NEAR NEWPORT, OREGON

PACWAVE SOUTH WAVE ENERGY TEST SITE

Testing Wave Energy for the Future

PacWave is an open ocean, wave energy testing facility at Oregon State University. It consists of two sites, each located within several miles of the deep water commercial port of Newport, Oregon. PacWave South is an in-development, state-of-the-art, pre-permitted, accredited, grid- connected wave energy test facility; developed in partnership with the US Department of Energy, the State of Oregon and local stakeholders. Construction started in 2021 and will be completed in 2024, with testing starting in 2025.

SITE SPECIFICATIONS

- Number of berths: 4
- Location of Test Site: 6 nautical miles off the coast of Newport Oregon
- Depth of site: 65-78 meters MLLW
- Site coordinates:
  NW: 44º 35’ 00.00”N 124º 14’ 30.00”W
  NE: 44º 35’ 02.75”N 124º 13’ 06.17”W
  SE: 44º 33’ 02.75”N 124º 12’ 58.51”W
  SW: 44º 33’ 00.00”N 124º 14’ 22.41”W
- Nature of seabed: Soft, sandy bottom
- Wave data facilities: Waverider buoys, Spotter buoys, or similar
- Mean annual wave power density: 40 kW/m, varies with year and location
- Wave periods: 5-17s
- Prevailing wave direction: WNW
- Sea states: The majority of sea states are within the range of:
  1m < Hm0 < 3.5m and 7s < Te < 11s,
  including extreme sea states caused by severe storms where Hm0 exceeded 7.5m.
- Environmental site characterization data
- Meteorological data
- Technical capacity: data acquisition, rated export capacity of berths:
  20MW Connection Voltage: 12.47kV to CLPUD, berths configurable up to 30kV
- Site access nearest port: Newport and Toledo *portofnewport.com portoftoledo.org*
- Support Facilities: Berthing & working areas, office facilities, boatyard
- Grid Connection: Metered at point of connection to the Central Lincoln People’s Utility District

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PacWaveEnergy.org

Oregon State University