nuleaf
nuclear legacy
advisory forum

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Science and Technology Committee
House of Commons
London
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By email to: scitechcom@parliament.uk

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Dear Sir/Madam

Delivering Nuclear Power: Call for Evidence

1. Nuleaf: An overview

Nuleaf (the Nuclear Legacy Advisory Forum) is the Local Government Association's (LGA) representative body on radioactive waste and nuclear decommissioning. We are directly supported by over 100 local authorities and national parks across England and Wales and speak for the wider LGA network on these issues.

We are actively engaged in all aspects of radioactive waste management and disposal, promoting the best economic, social and environmental outcomes for communities. We participate in high level government work on strategy and policy and work directly with the Nuclear Decommissioning Authority (NDA), regulators and other stakeholders. While we receive funding from NDA Group as well as our members, we are an independent body acting only in the interests of local government and communities.

We engage in discussions around new nuclear power, including SMRs/AMRs and fusion, based on a recognition that:

- New nuclear sites are likely to be located on or adjacent to decommissioning sites. They will therefore have an impact on the pace and approach of current decommissioning work.
- New nuclear will leave a decommissioning and waste legacy that will have to be addressed at a future date. It will impact on plans for Geological Disposal and for wider waste management.

Given our focus, we have limited our comments to the following questions set out in the Call for Evidence:

- What could be done to ensure that the UK's electricity supply is not affected by the high proportion of reactors being decommissioned?
    - How can the Government ensure that the cost of decommissioning does not increase any further?
    - How can lessons learnt from decommissioning programmes be used to benefit new nuclear power programmes?
- What needs to be done to improve the UK's approach to dealing with nuclear waste and to ensure that the Government can meet its aims of transferring waste to geological disposal facilities?

Our response is set out below.

2. Response to the Call for Evidence

What could be done to ensure that the UK's electricity supply is not affected by the high proportion of reactors being decommissioned?

Given the need to deliver net zero carbon by 2050, and to address the supply and affordability of energy, a radical change in the UK energy system is required. This includes a 50% increase in electricity production by 2035 and potentially a doubling or trebling of electricity requirements by 2050 as we move heat and transport on to low carbon sources[1].

Nuleaf has no view on the role of nuclear in the future energy mix. Some of our member local authorities are actively supportive of new nuclear development in their areas, while other are opposed and would argue that a focus on renewable energy and storage technologies could deliver low carbon energy more quickly.

Government sees nuclear as a significant part of the future energy mix. However, all the UK's current Advanced Gas Cooled Reactors (AGRs) will cease generating by 2028, with the other operational station, Sizewell B, closing in the mid-2030s. Only one new nuclear station, Hinkley C, is currently under construction and there is a major challenge ahead if their vision of 24GW of new nuclear capacity is to be achieved.

One significant issue facing the UK in transforming its energy system is a shortage of skilled workers. This is compounded by the fact that the same skilled workers required to take forward new nuclear and renewable energy are also needed for

[1] https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy

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nuclear decommissioning, transport infrastructure and the decommissioning of oil and gas facilities. A more active approach to the development of skills, and to the STEM agenda, is needed to support this. This should involve industry, universities and colleges, and national and local government. Government should be challenged to demonstrate it has a coherent plan with an appropriate level of ambition to deliver the change required.

Regarding the creation of new energy infrastructure on or near current nuclear decommissioning sites, the establishment of bespoke development companies could help. An example of this is Cwmni Egino, established by the Welsh Government in 2021 to help facilitate the development of Small Modular Reactors (SMRs) at Trawsfynydd[2]. Another example, promoting non-nuclear redevelopment at the former Chapelcross nuclear station, is the CX programme[3]. Such mechanisms should be replicated elsewhere.

Also important will be to set new energy infrastructure into a strategic and integrated local or regional energy plan. The development of a Nuclear Prospectus for Cumbria[4], involving local authorities and the Local Enterprise Partnership (LEP), is one example of this that could be replicated elsewhere.

How can the Government ensure that the cost of decommissioning does not increase any further? How can lessons learnt from decommissioning programmes be used to benefit new nuclear power programmes?

The very high costs of the UK's decommissioning mission are, in significant part, a result of little or no thought being given to decommissioning during the design and operational phase of these reactors. The costs of cleaning up our legacy nuclear sites continue to rise and will place a significant burden on the taxpayer for decades.

Government must continue to provide the NDA with sufficient resources to decommissioning legacy sites in the most effective way, including through the introduction of new technology and management techniques where these are acceptable to the public and environmentally sustainable. Some of the innovations that could be developed to deal with the UK's decommissioning challenges may have wider economic value internationally, and Government should seek to capitalise on these.

[2] https://www.niauk.org/cwmni-egino-sets-out-ambition-for-uks-first-smr-at-trawsfynydd-nuclear-site/
[3] https://www.cxproject.co.uk/
[4] https://www.copeland.gov.uk/sites/default/files/attachments/cumbria_nuclear_prospectus.pdf

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In designing new nuclear stations Government has rightly required that new facilities have finance in place to meet the full costs of decommissioning and their full share of waste management and disposal costs, as set out in a Funded Decommissioning Programme (FDP).

There is still a significant challenge for Government in ensuring that FDPs do meet the real costs of decommissioning and the Public Accounts Committee (PAC) has recently highlighted this issue[5]. It notes that AGR decommissioning costs have doubled since 2004-5 and that the Nuclear Liabilities Fund (NLF) established to enable AGR decommissioning had a value in March 2021 of £14.8Bn with decommissioning costs estimated at £23.5Bn.

The Committee concluded that the arrangement agreed with EDF placed too much risk on taxpayers and has challenged the UK Government to ensure that agreements for new nuclear power stations address this issue. Government has committed to respond on this point to the PAC and the outcome of this should be scrutinised.

What needs to be done to improve the UK's approach to dealing with nuclear waste and to ensure that the Government can meet its aims of transferring waste to geological disposal facilities?

The UK has a live siting process for a Geological Disposal Facility (GDF). Nuleaf has been involved in developing the current policy and supporting the local authorities that are involved in the 4 Community Partnerships that have so far been established to take forward local level site investigation and community engagement.

In terms of the GDF process, Government and the developer can do a number of things to increase the chance of success.

Most importantly, UK Government should provide greater clarity on the scale of the 'significant community investment' that it has pledged to provide to the successful host community. As the GDF requires a consenting host community, local people need to have a clear understanding of the amount of additional investment that will be provided. They also need to be involved in effective engagement processes to help shape their vision for the area and understand how the additional investment could help drive the positive economic, social and environmental outcomes they seek.

Government must support the developer (Nuclear Waste Services (NWS)) and ensure that they are operating in a way which ensures the maximum number of

[5] https://committees.parliament.uk/work/6429/future-of-the-advanced-gascooled-reactors/publications/

communities are able to enter and remain in the siting process. As current policy requires that at least one principal local authority must be part of local Community Partnerships, the role of local government is critical. Government and NWS should continue to work with Nuleaf and individual local authorities to support the participation of local government in the process.

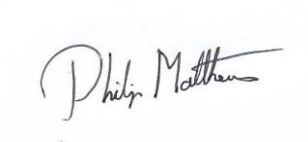
A GDF will only deal with Higher Activity Waste (HAW). Past, current and future nuclear stations will also generate a wide range of other radioactive and non-radioactive wastes, far greater in volume than HAW. Decommissioning and management of all these wastes should be properly considered in the FDP.

The Nuclear Decommissioning Authority (NDA) has taken forward a more innovative and sustainable approach to waste management in recent years. They have created an integrated waste division (Nuclear Waste Services) that is able to consider the management of all wastes based on their characteristics rather than classification. They have also moved to better apply circular economy principles and to seek the diversion of Low-Level Waste (LLW) to a range of more appropriate treatment options including super compaction, incineration and reuse/recycling. Any new nuclear operator must adopt fully sustainable and circular approaches to the management of all waste.

The NDA is also working with Government and regulators to consider the scope for disposal of very low-level radioactive material in-situ or on site. This requires legislative support but could again be a useful element of a more sustainable approach, reducing the environmental impacts of moving waste off site, cutting costs and enabling parts of nuclear licensed sites to be released for public use more quickly.

I am of course happy to expand on these points if helpful.

With best wishes



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