

alliander

### **Dynamic Grid Loading** Using thermal inertia and real-time conditions to optimize asset loadability

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## Optimize assets' loadability: periodically or real-time





## Dynamic Grid Loading in existing congestion management frameworks





#### Test: 39 MVA peak load on a 30 MVA transformer Period: 6 weeks

**CIRED** Pilot operation





90 °C

0.43

days/day

rel. aging

(IEC 60076-7)

#### Transformer hot-spot temperature: good





23 °C

#### Cable sheath temperature: very low







#### Conclusions



I MAMM

Dynamic loadability Maximum loadability by scaling of a real time or day-ahead load and temperature profile to the asset temperature limit

# ✓ Dynamic grid loading can relieve congestion

✓ It can be implemented in congestion frameworks

