Energy generation from ocean waves

Engineering

College It is estimated that waves from the sea has the highest amount of concentration of energy that is renewable. It comes from natural sources such as the sun, tides, winds and natural tectonic forces. Tectonic forces inside the ocean create an ocean wave. This is transmitted through water in forms of huge waves that can be used as a source of energy. This paper is a report of how electrical energy can be generated from the oceanic waves. The paper also discusses the various ways that the oceanic waves are more convenient as comes compared to the other forms of energy.

Discussion

The main system for the conversion process is known as the Salter Duck system. This is after the name of the inventor of the machine. The heart of this system is called Escone ad it is connected directly to a rotating turbine below the system. The Escone converts the transversal wave energy into longitudinal energy. This energy is then directed to the turbines that rotate. Water therefore flows into the gates and out through other gates. Mechanical energy is extracted by the use of Bristol cylinder. The cam is able to make rotations from the axis of the cylinder to result into the mechanical energy. The mechanical energy is in turn used to generate electrical energy (Tester 67).

Oceanic waves produce clean energy as it needs no oil and has no waste. However, the cost of installation is much higher as compared to other cost of installing other sources of energy. It is estimate that with improved technological it is possible to generate electrical energy from turbines at a cost of 4. 5 cent per kWh. This is because there is no cost needed for oil and waste management. As compared to hydroelectric power, which is 7. 5-cent KWh, ocean waves are cheap to produce the electrical energy.

Conclusion

In conclusion, both mechanical and electrical energy from oceanic waves can be realized cheaply using efficient technological techniques that do not have any, waste as well as any needed resource for energy conversion

Work cited

Tester, Jefferson W. Sustainable Energy: Choosing Among Options. Cambridge, Mass: MIT Press, 2005. Print.