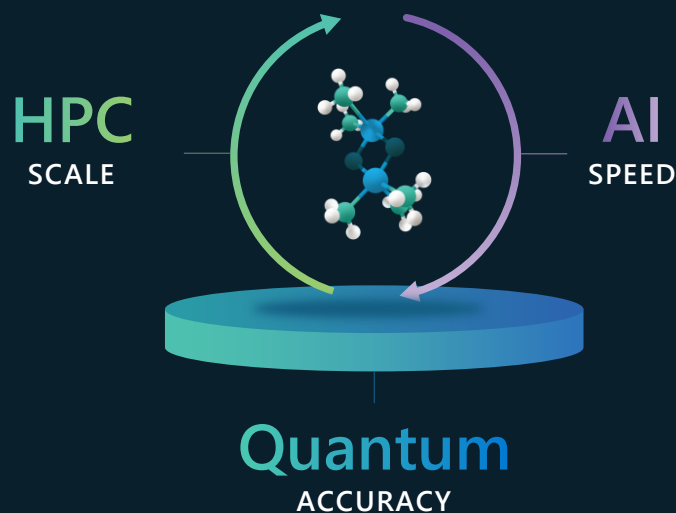


# Transform energy R&D with Azure Quantum Elements and NobleAI

Accelerate scientific discovery with the latest breakthroughs in HPC, AI, and quantum computing



**> 30,000x**  
candidate search space

**> 500,000x**  
modeling acceleration

**6 months to  
1 week**  
acceleration from project  
kickoff to solution



**Accelerate battery materials design**  
Understand electrochemical behavior in different battery materials and predict their performance in terms of energy density, cycle life, and safety

**Discover and develop materials for solar cells**  
Simulate the electronic and optical properties of materials, identifying candidates with optimal characteristics to increase solar cell efficiency

**Pioneer renewable energy solutions**  
Develop catalysts for sustainable energy conversion and fuel production, such as splitting water and reducing carbon dioxide

**Design materials for supercapacitors**  
Predict charge storage capacity, stability, and charge-discharge behavior of new materials to support the development of high-performance supercapacitor devices

**Develop cleaner and more efficient fuels**  
Design fuels with improved performance, reduced emissions, and better compatibility with existing infrastructure

**Improve yields and reduce energy consumption**  
Design selective catalysts for increased yields and energy efficiency across processes such as catalytic cracking, reforming, and hydrogenation

**Enhance pipeline and reservoir modeling**  
Predict critical properties of oil and gas compounds, phase equilibria, and transport properties of fluids to enhance reservoir modeling, production optimization, and pipeline design

**Optimize extraction and refining processes**  
Understand the behavior of fluids under various conditions to enhance extraction, production, and refining processes



Now part of Microsoft's Azure Quantum Elements growing partner ecosystem

Accelerate your Energy projects with the power of Azure Quantum Elements combined with NobleAI's Science-Based AI technology

Get in contact with our team to discuss your specific needs  
<https://aka.ms/aqe-contact-me>

