



Together Against Sizewell C

The EPR design has been described as a prototype by its own designers. Not one has operated commercially anywhere in the world to the original design. EdF has sold only three in a world where over 30 countries operate 440 nuclear reactors. All are behind schedule and massively over budget. The ONR still has hundreds of outstanding site-specific issues to resolve with the siting and operation of an EPR, no final repository for the spent fuel is available, no planning permission has been granted, yet EdF's programme continues.

The Sizewell C and D project will wreak environmental havoc on East Suffolk.

East Suffolk has been described as a rich mosaic of sensitive wildlife habitat boasting the Suffolk Coast and Heath Area of Outstanding Natural Beauty (AONB), rich in wildlife and visited by tens of thousands every year. Incomes are predominantly derived from farming and tourism – it is a part of the country renowned for its peace and tranquillity.

The designated AONB stretches from Kessingland in the north to the River Stour in the south and covers 403 square kilometres - it is well named as the heritage coast. East Suffolk's transport system is either inadequate or quaint, depending on your viewpoint, but more suited in the more remote areas, to 1960s traffic, with its major north/south route, the A12, winding through small villages when it leaves the dual carriageway section north of Ipswich. Its coastline is famously constantly eroding and coastal dwellers suffers from storm surges and the flooding of its wetlands and marshes.

The AONB is home to the RSPB Minsmere reserve, recognised as one of Europe's most important areas for nature and biodiversity. The reserve is an important refuge for otters, bats, bitterns, avocets and marsh harriers: 5600 species of plant and animals inhabit the AONB. The Sizewell Estate, on the southern boundary of Minsmere, is where EDF plans its development, requiring over 900 acres of land, much of it within the AONB itself. Such a massive construction project would be catastrophic for wildlife. The building work is likely to increase erosion, upsetting the delicate balance of the reserve. It could affect the water levels in Minsmere's ditches, impacting its rare wetland wildlife. The reserve will be affected by light, noise and dust pollution on a 24/7

basis for the duration of the 12 years it will take to build Sizewell, affecting the wildlife and their breeding patterns. The effects are expected to be long-term and permanent.

In the immediate vicinity of the proposed development zone, an area of 0.7 hectares of fen meadow habitat in the Sizewell Marshes Site of Special Scientific Interest would be permanently lost and in a calculated act of environmental vandalism, EdF has entirely removed the 100 year old Coronation Wood, long before the planning process has even begun to evaluate its application. An access road will be built, bisecting an area of the AONB, lay-down areas for EdF equipment will blight peoples' homes and villages, in some cases requiring compulsory purchases. Two beach landing facilities are planned, one temporary, the other permanent while access from the beach to the plant for the sea-borne material is yet to be established but which will create more restrictions on beach access for the public. Footpaths will be closed and access to the coast compromised. A culvert is proposed for the SSSI crossing – in actual fact, rather a four lane elevated road more than a culvert - thus creating disturbance, interruption to movement and increasing the risk to protected species and of flooding and further damaging the landscape. The Environment Agency has commented that the culvert has the potential to significantly impact river ecology, protected species, and hydromorphology, cause habitat fragmentation, disturb continuity and hinder Water Framework Assessment (WFD) compliance. It also has the potential to increase flood risk.

East Suffolk is one of the driest regions of the country and already experiences periods of water shortages. Predictions, because of the impacts from climate change, include more extreme weather events including greater frequency and greater severity of droughts. SZC is anticipated to use up to 3 million litres of mains water per day during construction and up to 2 million litres per day during its 60 year operation. Any local abstraction/sourcing would risk harming local supplies for households, farmers and other businesses. EDF's DCO application does not state the source of the potable water supply it plans to utilise.

SZC will have a significant impact on the marine environment in an area of the North Sea which is considered to be a breeding ground for fish. It is expected to entrain and impinge up to 3 million fish a year as a result of cooling the reactors which will require 2.5 billion gallons of sea water per day, returning the water to the sea at least 10 degrees C warmer together with tonnes of dead and

dying fish and other marine biota as well as a cocktail of chemicals, heavy metals and radionuclides.

Routine radioactive discharges are approved from all nuclear power plants by the Environment Agency under its Environmental Permitting regime at levels recommended by Public Health England guided by the International Commission on Radiological Protection. The health effect of exposure to some types of radioactive material, especially those which are in particulate form and which are ingested or inhaled, are fiercely contested. Critics of ICRP argue that the long-held belief that the level of radiation dose can be directly linked to the risk to health is grossly underestimated particularly for alpha-emitting radionuclides. This area of radiological assessment is an evolving and rarified debate with which government is reluctant to engage but which its agencies reluctantly admit is important. Despite the uncertainties, SZC will produce 3,900 tonnes of highly radioactive waste for what may prove to be indefinite storage on a site on the edge of a community of over 5,000 people and the regulatory bodies will continue to license routine discharges into the sea and into the air for the 60 year lifetime of the plant.

The transport strategy announced by EdF for the delivery of millions of tonnes of construction material to the remote Sizewell site is predominantly road-based – the cheapest and most convenient for the developer, although a belated and inadequate attempt to revise this to include more rail and sea-borne traffic has been made. It requires the upgrading of the main A12 arterial road with 5 additional roundabouts. It predicts an estimated 1,200 HGVs, 700 staff buses, 10,000 car/van journeys, per day. Many workers – estimated to be 4,000, nearly doubling the 5,500 population of the town of Leiston - will arrive on site by private car and with the roads undergoing upgrade and gridlock as a result of the increased traffic, most will use rat runs to avoid the trunk road. The shift patterns of the workforce will mean disturbance for residents day and night. Two huge campuses will be built, park and ride areas for 1500 cars and the widespread clearance of land for laydown areas will further disrupt and diminish the environment. .

The potential environmental impacts of this monstrous and entirely unnecessary proposed development are real, unacceptable and must be opposed, but the long term environmental problems Sizewell C will create are of equal if not greater importance in what we leave as a legacy to future generations. The site itself is ridiculously small and Edf has been forced to look for additional land on which to accommodate some of its associated activities – hence the loss of Coronation Wood. It is an entirely

inappropriate site in that it is situated on an eroding coastline which visibly suffers from the effects of climate change and erosion even in the 25 year blink of biological time that I have been living in the area. Moreover, concerns have recently been expressed about the strength and stability of the foundations on which Sizewell C would be constructed. Insofar as the geomorphology of the coast at that point, Engineering consultant Nick Scarr's report states that, *Beyond the limited area of erosion-resistant coralline crag in the Thorpeness outcrop, seabed samples indicate that the Sizewell-Dunwich banks are uncemented deposits. Historically, we know them to be capable of notable change.*

The effects of climate change are already subject to worrying revisions upwards in respect of the speed of sea level rise and more extreme weather effects. This has caused EdF to increase the planned height of the sea defences for the plant from 10 metres to 14 metres, but the integrity of the site given the area's propensity to flood remains questionable. EdF calculates that by the time the plant ceases operation in circa 2100, it will have generated 3,900 tonnes of EPR fuel, much hotter and far more radioactive than even the PWR fuel currently stored on the Sizewell site with nowhere to go. How ironic that a 20th century technology which will take 15 – 20 years to become operational and which nuclear cheerleaders claim will help to solve a 21st century 'climate crisis' may fall prey to the very conditions it is supposed to combat. To knowingly generate thousands of tonnes of lethal spent nuclear fuel in a remote plant in the middle of a community of 5,500 people without the remotest idea of how, when and where - let alone 'if' – it will be safely managed is surely the height of intergenerational environmental burden shifting and irresponsibility.

So East Suffolk is facing the wholesale conversion of a predominantly rural environment into one of an urban nature, one of comparative peace and tranquillity into a 12 year-long building site which will leave our precious heritage coast a product of un-co-ordinated and inappropriate energy policy concocted on the hoof by a disorganised and incompetent government. The site, as is common for nuclear plant, is situated well away from centres of large populations: much better to risk the lives of remote communities like those in Leiston than those in Battersea in London where most of Sizewell's electricity would be used. It is difficult to get to and even more difficult to get away from in a hurry, such as you would likely be in should – God forbid – a major release of radioactivity occur at either the existing B plant or a notional C and D complex. The emergency plan is recognised to be more placatory than utilitarian.

Nuclear is not a 'zero' carbon source of electricity and even the claim of 'low carbon' is challenged when the uranium lifecycle is considered.

SZC will perpetuate this myth and divert investment away from more immediately available mitigation solutions.

A climate emergency demands emergency measures: the world can't wait for EdF's 12 year construction window to contribute to an energy sector which will be, by 2050, just 10 years after it notionally begins operating, already at net zero carbon – by law.

East Suffolk is being sacrificed for a nuclear plant which has more to do with rescuing the French nuclear industry and maintaining the supply chain and skills base for the nuclear weapons industry and for Trident renewal than it does with providing electricity for UK consumers. The only role they will play in this sorry saga is to pay for the construction of SZC through their electricity bills and then pay again when the £100bn bill for managing nuclear waste hits future generations.

Pete Wilkinson 5 March 2021