Utilize the Full Potential of Your Power Assets with SUMO DTR
Problem

You need to connect the wind farm to the power grid, but are unable to 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/uprate 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

<table>
<thead>
<tr>
<th>Solution</th>
<th>Implementation time</th>
<th>Cost</th>
<th>Impact on capacities</th>
</tr>
</thead>
<tbody>
<tr>
<td>New power lines</td>
<td>5-10 years</td>
<td>€€€€€</td>
<td>High</td>
</tr>
<tr>
<td>Upgrade or uprate</td>
<td>3-5 years</td>
<td>€€€</td>
<td>Medium</td>
</tr>
<tr>
<td>SUMO (DTR)</td>
<td>1-2 years</td>
<td>€€</td>
<td>Medium</td>
</tr>
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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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