

Press Release

E.ON allies with IBM Quantum to Advance Energy Transition Goals

IBM and E.ON aim to drive the transformation of the energy industry with Quantum Computing. E.ON is now the first utilities company in Europe to work with IBM Quantum to implement quantum solutions for their critical workflow. The goal is to explore the potential of quantum computing to optimize the world's rapidly decentralized energy infrastructure.

Quantum computers have the potential to shape the energy world of tomorrow. As quantum computers take a new computational approach to solving important problems of the world that are intractable with classical computers, they are expected to play an important role for E.ON in terms of advancing the energy transition. For example, quantum computing could be applied to help distribution grids fulfil a much wider range of tasks. We expect energy will no longer be transported unilaterally from the generating company to the consumer, but a future could include many smaller companies and households will feed energy into the grid, for example via their own PV systems or electric cars. Quantum computing could be used to control these processes more efficiently and effectively in the future. At the same time, the increasing number of electric cars is leading to more complex charging processes, which quantum computing could help address.

For example, as part of E.ON's Vehicle to Grid (V2G) project, batteries from electric vehicles are connected to the distribution grid as a flexible storage medium. In this way, fluctuations in the generation of renewable energies can be balanced out. The coordination and control of the system requires enormous computing power, which current classical computing systems are not capable of. A quantum computer has the potential to perform these necessary calculations in completely different ways that could be done in a shorter period of time.

As a partner of IBM Quantum, E.ON will have access to IBM's quantum computing systems, via the IBM Cloud, as well as to IBM's quantum expertise and Qiskit quantum software developer tools. With these IBM Quantum resources, E.ON will work with IBM Quantum Technical services team to make this innovation possible.

"For E.ON, the innovative use of quantum computing offers an opportunity to solve complex and cross-system optimization tasks in the energy transition in an innovative way. Our intensified cooperation with IBM is an important milestone in this regard", says Victoria Ossadnik, Chief Digital Officer at E.ON.

"Utilities play a critical role in helping industries, companies and consumers achieve net-zero targets," says Gregor Pillen, General Manager IBM DACH. "However, realizing that requires sophisticated technologies to help utilities better

E.ON SE
Brüsseler Platz 1
45131 Essen
www.eon.com

Address inquiries to:

Dr. Christian Drepper
T +49 151 16310889
christian.drepper@eon.com

September 2, 2021
Seite: 1 / 2

2 / 2

predict and optimize the grid to meet demand, as well as increase the use of clean, renewable energy. Quantum computing offers the computing capabilities to help utilities navigate this new, more sustainable future.”

This press release may contain forward-looking statements based on current assumptions and forecasts made by E.ON Group Management and other information currently available to E.ON. Various known and unknown risks, uncertainties, and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. E.ON SE does not intend, and does not assume any liability whatsoever, to update these forward-looking statements or to align them to future events or developments.