In December 2019, Athens International Airport launched

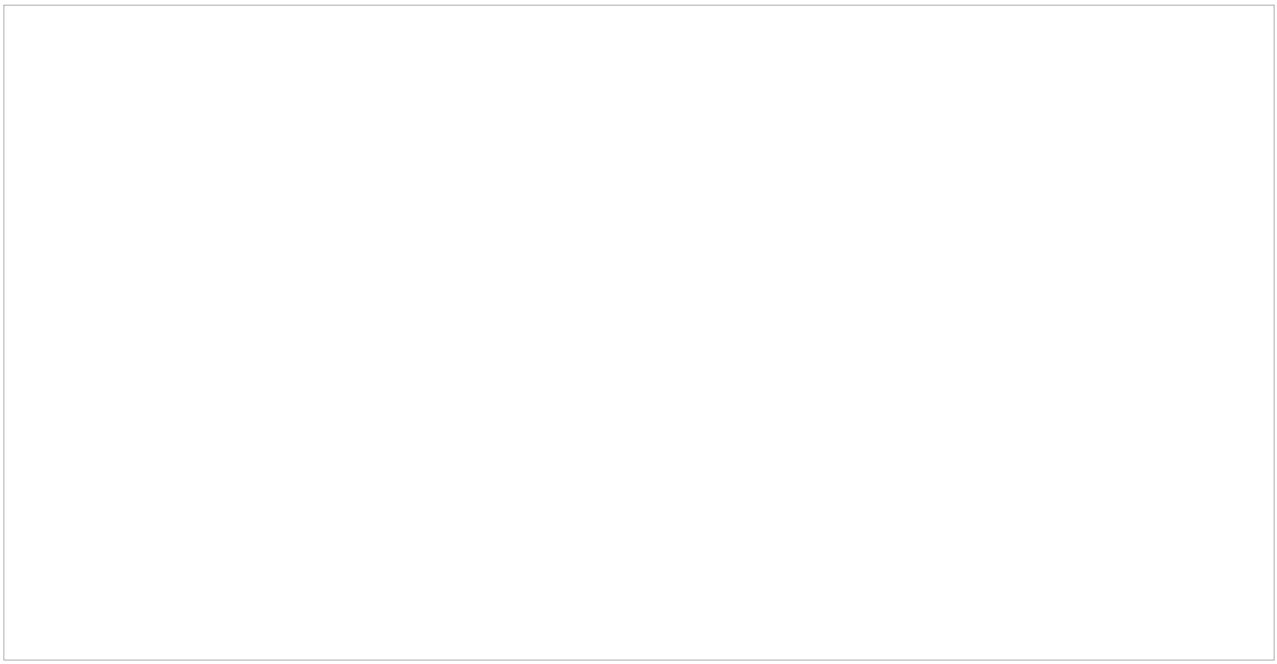

Fig. 1 System Diagram of the AC-coupled Project

The project features a 21.95 MW / 123.8 MWh Battery Energy Storage System integrated with a newly developed 35.5 MWp PV plant, fully connected to AIA's internal electricity grid and coordinated with the existing 16 MWp PV plant. The BESS charged from both PV plants, enabling the airport to convert variable solar generation into dispatchable energy aligned with operational demand.

During daylight hours, the PV plants first served real-time airport load. When instantaneous PV generation exceeded on-site consumption, the system routed the surplus solar output to the BESS—capturing energy that would otherwise be curtailed or exported—so it could be used later for self-consumption. When PV generation dropped (e.g., evenings, night-time, or cloudy periods), the BESS discharged to supply the internal grid and maintain the on-site clean electricity across the full day.

This operating logic underpinned AIA's unified energy architecture, with a clear environmental purpose: maximizing on-site consumption of generated electricity for the airport's own needs, strengthening energy autonomy, and supporting decarbonization in Europe.

Customer Benefits

The BESS captures surplus on-site solar generation and ensures that all stored electricity is used exclusively to meet the airport's own demand, maximizing the value of locally produced clean energy.

Through intelligent charging from the existing 16 MWp and the new 35.5 MWp PV plants, the BESS increases on-site consumption of solar output and minimizes curtailment.

Direct integration of the BESS with AIA's internal electricity grid enables a more autonomous and resilient energy system, better aligned with the airport's operational load profle.

Jinko's BESS solution plays a critical role by enabling on-site solar energy to be stored and used exclusively for self-consumption, reinforcing the AIA's leadership in sustainability. From January 1, 2026, AIA's electricity needs were covered solely by clean, renewable electricity produced within the airport fence for self-consumption—making AIA the only airport in Europe to cover 100% of its electricity needs exclusively with on-site clean energy.

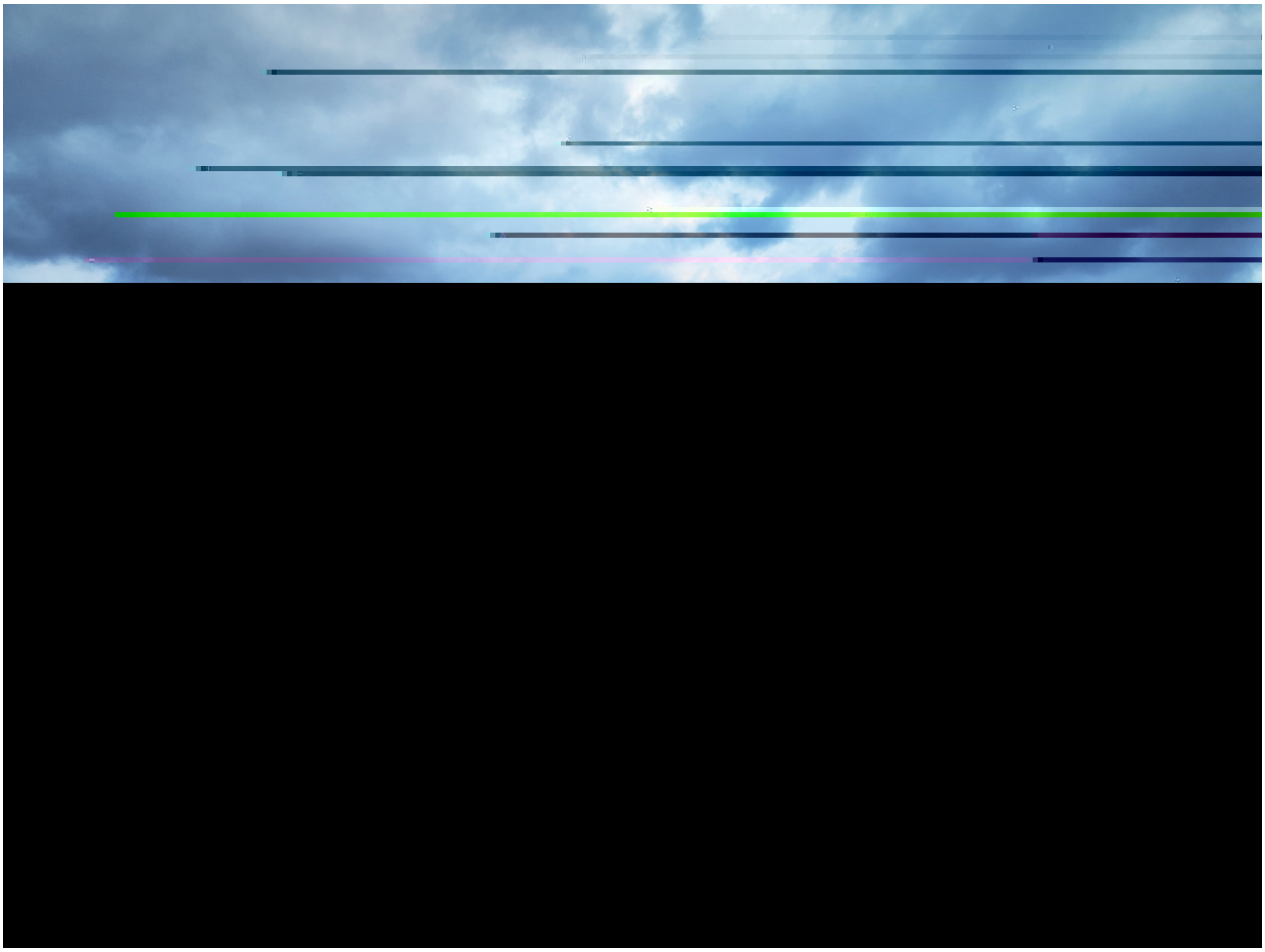

Fig. 2 On-site Photo

* The report serves as a general overview and is subject to updates by Jinko ESS. Jinko ESS reserves the right to modify the content and holds the fnal authority in its interpretation.