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GRIDSPERTISE PRESENTS THE QEd - QUANTUM EDGE $^{\otimes}$ DEVICE AT ENLIT EUROPE

- Thanks to edge computing, the QEd Quantum Edge® device will offer Distribution System Operators (DSOs) a revolutionary end-to-end multipurpose intelligent solution for future-proof smart grids
- Within Enlit Europe, Gridspertise received from the European association of Distribution System Operators (E.DSO) the Knowledge Sharing Merit Award as a recognition of its contribution to digital innovation, helping to shape the new role of DSOs and the future of power grids by leveraging collaboration and know-how sharing amongst energy players

Rome and Milan, December 1st, 2021 – Gridspertise, the Enel Group company providing cutting-edge digital solutions to Distribution System Operators (DSOs), today presented the QEd - Quantum Edge® device - at Enlit Europe in Milan. This groundbreaking solution leverages edge computing to digitalize and virtualize secondary substations' physical components, creating a "digital twin" through virtual applications that can be remotely managed and updated, reducing installation, training, operation and maintenance costs and increasing network reliability.

QEd has been developed to meet the evolving needs of distribution grids, which require higher levels of flexibility, also at the secondary substations level, to keep pace with energy and grid transition, characterized by increasing levels of electrification, higher flows of renewables and larger volumes of distributed energy resources.

Antonio Cammisecra, Head of Enel Global Infrastructure and Networks, commented: "Enel manages more than 1.2 million secondary substations around the world, out of which roughly half a million are remote controlled. We are looking forward to reaping the benefits of deploying a technology as innovative as QEd that enhances legacy infrastructure with an all-in-one solution, avoiding costly rebuilds, while minimizing maintenance expenditures and environmental impact. We are excited that Gridspertise is launching such an important and revolutionary product at Enlit Europe in Milan and very proud that Enel will drive the field testing of this device at scale, showing once again its leadership in deploying resilient, participatory and sustainable power grids towards a full electric future."

"The launch of QEd - Quantum Edge® device represents a milestone for our newly-created company and also a leap forward in the digitalization, efficiency, flexibility and reliability of the networks," says **Robert Denda**, CEO of Gridspertise and Head of Innovation and Industrialization at Enel's Global Infrastructure and Networks. "QEd not only helps to reduce physical components in secondary substations, enhancing grid digitalization and reliability, but for the first time in the industry, it provides a single, scalable platform that supports a large ecosystem of customizable applications to help DSOs tackle the multiple challenges the networks may encounter."



Thanks to its decentralized computational capability, QEd - Quantum Edge® device provides an all-in-one solution that runs key grid functionalities on the edge, increasing reliability of the network and improving service quality for end users. In particular, QEd allows applications to be run for all the most important network automation functions: asset health and performance monitoring, loss minimization, fault location identification and service restoration, real-time control, power quality monitoring, metering data management and much more. Additionally, the device contains a built-in AI engine to support edge applications, including Al-powered predictive maintenance, security, operation surveillance and safety. The device supports the most advanced connectivity standards, including 5G as well as fiber optic, and is

retrofit compatible with existing assets.

The QEd is designed to progressively enable new functionalities, such as power flow analysis and prediction, detection of critical conditions, dispatching and control of distributed energy resources, storage and electric vehicles, bringing DSOs to the next level in their role as System Operator.

Gridspertise is launching a co-creation program to collaborate with pioneering DSO customers, test the solution and leverage on market insights to develop new applications and enrich its functionalities.

For the development of QEd, Gridspertise embraced an open innovation approach, collaborating with innovative partners such as Qualcomm Technologies Inc., the world's leading wireless technology innovator and driving force behind the development, launch, and expansion of 5G. The solution integrates the most up to date, secure, scalable capabilities from Qualcomm Technologies' IoT solutions and is equipped with powerful computing, AI, connectivity, and security capabilities.

"We are excited about the collaboration with the Enel Group's company Gridspertise for the launch of the new Quantum Edge Device, setting the scene for the next generation of smart grids to materialize. Our technology will support Gridspertise in rapidly deploying innovative and differentiated products, enabling the ecosystem to generate new revenue streams in the utilities sector," says Enrico Salvatori, SVP & President, Europe/MEA, Qualcomm Europe, Inc.

Within the framework of Enlit Europe, Gridspertise also received the Knowledge Sharing Merit Award from E.DSO, the association of European Distribution System Operators, during its 4th "Stakeholder and Innovation Council" online event. The award recognized the company for its contribution to digital innovation, which helps to shape the new role of DSOs and the future of power grids by leveraging collaboration and know-how sharing amongst energy players.

Gridspertise, fully owned by Enel through its subsidiary Global Infrastructure and Networks, leverages on Enel's expertise in testing, assessing and scaling up the best technologies to operate smart grids all over the world, to provide field proven solutions to Distribution System Operators (DSOs) of any size or geography. Gridspertise provides access to cutting-edge digital solutions for the transformation of electricity distribution networks in three main areas: metering and grid edge digitalization, networks infrastructure digitalization, field operations digitalization. Target markets include Europe and Latin America, starting with the countries where the Enel Group already has a strong presence, and expanding towards North America and Asia-Pacific where the investment in smart grids will drive infrastructure upgrade projects in the near future.

Enel is a multinational power company and a leading integrated player in the global power and renewables markets. It is the largest European utility by ordinary EBITDA, and is present in over 30 countries worldwide, producing energy with around 90 GW of installed capacity. Enel distributes electricity through a network of over 2.2 million kilometers, and with around 75 million grid customers is the 1st network operator globally1. Enel Green Power is the world's largest renewable private player, with around 51 GW of wind, solar, geothermal, and hydropower plants installed in Europe, the Americas, Africa, Asia, and Oceania. Enel X, Enel's global advanced energy services business line, is the worldwide demand response leader, with a total capacity of around 7.7 GW managed globally; the company has installed 195 MW of storage capacity as well as, in the electric mobility sector, about 245,000 EV charging points² around the globe.

¹ Publicly owned operators not included.

² Public and private charging points, including interoperability points.