Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Assignment 8.5 Other Renewable Resources**

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| **Energy Source** | **Explain how electricity is produced or draw a labelled diagram.** | **Pros** | **Cons** |
| Solar | Large mirrors focus sunlight onto water tanks and heat water. The steam that is produced turns turbines.  Solar panels can also be used to produce electricity directly and it is stored in batteries. | Endless power source and produces no pollution | Amount of electricity varies with the time of day, season, and weather.  They require large areas of land  They are expensive |
| Geothermal | Deep inside the earth is a large amount of geothermal energy. This energy heats water and produce steam. This steam reaches the surface through cracks in the earth’s surface and can be used to turn turbines. | Creates no pollution  Reliable and sustainable | There are only certain places on the earth that have the right geology |
| Wind | Wind pushes against the blades of a wind turbine. This turns a magnet that powers the generator. | Clean, renewable source  New technology is reducing the cost | It is not always reliable because wind does not blow steadily.  Require specific conditions to be effective. |
| Tides | Energy can be produced from the moving ocean  A reservoir is filled at high tide. At low tide the water is released through hydroelectric turbines producing electricity. | Widely available and does not produce pollution. | Require large changes in tides to be effective.  Affects marine ecosystems.  Not available in certain parts of the world. |
| Living Things | Biomass is any type of plant or animal tissue.  Biomass is used to heat water and create steam that turns a turbine. | Readily available | Produces a lot of air pollution |