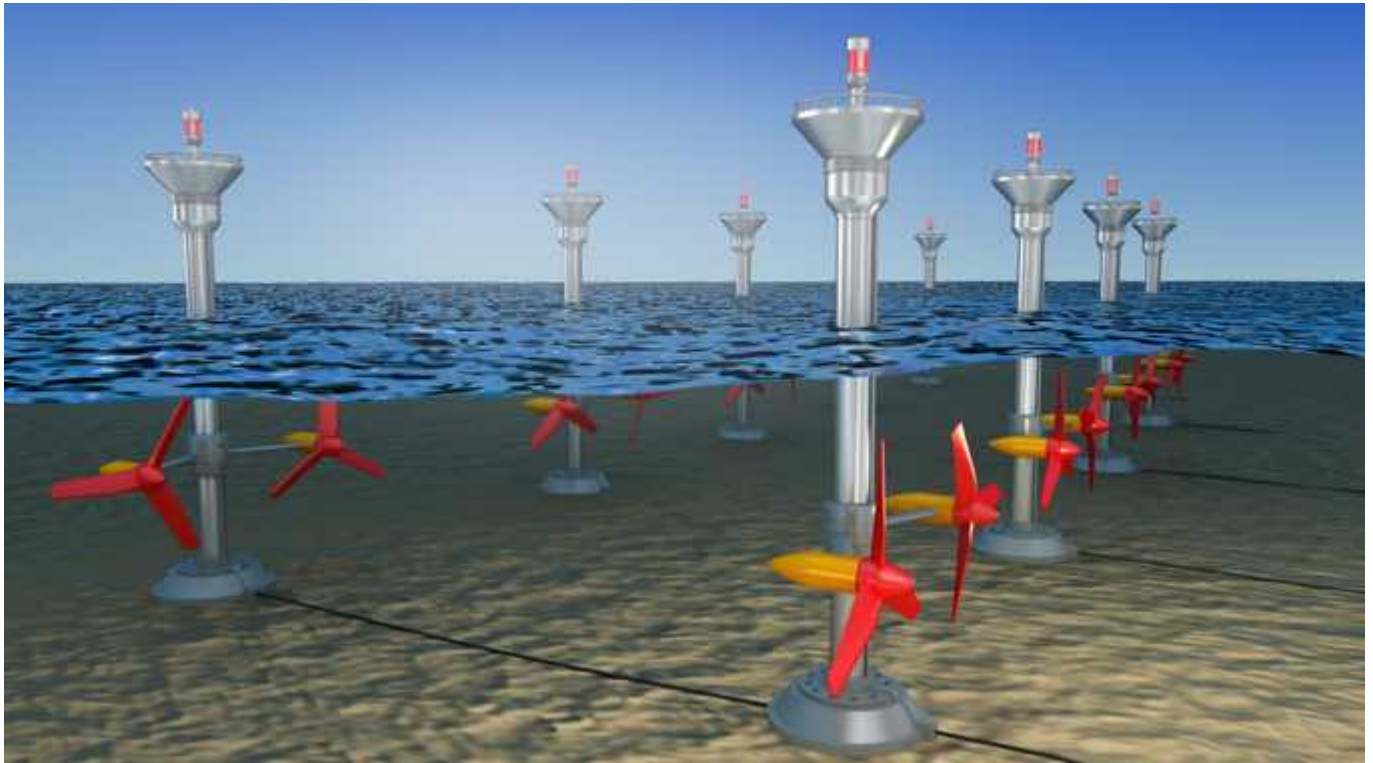


Using the Energy of Tides – Tidal Energy: The Eco-Friendly Way of Turning To an Alternative Energy Source



As the entire world is harnessing all possibilities of alternate source of energy, [tidal energy](#) is one great resource that is not only natural and eco-friendly, but it's also bountiful. Along with the studies of nuclear power, the energy of the tides are also studied continuously by researchers, and all because of the numerous benefits which it is capable of providing the world, mainly in association of energy generation.

For a thorough understanding of the benefits and uses of this energy resource, let's look into the aspects of tidal energy.

An Overview of Tidal Energy

There are two basic theories that describes on how tides are converted into energy or power. We all know about tides – it rolls in and out of the shore moving in a large amount of water and again back into the sea or ocean. This large resource of water also pertains large amount of power. It is where the idea generated that if this natural source of energy could be utilized for mankind, it could be the answer to all the energy woes in the world.

The two theories – one is converting the power of horizontal movement of the tides into electricity and the second is generating energy from the natural rise and drop of the tides in tandem. With lot been done and researched on the [production of hydroelectricity in dams, generating electricity from the movement of water is one of the most favored technology of today.

Hydropower is produced with moving water being passed through turbines, which further spins with this moving water and generates electricity. Well, the same might seem with tidal power, but for obvious reasons, there is always some inherent problems with it – firstly, it moves very slowly and secondly, the area in which the tides are spread is huge, to control the amount of energy in a small proportion of water that would pass even through the largest pipe ever made.

Saying so, it is also true that the dilemma of technologies in never ending, but there are always newer approaches that keep coming to resolve the biggest of hurdles.

Major Benefits of Tidal Energy

Tidal energy, which is also referred to as tidal power, which is a type of hydropower that converts the energy produced by tides into many various forms of energy including electrical power. This phenomenon have gained attention of scientists and

researchers as a reliable and humungous source of continuous energy for the future. Also, because of its more predictable nature, tidal power is considered a bigger resource than sun – solar power and wind energy.

Tidal energy is completely based on the movement of tides. Tidal streamer turbine power devices are grounded on the bed of the sea and produces electricity right from the flooding and ebbing of currents, much similar the wind moves the rotor blades of the wind turbines. The turbines used for tides creates drag or lift on the blades, which converts the kinetic energy of the tidal current in a circular motion.

In another way, generation of tidal power is linked with the building of a dam or a barrage at any coastal site. The generation of power is done by low-head hydro turbines either during the flood or the ebb or both. This technology to generate power has been used since long – the use of tidal wheel, barrages and mills has been used for milling flour and pump water.

The Conclusion

The energy produced by tides is one of the most renewable source of power in the whole world. The true potential of this power has not still been used properly, but slowly with time as it develops, it opens up new avenues of continuous energy. The oceans of our planet provides huge possibilities to produce electricity and is still waiting to be further explored.