



# Energy Land

**STEM Sims****Lesson 1: Energy Resources**

People rely on a variety of natural resources to provide electrical energy for their homes and lives. A number of energy transformations typically occur during the process of changing a natural resource into useful electrical energy. Can you describe these transformations?

**Doing the Science**

1. Start the Energy Land Simulation by clicking on the “Sim” tab.
2. Move the cursor over one of the energy sources located at the bottom left-hand corner of the screen.
3. Read about the energy transformation process described in the roll-over pop-up.
4. Note the energy resource, such as Coal or Solar, and describe the energy transformation that occurs using the provided keywords for that specific energy resource in the appropriate space in Table 1. (Keywords = electrical, mechanical, thermal, chemical, nuclear, light, elastic potential, gravitational potential)
5. Repeat steps 2 – 4 until all of the energy resources have been reviewed and described.

**Table 1. Energy Resources and Energy Transformations**

Energy Resource	Energy Transformation
Coal	
Natural Gas	
Nuclear	
Wind	
Offshore Wind	
Solar	
Geothermal	
Biomass	
Hydroelectric	
Tidal	

**Do You Understand?**

1. What is the difference between an energy transfer and an energy transformation?
2. List and discuss two factors that might impact which energy resource is chosen by a local power company for use as their basis for generating electricity for their customers.