

STOP SIZEWELL C - BACKGROUND BRIEFING

EDF's Sizewell C (SZC) Development Consent (DCO) application, expected imminently, will be for two EPR reactors on the fragile Suffolk Heritage Coast. They would take 10 - 12 years to build and cost at least £16 billion. We contend that Sizewell C is the wrong project in the wrong place and will not deliver on policy imperatives.

About us: Stop Sizewell C is the goal of TEAGS; a campaign group on the frontline of Sizewell C driven to oppose the project after 8 years of EDF's failed engagement and the destructive nature of its proposals.

1. A BAD PROJECT BY A DEVELOPER WITH A POOR TRACK RECORD.

- **Slow and Expensive; 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. 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. [SZC is already 3 years late](#): in 2012 at the start of public consultations, EDF said it wanted to start building in 2018.
- **Dependent on a "nuclear tax":** Unlike HPC, EDF cannot build SZC on its balance sheet, and it has made no secret of its need for a [Regulated Asset Base](#) (RAB) model for financing SZC. Individual energy bill payers would pay for SZC, including those on a renewable tariff, to give investors an immediate financial return. RAB has been widely criticised for pushing the risk of overruns and overspends onto the consumer and government. The [nuclear industry is concerned](#) that The Treasury may be opposed to RAB. If RAB is included in an Energy White Paper, it would still require legislation before it can be used for new nuclear.
- **An industry in decline:** The Moorside project (Toshiba, Cumbria) has collapsed: Wylfa (Hitachi, Anglesey) was mothballed although a decision on planning consent is due 31 March. Hitachi, like EDF is dependent on RAB. China General Nuclear's Hualong reactor for Bradwell has yet to pass several regulatory hurdles, but public consultations began 4 March. [Globally, the nuclear units](#) under construction declined for the 6th year in a row, from 68 reactors in 2013 to 46 by mid-2019. Of these at least 27 are behind schedule, mostly by several years. China is building 10 units, but has begun no new builds since December 2016.
- **EPR is a failed reactor:** The EPR has been described by Paul Dorfman of UCL as "[too complex to build](#) to time and budget". SZC could be the last two EPRs ever built as [EDF is developing a new \(EPR2\) design](#) in recognition of the major problems with current builds. French Energy Minister [Elizabeth Borne](#) has said France will make no decision on new reactors until Flamanville starts up. The French government is reportedly planning to split the company in two and [re-nationalise the troubled nuclear business](#).
- **EDF's Blacklisted Partner:** Like Huawei the Chinese Comms giant, the [US blacklisted](#) state-owned China General Nuclear in summer 2019. In January 2020, government announced that Huawei would be banned from operating near nuclear sites, yet China General Nuclear can build them. There are legitimate concerns about putting our critical national infrastructure in the hands of a Chinese state-owned company.
- **No solution in sight for nuclear waste:** Spent fuel from SZB & SZC must stay on the eroding coastal site until at least 2135, even assuming a "permanent" (100,000 yrs+) waste facility is created in the medium term.

2. It will undermine the government's policy objectives

- **Not a solution for net zero.** EDF's case is that SZC is necessary to meet the UK's net-zero targets, but it is too slow to build and expensive, and not flexible enough to fit well with renewables. The [Committee on Climate Change](#) has said Renewables would likely fill the gap more quickly and cheaply;¹ its Chair, Lord Deben, [describes nuclear as a "transitional" energy source](#) whose need reduces as grid-balancing improves. The National Infrastructure Commission said recently the potential for other non-intermittent technologies to complement renewables ["weakened the case for committing to a new fleet of nuclear power stations"](#)
- **Suck the life out of innovation:** Every £ invested in SZC - whatever the source - is a pound that could have been spent on cheaper, faster renewable energy sources, investment in efficiency measures, technological progress on storage, CCS, tidal or vital adaptations to the grid, home heating etc. EDF's speculation that Hinkley C and Sizewell C could be used to make hydrogen is clutching at straws; big nuclear remains too

¹ "If new nuclear projects were not to come forward, it is likely that renewables would be able to be deployed on shorter timescales and at lower cost" - page 71, <https://www.theccc.org.uk/wp-content/uploads/2018/06/CCC-2018-Progress-Report-to-Parliament.pdf>

expensive and hydrogen could as easily be made from renewables. At this critical time it is necessary not only to count the carbon, but also the time and the cost of delivery.

- SZC will not help the UK government's stated objectives of "levelling up" the country and will undermine the Conservative manifesto pledge on domestic energy bills. An Energy White Paper is long expected, as is a revised National Policy Statement for nuclear power stations over 1GW post 2025.

3. Destructive impacts on internationally-renowned habitats and the local area

- **The Wrong Project in the Wrong Place:** SZC is totally unsuitable for the site, too big and surrounded by internationally-protected habitats, recognised in the [National Policy Statement](#) as having significant environmental sensitivity. [HMG's siting criteria](#) assumes 30 hectares are required for a single-reactor nuclear station, yet EDF wants to squeeze two SZC reactors into 32 hectares: HPC will occupy >45 ha. EDF must move some of Sizewell B's facilities to make the 32 hectares available, destroying a 100-year old wood.
- **Environment:** SZC threatens some of the most important and biodiverse habitats in the UK - including RSPB Minsmere. Habitats for rare birds, animals and plants will be lost forever. DEFRA's 25 year plan calls for environmental 'net gain' to increase biodiversity. The RSPB believes that "[Sizewell is not a suitable location for a new nuclear power station](#)". The Suffolk Coast & Heaths Area of Outstanding Natural Beauty - and the habitats it provides - will be cut in two.
- **Flooding and Coastal Erosion:** The [Environment Agency](#) (EA) has expressed major concerns over flooding, warning that flood compensation proposals "may not function as intended". The site is in Flood Zones 2 & 3, and could be cut off in storm surges, ultimately an island if sea level rises to predicted levels. (see EA map right). The effect of the SZC build on coastal processes is still unclear and EDF's proposed rock armour defences are inadequate.
- **The 'Energy Coast' will damage the Heritage Coast forever:** At least 8 other energy projects are proposed for east Suffolk, which has been dubbed - without consultation with residents, the "Energy Coast". Construction would overlap with SZC, but there is little evidence that developers are working together to minimise cumulative impacts. Much greater Government intervention is needed to assess these projects as a whole.
- **Damaging Suffolk Coast Tourism:** The Heritage Coast, known for its tranquility and dark skies, is worth more than £200 million in tourism revenue each year. Eyesores, noise, dust, beach and footpath closures and road congestion will drive visitors away. The [Suffolk Coast Destination Management Organisation](#) found that tourism could lose up to £40 million a year, with the potential loss of up to 400 jobs.
- **Limited Economic Benefit:** EDF is double-counting the claimed economic benefits of SZC as it plans to use the HPC supply chain. Low unemployment makes EDF's target of 2,000 home-based employees (within 90 minutes' drive each way) ambitious. Studies of Sizewell B found that local employment is likely to be in lower-skilled jobs and can [result in other businesses losing staff](#). An [Oxford Economic study of Sellafield](#) found that where there is a low level of specialist skills locally, direct labour costs and supply chain 'spend' inevitably flows out of the local economy. [EDF has reportedly significantly underestimated](#) the number of workers required to complete HPC. If that happens here [EDF admits](#) (see para 4.2.17 of link) that almost all extra workers (in addition to 5,600 consulted on) will not be home-based. EDF plans to build a multi-storey complex for 2,400 workers close to Minsmere which is not acceptable to local people.
- **Traffic:** SZC will affect the whole region; EDF has abandoned both a jetty and extensive use of rail, meaning over 1,000 lorries daily at peak, plus thousands of vans, buses and cars on Suffolk's A12 and inadequate road network. EDF's limited mitigation in the way of bypasses are a further source of local opposition.
- **EDF's "disdainful" consultations:** PINS has 28 days to decide whether to accept the DCO application. [Suffolk MP Dan Poulter](#) described EDF's consultations as "disdainful", dragging on over 7 years yet providing very little in the way of detailed information, including on environmental and community impacts. For this reason, **campaigners and residents call on PINS to reject the application.**

