

## **Input to the Norwegian Nuclear Committee**

### **From Nordic Nuclear Energy AB (NNE)**

Nordic Nuclear Energy AB (NNE) appreciates the opportunity to provide input to the Norwegian Nuclear Committee, which has been tasked with assessing nuclear energy as a possible power source in Norway.

### **A Nordic context for nuclear energy**

We believe that the nuclear debate in Norway must be seen in a Nordic context. Norway is closely integrated into the Nordic power system, and it is therefore of limited value to assess energy questions in isolation. A joint approach to licensing procedures and regulatory frameworks across the Nordic region could provide significant benefits. If Norway harmonises its regulatory framework with Sweden and Finland, it will be easier to take part in the momentum that is already underway in these countries.

It is now 40 years since Sweden built its last nuclear power plant. Finland completed its most recent facility in 2023, after 18 years of construction. Experience in planning and executing projects of this magnitude is therefore limited. In Norway, however, the offshore oil and gas industry continues to deliver large-scale projects in the hundred-billion NOK class. This competence is highly relevant and valuable for nuclear power development.

Sweden has already established a financing model for 5 GW of new nuclear capacity, with ambitions to reach 10 GW by 2045. Business Sweden has mapped the nuclear value chain and concluded that it can be significantly strengthened if the whole Nordic region is included. This opens major opportunities for Norwegian suppliers in the upcoming Swedish projects. Should Norway also establish a domestic market for nuclear power, it would send strong signals to industry, encouraging the necessary investments for integration into the Nordic nuclear supply chain, as part of the green transition.

## **Why Boiling Water Reactors?**

NNE's mission is to design and develop a world-class new Boiling Water Reactor (BWR-N), while also re-establishing a Nordic BWR ecosystem. BWRs are simpler in design, with fewer large components, lower capital requirements, and reduced maintenance needs. They are cost-efficient, reliable, and holds the world record of nuclear power plant construction (3.5 year construction time for Japan's Kashiwazaki-Kariwa Nuclear Power Plant Unit 6, a 1315 MW ABWR design).

## **Building resilience and industrial value**

The global demand for nuclear technology and supply chains will increase sharply as countries such as France, the United States, and Canada accelerate their nuclear programs. A Nordic nuclear program ensures resilience, protects against global supply chain bottlenecks, and maximises regional value creation.

With more than 450 years of combined nuclear expertise on our team, and decades of successful reactor construction and operation in Sweden and Finland, NNE is prepared to build on its extensive nuclear knowledge, proven project management methods, and industrial collaboration to a new era of Nordic nuclear development.

## **Recommendations**

In light of the Committee's mandate, we respectfully submit the following recommendations:

1. Develop a Nordic framework for licensing and regulation
  - Norway should actively participate in shaping a joint Nordic framework for licensing, safety, and regulatory processes.
  - A harmonised system across Norway, Sweden, Finland, and Denmark would reduce barriers, accelerate project development, and ensure that Norway benefits from the knowledge and lessons already being generated in its neighbouring countries.

## 2. Ensure financing models support industrial participation

- Sweden has already introduced a financing framework for 5 GW of nuclear. Norway should explore financing models that:
  - i. Encourage private and public co-investment,
  - ii. Reduce investor risk (for example, through Contracts-for-Difference or state-backed guarantees),
  - iii. Incentivise long-term supplier investment in capacity and competence.
  - iv. Values the long-lifetime of nuclear power plants that can be in operation for generations.

## 3. Strengthen research, education, and competence-building

- Norway should secure access to European and Nordic nuclear R&D programs (via EURATOM and bilateral agreements).
- Universities, IFE, and industry should be mobilised to build competence in safety, materials, fuel technology, systems engineering, project management and regulation.
- A strategy for reskilling oil & gas workers towards nuclear.

## 4. Adopt a Nordic nuclear supply chain strategy

- A regional strategy should be established to ensure local content, resilience, and industrial value creation.
- Business Sweden has recently mapped the Swedish value chain. By extending this to include Norwegian suppliers, the Nordic region could establish a strong industrial base that is less dependent on global supply chains and geopolitical risks for a new fleet of nuclear reactors.



## **Conclusion**

The Nuclear Committee has been asked to provide an updated knowledge base for assessing nuclear power in Norway. We believe that the strongest path forward lies in close Nordic cooperation, harmonised regulation, and the mobilisation of Norway's world-class offshore industrial capabilities towards nuclear energy.

The core team behind NNE holds more than 450 man-years of nuclear expertise and is ready to present our concepts and share our knowledge, and to discuss how Norway can take an integral role in a Nordic nuclear partnership that secures clean, reliable, and affordable energy for future generations.

Best Regards  
Nordic Nuclear Energy AB

Göran Engberg  
Co-founder and CEO