

ExxonMobil and IBM to Advance Energy Sector Application of Quantum Computing

- Strategic commitment to advance joint research into quantum computing for energy
- ExxonMobil becomes first energy company to join the IBM Q Network
- Technology could further enhance ExxonMobil's own research and development capabilities

LAS VEGAS--(BUSINESS WIRE)-- [ExxonMobil](#) said today that it has signed a partnership agreement with IBM to advance the potential use of quantum computing in developing next-generation energy and manufacturing technologies. The new partnership was formally announced during the 2019 Consumer Electronics Show (CES) in Las Vegas.

As part of the agreement, ExxonMobil becomes the first energy company to join the [IBM Q Network](#), a worldwide community of Fortune 500 companies, startups, academic institutions and national research labs working to advance quantum computing and explore practical applications for science and business.

"The scale and complexity of many challenges we face in our business surpass the limits of today's traditional computers," said Vijay Swarup, vice president of research and development for ExxonMobil Research and Engineering Company. "Quantum computing can potentially provide us with capabilities to simulate nature and chemistry that we've never had before. As we continue our own research and development efforts in the areas of energy and chemical manufacturing, our agreement with IBM will allow us to expand our knowledge base and potentially apply new solutions in computing to further advance those efforts."

Advances in quantum computing could provide ExxonMobil with an ability to address computationally challenging problems across a variety of applications, including the potential to optimize a country's power grid, and perform more predictive environmental modeling and highly accurate quantum chemistry calculations to enable discovery of new materials for more efficient carbon capture.

"The advancement of new breakthroughs, coupled with the creative application of current technologies available to us from outside the energy sector, will be critical in addressing the dual challenge of producing energy to fuel economies and meeting consumers' needs while managing the risks of climate change," Swarup said. "Much of the success in our own ingenuity is facilitated by the innovation of others outside our industry, from three-dimensional printing to quantum computing. The many partnerships we lead or participate in around the world provide us with opportunities to exchange ideas and collaborate, applying our own unique experiences, knowledge and strengths toward a potentially successful breakthrough in lower-emission energy production or a more efficient manufacturing process."

ExxonMobil's partnership with IBM expands the company's collaborative efforts with other companies and academic institutions that are focused on developing an array of new energy technologies, improving energy efficiency and reducing greenhouse gas emissions. [The company currently works with about 80 universities in the United States, Europe and Asia](#) to explore next-generation energy technologies.

About ExxonMobil

ExxonMobil, the largest publicly traded international oil and gas company, uses technology and innovation to help meet the world's growing energy needs. ExxonMobil holds an industry-leading inventory of resources, is one of the largest refiners and marketers of petroleum products, and its chemical company is one of the largest in the world. For more information, visit www.exxonmobil.com or follow us on Twitter [www.twitter.com/exxonmobil](https://twitter.com/exxonmobil).

Cautionary Statement: Statements of future events or conditions in this release are forward-looking statements. Actual future results, including project plans and timing and the impact and results of new technologies, including efficiency gains and emission reductions, could vary depending on the outcome of further research and testing; the development and competitiveness of alternative technologies; the ability to scale pilot projects on a cost-effective basis; political and regulatory developments; and other factors discussed in this release and under the heading "Factors Affecting Future Results" on the Investors page of ExxonMobil's website at exxonmobil.com.

About IBM Q

IBM Q is an industry-first initiative to build commercial universal quantum systems for business and science applications. For more information about IBM's quantum computing efforts, please visit www.ibm.com/ibmq.

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Exxon Mobil Corporation
Media Line: (972) 940-6007

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