Stop Sizewell C always maintains there are three major factors that could break the Sizewell C project - Planning, which is by no means a foregone conclusion, especially with the recent Planning Inspectorate recommendation that Wylfa - the best site in Europe - be refused, but the others are Finance and, closely connected to it, Political Support.

Hinkley had a major champion within government in the shape of George Osborne. Can the same be said of Sizewell? Is Rishi Sunak a fan? Or is the main impetus coming from the Prime MInister himself, known for his like of grandiose projects, in which case can he be seduced by something equally ambitious, such as tidal energy?

The current status of Sizewell C is that the government has entered into formal negotiations with EDF, with the aim of getting *at least* one gigawatt nuclear project (our intelligence is that one more is considered enough) to Final Investment Decision or FID by the end of this Parliament, that is 2024.

BEIS officials have told us that the government is not committed to reaching FID on a giga-watt project, or projects, this parliament but IS committed to exploring it

According to Nuclear Industry Weekly, EDF has said it is "likely" to reach an FID by the middle of next year, but officials we have spoken to are much more cautious. Certainly this seems ambitious given all the outstanding questions about the financing of Sizewell C.

These are:

- Will the government agree to the use of the Regulated Asset Base, and if so, how long would it take to legislate for? (I'll come back to this too)
- Will the government take a direct stake in Sizewell C, and if so, how big? We presume, though it has not been confirmed, that if the RAB was used, the government would invest on the same basis as other investors and get an immediate financial return. Our intelligence suggests a government stake would be modest - say 10% - but enough to send a signal that the project would not be allowed to fail.
- Will EDF retain a stake? If I was Steve Thomas I could elaborate on the state of EDF's indebtedness, but it's well known, and even if they can also benefit from RAB they would have to find some capital to retain say a 15% stake.
- Will China General Nuclear be allowed to invest? We've had conflicting reports about this, with some political sources saying they are "out" and others saying they would be reduced to a financial role only. Obviously this also has implications for Bradwell B
- How will EDF achieve its aim of majority UK investors?

RAB: This is a well informed audience so I will assume some knowledge about this funding model, but it is essentially a major de-risking of building projects like Sizewell C by giving investors an immediate financial return on the capital they put in. This return comes from what we call a nuclear tax - essentially a tariff on energy bills - that consumers would start paying as soon as Sizewell C began construction, ie at least a decade before any electricity was generated, and that "tax" grows over time to keep pace with the capital that is invested. Any cost overruns and time overruns would mean that more capital was needed over a longer period, so consumers would keep paying more money, for longer.
According to EDF's Humphrey Cadoux Hudson, there is now conviction in BEIS and the Treasury that RAB can work, but there is "a very narrow path" to success. Only a few

months ago, the informal political chatter that reached us suggested RAB was a dead duck, and it would definitely count as debt, so what changed? We have asked BEIS and the Treasury, but all we have had back is the response that RAB is feasible but there is no Ministerial agreement to use it (yet), so we are not sure. It could just be that the government is determined to have one more gigawatt project and simply cannot see any other way of finding capital.

There is very little more detail available about exactly how RAB would work. Officials will only say it will be looked at on a case by case basis. Will there be any exceptions, eg Scots, customers of renewable-only suppliers?

One certain element is a government support package that would kick in for low probability high end risk that impacts the cost and timeframe of a new build. The question of at what stage such a support package would kick in is no doubt one of the most animating parts of the discussions between EDF and government officials. Humphrey Cadoux-Hudson has said that the government wants this package to be as "skinny" as possible, and whilst he does not disagree that it should be skinny, it has to be enough to do a deal.

Legislating to use RAB for Sizewell C could take years rather than months.

Any decision to go ahead with Sizewell C would be dependent on **Value for Money.**
Part of this assessment will include the expected cost of the electricity. Officials acknowledge that this would vary with the outturn costs of the plant, but it would be important to have a good idea at FID what that range would be, ie a base case price. We were told that while outturn costs depend on what happens they still have to offer value for money and would be capped above which GSP kicks in.

EDF now claims electricity from SZC could cost between £40 and £60 MWhr, and gave back of the envelope figures to The Times last year saying Sizewell's electricity could cost the average household £10.50/year (based on 7% of their electricity @ £50/MWhr). Under RAB, the cost of electricity is expected to be composed of 7 elements:
1. Return on capital - ie paying back the investors. What kind of return they get during generation as well as during construction will be critical to their deciding to invest
2. Depreciation -
3. Operating costs - for Hinkley this is calculated to be £19.50/MWhr
4. Tax
6. Grid costs
7. Funded decommissioning programme
8. Incentives/penalties, other adjustments.

Steve Thomas and I are working on a report to look into this and how much consumers might pay during construction in more detail. It's not ready yet, but watch this space!

Another component of the Value for Money assessment would relate to whether EDF can deliver the project in decent cost and schedule. We assume EDF would have to offer a performance bond but no doubt officials are keeping the progress of Hinkley under close scrutiny.

There is also the contribution to net zero. EDF's own DCO documents show that the 5.74Mt would take 6 years to offset against a rapidly decarbonising grid. Any delays will add to the carbon footprint of the build and increase the pay-back time. Any variations in the Lifecycle emissions that EDF claim will also affect this timeframe. EDF quotes 4.5g CO2/kWHr but their studies are not in the public domain. The government does not have a copy, the Planning Inspectorate does not have a copy, so everyone is being asked to take EDF's word for it. EDF is now doing a new study - and it remains to be seen - literally - whether we will have sight of that, and of course this audience will be very well aware that the IPCC figure is higher than EDF's at 12g, and there are numerous studies that found much higher figures.

So who will invest in SZC?

EDF wants Sizewell C to be majority UK investors and has been wooing pension funds. Our research has exposed considerable disquiet from Aviva and Legal and General, who were both named by the Chair of the Nuclear Industry Association earlier this year. Maybe they are interested in SMRs, or AMRs, or fusion, but Sizewell C - not so much

Legal and General *said: "in the case of nuclear power, cost and nuclear waste disposal considerations must be fully addressed against the benefits. And Later I have had it confirmed that Legal and General will not be investing in the Sizewell C nuclear power plant."*

This is not that surprising given that in 2016 the CEO of L&G, Nigel Wilson, called on the then PM to cancel Hinkley C,

Aviva said: *the ESG impact of nuclear is far from clear at this time and we are not actively involved in any such investments.*

Another big fund **Aberdeen Standard Life** says *Nuclear energy is a reliable low-carbon energy source, but given its significant health and safety risks and varied policy support, it is not a solution that we would actively seek to include in a product focused on climate solutions. This may change as policy supports alters. However, where an investment focused on renewables also has nuclear in the energy mix, it would not be excluded from a product if a clear transition plan were in place to phase out nuclear.*

We are continuing to reach out to pension funds to ask about their support for nuclear and challenge any assertions that it is compatible with ESG policies.

Two things we are vigilant of are the forthcoming review of EU taxonomy, under which nuclear is excluded from the EU's green finance packages because waste does "significant harm" to the environment. There is a push to re-categorise nuclear as a "transition fuel" to give projects access to lower financing costs. We hope this won't happen, even if transition fuel is not the future...

The other thing is the plan for the UK to launch at least £15 billion of green bonds the summer to fund "important infrastructure investment". We won't know till June what kind of projects would be included but we all know nuclear is not green!