


<p>BEST PRACTICE EXAMPLE Olympic swimming pool Country: <i>Slovenia</i> Region: <i>Radovljica</i> Altitude: <i>550 m</i> Avg. annual outside temperature: <i>8° C</i> Avg. annual heating degree days / cooling degree days: <i>3900 K·day ± 200 Kday</i> with a base temp. (indoor temp). of <i>XX°C</i> Time of implementation: <i>date</i></p>	
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The longest horizontal collector pipelines in Slovenia are used to heat swimming pool water all year round.

Description of installation: *about one paragraph of text (~ 1.000 characters ?) Propose key words*

NSGE system type	Horizontal heat collector		
System usage	<input checked="" type="checkbox"/> heating only <input type="checkbox"/> cooling only <input type="checkbox"/> heating & cooling <input type="checkbox"/> storage <input type="checkbox"/> domestic hot water	<input type="checkbox"/> seasonal use <input checked="" type="checkbox"/> permanent use <input type="checkbox"/> permanent use with seasonal peaks	Additional non-NSGE installations: [text] Possible integration with other energy sources: [text]
Demand	Annual demand for: Heating: [kWh] Cooling: [kWh] Storage: [kWh] DHW: [kWh]	Peak load: [kW]	Volume or area to be climatized: Pool with 25 x 12.5 x ? m → [m ³ or m ²]
Economic & ecologic key facts	Installation costs: [€] Amortization: [a] Energy efficiency rating of the building: [kWh/(m ² *a)]	Running costs/year: [€] Reduction of heating power costs: [% or €/a] Reduction of energy costs (incl. cooling, DHW etc.): [% or €/a]	Avoided CO2 emissions / CO2 reduction: [% or t/a] Increase of RES share: [%] Reduction of primary energy consumption: [%]
Collector details	Overall length of installed pipes: 2400 m Length / area of collector: 5 x 120 m [m for BHE, m ² for horizontal collectors] (Ex. for 5 BHE's x 120 m double U pipe → 120*5*4=2400m)	Spacing of boreholes (BHEs): [m] Distance between pumping and reinjection wells: [m] Area of activation for storage: [m ²] Volume of activation for storage: [m ³]	Flow- and return flow temp.: [°C] Specific abstraction capacity / cooling capacity for BHE: [W/m]
System performance	Heat pump (HP) rated power (capacity of HP): 140 kW Annual HP working hours: [h] Annual energy consumption of the HP: [kWh/a]	Flow rate per well/borehole: [m ³ /h] HP outlet temperature on building side: [°C] (temp of inlet fluid in heating/cooling emitters)	Avg. coefficient of performance (COP): Seasonal performance factor of heat pump (HSPF):
Materials used	Completion/backfilling material in wells/ground heat collectors/BHE's/pipes): [text]	Heat transfer media/heat carrier fluid: [text]	Heat pump working fluids (refrigerant): [text]
Geological & hydrological specifics	Geological region: [text] Rough description of bedrock: [e.g. karstified dolomites, coarse grained Quaternary sediments, compact clay layers, etc.]	<u>Ground specifics</u> Thermal conductivity of the soils and rocks: [avg. value or from-to in W/mK] Avg. ground temp.: [°C]	<u>Aquifer specifics</u> Rough description of aquifer: [text] Thickness of aquifer: [m] Water level in borehole: [m] Groundwater temp.: [°C] Hydraulic conductivity [m/s]

For values like "amortization" etc. please add notes referring to calculations if available!