

Quimper, April 12th 2019

Recovery of D10 tidal turbine

During the night of April 10th-11th, 2019, in the Fromveur Passage, the D10-1000 turbine was successfully lifted from its gravity-based foundation. During the previous hours, the subsea cable exporting the electricity produced to Ushant Island grid had been disconnected from the turbine.

The operations were successfully carried out by INYANGA Maritime, with whom SABELLA has been working for a long time, onboard the Norwegian ship *Olympic Zeus*. This vessel was chartered at the end of March in the Bay of Biscay to participate in the cleaning operation following the sinking of the *Grande America*. SABELLA took advantage of the presence of this vessel in French waters and seized the opportunity of her return journey to Norway to contract her. With a length of 94 meters, this "Anchor Handling Tug Supply" type vessel is perfectly suited to this operation, thanks to her DP2 dynamic positioning system, her 250-tonne crane with heave compensator, her work-class ROV (underwater robot) and her stern roller and towing system, allowing cable lifts and descents to be managed easily.



D10-1000 onboard Olympic Zeus after the lifting operation on the morning of April 11th (@SABELLA / Région Bretagne)

After a very satisfactory operating period of the tidal turbine following its redeployment in October 2018, as part of the European ICE project led by Bretagne Développement Innovation and its partners, and a continuous electricity production over several months at the end of last year, SABELLA's team focused on testing new control methods at the beginning of 2019 in order to significantly improve the efficiency of the turbine and contribute to the competitiveness of this emerging sector. In parallel, a defect was detected in the nacelle's cooling system that allows the various components integrated into the nacelle to be cooled. This defect did not prevent the operation of the turbine but limited its operating conditions due to the possible rise in temperature of the components, which could cause greater damage on the electrical chain.

SABELLA thus seized the opportunity of the nearby presence of *Olympic Zeus* and chose to retrieve its turbine for a short maintenance operation. The servicing period, of approximately three months at the port of Brest, will resolve the problem encountered, review the condition of the components after these six successful months of immersion and conduct a full inspection. The turbine will be redeployed on its foundation and connected to Ushant Island grid at the beginning of the summer, for operation until 2021 and the commissioning of the PHARES project, led by AKUO Energy, including two SABELLA tidal turbines, a wind turbine, solar energy and energy storage (implemented by EDF SEI).

About SABELLA

SABELLA is an EPCI company based in Quimper that designs and develops marine current turbines. The company made a name for itself in 2008 by immersing the first tidal turbine in France, D03, in the South of Finistère at the mouth of the Odet river. In 2010, SABELLA was awarded the national call for project "Ocean energy demonstrators" by ADEME, the French Energy Management and Environment Agency and was supported by the national policy Invest for the Future, the Brittany Region ERDF and local authorities, allowing the installation of the first grid-connected tidal turbine in France, D10, in 2015.

Resolutely oriented towards a market strategy focused on isolated networks throughout the world, the Breton SME catalyzes the skills and expertise present on the territory to provide a reliable and robust response to the challenges of today's energy transition.