

Comments from Stop Hinkley
on the application to West Somerset
Council by EdF for “Site Preparation
Works” at Hinkley Point
(Ref No. 3/32/10/037)

January 2011



www.stophinkley.org

Introduction

Stop Hinkley is the locally based group opposed to nuclear power activity at the Hinkley Point site, including the proposal for a Hinkley Point “C” power station. We have been campaigning against nuclear power in Somerset and beyond for more than twenty years. The organisation was a major participant in the 1988-9 public inquiry into the original plans for “Hinkley C”. Further details can be found at www.stophinkley.org.

Our comments are in two parts: overall comments on the merits of the application and other issues are contained in this document (see below) and a separate report commissioned from consultant Graham Boswell (attached) contains our response to the specific ecological implications.

Comments on Application by EdF for Site Preparation Works (Hinkley Point C, Proposed Nuclear Development)

1. Objections in Principle to “Preliminary Works”

a) This application is inaccurately described as for “preliminary works”. The extent of the activity detailed in the application - including the clearance of vegetation, hedges and trees, the excavation and movement of more than 2.3 million cubic metres of soil, sub-soil and rocks, the re-routing of underground streams, the creation of roads and roundabouts, substantial changes to the landscape and the commencement of deep excavations for the power station foundations - mean that the work is effectively the start of construction of the proposed Hinkley C nuclear power station.

EdF argues that these site preparation works are necessary in order to “speed up the construction programme so that the new power station can be operational as soon as possible” (Non-Technical Summary, p.1). Stop Hinkley believes that there is no urgency which justifies this precipitate action in advance of the company receiving consent from the Infrastructure Planning Commission to construct the power station itself. We have already argued, in submissions to the government’s Energy National Policy Statement consultation and elsewhere, that there are alternative ways to a) “keep the lights on” in the UK and b) move effectively towards a low carbon electricity supply system without falling back on a “nuclear revival” with all its attendant health and safety issues.

Although EdF is relying on the government’s policy in favour of “new nuclear build” in order to justify its timetable, the documents which would confirm that policy - in particular the National Policy Statements covering overall UK energy policy and nuclear energy - have yet to be finalised by the Department of Energy and Climate Change and approved by Parliament. The consultation period on these documents

did not end until 24 January, and parliamentary approval is unlikely before spring/summer 2011. A confirmed government policy on nuclear power, including projects such as Hinkley C, is therefore currently in limbo.

At the time of writing, EdF is also still waiting for a series of other approvals which would enable the proposed power station to go ahead. These include:

1. Agreement of the reactor design (the European Pressurised Reactor, of which there are none yet operating anywhere in the world) through the Generic Design Assessment process.
2. Approval of the radioactive discharges the reactor will be allowed to make.
3. Agreement on a satisfactory payment system for management of the decommissioning process and radioactive waste which will have to be dealt with for many years after the power station has ceased operation.

The company has also indicated that it will not be able to make the project operate economically unless it is given further financial support through, for example, a fixed price for carbon abatement. The process for achieving such support measures, through the government's package of "electricity market reforms", has only just started and is unlikely to be completed, at the earliest, before the end of 2011.

Most importantly, EdF has yet to submit an application for development consent to the Infrastructure Planning Commission (IPC). The company announced before Christmas that it would be conducting a third stage of consultation with the local community and local authorities, expected to start in spring 2011. It is therefore unlikely that the IPC application will be submitted before summer/autumn 2011 at the earliest. It would then take up to a year, possibly longer, to pass through the IPC process and reach the point of determination. No site preparation works should be carried out in advance of that application being approved.

EdF says (Non-Technical Summary, p.3) that "this is a highly unusual planning application, designed and submitted to respond to an exceptional national need". Stop Hinkley believes that the application is "unusual" because it involves jumping the gun on the construction of Hinkley C, and for which there is no exceptional national need.

b) EdF says in its application that carrying out these preliminary works will advance the construction programme for Hinkley C by at least 12 months. Given that the overall timescale for construction of the power station could last from seven years up to a decade, based on experience of similar projects elsewhere around the world, a year is not a major advance. Saving 12 months should also be set against the destruction to the local environment which will have occurred needlessly if the company does not obtain development consent from the IPC (see below).

2. Effects of the Preliminary Works

The “preliminary works” will effectively destroy the present environment over much of an area covering 171 hectares (422 acres), about the same extent as a medium-sized farm and larger than the town of Williton. At present this area is characterised by gently undulating fields, both arable and grazing, long-established hedges, a few isolated stone barns and a number of small dense woods. From a ridge line containing an old track, described as Green Lane, the land falls away on the north side to the sea (Bristol Channel) and on the south side towards the village of Stogursey. In the area close to Stogursey there is a wood (Bishop’s Wood) planted within the last ten years and, at its centre, a carefully created glade.

This countryside is both attractive and has remained relatively unchanged for many generations. Green Lane is described in EdF’s Landscape Mitigation and Reinstatement Strategy (p.14) as “a drove road at least 400 years old”. At many vantage points within the site it is possible to enjoy the scenery and the sound of wildlife without any indication that there are two nuclear power stations within a few hundred metres.

Specific adverse effects of the application include:

- **Public Rights of Way**

Most of the existing public footpaths and bridleways within the site will be closed off if this application is successful. The total distance of these rights of way is about 9 kilometres. This will involve a major loss of amenity for people who go there to walk or ride and enjoy a relatively tranquil space. Although the Green Lane, described by EdF (Non-Technical Summary, p.5) as having “significant nature conservation, heritage and landscape value”, will not be closed, it will be left as an isolated green ribbon through a devastated landscape.

The coastal path will also be closed. This is currently designated as the West Somerset Coast path, but is effectively an extension of the nationally significant South West Coast Path, which stretches continuously round the South West peninsula for 630 miles. Furthermore, when the coastal access provisions of the Marine and Coastal Access Act 2009 are finally implemented, work is expected to commence from April 2011 onwards to provide a continuous coastal path around the whole of England. EdF accepts that closure of the coastal path will “represent a high magnitude effect” (Non-Technical Summary, para 7.1.14, p.16).

- **Agricultural land**

It is questionable whether adequate value has been placed on the agricultural land which makes up much of the land area of the application site.

Two recent surveys (in 2009 and 2010) were carried out for EdF by Reading Agricultural Consultants to assess the existing soil type, distribution and Agricultural Land Classification (ALC) across the site. Eight soil samples were taken for laboratory test analysis. It is questionable whether this number could be considered adequate given the total area involved (up to 150 hectares).

The 2009 survey showed that 24% of the agricultural land on the site fell within the category "Subgrade 3a land". Along with Grades 1 and 2, this is considered to be the best and most versatile land. When the 2010 survey was carried out, however, the quantity of land classified as Subgrade 3 had fallen to 14%, with the remaining 10% reverting to poor quality Grade 4. It seems unlikely that this supposed degradation would have occurred within a year, covering an area of about 14 hectares, suggesting that there were serious flaws with the analysis.

- **Hedgerow and woodland loss**

Analysis of the existing hedgerows on the site shows that, of the 60 surveyed, 37 are considered "ecologically important" under the Hedgerow Regulations 1997. A total of 42 hedgerows would be lost completely if this application goes ahead, 28 of which have been classified as "important". There are also seven areas of mature woodland within the site which are well connected to each other by the network of hedgerows. The hedgerow network provides cover, seasonal and permanent foraging and dispersal opportunities for a range of species groups. Removing this vegetation would result in both permanently altering the visual aspect of the landscape and damaging its ecological value. Removing these important hedgerows would sacrifice an irreplaceable natural amenity.

- **Excavation and earth movement**

The earthworks involve the excavation of 2.3 million cubic metres of soil and rock. This is described as more than half the volume that would be excavated if construction of the power station itself is approved. In the Scoping Report published in advance of the application, however, a figure of 3.2 million cubic metres was given for the amount of material which it was anticipated would be excavated during the site preparation works (Environmental Scoping Report, April 2010, para 2.3.19, p.20).

EdF explains the difference between these two figures by saying that the larger number is for "bulked" material (email communication from Andrew Goodchild, Planning Manager, West Somerset Council, 15.12.10). "Bulked" presumably refers to the extent of the material immediately after it has been excavated, and before it has been moved to another part of the site and compressed. The reduction in the amount of excavated material by about 1 million cubic metres therefore suggests that the applicant is attempting to minimise the potential impact of the work.

To put these figures in perspective, 2.3 million cubic metres of material would be enough to fill Wembley Stadium twice over, or the same as the amount of soil excavated to prepare the site for the 2012 London Olympics. It would also represent about half the total of 4.5 million cubic metres which EdF says it will excavate in order to complete the construction of the proposed power station.

Much of the excavated material will be moved from the area to the north of the Green Lane and taken to the area to the south, closest to Stogursey. The effect of this will be to fill in much of what is currently a shallow valley of fields and hedges, obliterating existing landmarks and creating an entirely new topography.

In terms of the depth of the excavations, the Non-Technical Summary (Para 4.7.3, p.6) says that these would extend at the maximum to 3 metres Above Ordnance Datum (AOD) for one reactor and 6 metres AOD for the other. This does not provide a clear explanation of the extent of the holes in the ground that will be created. When asked at a Community Forum meeting on 9.12.10 for the depth of the excavations below the existing ground level, Ian Bryant, representing EdF, said that this would be 8 metres for one reactor and 11 metres for the other.

The deep platforms created by these excavations will then be filled with aggregate, all of which will have to be brought on to the site by road because the jetty – designed specifically to bring in aggregate – will not by then have been built. Although EdF says it is reducing the expected amount of imported aggregate by using pulverised stone reclaimed from the excavations, there will still be a requirement for 200,000 cubic metres, according to the company's estimate.

- **Permanent structures**

Apart from these excavations, the proposed work involves a number of more permanent structures, including internal roads, roundabouts, two "batching plants" for the production of concrete, a reservoir for water to be used in concrete production and a culvert to take the diverted Holford stream under the site. In addition, an 11 kV electricity sub-station will be installed, together with a network of electrical supply points ready to supply the proposed next stage of construction.

Although it is technically part of the separate application for a new jetty out to sea from the site, there will also be a new area of concrete hard standing associated with this on land, and a storage warehouse to receive materials brought in by sea.

All these structures and concrete areas will be created in advance of consent from the Infrastructure Planning Commission.

- **Fencing**

The area will be scarred once the preliminary works begin by a dual barrier of fencing right round the site. The inner fence will be of chain link more than 2 metres high and with security cameras.

- **Impact on local residents**

The work detailed in this application will have a devastating effect on the lives of people living in the immediate vicinity of the site, especially in Shurton, but also in villages such as Cannington affected by the increased traffic. EdF accepts that the works would “result in an increase in noise, dust (and other emissions to air) and visual disturbance due to the movement and activities of personnel and equipment...” (Non-Technical Summary, Para 7.1.15, p.17). Given the premature nature of this application, this is an unacceptable consequence.

In Cannington, the traffic generated by this project will increase the number of heavy goods vehicle (HGV) movements from the present estimated one every five minutes to one every two minutes. Overall, traffic in Cannington will increase by 10%, according to the applicants’ estimates, but substantially more for HGVs. It is clear that this will place unacceptable strain on the existing road infrastructure, especially the High Street, the junction at the war memorial and Rodway Hill, as well as on normal village activity, both vehicular and pedestrian.

It is unacceptable that EdF should proceed with this work without implementing its own traffic plan for the main construction phase, which would involve completing a new Cannington bypass. The company has also failed to give due consideration to the option preferred by most local residents in Cannington and beyond – a new road from Dunball near the M5 Junction 23 to the C182.

3. Planning Policy and Environmental Impacts

According to EdF’s Planning Statement (Para 25, p.4), the site is currently designated under the West Somerset Local Plan as “countryside within which major development is not normally permitted”. This is an appropriate designation. EdF says (Planning Statement, Para 27, p.5) that “this is an exceptional development which is not anticipated by the existing Development Plan”. There is no reason why the Local Plan should be over-ruled just because a large project is proposed by a multi-national company with the claimed impetus of national urgency.

Although the site itself is not within a nationally protected area, it immediately borders a number of areas of both national and international significance for nature conservation. The coastline is part of the Bridgwater Bay Site of Special Scientific Interest, whose shallow waters and mudflats are a sanctuary for thousands of

waders, ducks and other sea birds, especially in winter. The site is also bordered by Special Protection Areas, Special Areas of Conservation and a National Nature Reserve. Bridgwater Bay is designated as a wetland of international importance under the Ramsar Convention.

Earth movement activities of the type described in the application, including potential blasting of rock, will inevitably cause disturbance to wildlife in the adjacent area, especially birds.

The applicant says of the site that “typically for modern agricultural practice, biodiversity and ecological value is low” (Landscape Mitigation and Reinstatement Strategy, p.14). Despite the fact that farming of this area might well have involved chemical sprays or other elements of “modern agricultural practice” this is still a valuable area of Somerset countryside, with a wide variety of fauna and flora.

4. Proposed Reinstatement

EdF says that if its eventual application to the Infrastructure Planning Commission is not successful it will reinstate the area to something approaching what it was before. This will clearly not be possible given the scale of the works proposed. This landscape has taken many centuries to evolve and cannot be artificially recreated within a period of three years, as is suggested. It will inevitably take much longer than that for any trees and/or hedgerows to reach anything approaching maturity. Even then, the biodiversity within the site will have been greatly reduced compared to its baseline. Any soil stockpiled for use in the reinstatement works is likely to have degraded by the time it is ready for re-use, losing its original nutrients and organic matter.

An example of the problems associated with the proposed reinstatement can be seen in the description of “Mitigation of Impacts during Removal and Reinstatement” (Vol.2 Chapter 15, para 15.6.39), where it is explained that the “Creation of woodland, scrub, hedgerows and calcareous grasslands would be achieved using recycled topsoil and subsoil stripped from areas of these land use types. However, since insufficient woodland soil and calcareous grassland soil would be generated from these areas to satisfy the proposed reinstatement plan, the difference for woodland, scrub and hedgerow planting would be made up from agricultural topsoil, and for calcareous grassland from agricultural subsoil.”

The required amounts of extra recycled agricultural topsoil and subsoil needed to reinstate new areas of woodland, scrub, hedgerows and calcareous grasslands has been calculated using the Landscape Mitigation and Reinstatement Strategy (see table below) and, in order to put these figures into perspective, have been converted into percentages.

According to our calculations (see table below), this means that reinstatement of woodland, scrub and hedgerow areas would only incorporate 8.66% of woodland soil

and 91.34% of agricultural topsoil would need to be added. Woodland soils are often layered, patchy and complex, and they are likely to be alive with fungi, insects, microbes and worms. This is very different to agricultural soil which has been subjected to agricultural practices such as ploughing, fertilising and liming. The reinstated soil, containing less than 10% woodland soils, would therefore take years to return to its previous state, inevitably affecting the plant species that will colonise and grow in these areas.

A similar situation applies to the calcareous grasslands, which have been described as species rich in rare or uncommon plants. Only 32.23% of recycled calcareous grasslands soils would be used, with the remaining 67.77% being agricultural subsoil. This would again result in the soil taking many years to revert back to its previous state, affecting the variety of plants that would colonise and grow there.

Quantities of different soil types to be used for landscape mitigation and reinstatement (m³ unbulked)

Source: Calculation by Liana Palumbo, BSc Horticulture & Global Plant Use

Reinstated land use	Area suitable for reinstated land use (ha)	Volume of soil required (assuming 250mm depth) + extra for pit planting	Type of soil required for reinstatement	Volume of different soil types required for reinstatement	Percentage of habitat specific soil used in reinstatement
Woodland scrub, hedgerow and scattered broadleaves in grassland	34.3	115,500	Woodland topsoil	10,006	8.66%
			Agricultural topsoil	105,494	91.34%
Calcerous grassland	18	45,000	Calcerous grassland topsoil and subsoil	14,750	32.23%
			Agricultural subsoil	30,250	67.77%

The applicants' own overall assessment of the existing site in their "Landscape Mitigation and Reinstatement Strategy" (p.8) describes it as "overlain by an essentially ancient agricultural landscape of small fields, hedges, hedgerow trees and small woodlands". Once this has gone, it will be lost forever.

5. Summary

1. There is no justification for this application in advance of EdF submitting its application to the Infrastructure Development Commission for consent to construct the Hinkley C power station.
2. The works proposed will effectively destroy the present environment over much of an area covering 171 hectares (422 acres), about the same extent as a medium-sized farm and larger than the town of Williton.
3. Negative effects include the loss of attractive countryside, closure of rights of way, destruction of hedgerows and woodlands, the excavation of large quantities of rock and soil, the erection of multiple permanent structures and a devastating effect on the peace and quiet of neighbouring communities.
4. The works will have a particularly negative impact on adjacent internationally protected conservation areas.
5. None of this destruction is justified in advance of the IPC application (see above).
6. The proposed reinstatement programme will not be able to restore the area to anything approaching its existing state.

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