



Aclara sensors for power line management between 1 and 65 kV



EXCITING PILOT PROJECT: ACLARA SENSORS

We already reported in the last issue that, since last year, Mosdorfer has been an authorised sales partner for Aclara's power grid monitoring sensors, serving customers in Europe. Mosdorfer/OTLM has now launched the first pilot project with Aclara sensors with its Austrian customer Energienetze Steiermark, a utility company in the province of Styria.

The sensors were mounted onto a 20 kV power line with an uninsulated power cable, located not far from Mosdorfer's own facility, on the edge of Weiz. This has the benefit that the pilot project can easily be demonstrated to other customers as well. The three sensors were installed in collaboration with the electrical engineering company Energienetze Steiermark in Weiz, using a hydraulic platform. It took about half an hour, during which time the power was turned off. The mechanics expressed themselves very positively about both the procedure as a whole and the speed of the installation, saying it was "as easy as pie".

The mechanics were accompanied throughout the installation by Roman Maier (Project Manager for Energienetze Steiermark), Wolfgang Troppauer (Technical Director, Mosdorfer, and Managing Director, OTLM) and two representatives of Aclara. The business side of the pilot project took about six months to prepare. This included the initial contact, drawing up the contract, waiting for the power line to be turned off, and the final installation and commissioning of the sensors.

The pilot project has been scheduled to run for one year, during which time data are being collected. Measurements are taken at 15-minute intervals, and the data is then sent at hourly intervals to Mosdorfer's server. Data transfer takes place via the telephone network. The data collected during the pilot project is quite extensive, involving measuring the cable temperature, voltage and phase angle. Mosdorfer/OTLM monitors and analyses the readings, and the customer – Energienetze Steiermark – is sent a monthly report.

If the pilot project works well and the customer is satisfied with the data analysis, they may want to take over the sensors after this one-year period. Our colleagues at Aclara were excited about the first pilot project and this very first installation of Aclara sensors in Austria.

What's the difference between an Aclara sensor and our OTLM sensor?

The Aclara sensor is, as it were, a scaled-down version, as it is only used for voltages between 1 and 65 kV. In other words, it is used within the range where we can't use an OTLM sensor, which is intended for high voltage. This is due to the structure of an Aclara sensor, which begins to self-feed even at a very low current. An OTLM sensor, on the other hand, would need at least 65 A for this purpose. Aclara and OTLM sensors therefore complement each other

perfectly, and we can offer our customers power line management at all three voltage levels: low, medium and high.



Installation of the three Aclara sensors took no more than half an hour, using a hydraulic platform.



The sensors deliver important readings at 15-minute intervals, measuring the cable temperature, voltage and phase angle.