



# Written Statement from Calogena to the Norwegian Nuclear Energy Committee

## 1. Company Description

Calogena SA is a pioneering French company dedicated to delivering innovative, carbon-free heat solutions for the deep decarbonization of urban district heating networks across Europe. Founded in 2022, Calogena is headquartered in Paris, with its technical project team based in Aix-en-Provence and a subsidiary, Calogena Oy, established in Helsinki to serve the Finnish and Nordic markets. The company is an integral part of the Gorgé Group, a leading French industrial group with a strong track record in nuclear engineering, safety, and complex project delivery.

Calogena's mission is to provide a robust, scalable, and intrinsically safe nuclear solution for district heating, addressing one of Europe's most challenging sources of emissions. Our flagship technology, the CAL-30 Small Modular Reactor (SMR), is a 30 MWth, low-pressure, low-temperature water-cooled module designed specifically for integration with district heating networks. The CAL-30 is based on proven pool-type research reactor technology, adapted for simplicity, intrinsic safety, and rapid deployment close to urban areas. Its compact footprint, factory-built design, and passive safety systems enable siting in peri-urban environments with minimal impact and maximum public acceptability.

Calogena's business model is built on end-to-end project delivery, from design and licensing through construction, commissioning, and long-term operation.

The company has grown rapidly since its inception and now brings together a team of around 40 engineers and specialists, including its twelve highly experienced founders. Calogena's approach is characterized by industrial rigor, a strong safety culture, and a commitment to European energy sovereignty—over 95% of the value created is retained within the EU, and the entire fuel cycle is managed through established European partners.

Calogena has been recognized as one of Europe's leading SMR developers, receiving support from the France 2030 program and selection as a flagship project by the European Commission's SMR Industrial Alliance. The company's NetZeroHeat pilot project, which will supply 131 GWh/year of clean



heat to the Pierrelatte district heating network in France, is the first nuclear heat-only SMR project in Europe and serves as a blueprint for future deployments.

With a clear vision for the future, Calogena aims to deploy hundreds of CAL-30 modules across Europe by 2050, enabling cities to achieve their net-zero targets while ensuring reliable, affordable, and sovereign heat supply.

## **2. Experience with Nuclear**

Calogena's expertise in nuclear energy is anchored in the collective experience of its twelve founders, who have held senior leadership and technical roles in the European nuclear sector. Among them are Dominique Vignon and Alain Vallée, former CEO and CTO of Framatome, and Jan Bartak, former Director of Nuclear Development at ENGIE. This core team brings together decades of hands-on experience in the design, licensing, construction, and operation of nuclear facilities, as well as in the development of innovative nuclear projects across Europe.

Our technical capabilities are further reinforced by the industrial strength of the Gorgé Group, which has been active in the nuclear sector since 2007. Through its subsidiaries, Seres Technologies and Baumert, the group provides deep expertise in nuclear mechanical design, safety and security, and the manufacture of nuclear-grade protection systems.

In addition to our internal strengths, Calogena relies on a network of strong partners to deliver comprehensive solutions. We work closely with NucAdvisor, a leading European nuclear consultancy composed of high-level experts with extensive experience across the nuclear value chain. Our collaborations also include ENEA and NINE, both recognized for their technical excellence and project delivery in the nuclear sector. This combination of in-house expertise and strategic partnerships ensures that Calogena can address the full range of technical, regulatory, and operational challenges associated with new nuclear deployment.

## **3. Ongoing Engagements in Other Countries**

Calogena has secured an official pilot site at Cadarache in France for the first-of-a-kind (FOAK) deployment of the CAL-30 reactor. This site will serve as the demonstration platform for our technology and is a cornerstone of our industrialization strategy.



In Finland, Calogena is engaged in discussions with Helen, the Helsinki energy utility, regarding their plans to decarbonize the city's district heating network. Additionally, we are participating in the Environmental Impact Assessment (EIA) process in Kuopio for the deployment of CAL-30 modules to cover the city's demand of approx 100MW of nuclear heat, corresponding to 3 CAL-30 modules.

Within France, Calogena has received two letters of intent from French cities for the installation of one module each, reflecting growing municipal interest in nuclear district heating solutions.

Beyond these projects, we are evaluating opportunities in Slovakia, Czechia, and Poland, where we are engaged in advanced discussions with local district heating operators regarding potential deployments of our technology.

Calogena is also in pre-licensing processes with both STUK, the Finnish nuclear regulator, and the French ASN, ensuring our technology meets the highest safety and regulatory standards across multiple jurisdictions.

#### **4. Reasons for Interest in Nuclear in Norway**

Norway's ambitious climate targets and its need to decarbonize urban heat present a compelling opportunity for Calogena's technology. Norwegian cities, with established district heating networks and a strong tradition of technological leadership, are well-positioned to benefit from nuclear heat as a reliable, carbon-free alternative to fossil fuels and biomass.

Key motivations for Calogena's interest include:

- Alignment with Norway's climate and energy goals: CAL-30 modules can deliver heat with a lifecycle carbon footprint far below current alternatives.
- Energy sovereignty and security: Our solution relies on a European supply chain and minimizes exposure to volatile global fuel markets.
- Public acceptance and safety: The intrinsic safety and small footprint of CAL-30 enable siting near urban areas with minimal risk and no need for off-site emergency zones, supporting public trust and regulatory confidence.
- Replicability: Norway's district heating landscape is well-suited for modular deployment, allowing rapid scaling and cost reductions through serial production.



## 5. Scope of Products and Services for Norway

Calogena offers a comprehensive suite of products and services tailored to the Norwegian market:

- Turnkey delivery of CAL-30 SMR modules for district heating, including design, engineering, construction, commissioning, and operation.
- Possibility to develop the CAL-90 solution with 90 to 105 MWth power.
- Project development and financing: Formation of Special Purpose Vehicles (SPVs) for each site, enabling flexible ownership models with municipalities, utilities, or private investors.
- Operation and maintenance: Calogena Operations subsidiary to act as licensed nuclear operator, ensuring safe, reliable, and efficient plant performance.
- Integration with district heating networks: Customization of heat interfaces and load-following capabilities to match Norwegian network requirements.
- Regulatory support: Assistance with licensing, safety case preparation, and engagement with Norwegian authorities, leveraging our experience with French and Finnish regulators.
- Public engagement: Transparent communication strategies and stakeholder involvement to build public trust and acceptance.

## 6. Integration with the Norwegian Supply Chain

Calogena's business model is built on maximizing local value creation and supply chain integration:

- European and local sourcing: We prioritize procurement from established European suppliers for nuclear-grade equipment and fuel, and will actively seek partnerships with Norwegian engineering, construction, and service companies for civil works, auxiliary systems, and site-specific adaptations.
- Knowledge transfer and training: Calogena is committed to training and upskilling local personnel, ensuring knowledge transfer and long-term operational self-sufficiency for Norwegian stakeholders.
- Collaboration with research and industry: We will engage with Norwegian universities, research institutes, and industry associations to foster innovation, adapt technology to local needs, and support the development of a Norwegian nuclear ecosystem.



- Sustainable operations: Our approach minimizes environmental impact, supports circular economy principles, and aligns with Norway's high standards for sustainability and resource efficiency.

**Conclusion:**

Calogena stands ready to support Norway's nuclear ambitions with a proven, innovative, and intrinsically safe SMR solution for district heating. Our experience, industrial backing, and commitment to local integration make us a natural partner for Norwegian stakeholders seeking to achieve deep decarbonization of urban heat.

We welcome the opportunity to engage with the Norwegian Nuclear Energy Committee and the broader public, and look forward to contributing to Norway's clean energy future.

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