

Changes in Oceanographic Systems Associated with Marine Renewable Energy Devices – Wave Energy

There are many important processes in the ocean, including the movement of the waves and tides, sediment (like sand and rocks), and nutrients – these are oceanographic systems. Marine animals and the environment rely on these processes and placing marine renewable energy devices in the water can affect them. Both wave energy devices (shown below) and tidal energy devices (shown on the next page) can reduce the power of the waves or the tides as they use those water movements to create electricity. This can change the direction and power of waves on the surface, make the water move more slowly or in new ways around the device, or change the movement of sediment.

