

Ocean Wave Energy at Affordable Price

SyncWave Energy has announced SyncWave Power Resonator, that captures the energy in Ocean Waves with frequency-based technology. SyncWave is a free-floating, self-reacting point-absorber system that is expected to improve the economics of wave energy. This system is believed to cut the cost of wave energy down to levels affordable by consumers and industry today. SyncWave power could sell for US\$ 0.05/kWh. SyncWave Power Resonator is comprised of two floats and a controller deployed in deep waters offshore. Under the regular stimulation of ocean swell the floats naturally heave out of phase due to differences in their physical properties. The SyncWave Energy Latching System (SWELS) controller optimizes their relative motion in the full range of wave conditions, and limits SyncWave to safe operating modes in extreme seas. SEI designed SWELS to force SyncWave to resonate with the dominant frequency of the wave spectrum like an antenna tunes to a radio signal. This delivers consistent energy to the power take-off, which is converted to electricity and sent to shore by undersea cable. SWELS tracks changes in sea state and wave frequency over time, and constantly applies corrections to keep the system maximally productive.

<https://www.hydro-international.com/content/news/ocean-wave-energy-at-affordable-price>
