Floating Sea Wall Makes Energy from Rivers

By **Samantha Joe** Modified date: December 10, 2015



Waterstudio, led by Koen Olthuis, is a Dutch firm that explores solutions in urban planning and research as it relates to water. One of their concepts is a floating sea wall, named The Parthenon.

The Parthenon serves multiple purposes: it slows water as it pushes into a harbor, and harvests the energy that water generates.

The concept of the floating sea wall was illustrated using the Hudson River in New York, a 315-mile long river that runs through the eastern part of the state. With 39 percent of the American population living on the shorelines of the country, harnessing water as an energy supply would be a strategic move.

In a harbor like one in the Hudson River, the waves are so strong that a sea wall protects the boats inside of it. The strong current continuously pushes water against and through this fixed wall, resulting in more and more damage of the wall.

With a floating sea wall like the one made by Waterstudio, not only with the wall work with the force of the current, it will use the water's movement to generate electricity. Made up of many columns, they rotate at a low speed to create energy.

The cylinders are filled with water to ensure that there is a certain amount of flexibility in the structure without reducing the effectiveness in protecting the harbor. This energy is then contained in a box inside the floating platform. The entire structure is anchored to the riverbed, while the top can be utilized in different ways, such as a boulevard, a harbor extension, or for green space.

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