-pass option	Initial assessment
Western route	<ul style="list-style-type: none"> • Approximately 1.5 kilometres in length • Junctions to connect into existing roads • Speed limit of 40 mph • Landscaping and planting possible to screen road
Eastern route	<ul style="list-style-type: none"> • Approximately 3.5 kilometres in length • Junctions to connect into existing road and farm tracks • Speed limit of 60 mph • Road would need to be on an embankment as it is in the floodplain



Route options for Cannington Bypass

We welcome views on the best option for the village. A final decision on the preferred route will also need to take into account further detailed environmental assessment work and the views of local authorities and other interested parties.

Workers' Accommodation

Our initial proposals for accommodating workers during the construction period are:

- A 700-bed temporary campus and other amenities (restaurants, leisure facilities etc) at Hinkley Point C. Previous studies concluded that on site accommodation would help to reduce traffic on local roads
- A 200-bed campus and amenities near Cannington to the south of the village and adjacent to the A39. This could be either a temporary or permanent facility if a longer-term use for the buildings can be found
- Accommodation at Cannington College – for up to 120 workers
- Accommodation near Williton on the A39 for up to 200 workers, with the potential for long term residential use
- Accommodation in Bridgwater for up to 500 workers, with the potential for subsequent use as a hotel
- Existing owner-occupied and privately rented accommodation, including guesthouses and caravan parks

Park and Ride

We are proposing a total of four park and ride sites to reduce the number of cars travelling on the local roads to and from the Hinkley Point site. The locations are:

- Cannington, to reduce traffic travelling from Cannington and the Bridgwater area. Two possible locations have been identified
- M5 Junction 24 on the southern outskirts of Bridgwater. This would be used by traffic travelling north up the M5. Three possible locations have been identified and there is potential for this to be a permanent park and ride location for Bridgwater

- M5 Junction 23 on the northern outskirts of Bridgwater. This would be used by traffic travelling south down the M5. Two possible facilities have been identified - our preferred option is a site on the northwest corner of the A39/A38 roundabout next to the car auction centre. This also has the potential to be a permanent park and ride facility for Bridgwater
- Williton, where two possible locations have been identified. The purpose of this would be to reduce traffic travelling to Hinkley Point from the Minehead direction

Freight Handling Facilities

We are proposing two freight handling facilities for road freight.

These would intercept mainly light goods traffic travelling to the site and transfer loads to large goods vehicles for delivery outside peak hours. This will help to reduce the number of deliveries to the site.

The proposed locations are:

- Either on the southern side of Cannington next to the A39 or to the north of Cannington by the C182
- Two locations at motorway junctions have been identified – our preferred option is a site on the north-west corner of the A39/A38 roundabout next to the car auction centre

We are also proposing a freight handling/storage facility for freight brought in by sea to reduce the amount delivered to site by road. Two possible locations have been identified – one near Cannington and one in Combwich.

Associated Development continued

Combwich Wharf

A private road, owned by EDF Energy, links the Wharf to the main Hinkley Point road avoiding the village of Combwich.

We think Combwich Wharf should be used to deliver bulky and abnormal loads during the construction period. This will reduce heavy goods traffic through Cannington and Bridgwater.

We propose to:

- Strengthen and upgrade the existing Wharf
- Provide some storage areas adjacent to store goods before they are transferred to the site

The Wharf was built to support the existing Hinkley Point developments and will be used for the delivery of abnormal loads and bulky goods by sea.

Road Improvements and Other Works

A number of road improvements and other works may be required and EDF Energy is currently discussing the need for these with the local authorities. We are considering:

- Improvements to the Combwich to Hinkley Point road to allow the transportation of abnormal loads
- Strengthening culverts along this section of road
- Possible improvements on the highway network to accommodate increased traffic and improve safety
- Potential removal and disposal of surplus spoil from the site

Early studies indicate that a northern Bridgwater bypass is not necessary for the Hinkley Point C development.

Key Consultation Questions

4. What is your view on EDF Energy’s initial proposals for managing transport and accommodation during the construction phase?

5. We are proposing a bypass for Cannington. Do you think the road is needed? If so, should it go to the east or the west of the village? Please give reasons for your preference.

6. We are proposing a mix of solutions for accommodating construction workers. Please give comments on your preferences and any suggestions about the future use of these facilities.

7. What are your views on the four locations EDF Energy is proposing for the new park and ride sites? Do you think it would benefit the local community for these park and ride facilities to continue to operate once construction is complete and, if so, on which sites?

8. What are your views on proposed freight handling facilities adjacent to some of the park and ride sites and at Combwich? What do you think of our proposals for the use of Combwich Wharf?

4 Community Benefits

Approach to Community Benefits

EDF Energy’s community benefits package will be designed to:

- Minimise impacts and maximise benefits of the development for local communities, through appropriate on and off site improvements
- Ensure that, wherever possible, a beneficial long term use is found for temporary developments (e.g. community use of workers’ campuses and park and ride facilities following construction)
- Recognise the contribution of the local community in hosting the new power station
- Ensure that local people and businesses can take full advantage of the employment and business opportunities arising from the development

Securing Benefits

The development of a new nuclear power station at Hinkley Point will have a number of potential benefits:

- A legacy of improved infrastructure, including the proposed Cannington bypass, park and ride facilities, a possible hotel in Bridgwater and better college accommodation in Cannington
- Around 700 permanent jobs at Hinkley Point C, with further employment opportunities during maintenance periods
- Opportunities for local people to benefit from thousands of jobs during the construction phase
- Opportunities for local businesses in the supply chain for construction and operation of the new power station.
- Indirect benefits through increased demand for local goods and services

EDF Energy is working closely with the relevant authorities to help local communities take full advantage. We are developing:

- Training and recruitment policies to make it easier for local people to acquire the skills and training necessary to secure jobs
- A procurement strategy to help local firms get involved in the supply chain and to make a positive contribution to economic development in the area

We are developing a package of measures to reduce the impact of the development on the local area. Details will be provided at the next stage of consultation.

Key Consultation Questions

9. What are your views on EDF Energy’s general approach to community benefits and do you have any specific suggestions about what should be included in the package?

10. Do you have any comments on our proposals in relation to training and business opportunities?



Progress at EDF nuclear power station at Flamanville, Normandy

5 Preliminary Works

Need for Preliminary Works

Our aim is to switch on the first new UK EPR at Hinkley Point C by the end of 2017.

EDF Energy believes there is an urgent need to meet this date to help fulfil the UK's energy needs. All but one of the UK's existing nuclear power stations is due to close by 2023 and some coal and oil-fired power stations will have to shut down to meet stricter environmental standards.

Before main construction work for the first UK EPR at Hinkley Point can start we must prepare the site. We therefore propose to apply for planning permission for preliminary works before submission of the main application to the IPC.

Planning and Reinstatement

Our applications for preliminary works will be made to West Somerset Council and the Marine and Fisheries Agency in early 2010. The Local Authority will carry out a consultation on the planning application for preliminary works before deciding whether or not to give consent. We hope to be able to start work in 2010, so the site can be ready for the main construction work in 2011/2012.

The applications do not pre-judge the independent view that the IPC will reach on whether to grant consent for the construction of the nuclear power station.

We will carry out the work entirely at our own risk. If permission for the new power station is refused then we will comply fully with any conditions to remove the preliminary works and reinstate the land.

Temporary Jetty

A temporary jetty is planned to bring in bulk materials by sea for the construction process. An associated on-site storage facility is also proposed.

Delivering bulk materials to the site in this way will avoid many vehicle movements per month during the construction phase and help to reduce the impact of the main development on local communities.

We propose to deliver construction material for the jetty by road. The temporary jetty will be dismantled and materials recycled at the end of its life.

Sea Wall

We propose to construct a new sea wall to provide coastal protection. This will extend the existing sea wall in front of the existing Hinkley Point power stations.

The existing coast path will continue along the crest of the cliff once the sea wall has been completed and public access to the beach will be provided at two locations.

The sea wall will be retained as a permanent feature of the construction works.

Site Works

In order to prepare the site for the development of the power station, we propose to:

- Remove the three existing barns
- Remove existing hedgerows, woodland and some grassland
- Undertake drainage works
- Fence off the site of the preliminary works
- Re-route existing underground services and provide new utility services
- Divert or close some of the rights of way across the land

- Provide a site access road and internal roads suitable for construction traffic
- Undertake earthworks to form a series of terraces for the main construction



The Hinkley Point C site

Key Consultation Questions

11. What are your views on our proposals for undertaking, at our own risk, preliminary works to get the site ready for construction?

6 Responding to this Consultation

EDF Energy is seeking your comments or views on any aspect of the 'Initial Proposals and Options' for the development of Hinkley Point C.

More detailed information on the initial proposals and options, including potential impact and mitigation measures, is available via our website www.edfconsultation.info and in local libraries and Council offices.

Fill out a questionnaire

We have a questionnaire, based on the key consultation questions set out in this document, which you can:

- Return to us, on line, via our website, www.edfconsultation.info
- Complete on computer terminals available at our public consultation events
- Fill out at any of these public consultation events, or return to us later using our Freepost facility
- Complete the questionnaire orally by calling our Freephone hotline



EDF Energy Team

E mail us

You can email us with your comments and views on enquiries@edfconsultation.info.*

Freephone

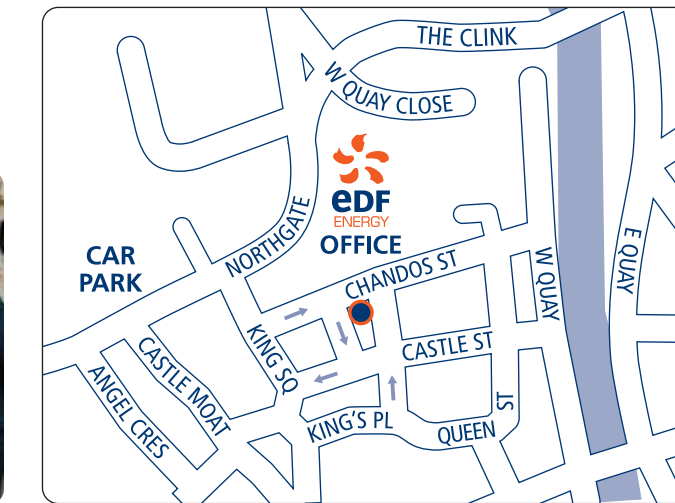
You can call us during normal office hours (9am to 5pm, Monday to Friday, excluding public holidays) on our freephone number, **0800 169 6507**.*

Freepost

You can write using our freepost address, **FREEPOST CONSULTATION RESPONSE***. No further address or stamp is required on the envelope.

Bridgwater Office

You can drop in at any time during normal office hours (9am to 5pm, Monday to Friday, excluding public holidays) to our office at 14 King Square, Bridgwater, TA6 3DG. Please note that the Bridgwater office cannot deal with EDF Energy customer queries or billing issues. For those, please call **0800 096 9000**.



EDF Energy Bridgwater office

Please remember that the deadline for responses to this first stage of our public consultation is **Monday 11th January 2010**.

Key Consultation Questions

12 Do you have any other comments about EDF Energy's initial proposals for the development of a new nuclear power station at Hinkley Point?

* These details will put you in touch with PPS, who are managing the public consultation programme on behalf of EDF Energy

7 About EDF Energy

EDF's Nuclear Experience

EDF is one of the world's largest energy companies. We are the leaders in nuclear energy and safely operate the largest fleet of civil nuclear power plants in the world.

EDF has built and operates 58 nuclear power plants in France and we are currently building a new nuclear power station (EPR) at Flamanville in Normandy, similar to what is planned for Hinkley Point.

Following our acquisition of British Energy in January 2009, EDF Energy operates a further 15 nuclear power plants in this country.

We have a strong safety track record of operating nuclear power stations and safety is at the heart of the design and operating procedures for all our nuclear plants.

We have a long-term commitment to promoting a low carbon future by investing in a diverse and sustainable energy mix. This includes different types of energy generation - nuclear, renewables, clean coal and gas - as well as greater energy efficiency.

EDF Energy in the UK

Our UK operation, EDF Energy, is one of the UK's largest energy companies. We generate around one fifth of the UK's electricity, employ around 20,000 people and supply electricity and gas to over 5.5 million customers. We also operate the electricity distribution network in London and the South-East of England.

We currently employ nearly 4,000 staff in the South West of England mainly based in Exeter, Gloucester, Plymouth and at Hinkley Point.

Further Information

You can find out more about EDF Energy in the UK from our corporate website, www.edfenergy.com



About this paper

This document is printed on Revive 75, a paper containing 50% de-inked post consumer waste, 25% pre-consumer waste and 25% virgin fibre. The pulp used in this product is bleached using both the Elemental Chlorine Free (ECF) and Totally Chlorine Free (TCF) processes and contains fibre from well managed FSC certified forests.