

## Written evidence from Prospect trade union (NCL0013)

### Introduction

1. Prospect is the leading UK union for engineers, managers, and specialists. We represent 150,000 members working across the public and private sectors, including in the civil nuclear sector.<sup>1</sup> Our response to this consultation is informed by the experience of thousands of members working in nuclear generation, decommissioning, research, and regulatory roles.
2. Nuclear will play a vital role in meeting the UK's future energy needs. The government has a legally binding target to reach net zero emissions by 2050 and an ambition to be an energy exporter by 2040.<sup>2</sup> Achieving these goals will require a transformation of our energy system, including decarbonising electricity generation while doubling supply to meet the demands of transport and heating electrification.<sup>3</sup> This requires the rapid scaling up of renewables such as onshore wind, offshore wind, and solar, as well as technologies that complement their variable output. Advances in energy storage, demand side response, and other potential sources of flexibility are promising developments in this but are largely unproven at scale. Nuclear is the only proven, low-carbon technology that can provide the firm power generation we will need alongside renewables to meet our net zero and energy security goals.
3. Nuclear power also supports highly skilled, well-paid jobs across the country. The civil nuclear industry currently employs nearly 65,000 people and supports 160,000 jobs across its wider supply chain.<sup>4</sup> These jobs tend to be better paid and more productive than average.<sup>5</sup> Nuclear jobs are located in regional centres outside London, boosting local and regional economies: two thirds (63%) of UK civil nuclear jobs are based in North West or South West England.<sup>6</sup> The nuclear industry should be at the heart of any industrial strategy that seeks to spread prosperity and opportunity to all parts of the UK.
4. We therefore welcome the targets for nuclear power set out in the British Energy Security Strategy published earlier this year.<sup>7</sup> The government's commitment to deploy up to 24GW of nuclear capacity by 2050, which could provide a quarter of our electricity needs, is the right scale of ambition given the energy challenges we face. We also welcome the government's aim to approve up to eight new nuclear reactors

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<sup>1</sup> <https://prospect.org.uk/about/>

<sup>2</sup> <https://www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law;>  
<https://www.gov.uk/government/news/government-announces-energy-price-guarantee-for-families-and-businesses-while-urgently-taking-action-to-reform-broken-energy-market>

<sup>3</sup> <https://www.theccc.org.uk/publication/sixth-carbon-budget/>, pp. 72-73

<sup>4</sup> [https://www.niauk.org/nia-jobs-map-2022/;](https://www.niauk.org/nia-jobs-map-2022/) [https://www.niauk.org/wp-content/uploads/2021/10/Fortyby50\\_TheNuclearRoadmap\\_201009.pdf](https://www.niauk.org/wp-content/uploads/2021/10/Fortyby50_TheNuclearRoadmap_201009.pdf)

<sup>5</sup> <https://www.oxfordeconomics.com/resource/nuclear-activity-report-2016/>, pp. 9-10

<sup>6</sup> <https://www.niauk.org/nia-jobs-map-2022/>

<sup>7</sup> <https://www.gov.uk/government/publications/british-energy-security-strategy/>

by 2030 and the establishment of the Great British Nuclear vehicle to support this goal.

5. However, our central message to the committee is that ambitious targets must be backed up by equally ambitious strategies to achieve them. We are concerned that the government lacks a comprehensive plan to deliver the promised new generation of nuclear power at the speed and scale required. While Great British Nuclear could be a step towards a more strategic approach to developing the nuclear pipeline, it is disappointing that the government is yet to announce basic details about what the new body will do.
6. The government needs to urgently set out a strategy that gives certainty to investors and the civil nuclear workforce. This should include supporting the extension of existing nuclear plants where it is safe to do so; securing a full funding settlement for Sizewell C and future plants; developing a comprehensive skills and workforce development plan for the sector; and backing the wider UK nuclear supply chain. Our response below addresses several of the committee's questions relevant to these concerns.

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

7. The high proportion of reactors due to be decommissioned in the next few years is putting the government's net zero and energy security goals at risk. All but one of the UK's existing nuclear power stations are due to come offline by 2028.<sup>8</sup> This will reduce our ability to generate low carbon electricity in the UK, potentially increasing our reliance on gas imports and having an associated effect on decarbonisation, wholesale electricity prices, and security of supply.
8. The government must explore every available path to safely extend the lives of existing reactors to limit the loss of generating capacity. In response to the current energy crisis, the head of the International Energy Agency has urged European governments to seek to delay nuclear plant closures where it is safe to do so.<sup>9</sup> For the UK, the top priority is exploring the feasibility of extending the Heysham I and Hartlepool reactors, which are both due to come offline by March 2024.<sup>10</sup>
9. The government should learn from the failure to extend the life of Hinkley Point B earlier this year. While we and others called for the government to work with Hinkley's owner EDF to explore the potential for extension, no approach was made to EDF before it was too late, and the plant closed at the start of August.<sup>11</sup> EDF has now said it is reviewing the safety case for extending Heysham I and Hartlepool beyond March 2024.<sup>12</sup> The government must proactively work with plant owners and the

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<sup>8</sup> <https://www.gov.uk/government/news/nuclear-energy-what-you-need-to-know>

<sup>9</sup> <https://www.ft.com/content/f7990162-395f-488e-9d23-13f3cce83e24>

<sup>10</sup> [https://www.edfenergy.com/sites/default/files/uk\\_nuclear\\_fleet\\_strategy\\_update.pdf](https://www.edfenergy.com/sites/default/files/uk_nuclear_fleet_strategy_update.pdf)

<sup>11</sup> <https://questions-statements.parliament.uk/written-questions/detail/2022-06-15/19007>

Office for Nuclear Regulation to support such assessments – and preparations for potential extension – well before reactors are due to close.

**How can the funding methods that support the development of nuclear technologies be improved? How can the UK leverage further private investment in this area?**

10. We are deeply concerned about delays in securing a funding settlement for Sizewell C. The government’s recent announcement of a further £700m support for Sizewell C is welcome but falls short of the full Government Investment Decision (GID) needed to secure private sector funding for the project. Now that the Development Consent Order (DCO) has been granted, funding is the biggest remaining hurdle to Sizewell C proceeding. The government needs to urgently confirm the GID as private investment will not be leveraged without it.
11. Funding delays are putting the Sizewell C project at risk. Earlier this year, alongside other trade unions we expressed our concern that failure to deliver a prompt GID could lead EDF to pull out of the project, and that remains a real possibility.<sup>13</sup> This would be a disaster in itself, squandering the UK’s furthest developed new nuclear project and the 3.2GW capacity that Sizewell C would provide. But beyond this, it also puts the government’s wider nuclear ambitions at risk: Sizewell C provides an essential link between Hinkley Point C and future nuclear power projects. Vital skills and expertise will be lost if the Hinkley Point C workforce cannot move on to Sizewell C. For all these reasons, the top priority for a government interested in delivering nuclear power should be securing funding for the project.
12. If the ambitions set out in the British Energy Security Strategy are to be achieved, the Sizewell C funding delays cannot be repeated in future projects. Recent years have shown that government will have to take a big role in funding future nuclear capacity. The decisions by Hitachi and Toshiba to pull out of the proposed Wylfa and Moorside projects in 2019 indicate that the private sector is not willing to shoulder the risk of constructing new nuclear plants alone. A combination of direct government stakes and the Regulated Asset Base (RAB) approach is likely to be needed. The passing of the Nuclear Energy (Financing) Act earlier this year, which legislated for the RAB model, was a positive step forward. However, it must be accompanied by faster decisions on government funding to give investors confidence and attract private finance.

**What support will industry need to meet the Government’s ambitions for delivering new nuclear power plants in the next decade?**

*Skills and workforce development*

13. Delivering nuclear power requires investment not only in physical nuclear infrastructure but also the workforce that underpins it. The civil nuclear sector faces a

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<sup>12</sup> [https://www.edfenergy.com/sites/default/files/uk\\_nuclear\\_fleet\\_strategy\\_update.pdf](https://www.edfenergy.com/sites/default/files/uk_nuclear_fleet_strategy_update.pdf)

<sup>13</sup> <https://prospect.org.uk/news/decision-needed-on-sizewell-c-funding-within-weeks-or-entire-project-at-risk-warn-unions>

challenge in recruiting and retaining the highly skilled staff that it relies on. The Nuclear Skills Strategy Group (NSSG) estimates a minimum of 3,200 new staff need to be recruited in the sector every year, with at least 40,000 required by 2030.<sup>14</sup> The British Energy Security Strategy separately suggests that each new large-scale nuclear plant could require around 10,000 jobs to be filled at peak construction.<sup>15</sup> This comes on top of existing workforce challenges, with employers struggling to fill vacancies and a workforce skewed towards older workers who are coming up to retirement.<sup>16</sup>

14. Skills shortages could be a barrier to delivering our nuclear ambitions. The NSSG has identified potential challenges in areas such as project management and engineering.<sup>17</sup> Perhaps surprisingly, many skills needed in the nuclear sector are generic, meaning that employers are competing with other sectors for workers. The government needs to develop a comprehensive skills strategy for the sector that addresses skills shortages and recruitment challenges.
15. We are also concerned that public sector pay restraint is affecting recruitment and retention of a skilled nuclear workforce. While nuclear power stations are operated by the private sector, many decommissioning, regulatory, and research roles are in public sector bodies covered by civil service pay guidance.<sup>18</sup> There is a reluctance among many senior leaders in the sector to publicly question government pay policy, but we have been told by senior HR leaders that “we are approaching a red-light in terms of recruitment competition”, and that in many areas “we may not be able to compete.”<sup>19</sup> This could become more acute if civil service pay continues to be held down during the current period of high inflation. The government needs to explore pay flexibility in the civil nuclear sector to ensure public bodies can recruit, retain, and reward the skilled workforce they need.

### *Nuclear supply chain*

16. While the new build programme is vital, support for the wider nuclear supply chain must not be forgotten. Most urgently, the government needs to take action to retain the UK’s only civil nuclear fuel fabrication plant at Springfields in Lancashire. The Springfields plant is of strategic national importance as a supplier of fuel to current and future nuclear reactors: around a third (32%) of low carbon electricity in the UK is currently produced using fuel manufactured at Springfields.<sup>20</sup> The plant directly employs more than 800 highly skilled people and supports 4,000 jobs across the North West.<sup>21</sup> However, uncertainty about the future of the UK’s nuclear fleet means

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<sup>14</sup> <https://www.nssguk.com/media/2154/nssg-assessment-brochure-web.pdf>

<sup>15</sup> <https://www.gov.uk/government/publications/british-energy-security-strategy>

<sup>16</sup> <https://www.ecitb.org.uk/wp-content/uploads/2022/01/Census-Report-Nuclear.pdf>

<sup>17</sup> <https://www.nssguk.com/media/2812/nwa-2021-issue-1.pdf>

<sup>18</sup> This includes the Nuclear Decommissioning Authority (NDA), Office of Nuclear Regulation (ONR), National Nuclear Laboratory (NNL), and UK Atomic Energy Authority (UKAEA).

<sup>19</sup> Private correspondence between Prospect and senior NDA HR officials.

<sup>20</sup> <https://info.westinghousenuclear.com/blog/springfields-at-75>

<sup>21</sup> <https://www.westinghousenuclear.com/uknuclear/about/legal>; <https://hansard.parliament.uk/commons/2021-09->

demand for fuel from Springfields is at risk. Its current owners Westinghouse have failed to provide guarantees about the plant's continuing operation.

17. We have become increasingly concerned that the current ownership model at Springfields is putting the future of the site and its workforce at risk. As a result, last year we called for Springfields to be brought into some form of public ownership on a temporary or permanent basis.<sup>22</sup> Losing our only domestic manufacturer of nuclear fuel would leave the UK reliant on imports from abroad in an increasingly uncertain trading environment, threatening the security and resilience of our energy system. If the government is serious about energy security, it must do whatever is necessary to protect Springfields and our sovereign capability in nuclear fuel manufacturing.
18. The difficulties at Springfields are further evidence of the need for a comprehensive nuclear strategy that gives certainty and confidence to investors. The delays in moving forward on Sizewell C and other new plants risks an extended gap between the current fleet of reactors closing and new build facilities opening. This uncertainty is contributing to the challenges at Springfield. As set out above, the government needs a clear pathway for funding new nuclear. It should also ensure that new nuclear developments commit to purchasing their fuel supplies from Springfields as a condition of development, guaranteeing a market for UK-produced fuel into the future.

## **Conclusion**

19. Delivering on the government's nuclear goals is vital to meeting our objectives on net zero and energy security, while creating thousands of highly skilled jobs across the country. Our energy system will be transformed in the coming decades and the government is rightly ambitious about the role nuclear power can play. It now needs to take an active role in putting the conditions in place – on areas including funding, skills, and the supply chain – to ensure the nuclear sector is at the heart of meeting our future energy needs.

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07/debates/C14E7F8F-56D8-4AEA-A0B5-AF0730880B9E/NuclearFuelManufacturing

<sup>22</sup> <https://prospect.org.uk/news/unions-demand-new-owner-to-save-springfields-nuclear-jobs>