

Utilize the Full Potential of Your Power Assets with SUMO DTR

**SOLVERA
LYNX**

Problem

You need to connect the wind farm to the power grid, but are unable to do so due to insufficient connecting power line capacity

You cannot fully harvest the wind farm potential due to restrictions on connecting power line capacities

- Your want to maximize the yield of your investment



Solutions

Long term (5-10 years)

- Build new power lines

Mid-term (3-5 years)

- Upgrade/upgrade power lines
- **SUMO with Dynamic Thermal Rating - DTR**

Short term (1-3 years)

- Re-dispatch
- **SUMO with Dynamic Thermal Rating - DTR**

* (out of TSO scope)

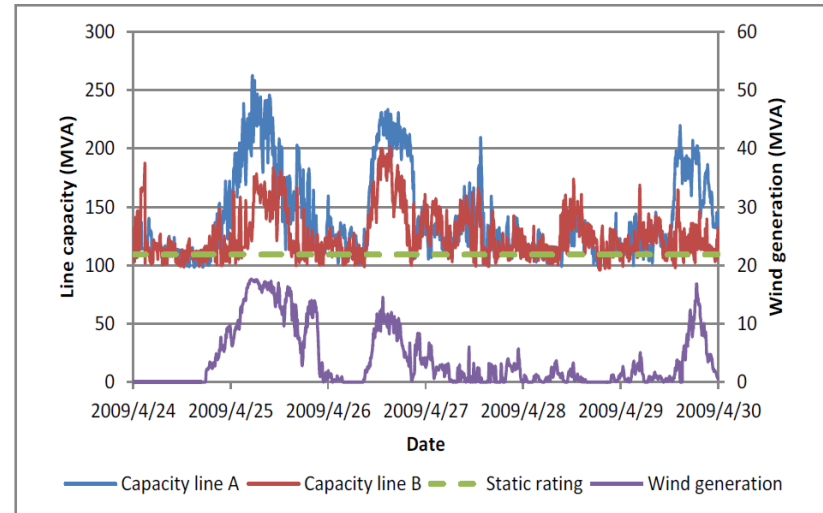
Comparison of Solutions

Solution	Implementation time	Cost	Impact on capacities
New power lines	5-10 years	€€€€€€	High
Upgrade or uprate	3-5 years	€€€	Medium
SUMO (DTR)	1-2 years	€€	Medium

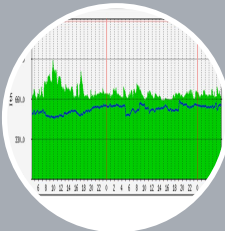
DTR For Wind Power Generation

BENEFITS

- Up to 25 % increase in capacity
- DTR particularly beneficial to wind power generation
 - Higher wind
 - Higher power production
 - Higher powerline cooling -> higher capacities



SUMO DTR Solution



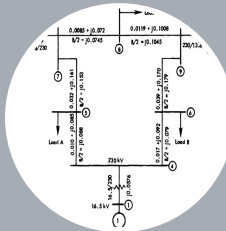
DTR



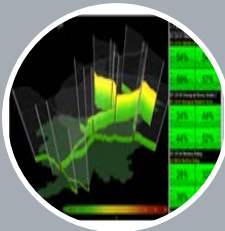
Weather Measurements & Models



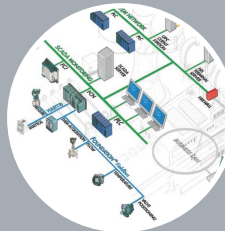
Forecast of Weather & Power flows



Network analyses for real-time & near future



Visualization and alerts



SCADA/EMS integration



Sumo Advantages

Local weather data

- Limit assessments are calculated based on **local weather data** (measurements and models)

DTR algorithm

- Improved DTR algorithm is tested on an open-air test site with actual conductors used on power lines

Non invasive installation

- Installation and DTR calculations are non-invasive (no need for **switching off the power line**)

Experience

- **Experience** gained from everyday use of SUMO is used for **new and improved functionalities**

Conclusion

SUMO DTR enables

- **Better utilization** of existing powerlines
- **Secure and safe connection to the grid** in changing weather conditions
- **Improved awareness** of the situation on powerlines.

Contact us!

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