

NordREG Workshop on Cross Border Capacities 25 October 2018, Stockholm Timo Kaukonen, Fingrid

# Transfer capacities and congestion management with Olkiluoto 3

**FINGRID** 

## Transfer capacities with Olkiluoto 3 in operation

Olkiluoto 3 affects FI-SE1 transfer capacity from Sweden to Finland (AC)

- If OL3 trips, the northern RAC interconnector needs to be able to provide immediately the required reserve power to Finland → affects the flow from Sweden to Finland
- Does not affect the transfer capacity from Finland to Sweden

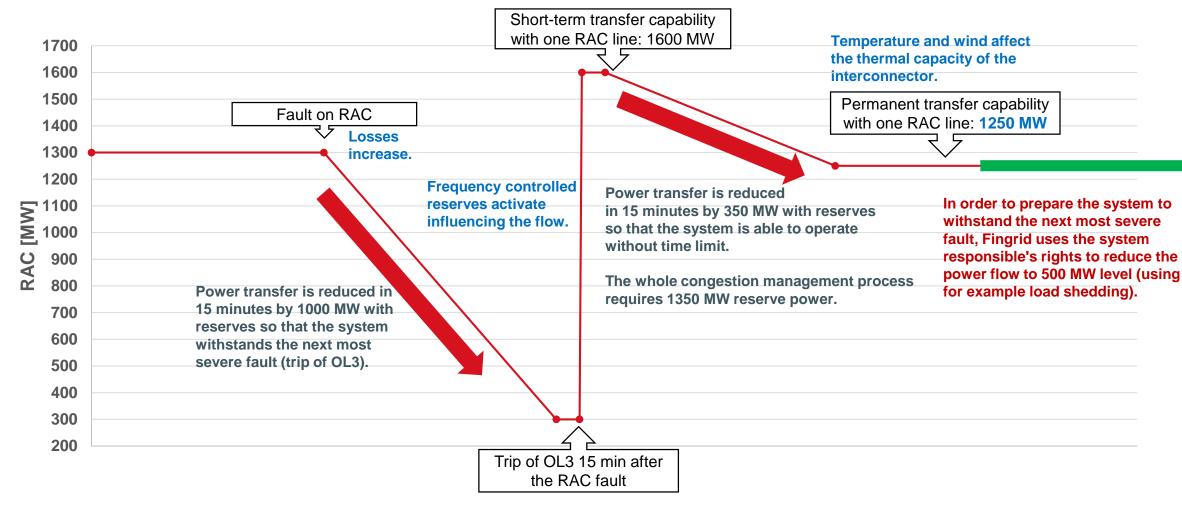
Olkiluoto 3 does not affect FI-SE3 transfer capacity (HVDC)



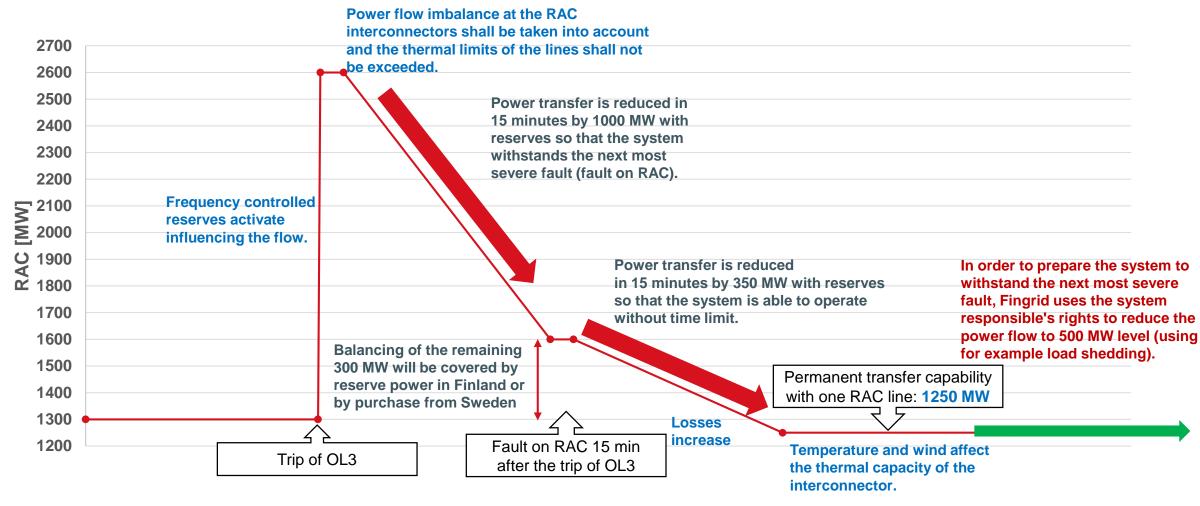
Olkiluoto 3 power	Commercial transfer capacity FI- SE1, northern AC interconnection		Commercial transfer capacity FI- SE3, southern HVDC connection		Olkiluoto 3 system protection scheme,
	SE1 → FI	FI → SE1	SE3 → FI	FI → SE3	load shedding capacity
1000 MW	1500 MW	1100 MW	1200 MW	1200 MW	0 MW
1300 MW	1200 MW	1100 MW	1200 MW	1200 MW	0 MW
1650 MW	1200 MW	1100 MW	1200 MW	1200 MW	350 MW



### Permanent fault on RAC followed by trip of OL3



### Trip of OL3 followed by permanent fault on RAC



## Customer and market needs are the foundation for grid development – no unnecessary investments

- The main grid investment programme is based on a long-term development plan and more detailed regional plans. The plans are compiled in cooperation with customers and the authorities.
- Investments are not optimised on the basis of the regulatory model.
- In the near future, the amount of investments covered by the main grid tariff will correspond to Fingrid's annual depreciations.
- Investments made to promote the electricity market will also by covered by bottleneck income.







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