



**Summarize the points made in the lecture explaining how they cast doubt on the text.**

### **Tidal Power**

Technology is available to exploit the potential energy formed by tides for the generation of electrical energy. The basic structure is a barrage or dam built across a river estuary or at the mouth of a bay. This dam is similar to that used in hydroelectric power plants built across flowing rivers. At regular intervals along the dam, gates and turbines are installed. When the tide is rising, the gates are opened. This allows water to flow into the area behind the barrage, raising the water level there. When the water has reached its highest level, the gates are closed. Then the tide drops on the seaward side, and this trapped water is several meters above the sea level. The gates are then opened, allowing the water to discharge out. The force of the flow turns the turbines and generates electricity. It is also possible to use tidal energy when the water flows in the other direction - through the gates into the estuary from the sea.

In this way, four periods of energy production are possible every day, since coastal regions experience two high and two low tides in just over 24 hours. In order for practical amounts of electricity to be generated, the difference between high and low tides must be at least five meters. Tidal power is renewable, non-polluting, and contributes no greenhouse gases to the atmosphere. This kind of system can provide a useful energy supplement to other sources in an era of diminishing fossil fuel reserves.

