

EDF Stage 2 Consultation for Sizewell C 02/02/17

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Introduction

I would like to state at the outset that I am totally opposed to the building of Sizewell C.

I understand that the narrow scope of the consultation does not allow for objection to the whole scheme due to the “imperative reasons of overriding public interest” (IROPI) directive.

I have taken part in both stages of the consultation thus far however I fully expect the objections I and other consultees have to Sizewell C to be totally ignored because the consultation is largely a P.R. exercise. My purpose in responding to the consultation is to put on record my objections to this foolhardy and unnecessary development.

It would have been prudent for the assessment of the the potential sites for the power stations to be based on the geographical aspects of the area. Had that been the case, Sizewell would not have been selected. It is clear that the only reason the power station is being sited here is because putting a nuclear power station on a site that does not have one already would provoke too much opposition and therefore take too long to build. The National Policy Statement for Nuclear Power Generation (EN-6) says as much quite clearly. The Strategic Siting Assessment focused primarily on sites which could come on stream by 2025 in order hit the Government’s obligations on CO2 reduction. They were more interested in choosing sites that could be pushed through quickly rather than sites which were suitable. Given that the 2025 deadline for new build is impossible to achieve anyway and these targets will be missed, the basic premise of the site assessment should be revisited.

Whilst reading the consultation document I was struck by the number of times the notion of cost effectiveness was mentioned. EDF will only use rail and sea transportation if they prove to be “cost effective”. If not, we will have the roads clogged with more HGV's. From my point of view as a local person who pays for the roads and puts up with the traffic and pollution, what benefit is it to me for EDF's plans to be cost effective. The strike price is set so the only people to benefit from a cheaper build will be EDF shareholders.

How is cost effectiveness balanced out with damage to the environment ? What is the basis of the calculations that prove or disprove cost effectiveness?

Q1. What are your overall views on EDF Energy’s proposals to build a new nuclear power station, Sizewell C, and associated development?

The area proposed for the building of the 2 reactors of Sizewell C is completely inappropriate for several reasons.

1) Environmental damage

The environment of the site and surrounding area is rare and sensitive to change. It supports a diverse range of wildlife including protected species. The habitat that would be destroyed includes reed beds, wet woodlands and fen meadows.

Large swathes of Sizewell Marshes Site of Special Scientific Interest (SSSI) and Suffolk Coast & Heaths Area of Outstanding Natural Beauty (AONB) would be built on. The internationally renowned bird reserve Minsmere, a designated RAMSAR site borders the Sizewell C site, and Walberswick, a special protection area of European importance, is close by. Within a 10-mile radius there are 21 further protected sites with European and International designations and another 23 nationally designated SSSIs.

It is inconceivable that creating the biggest building site in Europe in the midst of this countryside will prove anything other than disastrous to the environment and wildlife.

2) The site is too small.

During the consultation I asked whether in calculating the area for the storing of the waste from Sizewell C, provision had been made for waste that may come from any extension of the working life of the power station over and above the 40 years of its intended use. Given that EDF plan to extend the life of four of its eight UK nuclear plants, and Sizewell C could possibly be extended by anything up to 20 years this would seem a sensible thing to factor into the plans for the waste. The experts at the consultation told me that the area calculated for storage was only for the initial 40 years and space for extra waste had not been considered.

I believe that the attitude will be that once EDF have built the power station the area will be so degraded that any extra land take will be easy push through and EDF will be able to change plans to suit themselves.

EDF intend to relocate some of the Sizewell B buildings to Coronation wood in order to accommodate the Sizewell C plans. This will entail chopping down the wood but because it is not deemed to be part of the Sizewell C plans, it does not need to be included in the planning application. These kind of sly shenanigans are what many of us have come to expect from EDF.

3) The site is subject to flooding

The Sizewell C site is on a high risk flood plain.

According to the UK Climate Change Risk Assessment 2017: *Increased frequency of flooding from all sources is the most significant climate change risk to UK infrastructure, including energy... Coastal infrastructure is particularly at risk from storm surges and rising sea levels, as well as higher rates of coastal erosion in some areas.*

The report goes on to say that *"The need to realign coastal defences in some areas in response to rising sea levels will have implications for infrastructure assets in the coastal zone, increasing their annual cost of maintenance by 150 -400%."* and that *"even lower projected rises in mean sea level could increase overtopping volumes by 50 - 150%, depending on structure type and location."*

I do not believe that EDF have shown that their plans are robust enough to cope with this level of uncertainty. They are still in the process of developing the models to return the data they will then use to finalise the design- *"EDF Energy is in the process of developing numerical models in order to investigate flood risk. In some instances, early versions of these models have been used to inform initial stages of design. At the same time, work has been undertaken to generate the input parameters into those models (e.g. sea levels, wave heights and river flows). This process is ongoing."*

It seems that EDF have determined the design before calculating whether it is going to be able to withstand the storm surges. What is the point of having a consultation when between the first and second consultation the guesstimate of the height of the platform it will all be built upon has already risen by almost 1 metre. Many consultees are concerned about the visual impact of the height of the building in the flat landscape but it is absurd to be asked to comment on it when we don't know what it will be.

From the stage one consultation: *"we envisage that the power station would be built at a platform level similar to Sizewell B (6.4m Above Ordnance Datum)."*

From stage two: *"Modelling has already informed the selection of an appropriate and safe platform height level for the site (+7.3m Above Ordnance Datum)"*

Given that the annual cost of maintaining the flood defences at Sizewell Could increase by between 150-400%, I would like to know whether EDF have factored in these unknown costs into their plans and for them to state clearly whether they will be fully covered by EDF or have to be borne by the tax payer via the environment agency.

4) Droughts and reduced water availability

Risk of shortages in the public water supply, and for agriculture, energy generation and industry is the 3rd highest risk we face according to the UK Climate Change Risk Assessment 2017 (flooding is the first)

East Anglia is one of the driest regions in the country and according to Essex and Suffolk water there is little scope for the abstraction of further mains water in this area. Despite this being flagged up as an issue of considerable concern during the first consultation there is no mention of it in the second consultation, and the EDF experts at the consultation events appeared to know nothing about the estimated 1600 m³ per day potable water that would be necessary for the operation of Sizewell C. Where is the water going to be abstracted from, and what impact will this have on the supply for local residents in times of drought which are forecast to become more frequent and severe?

5) The known unknowns

EDF's assurance that they can confidently predict what climate change will do to the coast and environment around Sizewell is not shared by other experts.

The UK 2017 climate change report states that *"The interaction between groundwater and climate processes is poorly understood"* and that *"seafloor conditions such as scour and sand dune migration are often underappreciated risks, as are extreme weather impacts on such conditions."*

The United Kingdom Marine Climate Change Impacts Partnership (MCCIP) states: *"There is no significant evidence for future changes in storm-related extreme sea levels for the UK, **due to low confidence in the simulation of extreme winds in climate models.**"* and *"There is as yet no consensus on the future storm and wave climate, stemming from diverse projections of future storm track behaviour, but new projections using the latest generation of climate models, under CMIP5 have yet to be fully assessed."*

Despite all the intensive research EDF has supposedly been carrying out over the past several years we are apparently still pretty clueless as to what is going on in the environment around Sizewell and so we should not be adding to the nuclear waste dump that is already destined to be there for over a century.

6) Rural location

The rural nature of the area makes it unsuitable for the project. We are constantly told that nuclear power is safe and becoming ever more so. In that case it makes no sense to site it in an area with narrow country lanes and a limited access to services and workers. The electricity is going to be used miles from Suffolk with the losses in transmission that that will entail, so why not build it on the Thames for example, an area with a large population and existing transport links.

If something amiss happens during the construction large numbers of people may need to be evacuated. The rural nature of the site would make the swift movement of people extremely difficult. There is no comprehensive off-site emergency plan for the existing population of Leiston and the difficulties would be greatly exacerbated if there was an incident during the build, especially as the huge number of HGV's on the road to Sizewell will slow movement down even further.

7) Damage to tourism

The Suffolk heritage coast is famed for its peace and tranquillity, and tourism is a mainstay of the area. The development of Sizewell C will have a long term negative impact on tourism in Sizewell and the surrounding area. It will directly destroy the qualities that people come to the Suffolk coast to enjoy.

According to The Suffolk coast tourism strategy 2013 - 2023 *"the coast from Dunwich to Sizewell has 'remote, isolated and almost desolate qualities formed through the swathes of farmland, heathland, and freshwater wetlands"*

Of the key 'likes' about the Suffolk Coast, peace/tranquillity (53%), quality of the scenery/landscapes (47%) and general ambience (36%) came out top.

One of the Key Issues and Challenges identified is : "The 'Sizewell C' reactor to be developed at the Sizewell Nuclear Power Station could have significant implications for tourism, particularly during the 15-year construction period."

Q2. What are your views on the potential environmental impacts and proposed mitigation at the main development site?

The impact will be massive and completely disrupt the area. No mitigation will make up for the loss of the wet woodland. The wildlife needs a large network of a variety of habitats in order to thrive.

The Aldhurst farm estate is being touted as land that will be developed to mitigate the loss of habitat from the SSSI. It has been farmed land and so is very different to the natural habitat that makes up the SSSI and cannot compensate for the loss Even if the estate eventually receives a designation as a SSSI it will take many years.

Throughout the consultation document EDF promotes the idea that the Aldhurst farm habitat creation scheme will compensate for the destruction of the SSSI land:

"the primary aim of this early work is ecological compensation and mitigation for the effects of Sizewell C"

"To provide compensation EDF Energy is developing a habitat creation scheme at Aldhurst Farm"

"in EDF Energy's view the affected habitats would be compensated for at the Sizewell C Aldhurst farm Habitat Creation Scheme. "

The European Habitats Directive guidance on the application of article 6(4) acknowledges that deciding whether a compensatory measure will be sufficient to offset the harm is a complex judgement. Compensatory measures for loss of land must be to the required quality and the re-creation / restoration methodology must be technically proven or considered reasonable to the competent authority.

According to the Aldhurst Farm Planning Statement released by EDF "Pre-application consultation with statutory consultees ... has not had regard to the adequacy of the proposals in providing compensatory habitat for that which might be lost if Sizewell C is approved; this is to be determined as part of any future Development Consent Order application for Sizewell C."

So although EDF sought advice for the design from stakeholders including Natural England, Suffolk Wildlife Trust and the RSPB, The scope of the consultation was limited to advice on habitat creation and conservation management at Aldhurst farm. The stakeholders were not asked to consider whether the proposed habitat creation scheme compensated for any land take from the SSSI,

Even though EDF may believe that Aldhurst farm mitigates and compensates for the SSSI land, none of the bodies who may be considered to have some expertise in this matter have been asked whether they agree with them, and EDF have not proven in any way that the compensation and mitigation are of adequate quality, use adequate techniques or are reasonable.

Q3. We are proposing to build a new, permanent access road to link Sizewell C to the B1122. This would be the main route to bring workers and materials onto the site during construction and the main access for Sizewell C once the station is operational.

I don't think any of the proposals are suitable. The road will dissect the SSSI and create a barrier that prevents wildlife roaming over the area. As far as I can see from the proposals,

construction would carry on 24 hours a day 7 days a week, so the whole area would be subject to constant noise and light pollution.

Q4. To reduce the need to transport large quantities of materials out of the site during construction, we are proposing to take construction material for use in building the power station from one or more 'borrow pits'. This land would be backfilled with excavated peat and clay. The excavated and backfill material would need to be stockpiled at different points in the construction phase. 15 hectares of land would be required. Three potential field combinations are proposed for the borrow pits:

There is scant detail about this plan, and local people are not reassured by EDF's claims that these studies have indicated that the borrow pits can be developed safely with no impact on water resources. If EDF are confident about what their preliminary findings show, let them be published in full so that they can be scrutinised. I note that the preliminary studies have only "indicated" - not proved conclusively that the borrow pits are viable, and that the potential impact to nearby homes is not fully understood. There must be more certainty than mere indication if this is going to be allowed to proceed.

Q5. During the peak construction phase we anticipate about 36% of the construction workforce would live at home (home-based), with the rest requiring temporary accommodation in the area (non-home-based).

To accommodate some of the non-home-based workforce, we are proposing a 2,400 bed campus at the main development site and temporary caravan park on land to the east of the Eastlands Industrial Estate. We anticipate the remaining workers would live in private rented or tourist accommodation, or would buy a home locally.

To help avoid potential adverse effects on the local letting market and tourism sector, we are proposing to set up an accommodation office to help match workers with suitable accommodation.

I do not think that the tourist industry will be competing with workers because there will not be a tourist industry left if Sizewell C goes ahead. The idea of building temporary accommodation blocks that will be dismantled after use is adding insult to injury because there is a need for good low cost small units around the area. EDF have suggested that building a large accommodation block near to Sizewell would lessen the environmental impact from workers commuting to the site but the environmental cost of putting up the accommodation only to rip it down a few years later would surely be greater than the savings. There is little information on the process of dismantling the accommodation and restoring the site.

The plans to use yet more greenfield undeveloped land shows a further disregard for the environment, and I believe that EDF have chosen to build temporary accommodation because according to the planning rules, planning permission for a temporary building or use may be granted even though an application for a permanent building on the same land would be refused. The accommodation will have to be connected up to the water and electricity services, and there is no mention of this. If EDF Energy are to pay for accommodation blocks which are designed to be demolished, what would the difference in cost be to build proper homes that could be shared by workers and then sold for a return. Alternatively, build larger permanent blocks closer to Ipswich or Lowestoft where the populations are large enough absorb the numbers, and use buses or trains to get the workers there. The accommodation strategy is designed in EDFs best interests without regard to the impact on the local population.

Q7. Transport: Overall Strategy

There is no information about the times that the proposed freight trains would run. I cannot see how the trains would fit in with the existing rail timetable unless the majority are run at night. We need more information as to how the timetables integrate. It is unfortunate that no consideration has been given to using the rail line on a more

permanent basis to carry passengers to Leiston. Again, EDF think only of the benefits to themselves and not to the wider community.

There are not enough details on the proposals for sea transport and the consultation has shed very little light on the subject. If marine transportation is maximised, how would the containers for bulk materials cross from the jetty to the site? Will a road need to be built? Which port will the the bulk materials and A.I.L's come from, and will they be stored there prior to coming to site. When Sizewell B was built, Lowestoft port was used to store materials before they were transported is this to happen again?

Considering it is supposed to be a core part of the transport strategy, why have we not been given more information. There should be detailed drawings of what this will look like from the beach, and details of how many ships/containers are envisaged. Claiming that dredging will be minimised tells us nothing about the amounts that will be taken or what impact this will have on coastal erosion and drift.

In considering the beach landing facility, again there has been little detail forthcoming on this. How exactly the beach landing facility would adjoin the power station, or how high it would be, what sort of road would need to go across the beach to cope with the weight of the loads, whether it would cut the beach off to walkers. etc.

Q11. Transport: Road Improvements

It is impossible to believe the claims EDF makes for road freight because as stated in the consultation document:

"In the event that the rail and/or marine solutions, which remain EDF Energy's preferred strategy, prove to be impractical or not cost-effective, EDF Energy may explore road-based scenarios for freight movement with appropriate mitigation of the resulting greater highway impacts that would arise."

So until EDF decide how much freight will be moved by sea or rail, the amount of freight that will end up on the roads cannot be calculated. I believe the term "cost effective" needs to be examined more closely, because if most of the freight is allowed to go by road much of the cost for the extra wear and tear will be aid for by tax payers, not by EDF.

Q13. We are keen to ensure that local communities and businesses are able to make the most of the opportunities arising from Sizewell C, while potential adverse impacts on the area are limited.

It is consistently claimed that Sizewell C will provide 25,000 job opportunities. When I asked at a consultation event where this figure came from I was told that the average length of each job will be just a few weeks, and that once employed a worker will move from job role to job role. I think it is sly to use the figure of 25,000 job roles - most people including DECC and David Cameron describe this as 25,000 jobs. It should be stated absolutely clearly that these roles are of only a few weeks in duration. A great deal of support for the project is based on the idea that thousands of full time long term decent jobs will be created and this is clearly untrue.

The short duration of the different job roles means that it is highly unlikely that people, especially youngsters, will be taken on and trained to fulfil that role. If it takes 3 years for example to become a skilled welder, it is inconceivable that a company will invest in training someone for the few weeks of work available.

During a consultation event I was told by an EDF employee that EDF intend only to employ a few people directly, and those would tend to be people in their mid twenties or older who are already experienced in their trade. The vast majority of jobs would be given over to contractors. I asked what obligations there will be for contractors to employ local people and was told that companies would be encouraged to employ local people - in other words there will be no obligation for them to do so if they chose to bring in cheaper foreign labour. How is EDF going to force contractors to employ local people?

It is highly likely that contractors will hire the workforce that has had experience on site at Hinkley, Olkiluoto and Flamanville rather than hire local people with little or no experience on a nuclear site. In order for someone to work on-site they have to go through security checks which take time. Again this will lead to the tendency to hire people who have previously worked on other nuclear sites rather than hiring local people.

At Olkiluoto and Flamanville the vast majority of the workforce have been migrant workers. as Kyösti Suokas, co-chairman of the Finnish Construction Union said,

“Olkiluoto has been a complete disappointment for us. There have been fewer than 100 Finnish builders there. It is the view of our experts that huge amounts of cheap labour have been brought here from abroad to work inefficiently”

EDF's major delivery partner for the main civil engineering and construction contract in the UK is a joint venture of Bouygues TP and Laing O'Rourke (BYLOR). Bouygues is one of the main contractors at the Flamanville plant in France. They have been accused of using “slave labour” at Flamanville, and in 2015 in one of the biggest ever court cases of its kind Bouygues was found guilty of serious violations of labour laws.

How is EDF going to ensure that dodgy practices like these are not rife at Sizewell, as they were clearly allowed to continue under EDFs watch in France?

Short duration, capital intensive construction projects like that proposed at Sizewell C have been shown to seriously distort the local labour market. After the project is completed many migrant workers remain in the area compounding local employment problems. Even when an effort is made to hire local people the construction project can have a detrimental effect by competing with local firms for a limited number of skilled workers. Evidence suggests that major construction projects in rural areas prevent the growth of employment in more stable industries such as tourism and renewable energy and increase unemployment over the longer term. The tourist industry in Leiston and Sizewell is going to be ruined over the many years of construction.

I don't think that there will be much work for the local supply chain because the components for the nuclear power plants have to be made to a very precise detail. Local suppliers do not have experience of manufacturing for the nuclear industry and therefore EDF are more likely to use suppliers who have worked on Olkiluoto, Flamanville or Hinkley. Many of the severe delays at Olkiluoto and Flamanville arose because of the shortage of qualified experienced nuclear plant equipment manufacturers, so it is inconceivable that EDF would begin afresh with local suppliers rather than using people who have gained experience through supplying components for the new build currently under way.

Q14. Consultation Process

Whilst attending a consultation event, I asked why the stage 2 consultation was being held when it is patently clear that not all of the questions raised in stage 1 have been answered, and a lot of detail about things like rail and sea transport are not yet worked out. In fact so much is missing that EDF are going to hold a 3rd stage which was not originally planned. I was told that it was felt that it had been so long since the stage 1 consultation that EDF needed to keep the momentum for the project going. In effect then, the stage 2 consultation is merely a PR exercise to show that EDF are keeping busy. We are being asked by EDF to use our free time to plough through the consultation document, go to exhibitions and respond to the consultation just so they can look like Sizewell C is not dead in the water. I suspect EDF would not be upset if people did not respond to the consultation. I don't believe they want our views at all. If they did they would not have held both stages of the consultation over the Christmas / New Year period when a lot of people just don't have the time or energy to get involved.

I have found it almost impossible to obtain copies of the research reports that EdF Energy have claimed have been undertaken. If EdF Energy are confident in their research then they should allow the public to scrutinise it. CEFAS publish some reports done for EDF, but none of the reports on coastal erosion or processes are made public. These are the reports which are of most interest as they concern the subject of sea level, storm surge and flooding. If EDF are genuinely confident about their findings, why don't they have links to all the studies and reports on their consultation website so that people really could have an informed debate.

The images and maps in the consultation document are of very poor quality. The maps have no contour lines and there are very few pictures of what it will look like during the build. Why don't EDF include pictures of the building sites at Hinkley Flamanville or Olkiluoto, or even pictures from the Sizewell B build if they really want to inform people what the construction will entail.

Whilst the EDF experts I spoke to during the consultation were polite, I found many to be ill informed about details of the site. They could not answer my questions about waste or water with any degree of certainty. I found it quite insulting to be told by one EDF representative that the councillors in Cumbria who voted against the plans for a deep geological waste repository in 2013 were not really against nuclear power, they were just holding out for more money. It was as if she could not really understand that anyone could have a genuine heartfelt opposition to having a nuclear waste dump on their doorstep.