



# KeepWarm

*Improving the performance of District Heating Systems in Central and Eastern Europe*

*INSPIRE EVENT OF LATVIA – Challenges & opportunities for District Heating modernisation in Latvia*

*The 4th webinar, 30/06/2020*

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This project is funded by the EU's Horizon 2020 research and innovation programme under grant agreement N°784966, and lasts from April 2018 – September 2020.



This project receives co-funding from the German Federal Ministry of Economic Cooperation and Development.





# We are 11 partners from 8 countries

Czech Republic



Latvia



Ukraine



Slovenia



Serbia



Croatia



# Application of KeepWarm project's approach in Latvia

To overcome barriers to district heating deployment in CEE, KeepWarm works in a multi-stage approach to conduct the following activities:

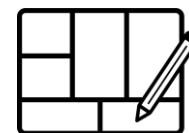


Increase the capacity of specialists working in DHS companies by offering **training** workshops

*2018/2019- 5 training blocs, with 147 individuals trained (110 from DHSs, 37 other), 6 study tours, 18 DHSs participated)*

*3 Feasibility studies - 3 Business plans elaborated*

Support pilot DHS with the development of viable **business plans**



Advise them on how to **mobilise funding** for bankable pilot projects

*Consultative support to pilot DHSs – remotely/local working groups*

*3 pilot DHS from LV as demo cases / in parallel twinning with AT pilot DHSs*

Exhibit replicable DHS **demo cases**



Facilitate the multi-level integration of DHS retrofits into key **strategies and plans**

*Suggestions in 2 SECAP's (Jekabpils, Jelgava); Action plan for retrofitting DHSs in Latvia in elaboration process*

# Pilot DHS in Latvia – Jekabpils Siltums – boiler house at Celtnieku 13A street

- Location: **Jekabpils city, Latvia**
- Operating since: **2003**
- Ownership: **municipality**
- Grid: **1362 m** (owned by the DHS)
- Customers: **15 multiresidential buildings**
- Connected load: **3649 kW**
- Boiler output: **3360 kW (2 boilers)**, provides **6% of total heat supply**
- Type of DHS: **production and distribution of heat and hot water supply all year**
- Current fuel: **wood chips (93%) / gas (7%)**
- Potential renewables nearby: **woodchips, solar energy**
- Investment plans: **Reconstruction and automatization of boiler house**, planned within next 2-3 years (in case of availability of the EU funds)
- Business model: Change of wood-chips boiler **to new, automated wood-chips boiler (1MW)**; **Automation of existing gas boiler**; **Installation of additional new automated 0,5 MW gas boiler** (for summer load);
- Estimated costs: 510 000 **EUR**
- Results: **RES/fossil heat production ratio: 78%/22%**; **increase of boiler house efficiency** by reducing primary energy input: 6736 MWh/year to 4907 MWh per year



# Pilot DHS in Latvia – Auces komunālie pakalpojumi – boiler house at Lielaucē parish

- Location: **Lielaucē parish, Auce county, Latvia**
- Operating since: **2004**
- Ownership: **municipality**
- Grid: **300 m** (owned by the DHS)
- Customers: **5 buildings (3 multi-residential, 2 public)**
- Connected load: **540 kW**
- Boiler output: **0,6 kW**
- Type of DHS: **production and distribution of hot water for heating**
- Current fuel: **wood chips**
- Potential renewables nearby: **woodchips, solar energy**
- Investment plans: **Modernisation of the heat source without replacing the existing boiler, planned by the end of 2020** (in case of availability of the EU funds)
- Business model: **Installation of frequency changer** for network pumps;  
Change of grid: installation of industrially isolated single channel pipes with less diameter; **Automation of fuel supply** with a sliding floor and a fitted conveyor;
- Estimated costs: 65 000 **EUR**
- Results: **RES heat production: 100%**; 65 000 EUR; **Reduction of heat losses** from 27% to 10%; **increase of boiler house efficiency** by reducing primary energy input: 1423 MWh/year to 1178 MWh per year.



# Pilot DHS in Latvia – Auces komunālie pakalpojumi – heat supply grid in Bene parish

- Location: **Lielaucē parish, Auce county, Latvia**
- Operating since: **1994**
- Ownership: **municipality**
- Grid: **900 m** (owned by the DHS)
- Customers: **12 Buildings (10 multi-residential, 1 public, 1 industrial)**
- Connected load: **2310 kW**
- Type of DHS: **Heat energy is purchased according to meter from biological gas station and delivered to customers**
- Current fuel: **Biogas**
- Potential renewables nearby: **woodchips, solar energy**
- Investment plans: **to build own new boiler house (wood-chip), possible by the end of 2021** (in case of availability of the EU funds)
- Business model: **Installation of new pellet boiler with an automated pellets delivery system (0,8-1MW);**
- Estimated costs: **165 000 EUR**
- Results: Independence, **RES heat production: 100%; Planned energy input: 1760 MWh per year**





# Thank you!

For more information,  
visit our website

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