AURTRA
TRANSFORMING POWER ASSET MANAGEMENT

Optimise transformer life

ASSESS / ANALYSE / ACT

- ASSESS, TRACK AND FORECAST INSULATION STATE and life left
- ANALYSE RISKS and engineer data-driven life extension and risk reduction strategies
- IMPROVE DECISION MAKING with automated data collection, analysis and reporting
- Optimise aged TRANSFORMER FLEET MANAGEMENT and replacement programs

CASE STUDIES

MANAGEMENT OF VOLATILE RENEWABLE LOADS

Problem: With uncertain status of aged transformers connected to a new solar farm, what would be the impact of changes to the long-term load profile?

Answer: Aurtra's low cost solution showed clear ROI to enable the engineers to continually assess and monitor the impact of the dynamic load on transformer insulation health.

OPTIMUM REPLACEMENT TIMING

Problem: Substation transformers were earmarked for replacement based on nameplate age. With restraints on CapEx, could it be delayed?

Answer: Aurtra analysis over summer showed the insulation health was better than expected. Replacement could be delayed by 10 years with a $2.7M CapEx saving.

OPERATIONAL RISK ASSESSMENT

Problem: Would an aged substation transformer be able to handle the increased load during a major global sporting event?

Answer: With Aurtra analysis available online, the Substation engineer could easily model the impact of the changes and confirm.

MAINTENANCE DECISION MAKING

Problem: Tap-changer replacement in a substation was delayed due to maintenance cost with a heavy load borne by the 2nd transformer.

Answer: Aurtra solution showed the increased load significantly impacted the usable life of the 2nd transformer, justifying the tap-changer replacement.

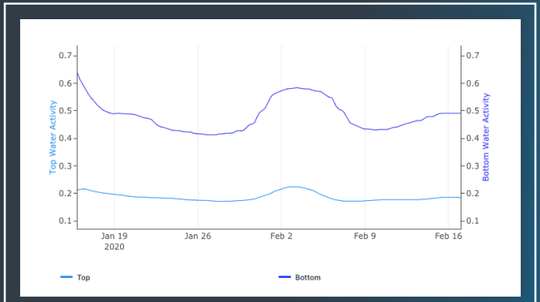
Transformer insulation health

ASSESS / ANALYSE / ACT

DETAILED OPERATING TEMPERATURE ANALYSIS

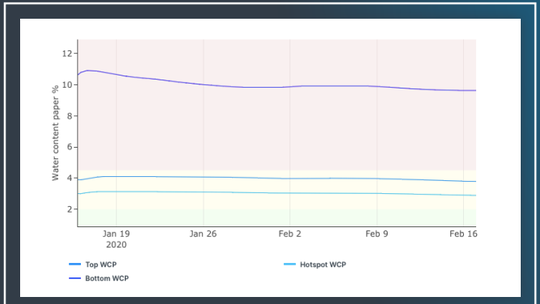
Assess current state. Create scenarios to forecast the impact of changing loads.

DETAILED MOISTURE IN OIL ANALYSIS



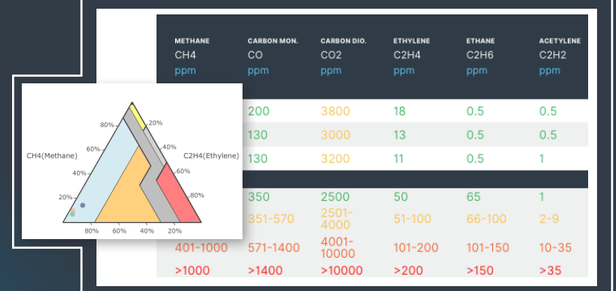
Track moisture levels and movement. Assess risks.

DETAILED MOISTURE IN PAPER ANALYSIS



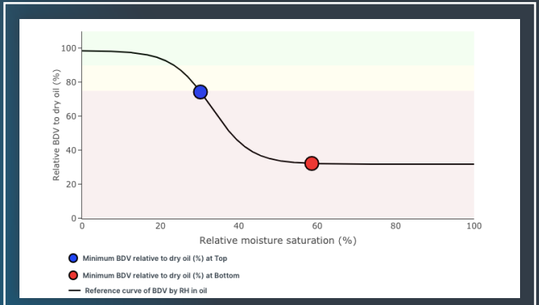
Track trends. Plan for dryout. Assess risk of high moisture.

CRITICAL OIL STATUS MONITORING



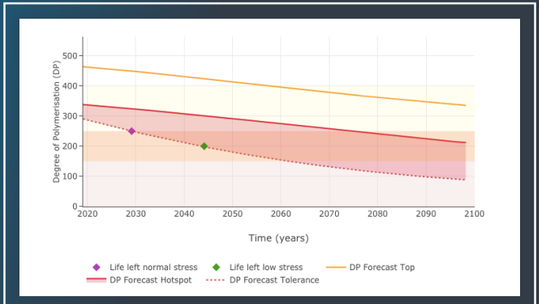
Automated volatile gas IEEE/IEC analysis.

BREAKDOWN VOLTAGE OF OIL



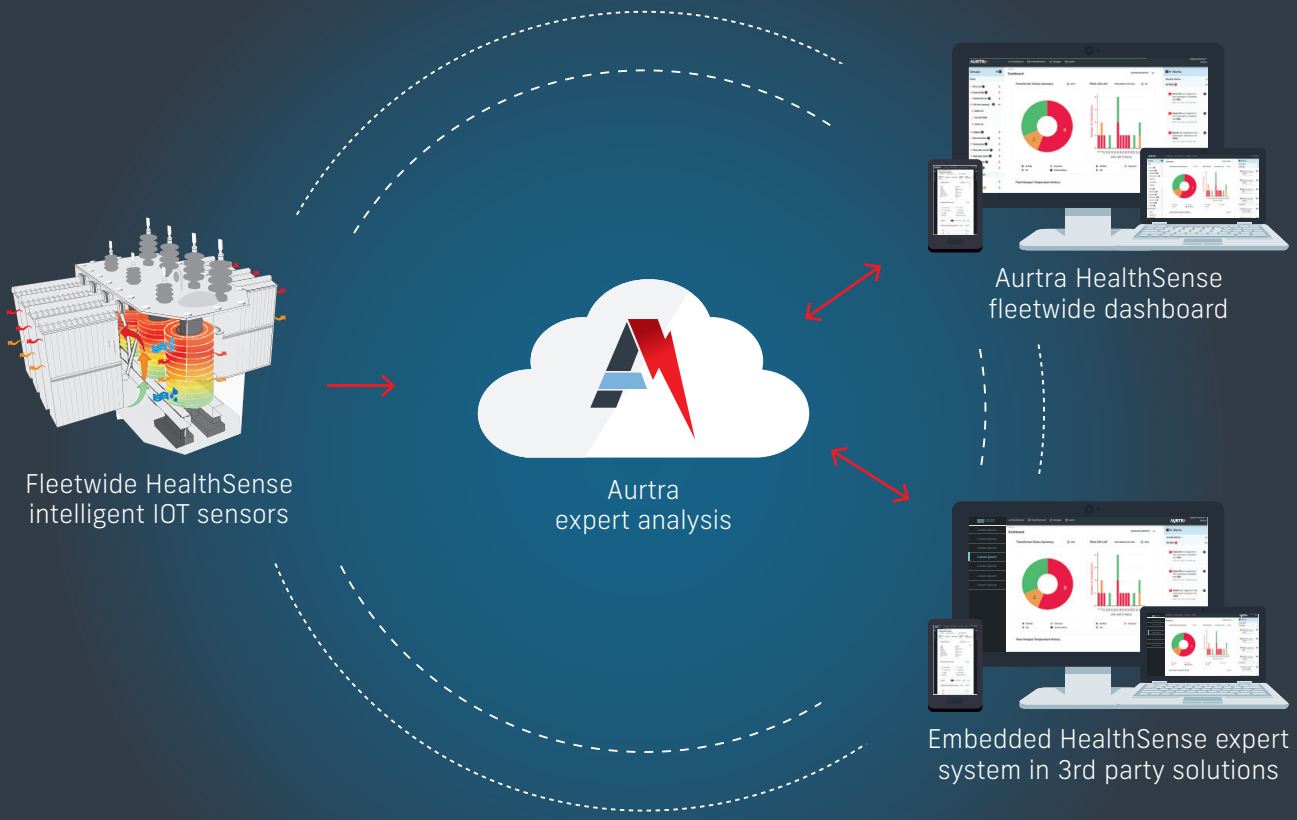
Assess risk of high moisture. Plan for dryout.

DP DETERMINATION AND FORECAST



Correlate oil test results and observed dynamic response. Forecast life left and model changes.

HealthSense Transformer Condition Monitoring



Affordable transformer insulation health analysis

- State-of-the-art accurate transformer monitoring and alerts
  - > Water in oil, temperature, vibration, acoustic and RF noise
- Automated online risk analysis
  - > Excessive water saturation of oil
  - > Moisture ingress
  - > Volatile gases
  - > PD trend
  - > Insulation aging rate
- Assess, track and forecast insulation state and life left
  - > Water content of paper profiling
  - > Oil saturation
  - > DP determination and forecast
- Sophisticated scenario analysis
  - > Model the impact of changing loads and cooling configurations
- Fleetwide dashboard with unlimited free users
- Easy 30 minute installation with automated communications
- Life-long warranty and software upgrades

SALES CONTACT INFORMATION Int Tel +1 404 777 1912 / Email ask@aurtra.net aurtra.net