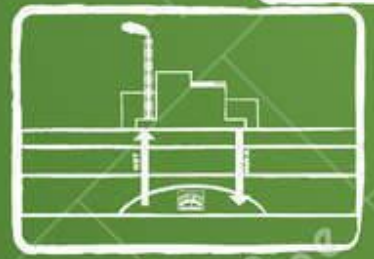
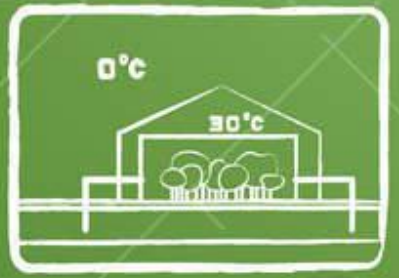
GEOTHERMAL

BIOFUEL
MECHANICAL
ELECTRICAL
HYDRO
WATER
ENERGY
PLANT
POWER
AIR
FUELCELL
HEAT
THERMAL
FOSSIL
NUCLEAR
SOLAR
RENEWABLE
LANDFILL
TECHNOLOGY
RESOURCE
POLLUTION
TURBINE
MINE
GAS
INDUSTRY
FUEL
COAL
OIL
WAVE
TIDAL
WIND

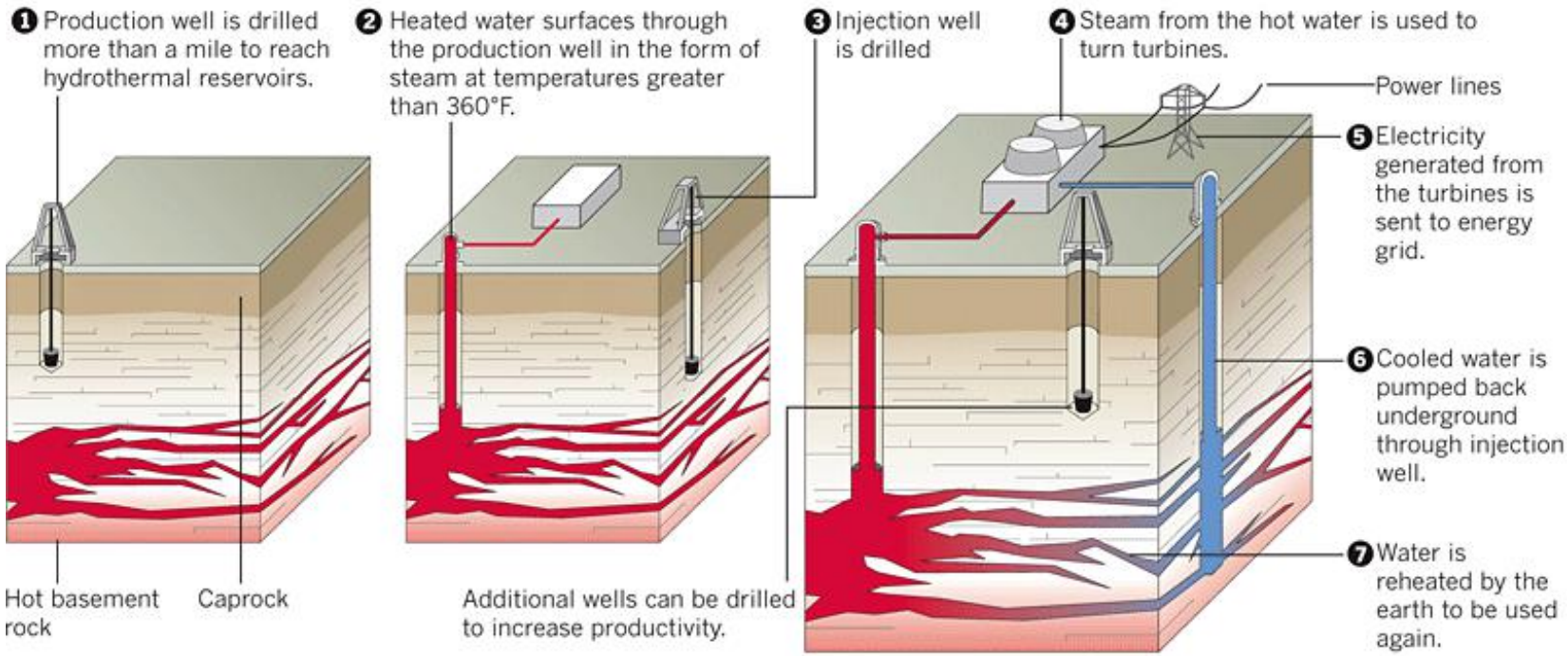




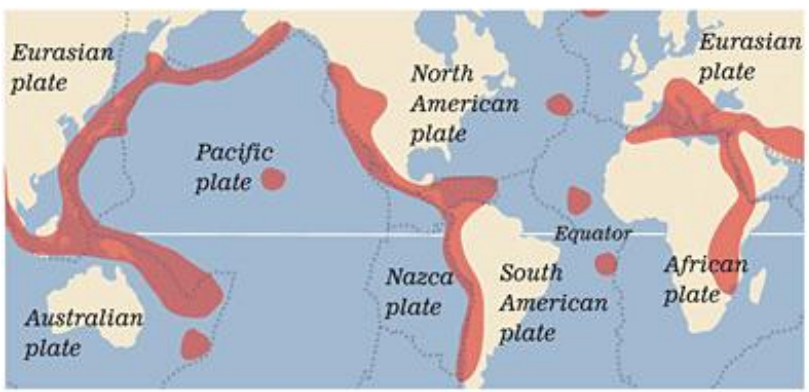





Geothermal energy

This source provides a small fraction of the power used in the United States, but interest is growing. How the energy is generated:

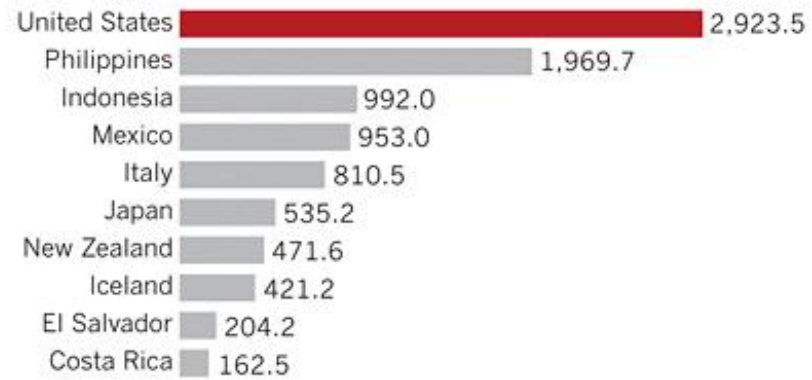


Hottest known geothermal regions



Top 10 countries in installed geothermal power capacity, 2007

(In megawatts)

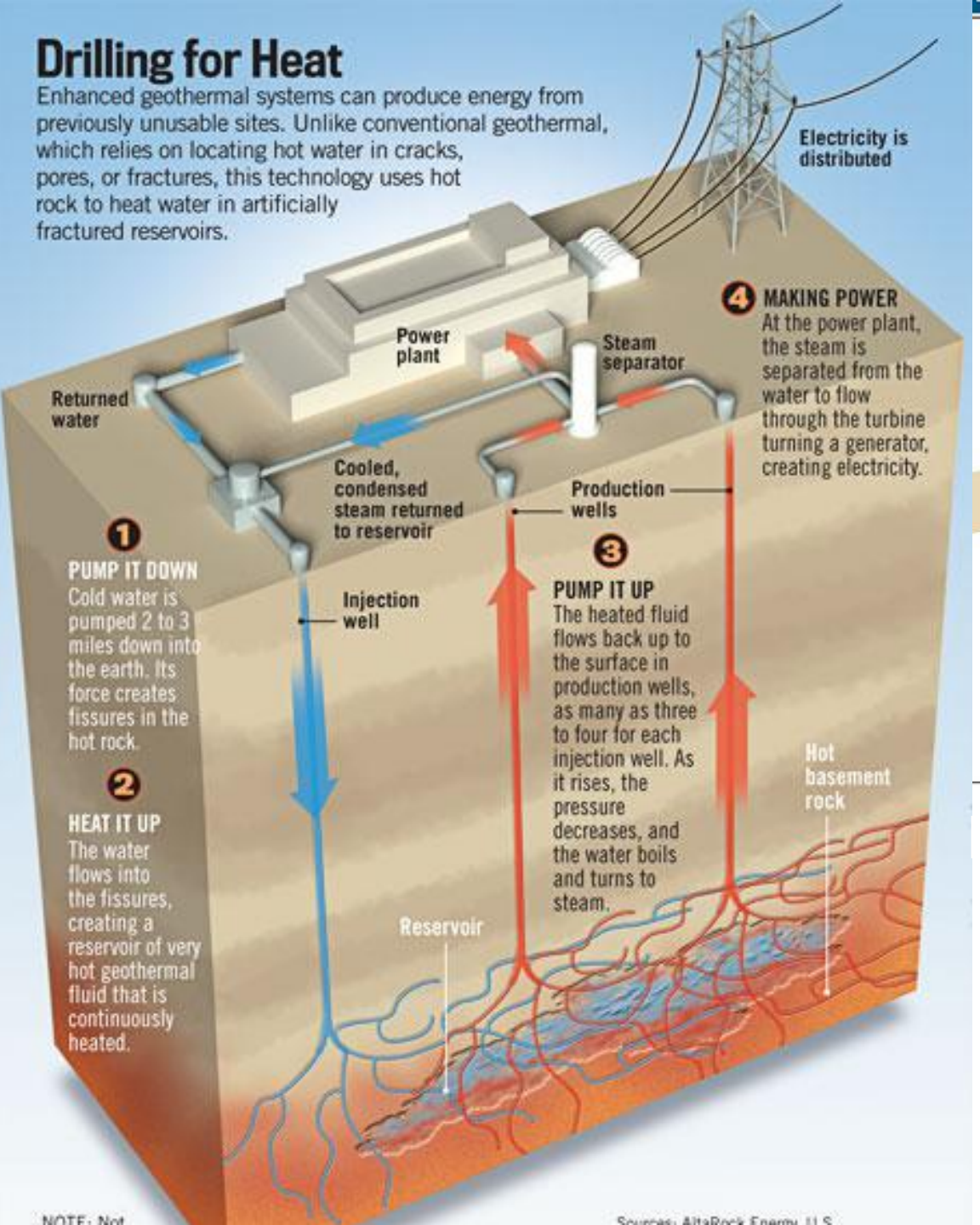


Sources: U.S. Department of Energy, Geothermal Education Office, Earth Policy Institute

KHANG NGUYEN Los Angeles Times

Drilling for Heat

Enhanced geothermal systems can produce energy from previously unusable sites. Unlike conventional geothermal, which relies on locating hot water in cracks, pores, or fractures, this technology uses hot rock to heat water in artificially fractured reservoirs.



NOTE: Not

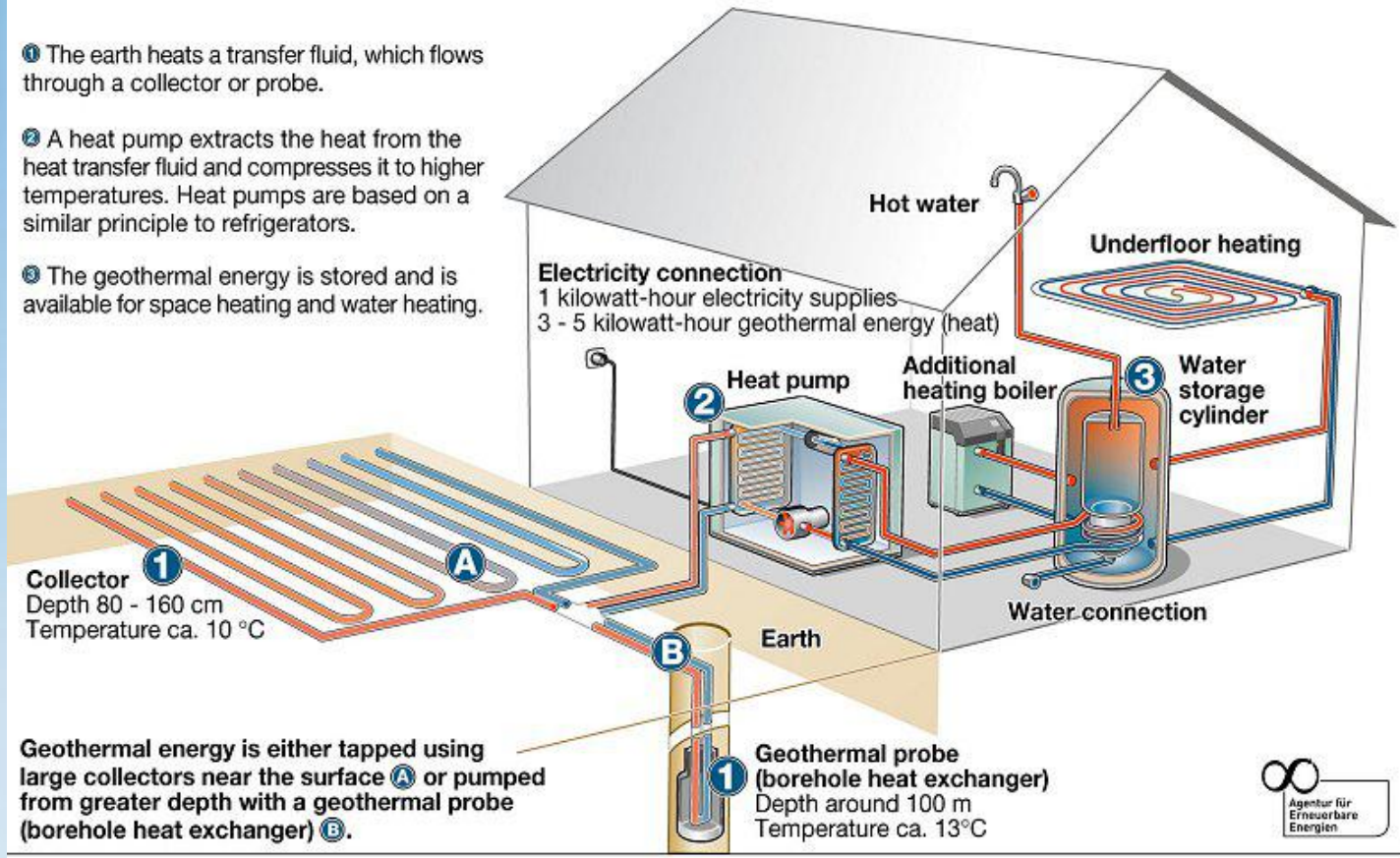
Sources: AltaRock Energy, U.S.

Heat from the earth: how to heat with near-surface geothermal energy

❶ The earth heats a transfer fluid, which flows through a collector or probe.

❷ A heat pump extracts the heat from the heat transfer fluid and compresses it to higher temperatures. Heat pumps are based on a similar principle to refrigerators.

❸ The geothermal energy is stored and is available for space heating and water heating.



A geothermal system involves a series of pipes installed underground. The pipes have a heat-absorbing/transfer fluid running through the system constantly.

In the summer, the geothermal system removes the heat from the conditioned structure and pushes it through an exchanger then downward into the pipes to be cooled by the Earth's geology.

In the winter, the process is reversed: the heat from the ground is extracted and pushed upward by the pipes, passed through the exchanger and then to circulate in the house via Water to Refrigerant equioment, Water to Water or VRV technologies.

Smart Joint manufactures a full range of geothermal piping sytems.

www.smartjoint.net

GEOTHERMO PIPE AND FITTINGS

Geothermo Pipe

Outside Diameter (DN.mm)	SDR
25-400mm	11/13.6

Geothermo Fittings

Socket Fittings

Socket Single U

Code	Size(mm)
SU25	25
SU32	32

Socket Tee

Code	Size(mm)
ST4032	40*32

Socket Four Way Tee

Code	Size(mm)
ST44032	40*32
ST45032	50*32
ST46332	63*32
ST47532	75*32
ST49032	90*32
ST411032	110*32
ST412532	125*32
ST416032	160*32

Electro Fusion Fittings

EF Couplers

Code	Size(mm)
EFLC3225	32*25

EF Reducers

Code	Size(mm)
EFR25	25
EFR32	32
EFR40	40
EFR50	50
EFR63	63

3.EF Elbow 90°

Code	Size(mm)
EFL25	25

4.EF Tee

Code	Size(mm)
EFT25	25
EFT32	32
EFT40	40
EFT50	50
EFT63	63

Butt Fusion Fittings

Single U Head

Code	Size(mm)
BU25	25
BU32	32

Double U Head

Code	Size(mm)
BDU25	25
BDU32	32

Single U

Code	Size(mm)
BU32	32

Y Way Tee

Code	Size(mm)
BYT3225	32*25
BYT4032	40*32

F Way Tee

Code	Size(mm)
BFT3225	32*25
BFT4032	40*32

Five Way Tee

Code	Size(mm)
BT55032	50*32
BT56332	63*32
BT57532	75*32
BT59032	90*32

Seven Way Tee

Code	Size(mm)
BT75032	50*32
BT76332	63*32
BT77532	75*32
BT79032	90*32

Nine Way Tee

Code	Size(mm)
BT95032	50*32
BT96332	63*32
BT97532	75*32
BT99032	90*32

Four Way Tee(same side)

Code	Size(mm)
BT4-14032	40*32
BT4-15032	50*32
BT4-16332	63*32
BT4-17532	75*32
BT4-19032	90*32
BT4-11032	110*32
BT4-12532	125*32

Four Way Tee(one at each side)

Code	Size(mm)
BT4-24032	40*32
BT4-25032	50*32
BT4-26332	63*32
BT4-27532	75*32
BT4-29032	90*32
BT4-211032	110*32
BT4-212532	125*32

Six Way Tee

Code	Size(mm)
BT64032	40*32
BT65032	50*32
BT66332	63*32
BT67532	75*32
BT69032	90*32
BT611032	110*32
BT612532	125*32

Thirteen Way Tee

Code	Size(mm)
BT136332	63*32
BT137532	75*32
BT139032	90*32

Clamps

Single Clamp

Code	Size(mm)
BC25	25
BC32	32

Double Clamp

Code	Size(mm)
BDC25	25
BDC32	32