



BEIS Nuclear NGO Forum Minutes
Thursday 4 February 2021
10:00 - 12:00
Microsoft Teams

1. Introduction

Co-Chairs of the Forum Stephen Speed (SS; Director, Nuclear, BEIS) and Professor Andrew Blowers (AB; Blackwater Against New Nuclear Group) opened the meeting and welcomed attendees.

2. Discussion on nuclear aspects of Energy White Paper, 10-point plan, Sizewell.

SS updated the Forum about the announcements on nuclear that the Government made on 18 November and 14 December 2020. Mainly, the 10 Point Plan for a Green Industrial Revolution and the Energy White Paper (EWP). The following points were then mentioned:

10 Point plan

- The Prime Minister's 10 Point Plan, published on 18 November, gives a broad overview and discusses the Government's plan to move forward on Net Zero and highlights the Government's view, based on BEIS modelling that there is justification for including nuclear in the UK's journey to Net Zero by 2050.
- The 10 Point Plan sets out this commitment to nuclear in the context that our electricity system could double in size by 2050 as demand for low-carbon electricity in sectors like heat and transport rises, and will need to be substantially emissions-free. It also announced new funding to support the process to include nuclear and other low-carbon technologies.
- An Advanced Nuclear Fund of up to £385m is proposed to invest in the further development of the UK SMR programme and a programme of R&D over the next 10 years to build knowledge on AMRs and to understand which types of technology will be of most value in a UK setting.
- Alongside the Advanced Nuclear Fund, we will be proceeding with policy enabling framework needed to underpin any future developments - including regulation, financing, siting and planning, public perception and international collaboration.

EWP

- The publication of the Energy White Paper followed on 14 December and announced that the Government aims to bring at least one more GW nuclear project to the point of Final Investment Decision (FID) within the life of this Parliament. SS highlighted to the Forum that the department's analysis underpinning the electricity strategy was also published with the White Paper (see [here](#)).



- Alongside the White Paper, the Government published a written ministerial statement announcing that it would enter negotiations with EDF in relation to the Sizewell C project. SS updated the forum that those discussions with EDF have begun. The Government also published the response to the consultation on the Regulated Asset Base (RAB) model to test the feasibility of using such a model to fund a large nuclear project. SS updated the Forum that as BEIS thinks about financing, one of the options to be considered is whether the RAB model continuing to be explored in the context of GW nuclear might also work for other low-carbon energy projects.
- SS explained that in the middle of all this is how nuclear interacts with other parts of the power sector and the energy world. A rapidly developing area of interest for the department is in hydrogen.
- AB felt that the wording on, 'at least one more GW nuclear project' was vague and requested clarification, whether it referred to Sizewell C or if the Government has a number of large-scale nuclear projects in mind. SS replied that the Government was clear in its commitment to "at least one further" large-scale nuclear project and is in active discussions with EDF on their proposals for Sizewell C. The Government will continue to talk to developers who have ambitions to develop projects at other sites in the UK.
- The NGOs requested detail on the timetable for the National Policy Statement (NPS) review and consultation announced in the EWP and questioned why there were differences in the BEIS modelling and that of the Climate Change Committee. SS responded that the NPS review of EN 1-6 will take place with all consultation processes followed in due course, but that a timetable was not yet clear. He noted work on EN7 to sit alongside this, but it had been paused due to COVID-19 and would recommence this year, taking into account both SMRs as well as GW.
- The NGOs expressed the view that EDF was ignoring rules on protecting areas of natural beauty and questioned the timing of their consultations in relation to the DCO process.
- NGOs raised the issue of legacy waste for future generations and asked why the Government isn't pursuing renewables and other new technologies. NGO members requested clarity on the number of new GW projects HMG is planning to pursue and clarity on whether modelling for non-nuclear scenarios had been included in the EWP work. SS responded by commenting that HMG is not committing to a large or unlimited amount of nuclear power but that it is proceeding with the intent that nuclear has a role to play in the energy mix. He highlighted the predominant role that renewables will play and the bold pledges HMG had made across all technology types, including the plan to quadruple offshore wind by 2030.



- The NGOs asked if the BEIS modelling provides a carbon footprint for each item in the lifecycle of nuclear power. SS said that he would check this and would also make sure that the equivalent has happened for all other technologies given that everything has its carbon costs when there is construction.
- NGO members expressed concern around the role of any new NPS given that Bradwell B and Sizewell C DCOs may be based on the old NPS, highlighting the need for an NPS to frame the DCO process. SS responded that in 2018 BEIS issued a Written Ministerial Statement to provide comfort to developers on DCO decisions under the current NPS.
- In response to concerns around legacy waste, SS noted that the UK has an active programme to manage its radioactive waste and that the NDA are developing an integrated waste programme and taking forward a community engagement programme on a GDF. SS noted that all technologies used in the UK have legacy challenges and that the same will go for renewables.
- NGO members stated that Scotland produced its electricity through renewables and questioned the role of energy efficiency measures in reducing demand in the future.
- SS responded by noting that behavioural changes are required to change energy demand, which is challenging, but the modelling done for the EWP had included ambitious progress on energy efficiency, notwithstanding which, overall demand would still increase substantially. He noted the importance of public perception so that people have a clear understanding of the science and social issues surrounding nuclear and new nuclear.
- Craig Lester (CL) noted public perception forms a part of the debate within HMG on SMRs and AMRs. **CL committed to follow up with a note on a live public perception project.**
- NGOs questioned the basis on which nuclear was considered zero carbon and highlighted the need to consider whole energy life cycles in analysis. SS responded by setting out the changes in cost as you move towards 5 and 0 grams of carbon and the need to remain consistent across technologies in the approach to whole life cycle costs.
- NGO members noted independent reviews of the nuclear life cycle and raised concerns about spent fuel management and the legacy being left for future generations.
- NGO members noted the role of dispatchable power and flagged concerns that Ministers were not focused on the full range of options. SS noted the potential role of



hydrogen in dispatchability and the role of efficient storage to shift peaks in intra day and intra seasonal demand when this technology is ready. He highlighted the need to plan for low-wind and low-sun days in winter and the importance of base load power.

- The ambition to have Ministers present at every NGO forum was noted.
- The NGOs raised a question about the Department withholding information prepared by external consultancies advising on the RAB model for nuclear under the Freedom of Information Act. SS stressed that the department takes its obligations under the FOI Act seriously. The release of information is always considered positively under the principles of the regime unless there is a good reason not to release it.
- An NGO member also raised that they had asked for their consultation response to be published on the BEIS website. BEIS received over 9,000 individual responses to the consultation and in addition a petition with over 35,000 responses and concluded that the burden in identifying and redacting exempted material for this volume of documentation would be disproportionate in relation to the likely purpose and value of its release, given that the published Government response summarises responses received.

3. Discussion on Low Level Radiation

Introduction

- Katrina McLeay (KM) introduced Dr Simon Bouffler (SB), an expert working for Public Health England who represents the UK on the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR). She noted that he would be presenting first.
- KM noted there would be a discussion on low-level radiation in the environment because of dredging activity in the Bristol Channel.

The development of safety standards

- SB presented an overview of how safety standards are developed. He explained that evidence gathered by UK experts is synthesised into a useable framework. UNSCEAR's role involves reviewing and testing the validity of this evidence. The International Commission on Radiological Protection (ICRP) takes those reviews and develops a system. International departments such as the International Atomic Energy Agency use these systems to develop standards. Epidemiological studies play a key role but also occupational and animal / cellular level studies in understanding health detriments of radiation.
- In 2017 UNSCEAR published an annex setting out the principles and criteria of epidemiological studies – which is a key foundation document for the approach of the



group. SB then gave an overview of current and upcoming work for both UNSCEAR and ICRP. He highlighted that these studies are listed on both groups' websites and that members of the public can submit comments. SB also said that certain papers have appended annexes that provide an overview of the quality of evidence available for examination.

- SB explained that epidemiological studies are more robust today than ever because there is naturally a longer gap since the time of exposure over which health effects can be measured. For example, circulatory exposure to the eye lens – the acceptable threshold of exposure has been reduced as a result of evidence gathered.
- In summary, the ICRP is a large international enterprise drawing on expertise to improve health levels, understanding in the medical sector and allows for a level playing field in health across the world. ICRP is currently undertaking a refinement of the system of radiological protection.

Views of the Low-level radiation campaign

- Katrina McLeay (KM) introduced Richard Bramhall (RB) who said Dr Bouffler's points were not relevant to EDF's plan to dump contaminated mud from Hinkley Point. RB said EDF's analysis of the mud is inadequate as it does not test for particles. RB asserted that the mud contains particles of uranium and plutonium, the hazards of which had been contentious since World War 2. He directed attention to a report commissioned by Children with Cancer UK showing that the risk of such exposures is 1 in 100 compared with the 1 in a million standard of "acceptably trivial" risks.
- RB stated that in the UK particles were researched until 1990 but epidemiological studies were now being used to cover up such issues. The issue was being ignored because the approach taken in standard models is to consider radiation in tissue as an average.
- RB said EDF is exploiting semantic confusion over the word "particles", which refers to dust fragments that can be inhaled as well as to subatomic radiation tracks. He said spectrometry tests used by CEFAS cannot detect dust particles. He outlined a technique that can detect them and recommended its use in a joint official and NGO investigation of the degree of such contamination across Wales. He said the mud dump should be stopped as there were alternative ways of cooling the reactor.



Questions

- PW asked SB to clarify what he meant by “acceptable” hazards in his presentation and wants to understand what "acceptable" means. SB responded that he meant to say acceptable risk, not hazard and that 1:1,000,000 is acceptable.
- PW asked what are the risks/hazards between dose and risk and the uncertainty of quantifying that risk and to whom should they be acceptable? **BEIS will provide a written note on this.**
- Ian Ralls (IR) asked if PHE is using spectrometry to establish the amount of uranium particles in sediment? KM answered that CEFAS is doing the sampling. **BEIS will provide a written note on this.**
- Dr Jill Sutcliffe (JS) asked a question about the work of Eric Wright and Carmel Mothersill on genomic instability and bystander phenomena. **BEIS will provide a written note on this.**
- JS asked about whether certain studies about damage mechanisms due to radiation were included in UNSCEAR and ICRP's reviews. Referenced a study that showed that women are more susceptible to radiation than men. SB responded that yes, those studies were included and considered. And yes, there are differences in the responses to radiation in males and females. The current 'reference man' means reference human – an average of male and female. These differences are covered in more detail in an upcoming report but there is much more work to be done and the approach can be improved.
- **BEIS will provide a note on JS question on how gender is accounted for in the ICRP risk coefficients.**

4. Summary and Next Steps

- SS gave thanks to those who presented and all who took part in leading the discussions.
- AB said that he was unclear where the last session developed from here and that he thought there was a discussion to be had on RB and PW's “Children with Cancer” paper and the joint fact-finding effort. More generally he felt like decisions had been made before appropriate work had been done on the NPS' and that BEIS should not yet be giving the amber light to industry.
- AB noted that he was grateful to BEIS for agreeing to respond to members questions in writing in the weeks following the meeting.



- AB discussed how the forum should meet again soon as there are still many outstanding issues to discuss.
- AB thanked everyone for attending and SS for chairing the meeting and aiding an engaging first half.
- AB proposed that himself and SS meet offline to discuss dates for the next forum.

Review of Actions

- SS and AB to agree date of the next meeting.
- BEIS to provide answers to questions raised before the meeting by 19 Feb.
- BEIS to provide answers to questions raised during the meeting during March.
- CL committed to follow up with a note on a live public perception project.

5. Attendees

NGO Forum Members

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| 1 | Rita Holmes | Ayrshire Radiation Monitoring (ARM) Group |
| 2 | Andrew Blowers | Blackwater Against New Nuclear Group (BANNG) |
| 3 | Varrie Blowers | Blackwater Against New Nuclear Group (BANNG) |
| 4 | Peter Banks | Blackwater Against New Nuclear Group (BANNG) |
| 5 | Ian Ralls | FoE Nuclear Network |
| 6 | Doug Parr | Greenpeace |
| 7 | Tor Justard | HANT (Highlands Against Nuclear Transport) |
| 8 | Dr Jill Sutcliffe | Low Level Radiation and Health Conference |
| 9 | Richard Bramhall | Low Level Radiation Campaign (LLRC) |
| 10 | Sean Morris | Nuclear Free Local Authorities Secretariat |
| 11 | David Lowry | Nuclear Waste Advisory Associates |
| 12 | Jo Brown | Parents Concerned About Hinkley (PCAH) |
| 13 | Neil Crumpton | People Against Wylfa B (PAWB) |
| 14 | Allan Jeffery | Stop Hinkley |
| 15 | Sue Aubrey | Stop Hinkley Group |
| 16 | Jo Smoldon | Stop Hinkley |
| 17 | Alison Downes | Stop Sizewell C |
| 18 | Paul Collins | Stop Sizewell C |
| 19 | Mike Taylor | Together Against Sizewell C (TASC) |
| 20 | Chris Wilson | Together Against Sizewell C (TASC) |



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| 21 | Pete Wilkinson | Together Against Sizewell C (TASC) |
| 22 | Ruth Balogh | West Cumbria North Lakes Friends of the Earth |
| 23 | Rod Donnington Smith | Cumbria Trust |
| 24 | Alan McGoff | Environment Agency |
| 25 | Caroline Richards | Environment Agency |
| 26 | Simon Napper | NDA |
| 27 | Daniel Jones | ONR |
| 28 | Penelope Harvey | Committee on Radioactive Waste Management (CoRWM) |

BEIS Officials

| | | |
|----|----------------------|----------------------|
| 29 | Stephen Speed | BEIS |
| 30 | Helen Shirley-Quirk | BEIS |
| 31 | Umran Nazir | BEIS |
| 32 | David Wagstaff | BEIS |
| 33 | Scott Hudson | BEIS |
| 34 | Craig Lester | BEIS |
| 35 | Christopher Bowbrick | BEIS |
| 36 | Katrina McLeay | BEIS |
| 37 | Dan Kapadia | BEIS |
| 38 | Huw Davies | BEIS |
| 39 | Mike Kitching | BEIS NGO Secretariat |
| 40 | Paula Wade | BEIS NGO Secretariat |
| 41 | Patrick Barry | BEIS Note Taker |
| 42 | Evelyn Tilley | BEIS Note Taker |
| 43 | Katherine Reading | BEIS Note Taker |
| 44 | Lilian Koma | Observer |
| 45 | Meegan Meek | Observer |
| 46 | Safiur Choudhury | Observer |

Guest Speaker

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|----|----------------|-----------------------|
| 47 | Simon Bouffler | Public Health England |
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