# **CINTAC** Civil Nuclear Trade Advisory Committee

March 14, 2024

The Honorable Gina Raimondo U.S. Department of Commerce 1401 Constitution Avenue, N.W. Washington, DC 20230

Dear Ms. Secretary:

As an advisor on promoting nuclear energy exports, the Civil Nuclear Trade Advisory Committee (CINTAC) appreciates your support for America's nuclear energy sector. America's leadership in nuclear energy strengthens our economy, creates high technology jobs, and augments our national security. The members of CINTAC would like to bring to your attention an opportunity to expand international civil nuclear commerce through an updated market study. Global interest in nuclear energy has grown significantly in the past few years, driven by countries' decarbonization goals, as well as concerns about energy security, resilience, and affordability.

Specifically, CINTAC requests that the Department of Commerce update its important report titled, "Top Markets Report for Civil Nuclear: A Market Assessment Tool for U.S. Exporters" (the "Top Market Report"), issued in 2017.<sup>1</sup> This report was issued by the International Trade Administration with significant input provided by the U.S. Department of Energy, the U.S. Department of State, the U.S. Export-Import Bank, and the U.S. Nuclear Regulatory Commission. While the report is still widely cited and valued for its insights into the global civil nuclear market, its 2017 timeframe renders its core projections – estimating a \$500-\$740 billion civil nuclear market and \$100 billion in potential U.S. exports over 10 years – significantly outdated. The report now significantly underestimates the immense and rapidly evolving opportunities for American businesses in this crucial sector.

# Shifting Global Energy Landscape

The global landscape has shifted dramatically since 2017. We are now seeing unprecedented interest in new nuclear, particularly U.S.-origin technology, driven by the global energy crises that emerged after Russian invaded Ukraine,<sup>2</sup> and increased attention from governments and businesses on meaningfully tackling GHG emissions. This confluence has resulted in a surge of activities across the world planning for new nuclear projects, including in Canada, the United Kingdom,<sup>3</sup> Central and Eastern Europe, Eurasia, Southeast Asia, Africa, and Central and South America.<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> See "<u>Top Markets Report for Civil Nuclear: A Market Assessment Tool for U.S. Exporters</u>," Department of Commerce, International Trade Administration (2017).

<sup>&</sup>lt;sup>2</sup> See "Ukraine: Russia-Ukraine War and Nuclear Energy," World Nuclear Association (October 16, 2023).

<sup>&</sup>lt;sup>3</sup> See "Civil Nuclear: Roadmap to 2050," UK Department for Energy Security and Net Zero (January 2024).

<sup>&</sup>lt;sup>4</sup> See "Emerging Nuclear Energy Countries, New Nuclear Build Countries," World Nuclear Association (last

updated October 2023) (discussing the interest and commitments to new nuclear by countries in Europe, Central and

Countries in Central and Eastern Europe are particularly eager to consider developing nuclear with the United States, not only for electricity generation and industrial applications, but also for the energy security nuclear power provides.<sup>5</sup> New investment commitments, ambitious national plans, and emerging technologies are rapidly expanding the market size and potential for U.S. exports, far exceeding the figures outlined in the 2017 Top Market Report.

## Pledge to Triple Nuclear Energy

To further add to this forward momentum, concrete commitments to deploy nuclear were made official during the United Nations annual climate conference held in Dubai (COP 28). At COP 28, more than 20 countries from four continents launched the "Declaration to Triple Nuclear Energy," which commits to at least tripling nuclear capacity by 2050, invites shareholders of international financial institutions to encourage the inclusion of nuclear energy in energy lending policies, and showcases the widespread recognition of nuclear's vital role in achieving net-zero. Additionally, this pledge, and rise nuclear's popularity, is also driven in part by countries' need to both decarbonize existing power generation sources—which remain overwhelmingly fossil based—and to meet increased energy demands—which are expected to grow significantly in coming years.<sup>6</sup>

Beyond decarbonization priorities and increased demand, countries are increasingly recognizing the strategic national and global security benefits of nuclear power—particularly, energy security and resilience, brought to the fore by Russia's invasion of Ukraine and the resulting global energy crises. The ability to generate domestically produced, carbon-free energy mitigates risks associated with fossil fuel dependence and geopolitical vulnerabilities. This comprehensive appeal is fueling a nuclear renaissance across the globe.

## Aggressive International Competitors

At present, Russia and China currently dominate the market in nuclear trade, bolstered by significant new nuclear builds in their own countries. For example, China plans to construct dozens of reactors and is bringing more reactors online than any other country, while Russia is the biggest exporter of nuclear reactors and has a book order estimated to be about \$200B over the next 10 years.<sup>7</sup> In addition to power plants, Russia and China are building or pursuing nuclear energy for space exploration, commercial shipping, remote location settlements, and exploration with floating nuclear power plants and Naval propulsion. While some countries have already engaged Russia and China on nuclear initiatives, the current rise in global interest presents a huge market opportunity for the U.S. to capture. Countries such as Poland, new to nuclear, are looking

South America, and in Central and Southeast Asia); "<u>IAEA says a dozen countries to be equipped with nuclear power</u>," Reuters (November 28, 2023), "<u>Nuclear Resurgence</u>," International Monetary Fund (December 2022). <sup>5</sup> *Id.*; *see also* "<u>New in Nuclear – Financing the Transition in Central and Eastern Europe</u>," Global Counsel (May 2023).

<sup>&</sup>lt;sup>6</sup> See U.S. Energy Information Administration's International Energy Outlook 2023.

<sup>&</sup>lt;sup>7</sup> See "Power Reactor Information System (PRIS)," International Atomic Energy Agency (last updated on January 8, 2024) demonstrating the number of planned reactor construction projects in China; see also "China is building nuclear reactors faster than any other country," The Economist (November 2023); "Why Egypt's New Nuclear Plant is a Long-Term Win for Russia," Tufts University (December 2023) (explaining the book of business is estimated to

to move forward with both large and small nuclear plants to reduce its reliance on Russian natural gas and provide carbon-free power for electricity generation and industrial decarbonization.<sup>8</sup> In addition, U.S. nuclear energy companies compete against state-owned enterprises that benefit from easier access to financing and other advantages. An updated market assessment showing increased global demand for nuclear technology could help U.S. suppliers. Ultimately, the world's current decarbonization goals, increased energy demand, and security priorities are driving an unprecedented need for nuclear, and specifically for U.S. reactors to provide alternatives to foreign technology.

#### Burgeoning Opportunities Await, But Accurate Information Needed

It is critical that all stakeholders—including government, private industry, and investors—have an accurate understanding of (1) the global landscape shifts that have occurred since 2017; (2) the impacts those changes have had on the civil nuclear market; and (3) the corresponding market growth and opportunities for U.S. industries. Given these dramatic changes, updating the "Top Markets Report" is imperative. An accurate and contemporary assessment is essential to equip American businesses with the market intelligence and insights they need to capitalize on this burgeoning opportunity and establish the United States as a leader in the global clean energy transition.

Therefore, CINTAC strongly requests the Department of Commerce to prioritize the development of a comprehensive, updated report that reflects the current reality of the civil nuclear market and its immense potential for American economic growth and environmental progress.

Thank you for the opportunity to support programs that are in the best interest of the U.S. civil nuclear industry. The members of CINTAC look forward to working with you and your team on this initiative, and others of mutual interest.

Sincerely and on behalf of the members of CINTAC:

Ralph Hunter, Chair

Carol Berrigan, Vice Chair

cc: U.S. Secretary of State
U.S. Secretary of Energy
U.S. Secretary of Defense
U.S. Secretary of Treasury
National Security Advisor
Chairman, U.S. Nuclear Regulatory Commission
Director, National Economic Council
Director, National Security Council

<sup>&</sup>lt;sup>8</sup> See "Nuclear Power in Poland," World Nuclear Association (last updated January 2024).

Director, Office of Management and Budget Chief Executive Officer, U.S. International Development Finance Corporation Chairman, Export-Import Bank of the United States Director, U.S. Trade and Development Agency

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- 2. Mr. Craig Piercy, Executive Director and CEO, American Nuclear Society (ANS)
- 3. Dr. Hash Hashemian, President, Analysis and Measurement Services Corporation (AMS)
- 4. Ms. Colleen Deegan, Vice President and Manager, Bechtel Power Corporation
- 5. Dr. Danielle Castley, Founder & CEO, Becq
- 6. Mr. Glenn Neises, Nuclear Director, Burns & McDonnell
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- 12. Mr. Gary Wolski, Vice President, Sales, Curtiss-Wright
- 13. Mr. Rod Baltzer, Chief Operating Officer, Deep Isolation
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