

## Energy Generation and Storage

<b>Non-Renewable Energy Sources</b>	This is when certain sources of energy will run out eventually
<b>Fossil Fuels</b>	<ul style="list-style-type: none"> <li>• Coal, Oil and Gas</li> <li>• Burned to create steam, turned in turbines to create electricity.</li> <li>• Burning creates CO<sub>2</sub> which adds to <b>Global Warming</b></li> </ul>
<b>Nuclear Power</b>	<ul style="list-style-type: none"> <li>• Nuclear Fission controls the reactor (that creates the electricity). This requires <b>Uranium</b> which is non-renewable</li> <li>• Accidents and waste can severely damage the environment and cause radiation poisoning</li> <li>• <b>Radiation poisoning</b> can be fatal and cause physical deformations</li> <li>• Nuclear waste has to be disposed of properly and is hazardous for thousands of years.</li> </ul>

<b>Renewable Energy Sources</b>	This is when certain sources of energy will not run out.
<b>Solar</b>	<ul style="list-style-type: none"> <li>• <b>Solar panels</b> are used to collect light and convert it into electricity</li> <li>• There is no waste and a consistent supply</li> <li>• However, the panels are not effective at night or in countries where there isn't a lot of sunlight</li> </ul>
<b>Wind</b>	<ul style="list-style-type: none"> <li>• <b>Turbines</b> harness wind energy</li> <li>• Not effective on non-windy days</li> <li>• Some people don't like turbines as they are noisy, and not attractive to look at</li> </ul>
<b>Hydro-Electrical</b>	<ul style="list-style-type: none"> <li>• This harnesses energy from water held behind a <b>dam</b></li> <li>• Has to be created by flooding land – damaging wildlife habitats</li> <li>• <b>Tidal</b> energy comes from using energy from waves</li> </ul>
<b>Biomass</b>	<ul style="list-style-type: none"> <li>• This is fuel from natural sources e.g. crops, scrap woods and animal waste</li> <li>• Growing biomass crops produces oxygen and uses up CO<sub>2</sub></li> <li>• However, is a very expensive method</li> </ul>

### Storing Energy

**Pneumatics:** This is the production of energy using compressed gas or air. E.g. Pistons in an engine

**Hydraulics:** Like a Pneumatic system, but uses water or oil under pressure. E.g. Wheelchair lifts

**Kinetic:** Energy that is generated by movement. This is stored by items like springs in a "clickable" pen or balloons,

**Batteries:** Electrical power can be stored in batteries. Rechargeable batteries are becoming increasingly popular.