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**How to maintain Grid Stability in transmission grids despite increasing
complexity?**

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Sponsors/Vendors Panel

Due to its immanent dynamics the power system under the presence of large-scale renewable power generation cannot be run reliably just based on operator experience. The transmission grid operator rather needs a sophisticated application package directly in the control room for managing these challenges during every day operation:

- Ready-to-implement measures to prevent or remedy dangerous situations
- Reliable supply, cost efficient use of generation resources and reduced transmission losses
- Modeling the grid as part of a wider interconnected transmission grid and more reliable transmission forecast functionality
- Current and anticipatory monitoring of power system stability and support in evaluation of preventive measures to reduce risk of blackouts

The next evolution towards a dynamic grid control center with advanced assistant systems is already on the way, allowing the adaptive integration of new, complex technologies into existing grid structures and enabling grid operators to maintain high supply reliability in the future.