CINTAC Civil Nuclear Trade Advisory Committee

August 6, 2020

The Honorable Wilbur Ross Secretary U.S. Department of Commerce 1401 Constitution Ave., NW Washington, DC 20230

Dear Secretary Ross,

The Civil Nuclear Trade Advisory Committee (CINTAC), an advisory committee to you on issues important to the U.S. civil nuclear industry and the promotion of nuclear energy exports, requests your assistance.

We believe that it is important to amplify the U.S. government's unified voice in support of nuclear energy and its export. Consequently, we recommend that you send the attached letter to executives and senior staff in the U.S. Department of Commerce as well as the U.S. government interagency.

Also attached is a fact sheet – which echoes the proposed letter – that the CINTAC believes will be useful to make available to the public by posting on the Commerce/ITA website.

Thank you for considering this request. The CINTAC stands ready to support you in any way that you need.

Sincerely and on behalf of the members of CINTAC,

DocuSigned by: Chris Colbert -CFD44CF76B4545A

Chris Colbert, Chairman

ocuSianed by: Jeff Happer

Jeff Harper, Vice Chairman

Attachments:

- 1) Letter to U.S. Government on the Benefits of Nuclear Energy and its Export
- 2) Fact Sheet on the Benefits of Nuclear Energy and its Export

Civil Nuclear Trade Advisory Committee (CINTAC)

Alphabetical by company name

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- 3) H.M Hashemian President, Analysis and Measurement Services Corporation
- 4) Colleen Deegan Vice President, Bechtel Corporation
- 5) Glenn Neises Nuclear Director, Burns & McDonnell
- 6) Joseph Miller Director, Advanced Technology Programs, BWX Technologies, Inc.
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- 13) Ralph Hunter Vice President, Exelon Corporation
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- 31) Art Wharton Vice President, Market Development, Studsvik Scandpower Inc.
- 32) Pete Gaillard Licensing Manager, Terrapower, LLC
- Graham Cable Vice President, Global Growth & Strategy, Westinghouse Electric Company
- 34) Jeffrey Harper Vice President, Strategy and Business Development, X Energy, LLC

Attachment 1: Letter to U.S. Government on the Benefits of Nuclear Energy and its Export

Dear Colleagues:

As we work to grow our economy and our domestic capabilities, it is important to understand the significance of exporting civilian nuclear energy products and services to nations in the developed and developing parts of the world. Exporting these civilian nuclear products and services is critical to U.S. interests both economically and geopolitically. You may ask, why is this so?

Exporting nuclear plants, technologies, and services delivers U.S. economic growth and supports U.S. competitiveness. It creates and maintains jobs. Each nuclear energy plant that U.S. companies provide internationally creates high-paying, highly-skilled U.S. jobs. Building a nuclear power plant employs thousands of workers at peak construction, and nuclear worker salaries are 36 percent higher than the average local salary. By exporting nuclear energy plants, the United States can create skilled, high-paying nuclear industrial jobs.

The United States is at the forefront of developing next-generation nuclear energy technology, products and services, but bringing them to market internationally is impossible without a healthy U.S. nuclear energy sector, and without U.S. government support and advocacy. You can find more detailed information in this <u>report</u> from the U.S. Department of Energy.

Exporting nuclear energy products and services advances our foreign policy goals and strategic alliances, along with safeguarding U.S. international interests. Building a nuclear power plant in another country is the start of a relationship between the United States and that nation that may last 100 years. These relationships benefit many sectors and bolster U.S. influence in each specific country and region.

South Korea is an excellent example of the positive relationships we can forge. U.S. suppliers built the first nuclear plants there, and today U.S. technology powers most of the nuclear power plants in South Korea. These suppliers also helped build the industrial infrastructure for what was then an emerging nation. While today, South Korea exports power plants, there are billions of dollars of U.S. content – and jobs – in these exports. In addition to nuclear energy, the U.S.-South Korea strategic partnership has benefited the defense, aircraft, and many other sectors. This partnership has also helped bring security and alignment with U.S. interests to this region of Asia.

Contrast this with Turkey, where the Russian state-owned company Rosatom is constructing and will operate a four-unit nuclear power plant. Recently, Turkey announced it would be buying billions of dollars of defense technology from Russia, much to the chagrin of the U.S. government. With the export of a nuclear power plant, Russia has gained influence not only in the energy and labor sectors, but also in the defense sector for many decades to come. We can expect the Russian-Turkish relationship to grow and tighten in the future.

Many countries are pursuing and expanding nuclear energy programs, because they provide reliable baseload energy with a limited carbon footprint. State-owned companies – essentially

Russia Inc. and China Inc. – are building more than 60 percent of the new nuclear power plants in the world today, but the United States is essentially absent from the market for new nuclear energy plants. Do we want to cede this market – and the strategic relationships it brings – to them?

Nuclear energy exports support our national security. The United States has maintained the global nonproliferation regime that has kept the world safe from nuclear weapons. The Nuclear Nonproliferation Treaty (NPT), signed in 1968 by 182 nations and extended indefinitely in 2005, has limited the spread of nuclear weapons. The International Atomic Energy Agency (IAEA) is responsible for ensuring that the safeguards in the treaty are carried out along with playing a central role in technology transfer for peaceful purposes. The U.S. promotes the highest standards of safety, security, nonproliferation, and environmental protection.

Yet, the proliferation of nuclear weapons remains a major issue. There are periodic meetings of the NPT signatory states regarding how it is implemented. Unless the United States is engaged in nuclear energy programs around the world, we will not have a leading voice in key discussions.

In addition, when we export nuclear energy plants, we export our safety standards and the inherent safety culture to implement them. The U.S. safety standards and regulatory regime are recognized around the world as the most rigorous and effective. These standards, which have made U.S. plants the safest in the world, are a competitive advantage as we compete internationally.

Finally, as a carbon-free source of electricity, nuclear energy is a critical tool for fighting climate change. It is increasingly clear that our climate is changing, and carbon emissions are a factor in this change. Every month, there is more news of how our climate is changing. Just a few weeks ago, the Arctic was experiencing record temperatures of more than 90 degrees Fahrenheit. Superstorms and droughts are hurting communities. Access to water in an increasing number of nations is becoming more of an issue. Unless we reduce carbon emissions, our world will become hotter and less habitable. Leading experts, including the Intergovernmental Panel on Climate Change (IPCC), agree that meeting future energy demands while reducing emissions is not possible without additional carbon-free nuclear energy plants. Many countries, companies, and NGOs are looking to nuclear energy to address this issue.

The U.S. industry has many nuclear plant designs to offer – in a variety of sizes – appropriate for export to developing and developed nations. But U.S. suppliers are competing against nationstates, particularly China and Russia, which provide financially attractive deals, particularly to developing nations. Consequently, U.S. industry can't be competitive without support and advocacy from the U.S. government, particularly the U.S. Export-Import Bank and the newly-formed U.S. International Development Finance Corporation, which can provide necessary financing critical to the success of the U.S. export market.

Clearly, nuclear energy exports constitute an important economic, strategic, and diplomatic tool for our nation. Please use this information to inform your colleagues within Commerce and the interagency to advance the export of civilian nuclear energy products, services, and technology for our collective strategic benefit.

Attachment 2: Fact Sheet on the Benefits of Nuclear Energy and its Export

THE IMPORTANCE OF EXPORTING COMMERCIAL NUCLEAR ENERGY TO NATIONS IN THE DEVELOPED AND DEVELOPING PARTS OF THE WORLD

As we work to grow our economy and our domestic capabilities, it is important to understand the importance of exporting commercial nuclear energy to nations in the developed and developing parts of the world. Exporting civilian nuclear energy is critical to U.S. interests.

Exporting nuclear energy delivers U.S. economic growth and supports U.S. competitiveness.

- It creates and maintains jobs. Each nuclear energy plant that U.S. companies provide internationally creates thousands of high-paying U.S. jobs. Building a nuclear power plant employs thousands of workers at peak construction, and nuclear worker salaries are 36 percent higher than the average local salary. The typical nuclear power plant creates \$40 million in labor income each year. In fact, an October 2018 Nuclear Energy Agency/ International Atomic Energy Agency (IAEA) study of Organization for Economic Cooperation and Development countries notes that site preparation and construction of a single 1,000 MWe advanced light water reactor requires about 1,200 professional and construction staff, producing 12,000 labor-years.
- The U.S. is at the forefront of developing next-generation nuclear energy technology, but bringing it to market internationally is impossible without a healthy U.S. nuclear energy sector.

Exporting nuclear energy plants advances our foreign policy goals and strategic alliances, along with safeguarding U.S. international interests.

- This is how it works. Building a nuclear power plant in another country means starting a 100year relationship between the U.S. and that nation. These relationships affect many sectors.
- South Korea is an excellent example of the positive relationships we can forge. U.S. suppliers
 have provided most of the nuclear power plants there. They also helped build the industrial
 infrastructure for what was then a developing nation. While today, South Korea exports plants,
 there are billions of dollars of U.S. content and jobs in these exports. The U.S. strategic
 partnership with South Korea has affected the defense, aircraft and many other sectors. It also
 has helped that part of Asia safe.
- Contrast this with Turkey, which decided to buy a nuclear power plant from Rosatom, the Russian firm. Recently, Turkey announced it is was buying billions of dollars of defense technology from Russia, much to the chagrin of the U.S. We can expect the Russian-Turkish relationship to grow and tighten in the future.
- Russia and China are building more than 60 percent of the new nuclear power plants in the world today. Do we want to cede this market – and the strategic relationships it brings – to them?

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Nuclear energy exports support national security.

- The United States has maintained the global nonproliferation regime that has kept the world safe from nuclear weapons. The Nuclear Nonproliferation Treaty, which was signed in 1968 by 182 nations and extended indefinitely in 2005, has limited the spread of nuclear weapons. The IAEA is responsible for ensuring the safeguards in the treaty are carried out along with playing a central role in technology transfer for peaceful purposes. Yet, the proliferation of nuclear weapons remains a major issue. There are periodic meetings of the signatory states regarding how it is implemented. Unless the U.S. is engaged in nuclear energy programs around the world, we will not have a voice in key discussions.
- In addition, when we export nuclear energy plants, we also export our safety standards. The U.S. safety standards and regulatory regime are recognized around the world as the most rigorous and effective. These standards have made U.S. plants the safest in the world. And, they are a competitive advantage as we competeinternationally.

Finally, as a carbon-free source of electricity, nuclear energy is a critical tool for fighting climate change.

 It is increasingly clear that our climate is changing and carbon emissions are a factor in this change. Every month we hear more news of how our climate is changing. Just a few weeks ago, the Artic was experiencing record temperatures of more than 90 degrees Fahrenheit. Superstorms and droughts are hurting communities. Access to water in an increasing number of nations is becoming more of an issue. Unless we reduce carbon emissions, our world will become hotter and less habitable. Leading experts agree the only realistic way to reduce emissions is by adding more nuclear energy plants.

There are many nuclear plant designs – of a variety of sizes – appropriate for export to developing and developed nations. But U.S. suppliers are competing against nation-states – particularly China and Russia — which enable them to provide financially attractive deals, particularly to developing nations. Consequently, U.S. industry can't be competitive without support from parts of the U.S. government, particularly the U.S. Export-Import Bank and the newly-formed U.S. International Development Finance Corporation, which provide necessary financing.

Clearly, nuclear energy exports constitute an important economic, strategic and diplomatic tool for our nation.