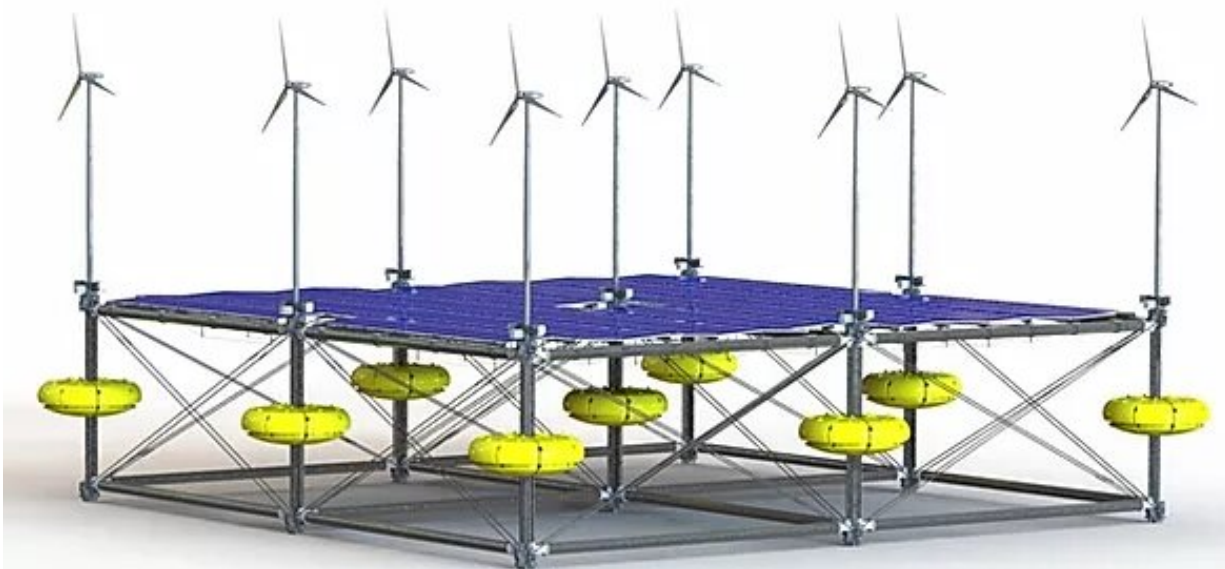


German firm introducing game-changing solar-wind-wave energy platform

May 27 2020, by Peter Grad



Credit: SINN Power

A German power firm will launch demonstrations of a one-of-a-kind, triple-threat power generating platform off Iraklio, Greece, later this year.

SINN Power has been testing wave [energy](#) converter modules for five years. Buoys attached to steel frame components generate energy as waves push them up and down. The modular nature of the platform is unique in the industry.

"The [modular design](#) has been a key element since we started developing maritime technologies that allow flexibility and a wide variety of applications," according to SINN Power CEO Philipp Sinn. "The floating platform can supply [renewable energy](#) to islands across the world ... and contribute to the worldwide implementation of offshore wind farms."

The platforms rely on three renewable sources of energy: wave, wind and solar.

The company has extended an invitation to solar photovoltaic manufacturers to test their equipment on the floating platforms this fall.

A single platform can accommodate a 20 kW [solar array](#) and up to four 6 kW wind turbines. Water-generated power can be culled from four integrated wave-energy converters that can tap into waves up to 6.5 feet high with barely any [platform](#) motion. The system is designed to handle waves up to nearly 20 feet high.

The modular nature of the system means it can be tailored to a wide variety of industrial needs. Uniform replacement parts can be easily obtained and installed, and modularity overall should help keep costs lower than current standard industry equipment.

"It's always the same, it's super modular," Sinn said. "We can always use the same parts, the same electronics regardless of which configuration is constructed. So, with this strategy, we want to get into volume ... and [demonstrate] that wave power is really attractive against solar."

Another feature of the system is an electrical sensor network that continuously monitors irregularities, [environmental conditions](#) and potential faults that could trigger failures and help avoid potentially serious shutdowns or damage.

"SINN Power is the first to offer a customizable energy solution using waves, small wind and photovoltaic according to climatic conditions of any location and at competitive prices compared to other proven technologies," Sinn added.

There will of course be challenges and questions about the resilience of such an operation. As Loz Blain, a technology writer for New Atlas, stated: "Clearly, durability is the biggest question here. The sea can be a savage business partner: powerful, unpredictable and highly corrosive... Can these platforms be expected to produce energy for five years? Ten? Fifteen? Can they be relied upon?"

But the CEO of a Norwegian wave energy company sees energy derived from the oceans as key to the world's future energy needs.

According to Seabased chief Laurent Albert, "Waves are highly predictable, completely renewable. While they are not exactly available on demand—you can't turn them on and off at will—waves work 24/7, 365. They are accessible to the 80 percent of the world's largest cities, which are in coastal areas. Moreover, they surround islands, a huge number of which currently rely on expensive and polluting imported [fossil fuels](#)."

He added, "The ability to combine the [power](#) of wave and wind to stabilize energy flow to the electric grid is one of the most exciting opportunities I've seen since I started with marine renewable technologies, because it has the potential to be a game changer."

More information: www.sinnpower.com/floatingplatform

[www.sinnpower.com/post/the-wor ... cean-hybrid-platform](http://www.sinnpower.com/post/the-wor...cean-hybrid-platform)

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