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Chairman Keating, Ranking Member Fitzpatrick, and Members of the Committee, it is an honor to appear before you today to discuss energy security in Europe, and the role of the U.S. Department of Energy in supporting the development of infrastructure, systems, and policies in Eastern and Central Europe that will support a secure, sustainable, diversified European energy sector.

Energy Security in Europe

I am appearing before you at a troubling, shocking time in world history. In addition to the tremendous humanitarian consequences of Russia's war against Ukraine, Russia is also instigating an intentional energy war that is affecting countries throughout Europe. The bravery of the Ukrainian people should inspire all of us to do our part. For our part, Russia's invasion of Ukraine, and its weaponization of energy resources, have redoubled the U.S. Department of Energy's efforts to increase European energy security and to accelerate regional and global net zero energy transitions.

The energy war has also hit our home front. Vladimir Putin's actions have sent oil markets reeling, raising oil prices and the price of gas at the pump, underscoring the need for the U.S. government to work collaboratively with our European allies to find global energy solutions that are concurrently affordable and diversified, and which put us on a path to a more secure, clean energy future. Stated bluntly, this conflict has starkly reinforced the national security importance of our energy investments and those of our allies. Fortunately, we have a number of tools at our disposal to advance stronger energy security for Europe.

Three Seas Initiative and P-TECC

Next week most of the leaders of the 12 Central and Eastern European member states will gather together in Riga, Latvia, to attend the Three Seas Initiative Summit, or "3SI." Our allies in the region created the Three Seas Initiative in 2015 to diversify and integrate their energy, digital, and transportation sectors. Since the first Three Seas Initiative Summit in 2016 in Dubrovnik, Croatia, DOE has been a strong supporter of 3SI. DOE has consistently attended annual summits and the Secretary of Energy has twice served as head of the U.S. delegation.

The prescience of our European allies in forming this collaborative bloc is becoming fully apparent: Three Seas now offers a critical tool for reducing dependence on Russia and building a more transparent, commercially-driven, clean energy sector.

What Is P-TECC

The previous Administration recognized the importance of the Three Seas Initiative as a regional tool for energy cooperation. Former Energy Secretary Rick Perry developed the Partnership for Transatlantic Energy Cooperation, or P-TEC, as a way for the U.S. Department of Energy to provide technical, policy, and commercial support to the Three Seas countries as they sought to better integrate and modernize their energy sectors.

Under the Biden-Harris Administration, we have expanded P-TEC to be an even stronger force for regional energy cooperation. In September 2021 in Warsaw, Secretary Granholm relaunched and renamed the P-TECC initiative as the Partnership for Transatlantic Energy *and Climate* Cooperation, positioning climate action and energy security as interdependent, mutually reinforcing goals.

P-TECC and European Energy Security

Our September 2021 P-TECC Ministerial, which the U.S. Department of Energy co-hosted with the government of Poland, included high-level participation from 25 countries in the region, including Ukraine, the European Commission, the Export-Import Bank of the United States, International Development Finance Corporation, Department of Commerce, and State Department, and focused on pathways for the region to bolster the cybersecurity of its electricity and gas grids; deploy commercial nuclear energy solutions that will provide clean, baseload power; invest in the renewable energy technologies and efficiency measures that will catalyze a net-zero economy in the region and natural gas solutions that will facilitate energy security. With private sector partners and the Department of Commerce, we also convened a Business Roundtable to bring U.S. and European companies together with government stakeholders to help identify the biggest opportunities for energy deals, capable of creating hundreds of thousands of clean energy jobs in the U.S. and our P-TECC partner countries.

But P-TECC is not just a periodic Ministers' meeting. For us, it is a year-round, technical engagement with our 25 partners to act on energy diversification, cybersecurity, climate resilience, clean energy deployment, and more.

We have trained five partner countries to reduce the consequences of cyber-physical attacks on their energy infrastructure, by delivering the Office of Cybersecurity, Energy Security and Emergency Response's (CESER's) CyberStrike program, as administered through our partners at the Idaho National Laboratory. Additionally, we have conducted climate vulnerability models for P-TECC partner countries. Deputy Energy Secretary David Turk has led two P-TECC nuclear energy High-Level Sessions in Prague and Bucharest to discuss deepening the partnership following the events in Ukraine. The P-TECC session in Bucharest was held in conjunction with a U.S. Trade and Development Agency-sponsored technical workshop on the deployment of small and advanced nuclear reactors, and the Prague session was held with a Nuclear Energy Institute Trade Mission. Together, these sessions brought Ministers and U.S. industry together, with the additional support of colleagues at the Departments of Commerce and State as well as the Nuclear Regulatory Commission. The resulting discussions have allowed us to focus our efforts on developing a plan to meet our climate ambitions and energy security objectives in deploying both large- and small-scale nuclear energy solutions. To meet the natural gas requests

of our P-TECC partner countries, we are planning webinars focused on LNG markets and project finance.

In short, we have built P-TECC specifically to be nimble and responsive to the needs of the region. We achieve this by listening to the themes and outcomes of the Three Seas Initiative Summit. No one realized it when P-TECC was started and developed over the last two administrations, but P-TECC is now one of our most effective countermeasures to Putin's weaponization of energy.

Energy Supply Chains

As we support our European partners in the urgent project of energy diversification, we are simultaneously undertaking efforts to ensure that the enhanced deployment of alternative energy supplies and technologies does not create new, unsustainable dependencies or untenable national security vulnerabilities. To this end, we have also been actively working with our allies, including our European partners, to fortify the resiliency of energy supply chains. Severe industrial concentration, limited domestic capacity, and market bottlenecks in energy supply chains pose serious energy security risks and must be mitigated in pursuit of our global net-zero objectives. Through the EU-U.S. Trade and Technology Council (TTC), we are working with our partners in Europe to tackle these challenges by promoting transparency in our solar supply chain and coordinating our policy measures, incentives and other investments required to enable a more geographically and commercially diversified solar supply chain and enhance cooperation with the EU and other parties on critical minerals and materials. The TTC also allows the EU and the United States to further advance work on specific initiatives to accelerate the deployment of additional clean low carbon products and technologies to help in achieving net zero emission goals by 2050.

Executive Order 14017 – Securing Americas Supply Chains

An essential contribution to global efforts to impose costs on the Russian regime and halt the flow of its energy revenues that help finance its aggression is the domestic push to diversify our own energy resource consumption, including by reshoring energy supply chains. A successful supply chain strategy will free up hydrocarbon supplies that can be utilized to displace Russian volumes, reduce our own exposure to market volatility in oil and gas markets, and stimulate accelerated and expanded clean energy deployment in Europe.

In furtherance of these goals, President Biden issued Executive Order 14017 America's Supply Chains on February 24, 2021, ordering a review of risks and vulnerabilities in our critical minerals and material supply chains. In June 2021, the Administration released a first-of-its-kind supply chain assessment that found that our over-reliance on foreign sources and adversarial nations for critical minerals and materials posed national and economic security threats. The Executive Order directed the Secretary of Energy to submit a supply chain report for the Energy Sector Industrial Base. On February 24, 2022, the Department of Energy released a set of 14 reports on energy supply chain threats, vulnerabilities, and risks, including 13 issue-specific deep dive assessments on topics ranging from solar energy to semiconductors to cybersecurity, and an overarching strategy with over 40 policy recommendations entitled, "Americas Strategy to Secure the Supply Chain for a Robust Clean Energy Transition." The strategy is the first ever comprehensive U.S. government plan to secure our domestic supply chains and an Energy Sector Industrial Base and lays out more than 40 actions that the federal government is already taking or is now committed to taking to secure a resilient and robust energy base and that takes bold action on the climate crisis. It also lays out some 20 recommendations for Congressional action on the energy supply chain.

DOE Work in Ukraine

Finally, a brief update on DOE's Ukraine-specific work. Ukraine's sizable nuclear power generation capacity could meaningfully reduce Europe's dependence on Russian coal and gas once Ukraine is able to export electricity to the European common power market. One area we are working on in particular, with support from Congress, has been Ukraine's full integration into Europe's ENTSO-E electricity grid system, with a focus on cybersecurity support for the electricity grid operator.

We are in the process of finalizing the transfer of \$10 million to some of our national labs with deep expertise on cyber and physical security of critical energy infrastructure and longstanding professional relationships with counterparts in Ukraine's energy sector. Despite the ongoing war in Ukraine, we expect their work will soon be able to commence in earnest.

DOE's assistance will also generate critical insights into vulnerabilities at the intersection of Ukraine and Europe's natural gas systems and electrical systems. For Ukraine and many European countries, natural gas plays a key role as a source of power – both in industrial as well as in residential settings. Russia's weaponization of its gas exports to Europe – it has already cut off deliveries to Bulgaria, Denmark, Finland, the Netherlands, and Poland, and curtailed exports to Germany – could destabilize parts of Ukraine and Europe's grid given their reliance on natural gas as a source of power. To address these concerns, DOE has transferred \$1 million to one of our labs that brings deep technical expertise to the question of identifying vulnerabilities at the interconnection of gas and power markets. Their work will enable us, as policy makers, to take a more anticipatory view of the consequences of possible future Russian malign actions against Ukraine, and to target technical assistance to reinforce the stability of its connection to the European grid.

In the near-term, we need to support our European allies to ensure they have the energy resources they need to make it through the upcoming winters. In the longer-term, we need to support their efforts to diversify their energy sectors in a way that will permanently reduce their dependence on Russia and set them on a path to a clean, secure, affordable energy future. We are committed to doing that in a way that fosters technical innovation, policy coordination, a just transition, and the creation of good-paying jobs on both sides of the Atlantic.

In all of these endeavors we are committed to working with Congress to find the right energy solutions for Ukraine and every other country in the region which has historically been dependent on Russia for their energy needs. I look forward to your questions.