

# SMART CABLE GUARD

Don't be left in the dark  
Prevent failures and improve grid reliability



Smart Cable Guard boosts reliability of power networks by preventing 70% of all avoidable failures in distribution cables.

Distribution grid operators worldwide have installed DNV's Smart Cable Guard to prevent cable failures. As a result, unplanned power outages occur less frequently, and preventive maintenance is safer and takes less time.

A study from a German network operator shows average outage duration (SAIDI) can be reduced by 55% when the online monitoring platform is combined with distribution automation. The investment yielded an annual return of more than 8%.

A Dutch utility using Smart Cable Guard, saw a significant drop in its average outage frequency (SAIFI) thanks to 70% lesser failures in distribution cables.

And a large refinery in India prevented 14 electrical failures avoiding INR 80 Crore (10M EUR) in revenue losses thanks to the online monitoring platform.

Imagine the effect of these statistics on your daily operations.

## Monitor your distribution grid 24/7

Continuously track the health of distribution cables with Smart Cable Guard in real-time and detect weak spots within 1% of a cable length.

With 3,000 systems installed on 7,500 kilometres of cable, Smart Cable Guard has a proven track record:

## Reducing the frequency of power outages (SAIFI)

Utilities using Smart Cable Guard reduced the number of distribution cable failures substantially. Our weak spot detection informs network operators in advance, so power can be rerouted during maintenance work. Convenient for your team, even better for your customers.

## Reducing average outage time (SAIDI)

Some outages are not caused by weak spots, but by external influences, such as excavation work. When this happens, Smart Cable Guard alerts you within 5 minutes and pinpoints the location of the failure, reducing repair time by 30-40%.

### More safety and efficiency during maintenance

When you know the condition of a distribution cable in real-time, your team no longer has to spend hours investigating the status of (ageing) assets. The power can even be left on during online monitoring. In addition, knowing the location - within 1% of the cable length - means that weak spots can be found more easily and the time on site is significantly reduced.

### Outstanding grid investment

With global electricity doubling from 19% to 36% by 2050, grids need to operate closer to their limits while maintaining reliability. Grid operators need to embrace digital transformation to make real-time decisions that ensure cost-effective and reliable operations. Utilities using Smart Cable Guard have seen a positive annual return on investment.

Large industries and wind farm operators have even experienced 100% ROI after avoiding a single outage.

### OUR PROMISE TO YOU:

- Compatible with all major cable types and distribution voltages, up to 69 kV.
- A high level of support at all stages: implementation, monitoring and advice from experienced analysts when a weak spot is discovered.
- API integration with other asset management systems (SCADA, WMS, distribution automation).
- 24/7 partial discharge analysis based on our machine-learning algorithm, assessed by our experienced analysts.
- Actionable real-time alerts. Receive alerts on when and where maintenance is required and which cables can wait.

### ABOUT DNV

DNV is an independent assurance and risk management provider, operating in more than 100 countries, with the purpose of safeguarding life, property, and the environment. As a trusted voice for many of the world's most successful organizations, we help seize opportunities and tackle the risks arising from global transformations. We use our broad experience and deep expertise to advance safety and sustainable performance, set industry standards, and inspire and invent solutions.

### In the energy industry

We provide assurance to the entire energy value chain through our advisory, monitoring, verification, and certification services. As the world's leading resource of independent energy experts and technical advisors, we help industries and governments to navigate the many complex, interrelated transitions taking place globally and regionally, in the energy industry. We are committed to realizing the goals of the Paris Agreement, and support our customers to transition faster to a deeply decarbonized energy system.

