Basic Rotating Grid Stabilizer Conversion Solution

Cost optimized solution that can enable a high amount of renewable power infeed by balancing and stabilizing the grids. Transformation of existing power plant assets to help unlock new revenue streams.

Intended Benefits

Grid stabilization can become increasingly important with the rising share of renewable power generation that can lead to a lack of short-circuit power and inherent inertia in the grid.

- Site transformation to unlock new revenue streams, achieve economic future operation and help avoid stranded power generation assets
- Secure future economic operation by reusing existing power plant equipment, grid connection and permits
- Cost effective implementation within a short execution time of as little as 6 months
- Dynamic voltage control via reactive power compensation
- Reduction of blackouts in volatile grids via inherent response to sudden load imbalances
- Promote grid resilience by short circuit power contribution

Scope

Siemens Energy provides tailor-made turnkey Rotating Grid Stabilization Conversion Solutions to address your needs based on our proven technology and execution experience. Turbogenerators in phased out thermal power plants can be converted to rotating grid stabilizers as follows:

- Analysis of existing assets including lifetime assessment
- Decommissioning and dismantling of turbine components
- Installation of a hydro motor with a static frequency converter (SFC) or a pony motor with variable frequency drive (VFD) for startup and accelerating the generator
- Upgrade of the I&C and protection systems
- Integration into the existing plant electrical systems
- Optimization of turbine train auxiliaries as well as Balance of Plant systems

Biblis - A Power Plant converted to a Basic Rotating Grid Stabilizer

Key Grid Stability Parameters provided by Rotating Grid Stabilizers

- Generator CP3-21-0140-GN-EN-01
- Published on January 21, 2022
Legal Disclaimer

Full Disclaimer

This is not an offer to sell. Prices, if any are stated, are not firm and are estimates for indicative purposes only. Among other things, this indicative price is based upon certain assumptions, such as availability of resources, existing plant, configurations, and other factors, and excludes any insurance, escalation, currency exchange risk, duties, tariffs, taxes of any kind, mobilization/demobilization, and other charges.

Lead times, event types and suggested minimum outages are estimates only as of the date of this document and may differ substantially if and as part of any quotation by Siemens Energy. Under no circumstances shall this Concise Page establish any obligation or liability of Siemens Energy or be considered to be a firm or binding offer by Siemens Energy.

The features and attributes of the product enhancements described in this Concise Page are based upon the applicable product(s) as-manufactured or as-delivered by Siemens Energy. For products manufactured, installed and/or serviced by third parties, those features and attributes may vary substantially and/or may not apply.

Siemens Energy is a trademark licensed by Siemens AG.