Innovation

In line with the company's commitment to integrating sustainability into all project stages, numerous initiatives have been carried out in Kafireas. These projects aim to preserve the local environment and uphold the highest standards of quality in procedures.

We implemented a **Sustainable Construction Site model,** a set of guidelines aiming at measuring the impacts we cause and mitigating them, adopting sustainable solutions during the wind plant construction period. We installed PV panels on site to cover part of its energy needs avoiding CO2 emissions and recycled waste and construction materials, with the help of local people interested in reusing wooden pallets or other forms of packaging of the construction equipment.

We are also implementing state-of-the-art technologies and practices for maintenance purposes to identify new smart and efficient ways of working. A few examples are the **rainwater and fog collection systems,** the **digital checklists** for pending and performed actions, the use of smart glasses for remote technical support and site visits, as well as the use of **drones** for blade inspection and measurements.

Additionally, we implemented new practices to construct and protect the safe operation of the 150kV high voltage electrical system through a **SVC Static VAR compensator,** fitted **siliconized insulation** in primary equipment of electrical substations, used drones to construct the aerial wiring of the high voltage lines, and utilized a **Remotely Operated Vehicle (ROV),** to connect and periodically inspect the submarine cable.

Kafireas Wind Cluster
Evia island

Scan to visit the Plant Page and learn more

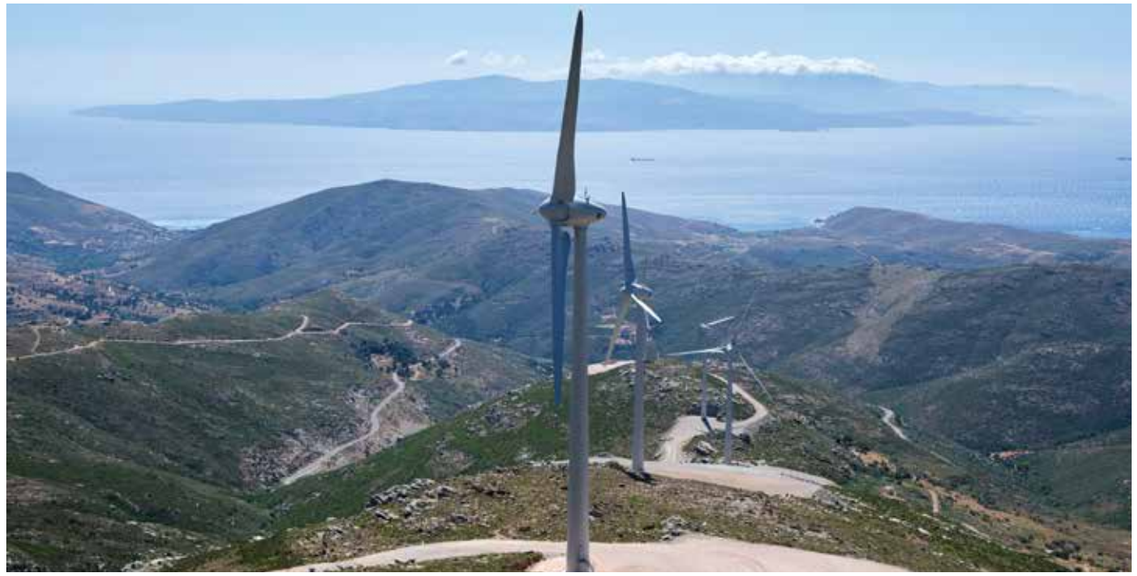
principia

WELCOME

to Kafireas Wind Cluster

38°07'18.5"N 24°33'07.7"E

principia



Power Plant Description

The **Kafireas Wind Cluster,** operating since 2019, is our flagship plant and biggest wind farm in Greece. Situated at the southern end of Evia island, Greece, in the Municipality of Karystos, Kafireas consists of a total of 73 **wind turbine generators** with a total installed capacity of 167.9 MW.

The Cluster is comprised of 8 wind farms: Anatoli, Kathara, Kerasia, Milia, Mytikas, Platanos, Paliopyrgos and Spilia. The wind turbines are type Enercon E70, 2.3MW each, with a hub height of 64 metres and a life cycle of 20 years.

Plant Highlights

The winds crossing the site have an **average speed of 11.95 m/s,** resulting in the wind power plant essentially producing an **average of 505 GWh per year.** The plant's operation results in avoiding **318.9 (average) metric tonnes of CO2 emissions per year,** while it meets the energy needs of nearly **58,000 households annually.** Holding a Feed-in-tariff power purchase agreement with the RES Operator, with this level of annual production Kafireas achieves **average annual revenues of around €50 million per year.**

The project is delivering the energy directly to Attica through 2 substations 30kV/150kV, an Overhead Power Transmission Line of 25 km, a submarine cable of 45 km and Underground High-Voltage Line of 18 km.
We constructed and continue to maintain a total of 100 km of roads that connect the southwest to the southeast side of the island.

Construction of the Cluster began in 2018, generating a total of **1,200 jobs,** 45% of which were covered by the local community, while the **investment of more than 300 million euros** supported the local economy.
The completion of the construction was celebrated in an exceptional inauguration ceremony, with the presence of the Prime Minister of Greece and other stakeholders. On an annual basis, 3% of the revenue from the sale of electricity produced in the plant goes to local municipalities and communities.

During construction, 550,000 tonnes of soil and stones were excavated and were then redirected to recycling. At the same time, our commitment to safety procedures and guidelines during construction resulted in amassing **1.5 million hours** with no accidents.

As part of our daily operations and maintenance processes in Kafireas, we conduct the replacement of main components, blade repairs, predictive maintenance, in-house remote monitoring and control, and quality assurance site inspections.

Plant Sustainability & Local Communities

Since the beginning of the park's construction, we have worked alongside the local community, by supporting associations in the area and by opening the site to visitors for educational purposes and other activities.

We reinforced local apiculture and livestock, established a bird protection system within the plant, and safeguarded biodiversity in Evia, monitoring underwater activities to ensure that local marine species were in no way harmed. Moreover, we closely collaborated with over 150 beekeepers in the area, helping the local **Kissouri honey** receive the Protected Designation of Origin (PDO) label by the European Union, in April 2024.

At the pinnacle of our initiatives lies the reforestation of the historical forest of **Kastanologgos.** The centuries-old wild chestnut forest, decreased by 40% in recent decades, is being restored with our initiative of planting 30,000 new native species in an area that spans 640 acres.

Additionally, during construction, two **archaeological sites** came to light, parts of a quarry and the remains of an ancient furnace. Thanks to our contribution, the sites have been developed and visitors are encouraged to discover the new findings.

We constructed and continue to maintain a total of **100 km of roads,** that connect the southwest and the southeast side of the island, facilitating the connection of Karystos to many remote villages. The forest roads are also of great value to the Fire Service, which we have also supported with permanent water tanks to assist firefighting in the region. Moreover, we have provided fully equipped 4X4 vehicles to volunteer firefighting organizations.

We continue to support **local basketball and football clubs,** cycling activities for Karystos cycling team and, in July 2020, we organized the first race of the Mountain Bike National Championship to take place within an area of wind farms. Additionally, to contribute to the **social work** of the "Hand in Hand" Association for the Protection of People with Disabilities, we donated a transportation van and other equipment that facilitate their educational needs.

Furthermore, with the aspiration of investing in the future and contributing to the next generation's familiarization with renewable energy, Kafireas is often open for **student site visits,** which are usually combined with inspiring educational programs.