Testimony of Dr. Darío Gil
Nominee for the Position of Under Secretary for Science at the U.S. Department of Energy
Before the U.S. Senate Committee on Energy and Natural Resources
April 10, 2025

Thank you, Chairman Lee, Ranking Member Heinrich, and Members of the Committee.

It is an honor to be here, and I want to thank President Trump and Energy Secretary Wright for the trust they have placed in me with this nomination to serve as the Under Secretary for Science at the Department of Energy. If I have the honor of being confirmed, I look forward to working with all the members of this committee and to seek your guidance.

I would like to recognize the members of my family who have joined me today. My lovely wife of 25 years, Amanda; my daughters Sofía and Elena; my parents-in-law, Steve and Heidi Godsoe, who have traveled from Maine; my brother Román, who has done so from Spain, and many extended friends and colleagues.

As you may tell from my accent, I am an immigrant. It is an experience and an identity that has greatly shaped me, and it will be the honor of my life to have the opportunity to serve the United States, which has given me more than I could have dreamed.

I have been passionate about science and engineering since I was a teenager, when I first came to the U.S. as an exchange student from Spain. I became fascinated and ultimately became an expert in nanotechnology, a world measured in distances that are 100,000 times smaller than the width of a human hair. As Feynman stated, it is a world that has "plenty of room at the bottom". And plenty indeed, as by the end of this decade we will be fabricating chips that will have one trillion transistors, each engineered with atomic precision.

During my grad-school years at MIT, I was captivated by the beauty of quantum mechanics. It was a necessity to understand the nanoworld, and it was then that I was first exposed to the idea of quantum information. A little over a decade later, I had the great privilege to work with my IBM Research team to create, in May 2016, the world's first cloud-accessible quantum computer. That seminal event, along with the 80 quantum computers we built since, were instrumental in creating the nascent, yet vibrant, quantum computing industry. This industry of the future is one that the U.S. must dominate, as it has profound scientific, economic, and national security implications. It is time to mobilize the Nation's best teams to achieve the final frontier of building an error-corrected quantum supercomputer before the end of this decade. If confirmed, I look forward to working with this committee to ensure that America wins this great race.

Which brings me to the core of our current revolution in computing: AI. The field is going through a renaissance, with a pace of progress unlike anything I have witnessed in my 25+ year career. Dario Amodei, CEO of Anthropic, has evocatively referred to the potential of AI as

having “a country of geniuses in a datacenter”. Discoveries that would have taken us decades will become possible in years.

The combination of inspiring missions, broad and deep scientific expertise, singular infrastructure, and nation-scale resources make the U.S. National Labs the world’s greatest platform of scientific discovery in the physical sciences. The powerful aspect of this new era of accelerated discovery – powered by what I like to summarize as the world of *“bits + neurons + qubits”* – has the potential to help the entire science, national security, and energy portfolio of the National Lab complex, much like secure, reliable, and affordable energy can improve the lives of all our citizens and accelerate the growth of the entire American economy.

Imagine a future in which fusion, the grand goal of building a star on earth, becomes the first technology fully driven by the AI revolution. Using the combined power of AI and supercomputers to develop a system model to steer fusion innovation, we can shave decades off development timelines. Imagine a portfolio of similar grand challenges, from novel catalysts to new fertilizers, and beyond. We can usher a new era of sustainable abundance and American dynamism.

If confirmed, I will bring to this role 22 years of private industry experience, having served as director of one of the world’s largest and most influential corporate research laboratories. I will bring my commitment to work across sectors, having served on the President’s Council of Advisors on Science and Technology, as a member of the National Academy of Engineering, and for the last 5 years, as a member of the National Science Board, of which I am currently the Chairman.

And I hope that in your consideration of this nomination I will have the privilege to learn from, and to work with, all of you. Chairman Lee, Ranking Member Heinrich, thank you for the opportunity to appear before the Committee today, and I look forward to your questions.