

THE CASE AGAINST SIZEWELL C

EDF's Sizewell C (SZC) planning application is for two EPR reactors on the fragile Suffolk Heritage Coast. They are predicted to be completed in 2034 and cost £20 billion. We contend that Sizewell C is the wrong project at the wrong time in the wrong place and will not deliver the government's objectives. Our key points are:

A. Sizewell C does not answer this government's policy imperatives; it cannot be justified as a means to help economic recovery; it is not the solution to net-zero, being a slow and expensive "bridge to nowhere" that would suck resources away from investment in renewables, such as offshore wind, and hydrogen storage. SZC will cost £20 billion but it is unclear how it will be funded. EDF is pushing for a government stake or for consumers to pay for it through a "nuclear tax". The location in "blue" Suffolk will not help level up the UK. Sizewell C is mired in controversy through China's involvement.

B. Sizewell C will have destructive impacts on the local economy and internationally-protected habitats; the economic benefits it would bring to Suffolk are questionable and it will cause damage to Suffolk's existing local economy including tourism. The site is at risk from coastal erosion, too small for the project and threatens Internationally-renowned wildlife reserves. Toxic waste would have to remain on site for centuries.

C. EDF's EPR has an appalling track record. EPRs are outdated, expensive and beset by technical failings.

A. Sizewell C does not answer this government's policy imperatives

- SZC cannot be justified as a means to support the UK's economic recovery:** the project is far from shovel-ready, with neither planning consent nor funding. Building a mammoth project in a protected environment requires cast-iron justification, which SZC lacks for all the reasons below. EDF says the project will cost £20 billion, claims that up to 70% construction value would go to UK companies, and aims for majority ownership by UK investors; however, this means a third of construction value and up to half of investment revenue would leave the UK. Large infrastructure projects are boom and bust, not sustainable, and do not create lasting wealth. SZC will damage Suffolk's resilient SME-based local economy for only 900 long-term jobs (at a cost of £22million each). SZC has no place in a Green Recovery. (See also 7).
- SZC is not a solution for net zero.** By 2034, when SZC may be completed, the UK's energy landscape will be profoundly different, favouring cheaper renewables and green hydrogen. [EDF admits it will take 6 years for SZC to "pay back" the 5.74 Million tonnes of CO2 generated in its construction, ie until 2040.](#) Nuclear is [too inflexible to fit well with renewables.](#) Lord Deben, Chair of the Committee on Climate Change, [describes nuclear as a "transitional" energy source](#) whose need reduces as grid-balancing improves. [John Armitt, Chair of the National Infrastructure Commission](#) says "Hopefully by 2025, we will be able to rely on much smarter systems and we won't have to rely on nuclear". The NIC said the potential for other non-intermittent technologies to complement renewables ["weakened the case for committing to a new fleet of nuclear power stations"](#). EDF's case that SZC could be used to generate hydrogen is weak, as the cost of electricity (for electrolysis) from nuclear is higher than renewable energy sources, and there is no space on the SZC site - nor hard proposals - for H2 production to be integrated into the station itself.
- SZC will suck resources away from energy innovation:** Every pound invested in SZC could be spent on cheaper, faster renewables, investment in energy efficiency, storage, CCS, tidal and vital flexibility adaptations to the grid plus efficiency adaptations to our homes. The Prime Minister has increased the target for [offshore wind capacity to 40GW by 2030.](#) It is estimated [the required increase \(of 30GW\) from present capacity would cost £50bn,](#) but this looks good value compared to almost 10 SZCs, especially as it is planned to deploy some years ahead of SZC (2034). At this critical time we must not only count carbon, but also time and cost of delivery.
- SZC is not competitive and dependent on a "nuclear tax" or government funding:** EDF cannot pay to build SZC; it has been promoting a [Regulated Asset Base](#) (RAB) model, or for government to finance SZC directly. Under RAB under which all households - including those on renewable tariffs - pay upfront to give investors an immediate return. RAB is widely criticised for pushing the risk of overruns and overspends onto consumers (in the US [a cancelled plant is costing ratepayers \\$2.3bn](#)): the Treasury is ["not enthused"](#). There is a **UK energy policy vacuum:** An Energy White Paper is over a year late; exacerbated by COVID. A revised National Policy Statement for new nuclear power stations over 1GW post 2025 was due last year.

5. **SZC does nothing to “level up” the UK.** Suffolk has safe Conservative seats, not “red wall” votes, and the [lowest levelling up potential of all possible nuclear sites](#). RAB would undermine the Conservative manifesto pledge on domestic energy bills. SZC faces considerable [local opposition](#), including [Dan Poulter MP](#) and 9 Parishes/Towns.
6. **EDF’s controversial partner, China General Nuclear (CGN):** Like Comms giant Huawei, [CGN is blacklisted by the US for its military connections](#). Following the Prime Minister’s U-turn on Huawei, he faces calls from backbenchers to do the same on CGN’s involvement in the UK’s nuclear build programme. There are legitimate concerns about putting our critical national infrastructure in the hands of a Chinese state-owned company.

B. It’s the Wrong Project in the Wrong Place; destructive impacts on the local economy and protected habitats

7. **SZC will bring limited Economic Benefits to Suffolk:** [an independent critique of EDF’s economic case found](#):
 - Any economic benefits for Suffolk are limited by EDF’s intended use of the HPC supply chain, to save money and reduce risk. Claims that Suffolk/Norfolk could secure supply chain spend of £125bn/year similar to that at Hinkley Point (which is served by the whole of the SW and S Wales) do not stand up to scrutiny.
 - EDF’s workforce will not be ‘local’ (EDF defines ‘local’ as from up to 90-minute commute away). At peak, 76% of the workforce will be from outside the region. 6,000 workers will need accommodation nearby. 2,400 would be housed in a multi-storey complex close to Minsmere that is opposed by local people.
 - EDF’s own figures show that only 7% or 8% of jobs in ‘Professional and Management’ are expected to be taken by ‘home-based’ workers, compared to 90% of jobs in lower-skilled, lower-paid “Site Support”.
 - An [Oxford Economic study of Sellafield](#) found where there is a low level of specialist skills locally, direct labour costs and supply chain spend inevitably flows out of the local economy.
8. **SZC will damage Suffolk’s local economy, including tourism:** The Suffolk Coast has a thriving employment economy based on family, cultural and eco-tourism.:
 - Local businesses will be impacted through losing workers to the project and from traffic congestion.
 - Tourism will be significantly affected. The Heritage Coast, with its tranquility and dark skies, is worth more than £200 million/year in tourism revenue. There is huge potential for this to grow, especially post-COVID, but noise, visual eyesores and disruption will likely drive visitors away. EDF makes no attempt to quantify the impact, despite its own surveys revealing that 29% of visitors would be deterred during construction and 39% would probably visit less often. However, a [Suffolk Coast Destination Management Organisation](#) study found that tourism could lose up to £40 million a year, with the potential loss of up to 400 jobs.
 - **At least 8 other energy projects** are proposed for east Suffolk, dubbed - without consultation - the “Energy Coast”. The cumulative impacts will be overwhelming.
9. **Traffic:** SZC will affect businesses and residents across the region; EDF needs to bring over 6Mt of materials to site by road meaning >1,000 HGVs/day at peak, >10,000 cars and 100s of buses and vans on Suffolk’s A12 and inadequate road network. EDF’s limited mitigation by way of bypasses is a further source of local opposition. Suffolk County Council says it “cannot support” SZC because of EDF’s poor transport strategy.
10. **SZC threatens Internationally-renowned wildlife reserves:** SZC is surrounded by internationally- protected habitats, including Minsmere Reserve. Habitats for rare birds, animals and plants will be lost forever. The RSPB believes [“Sizewell is not a suitable location for a new nuclear power station”](#) and [“could be catastrophic for wildlife”](#). EDF acknowledges that there may be unavoidable impacts on Marsh Harriers, forcing it to invoke a claim of “IROPI” (Imperative Reasons of Overriding Public Interest). The Suffolk Coast & Heaths Area of Outstanding Natural Beauty will be cut in two for over a decade. The SZC site is recognised in the [National Policy Statement](#) as having significant environmental sensitivity. EDF claims it will meet the 2020 Environment Bill calls for biodiversity ‘net gain’ but rare habitats are impossible to quickly replace, if ever. **The small size of the site** is a concern; [The UK Government’s siting criteria](#) assume 30 hectares (ha) are required for a single-reactor nuclear station, yet EDF aims to squeeze two SZC reactors into just 32ha (compared to HPC’s 45ha). Even so, EDF must move some of Sizewell B facilities, meaning the destruction of century-old Coronation Wood.
11. **Site is at risk from flooding and coastal erosion:** There are serious questions about the security of the SZC site, undermining EDF’s claims that the offshore banks provide “micro-stability” for the Sizewell coast. EDF has only provided a sketch, not a complete design, of its Hard Coastal Defence Feature. Sea level rises could fully or partially “island” the power stations. The SZC site sits in Flood Zones 2 & 3. The [EA has warned](#) that EDF’s flood compensation proposals “may not function as intended”.
12. **There is no solution in sight for nuclear waste:** The spent fuel from an EPR is exceptionally hot, so fuel from

SZC would have to stay on Suffolk's eroding coastal site for 140 years - potentially until at least 2200 - before it could be moved. The UK has made no progress on building a "permanent" (100,000 yrs+) waste facility.

C. EDF's EPR has an appalling track record.

13. **EPRs are slow to build, expensive and impossible to accurately predict cost or completion date.** SZC's EPR reactors will be copies of those being built at Hinkley Point C (HPC), currently £2.9bn over budget and up to 15 months late. [SZC is already 3 years late](#): in 2012 when public consultations began, EDF said it wanted to start building in 2018. There are no EPRs operating outside of Taishan in China. EPR builds in France (Flamanville) and Finland (Olkiluoto) are years behind schedule and multiple times overspent. [Defective valves discovered at Olkiluoto](#) now call Taishan's operation into question and may further delay Flamanville and HPC. The EPR is a failed design, described by Paul Dorfman of UCL as "[too complex to build](#) to time and budget".
14. **Nuclear is an industry in decline:** The Moorside project (Toshiba, Cumbria) has collapsed. Hitachi recently pulled the plug on the Wylfa project (Anglesey); a decision on planning consent was due 30 September 2020. China General Nuclear's Hualong reactor for Bradwell has yet to pass several regulatory hurdles, but public consultations have started. [Globally, the nuclear units](#) under construction have declined for the 6th year in a row, from 68 reactors in 2013, to 46 in 2019 (10 are in China). Of these at least 27 are behind schedule.