



# HV CABLE MONITORING

## HV Cable Monitoring.

### Better, safer, faster, smarter.

Nitty-gritty technical challenges, like scouring the globe to source the best product for a given solution, or inventing one that's even better.

That's just the way we're wired. That's why, when we say we'll deliver a solution, we deliver. First time. And that's how we save you time, trouble and money – when you're dealing directly with the industry's brightest minds, you get the answers you need, faster.

No excuses. No cost blow outs. Just a solution that works.

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# HV CABLE MONITORING.

## THE PROBLEM

Overheating HV Cables reduces cable life and can cause fires and operational outages

### — QUICK FACTS —

- Non-intrusive installation
- Condition monitoring historical data for future planning
- Advice of abnormal conditions and alerts
- Simple user tools and interfaces

## OUR SOLUTION

Measure and trend the core temperature of HV cables and actively measure cable current. The solution uses an algorithm developed by ARCS for calculating the core temperature of 1500VDC feeder cable in a non-invasive manner together with the use of a high current Hall Effect transformers to measure up to  $\pm 6000A$ .

The data is provided to the client as a trended graph over hours, days, months and years and provides exception reporting to alert maintainers of potential problems. The system also provides planners with the information needed to allow cable upgrades as the Network expands and traffic plans change.

## OUR APPROACH

The ARCS Group developed a number of measurement strategies and undertook several hundred analytic and theoretic test and models resulting in the best and safest system available. At ARCS it is our primary goal to research and develop the most efficient, reliable and sustainable systems for our clients.

ARCS in close collaboration with American Aerospace Controls designed and implemented a HV Hall Effect current measurement device and mounting arrangement for the measurement of current in open air switchyards. Independently ARCS designed an IP rated enclosure to accommodate for outside installations.

