

Generating electricity from Tidal Fluctuations

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From the smallest home generator, to the largest Fossil-Fuel/Nuclear Power Plant, there is a common goal -- produce a Force/Torque to turn the shaft of an electric generator. Shafts are turned using Fossil/Nuclear powered systems, collectively referred to as "Prime Movers." The use of those fuels to power Prime Movers, is a cause for all the growing climatic, pollution, quality of life and economic concerns for our planet and its inhabitants.

Nature has provided us through strictly the benign rise/fall of the tides (there is no interest here in the kinetics of hydro-power, currents or wave-action), access to two forces of unimaginable magnitude -- available globally. Acting on a floating body (e.g., a barge, ship or constructed platform), a receding tide produces a downward force, up to the full weight of a suspended body. Similarly, a rising tide up to the weight of the body.

The goal then is to harness the two vertical and linear forces of the tides to drive generators, desalination or other power systems on land, cost and pollution free. Achieving that goal, negates the use of fossil/nuclear fuels for those systems, as well as passively contributing to the National Grid. So, the rise/fall of the tides, reliable and predictable, becomes a new source of limitless renewable energy.

Two simple mechanical machines for harnessing the tides have been designed and recently patented -- kindly navigate to the Main Menu for their description.

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