

Ans \Rightarrow In MHD power generation conversion process depends upon Faraday's law of electromagnetic induction, which states that when a conductor and a magnetic field move relative to each other, a voltage is induced in the conductor.

2- The conductor may be solid, liquid, or gas.

3- In MHD generator solid conductors are replaced by hot ionized gas.

④ Hot ionized gas (3000°C) is passed through the MHD duct, across which a strong magnetic field is applied.

⑤ The gas is hot and ionized by an electrically conducting medium moving in a magnetic field \vec{v} , thus a voltage is generated.

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Ocean Thermal Energy \Rightarrow It is a means of converting ocean thermal energy into a useful energy. OTEC is a technology that converts solar radiation into electric energy. It uses the ocean's temperature gradient to generate the power, based on second law of thermodynamics.

The principle of ocean thermal energy conversion is that there is a temperature difference between water at the bottom of the sea and the water at the top.