

Renewable Energy

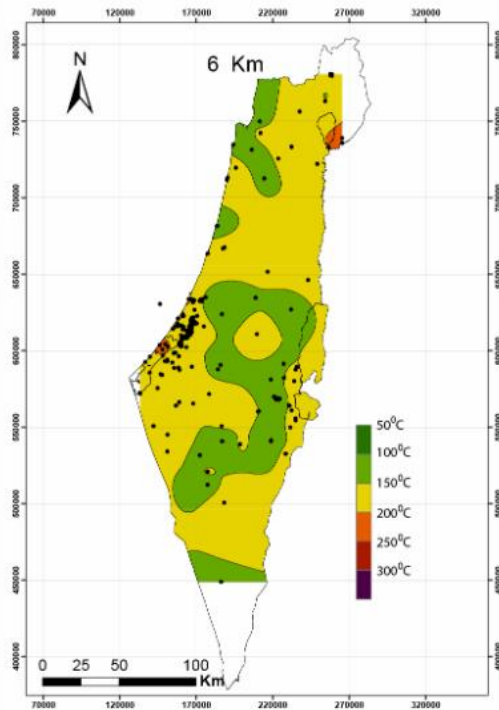
Geothermal

Geothermal Energy

Geothermal technology uses the energy stored in the earth for heating and cooling purposes.

At a certain depth, the temperature of the earth is stable, and at different times of the year can be used for heating or cooling.





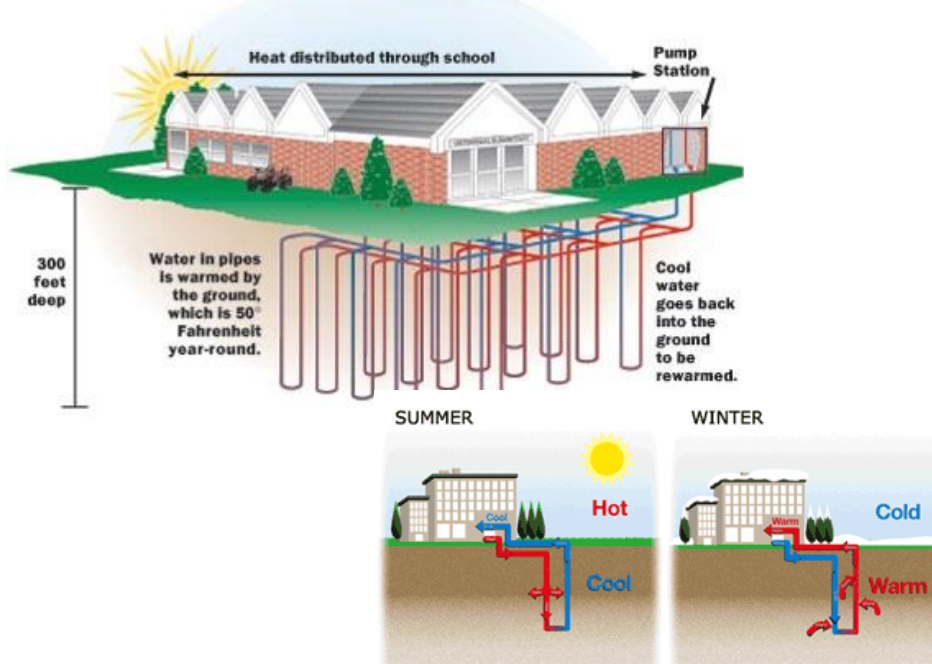
Geothermal for building heating and cooling

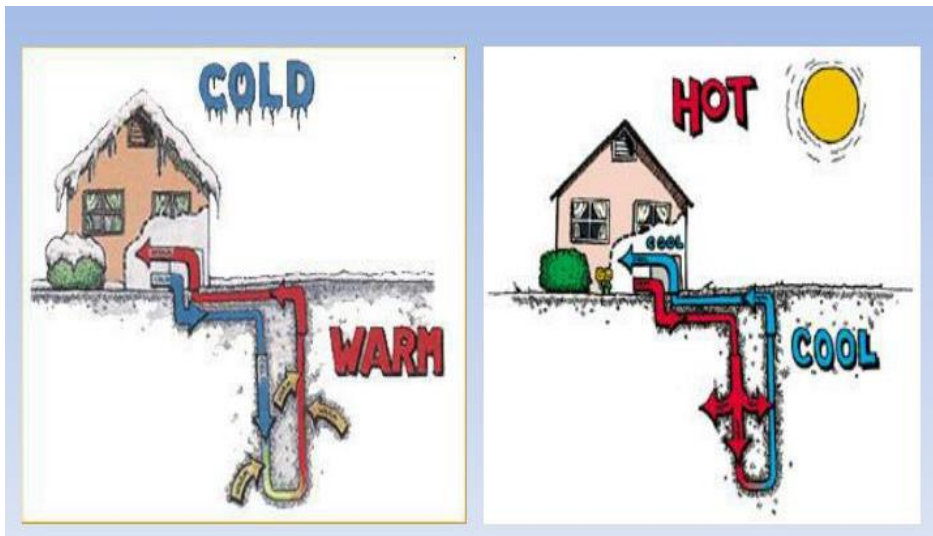
The utilization of geothermal technology as a source of energy for heating and cooling has been started in Palestine during the MED-ENEC project in one of the ITEHAD subdivision villas in Ramallah city and through establishing the first company in the region utilize the geothermal energy in residential and commercial sectors called MENA Geothermal

<http://www.menageothermal.com/>

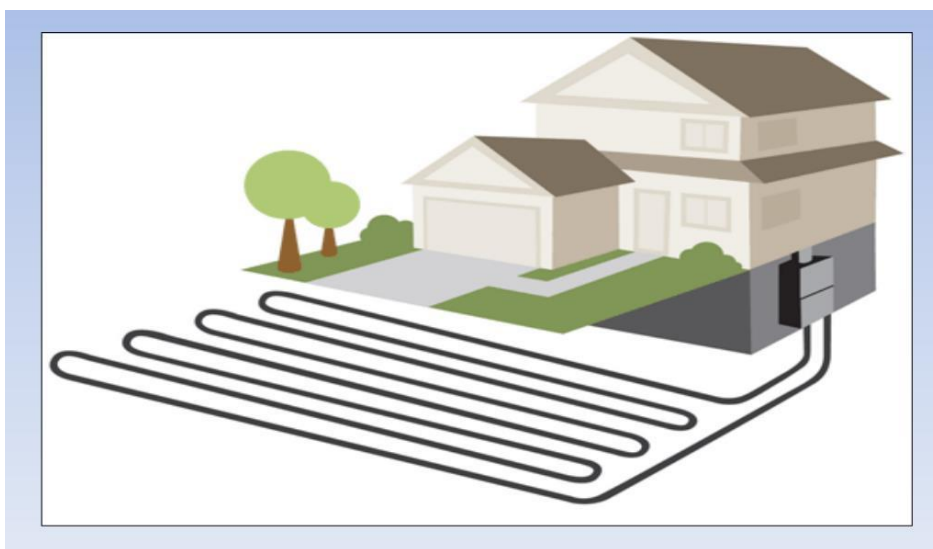


How Geothermal Loop Systems Work

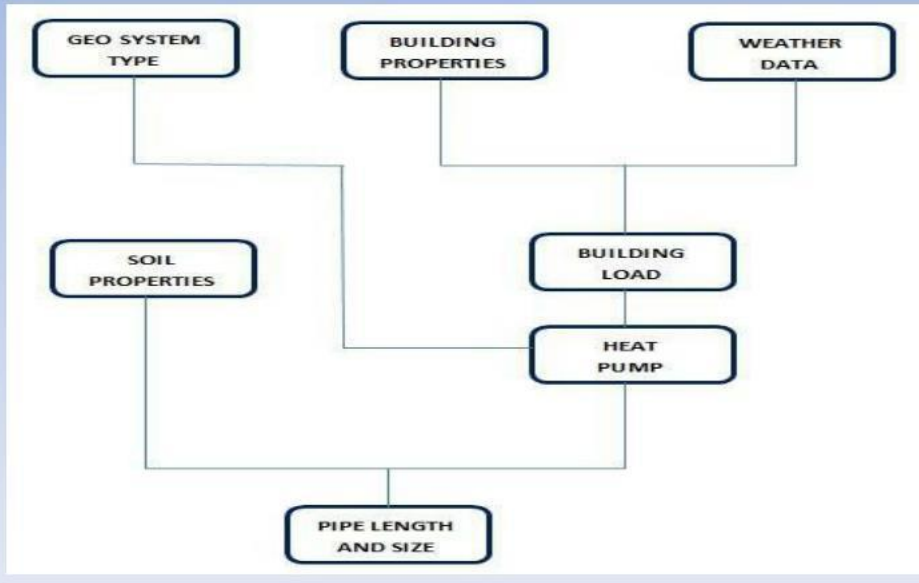




Geothermal heat pump



Design step



Pipe length

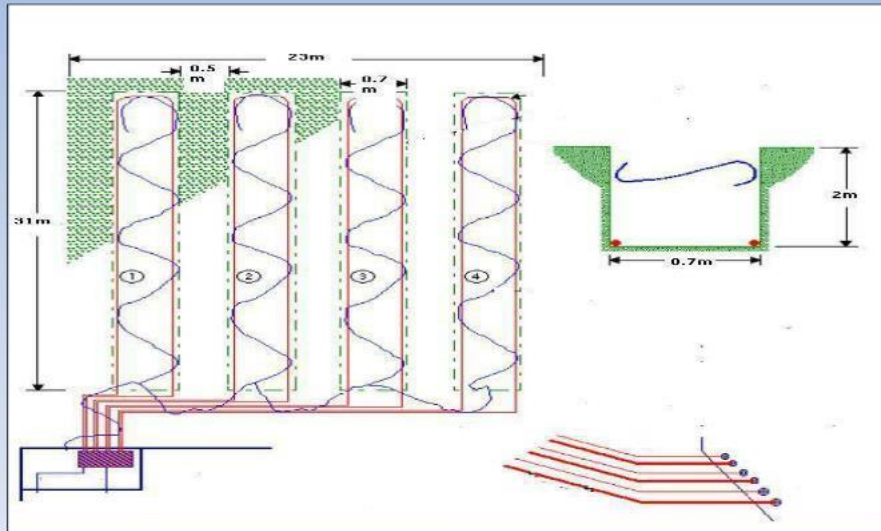
*For horizontal (Two pipes per trench): $L = 44\text{m/KW}$
(155.5m/ton).*

$$L_c = 683\text{m}$$

$$L_h = 1038\text{m}$$

Because we used the same pipe for both heating and cooling we take the max. length that is 1038m.

Land required



Combine geothermal and solar energy

