G-DH

Group 1

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Objectives

• Scalable
• Use excess heat - low variable costs
• Additional income for industries
• Security of supply
• Local profit and work opportunities
The target area
Step 1: Initial

- Two district heating grids: high and low temperature
- Two clusters of demand
- Enough excess heat to cover heat demand
- Heat storage: 3000 m³
- Length of pipes: 7 km

2020: Step 1 finished

2025: Step 2 finished

2035: Step 3 finished
Step 1: Initial
Step 2: Expansion

- Expand collection of excess heat
- Connect with refurbished area (Cluster 3)
- Add heat pumps to cover peak demand using water from the canal
- Add additional storage
Step 2: Expansion 1\textsuperscript{st} phase
Step 3: Expansion 2nd Phase

Enable consumers to become prosumers

Expansion to the north with ultra low temperature:
- Substations with heat pumps and heat pumps at each new cluster/customer
- Potential connection with the mine water in the north
- Give potential for district cooling

2020: Step 1 finished
2025: Step 2 finished
2035: Step 3 finished
Step 3: Expansion 2nd Phase
Investment

INVESTMENT (STEP 1 AND 2)

IRR: 4.85%
Funding

• Long term contract for excess heat with industry
• ESCO between Genk municipality and energy companies
Thank you!