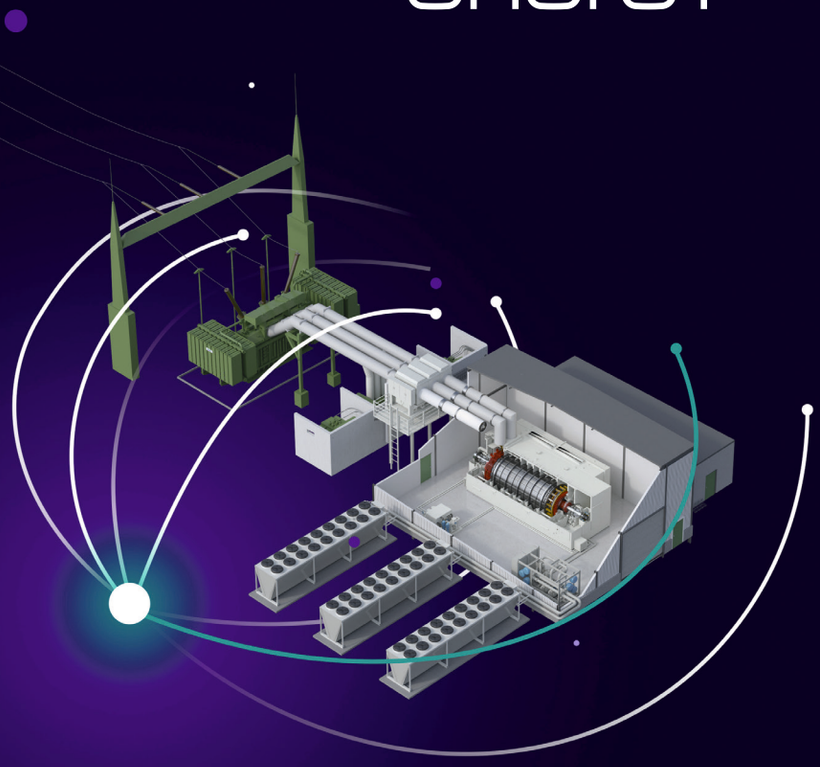
Synchronous Condenser

Backbone of the future grid



siemens-energy.com/SynCon

The implementation of renewables challenges system strength

Challenges

- Mostly non-synchronous, connected via power electronic converters
- Displace existing generation
- Located in remote part of the grid
- Multiple plants are close to each other
- Growing HVDC connections
- Growth of renewable generation

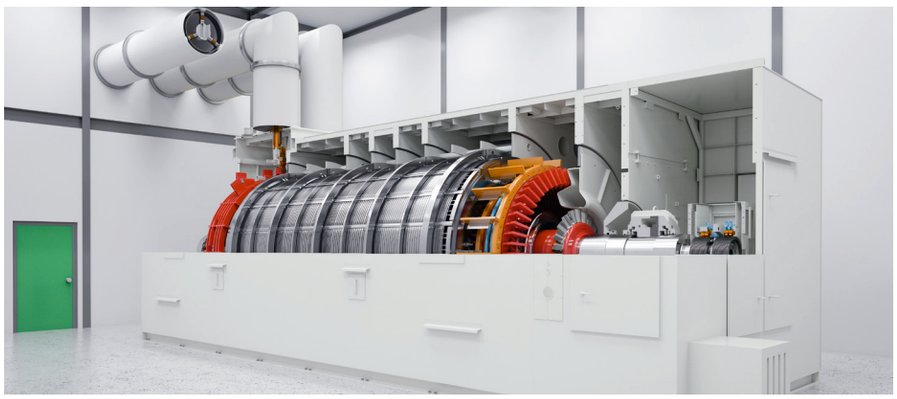
- **Inertia**
- **Short Circuit Power**
- **Reactive Power**



Inertia and short circuit power in sufficient way can only be provided by synchronous generator with or without Flywheel

Inertia and short circuit power are the key factors for a strong system. Inertia reduces oscillation on grid frequency and prevents system blackouts. Short circuit power guarantees a reliable system protection.

For a stabile grid operation an amount of synchronous generator is necessary



Siemens Energy is your solution partner for Synchronous Condenser

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