



Press Release

## **Agios Efstratios: Greece's flagship green island achieves up to 98% Renewable Energy Penetration - HEDNO's key role as the Non-Interconnected Islands Operator**

One year after the commissioning of the "Agios Efstratios – Green Island" Special Pilot Project, the results confirm the success of one of the most significant and innovative energy transition projects ever implemented on Greece's Non-Interconnected Islands.

During March, April and May 2026, renewable energy penetration in the island's electricity system reached up to 98% on a monthly basis, significantly reducing both the operation and operating costs of the conventional thermal power station, while substantially decreasing the island's environmental footprint.

The project serves as a model for the transition of the Greek islands to a cleaner and more sustainable energy system, combining electricity generation from Renewable Energy Sources (RES) with electrical and thermal energy storage to meet the majority of the island's energy demand from clean energy sources.

The Hybrid Power Station comprises a wind turbine, a photovoltaic plant and battery energy storage systems. The project also includes a district heating system with thermal energy stored in water tanks, creating an integrated energy system that achieves exceptionally high utilization of the RES stations. The project was implemented by the Centre for Renewable Energy Sources and Saving on behalf of the Municipality of Agios Efstratios, with funding from the NSRF.

HEDNO played a pivotal role in the project. In its capacity as the Operator of the Non-Interconnected Islands, the Company designed and implemented advanced automated operating procedures and innovative control algorithms for the management of the Agios Efstratios Electricity System, ensuring its reliable and secure operation under all operating conditions, as well as the seamless transition between the conventional thermal power station and the Hybrid Power Station.



The operation of the system is fully automated through a specially developed Distribution Program, which every 20 minutes calculates and implements the optimal dispatch of the available generation units based on the island's electricity demand and prevailing operating conditions.

To ensure the successful implementation of the project, HEDNO carried out extensive upgrades to its SCADA/EMS supervisory control and energy management systems, developed new operating procedures and control algorithms, conducted comprehensive testing, and established continuous monitoring and optimization of the island's electricity system.

Commissioning tests of the Hybrid Power Station commenced in July 2025, while commercial operation began in November 2025. The valuable expertise gained by HEDNO through the implementation of this project now provides a solid foundation for the deployment of similar high-renewable-penetration projects and Hybrid Power Stations across Greece's Non-Interconnected Islands, accelerating the energy transition and supporting the sustainable development of the country's island communities.

The Agios Efstratios project clearly demonstrates that, through innovative technologies, advanced control systems and specialised expertise, HEDNO is making a decisive contribution to building a modern, reliable and greener energy future for the Greek islands.

[Photo 1](#)

[Photo 2](#)

[Photo 3](#)

Athens,  
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Press Office