OCEAN ENERGY

SWANSEA BAY

HARNESSING THE POWER OF TIDES


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WALES – Following the international trend to expand the share of renewable energy sources, UK has set tangible efforts on the utilization of tidal energy.

Individual facilities for the direct transformation of marine energy have already been in operation for some time. For example, MeyGen in Scotland (⟶ see article on page 30). Another approach calls for the transformation of tidal energy into electricity using an artificial lagoon. With each high-tide/low-tide cycle the lagoon creates a commercially exploitable differential head, which can be utilized with machines of 20 to 30 MW each.

Tidal Lagoon Power has designed a 320 MW facility at Swansea Bay, in Wales, as a pilot project. It has already been developed to a rather advanced stage. ANDRITZ Hydro, together with a consortium partner, were selected as suppliers and contracted for the initial preparatory work.

Despite being backed by favorable economic figures, the project demands a guaranteed purchase price, which requires the British government's approval. Previously, a group of experts had been tasked with examining the concept behind the planned Swansea Bay project. The resulting report, which was published in early 2017, recommends commencing Project Swansea Bay soon.

"It was considered important to implement a 'scout project' without delay to make full use of the promising tidal energy potential while giving British industry a boost."

Hendry Report

In early October 2017, ANDRITZ Hydro approached the British government, reconfirming its continuing strong interest in implementing this crucial project. By now, the plans for a manufacturing plant in Swansea are ready, and the pre-planned collaboration with multiple manufacturing firms in England and Wales would allow for a rapid implementation with the extensive participation of local industrial providers.

ANDRITZ Hydro is confident that this promising project will soon get the go-ahead and that it will prompt a series of interesting follow-up projects. After all, tidal energy is an energy resource of the future. ANDRITZ Hydro is ready and able to contribute substantially to its utilization.

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Arrival area and rock pools


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Western landfall building

Swansea Bay | Wales

Technical data:

Total output:	320 MW
Head:	8.5 m
Units:	16

For further content use the QR-Code on p.5