

EMEC Generates World's First Tidal-powered Hydrogen



On Friday 25 August 2017, the European Marine Energy Centre (EMEC) produced hydrogen gas using electricity generated from tidal energy in Orkney. This is the first time that hydrogen has been created from tidal energy anywhere in the world. By harnessing the power of the tide at EMEC's tidal energy test site at the Fall of Warness, Eday, Orkney, prototype tidal energy converters – Scotrenewables'

SR2000 and Tocado's TFS and T2 turbine – fed power into an electrolyser situated next to EMEC's onshore substation.

Supplied by ITM Power, the electrolyser uses the electricity to split water (H_2O) into its component parts – hydrogen (H_2) and oxygen (O_2). The electrolyser is housed in a standard 20' by 10' ISO container with hydrogen generation capacity of up to 220kg/24hours.

EMEC's investment in hydrogen production capability has been made possible by funding of GBP3 million from Scottish Government, made available through Highlands and Islands Enterprise.

