

Hitachi Energy launches digital wildfire prevention technology for a resilient grid

The Wireless Spark Prevention Unit (SPU) Indicator increases grid resilience and reduces the risk of wildfires.



Surge Arrester equipped with SPU and Wireless SPU Indicator

Zurich, November 30, 2022 – Hitachi Energy is pioneering a new digital solution designed to improve grid resilience against wildfires. The new Wireless SPU Indicator helps utilities to keep important assets available by enabling remote monitoring and improved maintenance and replacement planning.

As climate change continues to cause temperatures to rise at a steady rate, longer periods of hot, dry weather play a significant role in intensifying the risk, frequency and severity of wildfires.* The increasing risk of wildfires brings a number of potential consequences including severe damage to electricity infrastructure. Investigations into the causes of wildfires have highlighted the same electrical infrastructure has been found among the top potential sources of the initial spark. In particular, thermally overloaded surge arresters installed on power lines in dry areas are an area of concern for utilities.

Hitachi Energy's innovative Spark Prevention Unit (SPU) monitors the current and thermal load of the surge arrester and automatically disconnects it from the network in the event of a thermal overload, therefore preventing any arcing, sparking or discharge of hot particles that could ignite a fire. A visual indicator alerts the utility field crew to the need for replacement. Hundreds of thousands of SPUs installed in some of the world's most wildfire-prone areas such as the United States and Australia have had a real impact in preventing wildfires.

Today, Hitachi Energy builds on this innovation with the launch of the digitally enabled Wireless SPU Indicator. This digital solution automates visual inspection rounds to detect asset replacement by providing real-time status of a SPU, allowing utilities to perform remote monitoring and enable a strategic approach for asset maintenance and replacement planning.

"Our innovation is driving grid resiliency by safeguarding the network's key assets," said Markus Heimbach, Managing Director of Hitachi Energy's High Voltage Products business. "By mitigating the risk of wildfires ignited by power lines, we are protecting communities, wildlife and the environment," He added "We continue to pioneer technologies to advance the world's energy system to be more sustainable, flexible and secure – for today's generations and those

to come.”

*According to the United Nations Intergovernmental Panel on Climate Change's (IPCC) latest "Climate Change 2021" report, increasing trends in extreme heat, drought and length of dry season have been observed.

Spark Prevention Unit website

<https://www.hitachienergy.com/products-and-solutions/surge-arresters/medium-voltage-surge-arresters/spark-prevention-unit>

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About Hitachi Energy Ltd.

Hitachi Energy is a global technology leader that is advancing a sustainable energy future for all. We serve customers in the utility, industry and infrastructure sectors with innovative solutions and services across the value chain. Together with customers and partners, we pioneer technologies and enable the digital transformation required to accelerate the energy transition towards a carbon-neutral future. We are advancing the world's energy system to become more sustainable, flexible and secure whilst balancing social, environmental and economic value. Hitachi Energy has a proven track record and unparalleled installed base in more than 140 countries. Headquartered in Switzerland, we employ around 40,000 people in 90 countries and generate business volumes of approximately \$10 billion USD.

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About Hitachi, Ltd.

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