



BEIS Nuclear NGO Forum Minutes
Wednesday 8 December 2021
10:00 - 12:00
Microsoft Teams

1. Introduction – Chris Heffer (CH) and Alison Downes (AD)

- Co-Chairs of the Forum Chris Heffer (CH; Director, Nuclear Directorate, BEIS) and Alison Downes (AD; Stop Sizewell C) opened the meeting and welcomed attendees.
- CH stated this was his and Alison's first Forum as the new Co-Chairs and Minister Greg Hands (GH) as the new Minister of State for Energy, Clean Growth and Climate Change.
- CH gave an overview of the agenda and housekeeping rules. He asked attendees to introduce themselves before asking their questions.
- AD expressed that she is looking forward to meeting and engaging with BEIS officials.

2. Introductory remarks – Rt Hon Greg Hands MP

- The Minister thanked the Co-Chairs and attendees. He expressed his gratitude for being invited to speak and thanked all members for joining.
- He explained that although he is new in his role as Energy Minister, he has some familiarity with the issues from the time he has spent working in other Government departments. He noted that nuclear power is a vital part of the road to Net Zero, whilst acknowledging that it is important to include communities in conversations about its deployment.
- He noted that public engagement and support in nuclear is important and was looking forward to discussing important issues further in the Q&A session.

3. Q&A – Rt Hon Greg Hands MP

- The Q&A session was facilitated by AD who expressed regret that the Minister could only attend for 35 minutes.

1) Will the Minister publish full calculations of additional bill costs from Sizewell C? And how these were calculated? If not, why not? Will the minister also commit to full transparency by publishing the value for money assessment for Sizewell C



****well in advance** of any contractual agreements, given how poor the Hinkley Point C VfM assessment was? (Doug Parr, Greenpeace)**

- Doug Parr (DP) stressed the need for the Government to be transparent in Value for Money (VfM) assessments. He additionally asked how the calculations in the impact assessment align with the figures in the press release, and whether these calculations will be put into the public domain?
- The Minister emphasised that the Nuclear Energy (Financing) Bill is not attached to the Sizewell C (SZC) project and that it can be used for any future nuclear projects including Small Modular Reactors (SMRs), Advanced Modular Reactors (AMRs) and large scale nuclear.
- The Minister stated that his role is to examine the difference between using a Contract for Difference (CfD) model to the Regulated Asset Base (RAB) model in Nuclear Projects, including the savings that will be made.
- The Minister stated that the consumer pays during construction, and this ultimately will lead to consumer savings. He added that RAB has been used in the Thames Tideway Tunnel. He noted that this information was included in the impact assessment of the Bill.
- The Minister explained that SZC is in active negotiation and so full transparency on the figures at this time is not appropriate.
- DP asked why, if the model is conceptual, it cannot be put in the public domain for public scrutiny.
- Declan Burke (DB) stated the impact assessment draws out the relative merit of a RAB over a CfD. He also highlighted that National Audit Office report on Hinkley Point C concluded that the single biggest contributor to the cost of nuclear power is the cost of capital, hence why a RAB model was being explored for SZC to reduce this.
- AD asked if there is a spreadsheet for this model that is available to the public.
- DB offered to follow up with DP outside of the meeting.

2) Has the Minister formed his views on nuclear power from sources favouring nuclear power or has he taken contrary views into consideration? (Varrie Blowers, BANNG)



- In addition to her question Varrie Blowers (VB) asked whether the Minister engages with communities who live near nuclear sites and if he will visit affected sites to assess the impact on local communities.
- The Minister stated that he is in favour of nuclear but his role as Energy Minister is to follow and enact Government policy, which is to increase the UK's nuclear capacity as set out in the Prime Minister's 10 Point Plan for Green Industrial Revolution, The Energy White Paper and Net Zero Strategy. This also includes bringing one more large-scale nuclear project to the point of Final Investment Decision by the end of this Parliament.
- The Minister reassured the Forum that he does seek out alternative views and is used to speaking to constituents and members of the public who are against nuclear. He stated that he had visited the Sellafield site in October and was looking forward visiting more nuclear sites as Hinkley Point C and Sizewell C.

3) What does the Minister understand about the 'new' nuclear technologies being supported by the Government, and can he give us an outline of them? (Ian Ralls, Friends of the Earth)

- In addition to his question Ian Ralls (IR) asked what the Minister understands about the history of the design of new nuclear technologies and noted that many of the new technologies being put forward seem to be older versions of the same technology.
- The Minister stated that as a history graduate, he likes to look at the history of policies in Government. He stated is always happy to learn about the history and believes it is good discipline for Government Ministers to ask these types of questions.
- The Minister said that Government policies allow for flexibility and since Ministers do not always have the background, they rely on officials to provide them with the necessary expertise to allow them to make policy decisions effectively.
- The Minister noted that the UK has a very long history of civil nuclear power in this country starting with the deployment of Calder Hall in 1956. He also suggested that the ability to produce nuclear plants on a small modular basis is a refinement of existing nuclear technology and this is why the Government has recently matched private sector investment into SMRs. He also confirmed that the Nuclear Energy Financing Bill can also be used to finance SMRs and other technologies going forward, reducing reliance solely on Giga-Watt scale nuclear.



- The Minister reiterated that the Nuclear Energy (Financing) Bill will result in new nuclear project options and together with the Future Nuclear Enabling Fund, will reduce our dependence on traditional large scale nuclear.

4) Given that the French Commission for Independent Research and Information on Radioactivity (CRIIRAD) has reported that the problems at Taishan could be a design flaw in the reactor vessel, what measures is the minister taking, along with ONR, to urgently verify the cause of fuel failure at Taishan I and assess the implications for Hinkley C and Sizewell C? What is Plan B if there turns out to be a fundamental design flaw in the EPR reactor vessel? (Paul Collins, Stop Sizewell C)

- The Minister acknowledged that it is a legitimate question to ask what the UK Government and industry have learned from others developing nuclear power abroad.
- Chris Bowbrick (CB) stated that the investigation at Taishan is ongoing, and that the outcome should not be prejudged. He added the UK's Nuclear Regulator, the Office for Nuclear Regulation (ONR), is in regular contact with Chinese and French officials and have ensured to keep BEIS officials updated with the progress of this investigation.
- CB also noted that at this stage no fundamental issues with the reactor have been identified but the Government will wait for the results from the investigation before making decisions.

5) In view of the fact that the sites designated as 'potentially suitable' under NPS EN-6 in 2011 were for deployment up to 2025 (with the limited exception extended by ministerial statement for projects in progress at specific sites e.g. Sizewell C) and that there are no sites designated beyond that date for new nuclear power stations of whatever generating capacity, Will the minister give his assurance that the new standalone NPS for nuclear power generation for deployment between 2026-2035 promised in the Government's consultation on siting criteria in December 2017 and reaffirmed in the recent consultation on Planning for New Energy Infrastructure will be published for full public consultation and adopted before any proposals for development of new nuclear power stations at specific (and currently undesignated) sites are made? (Andy Blowers, BANNG)

- In addition to his question Andy Blowers (AB) asked whether the Minister can confirm that there will be a further EN-6. He also stated that it appears the Government are ignoring the issue of siting new nuclear projects, which is not useful or good for local communities.



- The Minister stated that it his job to set parameters, policy and legislation in place to deliver on the net zero commitments, nuclear and other Government policy.
- CH stated that the siting issue will be discussed later in the meeting as it is part of another agenda item.
- AD thanked the Minister for his time. She also stated that she hoped that the Minister will attend some affected sites and engage with NGO members in the future.
- The Minister thanked attendees for their questions and said that the Forum had provided a useful discussion.

The Minister left the meeting.

- AD suggested some of the remaining questions be answered by BEIS officials.
- AD proposed taking questions 6 and 7 together.

6) Does the Minister remember the recommendation by Lord Flowers in the 1976 report by the Royal Commission on Environmental Pollution, RCEP, when it examined nuclear power? The UK still lacks a solution to the problems of nuclear waste. (Jill Sutcliffe)

7) Is the Minister aware that the implementation of all three GDF proposals in Cumbria is being met with widespread dismay about the lack of involvement of community members? Household leaflet drops such as the one in Allerdale announcing the 'The Future is in Your Hands' have been greeted with disbelief over their naivety. (Ruth Balogh, West Cumbria North Lakes Friends of the Earth)

- In addition to her question Jill Sutcliffe`s (JS) highlighted that the report states that there should not be any new nuclear designs until the problem of nuclear waste is solved, which she notes the Government seem to be ignoring.
- Ruth Balogh (RB) also added to her question to ask if the Minister was aware of the dismay that GDF is being met with in local communities and that the messaging around GDF is coming across as naïve. She gave an example of Radioactive Waste Management (RWM) engaging with schools on GDF. She added that children are the least likely to actively challenge the subject.
- CH emphasised that the Government is committed to tackling the issue of nuclear waste. He stressed that a more permanent solution is needed to dispose of existing waste, which is where a GDF comes in.



- Umran Nazir (UN) emphasised that a GDF is needed to solve the UK's nuclear legacy.
- UN stated that the siting process is a consent-based process, that a long process of public engagement will be needed, and that this may necessitate a referendum on a GDF. He stressed the UK needs a final solution to nuclear waste as the current methods are not sustainable nor cost effective.
- UN also stated that engaging with young people is important as these are the people who will both benefit from jobs provided by a GDF and live with the legacy of the nuclear waste. He noted that there is a body – the RWM- that people can engage with if they have concerns.
- RB responded to say that Government is not informed on how the issue was playing out locally and there is no community consent or engagement.
- UN suggested he would be happy to talk to RB and Donington-Smith after the meeting

8) Why are EDF being allowed to take more out of the Nuclear Liabilities fund than they are putting in when all the AGRs are due to cease operation by 2030 and start their decommissioning and EDF will not be generating further income to fund additional liabilities (other than from Sizewell B)? TASC's paper supporting this question can be found in Annex A (Christopher Wilson, TASC on behalf of Pete Wilkinson)

Why did BEIS make a £5bn payment into the NLF last year?

- Chris Wilson (CW) asked the above question on behalf of Pete Wilkinson.
- UN stated that there was a set of contractual agreements in 2009 when EDF purchased the nuclear power stations that they will pay in a fixed amount. He added that EDF are still paying in what they owe.
- UN explained that there was waste already created prior to the stations being sold to EDF, so the Government also had liability. As a result, the Government and therefore, the taxpayer will also pay their fair share into the fund.
- Paul Collins (PC) asked now that the costs of waste disposal have been reassessed, does this allow reassessments of cost for payments required by EDF.



- No. The only non-fixed element relates to the amount of fuel loaded into Sizewell B. UN added that the fund is currently around £15 billion; it is invested so that it will cover the full liability in due course. The fund was also topped up by £5 billion last year due to re-estimate of decommissioning costs.
- In the interest of time, UN stated he was happy to email his response and hold a meeting with those concerned.

9) "I submit a letter to me from a trustee of the charity Children With Cancer UK. It concerns a report on the health effects of radioactive discharges commissioned by CWCUK and written by Pete Wilkinson and me (both long-standing members of this Forum). I referred to the report in a presentation to this Forum on 4th February 2021. The letter from CWCUK purports to quote part of a letter in which BEIS misrepresented my presentation and asked for a meeting to discuss CWCUK's concerns. (Richard Bramhall, LLRC)

- AD asked the above question on behalf of Richard Bramhall (RB).
- Katrina Mcleay (KM) stated that they offered Children With Cancer UK an opportunity to meet, which was not taken up. KM said she would be happy to invite the writers of the report to a meeting if CWC decided they wished to have one and provided that CWC were also content for the writers to be present.

4. Siting - Chris Bowbrick (CB) and Alasdair Harper (AH)

- CH introduced the next agenda item on siting which followed on from the Q&As with the Minister.
- Chris Bowbrick (CB) explained that the Government had recently consulted on EN1-5 and conducted a review of EN6. The review concluded that EN-6 will not be amended therefore it was not included in consultation.
- CB said that a National Policy Statement (NPS) for Nuclear Energy Infrastructure deployed after 2025 will be consulted on in the usual manner and in due course.
- AB stated that he originated the discussion on the NGO side. AB pointed out that the current EN-6 is still in force and enables the nomination of 8 sites. AB noted that there have been considerable changes in how much nuclear energy is needed and the circumstances in terms of climate change assessments, and therefore justifies a complete consultation of EN-6.



- AB also stated that there seems to be more nuclear proposals, particularly regarding SMR`s, but no strategy on where these projects will be sited.
- CB responded to say that EN- 6 does not sit in isolation but rather in a suite under EN- 1 and that siting needs to be look at in a wider more holistic way.
- CB added that the NPS is proposed and will be consulted on the usual way and that when siting SMR`s, approvals will be sought in the normal way.
- Alasdair Harper (AH) emphasised that the sites in EN-6 were approved nominated sites and that it does not mean that other sites are unsuitable for nuclear of whatever size.
- AH added that in the absence of a new policy statement, which will contain further detail and guidance on planning and how to assess planning applications, there is guidance for developers interested in nuclear projects.
- AH said that vendors and developers are looking at locations and pressing the Government on more clarity and criteria on SMR proposals.
- AB responded to say there does not seem to be a policy for developers and warned that the sites have not been judged suitable, as they have been labelled as potentially suitable, except for Hinkley Point C.
- AB added there has been no indication that a new NPS is arriving anytime soon.
- AB requested that the answers to his question are sent, in writing, to all NGOs and expressed his desire for the issue to be put to the Minister. He reaffirmed that there is considerable uncertainty regarding siting as there is not updated policy for developers or NGOs to view. CH suggested AB writing to the Minister directly on this point as wasn't time to cover in questions.

5. Power Sector and Net Zero Modelling - George Martin (GM) and Ben O'Driscoll (BOD)

- CH introduced George Martin (GM) and Ben O'Driscoll (BOD) who gave an overview of Net Zero Modelling and Power Sector Scenarios.
- The agenda item also took into account questions put forward by Neil Crumpton (People Against Wylfa B) which were:

Does the Minister accept the views of the NIC in its response of 24th Sept 2021
(see : <https://nic.org.uk/app/uploads/Advice-on-nuclear-power-plant->



[deployment.pdf](#)) to BEIS ministerial questions which essentially make the points that :

i) with reference to the BEIS DDM electricity supply model that '*there is inherent uncertainty in such complex and long-term modelling*', especially as regards costs, and warns against over-interpretation of cost outputs in informing policy decisions - see para 15 of the NIC response

ii) nuclear baseload is not needed to achieve a reliable electricity system (in which supply can meet demand at all times and weathers) and that the 6th Carbon Budget emission reductions can more reliably be achieved by building dispatchable hydrogen-fired generating capacity and even carbon-negative biomass generating capacity (ie BECCS) - see para 16 of the NIC response

iii) that reliance on the DDM model alone '*increases the risk of error*' and that using more than one model and outputs '*can significantly boost the robustness of decision-making*', and that greater transparency would '*also aid robustness*' - see para 17 of the NIC response

- GM explained that BEIS uses a Dynamic Dispatch Model, that essentially sees each plant as an agent in the modelling. He added that the model links to whole sector modelling also carried out by BEIS.
- GM said that the model consists of two elements: an investment algorithm that considers the feasibility of current and new power plants, and a dispatch algorithm, that projects which plants will provide power to the grid for each half hour window.
- GM added that the Dynamic Dispatch Model is not an optimisation model; instead it lets analysts run 1000's of scenarios, that allow them to identify the characteristics of a low cost, low carbon energy system.
- GM highlighted that our Net Zero baseline runs will be published in the Energy and Emission Projections: Net Zero Strategy Baseline in due course.
- GM concluded that our energy mix will be mainly wind and solar, but these technologies will need to be complemented by other low carbon technologies including Nuclear and Carbon Capture, Utilisation and Storage (CCUS). GM also added that the modelling revealed that without Hydrogen Technologies, low emissions can only be achieved using Nuclear and CCUS.
- GM noted that current modelling indicates that additional nuclear beyond SZC will be needed to have a low cost, low carbon power sector in the future.



- CH invited Florian Wagner (FW) to provide comments on The Advice Note on Nuclear Power Plant Deployment, National Infrastructure Commission, Autumn 2021.
- FW emphasised that the report was aligned with the government Net Zero Strategy (NZS) published in October 2021. He noted that NIC report recognises the importance of nuclear in our energy system and the potential need for further nuclear capacity if we are to reach our 2050 world-leading net zero commitment.
- FW added that the report agrees that taking a new plant to a point of a Final Investment Decision (FID) this parliament and a third to a FID by mid to late 2020s is sensible to keep the option open for more nuclear by 2050.
- RB noted that that Cumbria has a Net Zero Target of 2037, adding that Sellafield is the biggest carbon emitter in the region. RB asked if this scenario is included in the modelling.
- In response to the National Infrastructure Commission, Neil Crumpton (NC) said that a nuclear baseload is not needed, and instead Hydrogen and Bio Technologies are. He reiterated that a flexible dispatchable demand is needed and stated the Minister should be made aware of this.
- NC also said that more scenarios need to be introduced into the modelling, such as electrolysis, and that NGO`s should be able to put their scenarios into the model as well. NC added that the model should be an optimisation model.
- DP added that if the Dynamic Dispatch Model is policy sensitive, it runs the risk of becoming a self-fulfilling prophecy. For example, he suggested inputting a RAB model for SZC into the model makes nuclear look cheaper, but a RAB model could be applied to any technology and do the same. Hence the assumptions inputted into the model just support Government policy.
- DP also stated that if there is no transparency about the analysis going into the modelling, then it is sub-optimal.
- In response to RB questions, GM stated that emissions from nuclear waste are not directly included in Dynamic Dispatch Model as it only accounts for emissions from the plant itself, but that waste is likely to be captured in the whole systems modelling.
- GM added that the modelling does include flexible technologies and there have been upgrades to include Hydrogen in the model. GM also added that the Dynamic



Dispatch Model is better as 1000's of scenarios can be modelled rather than just one scenario, which is what optimisation model assumes.

- GM said that there are difficulties in transparency of using the model but reassured that they are looking for ways to be more open and transparent.
- FW clarified his previous point, stating that points 52 to 55 in the NIC report are important. He clarified that NIC report only looks at Giga Watt (GW) projects and not SMRs so when they refer to requiring a third plant they mean GW-scale.
- FW highlighted that, on the contrary, the NZS announcements on further nuclear projects are technology agnostic.

6. ONR Post Implementation Review - Bob Spedding (BS) and Aimee Betts-Charalambous (ABC)

- CH introduced Bob Spedding (BS) and Aimee Betts-Charalambous (ABC) who are the lead and deputy lead reviewers of the ONR (Office for Nuclear Regulation) Post Implementation Review.
- BS explained that this a Post Implementation Review of Part 3 of the Energy Act 2013 and that they will review the powers and responsibilities of the ONR that are outlined in the Act. BS added that the review will also look at how the ONR is currently operating and how it will do in the future.
- BS stated that this was an opportunity to hear from NGO members on their views of the ONR and how ONR engages with NGOs. BS invited NGO members to give feedback on the ONR either verbally or using the chat function. BS also noted that there is a dedicated mailbox that NGO members can use to give feedback.
- ABC brought to the NGO members attention a short paper detailing the scope of the review in the agenda pack. She also shared the mailbox and advised that all comments should be made by 12:00pm on 15 December 2021.

7. Nuclear Energy (Financing) Bill - Erin Coghlan

- CH introduced Erin Coghlan (EC) to give an update of the Nuclear Energy (Financing) Bill.
- Erin Coghlan (EC) introduced the Bill and its progress in Parliament.



- EC summarised that the Nuclear Energy (Financing) Bill was introduced in late October (2021) and essentially implements RAB. EC said that the Bill will legislate for a revenue stream as well as introduce a special admin regime. She added that the Bill will attract private finance into new nuclear projects.
- EC stated that the Bill has passed through second reading in the commons and the committee stage. She noted that written evidence was submitted as part of this process, including evidence admitted by attendees of the Forum.
- AD referred to DP's question via the Microsoft Teams chat about whether a spreadsheet will be made available to ensure transparency.
- EC stated that the impact assessment shows how figures were calculated and applied some arbitrary assumptions to arrive at an estimate of consumer Bill impacts but tried to use public data. EC stated that the Bill requires the Secretary of State to designate a company for a RAB and has to consider whether a project is likely to be value for money, as well as requirements to consult and publish on reasons for designation, excluding material that is commercially sensitive or that relates to national security matters. This assessment will be done early on in the process as part of the wider approvals framework for a nuclear RAB project.
- CW asked how the £1.7 billion of the Government's allocated development spend had been worked, suggesting that this amount is in contradiction to what EDF have previously suggested will be needed to get the SZC project to FID.
- EC stated that the £1.7 billion is composed of additional funding required to bring a project to a final investment decision and that early investment into development helps a project. EC noted that the Minister had stated at Committee Stage that the funding could be used as direct investment into a project.
- John Busby (JB) explained that EDF and CGN have pulled out of leading the SZC project and the Government is now looking for other investment who will put down 30% of equity, and the other 70% will be borrowed. JB stated that the interest on borrowing will be found by adding onto consumer bills.
- EC stated that she had had a read over JB's report submitted prior to the Forum and was happy to discuss further outside of this meeting.
- AD asked EC to put the answers on £1.7 billion, designation statements and timelines in writing. AD asked what the progress of the energy working group was?



- EC stated that the Prime Minister had stated in his CBI speech that there are intentions to consult on the inclusion of nuclear in the UK Green Taxonomy in due course but that she is unable to say yet when this will be.

8. Nuclear Fusion Update

- Due to time constraints this item was not explicitly brought up in the meeting. However, Ellie Campbell (BEIS) shared a link via the Microsoft Teams chat to the Green Paper and Strategy on a [Regulatory Framework for Fusion Energy](#).
- Ellie added that BEIS are seeking views of this regulatory framework and would value NGO members opinions on the paper.

9. Summary

- CH thanked attendees and emphasised the value and importance of engaging with NGO members.
- AD noted that there have been many developments since the last meeting and expressed that the next NGO forum takes place at BEIS's earliest convenience. AD requested more time from the Minister at the next Forum.

Review of Actions

- UN to email RB regarding the GDF concerns.
- EC to email JB regarding the Nuclear Energy (Financing) Bill.
- Contact details regarding the ONR Post Implementation Review and Nuclear Fusion to be shared by the BEIS Nuclear NGO Secretariat.



Attendee List
BEIS Nuclear NGO Forum - Wednesday 8 December 2021

Members

	Ruth Balogh	West Cumbria North Lakes Friends of the Earth
	Peter Banks	Blackwater Against New Nuclear Group (BANNG)
	Andrew Blowers	Blackwater Against New Nuclear Group (BANNG)
	Varrie Blowers	Blackwater Against New Nuclear Group (BANNG)
	Richard Bramhall	Low Level Radiation Campaign (LLRC)
	Jo Brown	Parents Concerned About Hinkley (PCAH)
	John Busby	
	Paul Collins	Stop Sizewell C
	Neil Crumpton	People Against Wylfa B (PAWB)
	Rod Donington-Smith	Cumbria Trust
	Alison Downes	Stop Sizewell C
	Allan Jeffrey	Stop Hinkley Campaign
	Doug Parr	Greenpeace
	Ian Ralls	Friends of the Earth Network (FOE)
	Dr Jill Sutcliffe	Low Level Radiation and Health Conference
	Mike Taylor	Together Against Sizewell C (TASC)
	Christopher Wilson	Together Against Sizewell C (TASC)
	Pete Wilkinson	Together Against Sizewell C (TASC)

BEIS Officials

	Minister Greg Hands	BEIS
	Catherine Angus	BEIS
	Patrick Barry	BEIS
	Simran Basi	BEIS
	Aimee Betts-Charalambous	BEIS
	Shah Bhatti	BEIS NGO Secretariat
	Christopher Bowbrick	BEIS
	Declan Burke	BEIS
	Ellie Campbell	BEIS
	Safiur Choudhury	BEIS
	Erin Coghlan	BEIS
	Leanne Cowie	BEIS
	Alasdair Harper	BEIS
	Chris Heffer	BEIS
	Oliver Housden	BEIS
	Jonathon Jenkin	BEIS



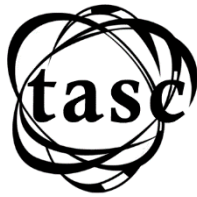
	Hannah Keene	BEIS
	Andrew Maggs	BEIS
	George Martin	BEIS
	Katrina McLeay	BEIS
	Amy Mills	BEIS
	Umrans Nazir	BEIS
	Ben O'Driscoll	BEIS
	Tonima Saha	BEIS
	Helen Shirley-Quirk	BEIS
	Bob Spedding	BEIS
	Jon Sutton	BEIS
	Florian Wagner	BEIS
	Liz Wright	BEIS

External

	Jane Cantwell	Radioactive Waste Management (RWM)
	Jo deBank	Office for Nuclear Regulation (ONR)
	Penelope Harvey	Committee of Radioactive Waste Management (CoRWM)
	Daniel Jones	Office for Nuclear Regulation (ONR)
	Alan McGoff	Environment Agency
	John McNamara	Nuclear Decommissioning Authority (NDA)
	Simon Napper	Radioactive Waste Management (RWM)
	Caroline Richards	Environment Agency



Annex A - TASC's paper supporting question 8



Together Against Sizewell C

The Nuclear Liabilities Fund (<https://nlf.uk.net/>): questions about its implementation from Together Against Sizewell C (TASC).

It is the view of TASC that there is a systematic attempt by BEIS to under-emphasise and conceal the true cost of the 'back end' of the nuclear fuel cycle in order to minimise the true scale of the responsibilities conferred on investors in nuclear technology.

The Nuclear Liabilities Fund document informs us that,

“The Fund was incorporated on 28 March 1996 with the principal object of providing arrangements for funding certain long-term costs of decommissioning the nuclear power stations of British Energy plc (“BE”) existing at 20 March 1996. These comprised, and continue to comprise, seven advanced gas cooled reactor stations (“AGRs”) and one pressurised water reactor station (“PWR”).”

The EDF (France) group claim in their annual report¹ that they have made quarterly NLF payments since privatisation as required to ensure the fund is available for waste management and decommissioning at the end of the operational life of the nuclear plants they operate.

According to the NLF accounts, these payments have varied from £12.75million pa to £31.49 million pa in the period since 2006, yet the level of payment and wide variation in the annual amounts appears to be random, leading to the question:

- **How are these payments calculated?**

The complexity of each of the 15 reactors in the UK for which EDF have responsibility for the purposes of decommissioning can generally be compared to Sizewell A for which the estimated decommissioning cost is £1 billion. The size of the NLF was therefore considered to be in need of an extra minimum of £10- £20bn, although the two Dungeness AGR reactors are now considered to have been removed from the production fleet. The 700-strong Dungeness workforce will, however, remain on site to defuel the reactors, a project which is expected to take around 10 years².

While the NDA will eventually assume responsibility for the decommissioning of the Dungeness AGRs, in order to evaluate the cost of decommissioning it is necessary to know:

¹ See Universal Registration Document (URD) Page 66-67 <https://labrador.cld.bz/EDF-2020-Universal-Registration-Documents/66/>

² Kentonline: [We visited Dungeness B power station as EDF prepares to begin decade long defuelling process](http://www.kentonline.co.uk) ([kentonline.co.uk](http://www.kentonline.co.uk))



- **What is the EDF budget for Dungeness to reach fuel free status and site restoration?**
- **What is the expected cost of decommissioning each AGR?**

The Minister of State Greg Hands has finally now acknowledged in his letter dated 26th October 2021 “there are 12 of 13 reactors due to close by 2030”³. Despite this welcome clarification, his statement is still misleading in that there are in fact 14 AGR reactors and 1 PWR SZB in the EDF fleet inherited from the British Energy takeover. It might suit making the case for the government’s repeated warning that the case for new nuclear is ‘urgent’, but these 12 reactors are already scheduled by EDF to be withdrawn from service starting next year, as confirmed in the EDF group report.⁴ At most times, the electrical output from the fleet is only around one half of total fleet capacity.

Additionally, in his letter, the Minister then states that, “investors should not be classed as being associated with the nuclear operator for purposes of funded decommissioning obligations” which begs the question, who, then, under the terms of RAB, should be associated with the nuclear operator for these purposes?

- **Presumably the public could be liable for decommissioning and clarification on this point is required.**

It is TASC’s view that any investor in nuclear power must be made aware of the recommendations relating to the principles in respect of the development of further nuclear power plants contained in the Flowers Report⁵ which requires the acceptance of their responsibility for creating waste for which there is at present no universally accepted means of management and disposal:

“There should be no commitment to a large programme of nuclear fission power until it has been demonstrated beyond reasonable doubt that a method exists to ensure the safe containment of long-lived, highly radioactive waste for the indefinite future.”

Lord Hinton, who built Sellafield and was the first head of the nationalised electricity supply industry (CEGB), told a Lords debate on the Flowers report, “The Commission [Sixth Report of the Royal Commission on Environmental Pollution on Nuclear Power and the Environment (Cmnd.6618)] is right in criticising atomic energy organisations for being dilatory in devising safe methods of disposing of fission products.”⁶

This extract from the EDF site licence application to ONR explains the proper role of the Funded Decommissioning Programme (FDP) and its importance it confers on investors of understanding these responsibilities and yet which the Minister seeks to avoid in his desire to encourage investors.

³ Ibid ref 1

⁴ Ibid ref 1

⁵ <https://www.davidsmythe.org/nuclear/flowers%20commission%201976.pdf> (page181, paragraph 338).

⁶ Lords Hansard, 22 December 1976, <https://api.parliament.uk/historic-hansard/lords/1976/dec/22/nuclear-power-and-the-environment>



Funded decommissioning programme (FDP)

The Energy Act 2008's Funded Decommissioning Programme and Decommissioning Strategy⁷, states that:

‘...an **operator** of a new nuclear power station must obtain the approval of the Secretary of State for a Funded Decommissioning Programme (FDP).

‘The FDP ensures that decommissioning has been incorporated within the design and construction of a new build nuclear power station and that it has secure financing arrangements in place to meet the full costs of decommissioning once the power plant ceases generation. The Funded Decommissioning Programme (FDP) consists of two key documents:

- Decommissioning Waste Management Plan (DWMP) which **details** how the reactor site will be decommissioned, along with a robust cost estimate for undertaking that decommissioning and management of the associated waste, and
- Funding Arrangement Plan (FAP) which **details** the financing arrangements for generating the required funds to meet the full costs of decommissioning the reactor site.

With both HPC and SZC plants being similar in design this has allowed for a common decommissioning approach to be applied across both sites which has revealed several benefits including:

- SZC will undergo decommissioning **shortly** after HPC which provides the opportunity for lessons learned from HPC to be directly applied to SZC reducing risk.

Tools, Experience and Skills developed for HPC can be reused at SZC affording greater efficiency and savings to be realised.

- **Economies of scale across both sites will minimise both risk and costs and ensure that proven practices and approaches are employed.**

NNB GenCo (SZC) will be submitting a Funded Decommissioning Programme for SZC to BEIS for approval pursuant to Section 45 of the Energy Act 2008, using the HPC FDP as a basis. **It is expected that an approved FDP will be in effect prior to commencement of construction.”**

Questions.

Who will assume responsibility for the development and submission of this plan if EDF themselves are not the owner of the plant? The Minister must be made aware of the potential liability to future taxpayers and be prepared to acknowledge that liability in public statements.

Where can the EDF/CGN FDP for Hinkley C be found?

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/42628/3797-guidance-funded-decommissioning-programme-consult.pdf



A repeat of the NDA “budget forecast” which appears to be opaque and deliberately avoids the true costs must also be published for public scrutiny. (*The author cannot find NDA accounts and forward budget*).

It is relevant and pertinent to draw attention to this quote from Wikipedia.

‘In 2018, the [discount rate](#) used in evaluating future spending was changed from a [HM Treasury](#) determined real terms discount rate to a rate that combined a nominal discount rate and an implied inflation rate based on [Consumer Price Index](#) forecasts. **This nearly halved the estimate of the remaining cost of decommissioning and clean-up.**’

Nuclear Liabilities Fund: a backdoor subsidy for Hinkley C and EDF’s current fleet?

Extract from the NLF document:

“A primary purpose of the Trust is to protect and preserve for the benefit of the Nation the environment of the United Kingdom, by being a member, directly or through nominees, of a company limited by shares or by guarantee, the purpose of which is to receive and hold monies, investments and other assets for the purpose of making payments towards discharging Nuclear Liabilities”.

If the past years 2014 to 2020 are anything to go by, this primary purpose has failed **as more money has been paid out to EDF from the fund than the company has paid into the fund.**

The NLF document further states that, “The CA, (Contribution Agreement) as amended on 5 January 2009, provides for the making of contributions to the Fund from EDFE by way of the following:

a contribution of £150k adjusted to RPI for every tonne of uranium loaded into Sizewell B reactor power station and a quarterly contribution in the sum of £3m (2013: £4m), stated in March 2003 monetary values and indexed to RPI subject to certain conditions.”

Key Dates

Up until 2005 65% of British Energy (BE) net cash flow also went in to the NLF.

2008 BE taken over by EDF

2009 EDF rebrand from BE.

2010 EDF began the discussion on the Dry Fuel Store (DFS) for Sizewell B and it was agreed that the NLF would finance the construction, procurement and operation of the dry fuel store and casks. Previously, it had been assumed that all spent fuel would remain in the pond until final disposal⁸.

The timeline for this project, which gained planning consent in July 2011 and was finally completed in January 2016, may indicate where EDF benefited from some of the NLF funding.

- What was the cost of construction of the Sizewell B DFS and what is the cost of dry casks to date and finally including the envisaged 143 casks required until end of generation in 2035?
- Does the NLF also pay the section 106 compensation to the Suffolk Coast and Heaths AONB?

⁸ <file:///E:/Documents/SZB%20Dry%20Store%20handout%20Authorised.pdf>



Nuclear Liability Fund

The accounts for the years ended 31st March 2006 to 2013, show total payments *into* the fund of £222 million while payments *from* the fund totalled £52 million in **qualifying liabilities**, net increase in the fund of £170 million.

The accounts for the years ended 31st March 2014 to 2020 show total payments into the fund of £152 million while the fund paid out £278 million: every year more was withdrawn and paid to EDF than was deposited by EDF, resulting in a reduction of £126 million in the balance of the fund.

- **What changed? What are qualifying liabilities and why the apparent change in liabilities?**
- **Why are EDF being allowed to take more out of the fund than they are putting in when all the AGRs are due to cease operation by 2030 and start their decommissioning and EDF will not be generating further income to fund additional liabilities (other from Sizewell B)?**

The EDF group state in their annual report that they have made quarterly payments to the fund, but do not admit to receiving money from the fund.

On the 21st October 2013 (i.e. in the 2014 financial year), Ed Davey made a statement to the house on Hinkley C⁹. It is remarkable for demonstrating the how deeply the Government is in thrall to EDF.

As evidence of this, it should be noted that on July 20th 2020, HM Government made a payment of £5.07 billion to the NLF as noted in a Ministerial statement¹⁰ although this is not yet reflected in the NLF accounts as the 2020-21 accounts, which have a filing deadline of 31st December 2021, have not been published.

HMG should explain the reason for this payment from the public purse to a fund which is the responsibility of a private company, not of the Government.

The SoS has claimed a saving of £1billion due to the reorganisation of AGR decommissioning¹¹.

- **How is this claim justified if the future costs have been underestimated as referred to in the above extract from Wikipedia?**

EDF accounts for UK may give some further information¹².

⁹ <https://www.gov.uk/government/speeches/agreement-reached-on-new-nuclear-power-station-at-hinkley>

¹⁰ <https://www.gov.uk/government/news/decommissioning-agreement-reached-on-advanced-gas-cool-reactor-agr-nuclear-power-stations>

¹¹ *ibid*

¹² EDF Energy holdings Accounts [EDF ENERGY HOLDINGS LIMITED - Filing history \(free information from Companies House\)](https://www.edfenergy.com/~/media/EDF%20ENERGY%20HOLDINGS%20LIMITED%20-%20Filing%20history%20(free%20information%20from%20Companies%20House)/company-information.service.gov.uk) [company-information.service.gov.uk](https://find-and-update.company-information.service.gov.uk/company/09284751/) NNB Holding company SZC Company <https://find-and-update.company-information.service.gov.uk/company/09284751/> NNB Holding company SZC Company <https://find-and-update.company-information.service.gov.uk/company/09284751>



TASC 23 November 2021

NUCLEAR LIABILITIES FUND
EXTRACT FROM ACCOUNTS

YEAR ENDED	QUALIFYING LIABILITIES FUND (£MILLION)					Closing balance
	Opening balance	British Energy Cashsweep pmt	EDF Contribution	Trf from Comp. Income statement	Payable to EDF	
31.03.20	9,402.999		22.478	6.879	(58.099)	9,374.257
31.03.19	9,261.578		12.750	143.271	(14.600)	9,402.999
31.03.18	9,162.564		24.414	100.981	(26.381)	9,261.578
31.03.17	8,943.071		20.321	222.182	(23.010)	9,162.564
31.03.16	8,934.895		18.665	41.725	(52.214)	8,943.071
31.03.15	8,843.558		26.558	127.048	(62.269)	8,934.895
31.03.14	8,773.618		26.628	84.643	(41.331)	8,843.558
Totals 01.04.13 - 31.03.20	8,773.618		151.814	726.729	(277.904)	9,374.257
31.03.13	8,651.578		24.267	118.850	(21.077)	8,773.618
31.03.12	8,589.087		31.075	41.445	(10.029)	8,651.578
31.03.11	8,493.594		22.474	80.788	(7.769)	8,589.087
31.03.10	8,275.841		31.480	195.370	(9.097)	8,493.594
31.03.09	3,841.494	4,421.124	31.493	(14.788)	(3.482)	8,275.841
31.03.08	1,321.972	2,442.320	24.098	53.198	(0.094)	3,841.494
31.03.07	978.431	275.985	29.184	38.528	(0.156)	1,321.972
31.03.06	785.893		27.461	165.095	(0.018)	978.431
Totals 01.04.05 - 31.03.13	785.893	7,139.429	221.532	678.486	(51.722)	8,773.618

Note:
EDF replaces
British Energy