



NETfficient opens its doors – systems on Borkum now live.

The EU-funded Research and Innovation Action Project NETfficient is now in its final year. After several months of testing and finetuning NETfficient platform and systems have now gone live. Hence 40 private homes, 5 large buildings, part of Borkum's streetlighting system and the water temperature management of Borkum Aquarium are now all equipped with PV and storage solutions, ranging from Li-Ion batteries, UltraCaps and second-life electric vehicle batteries to hydrogen storage and low-temperature water storage. In addition there is a 1 MW and 500 kWh utility scale battery with UltraCaps as part of the medium voltage network. These systems are all connected to the Energy Management Platform (or Distributed Energy Management System, DERMS), which stands at the heart of NETfficient. This platform automatically manages distributed generation and storage to optimize local energy use and also to provide energy services to the grid. Its intelligent power management uses forecasts and different optimization layers to manage the charging and discharging of the batteries, and the shifting and switching of loads from household appliances. Forecasting is also used for optimal managing of the NETfficient HESS MV storage. It is a Hybrid Energy Storage system consisting of batteries in combination with Ultra Capacitors. The interplay of these components needs to be tightly managed to gain optimum performance of each. The overall goal is to manage distributed generation and storage to increase grid stability and to maximize the profitability of renewable sources, thus achieving greener energy.

NETfficient's objective is to develop energy solutions suited to Islands as well as smart communities, providing a platform to support the optimization of the aggregation of distributed energy resources as a whole.

NETfficient offers you an opportunity to visit a number of pilot sites on Borkum during a study visit held from 14-15 June 2018. [You can register here: http://netfficient-project.eu/studyvisit/](http://netfficient-project.eu/studyvisit/).

If you would rather stay in your armchair the new NETfficient video offers you a virtual visit to Borkum. For more information on either, please visit the project website at www.netfficient-project.eu.



Press Release 27 April 2018



NETfficient
Storage for Life

Contact: Andrea Immendoerfer at Steinbeis-Europa-Zentrum (+49 721 93519 114, immendoerfer@steinbeis-europa.de)

Website: <http://www.netfficient-project.eu>

NETfficient is coordinated by Ayesa Advanced Technologies S.A. in cooperation with 12 partners: Center for Advanced Studies, Research and Development in Sardinia; Department of Electrical and Electronic Engineering of the University of Cagliari; Fraunhofer Institute for Solar Energy Systems ISE; PowerTech Systems; Schneider Electric GmbH; Steinbeis-Europa-Zentrum; Swerea IVF; Vandenborre Energy Systems NV; Williams Advanced Engineering; Wirtschaftsbetriebe der Stadt Borkum GmbH; Zigor Research&Development and follower-partner Ayuntamiento de Santander City Council's Information and Communications Department. The project is co-funded by the EU Horizon 2020 research and innovation programme, Project No. 646463.

