

Effective engagement of citizens and stakeholders in LHP

Good practice example - Estonia

Country: Estonia

Title: Efficient District Heating Label

Introduction:

The well-being of district heating systems depends on the well-being of customers, which is why inefficient and poorly maintained district heating networks have to struggle to retain consumers, since according to the European Union Energy Efficiency Directive they have the right to use more efficient and environmentally friendly local solutions instead of inefficient district heating. The latest trends rather show that the situation of district heating in Estonia is in a condition that many larger consumers, such as companies that have previously produced heat in local boiler houses running on natural gas, are switching to district heating precisely because it is in line with their environmental trends.

The Efficient District Heating Label also allows district heating companies to raise consumer awareness and interest in the fuels used to produce heat. The movement towards climate neutrality is gaining momentum and, in an effort, to reach the goal set by the European Union to achieve climate neutrality by 2050.

The Efficient District Heating Label can help meet the two goals of the district heating sector: to increase the energy efficiency of district heating and to introduce more renewable energy sources into district heating, and the requirements for obtaining it can be gradually increased until we reach a fully climate-neutral and renewable energy-based district heating system.

For example, a system that uses only waste heat or renewable energy sources to produce heat can be considered fully climate-neutral.

Stakeholders engaged:

Efficient District Heating Label engages local governments, district heating network companies and heating companies.

Context:

The purpose of awarding the Label is to recognise and promote the use of renewable energy sources in DH systems, efficient heat production and distribution, and highlight DH as an efficient, environmentally friendly, inexpensive, and convenient heat supply method.

The Label certifies the efficiency of the DH network and the share of renewable energy or cogeneration in the heat distributed via the network.

The development of the label started in 2015 and the first label was issued in 2018. So far there have been issued more than 130 Efficient District Heating Labels to different Estonian municipalities and heating companies for efficient district heating networks. The label, as a sign of quality really motivates the companies to make an effort and the citizens can easily see whether their heating is produced in an environmentally friendly way.

Methods and tools:

The main communication channels for promotion of Efficient District Heating Label were Estonian Power and Heat Association and Estonian Society of Thermal Engineers who directly communicate with district heating stakeholders and heating companies. Also, information seminars and trainings have been held for stakeholders – both heating companies and local municipalities.

The promotion of the label was also done by national media – news articles about the label were published in bigger Estonian newspapers and sites.

Practice description:

The label "Efficient District Heating" is awarded to a district heating system in which at least 50% of the heat produced is produced from renewable energy or 50% from waste heat or 75% from co-generated heat or 50% from a combination of such energy and heat. The conditions for the label "Efficient District Heating" are equivalent to the definition of efficient district heating and cooling set out in the EU Energy Efficiency Directive 2012/27/EU.

For better engagement, information seminars and trainings are organised by Estonian Power and Heat Association and by Estonian Society of Thermal Engineers.

Benefits:

3 key benefits of the practice. Highlight what challenges can be solved by the practice

- renewable energy integration to heating sector
- motivation for local municipalities to ask and heating companies to provide renewable and efficient services
- raising public awareness of energy efficiency and renewable energy in heating sector

Challenges:

3 issues that may hinder the implementation/replication of good practice and affect its proper and beneficial operation

- low heating density because of very few consumers in rural areas which makes it expensive to renovate and maintain district heating network and boilerhouses, therefore some district heating networks struggle to find investments for new, efficient technologies and renovations
- low energy efficiency of the building stock – the buildings need to be renovated before they can use modern, low-temperature heating sources, such as waste heat. Low energy efficiency of the building stock also keeps the temperatures in district heating network high, which means higher heat losses for district heating network
- need for more profitable business models: waste heat is often not available for heating companies, although there are industrial companies with remarkable excess heat quantities in the area but they are not interested to make investments to sell the heat; in some cases it is more profitable to use old, non-

renewable technologies rather than invest in renewable technologies, as often – heat price is the most important for customers.

References and additional sources:

Additional materials and sources of information, websites, publications, photos, videos etc.

Estonian Power and Heat Association webpage (original source):

- <https://epha.ee/wp-content/uploads/2019/10/Kaugk%C3%BCttes%C3%BCsteemit%C3%B5hususe-m%C3%A4rgise-statuu-05.04.pdf>
- <https://epha.ee/tohusad-kaugkuttetesustemid/>

National newspapers (media promotion):

- <https://tehnika.postimees.ee/7503797/teadlane-selgitab-mida-tohusa-kaugkutte-margis-tegelikult-tahendab>
- <https://arileht.delfi.ee/artikkel/93142805/uskuge-voi-mitte-tohus-kaugkute>
- <https://maaelu.postimees.ee/7509902/mida-tahendab-kaugkuttevorkudele-antav-tohusa-kaugkutte-margis>

University website (media promotion):

- <https://taltech.ee/uudised/mida-tohusa-kaugkutte-margis-tegelikult-tahendab>

Scientific publication:

- <https://doi.org/10.1016/j.jup.2021.101332>

Heating company webpages (they want to show that they have done good work and they have it in many places):

- <https://adven.com/ee/kaugkute/tohus-kaugkute/>
- <https://swenergia.ee/kaugkuttevorkude-opereerimine/>
- <https://utilitas.ee/kaugkute-ja-kaugjahutus/kaugkute/>