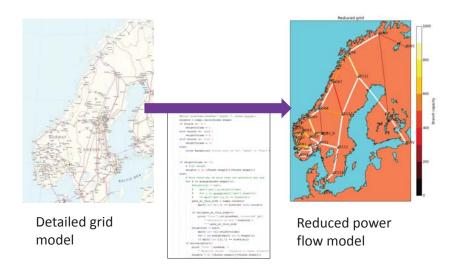
Innovation category TRL 3



Network reduction



Innovation description

Network Reduction is a software implementation of a generic algorithm to create reduced models for power flow analyses, developed by SINTEF Energy Research.

The method and software makes it easier to get a good representation of power systems in large scale system integration analyses, and reduces uncertainty of simulation results

The method is based on the requirement that power flow, or more precisely, the power transmission distribution factor (PTDF) matrix, is as similar as possible in the full and reduced grid model

The software exists as both a Matlab and Python package

Impact

- Simplifies collaboration and sharing of data by removing sensitive details
- · Reduced network model can be applied in economic analyses and market models with reduced computational costs

Further development

he tool is not actively being developed any further

References

H. G. Svendsen, Energy Procedia 80 (2015) 349-356, DOI: 10.1016/j.egypro.2015.11.439

