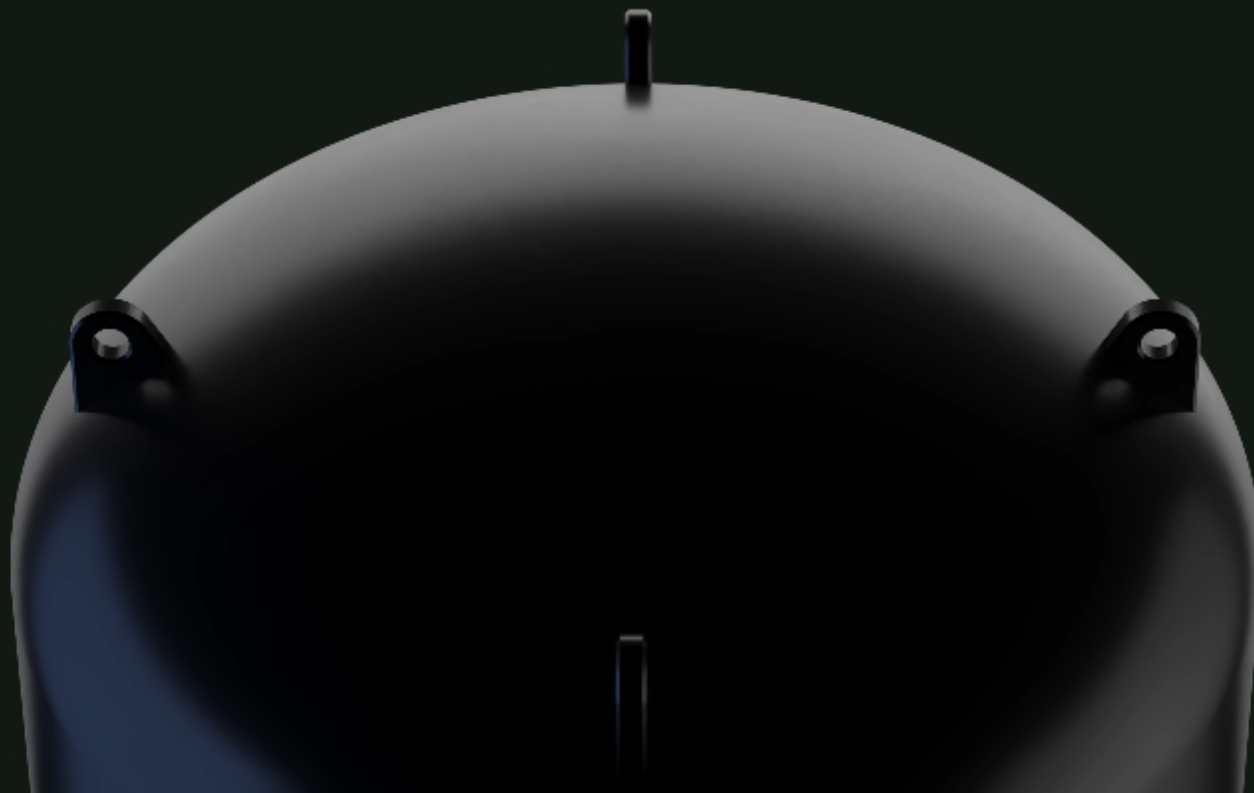


Preparing for nuclear heat

The utility guide to Letters of Intent

A practical guide for district heating operators
evaluating future heat technologies.



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This guide explains how Letters of Intent (LOIs) support district heating utilities and executives in future-proofing against aging infrastructure and investment decisions.

From understanding the purpose of an LOI to what comes next, the guide walks you through the key steps.

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Executive summary

Infrastructure decisions that shape our cities for decades are never made overnight. They begin with questions, exploration and careful evaluation.

A Letter of Intent (LOI) is a practical tool that allows district heating utilities and technology providers to start this process – and learning.

Why do utilities use LOIs?



To start learning early

Evaluating technologies requires time. LOIs enable structured dialogue and information exchange long before investment decisions are on the table.



To keep options open

The energy landscape, regulations and markets will evolve. An LOI preserves optionality and helps utilities compare alternatives objectively.



To reduce uncertainty

Technical, regulatory and commercial questions can only be answered through transparent cooperation. LOIs create a framework for joint evaluation and risk reduction.



What is an LOI?

- ✓ A non-binding framework for collaboration
- ✓ Enables information exchange and joint studies
- ✓ Supports feasibility and integration assessments
- ✓ Allows both parties to decide whether to continue



What an LOI is not

- ✗ A purchase agreement
- ✗ A procurement or investment decision
- ✗ An exclusivity or technology lock-in



*"An LOI is not a commitment to a project.
It is a commitment to making future decisions with better information."*

Project begins long before construction

Major heat infrastructure takes years to prepare. Choosing a future baseload heat source requires thorough analysis, engagement and approvals before the first concrete is poured.

The earlier district heating operators begin the process, the more options and time they will have. Moreover, the process feels much more effortless and enjoyable when the time pressure is minimal.

The road from idea to operation



Awareness & initial dialogue

Early conversations to explore needs, challenges and potential solutions.



Techno-economic analysis

Assessment of technical compatibility and economics to understand whether an LDR-50 could be a viable solution.



LOI & pre-feasibility studies

High-level technical, site and economic assessments to confirm technology potential.



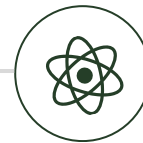
Licensing & approvals

Regulatory review, construction license and public acceptance.



Investment readiness

Board or owner approval to proceed to licensing and project execution.



Feasibility & pre-planning

Confirm feasibility, advance site selection, and environmental studies. Defining of the commercial model.



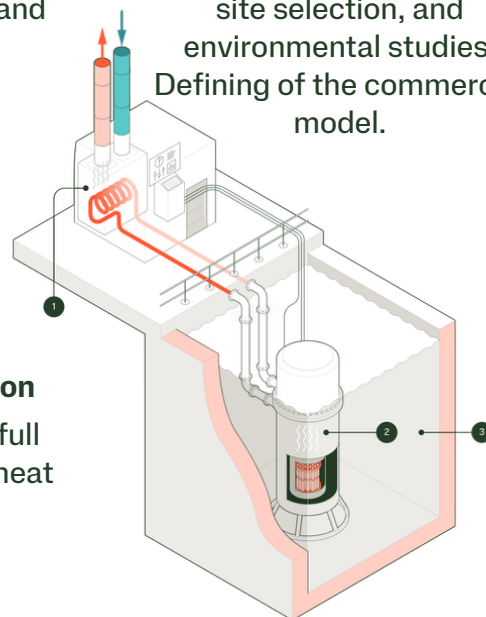
Construction

Site preparation, construction, installation and testing.



Commercial operation

Commissioning and full operation of the new heat source.



Total timeline: Typically 5-10 years from initial dialogue

An LOI is not commitment to a project – it is a preparation tool

A Letter of Intent (LOI) is a non-binding agreement that sets out the mutual interest of a district heating utility and a technology provider to explore the potential for collaboration on a future heat project.

It creates a structural framework for the parties to work together to gather information, conduct studies and assess whether the technology, LDR-50, could be a suitable option for the district heating network's long-term strategy and competitiveness against competing heat solutions.

The purpose of an LOI



Explore the opportunity

To understand the technology and network's need better



Share information

To exchange relevant data needed to evaluate feasibility



Conduct joint studies

To carry out analysis, site screening and economic modelling



Assess suitability

To determine technology's viability, safety and competitiveness



Support future decisions

To build knowledge needed to make the best investment decision



An LOI is the starting point of understanding

It allows both parties to invest time in understanding the opportunity before any commitments are made. The outcome may be a project, or it may be the informed decision that it is not the right fit.

Markku Suopanki,
Head of Sales



What an LOI is not

Beacuse LOIs are often misunderstood, it is important to be clear about what they **do not** represent.

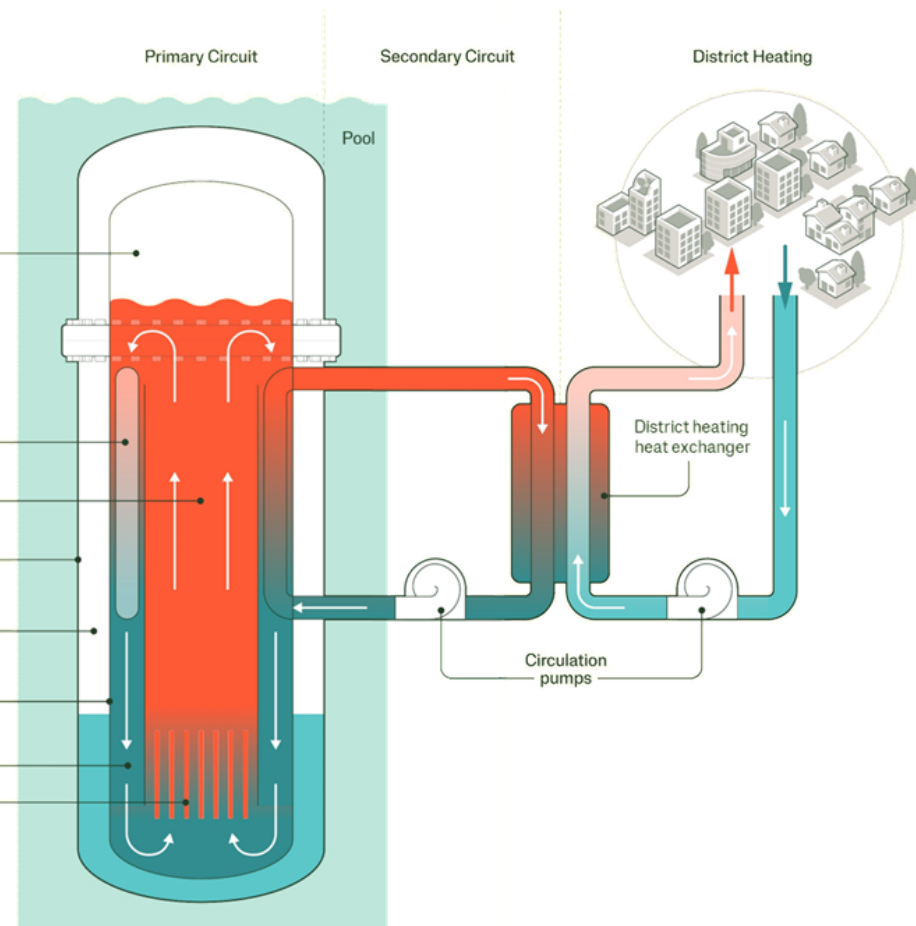
An LOI is not a commitment to build, to buy or to award any contract. It simply creates the space to explore, learn and understand. LOIs are designed to protect flexibility; either party can decide not to continue the evaluation. An LOI ensures the right conditions to make decisions later.

Common myths vs. reality

Myth	Reality
 It is a purchase agreement Signing an LOI is to purchase technology	 It is an agreement to explore The purpose is to evaluate and learn in a structured manner.
 It is a purchase decision Signing an LOI replaces a tender process	 Procurement comes much later If ever
 It creates exclusivity An LOI gives exclusive rights	 Exclusivity is optional and limited If exclusivity is needed for specific studies, it will be clearly defined
 It is an investment commitment An LOI commits capital, resources and future budgets	 No financial commitment Costs for studies will be agreed separately when needed
 It guarantees a project An LOI guarantees that construction will happen	 It opens a oath for evaluation Many factors influence final decision. An LOI simply enables to assess them
 It locks you into one technology An LOI prevents you from evaluating other technologies	 You remain free to compare options You can continue screening technologies
 It requires public announcement An LOI must be publically announced	 Confidentiality is common Both parties can keep the agreement confidential

Why utilities sign Letters of Intent

An LOI is a practical tool that helps district heating (DH) operators prepare for complex, long-term decisions.



Five reasons DH executives use LOIs

- 01 Reduce uncertainty**
Future energy markets, regulations and technologies will evolve. An LOI enables them to test assumptions and replace uncertainty with evidence.
- 02 Build knowledge**
An LOI provides a structured learning process for their teams, from engineering and operations to commercial.
- 03 Technical intergration**
They get to understand how a new heat source fits in their existing network, site and connection options.
- 04 Preserve future options**
Exploring a technology is not the same as choosing it. An LOI lets you keep your options open and ensures objective comparison.
- 05 Save time in the long run**
The earlier you start, the fewer surprises you face later. Early preparation shortens the path to execution when the time comes.



Utilities don't sign Letters of intent because they have already decided to build

They sign them because they have decided they want to learn more and keep on track with modern heating technologies.

Anton Steen,
Country Manager, Sweden

What typically happens after an LOI?

The evaluation journey

Kick-off workshop

- Align on objectives, scope and timeline
- Confirm key contacts and responsibilities
- Agree on information needs

Information exchange

- Establish confidentiality
- Share data and studies
- Identify data gaps

Heat demand review

- Analysis of current and future heat demand
- Review load profiles
- Identify needs and goals

Site screening

- Assess potential sites
- Identify key enablers and constraints
- Public hearings

Integration assessment

- Evaluation of technical integration with the existing network

Economic evaluation

- Assessment of risks and sensitivities
- Comparing of LCOH to alternatives

Pre-feasibility

- Compile findings
- Identify risks and mitigation
- Define requirements for the next phase

Decision point – continue or stop

- Agree on next steps if the fit is promising
- Or conclude that this option is not suitable at this time

An LOI is the starting point of a collaborative evaluation process to gather valuable data and information to make the decision to move forward – or not.

Possible outcomes of the evaluation journey



Continue

Strong potential identified. Move to a full feasibility study and pre-planning



Re-assess

Potential exists but more information is needed.



Stop for now

Not the right fit now. Revisit in the future if circumstances change.



Stopping is a successful outcome if the technology is not the right fit

The goal is to make informed decisions, not to commit to project that does not make sense.

Alice Neffe,
Country Manager, Poland

What does your networks future look like?



Every district heating utility will eventually make decisions that shape its network for decades. It is inevitable. The question is, however, whether they will be made with sufficient knowledge, time and flexibility.

A Letter of Intent doesn't determine the decision, it creates an opportunity to begin.

Whether the conclusion is that nuclear heat is right fit or that another technology better serves the city's needs, the value lies in reaching that conclusion through evidence rather than thinking "what if".

Three key takeaways



Start the learning **before** you need to decide

Major heat infrastructure projects require years of preparation.



Preserve future **options**

An LOI keeps alternatives open while building knowledge on modern heat technologies.



Make decisions with **confidence**

The best investment decisions are built on evidence, not assumptions.

Ready to begin the conversation?

Whether you're exploring nuclear heat for the first time or consider a structured pre-feasibility study, we're happy to discuss your city's needs and heat strategy.

Northern Europe

Markku Suopaki

markku.suopanki@steadyenergy.fi

Sweden

Anton Steen

anton.steen@steadyenergy.fi

Central and Southern Europe

Alice Neffe

alice.neffe@steadyenergy.fi





**Start your city's decarbonisation plan today.
Request a feasibility study or speak with our team.**

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