

 Early Warning System

EIB-20260046

TECHEU VD STEADY ENERGY THERMAL SMR (IEU GT3)



Quick Facts

Countries	Finland
Financial Institutions	European Investment Bank (EIB)
Status	Approved
Bank Risk Rating	U
Voting Date	2026-08-25
Borrower	STEADY ENERGY OY
Sectors	Energy
Investment Type(s)	Loan
Investment Amount (USD)	\$ 46.70 million
Loan Amount (USD)	\$ 46.70 million
Project Cost (USD)	\$ 114.41 million



Project Description

According to the EIB, the operation consists of an investment in the Finnish start-up Steady Energy Oy to support its research and development programme for the design, development and validation of a novel 50 MW thermal, low-pressure, light-water Small Modular Reactor (SMR). The reactor is intended to provide reliable and affordable heat for district heating and industrial heating applications.

The EIB-financed project will support office-based research and development activities, as well as non-nuclear testing and demonstration work, advancing the technology towards its first-of-a-kind deployment, while excluding the installation itself. The project is expected to facilitate the future deployment of SMR-based district heating solutions.

The aim is to achieve full technical and licensing readiness for the Light Water District Reactor (LDR)-50 by advancing its design to a level suitable for regulatory approval. A key component of the project is the construction of a full-scale pilot facility to test and validate passive safety systems, thermal performance, and manufacturability, and to generate the experimental evidence required by licensing authorities.

The SMR technology under development is expected to contribute to the decarbonisation of heat supply in Finland and across the EU, strengthen energy security, and reduce exposure to fossil fuel price fluctuations and supply disruptions.

The operation is limited to office-based R&D; activities and non-nuclear testing and demonstration work within an existing industrial site. Planned activities include engineering design and modelling, safety and licensing preparation, non-nuclear testing, and organisational capacity building.

A full-scale, electrically heated, resistance-based heat-exchange demonstrator is planned to be located on the premises of an existing district heating power plant in Helsinki, making use of existing industrial infrastructure. The operation does not finance the construction or operation of a nuclear facility, nor the use of nuclear fuel.



Investment Description

- European Investment Bank (EIB)



Private Actors Description

As stated by the EIB, Steady Energy is a Finnish nuclear technology company developing a new generation of small modular reactors (SMRs) especially suited for district heating. Its LDR-50 reactor is designed to provide cities and utilities with affordable, reliable, scalable and low-carbon alternative to combustion-based heat production. The reactor concept is based on proven light-water technology, combined with a simplified design focused exclusively on producing heat. Steady Energy aims to make nuclear energy more cost-effective to deploy and to establish its technology as a scalable solution for decarbonising district heating globally. Steady Energy was founded in 2023 as a spin-off from the Technical Research Centre of Finland VTT and has over 60 fulltime employees.

Steady Energy develops a small nuclear plant to decarbonise heating globally. Heat-only, their solution is small, simple and profitable for utility clients without subsidies. The company is building a pilot plant in Helsinki and is in a position to complete approval for its technology and enter the market strongly ahead of competition. Led by Finnish nuclear technology veterans, Steady Energy is born out five decades of Finland's renowned nuclear energy research and expertise.



Private Actor 1	Private Actor 1 Role	Private Actor 1 Sector	Relation	Private Actor 2	Private Actor 2 Role	Private Actor 2 Sector
-	-	-	-	Steady Energy OY	Client	Energy



Contact Information

No contacts provided at the time of disclosure.

ACCESS TO INFORMATION

You can submit an information request for project information at: <https://www.eib.org/en/infocentre/registers/request-form/request-form-default.htm>

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http://www.eib.org/attachments/strategies/complaints_mechanism_policy_en.pdf

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<http://www.ombudsman.europa.eu/atyourservice/interactiveguide.faces>



Media

- Finland: EIB acts to strengthen Europe's power grids with €19 million in financing for Reactive Tech
- Finland: EIB backs nuclear-technology company Steady Energy with €40 million financing



Other Related Projects

- EIB-20250073 THEMATIC GREEN TRANSITION (IEU VD & DEBT) LE III