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Eunice Projects

BESS

BATTERY ENERGY STORAGE SYSTEMS

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- 1.000MWh 4 **Installed Capacity**
- Provision of the full range of ancillaries and flexibility to the system
- Enhancement of RES penetration through absorption of RES energy
- Provision of energy arbitrage on the daily load curve
- Li-ion battery groups connected to multiple DC/AC converters
- Connection to the recently deployed 400kV EHV Peloponnese power grid, via own EHV substation



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The plant can be fully operational soon after its approval as a project. The BESS plant can:

- Fill the operational gaps from thermal plants decommissioning
- Handle the overall demand increase
- Manage the introduction of substantial additional new RES capacity

BESS by Eunice Energy Group

The BESS project in the Arcadian Region in Greece, is a **purely Greek private investment** by Eunice Energy Group. It gathers and fully utilizes the technical, operational and economic benefits, the deployment ease, the low environmental impact and the cost reduction of storage systems in the liberalized electricity market of the post-lignite era. The BESS project contributes to the National Growth Strategy and is placed on the front line of international energy developments.



BESS ARCADIAN CUTTING - EDGE SYSTEM SPECIFICATIONS

Storage technology: Li-ion battery energy storage Design capacity: 250MW/1000MWh Roundtrip Efficiency: 85% Connection: 400kV system

The plant will consist of Li-ion batteries connected to multiple DC/ AC converters, in groups indicatively rated 2.5MW each. It will be interfaced to the 400kV system via its own EHV/MV substation. The required area to deploy the BESS station will be less than 11 hectares, including all space necessary to accommodate:

- Battery banks
- Power conditioning equipment
- MV switchgear
- HV substation
- Auxiliary facilities of the station

The state-of-the-art BESS plant proposed, that can go into operation in less than 2 years from its approval as a project, is able to fill gaps in capacity adequacy arising from plant decommissioning and island interconnections in the next few years.

The BESS plant requires minimum land interventions, similar to a ground mounted PV station of ~5MW, and will have hardly any environmental impact, greatly simplifying permitting procedures. Production licensing spans to 30 years.

SYSTEM BENEFITS



Improved system flexibility and enhanced RES integration



Contribution to capacity adequacy of the system



Fuel diversification and energy security



Market impact by long-term fixed price contracts and reduced peaks



Social and economic development



Provision of flexibility and ancillary services

- Frequency Containment Reserves (FCR)
- Frequency Restoration Reserves (FRR)
- Contribution to voltage stabilization and control of reactive power flows

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