

Prepared by Mariana Varkaliene and Dalia Krapavickaitė in framework of [Create Lithuania project](#).

The goal of the Focus Group (FG) discussions was to collect critical reflections and contributions of the participants on the topic of Lithuania's involvement in Ukraine's recovery in energy sector, namely district heating. The ultimate goal was to shape project proposals by members of FG using analytical materials prepared by Create Lithuania Team for the targeted area.

Participants of FG: Private sector representatives (4); Key experts (2).

Materials distributed to the participants: [Summary](#); [examples of suggested projects from Ukrainian municipalities](#).

While the ultimate goal wasn't reached, the comments of participants of FG discussions are presented below:

LONG-TERM TARGETED VISION

Project pipeline should be done based on strategic plan of the heating network of the city. Currently, seeing separate projects (*examples of suggested projects shared by Create Lithuania team*), it is difficult to evaluate their relevance for the long-term plan, which should include estimates of heat consumption, power sources for 5-10 upcoming years combined with the vision of the municipality, which is then split into projects and implementation timeline.

Proposes to use one specific city/region of the city: present projects, way of implementation, financing.

- In given conditions, there is a need to balance short-term decisions and demands with long-term projects.
- Mutual event and sharing the experience may be beneficial.

As-is analysis setting the targets (predicted future) and next steps to achieve them is needed. Private companies are not able to finance strategic plans of cities, this should be done by the governing institutions.

Main steps that could be taken based on EPCM (Engineering, Procurement and Construction Management) strategy:

1. Study with exact list of projects;
2. Technical/basic design, with clear requirements for the project
3. Splitting this project into parts, making 4-5 different tenders for: equipment, installation, startup of the project (or equipment can be together with starting up)
4. Finalisation, giving for exploitation.

Municipal heating management models come first

Municipalities in Lithuania made the transformations differently: depending on the strength of the municipality, there was a different level of private sector involvement. Here are some examples from Lithuania on how transition from gas to biomass-based heating was done:

- Vilnius - chose the least effective alternative: closed the market and decided to procure what is needed.
- Kaunas - opened third party access to the system. Opened the grid to the system, told investors to invest in heat generation facilities, operate at their own risk and get a corresponding reward.
- Klaipėda - has a strong distribution operator, high awareness of the needs, lack of funding. The municipality invited private investors to fund projects and split the benefits. Risks regarding efficiency of the project remain within the DH company.
- Utena - strong, efficient and proactive municipality with a good team and experts. The municipally owned company took charge, and currently this is one of the most efficient systems in LT. They procure the necessary equipment; business involvement is minimal, equipment is collected and operated by the municipally owned company. Regional advantage – an industry that is buying heat from the district heating company, thus the DH company has money to invest.

A municipality that lends its system to a private company which does everything: collect revenue, install the equipment, organize the system, is limited in benefit to lower prices only.

Therefore, when in need of transformation, it is imperative to consider how distribution systems are operated and managed. In proposed projects by UA municipalities, the distribution systems and municipalities are the beneficiaries, but, notably, they also lack resources. The district heating company should consider limiting itself by responsibility for the consumers and pipelines, but also inviting private investors to invest and start their businesses.

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Balance of involvement and risks: the more private companies are involved, the more risk shifts to these companies. If involvement is lower – more risks remain within the municipality.

Development of heating network system as precondition for supply by private producers of heating.

Solving individual heating in DHS: District heating zoning plan. Developers should follow it.

ON MATERIALS DISTRIBUTED BY CREATE LITHUANIA TEAM AND THE ENERGY MARKET IN UKRAINE

Certification of equipment in UA: difficult, extensive bureaucracy, need a clarification from UA on procedural steps.

Biomass availability: the preferred distance to biomass source and transportation expenses **depends on the scale of the project**.

- Small-scale - preferably up to 50km; Large-scale, the distance may increase. E.g. in Vilnius 2 boilers, 100MW each: 300km radius.

Baltpool shortcomings: market exchange (as Baltpool) sustains transparency. Cost – the number of market participants is decreasing due to transparency requirements: 1) financial guarantees are necessary in case you are not able to provide biomass; 2) extensive bureaucracy.

Small enterprises exit Baltpool and sell biomass to bigger players that can afford transparency. To increase or establish a biomass market – Baltpool is not a foolproof tool.

Lack of information, quality assurance in UA:

- No third-party certification for the equipment;
- No set requirements for emission levels, efficiency and similar for boiler house equipment in feasibility studies in shared examples of suggested projects from Ukrainian municipalities.
- The currently advertised tenders are technically quite simple.

Financial framework

- Due to the insecurity and experience in UA, LT companies prefer to work with pre-payments.
- Grants for short-term projects, e.g. 1-2-3 MW mobile boilers, and credits are the main booster for investments.
- Need to think about providing securities. E.g. French suppliers – they do not start their production without 100% advance payment.
- Provision in UA's law, an extra preference in case on installing equipment produced in Ukraine (10-15%).

Ukraine's specifics: There should be government support programs for accumulators in heating and electricity systems. There is a need for such projects, as if heating boiler stops, generator creates circulation and may work 2-3 hours to eliminate the damage or localize it.

Alternative biomass-based solutions for lower cost: instead of building new facilities, suggested adjusting the old ones to combine gas and wood powder fuel (feasible for high-capacity boilers).

TO SUM UP

- Two approaches for involvement among private sector representatives:
 1. Working on strategic level with a particular municipality
 2. Tenders: supply of equipment to avoid broader risks in Ukraine with pre-payment
- Experience of Lithuania: biomass-based DHS varies in management models, therefore small proactive municipality and forecasted consumption of heat by industry makes a reference case. Depending on the capacity of a municipality (even if the capacity is low), a different model for private sector involvement may enable it to efficiently manage heating supply.
- Investments should be focused on the development of the heating network system.
- Grants for small-scale projects; Private sector is looking for insurance and securities schemes.
- Shared examples of suggested projects from Ukrainian municipalities contain low technical requirements (or a lack of them) for boiler house equipment in feasibility studies comparing to EU/LT standards.