Addressing the security of a future sustainable power system: The Danish SOSPO project

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Current power systems have been undergoing in depth changes by the increasing use of renewable generations. At one hand, the grid is progressively more interconnected in order to collect the renewable generation from geographically dispersed places meanwhile reduce the risks of intermittency; on the other, the power is increasingly generated at relative low voltage networks which in turn gives rise to new challenges in the conventional system design. The high governmental objective of greenhouse gas reduction provokes accelerating adoption of the renewables. The effect of this has to be carefully evaluated to secure the operation from both transmission and distribution levels. The Danish SOSPO project is launched from 2012 targeting at the system security assessment in the control room for the future scenarios. Methods will be developed in this project to counteract with the future challenges, and a testing platform will be developed in the laboratory for algorithm testing and demonstration.

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