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Via e-mail to rule-comments@sec.gov

June 9, 2022

U.S. Securities and Exchange Commission
Vanessa A. Countryman, Secretary
100 F Street, NE
Washington, DC 20549-1090

Re: File Number S7-13-22

Dear Ms. Countryman:

I am the Chief Financial Officer of the world's first publicly listed quantum computing company: IonQ, Inc. As a result of our business combination with dMY Technology Group III (dMY), a special purpose acquisition company (SPAC), we are listed on the NYSE under the ticker symbol "IONQ."

IonQ was founded by two preeminent pioneering academics in the field, Dr. Christopher Monroe and Dr. Jungsang Kim. We are a company building on a 25-year research and development (R&D) heritage – funded first via U.S. government grants while our founders worked at the University of Maryland and Duke University, respectively, and continuing at IonQ with money raised as a private company before going public via a merger with dMY.

Our SPAC transaction raised gross proceeds of approximately \$650 million, which has enabled us to accelerate commercialization of our ion-trap quantum computers for the U.S. government, allied countries, and Fortune 500 companies alike. Since we decided to go public via SPAC, we have created close to 100 new jobs at our offices in Maryland and have signed a marquee partnership with the University of Maryland to build our country's first Quantum Center called National Q-LAB.¹

We believe that quantum computing is one of the most vital areas of technology for the United States this century. It is expected to underpin every aspect of applied science in the coming decades – from the future of energy to vaccines, batteries, portfolio theory, and national security

¹ <https://ionq.com/news/september-08-2021-ionq-and-umd-establish-national-quantum-lab>

(cyber and kinetic). Our Chief Executive Officer has met with the Biden administration at the White House on October 5, 2021 to discuss this future for quantum. The capital that IonQ's merger with dMY brought to our business has been a vital source of funding to support our leadership in creating the world's first 20 algorithmic qubit quantum computer.^{2 3}

IonQ has benefited from becoming a public company due to the improved ability to retain and attract world-class talent, the support of its high-quality investors, and enhanced momentum with customers and partners. IonQ would likely not have been able to list on the NYSE through a traditional IPO process at its present stage. Remaining private could have held back our R&D efforts due to far less growth capital and a diminished ability to hire and ultimately commercialize our product.

IonQ's SPAC transaction galvanized the entire quantum computing industry in the United States. Rigetti Computing, Inc. (Nasdaq: RGTI) has followed us into the public markets via a SPAC transaction and in February 2022, D-Wave Quantum Inc. announced they are currently planning the same. There is an entire ecosystem of smaller quantum computing startups out there, which arguably has benefited from IonQ's leadership in accessing long-term public market capital in that they now have a reference point in the capital markets, as well as raising broad awareness via our SPAC transaction.

We believe that the SPAC process has enabled the U.S. quantum computing industry to compete with other nation states. Further, it is our strong belief that the SPAC process has been an unequivocal positive for our country's national security and R&D competitiveness.

We are available to discuss our experience at your convenience and would be happy to present our perspective in any forum your office would find expeditious.

Sincerely yours,

/s/ Thomas Kramer

Thomas Kramer
Chief Financial Officer
IonQ, Inc.

cc: Steny Hoyer, Majority Leader of the U.S. House of Representative
Peter Chapman, IonQ, Chief Executive Officer

² In 2020, IonQ proposed algorithmic qubits (#AQ) as an application-oriented metric to assist the industry in evaluating quantum computers' utility in real-world settings. It focuses on the practical application of quantum computers, as compared to other metrics that might suggest capabilities that do not materialize in practice. <https://ionq.com/posts/february-23-2022-algorithmic-qubits>

³ In February 2020, IonQ announced that IonQ Aria, the Company's latest quantum computer, achieved a record 20 algorithmic qubits and has furthered its lead as the most powerful quantum computer in the industry based on standard application-oriented industry benchmarks. <https://ionq.com/news/february-23-2022-ionq-aria-furtherers-lead>