

MRECo Receives Funding for First US Tidal Test Site



The Marine Renewable Energy Collaborative (MRECo) has received funding from the Massachusetts Seaport Economic Council to develop a tidal energy test site in the Cape Cod Canal. As a fixed test structure, the Bourne Tidal Test Site (BTTS) would be the first permanent test stand for tidal energy in the USA.

The Seaport Economic Council was established by the Baker Administration to provide funding for projects that will improve the economies of the 78 seaport communities. BTTS will benefit Bourne by making it a centre for tidal energy development and, in particular, increasing business in the Buzzards Bay district, adjacent to the test site.

MRECo executive director, John Miller, noted that this is an important step for tidal energy in the US. He explained that early demonstrations done for ocean energy devices have used up to 70% of their funding for permitting.

Velocity of 7 Knots

The BTTS is a uniquely suited location for tidal testing. Most devices require 4 knots of water velocity to be effective and BTTS gets up to 7 knots. The water in the canal has relatively low turbulence or wave action, and the site is close enough to shore to allow devices to be installed by crane, again lowering risk and cost. Managed by MRECo, this site will be available to qualified entities. The site will be equipped to provide power monitoring, electrical loads, and a full sensor suite for hydrokinetic and environmental monitoring.

BTTS will be permitted and the test structure will be installed by the end of 2016. BTTS will be a welcome addition to a suite of other facilities in New England that can provide testing infrastructure that will allow developers the opportunity to test their devices in a variety of sizes and flow rates.

Currently, MRECo has an agreement with the United States Geological Survey (USGS) fish testing facility at Turner's Falls to manage tidal testing in flumes that can accommodate turbines of up to 1 metre diameter in water flows of 4 knots. Other sites are under consideration for development.