SEENEOH

ESTUARINE TIDAL TEST SITE FOR FULL-SCALE RIVER AND INTERMEDIATE-SCALE OCEAN TIDAL DEVICES

ENVIRONMENT

Water depth → 8 m
Bidirectional current
Max. velocity 3,5 m/s
Sediment: sand and mud

TECHNOLOGY

Export cable 690 VAC - 100kW
Max. turbine diameter: 5m
Max. device weight: 5t

INSTRUMENTATION

ADCPs, meteo station, hydrophones, multiparameters sensors, sonar, etc

ACTIVITES PRINCIPALES DU SITE

Mechanical and electrical performance and reliability testing of tidal devices and their related equipements

Environmental data providing

Environmental impacts assesment and feedbacks

Power performance certification by Bureau Véritas

H 24 supervision by a control center

SEENEOH Bordeaux is located upstream the largest estuary in Europe, the Gironde Estuary where tidal currents increase in the Garonne River. In Bordeaux, the tidal range during spring tides exceeds 5m/s and current velocity reaches up to 3,5 m/s. Currents above 1m/s occur approximately 80% of the time. Depth at the test area is greater than 8m. These characteristics allow the testing of full and/or intermediate scale machines relevant to adress an extensive tidal market in rivers, estuaries and oceans.

SEENEOH's test area is located only a few hundred meters off shore, close to the city centre, reducing machine deployment costs and allowing easy access for test monitoring and turbine maintenance activities.

Each of the three available berths are connected to the onshore substation by the way of an export cable. The berths are designed to accomodate tidal devices with either mounted or floating fixation type. The grid connection has a total capacity of 250kW. The performance and the environmental impact of each tested technology are monitored through a well-designed instrumentation system that will be scaled according to the developer's specifications.

The test site is operated with local public and private partners able to offer a wide range of services for the facilities' users.

SEENEOH is a precursor to the establishment of pilot farms in the estuary of the Gironde.It will allows the developpement of the Marine Renewable Energy Industrial sector and commercial deployment in the estuaries and internationally

SEENEOH will be fully operationnal in 2016.