



Case study Seabased

Seabased. Making waves work.

Can we make
waves work?

Absolutely.



The client

Estimates suggest that wave-generated energy – renewable, sustainable and endlessly available – could produce as much as 15,000 TWh of electricity per year worldwide. Research-driven Seabased, now establishing a new industry in close association with Fortum and Uppsala University's Department of Engineering Sciences, is pioneering technology that can make this vision a reality. The marine environment however, especially at depths of up to 200 meters, makes severe demands on equipment. When Seabased sought a supplier for a project-critical component, ABB's track record in reliability and sustainability made it the obvious choice.

The challenge

Harnessing wave power may sound fairly easy: it's not. It involves the design, installation and maintenance of a highly innovative power-generating network, geared to the extreme demands of the marine environment – above and below the surface. Seabased wants to minimize maintenance, which is very costly once the equipment is launched, making component reliability essential. Simply put, once in place, wave energy converters, transformers and buoys must function – and continue to function.



15.000 TWh

Wave-power could produce as much as 15,000 TWh of electricity per year worldwide. That's equal to the total amount of renewable energy produced in the year 2000.

 +  +  × 365

The ABB solution

To meet the requirements of Seabased and to survive in its operating environment, components for the Seabased system needed a rare combination of flexibility and reliability. When it came to contactors, the ABB AF contactor outperformed its rivals in both areas. The electronically-controlled coil ensures exceptional resilience to voltage fluctuations, providing consistent performance under the most adverse conditions. Seabased also selected the AF contactor for its ability to supplant several 'conventional' contactors, simplifying specification for installation in different units of Seabased's wave energy networks. Seabased agrees.

To harvest wave power, you need Control.

Contact us

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