**Renewable Energy Sources**

List some examples and qualities of a renewable and nonrenewable energy resource





What makes something a **Renewable** energy resource?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Concept 3: Generating Electrical Energy from Other Energy Sources**

**Electrical energy from Wind -** [**https://youtu.be/0Kx3qj\_oRCc**](https://youtu.be/0Kx3qj_oRCc)



The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of wind is transformed into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as moving air turns the turbine of a generator system.

A wind turbine starts to produce electrical energy when wind speed is about \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

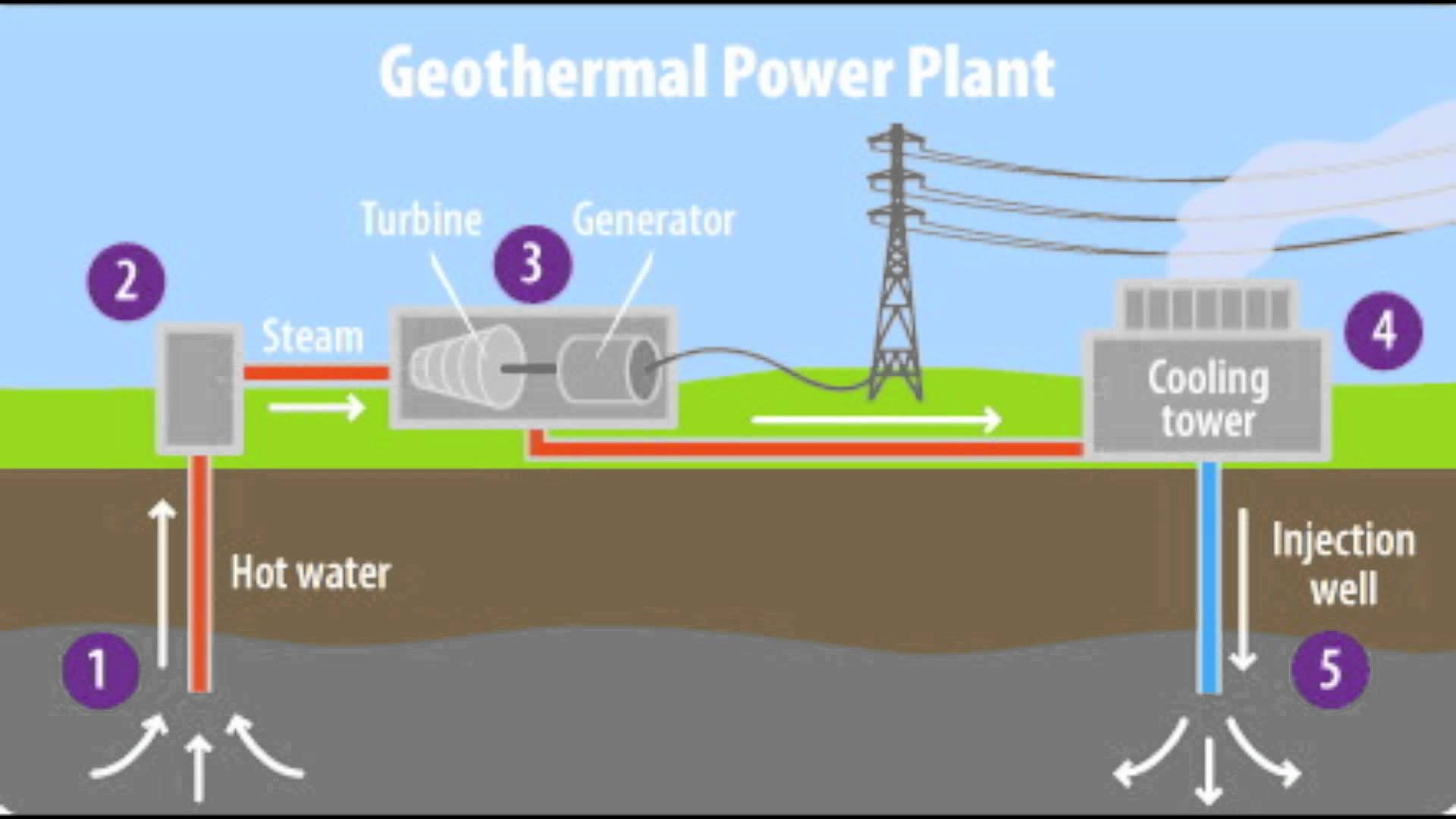
An \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is used to measure wind speed.

**Electrical Energy from Sunlight**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_generate electrical energy when visible light (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) strikes their surface.

The cells are made up of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. When visible light comes in contact with the surface \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ trapped in the in the cells absorb just enough energy to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and generate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Electrical Energy from Geothermal Sources -** [**https://youtu.be/mCRDf7QxjDk**](https://youtu.be/mCRDf7QxjDk)



Where Earth’s crust is thin and molten rock comes close to the surface, hot \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ can be used to turn turbines to generate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

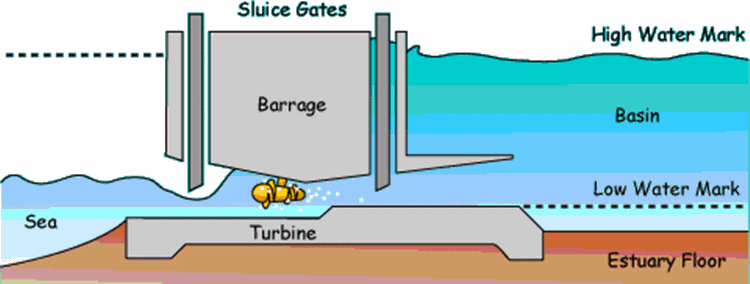
Iceland generates \_\_\_\_\_\_\_\_\_\_\_ of its electrical energy from geothermal sources.

**Electrical Energy from Waves and Tides -** Watch the video: <https://youtu.be/VkTRcTyDSyk>

The vertical rise and fall of waves can either \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which will then turn a turbine

Tidal energy is only effective when there is a difference of \_\_\_\_\_\_\_\_\_\_ from high tide to low tide.

Tidal energy stations only generate electrical energy for about \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a day

The three methods of producing electrical energy from the potential energy of tides are:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_