

U.S. Government Support for the U.S. Civil Nuclear Industry



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Agenda

- ITA Structure and function
- Federal coordination to support U.S. industry
- U.S. Nuclear Industry Supply Chain Subsectors
- Challenges and opportunities in civil nuclear trade
- Commerce's Civil Nuclear Trade Initiative
- Civil Nuclear Trade Advisory Committee (CINTAC)
- ITA activities to support the U.S. civil nuclear industry
 - U.S. Industry Program at the International Atomic Energy Agency (IAEA)
 - Civil Nuclear Trade Policy Missions
- ITA Civil Nuclear Top Market Study
- Advocacy for U.S. civil nuclear companies



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The International Trade Administration

ITA is the lead trade promotion agency of the United States Government

Competitiveness

- Industry & Analysis

Trade Promotion

- Global Markets

Trade Enforcement

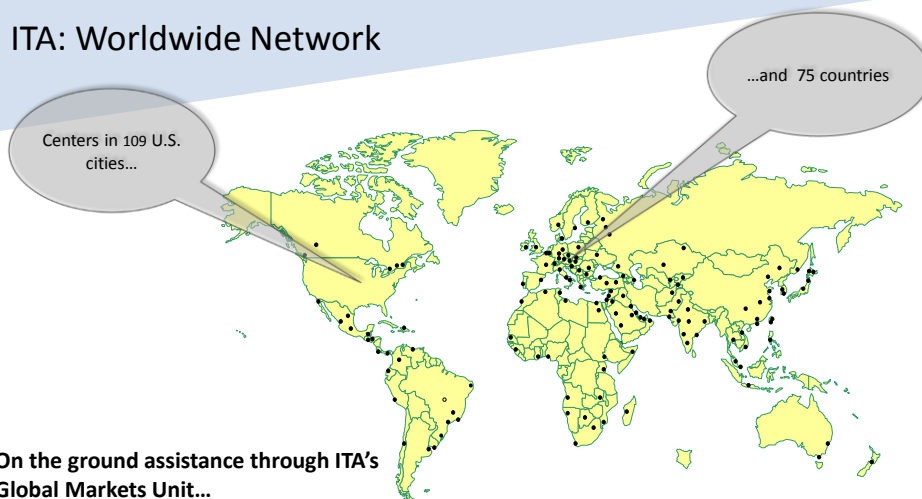
- Enforcement and Compliance



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ITA: Worldwide Network



On the ground assistance through ITA's Global Markets Unit...

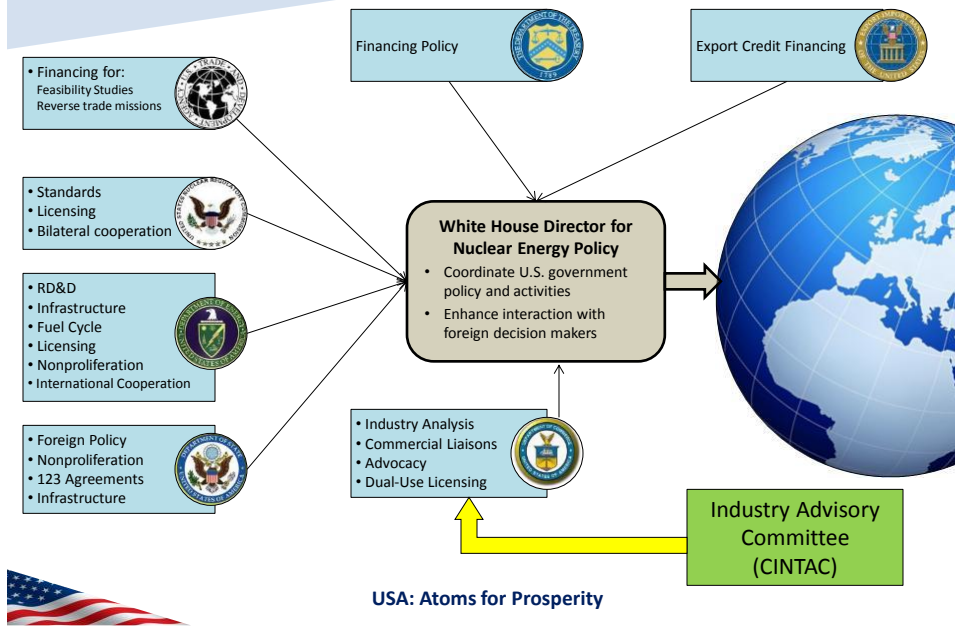
- Raise awareness of commercial opportunities
- Relay information about civil nuclear developments
- Provide introductions to partner organizations, government representatives, and commercial contacts



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Coordinated U.S. Efforts to Support Nuclear Energy



U.S. Nuclear Industry Supply Chain Subsectors

Advisory and Legal Support Services: address the development of legal and regulatory regimes, licensing support, siting, environmental impact analyses, legal advice, and tender writing and development. Standards development and trade association activities are also included within this subsector.

Design, Construction and Operation: are responsible for technology design and engineering, procurement, project management, site preparation, power plant construction and power plant operation and maintenance. This subsector addresses all activities in the engineering, procurement and construction (EPC) phase of a project and also covers utilities that operate plants and companies that provide plant maintenance and repair.

Component manufacturers seek commercial opportunities throughout a plant's lifecycle, including parts required for operation and maintenance, uprates and upgrades.

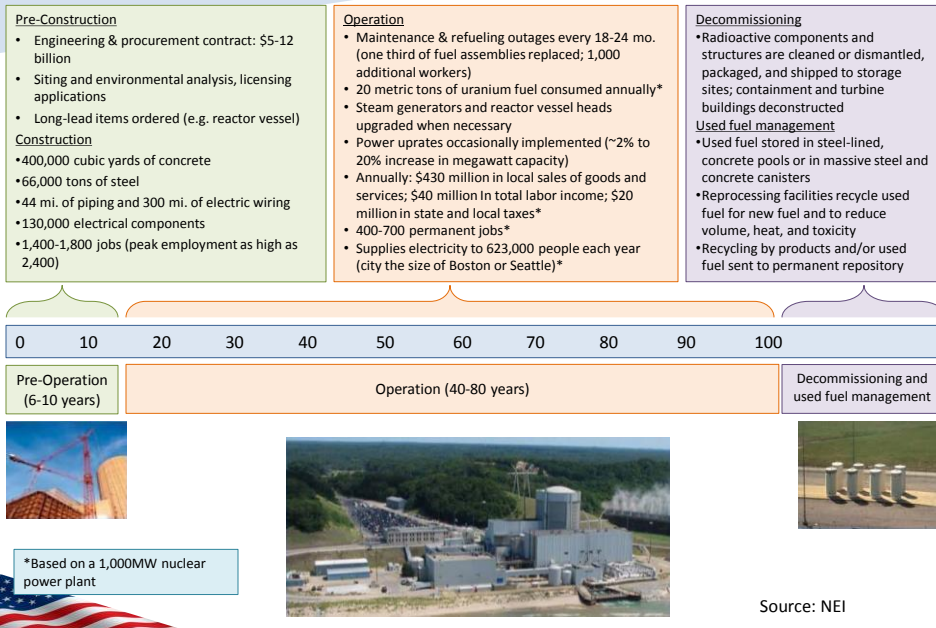
Fuels include all aspects of the fuel cycle including mining and milling uranium, enrichment, conversion, fabrication of assemblies, refueling, transportation of fuel, and fuel storage.

Back-End Services: provide services related to plant decommissioning and used fuel management, including waste management and removal, remediation; used fuel management, interim storage and transportation; geologic disposal and reprocessing and recycling of plant byproducts.

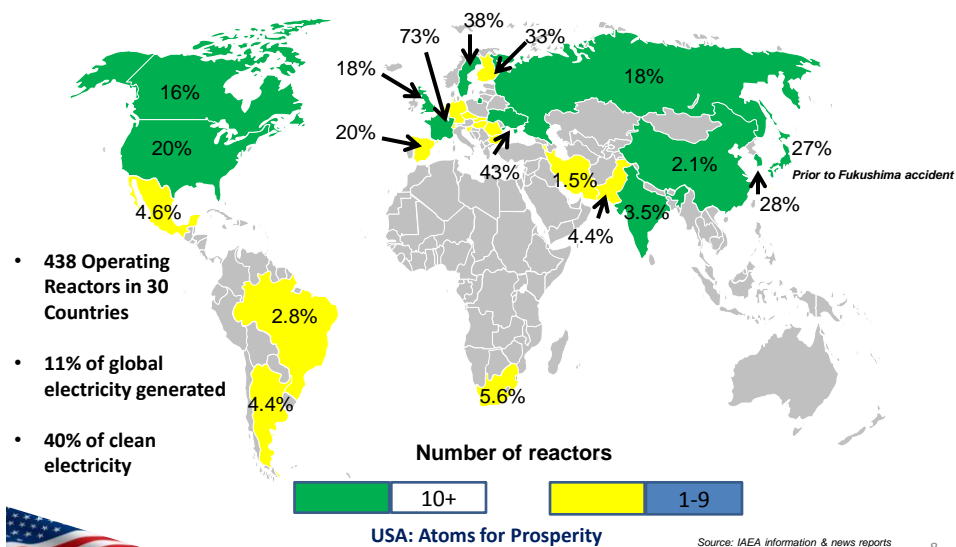
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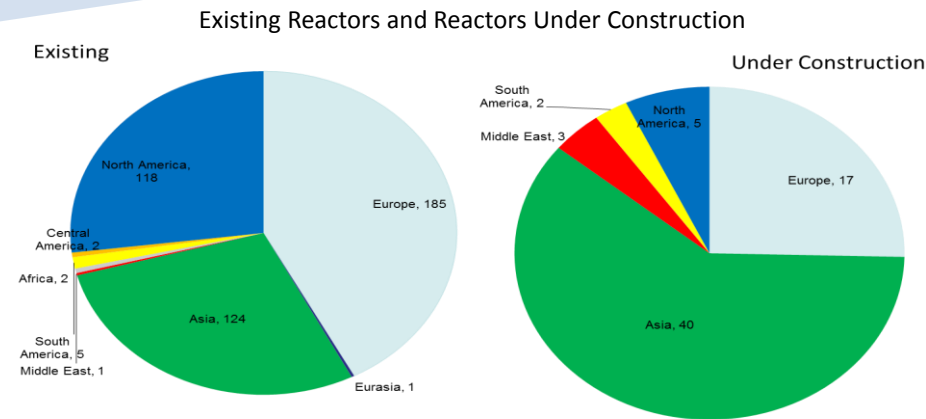
Life Cycle of a Nuclear Power Station



Existing Nuclear Commercial Power Reactors



A Snapshot of Global Nuclear Power Construction



- 67 reactors currently under construction in 15 countries (26 in China)
- ~183 reactors planned in +30 countries, worth as much as \$700 billion
- ~311 reactors proposed in 35 countries, worth as much as \$1.6 trillion



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Source: IAEA Power Reactor Information System (PRIS), JULY 9, 2015

Challenges facing the U.S. Civil Nuclear Industry

- The state-owned nature of foreign competition
- A need for additional bilateral nuclear cooperation agreements (123 Agreements)
- A vital but complicated export controls process
- Lack of a global nuclear liability regime
- Erosion of U.S. manufacturing capacity



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U.S. Civil Nuclear Industry's Competitive Strengths

- Expert leader in civil nuclear power development
- Unmatched experience with civil nuclear energy
- Top-performing companies all along the nuclear value chain
- Nuclear industry is known for supporting the development of local industry and helping to deepen long term bilateral relationships
- Regulatory system is recognized as the global “gold standard” for nuclear safety



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Industry & Analysis – Office of Energy and Environmental Industries Civil Nuclear Trade Initiative (CNTI)

Objective: *Increase commercial benefits from nuclear cooperation with other countries*

Industry Input	USG Coordination	Trade Policy and Promotion Activities	Stakeholder Resources
<ul style="list-style-type: none"> Formally: consensus advice from industry via 33 member Civil Nuclear Trade Advisory Committee (CINTAC) Informally: outreach to and discussions with industry representatives 	<ul style="list-style-type: none"> Lead on civil nuclear commercial issues through interagency working groups Coordinate broader U.S. government activities through the White House Director for Nuclear Energy Policy Conduct annual Top Market Report to drive priorities Support industry participation in International nuclear energy forums (IAEA, IFNEC and GIF) 	<ul style="list-style-type: none"> Civil Nuclear Trade Policy and Advocacy Missions Bilateral Declarations regarding civilian nuclear commercial cooperation Nuclear Standards Workshop U.S. Industry Program at the IAEA CSC nuclear liability promotion Financing workshops 	<ul style="list-style-type: none"> Top Market Report Specialized industry Reports (i.e. SMR Report) Industry Briefings Promotional Materials Export Data Webinars Market Intelligence Briefs



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Civil Nuclear Trade Advisory Committee (CINTAC)

- CINTAC is an industry advisory committee that advises the Secretary of Commerce on the development and administration of programs to expand U.S. exports of civil nuclear goods and services.
- The CINTAC's advice to the Secretary has added immense value to the work of the Department.
 - Helped in the creation of the position of Director of Nuclear Energy Policy at the White House.
 - Recommended establishment of the interagency "Atoms for Prosperity" coordination mechanism to improve U.S. Government support for its nuclear industry.
 - Strongly pushed for a global liability regime to help reduce the risks faced by U.S. civil nuclear companies doing business abroad.
 - Support for the U.S. Export-Import Bank.



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CINTAC Recommendations to the Secretary

- In 2015, CINTAC has drafted 3 key letters to Secretary Pritzker, outlining the position of industry leaders on:
 - **Ex-Im Bank Reauthorization**: CINTAC recommended the Secretary's active support for reauthorization, emphasizing the need to maintain a level playing field for U.S. companies in the international market for civil nuclear goods and services
 - **The US-China 123 Agreement**: CINTAC urged the Secretary to support the renewal of the revised Agreement to ensure continued access for American companies to the world's largest civil nuclear market, citing both commercial and strategic concerns
 - **Section 3119 of the National Defense Authorization Act**: CINTAC asked the Secretary to communicate industry concerns regarding proposed modifications to the export control process



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8th Annual U.S. Industry Program at the IAEA General Conference September 13-16, 2015 in Vienna, Austria



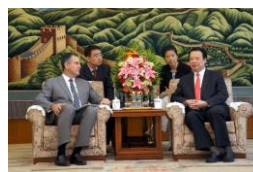
- **Purpose:** to connect U.S. companies with foreign government decision makers and energy policymakers from around the world.
- **Highlights**
 - Industry delegation will include 50 representatives from 30 companies and organizations.
 - 15 bilateral meetings with foreign government delegations from key export markets
 - Policymaker's Roundtable with Secretary of Energy Ernest Moniz, NRC Chairman Stephen Burns, and other top U.S. policymakers
 - Over 150 one-on-one meetings with Commerce staff from ten top target markets.



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Civil Nuclear Trade Policy Mission to Vietnam and China May 17-23, 2013

- ITA U/S Francisco Sánchez led the first ever U.S. civil nuclear trade mission to Hanoi, Vietnam and Beijing and Ningbo, China, to connect U.S. companies with key government and industry contacts and promote bilateral commercial opportunities.
- U.S. Government delegation included senior officials from the U.S. Departments of Commerce, Energy, the U.S. Export-Import Bank and the White House.
- Industry delegation included 11 companies in Vietnam and 15 in China.
- Accomplishments:
 - Demonstrated high-level USG support for the U.S. civil nuclear industry and connected U.S. companies with key decision-makers.
 - Promoted market policies, standards and practices to ensure U.S. companies gain robust access to commercial opportunities in Vietnam and China.
 - Held "Best Practices" Workshop in Vietnam to share U.S. experience from nuclear projects and highlight the benefits of U.S. safety technology and USG-industry regulatory cooperation as a model for Vietnam.
 - Identified ways to enhance U.S. Government and U.S. industry commercial cooperation with Vietnam and China.



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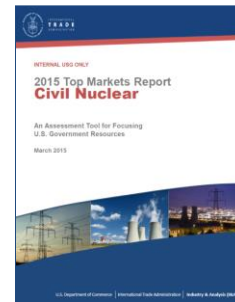
2015 Civil Nuclear Energy Top Markets Report

- **Purpose:** to identify best prospect markets where ITA and U.S. Government activities can most effectively be leveraged to support the success of U.S. companies in the civil nuclear energy sector
- **Methodology**
 - Ranks 50 countries in terms of their readiness for nuclear energy and openness to U.S. civil nuclear exports.
 - Individual market ratings for exports related to new builds, existing reactors, and decommissioning were assessed on the basis of 19 variables encompassing qualitative and quantitative measurements
- **13 Country Case Studies**

○ Bulgaria	○ Poland
○ Canada	○ Republic of Korea
○ China	○ Saudi Arabia
○ Czech Republic	○ Turkey
○ Japan	○ United Arab Emirates
○ Malaysia	○ United Kingdom
○ Mexico	○ Vietnam



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2015 ITA Civil Nuclear Top Markets Report

Top 25 Overall Ranking for U.S. Civil Nuclear Exports

- 1) China
- 2) United Kingdom
- 3) Vietnam
- 4) India
- 5) Brazil
- 6) UAE
- 7) Mexico
- 8) Saudi Arabia
- 9) Bulgaria
- 10) Poland
- 11) Czech Republic
- 12) South Africa
- 13) South Korea
- 14) Sweden
- 15) Japan
- 16) Lithuania
- 17) Slovakia
- 18) Argentina
- 19) Canada
- 20) Slovenia
- 21) Jordan
- 22) Turkey
- 23) Ukraine
- 24) Egypt
- 25) Malaysia



Civil Nuclear Energy Top Markets Report Country Case Study Example

China

Overall Rank: 1

Type: Existing and Expanding

China has the fastest growing nuclear energy program in the world and is the top ranking export market in this study. China is on pace to triple its nuclear capacity to 58 GWe by 2020, and it plans to begin marketing its indigenously designed reactors for export in 2015. Foreign competition for access to the Chinese market is high, and China has become increasingly self-sufficient for its nuclear power technology needs, which will limit U.S. content in exports for new reactors. However, ample opportunities exist for U.S. industry throughout the fuel cycle.

Sub-Sector Rank

New Builds	Existing Reactors	Decommissioning
1	1	1



Each Country Case Study Includes:

- ✓ Overview of nuclear in that country
- ✓ Planned nuclear energy projects
- ✓ Commercial opportunities
- ✓ Challenges and barriers to U.S. civil nuclear exports
- ✓ Nuclear infrastructure in that country
- ✓ U.S. Government cooperation
- ✓ International Engagement



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ITA's Advocacy Center

Leveling the Global playing field for International Nuclear Tenders

Advocacy is:

- ✓ Government-to-Government
- ✓ A counter weight to foreign government political pressure
- ✓ Intended to promote fairness in the tender processes



www.export.gov/advocacy



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Questions?



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