

FOR IMMEDIATE RELEASE

## Hitachi ABB Power Grids drives digital transformation of the power sector with new Smart Digital Substation



The Smart Digital Substation answers rising demand and complexity from distributed energy resources

**ZURICH, February 23, 2021:** Hitachi ABB Power Grids today announced the launch of its Smart Digital Substation offering which brings together the latest in digital substation technology with the unique predictive, prescriptive and prognostic capabilities of Hitachi's industry-leading Lumada Asset Performance Management (APM) solution.

The Smart Digital Substation forms part of a new wave of innovation that began with the recently announced integration of Hitachi ABB Power Grids' Digital Enterprise software into Hitachi's Lumada ecosystem.

By replacing copper wires with fiber optic cables, the Smart Digital Substation enables companies to reduce their carbon footprint with a smaller site and plan the next steps in their digital journey by employing digital technology and analytics in their operations today. On any given day, operators are now empowered with more data on every aspect of their facility – from the composition of a circuit breaker's insulation (a red flag for potential catastrophic failure) to using unstructured video footage to help determine the probability of unplanned downtime for primary equipment throughout the substation.

The Smart Digital Substation also makes it possible to increase reliability and resilience, integrate new forms of cleaner energy and deliver energy services in smarter, safer ways – necessities for navigating the shift towards more distributed and less predictable renewable power generation.

Substations are the cornerstone of the electric grid, helping to transform voltage levels from high to low or vice versa and to securing and dispatching power flow. They play a vital role in transmitting and distributing electricity safely across the grid from the point of generation to the end-consumer. The digital substation market is projected to grow at a CAGR of 7.1 percent over the next five years from \$6.4 billion in 2020 to \$9.1 billion by 2025.

### **Actionable Insights and 24/7 Expert Support**

By harnessing data generated by devices and sensors, the Smart Digital Substation provides owners and operators “next-level” capabilities including actionable insights and a more complete view of their operations.

The integration of Lumada APM adds a layer of analytics and simulations enabling decision-makers to address issues on an asset before any disruption to operations. These analytics can be extended beyond the substation fence to assess risk and probability of substation or asset failure throughout a company’s fleet. In addition, Hitachi ABB Power Grids has a global network of digitally connected Collaborative Operations Centers (COCs) to ensure world-class customer service from experts wherever and whenever needed. Rapid-response services backed up by the COC network are core to all customer service agreements. This approach provides the foundation for a range of new digital service offerings including the customer asset base lifecycle management program.

### **Defense-in-Depth Cybersecurity**

Recently awareness has heightened around the industrial sector as a potential target for cyberattacks. With concerns around the safety and well-being of their staff, critical assets, customers and the environment, industrial companies have prioritized protection against these threats. Security is an integral part of our Smart Digital Substation – from product development to solution delivery. The Smart Digital Substation provides integrated control, communications and software solutions purpose-built to balance resources, conserve cash, and increase reliability and security. Highly secure communications using quantum-safe encryption enable real-time connectivity, and the modular software suite seamlessly combine visibility into asset performance, maintenance history, workforce and resource location. This enables customers to improve productivity and ensure worker safety. The digital solution utilizes a defense-in-depth cybersecurity architecture based on industry standards and best practices. This improves security posture and permits network security management and maintenance throughout the substation lifecycle.

“Maintaining productivity in the face of asset portfolio shifts and the uncertainty of electricity loads and revenues requires sophisticated tools that allow for holistic decision

making – optimizing both financial performance and grid operations,” said Massimo Danieli, managing director, Grid Automation business unit, Hitachi ABB Power Grids. “The Smart Digital Substation offering is aimed at enabling digital transformation and supporting our customers’ journey towards a more decentralized and interconnected energy landscape and a more sustainable future.”

"Substations remain critical for grid reliability and resilience." said Rick Rys, senior consultant at ARC Advisory Group. "Today's digital substations bring both to new levels, while typically introducing new automation and asset management capabilities. With the launch of its new Smart Digital Substation offering, Hitachi ABB Power Grids has enhanced its asset performance management prognostics that use models of key grid assets such as transformers, wires, insulators, and other substation equipment. This offers the potential to further improve substation productivity, sustainability, and reliability."

**Smart Digital Substation webpage**

<https://www.hitachiabb-powergrids.com/offering/product-and-system/substation-automation--protection---control/substation-automation-systems/digital-substation>

**Lumada APM webpage**

<https://www.hitachiabb-powergrids.com/offering/product-and-system/asset-and-work-management/lumada-apm>

**MarketsandMarkets.com research on Digital Substation market size**

<https://www.marketsandmarkets.com/Market-Reports/digital-substation-market-43227003.html>

**About Hitachi ABB Power Grids Ltd.**

Hitachi ABB Power Grids is a global technology leader with a combined heritage of almost 250 years, employing around 36,000 people in 90 countries. Headquartered in Switzerland, the business serves utility, industry and infrastructure customers across the value chain, and emerging areas like sustainable mobility, smart cities, energy storage and data centers. With a proven track record, global footprint and unparalleled installed base, Hitachi ABB Power Grids balances social, environmental and economic values. It is committed to powering good for a sustainable energy future, with pioneering and digital technologies, as the partner of choice for enabling a stronger, smarter and greener grid. <https://www.hitachiabb-powergrids.com>

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Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.

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