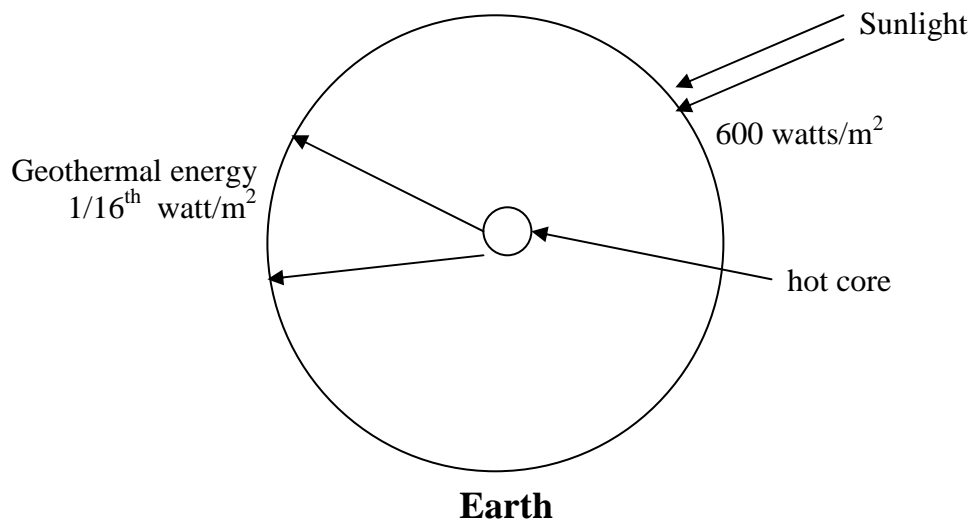


## Geothermal Energy



Average intensity of solar radiation at the surface of the earth  $\approx 600 \text{ watts/m}^2$

Thermal energy reaching the earth's surface from the hot core  $\approx 1/16^{\text{th}} \text{ watt/m}^2$

$$(600 \text{ watts/m}^2 / (1/16^{\text{th}} \text{ watt/m}^2)) \approx 10,000$$

Geothermal energy is about 10,000 times less intense than solar energy at the earth's surface.

The total solar energy incident on the U.S.  $\approx 200$  times the energy currently used in the U.S.

The total geothermal energy arriving at the earth's surface  $\approx 200/10,000 = 0.02 \times$  energy used  
 $= 2\%$  of the energy used.

Geothermal energy could not provide more than 2% of the energy used in the U.S. on a sustainable basis. There's a lot of energy in the hot core of the earth, but it's not arriving at the earth's surface fast enough to supply more than this on a steady basis.