

CNA-NIA FORUM

There is a great opportunity for nuclear technologies to support climate and energy security goals in Canada and the United Kingdom, two countries with a long-shared history and cultural ties. While both countries will continue to engage in multilateral mechanisms on climate and energy, there are also significant opportunities to work bilaterally on a range of key issues.

The Canadian Nuclear Association (CNA) and the Nuclear Industry Association (NIA) hosted their inaugural joint Forum on 21 October 2024 in London. The event convened stakeholders from across the Canadian and British nuclear energy sectors to explore opportunities for collaboration and promote shared policy recommendations to government.

The Forum builds on an updated Memorandum of Understanding between the CNA and NIA that was signed at the CNA Annual Conference in February 2024. The Forum highlighted the progress our industries have made in developing recommendations through the CNA-NIA Fuels, SMRs and Regulation, and Green Finance Working Groups over the past year.

Nuclear Fuel Supply

Secure and cost-effective supplies of nuclear fuel will enable the expansion of nuclear power and will bring significant economic value for nations hosting part, or all, of the nuclear fuel supply chain. To deliver, governments and industry must take decisive action to expand Western capacity to compete against Russian fuel supply and eliminate dependence.

Summary of Recommendations

- Government should agree with Westinghouse, Cameco, and Brookfield a risk-and-reward sharing arrangement, including the potential of direct grant funding, to allow restoration of conversion at Springfields. The UK and Canadian Governments should also together examine export finance options to make new conversion capacity attractive for utility customers. This should build on the UK Government's £13 million Direct Award Grant in 2022, with the aim to undertake a detailed design and feasibility study to return Natural Conversion Services at Springfields.
- Government should offer absolute clarity on their long-term policy on Russian fuel.
- Government should directly fund the creation of new advanced fuel cycle capabilities, so they are built in time to supply the first advanced reactors that come online.

Discussion

It was agreed that within the nuclear fuels supply chain, conversion, which is expected to reach a 30% shortfall by 2030, was not receiving sufficient attention. Delegates highlighted the need to ban Russian fuels from the market to ensure certainty for investors.

Discussions on banning Russian supply from the market raised questions such as:

- What is the interest in non-Russian fuel supply internationally outside of Europe, US and North America?
- What would a multi-decade sanction against Russian uranium and enriched fuels look like?

- How should allied countries address the issue of China potentially re-washing Russian supply?

SMRs and Regulation

Companies in the UK and Canada, alongside many European countries, are developing plans and initiating projects to deploy SMRs. The nuclear safety regulators in both Canada and the UK are working on changes to their respective regulatory frameworks for SMRs. The CNSC is in the process of implementing a regulatory readiness strategy to address challenges related to regulating new technologies including SMRs. The same goes for other Regulators such as the UK's Environment Agency (EA) and the Impact Assessment Agency of Canada (IAAC), who are looking at changes to their respective regulatory frameworks to be able to better assess new nuclear projects. Alignment between the existing nuclear regulatory frameworks of the two countries would allow for opportunities to reduce costs and schedule constraints, and enable quicker, more cost effective nuclear deployment by leveraging reviews of SMR designs across borders.

Summary of Recommendations

- Government should formalise processes for increased collaboration between regulators in the UK and Canada.
- Government should ensure regulatory principles, such as As Low As Reasonably Practicable (ALARP) and Best Available Techniques (BAT), are applied proportionately to facilitate SMR projects.
- Government should advocate for an international fleet-based approval process for SMRs and support for enabling projects (e.g. national grid updates).

Discussion

Delegates highlighted that duplications in the regulatory processes in the UK and Canada are burdensome and called for the streamlining of these processes. ONR, the UK regulator, highlighted that streamlining was more efficient when both countries are considering the same design at the same time. A good example was the CA-UK-US regulator collaboration on BWRX-300, which allowed for efficient and effective exchanges between the two regulators.

ONR also highlighted the need for industry to design based on IAEA standards to facilitate efficient regulatory assessments. GE Hitachi's BWRX and Rolls Royce SMR were highlighted as examples of designs which are in line with IAEA standards.

Green Financing

Ensuring countries have ready access to national and international climate finance mechanisms for nuclear is essential to strengthen nuclear capabilities and to remain globally competitive, particularly in face of Russia and China's global expansion in the sector. Nuclear financing to be successful requires governments and banking institutions include nuclear in their definition of "green" or "clean" technologies.

Canada is leading the way in this area. The Canadian federal government issued its second green bond of \$4bn in which nuclear was included, and received orders for \$7.4bn, an 85%

oversubscription rate. In July 2022, Ontario Power Generation issued \$300 million in green bonds for the CANDU refurbishment programme at the Darlington nuclear power plant. Bruce Power has issued more than \$1 billion in green bonds for nuclear since their program began in 2021.

Summary of Recommendations

- Government should prioritize a business- enabling environment for nuclear investment by demonstrating policy certainty. Policy certainty will unlock essential public and private capital.
- Government should decide policy on all stages of project funding needs and clearly set out the appropriate role and level of government risk sharing.
- The UK Government should learn from Canada and remove the exclusion of nuclear from the categories of Eligible Green Expenditures set out in the 2021 Green Financing Framework.

Discussion

Delegates acknowledged the importance of derisking nuclear investments and Canada's success with green bonds. UK government officials inquired about the appetite for nuclear green bonds in Canada and highlighted that they were exploring the feasibility of green bonds for nuclear in the UK.

It was agreed that de-risking would require industry to not keep building first-of-a-kind (FOAK) reactors as this ultimately keeps costs high. This aligns with the sentiment that countries should consider a fleet-based approach to accelerate deployment and regulatory processes.

Ultimately, the key question that arose was: how does green financing help lower costs for nuclear?

Next Steps

The CNA and NIA will continue our collaboration between our associations to develop ideas and our dialogue with governments about priorities for industry.

If you have any further questions, please do not hesitate to contact Lauren Rowe (lauren.rowe@niauk.org), Senior Policy Analyst at the Nuclear Industry Association, or Camil Ghajary (ghajaryc@cna.ca), Senior Government and International Relations Officer at the Canadian Nuclear Association.