



**Quantum  
City**



# Quantum Challenge for Sustainable Solutions

Presented by Quantum City

Quantum technologies promise to become transformational in multiple sectors of the economy including energy development and transformation.

Quantum City – Alberta’s new quantum solutions hub – has teamed up with Amazon Web Services (AWS) to host the Quantum Challenge for Sustainable Solutions.

A global quantum tech competition in 2023, challenging experts, researchers, consumers and enthusiasts to come together to solve today’s energy industry problems with tomorrow’s quantum knowledge.

The Quantum Challenge for Sustainable Solutions is made possible by Quantum City, facilitator AWS and is supported by the Government of Alberta and the University of Calgary.

**The Quantum Challenge for Sustainable Solutions presented by Quantum City will launch the Alberta energy industry into the quantum era.**

**Quantum City is seeking a Challenge Partner (company) for the Quantum Challenge for Sustainable Solutions. For more information, please contact Megan Lee, Managing Director of Quantum City at [info@quantumcitychallenge.ca](mailto:info@quantumcitychallenge.ca) by Friday, June 9, 2023.**

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## **What is the Quantum Challenge for Sustainable Solutions?**

The challenge puts forward unique energy industry problems, identified by one Alberta energy organization who embrace innovation and technological advancements. The problem statement(s) are then posted publicly for any group or individual to present solutions applying quantum computing expertise.

## **Why is this Quantum Challenge for Sustainable Solutions important?**

By participating in the Quantum Challenge for Sustainable Solutions presented by Quantum City, organizations are demonstrating their commitment to innovation excellence, agility in the marketplace and investments in the technology of tomorrow. Additionally, participation in this Challenge exposes an organization's workforce to quantum capabilities and de-risks the transition to the quantum era of technology.

The Alberta economy is at the forefront of a paradigm shift in business technologies and quantum advancements can help solve key questions for the energy industry. Nationally, the quantum job market is expected to grow to 229,000 jobs by 2040. The quantum sector will exceed the entire aerospace and aeronautics industry in Canada in less than 20 years. Federally, Canada is investing \$360 million in quantum innovation and established the National Quantum Strategy. Provincially, the Alberta Government has invested \$23 million in Quantum City to help to accelerate quantum technology development, build skills and talent and attract additional companies interested in quantum technologies.

## **What does the Quantum Challenge for Sustainable Solutions entail?**

Quantum City and the Challenge facilitator, AWS, will work with the selected Challenge Partner (company) to identify issues or computational challenges that could potentially be solved using quantum solutions.

These problem statements, will then be put forward and challenge participants can work individually or collaboratively to develop and present their solution for a problem(s).

## **What does the Quantum Challenge for Sustainable Solutions partner receive?**

The Challenge partner receives the presented quantum solutions for their problem statement(s), exposure to quantum expertise, upskilling their workforce, branding use of the Challenge and guidance in implementing quantum solutions within their organization.

## **How are proposed solutions evaluated?**

Proposed solutions will be evaluated by our panel judges, comprised of UCalgary quantum researchers, the Quantum City team and AWS Quantum Solutions Lab scientists and industry innovation leaders.

## **What will the winner(s) of the Challenge receive?**

The award for the winner(s) of the Quantum Challenge will be announced at a later date.

**For more information, please contact Megan Lee,  
Managing Director of Quantum City at [info@quantumcitychallenge.ca](mailto:info@quantumcitychallenge.ca)**