



# Together Against Sizewell C

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To: [RABconsultation@beis.gov.uk](mailto:RABconsultation@beis.gov.uk)  
(By email only) Please acknowledge receipt

**Re : RAB MODEL FOR NUCLEAR- CONSULTATION ON A RAB MODEL FOR NEW NUCLEAR PROJECTS  
Closing date 14<sup>th</sup> October 2019**

Together Against Sizewell C (TASC) is an NGO campaigning to stop the building of Sizewell C's twin nuclear reactors. It is clear from the RAB consultation document that it has been contrived to make the building of new Nuclear Power Plants (NPP) appear cheaper to the UK electricity consumer by spreading costs over a great many years and exposing the UK taxpayer/consumer to the financial risks associated with such risky long-term projects. It was back in 2006 when the so-called nuclear renaissance was first mooted and the fear of "the lights going out" if the UK did not build more NPP was widely marketed by the government and the nuclear industry. The 2005 Energy White Paper anticipated a 15% increase in electricity demand by 2020. Despite no new NPP generating electricity up to date, the lights have not gone out. Demand has also dropped by approx. 16% in the period despite the UK population having increased over the period and the UK having achieved substantial economic growth over the period, a 31% error in Government forecasts. We have mentioned this as it undermines the "need for new nuclear" that justified the nuclear renaissance that framed Government energy policy in 2008. Government policy has not changed since, even though there have been dramatic changes in the options available to generating, storing and transmitting electricity. In 2015, TASC, along with others, demonstrated to Government that all the UK's electricity demand, cost expectations and climate change commitments could be achieved without resorting to new NPP. (18) Because this consultation is founded on the need for new NPP we believe it is flawed from the start.

TASC also question the often-repeated description of nuclear power being a source of low carbon electricity. We refer you to our letter of 10<sup>th</sup> August 2019 to Lord Deben, Chairman of the Committee on Climate Change (CCC) which explains TASC's position on nuclear's carbon footprint. (12)

We would also say that, other than HPC, there is no prospect of any new NPP being deployed by 2025 and, given EDF's history of delays, there must be doubt that HPC will deploy by 2025. The UK's National Policy Statement (NPS) EN6 governing the siting of NPP of over 1GW only applies to NPP that can deploy by 2025. As there is no legal framework under which SZC, or other NPP, can deploy, all new NPP projects need to be suspended until such time that Parliament has passed new legislation.

We note that the consultation requests that responses are framed in direct reply to the questions posed. Whilst we will answer the questions at the end of this, we believe that there are so many issues raised in your document that they need to be addressed separately as they underpin your



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proposals. Where relevant, we refer to the Sizewell C project as the RAB consultation seems to have been announced at this time purely to try to facilitate this NPP.

## **Paragraph 1**

We question the statement that “we have a world-leading civil nuclear sector, covering the full lifecycle of fuel production, construction, generation, decommissioning, waste management and research”. Such a statement belies a complacency and disingenuous spin on facts. We have no UK sourced supply of uranium so the security of supply must be questioned when it will still be needed in 70/80 years hence - much will change in that period. How can we be world-leaders in construction of NPPs when HPC has only recently started and is being built by a French state-owned company? Whilst there have been some improvements with the state of Sellafield storage of waste, it is hardly an example of a safe and healthy environment and is often described as the most radioactive place on earth. Long-term storage of waste is still being researched and consulted on but to date there is no proven safe lifetime storage solution anywhere in the world.

## **Paragraph 4** states that electricity demand could double by 2050

As set out above, Government’s 2006 predictions for electricity usage were overstated by 31%. We feel that the current projection is falling into the same trap of making the projections fit the outcome required. Apart from allowing for an increase in electric vehicles, they also appear to be based on “business as usual” i.e. not recognizing the further reductions in electricity consumption that can be achieved by increased efficiency and demand reduction technologies as well as achieving zero carbon energy efficient households and business premises. If Government wants its policy for dealing with the climate emergency taken seriously, then reduction in energy demand must underpin its plans.

A recent report by UK research and investment company Redburn considers that the electricity demand from electrification of transport may be very limited and that electric vehicles (EVs) will not dent the continuing trends towards lower electricity usage. This is because increasingly efficient motors and lighting will offset any increases in electricity consumption due to EVs. The British Energy Federation has called for a 30 by 30 Energy Efficiency Act with the aim of making 27million homes and 3million non-domestic buildings completely energy efficient by 2030. (2)

## **Paragraph 5** refers to seven older NPP being “important contributors to our low carbon generation-are due to come offline by 2030”

Firstly, TASC would like to point out the basic error in this statement-there are actually 14 older AGR reactors. Even if nuclear RAB was applied to Sizewell C (SZC), it, and any other proposed NPP after HPC, will not be generating electricity by 2030. The earliest EDF say that SZC could be generating would be 2031 but given their experiences at Olkiluoto and Flamanville both of which are at least 10 years behind schedule, deployment could be years later. There is no realistic expectation that any NPP built under a RAB scheme will replace these older NPP. Some of these older stations may well come offline well before 2030 due to such issues as the cracks in graphite blocks making them unsafe eg problems at Hunterston. Therefore, there is a need to replace them far sooner than 2030 with low carbon sources. New NPP cannot meet this need. A mix of wind and solar PV would be the lowest cost replacement option, saving up to £18bn by 2035 compared to using natural-gas-fired stations according to The Energy and Climate Intelligence Unit (ECIU). (3)



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As already mentioned, demand reduction should be a priority. According to an 8<sup>th</sup> June 2016 article in the Ecologist, the complete replacement of UK lightbulbs to LED could cut peak time electricity demand by about 8GW. (13)

**Paragraph 6** refers to there being “a crucial role for low-carbon, “firm”, (ie always on) power in 2050”

There is, however, no analysis published to support this apparent need. The paragraph refers to the Committee on Climate Change (CCC) including 38% firm low-carbon in their further ambition scenario but this statement appears to be based more on a review of anticipated costs relying on their own estimate that nuclear costs would have fallen 28% by 2050. Based on the fact that EDF's first two European EPR reactors being built at Olkiluoto and Flamanville are both unfinished, many years overdue and three times their original budgets, there is no reason to have any confidence over future cost reductions. Indeed, EDF's third EPR project, HPC, highlights the issue. In the 2008 UK Government White Paper on nuclear power (4) forecast the overnight cost of HPC to be £4bn, by 2012 EDF estimated the cost to be £12bn, by 2013 it was revised to £14bn, then £16bn in 2015, £18bn in 2016, £19.6-£20.3bn in June 2019, the latest increase being announced by EDF in September 2019 at £21.5-£22.5bn (5). Based on the history of NPP developments demonstrated by Western economies, quite why anyone would accept EDF's, or any other developer's, cost estimates is extremely difficult to understand. Indeed, on 9<sup>th</sup> October 2019, EDF announced yet another increase in the budgeted cost for Flamanville, up by €1.5bn to €12.4bn.

The need for firm/baseload power is a throw-back to the Government's 2006 energy policy which dismissed the likelihood of solar and offshore wind as being able to help meet the UK's electricity requirements. UK energy policy has not been reviewed to take into account current technologies or whether there needs to be a new nuclear component. Many scientists are debunking traditional thinking that renewables are not capable of providing 100% of electricity requirements. Earlier this year it was reported that 180 articles had been identified confirming the feasibility of 100% renewable energy systems (6) and 280 cities had declared intentions of being 100% renewable by 2050. (7) We would add that the CCC's own estimates for the cost of nuclear power were predicted in 2008 to be about £50/MWh but their latest estimate is £98/MWh (8)

Great progress has been made in clean tech and battery storage with both battery and solar prices having fallen by over 80% in the last decade. National Grid ESO said in April of this year that by 2025 the UK grid is expected to be able to deal with 100% renewable sourced electricity (9)

**Paragraph 7** makes, what we feel, is a very sweeping statement about it being “clear” that a significant capacity of new nuclear power stations and gas-fired power stations with carbon capture, usage and storage (CCUS) will be required. Where is the analysis supporting this assertion published? Neither new nuclear or CCUS will help with deep decarbonization by 2030 and as alternatives are here now and ready to deploy so much sooner than new nuclear or CCUS we should be using these. Chair of E3G, Tom Burke, said in an interview “*We don't need nuclear power to keep the lights on, which is fortunate as nuclear power stations are unplanned offline about 25% of the time. They are also intermittent, as indeed is all generation, so it is fortunate that we don't actually need base load [firm] power. It's about five years since the then Chief Executive of Wood Mackenzie Steve Holliday, said baseload is an outmoded concept of how you manage an electricity grid, and that's because we have modern sensors, we have deep data, deep analytics, we have much more*



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*sophisticated software, and we are able to manage our electricity system in a way that delivers affordable and reliable electricity, much more efficiently than we were able to do in the past, and we simply don't need very big baseload power stations of any kind any more, and certainly not ones the size of the new Hinkley Station at 3.2 gigawatts" (10)*

We note your consultation document makes reference to recommendations by the NAO. We would draw your attention to the letter from the Chair of the Public Accounts Committee calling on the Secretary of State for BEIS to fulfill the recommendations to re-evaluate and publish BEIS's strategic case for supporting nuclear power before agreeing any further deals for nuclear power. (11) As RAB is being proposed to support nuclear power, where is this strategic case published?

## **TASC's Issues with the RAB Model are:-**

### **a) Substantial risk is being transferred from nuclear operators to UK consumers/taxpayers including those that don't use nuclear electricity**

Nuclear RAB is being proposed purely to transfer risk away from nuclear developers to UK residents and businesses. As already mentioned, nuclear projects have a history of under budgeted costs and lengthy time delays. It is unacceptable to transfer commercial risk to the consumer/taxpayer. RAB is more usually applied to monopoly situations where customers who pay upfront then benefit from lower costs for services supplied. Indeed, the document says that nuclear RAB will "ensure that those who make payments for a new nuclear project should directly benefit from doing so". Yet there is no mention of those who pay non-nuclear green tariffs, or those that live in Scotland where a non-nuclear policy has been declared or those that live in Northern Ireland who have no NPP, being excluded from nuclear RAB.

The risks of NPP to UK consumers and tax payers is obviously of some concern to the UK government, hence Secretary of State for BEIS, Andrea Leadsom's statement in the House of Commons on 26<sup>th</sup> September 2019 in answer to a question about HPC "... finally on Hinkley Point C he will be aware I am sure there is no cost to the tax payer". Under RAB, such a statement would not be able to be made.

### **b) There is little or no experience of using RAB for anything as risky and complex as a nuclear power station**

The National Infrastructure Commission (NIC) said that there is limited experience of using the RAB model for anything as complex and risky as nuclear. The complexity of building a NPP cannot be compared with the relatively simple construction of the Thames Tideway tunnel. The extreme delays already experienced by EDF and their subsidiary, Areva, when building Olkiluoto and Flamanville highlight the problems caused by the complexities of NPP. With EDF's recent announcements about additional costs and time delays at HPC and Flamanville, the risks associated with new NPP are being exposed yet again.

### **c) Consumers could end paying £billions for a project that never gets completed**

There is no backstop arrangement included in these proposals so the RAB could feasibly run throughout an extensive period beyond the budgeted timescale. In section 30 of the document it says that in the event of cost overruns investors could decide not to provide further finance in which



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case taxpayer funded Government can choose to either provide the extra finance (with no guarantee that further funds will not be needed later on) or to stop the project. If the project is stopped then consumers will lose all the amounts that had previously paid with absolutely no benefit.

There is a stark warning from the experience of residents in South Carolina, U.S.A. where they were charged billions of dollars, under a scheme similar to RAB, during the construction of the V C Summer twin NPP, only to be faced with the project being halted before completion. (16)

**d) There are no benchmark projects against which a new project could be measured at the current time**

EDF want to use RAB for Sizewell C's two EPR reactors. EDF have no experience of successfully completing the construction of an EPR reactor. Flamanville, Olkiluoto and HPC are all still being built. Two EPR reactors were built at Taishan, China to Chinese safety standards but were not completed on time and the UK is not expected to have unfettered access to details of their cost. Therefore, there is no benchmark project against which UK Government could gauge EDF's budget for a new reactor nor is there a benchmark against which the Regulator could assess a future project.

With regards to SZC, EDF have consistently advanced the argument that it will be 20% cheaper than HPC- 20% of which figure, the one announced in 2016, 2017, 2018, 2019 or a higher figure that will no doubt be announced sometime in the future? We would question whether EDF's assertions of a reduced price are realistic anyway given that the SZC site is nothing like HPC's ie SZC site is far smaller, is surrounded by designated environmentally sensitive landscapes and is in a far more rural area with very poor infrastructure.

**e) There will be great difficulty in defining a credible cost overrun threshold when the first two European EPR projects are unfinished after 12 years and are triple their original budgets and the third, HPC, is already overbudget and delayed only three years into the build**

As set out in d) above, there is no credible project against which cost overrun thresholds can be set/benchmarked. Set too low then consumers/taxpayers will be liable to assume great risk leading to potentially substantial costs.

**f) There is every likelihood that investors will still be hard to find**

If the cost overrun threshold is set too high (thereby reducing the risk to consumers/taxpayers) the RAB model is not likely to attract investors. TASC have grave concerns that Government will try to be so generous to investors that consumers/taxpayers will suffer by being forced into taking on a high-risk project. TASC are concerned that Government will repeat its mistakes with the much-criticized deal with EDF for HPC which the NAO and Public Accounts Committee (PAC) said did not properly consider the impact on UK consumers.

EDF's plans for SZC have attracted much concern over the impact the project will have on the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) in which it would be built as well as the impact of the environmentally sensitive wetlands adjoining the site, part of which is the Sizewell Marshes SSSI over which EDF are planning to build an elevated roadway. Bordering the SZC site is RSPB Minsmere, one of the UK's most important nature reserves due to the extent of its biodiversity



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and the many rare species that inhabit the reserve and surrounding area. RSPB Minsmere has many national and international designations including a SSSI, SPA, SAC and Ramsar site. Many would be investors such as investment banks and pension funds have ethical/environmental standards governing the nature of their investments. Investors that are signatories to the Principles of Responsible Investment (PRI) agree to incorporate Environmental, Social and Governance (ESG) standards into investment decisions. TASC feel that new NPP projects, particularly the SZC project, would fail to meet the required standards because of its environmental and societal impacts. TASC consider that SZC would, in any event, cause reputational damage for any investor prepared to support such a project. In these circumstances, it is hard to see many would-be investors. SZC is planned to be built on the eroding flood prone Suffolk coast, in flood zones 2 and 3, with the growing risks associated with rising sea levels and growing incidence of storm surges and extreme weather events. We are sure that an investment proposal would place the SZC project in the very high risk category.

**g) The Revenue Stream includes a variable strike-price so consumers are faced with effectively writing an open-ended blank cheque**

Under these proposals, the RAB has no restriction that would stop the Developer receiving monies even after the NPP is operational. The Regulator would set a variable price under the RAB so the Developer receives funds from the Suppliers and it is left up to the Supplier how this Revenue Stream is recovered from the customers. If there are escalating costs then customers will have to pay for this, in effect being asked to write a blank cheque.

**h) There will be additional costs to be picked up by consumers/taxpayers to fund the Regulator**

The existence of a new Regulator and the need for an intermediary to collect funds from Suppliers to pay to the Developer will inevitably incur additional costs. These costs will be an increased burden to be met by either consumers or taxpayers. Once the Regulator is established, it is difficult to see how effective they can be in controlling the nuclear industry's costs when they will have a vested interest in preserving their own livelihoods/existence.

**i) With so little experience of building NPP in the UK, and with the Developer holding all the data, we doubt the effectiveness of the Regulator in controlling costs**

As mentioned elsewhere in this response, developers of NPP, EDF in particular, have a history of setting starkly over optimistic budgets and timelines. The Regulator is likely to be faced with making decisions about substantial cost increases relating to a multi-billion-pound project against which there is no benchmark comparison. Without carrying out an extensive, and therefore expensive, audit of all the development costs, TASC cannot see how the Regulator can effectively assess the claims from a profit-hungry developer. We also believe that the Developer could manipulate the Income Stream calculation by using a depreciation policy that enables premature cost recovery.

**j) RAB funding will have greater impact on poorer income households**

EDF's announcement that they were hoping to use the RAB model to fund Sizewell C, suggested that it would cost consumers £6 per annum. (14) A flat charge would inevitably cost those on lower



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incomes a higher proportion of their incomes. TASC believe it is unfair to place a higher burden on those less able to pay.

## **k) No mention is made of involvement of the Office for Nuclear Regulation (ONR)**

TASC believe that the ONR need to be a formal consultee on a RAB model to provide their confirmation that the Developer is considered to :-

- 1) Be financially secure in order to meet its commitment to complete the project
- 2) Have sufficient working capital available to operate the NPP safely and securely
- 3) Have the proven technical competence to build the NPP safely and securely
- 4) Have sufficient resources to ensure that all decommissioning costs and long-term waste management costs will be met.

TASC are concerned about the suitability of EDF being a Developer of future NPP due to doubts over its financial stability, demonstrated by EDF's :-

- (i) €37billion net debt on its balance sheet
- (ii) Off balance sheet liabilities of around €37billion in respect of hybrid debt, pension and nuclear liabilities
- (iii) A €45billion investment programme needed to prolong the life of its fleet of French NPP (17)
- (iv) Funding required to complete the Flamanville and HPC projects

## **l) Nuclear RAB will interfere with market competitiveness by providing a preferential funding mechanism to nuclear projects that is not available to renewables**

The RAB model interferes with market forces as it effectively subsidizes NPP by masking its true cost in the marketplace. TASC say that if the RAB model is made available to new NPPs it must be made available to all electricity projects, excluding fossil fuel and certain biomass supplies. If not, then RAB will be unfairly preferring one industry against its competitors.

## **m) The RAB model is a Developer's Charter with little/no respect for the consumer**

TASC consider the RAB model to be purely supporting the interests of the Developer and provides little effective protection to consumer costs and risk exposure. The real cost to consumers is not addressed but much is made of the reduction of costs to the Developer with no guarantees that those lower costs will be shared with consumers, rather than taken as profits. The fact that the consultation even considers that the Developer could be able to pay dividends before it has completed the construction or demonstrated that it is operating profitably, shows a bias in favour of the Developer.

All consumers, whether they be individuals or businesses will have an opportunity cost for the RAB levy expended. Individuals would be better off if the RAB levy was alternatively utilized by reducing their mortgages, paying off other debt earlier or enabling them to place additional sums into their pension funds etc. Businesses will have alternative uses for funds such as paying off debt or making additional investment into the business. Purely as an illustration (not an attempt to provide an estimate) TASC have prepared a simple calculation (Appendix 1) to show how the RAB levy can impact on consumers and this illustration is based on there being 28million customers, the RAB levy being £6 per customer(per EDF's suggested level) and the opportunity cost "rate of interest" being 4% (this being a low estimate as credit card/loan interest rates would be much higher as would



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returns from individuals funding pension schemes or businesses investing for growth). This illustration shows that, using the above assumptions, after 12 years consumers would have outlaid £2.016 billion but the real cost to them would be £2.625 billion ie a 30.3% uplift to arrive at the true opportunity cost. If the RAB continued for a further ten years, then the true cost to the consumer of the £3.696 billion paid is £5.984 billion ie a 61.9% uplift. TASC believe that this illustrates the true cost to the consumer is higher than the consultation document explains and is a further example of how the RAB model passes on the Developer's risk and cost to the consumer.

## **CONCLUSION**

TASC believe that the RAB model: is not an appropriate funding model for new nuclear projects as these projects are too risky and are too long in duration; transfers the Developer's risk to consumers with no guarantee that consumers would benefit from lower electricity prices in the future; would make consumers who would never use the supply of electricity from a NPP pay for its construction and operation as well as being burdened with a share in the very real risk of cost and time overruns, over which they have no control.

We feel that the RAB model has been proposed as a policy to try and mask the fact that new NPP are a more expensive and risky option when compared with renewable sources of electricity.

TASC consider that new nuclear is a political choice and not an imperative and that government need to carry out a long-overdue review of the UK's energy policy, taking into account all the current technologies available, assessing the benefits of localized smart grids etc. Government also need to set out a programme for reduction in energy consumption by transportation and by making improvements to render buildings energy-efficient to bring about a rapid reduction in greenhouse gas emissions.

The SZC project is proposed to be developed by a partnership between French government owned EDF and Chinese government controlled CGN. TASC is at a loss to understand why the UK government are proposing this RAB model of finance to force the UK public to subsidize the construction and operation of an asset that will be owned by foreign states which will then take all the profits abroad.

## **CONSULTATION QUESTIONS**

### **Question 1: Have we identified a model which could raise capital to build a new nuclear power station and deliver value for money for consumers and taxpayers?**

No. TASC consider that there will still be too much risk for private investors and, as we have illustrated above, the real cost to the consumer is higher than it may appear at first sight. Value for money for consumers and taxpayers would be achieved far better supporting renewables and energy efficiency, including onshore wind and solar which are now the cheapest ways to generate electricity.

### **Question 2: Do you have any comments on the components of the Economic Regulatory Regime as described?**

The nuclear industry has a history of adopting ridiculously optimistic cost projections and construction time estimates which, when considered alongside the specific errors that EDF have made in relation to the Olkiluoto(via Areva), Flamanville and HPC projects, there is no benchmark



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against which a Regulator can effectively control a project. It is hard to see how the Regulator can avoid adopting the developer's targets/budgets without the expense of creating a huge organisation capable of calculating total construction quantities, cost targets and timelines. TASC feel the developer will be able to run up whatever bills it wants and pass the majority of these onto the consumer. We would also add that the UK need to implement measures which can reduce carbon emissions now and establishing the new Economic Regulatory Regime will take far too long to achieve this.

### **Question 3: Do you have views on how consumer interests are protected under the proposed approach? What else should be considered to protect consumer interests?**

TASC believes the RAB model has been proposed as a Developer's Charter so the interests of the consumer take a much lower second place to the Developer. RAB, by forcing consumers to: pay upfront; assume some of the Developer's risk; accept a variable electricity price set by an ineffective Regulator, leaves the consumer in a very vulnerable situation.

Consumers' interests would be best served by a Government which supports the cheapest ways to generate electricity i.e. renewables, and to launch an energy efficiency programme which reduces energy consumption.

### **Question 4: Do you agree that consumer risk sharing could be value for money for consumers if it achieves a lower expected overall cost for consumers compared to a Contract for Difference model?**

No. RAB shifts risk to consumers and taxpayers in order to reduce the cost of borrowing for the Developer in an industry where massive cost overruns are routine. With an ineffective Regulator, we have no confidence that the lower interest costs that the Developer is expected to pay will end up benefitting the consumer as the Developer will squeeze maximum profit out of the situation. TASC also considers that the true opportunity cost of the upfront contributions by consumers is higher than the RAB consultation considers. This means the margin between what price a Developer charges for its electricity under a CfD contract and what MAY be charged under RAB is eroded. It is in effect a gamble for the consumer and, in our opinion, it is a gamble not worth taking.

### **Question 5: Do you have views on the potential way to design a revenue stream for a nuclear RAB model that we describe, and are there alternative models we should consider?**

TASC believe that all those who have chosen to utilize a renewables-only supplier and the residents of Scotland and Northern Ireland should be excluded from the RAB levy. We believe that there is no justification for indexing the costs for inflation-the Developer would set a budget taking into account future cost inflation, so a direct assessment of actual costs is more appropriate. With no pre-defined policy on depreciation this would give the Developer too great an opportunity to manipulate the costs subject to RAB.

### **Question 6: Do you have views on our proposed approach to assessing a new nuclear project under a nuclear RAB model and determining whether it is value for money for consumers and taxpayers?**

Unless the price of nuclear-generated electricity reduces substantially it will never be cost-effective for consumers and taxpayers irrespective of how the true costs are hidden through different



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components eg the RAB levy during the build, the RAB charge once the NPP is operational, the taxpayer picking up a share of the cost of overruns or the funds lost through the opportunity cost of the RAB levy.

The HPC strike-price has now reached around £106/MWh in today's prices. If Sizewell C could (and this a very big IF) manage a 20% reduction it would still be £85/MWh. The cost of offshore wind generation dropped to around £50/MWh in the recent auctions, and onshore wind costs less than this. The cost of installing new solar PV capacity is now around £56/MWh. The cost of all renewables continues in a downward trajectory whereas the CCC estimate that nuclear electricity will cost around £98/MWh in 2020. Any value of nuclear power to consumers, is therefore dependent on the argument that a certain amount of 'firm' power is required. (8) There are, however, at least 180 peer reviewed academic studies that say firm/baseload power is not needed.

It is clear to TASC that electricity generated from nuclear power is the most expensive option from all the mainstream sources so it is fruitless to continue with this RAB consultation as it is not realistic that it will ever be value for money for consumers. Rather than trying to justify the unjustifiable, the Government should be assessing whether it is worthwhile continuing with the HPC project.

Whatever has been spent on the HPC project to date can only be a small proportion of the £50bn that Hinkley will add to consumer bills over its lifetime. The best deal for consumers is likely to be the cancellation of HPC, even if there is a need to pay cancellation costs. (19) It is worth recalling the words of former EDF director, Gerard Magnin, who said that EDF see HPC and SZC as "... a way to make the British fund the renaissance of nuclear power in France" adding "... in 2060 or 2065, British pensioners, who are currently in school...[will] be paying for the advancement of the nuclear industry in France". This is because under the HPC CfD contract, EDF take the lion's share of the income but risk would be underwritten by the UK public sector. (15) The UK must not repeat the same mistake with the RAB model.

Yours faithfully

Chris Wilson for Together Against Sizewell C

## References

- (1) Energy Post 6th November 2018 <https://energypost.eu/the-impact-of-electric-vehicles-on-electricity-demand/>
- (2) Net Zero by 2050? Let's go 30 by 30, Andrew Warren, Energy in Buildings and Industry July/August 2019 Reprinted on Dave Tokes's Blog 18th July 2019 <http://realfeed-intariffs.blogspot.com/2019/07/zero-carbon-by-2050-make-it-30-by-30.html>
- (3) Cracks in the System, ECIU June 2019 [https://ca1-eci.edcdn.com/downloads/Cracks\\_in\\_the\\_System\\_FINAL\\_5\\_6\\_19.pdf?mtime=20190606145543](https://ca1-eci.edcdn.com/downloads/Cracks_in_the_System_FINAL_5_6_19.pdf?mtime=20190606145543)
- (4) [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/228944/7296.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/228944/7296.pdf)
- (5) <https://www.bbc.co.uk/news/business-49823305>
- (6) Kenneth Hansena, Christian Breyer, and Henrik Lund, Status and perspectives on 100% renewable energy systems, Energy 15th May 2019



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- <https://www.sciencedirect.com/science/article/abs/pii/S0360544219304967>
- (7) <https://twitter.com/ChristianOnRE/status/1155221794070126592>
  - (8) <https://eciu.net/blog/2019/decarbonisation-is-getting-cheaper-why>
  - (9) <https://theenergyst.com/national-grid-says-can-go-100-renewables-2025/>
  - (10) <http://tomburke.co.uk/2019/06/25/do-we-need-some-base-provision-from-nuclear-power-if-we-are-to-keep-the-lights-on-sky-news/>
  - (11) <https://www.parliament.uk/documents/commons-committees/public-accounts/Correspondence/2017-19/Letter-Chair-to-Secretary-of-State-BEIS-Third-Report-of-Session-2017-19-12-June-2018.pdf>
  - (12) TASC letter to CCC re Carbon Footprint- see Appendix 2
  - (13) <https://theecologist.org/2016/jun/07/urgent-case-mass-switch-led-lighting>
  - (14) <https://www.eadt.co.uk/business/suffolk-nuclear-plant-could-be-funded-by-new-charge-on-electricity-bill-1-6099304>
  - (15) <https://www.theguardian.com/news/2017/dec/21/hinkley-point-c-dreadful-deal-behind-worlds-most-expensive-power-plant>
  - (16) <https://www.chooseenergy.com/news/article/failed-v-c-summer-nuclear-project-timeline/>
  - (17) <https://www.ft.com/content/c63ebe88-bcde-11e9-89e2-41e555e96722>
  - (18) <http://tasizewellc.org.uk/index.php/submissions-and-reports/90-secretary-of-state-amber-rudd-faces-legal-challenge-to-review-nuclear-decision>
  - (19) Guardian newspaper letters Prof Steve Thomas <https://www.theguardian.com/uk-news/2019/aug/25/hs2-costs-and-benefits-a-search-for-clear-evidence>

MAIN LETTER ENDS



**Together Against Sizewell C**

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