

CZ, Decin district heating



General

Owner

MVV Energie CZ Co.
(shareholder 96,90%)
Decin municipality
(3,10%)

Operator

TERMO Decin Co.

Region

Decin

Project

**Inhabitants
connected**

4687 households, 4
kindergartens, 2
elementary schools, 5
mediacare centers, 2
zdravotních středisek
2 nursing homes

Design of the DH

pre-isolated tubes DN
350 - 25

**Others uses
(drinking water,
cascade uses...)**

treated for drinking
water

**Production of
heating and/or
cooling**

heating-warming in
Heat pump from 55 up
to 72°C

**Planning of the
operation
(from pre-studies
to full
completion)**

borehole for a heating
plant in 1998,
verification of the flow
rate, temperature
(30°C) and pressure
(0,35 MPa)

**Dates of beginning
and end of
construction**

Oct 2000/Oct 2002

**Administrative
permits**

Water use permit

Difficulties faced

aggradation of heat
pump exchangers,
treated water reveals
high calcium amount

**Comparison with
fossil energies**

more expensive and
complicated operation

Financing

| | | | |
|---|---------------------------|--|---|
| Investment for geothermal well | approx. 530 mil. CZK | Investment for geothermal heating station | |
| Investment for DH network and substation | | Financing (banks, funds, PPP...) | MVV Energie CZ Co. capital, investment loan of 274 mil. CZK provided by HVB Bank Czech Republic and grant of the Kingdom of Denmark in the amount of 30 mil. CZK. |
| Amount of Subsidies if any | 30 mil. CZK | | State Environmental Fund of the Czech Republic contributed to partially cover the interests on the investment loan. |
| Cost of the MWh sold | 607,41 CZK (VAT excluded) | | |

Technical

| | | | |
|--|-----------------------------|--|--|
| Installed capacity (MWth) | 104 | subsurface and surface technical schemes | subsurface design without channels |
| Operating Temperature of the DH | 110/50°C | Temperature of the geothermal resource (production - injection) | 30°C |
| Geothermal flow rate | max. 54l/s | Heat Pump if any (power in Mwe and COP) | 2 units, each of them: heating power:3 283 kWt consumption:.....962 kWe COP - 3,41 |
| Innovation if any | regular heat pump repairing | DH Length | 18.890 |