



Smart energy storage on the island of Borkum in Germany – European Union supports demonstration activities with nine million euro

The German island of Borkum in the North Sea will increase the portion of renewable energies to cover the energy demand and thereby move towards energy self-sufficiency for the island. The activities are supported by the project NETfficient, co-funded by the EU with 9 million euro within the Horizon 2020 programme.

13 renowned research organizations, large enterprises, SMEs and municipalities out of 7 European countries will develop a sustainable energy management system, integrate smart electric storage and enhance distribution technologies, to be implemented in the electric grid of the island. Its main objective is to provide solutions for more efficient use of available sources of renewable energies and help to reduce carbon emissions as well as dependency on fossil fuels. Used car batteries, super capacitors, Li-ion batteries and hybrid home technologies will be integrated and serve as innovative storage technologies. A strong market orientation is guaranteed by the concrete application in residential and public buildings and street lighting.

“NETfficient is tackling one of the most pressing challenges of the energy market, as the availability of renewable energies is not considered the sole problem, but its storage and distribution methods due to the time-shift between availability of renewable resources and demand peaks. We are proud that Borkum will serve as a pilot island to demonstrate the feasibility of an innovative and efficient energy management system, enabling a smart local grid in a real environment” stated Mr. Olaf Look, project partner from Stadtwerke Borkum.

NETfficient started in January 2015 with the aim to implement “Energy and economic efficiency for today’s smart communities through integrated multi storage technologies” in the next four years on the island of Borkum. The project is addressing the *Societal Challenge of Low Carbon Energy* within the European Research and Innovation Program *Horizon 2020*.

The project will demonstrate and deploy innovative local storage technologies in the island’s grid and furthermore develop a management and decision support tool: from energy generation to consumption by the end-user, the project will address all levels of the energy value chain, involving stakeholder groups, municipalities and also the citizens. Through use cases such as *homes, public buildings, and street lighting*, NETfficient will follow a strong market orientation that reflects the various energy





demand scenarios. This should ensure a successful exploitation and adoption of the project achievements through valid business models to help lowering the market barriers for small scale local storage of energy.

As one of the project partners Steinbeis-Europa-Zentrum supports the Spanish coordinator Ayesa Advanced Technologies S.A. with administrative and financial project management. It is responsible for communication, dissemination and exploitation of the project results.

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NETfficient is coordinated by Ayesa Advanced Technologies S.A. in cooperation with 12 other partners: Williams Grand Prix Engineering Limited, Fraunhofer-ISE, WinInertia Technologies, Centro di Ricerca-Sviluppo e Studi Superiori in Sardegna, Steinbeis-Europa-Zentrum, Universita Degli Studi di Cagliari, Ayuntamiento de Santander, Swerea IVF, PowerTech Systems SAS, Stadtwerke Borkum, Schneider Electric GmbH, Vandenborre Energy Systems NV and is co-funded by the EU Horizon 2020 research and innovation programme, Project No. 646463.

