



DH and social security, the future of small district heating areas

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DH in Latvia - some key figures

- 1) DH covers 65% of total heat supply;
- 2) 70 % of DH customers are households – space heating and hot tap water supply;
- 3) heating season - about 6,5 months a year, average outside temperature about 0° C, but at least for 2 weeks in winter the maximum (lowest) temperature is -20 (-26) °C.



Size of Latvian DH systems

We do not know the exact amount of the DH Systems in Latvia (**LADHA members - 39 DHC**)

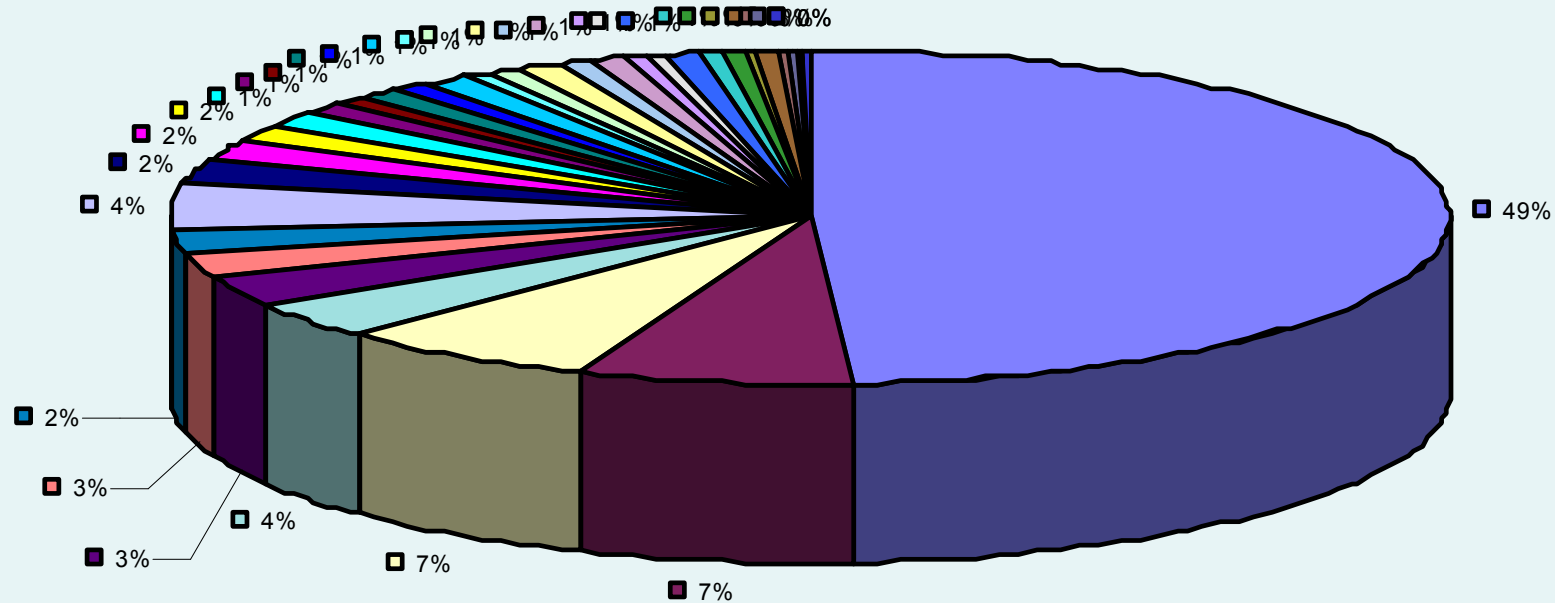
We have 324 boiler houses, where heat supply is the main business and 354 boiler houses, where heat supply is one of the business (auxiliary branch).

We can divide DH systems in 4 groups:

- 1) Villages and small towns - from systems with few customers, for example, from 3 to 4 dwelling houses and a school, till systems with 25 to 30 customers,
- 2) 20 “regional” cities: from 30 - 40 customers to 200 - 300 customers. The annual heat supply – from 20 000 MWh/per annum till 90 000 MWh/per annum .
- 3) 6 “big cities” - heat supply from 150 000 MWh/per annum to 430 000 MWh/per annum.
- 4) Riga – 3 000 000 MWh/per annum.



Heat Supply in Latvia Year 2002 - CSB data



■ Rīga	■ Daugavpils	■ Liepāja	■ Jelgava	■ Ventspils	■ Jūrmala	■ Rēzekne
■ Rīgas rajons	■ Valmieras rajons	■ Ogres rajons	■ Cēsu rajons	■ Jēkabpils rajons	■ Madonas rajons	■ Aizkraukles rajons
■ Tukuma rajons	■ Preiļu rajons	■ Bauskas rajons	■ Gulbenes rajons	■ Saldus rajons	■ Dobeles rajons	■ Limbažu rajons
■ Talsu rajons	■ Valkas rajons	■ Liepājas rajons	■ Daugavpils rajons	■ Krāslavas rajons	■ Balvu rajons	■ Kuldīgas rajons
■ Rēzeknes rajons	■ Alūksnes rajons	■ Jelgavas rajons	■ Ludzas rajons	■ Ventspils rajons		



Past

The starting conditions at 1991 were similar:

- District heating systems with low efficiency – designed for cheap fuel.
- The growth of the fuel price was faster comparing with the income of the end customers which led to postponed payments as a result (85% of payments without overdue – good result).
- Soviet mentality - part of the people (inhabitants) were sure that it is the state obligation to supply heat (very cheap). They did not understand that it is a service to be paid for (to cover fuel...)
- Huge investments for renovation of district heating were required, but credit resources were unavailable.



Nowadays

- Today there is a wide range – from municipalities with renovated district heating systems (boiler houses, pipelines, substations) to old style systems with few improvements (close to the level of the year 1991).
- After 1991 according the Latvian legislation the responsibility for the district heating is on municipality shoulders. Success stories come from municipalities where the district heating company's manager has been creative, active and where municipality deputies have understood the importance of heating and supported renovation projects.
- From the middle of the 90ties till 2006 The state investment programs (grant system) were available for renovation of DH systems (change to biofuel, change to preinsulated pipelines...) It was efficient for small systems.
- From 2004. the EU funds are available. These are more difficult for small towns to afford, because the credit for all the project and part of co-financing is required.



What is different in small heating systems

- Very limited opportunity to generate electricity within the regime of cogeneration – within the consumer heat load - small systems (according to the legislation the cogeneration also has to work during the summer season - a small hot-water load).
- The small systems are typically one-fuels and they are not able to use two or more types of fuel, so there is a monopoly in fuel supply.
- Fewer customers, lower turnover, the pressure on cash is felt sooner because of the customers who do not pay for the heat.
- Less likely to receive bank loans, as there is less equity and poor balance (due to the debtor).



In a large part of small systems the situation is worsening

- The wood was cheap in the 90ties, which allowed the smaller systems to produce heat energy more cheaply, but now the price of wood has gone up together with gas prices, but the income of the people have reduced due to the crisis and budget consolidation.
- In rural areas and small towns they are losing population, closing schools, what will happen with the local district heating systems?



Contradiction

- After the regain of independence in accordance with the legislation supply of heating to population is the responsibility of the local authority.
- There are several issues that can not be solved by a local authority or heating company. For example, unsettled is the question of heating debt recovery – it has to be solved in the legislative (state) level. Actually, heating company delivers the goods, but it is not possible to receive the payment.
- District heating is state controlled business. District heating companies are working in the fixed area according license.
- The heat tariff is fixed according to state regulator.



2 Possible Scenarios

- The State leaves all to its own accord. The position of State officials remains that the payment collection is a problem of DH companies. As a result sooner or later follows the bankruptcy of the heating company and there is no money left for fuel suppliers. Finally small district heat supply systems collapse.
- The State officials change their attitude - specific public policies are developed to preserve and expand the district heating.



Emergency measures

- Arranged legislation to preclude the possibility of not paying for heating. For example debt reduces value of property and is deducted from owner at the moment of sale of property (or other transactions).
- Have to be created solutions for Heating companies (regardless of ownership) to stabilize the cash flow – the settlement of the fuel supply (wood chips) and timely purchasing and delivery of fuel for the next season. Smaller towns and villages have to be particularly supported. As a result, the wood is drier, chips are better, the fuel consumption reduces, the fuel costs reduce, one can return the credit from the money and even the tariff can be reduced.



The following measures

- To set up a database of all district heating systems.
- On this basis, a business plan (feasibility study) and scenarios must be developed.
- Funding of the business plan must be found and implemented.



**Thank you
for your attention!**

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