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 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 stable grid operation an amount of synchronous generator is necessary

Siemens Energy is your solution partner for Synchronous Condenser