STATEMENT OF INTENT BETWEEN

THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA

AND

THE DEPARTMENT FOR SCIENCE, INNOVATION AND TECHNOLOGY OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND CONCERNING

COLLABORATION ON HIGH PERFORMANCE COMPUTATIONAL RESEARCH FOR DISCOVERY SCIENCE

The Department of Energy of the United States of America (DOE), represented by its Office of Science, and the Department for Science, Innovation and Technology of the United Kingdom of Great Britain and Northern Ireland (DSIT), hereinafter referred to individually as a "Participant" and collectively as the "Participants,"

RECOGNIZING their existing cooperation under the Agreement between the Government of the United States of America and the Government of the United Kingdom of Great Britain and Northern Ireland on Scientific and Technological Cooperation signed at Washington on September 20, 2017 (the "S&T Agreement"), and under the Implementing Arrangement between the Department of Energy of the United States of America and the Department for Business, Energy and Industrial Strategy of the United Kingdom for Research and Development in Energy and Physical Science Fields signed at Washington on April 10 and 11, 2019 (the "2019 Arrangement");

RECOGNIZING the Declaration of the United States of America and the United Kingdom of Great Britain and Northern Ireland on Cooperation in Artificial Intelligence Research and Development: A Shared Vision for Driving Technological Breakthroughs in Artificial Intelligence of September 25, 2020, and the Joint Statement of the United States of America and the United Kingdom of Great Britain and Northern Ireland on Cooperation in Quantum Information Sciences and Technologies of November 4, 2021;

TAKING INTO ACCOUNT that the DOE Office of Science and the Science and Technology Facilities Council (STFC), a Council of UK Research and Innovation, a non-departmental public body sponsored by DSIT, building on the 2019 Arrangement, have identified a shared desire to continue cooperation in the conduct of research and development (R&D) in fundamental science and technologies in the area related to high performance computing research for discovery science;

NOTING that high performance computing includes the generation, analysis, and use of data, artificial intelligence (AI), and quantum-related computing and technologies;

RECOGNIZING the importance of promoting trust and understanding in order to enable the adoption of AI and fully realize its potential;

RECOGNIZING the importance of a capable R&D workforce and workforce development for high performance computing-related technical skills to empower and enable current and future generations of workers, and to improve the quality of life of our people;

DESIRING to leverage the expertise of each Participant for the mutual benefit of both Participants in their respective countries; and

DESIRING to strengthen their bond through greater cooperation;

State their intention as follows:

Section 1: Planned Areas of Cooperation

- 1.1 The objective of this Statement of Intent (Statement) is to facilitate cooperation within key high performance computing areas between the Participants. As agencies whose missions focus, in part, on supporting the infrastructures necessary for excellent research, the Participants plan to explore opportunities for collaboration in these areas, capitalizing on the skills, facilities and capabilities of their respective national laboratories.
- 1.2 The Participants recognize the importance of, and intend to further strengthen, their cooperation in the following areas related to high performance computing. The Areas of Cooperation may include, but are not limited to:
 - 1. Data generation, analysis, and use;
 - 2. High-performance computing;
 - 3. Software;
 - 4. AI for science;
 - 5. Fundamental research in quantum information sciences;
 - 6. Applications of quantum information sciences to fundamental physics;
 - 7. Computing for science applications potentially including fusion, climate resilience, and biosecurity; and
 - 8. Design, architecture, benchmarking, and energy efficiency improvements.
- 1.3 The Participants plan to work together to determine specific cooperative activities and projects, and the collaborative mechanisms for implementation, including via collaboration between national laboratories, or other research institutes, managed or sponsored by DOE and DSIT, and capacity building in people and skills. Opportunities for collaboration may include, but are not limited to:
 - 1. For specific projects, sharing information on best practices for designing software and systems, interoperability, and reciprocal access; and
 - 2. Training and community engagement to strengthen and support capacity and skills in both of the Participants' countries.

Section 2: Implementing Instruments

2.1 Each cooperative activity that may involve the sharing of costs or "business-confidential" information as defined under Section IV of Annex I to the S&T Agreement, or that may give rise to the creation of intellectual property, is intended to be conducted pursuant to an implementing arrangement or project-specific arrangement under the S&T Agreement or the 2019 Arrangement, as appropriate, or other written instrument, which includes detailed provisions for its execution, including such matters as technical scope, management, total costs and payment provisions, schedule, intellectual property rights, and such other matters relevant to the activities to be performed.

Section 3: General Considerations

- 3.1 This Statement is effective upon the last date it is signed by the Participants. A Participant who desires to discontinue this Statement should endeavor to provide written notice to the other Participant ninety (90) days in advance of the date of the discontinuation.
- 3.2 Unless otherwise specified in writing, the Participants intend to permit ongoing activities not completed upon discontinuation of this Statement to continue to completion under the provisions of this Statement.
- 3.3 This Statement may be modified at any time upon mutual written decision of the Participants.
- 3.4 Each Participant intends to conduct the cooperative activities contemplated by this Statement in accordance with applicable laws, regulations, and procedures to which it is subject.
- 3.5 The conduct of cooperative activities contemplated by this Statement is subject to the availability of appropriated funds, personnel, and other resources.
- 3.6 Each Participant is responsible for its own personnel and costs of participating in the cooperative activities under this Statement, unless specified otherwise in writing by the Participants.

3.7 This Statement does not create any legally binding rights or obligations between the Participants.

Signed at London, in duplicate in the English language, this 5th day of February, 2024.

FOR THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA:

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FOR THE DEPARTMENT FOR SCIENCE, INNOVATION AND TECHNOLOGY OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND: