TILOS is a European Innovation Project. Its main goal is to demonstrate the potential of local / small-scale battery storage to serve different roles within an island microgrid environment that exchanges energy with a main electricity network.

The project aims to achieve large-scale RES penetration and storage value maximization through the optimum integration of a hybrid RES (wind and PV) power station, together with advanced batteries, distributed, domestic heat storage, smart metering and DSM.

TILOS started on the 1st of February 2015 and its duration is 4 years. The project receives funding from the EU H2020 research and innovation program under the call for Competitive Low-Carbon Energy with its total budget reaching 15M€.

The consortium engages 15 partners from 7 EU countries: Greece, Italy, France, UK, Spain, Germany and Sweden. Because of this geographical spread, the project will reflect to different markets, strategies and policies across Europe. TILOS project is coordinated by the Piraeus University of Applied Sciences (PUAS).

The energy system will employ wind (800kW) & solar (160kW) power combined with NaNiCl2 battery storage, residential hot water storage and DSM, coordinated by an advanced energy management system.

Three different operational strategies will be tested during the last-year demo stage of the project, supported also by different micro-grid boundaries.

Following completion of year-1, parallel tasks are progressing rapidly, these including:

- Full year measuring campaign
- Completion of the licensing process
- Detailed energy and grid study
- Design of the residential DSM solution
- Development of forecasting models
- Multi-pack battery testing at CEA
- Finalization of SCADA system design
- National, representing project of Greece in COP21-Paris
- 1st round of surveys and training seminars engaging the locals