Blykalla written statement for Kjernekraftutvalget

Statement: Blykalla's contribution to building and operating nuclear power in Norway

1. Company Overview

Blykalla is Sweden's leading developer of advanced small modular reactors (SMRs), founded as a spin-off from the Royal Institute of Technology (KTH). We are pioneers in the field of lead-cooled nuclear reactors, building on over 30 years of academic and industrial research. Our flagship reactor concept, SEALER (Swedish Advanced Lead Reactor), is designed to provide scalable, safe, and cost-effective carbon-free energy to meet the urgent climate and industrial needs of Europe.

Our vision is to deploy 1,000 SMRs by 2050, generating approximately 500 TWh annually and avoiding 0.5 Gt of CO_2 emissions—equivalent to 1% of global emissions each year . Blykalla currently has a team of over 40 FTEs and has secured support from leading investors such as Uniper, Norrsken, and the European Innovation Council (EIC) .

2. Experience in Nuclear

Blykalla's team includes globally recognized experts in nuclear physics, metallurgy, and reactor design. Co-founder Janne Wallenius is a leading reactor physicist with over 90 peer-reviewed publications. We've developed proprietary fuel (uranium nitride) and materials (FeCrAl steels) that enable the safe use of liquid lead as coolant—overcoming historic challenges of corrosion and thermal performance .

Our SEALER-E test reactor, currently in development in Oskarshamn, and the SEALER-One first-of-a-kind nuclear plant represent significant steps toward commercialization. The SEALER-55 reactor, our commercial product, is a compact 55 MWe unit engineered for modular production and minimal site preparation.

SEALER-One will be operational by the early 2030's in Sweden, after which serial production of SEALER-55 will commence and scale up. Beyond this, Blykalla believes a deployment on the Norwegian market will be possible by the mid 2030's given the strong relationship between the two countries.

3. International Engagements

Blykalla is actively engaged with several European suppliers and partners - including ABB as a strategic GTM partner and I&C supplier, KSB for joint pump manufacturing, Höganäs for advanced materials development, and many more. Additionally, Blykalla is actively looking for additional markets for deployment of the SEALER technology beyond the Nordics. For example, Blykalla already has preliminary agreements with partners in **Ukraine** to explore SMR deployment for industrial and grid applications.

Blykalla is also been ranked #3 among European SMR developers by the OECD Nuclear Energy Agency in terms of maturity and readiness.

4. Strategic Interest in Norway

Blykalla has a formal **Memorandum of Understanding with Norsk Kjernekraft**, Norway's leading nuclear project developer. The collaboration between Blykalla and Norsk Kjernekraft is anticipated to be a door opener for a deepened Swedish-Norwegian collaboration - potentially including joint strategies, supply chains, research, competence development and deployment of a modern nuclear fleet.

Together with Norsk Kjernekraft, Blykalla have jointly established a **Special Purpose Vehicle (SPV) to build a SEALER unit on Svalbard**, showcasing our deep commitment to advancing nuclear deployment in Norway. Blykalla understands that presence and activity at Svalbard is of crucial importance for Norway to legitimize your claim to sovereignty of the archipelago. With the current geopolitical developments, continued presence at Svalbard is of increasing importance.

Norway's unique energy landscape—rich in hydropower but facing growing demand for clean, firm power for data centers and industrial use—makes it an ideal partner. We see Norway as a frontrunner in green industrial policy and technological innovation. With shared Nordic values and complementary capabilities, Blykalla is ready to contribute decisively to Norway's nuclear future.

5. Scope of Products and Services

Our offering to Norway includes:

- **SEALER-55 reactors** for grid or industrial deployment. Our compact design allows for competitive energy pricing in the Norwegian market, as well as deployment times, from order placement to production of power, of only two years once we reach scale
- **Fuel supply**: uranium nitride fabricated in a European value chain.
- **Engineering & project development**: from licensing to commissioning.
- **Training & O&M**: including operator training and digital twin integration.
- **Collaborative R&D**: on fuels, materials, and waste management with Norwegian institutes.

We are flexible in our business model—either providing turnkey systems or partnering in local joint ventures to share responsibilities and build capacity.

6. Integration with Norwegian Industry

We believe in building **local supply chains** and **technological sovereignty**. Our materials strategy emphasizes European suppliers, and we are already working with firms like Alleima, Kanthal, and Enwesa. In Norway, we foresee deep integration with:

- **Construction & civil engineering firms** for site development.
- **Energy and utility companies** as offtakers and operators.

- **Research institutions** for licensing, qualification, and workforce development.
- **Heavy industry** and **data centers** as direct users of SEALER's high-grade heat and power.
- **The oil and gas sector** for local supply chains
- Development of nuclear marine propulsion use cases, **benefiting the shipping and Norwegian marine industry**

We also support the concept of modular learning: early units will create experience and confidence for wider adoption, while building competence within Norwegian institutions.