

Nuclear Export Financing Today and Tomorrow



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Takeaways

- Financing is one of the most pivotal aspects of our competitiveness versus state-owned enterprises for civil nuclear export markets. In particular, China and Russia offer attractive state-backed financing packages that give them a distinct advantage over US and Western competition.
- There are steps that can be taken today to enhance the competitiveness of financing packages supporting US nuclear exports. Such measures could include: timely EXIM policy revisions to meet up-to-date OECD standards, urging Treasury to designate Russia as a covered country, encouraging DFC to use existing tools to guarantee US private equity investments, etc.
- Congressional and legislative actions can reinforce efforts to put together competitive financing packages for export markets. For instance, the Civil Nuclear Export Act (CNEA) proposes solutions to EXIM's default rate cap and the eligibility of nuclear exports for the China and Transformational Exports Program (CTEP), paving a clearer path towards more impactful EXIM support for overseas nuclear projects.

Both China and Russia are racing ahead to win civil nuclear export deals worldwide, jeopardizing not only our commercial interests, but endangering our national security and the capacity of global democracies to collectively resist authoritarian influence . A crucial advantage that our rivals enjoy in this competition is the ability to offer low-cost, state-backed financing. Given the enormous stakes involved, the moment to respond is *now*.

Third Way hosted a private workshop with subject matter experts to get their views and insights on the steps needed to level the playing field and bring together competitive financing packages that can effectively support US civil nuclear exports. Much of the dialogue was focused on the Export-Import Bank (EXIM). However, reflective of the broader need for a whole-of-government approach to nuclear exports, other relevant federal agencies—including the US International Development Finance Corporation (DFC), US Trade and Development Agency (USTDA), and the US Department of State—were also discussed.

Why is Nuclear Export Financing so Important?

Financing is a decisive factor in a competition that has far-reaching consequences for our commercial, energy, climate, geopolitical, foreign policy, and national security interests. For example, Russia and China are not bound by OECD guidelines on minimum interest rates and loan repayment terms , allowing them to offer more attractive export financing packages and affording a distinct advantage in competing for overseas markets. Moreover, state-owned competitors, such as Russia and China, will make equity investments into nuclear exports, again bestowing them a competitive edge.

Many countries interested in nuclear energy view attractive financing as the centerpiece of integrated package deals that these suppliers put on the table. Especially for nations without the substantial financial wherewithal to initiate nuclear new build projects, such offers can be hard to refuse.

The Biden Administration deserves enormous credit for its bold and ambitious agenda for nuclear energy, including initiatives aimed at reasserting US global leadership and strengthening civil nuclear cooperation with international allies and partners. US engagement with Poland on new nuclear construction , establishing a strategic joint partnership with Japan and Ghana on SMR deployment , facilitating dialogue on nuclear energy during the April 2023 G7 Energy Ministers' Meeting , and enabling potential investment drivers for new nuclear in the Partnership for Global Infrastructure and Investment (PGII) and the US-UAE Partnership to Accelerate Transition to Clean Energy (PACE) are among the administration's most notable achievements on this front.

Considering that the Biden Administration has stressed the importance of international civil nuclear engagement, enhancing our ability to exhaustively leverage federal tools to support the development of competitive financing packages should be high on the priority list. Make no mistake, there have been significant accomplishments: in the last several months, both EXIM and DFC have issued Letters of Interest (LOI) pledging potential support ranging in the billions of dollars for nuclear projects in Romania and Poland .

However, in the ultra-competitive landscape of the global nuclear energy market, we cannot afford to rest on our laurels and we must continually benchmark our progress against the actions of our competitors—at the end of the day, US private industry is facing off against state-backed entities, and thus, the USG has a critical role in leveling the playing field. Moreover, recent historical and cultural challenges at our financing agencies mean that we are not just competing against other countries, but racing against legacies of the past.

Enhancing Export Financing Today: Steps We Can Take Now

The experience of developing a comprehensive financing package to support the construction of Westinghouse AP1000 units in Poland has yielded lessons for how the US government can improve and better leverage its suite of financing tools to strengthen the US nuclear sector's competitiveness abroad. These are measures that the federal government can take today, without any additional authorities or statutory revisions.

High-Level Commitment to Reshaping Cultural Practices at EXIM

Export-Import Bank (EXIM) is a powerful export credit agency (ECA) with a large balance sheet that has enormous potential in enhancing US companies' international competitiveness across many different sectors. However, recent challenges at EXIM, including a “near-death” experience that began when partisan conflicts resulted in the lapse of EXIM's charter in 2015 , have

reputedly pushed the agency to greater conservatism in its lending practices and instilled a more cautious disposition towards the evaluation of prospective export transactions. Some experts allege that EXIM will initially approach applications with relative scrutiny and legalism compared to other ECAs.

Such inclinations not only place US industry at a competitive disadvantage, but have also resulted in issues from the perspective of overseas customers. For example, while EXIM took a positive step in issuing its \$3 billion LOI for the construction of the GE-Hitachi BWRX-300 in Poland, the original request was for a significantly larger LOI (in the \$18 billion range) to cover all six units that ORLEN Synthos Green Energy (OSGE) is seeking to deploy. Management decisions within EXIM led to the smaller LOI, although given that LOIs are non-binding statements, EXIM could have just as easily delivered a more robust signal to our Polish partners.

Overcoming this predisposition to caution at the agency starts with clear direction and leadership from the EXIM Board of Directors and the upper echelons of the Biden Administration. In light of the agency's critical role in advancing core national interests through supporting civil nuclear exports, EXIM must be emboldened to leave its comfort zone and take on greater risk. The Make More in America Initiative is a positive step in the right direction, and building on this momentum will be needed to get EXIM on track.

Updating EXIM Policies to Modern International Standards

Many of EXIM's policies remain out of step with contemporary global practices. Some of the issues stem from EXIM's tumultuous 2015-2019 period, during which the EXIM Charter lapsed and the agency did not have a quorum in its Board of Directors (and thus could not approve financing in sums larger than \$10 million). While other ECAs updated and modernized their policies during this span, EXIM emerged from this period both behind on the times and unprepared to institute the changes made by its international counterparts—under greater external pressure following this episode, EXIM became reluctant to implement changes that might be viewed as deviations from its charter and statutory mandate.

Therefore, even though EXIM has taken positive steps to update some of its policies, including the recent announcement to match updated OECD standards and offer maximum repayment terms of up to 22 years, it has generally been slow to adopt these changes. Case in point: it took EXIM 19 months to update its local cost support policy, whereas other ECAs implemented the OECD change to 50% local costs immediately.

This is not just an issue of timing, but has implications for EXIM's effectiveness and international reputation. If EXIM operates within constraints that other ECAs no longer observe, this is not just a disadvantage for the US, but also sends the wrong signal internationally. Our international competitors, including China, are eager to point out such deficiencies when engaging with prospective markets.

There are a number of notable policies which EXIM could update that would result in significant impacts today:

- **Fees:** EXIM's general policies around fees have been problematic. For example, EXIM is the only ECA in the world that charges a commitment fee on sovereign transactions—0.5% for direct loans to sovereign borrowers. Eliminating or revising such fees could be enormously beneficial to the competitiveness of US exporters.
- **Domestic Content:** EXIM is the only ECA in the world that will only finance up to the percentage of domestic content in a final product. While the intent of EXIM's content policy is to maximize domestic economic and employment benefits, the actual result of this policy has been to handicap the US versus its international competition. Every other ECA in the world is at 50% domestic content or less, with some countries (e.g., the UK at 20% and Canada at 0%) significantly less than this benchmark. While there are certain exemptions to EXIM's content policies, a general revision to these rules is greatly needed.

In the end, the more attractive we can make our financing, the greater the incentive for international customers to buy American and maximize American content in what they purchase—this applies not only to nuclear, but all sectors in which the US competes globally.

Streamline Structures and Processes at EXIM

Given the important role of EXIM to our civil nuclear competitiveness (and our export competitiveness more generally), opportunities to streamline structures and processes within the agency should be explored. For instance, while the Office of

Inspector General (OIG) at EXIM plays a vital role in detecting waste and fraud, the office has become excessively large for its function—EXIM now has more inspectors general than loan officers. For an agency of EXIM's size, the size of the OIG should be significantly smaller.

The OIG is also illustrative of a trend towards bureaucracy within the agency. Applications are often “pre-audited” by the OIG, and the office will move to audit deals before they are even taken for approvals. Such issues are not limited to the OIG but have become evident in other parts of the agency as well. EXIM has had a three-step risk process in place for some time—whereas in the past, evaluations about the viability of applications were moved up the chain via relatively short email communications (e.g., “this is a workable deal”), now such steps have been replaced with detailed, voluminous reports and formal presentations. At the end of the day, these issues have contributed to the growing complexity and time involved in the evaluation of applications by EXIM.

For these reasons, opportunities to restructure the agency and streamline its internal processes should be investigated and considered. One model within the federal government that may serve as a guidepost in this regard: the US Department of Energy's (DOE) Loan Programs Office (LPO). LPO's new leadership has implemented a streamlined and modern approach to loan approvals, and this experience could be an example for EXIM in efforts to increase efficiency and minimize bureaucracy.

Taking Cues from Other Technology-Specific Programs at EXIM

EXIM's 5G program, in support of the country's broader strategy to lead in the global development and deployment of 5G technology, serves as a technology-specific case study that might be a model for similar agency programs on nuclear energy.

In the development of its 5G programs and policies, the EXIM Board of Directors realized that the supply chain for 5G hardware was largely situated abroad in countries like Japan, South Korea, and Sweden. However, the US nevertheless plays significant roles in the 5G global value chain through engineering, software, design, etc. In order to support the broader goal of countering China's aggressive global expansion in 5G technologies, the EXIM Board made a number of unprecedented policy exemptions for 5G specifically: lowering the domestic content requirement to 50%, revising rules on the accounting of content shipped directly from foreign suppliers, etc.

There are many parallels between the 5G and nuclear sectors that are consequential to EXIM's programs and activities. As in 5G, we are now in an intensifying competition with China for international civil nuclear markets with significant geopolitical and national security implications. Moreover, in this competition with China, US exporters will be relying on overseas suppliers for key hardware and components for large conventional reactors and likely a globalized value chain for advanced reactors and SMRs.

Thus, repeating elements of the 5G playbook for nuclear would not only be helpful to US nuclear exporters, but would be congruent to the realities of the nuclear supply chain and crucially advance both our commercial and national security interests.

Extensively Leveraging the China and Transformational Exports Program (CTEP)

The China and Transformational Exports Program (CTEP) is a recently mandated EXIM program with bipartisan support that has the potential to be an immensely powerful tool for US nuclear exporters. Companies that qualify for the program are eligible for reduced fees, extended repayment tenors, exemptions to EXIM policy requirements, and other benefits.

While there are apparent ambiguities regarding the eligibility of US nuclear exports for CTEP, according to strict interpretation of statute, it is clear that nuclear exporters are eligible under certain conditions. To qualify, a company must either: (1) be in direct competition with entities backed by the People's Republic of China (PRC) in an export market, or (2) compete in one of 10 Transformational Export Areas. Although nuclear energy is not explicitly listed as a Transformational Export Area, where US nuclear exporters are competing overseas, there is high likelihood that they will be facing competition from Chinese state-owned enterprises—thereby qualifying them for the program.

A clear statement or determination from EXIM leadership that nuclear exporters are eligible for CTEP within the parameters set under the current charter, in combination with a concerted effort to seek opportunities where CTEP could be applied to US nuclear exports, would put to rest any uncertainties around the ability of the US nuclear sector to leverage this program.

Ultimately, utilization of CTEP for nuclear exports supports both the commercial competitiveness of US companies and our core national interests by advancing American international leadership in nuclear energy and geopolitical objectives vis-à-vis China.

Additionally, changes are needed to improve general accessibility to CTEP. Presently, the burden of proof to demonstrate “undue competition” from PRC-backed entities is solely on the applicant. Often, documentation detailing financing terms for Chinese contracts are either unavailable or inaccessible, especially for private companies. Simplifying processes to determine CTEP eligibility could greatly enhance the overall impact of the program.

Adding Russia to the List of Covered Countries

The US Department of the Treasury has the authority to designate Russia as a covered country, *today*. By doing so, exporters vying for markets against Russian state-backed companies can also be eligible for CTEP and its benefits. In light of Russia’s extensive reach and presence in the global nuclear energy market, such a designation by the Secretary of the Treasury would further increase the probability that US nuclear exporters have a pathway for CTEP eligibility.

Providing Options for Equity Investments in Nuclear Export Projects

Although EXIM is expressly prohibited from making equity investments by law, DFC may deploy tools that could facilitate equity investments into overseas nuclear build projects and help level the playing field against state-backed competition. For example, DFC has political risk insurance tools to provide coverage for US equity investors. DFC also has funds through which it can insure up to 50% of US private equity investments in export projects, with a \$3B statutory limit for individual projects. Such tools at DFC are available today—and could be used with sufficient political will—and would be game-changing by catalyzing US equity investments into international markets.

In discussions with Poland on financing options for US nuclear energy exports, the Polish government had expressed, for symbolic reasons, a desire for a US government equity stake in these projects. A modest equity investment in the range of around \$25M would have, in the view of the Polish government, been a symbol of high-level US commitment to both the nuclear project and the broader bilateral civil nuclear partnership.

Engaging with Civil Nuclear Partners and Encouraging Revisions to Problematic Regulations on the Customer Side

While there are certainly challenges that must be addressed within the USG’s export financing agencies, there are also issues on the client side as well, such as unhelpful or obstructive policy barriers—for instance, EU budget rules and State Aid regulations make it challenging for certain customers in Europe to leverage US export financing packages.

Encouraging revisions to such regulations would help pave the way for EXIM and other federal agencies to provide financing support for US civil nuclear exports to these markets. Given the emergence of clear and growing interest in US nuclear energy technologies internationally, especially in Europe, having these conversations will be a necessary step towards bringing deals over the finish line.

Generally Strengthening Nuclear Expertise and Capacity at Financing Agencies

There remain challenges and gaps with staff capacity and expertise on nuclear energy at the various export financing agencies. As one example, while DFC’s reversal of its legacy prohibition on nuclear energy projects was a positive step, DFC’s institutional knowledge and proficiency on nuclear energy issues remain limited.

While additional resources and staffing are required to definitively address these gaps, near-term solutions to these challenges could be explored. For instance, DFC, EXIM, and other financing agencies can more extensively rely on interagency coordination and expertise that exists elsewhere within the USG, such as the Office of Nuclear Energy at DOE (DOE-NE). Establishment of dedicated nuclear teams or offices could also facilitate the development of domain expertise in nuclear at these agencies.

Laying the Foundations for Tomorrow: Congressional and Legislative Actions

While certain issues can be addressed immediately with sufficient political will and support, other challenges will require strong congressional leadership and/or legislative changes to address.

One recent example of congressional initiative on civil nuclear export financing issues is the [introduction of the Civil Nuclear Export Act \(CNEA\) back in June 2023](#). CNEA focused specifically on issues at EXIM—critically offering solutions to the default rate cap issue and nuclear’s eligibility for CTEP—although Congress’ leadership in providing adequate resources and statutory authorities for other federal agencies of relevance will be necessary to shore up US nuclear export financing for the long haul.

Addressing the Default Rate Cap

Under current law, if 2% or more of EXIM’s total active credit portfolio is in default (e.g., payments are 90 days overdue), then EXIM’s lending cap freezes and the bank can no longer authorize any new transactions (until the default rate falls back under the 2% ceiling).

The present default rate cap is problematic for a number of reasons. No other ECA in the world is subject to such default rate constraints. Moreover, for an agency that is allegedly overly conservative in its practices and processes, the default rate cap further reinforces risk aversion. Finally and arguably most important, loans in default do not necessarily result in losses for EXIM. In fact, it is highly improbable for EXIM to suffer actual or net losses because of fees, requirements to hold significant amounts in cash reserves, and other factors. Although overdue payments from sovereign borrowers are commonplace, very rarely do such borrowers renege on their repayment obligations in the end, as countries are loathe to undermine their bilateral relationship with the US.

[CNEA would address the default rate issue by raising the cap from 2% to 4%](#). It would also authorize exemptions for CTEP financing from default rate calculations, pending approval by the EXIM Board of Directors. Of these provisions, the flexibility for the Board of Directors to exempt transactions from default rate calculations is arguably the most impactful. In the event of crises such as a global pandemic or technical defaults (e.g., failure for a borrower to submit financial statements), such flexibilities can help keep the bank in operation and allow EXIM to better adjust to changes in demand and risk appetite.

There are other conceivable solutions to the default rate, including blanket exemptions for certain categories of transactions (nuclear energy, clean energy, financing provided under CTEP, etc.). One avenue that may be considered: take the focus away from the default rate and make bank losses the trigger for EXIM lending freezes. Ultimately, actual bank losses are what matters; the percentage of the total portfolio that is in default is essentially inconsequential because default does not mean loss for EXIM and borrowers by and large repay their loans (if just not on time). Appending language to specify that default rate calculations should be limited to loans in default “that apply/count against actual losses,” or something to this effect, could serve as a definitive answer to the default rate issue.

Explicitly Including Nuclear Energy in the List of CTEP’s Transformational Export Areas

As mentioned, CTEP could significantly enhance the competitiveness of US nuclear exporters, particularly against state-backed entities from China and other Treasury-designated covered countries.

CNEA would explicitly add nuclear energy to [the list of Transformational Export Areas](#), thereby making all civil nuclear transactions eligible for CTEP. While nuclear exports can technically qualify for CTEP now (in markets where there is direct competition with Chinese state-owned enterprises or entities otherwise backed by the People’s Republic of China), the explicit inclusion of nuclear energy as a Transformational Export Area would signal strong congressional support for leveraging CTEP for nuclear.

Revising How EXIM’s Co-financing and Reinsurance Are Counted against the Total Portfolio

Considering the globalized nature of nuclear supply chains, nuclear export projects will typically involve components (and financing) from other countries. Under EXIM’s current charter, if another country ECA co-finances or re-insures an export deal, the entire amount (including the shares from international partners) counts against EXIM’s total portfolio limit.

Statutory fixes may be envisioned for this issue. For example, legislation could include provisions that if EXIM is re-insured or counter-guaranteed by another ECA of investment grade, that shall not count towards EXIM's lending cap.

Fixing Equity Scoring Issues at DFC

Our state-backed competitors make equity investments into nuclear export projects, giving them a major advantage in international markets. While DFC possesses an equity investment tool, the way such investments are scored makes its use prohibitive. Under current rules, DFC must assume 100% loss for such investments—even the private sector does not follow such practices; they may assume 10-15% losses, or perhaps higher based on evaluations of risk.

A statutory fix is likely necessary to address this issue, and there is bipartisan support in finding a solution to this problem. There have been legislative proposals, including a workaround that grants DFC the ability to use its earnings on equity investments without returning the funds to Treasury, although this would not provide an immediate answer. Finding a workable solution to this equity scoring challenge, and building support around it, will be imperative.

Robustly Funding Pre-Project Work at USTDA, State, NRC, etc.

Early support work—including capacity building, technical assistance, workforce development, and pre-feasibility studies—is going to be critical, particularly for more prospective markets where the institutional foundations and frameworks for civil nuclear programs are less developed. In such markets, US private industry will not have near-term commercial incentives to engage. However, China and Russia, in pursuit of their geopolitical interests, will cultivate relationships with such countries well in advance of commercial deals. Under these circumstances, it is essential for USG to be proactive and provide assistance to embarking nations with the development and maturation of their civil nuclear programs.

There is considerable groundwork before a new nuclear build project can begin in earnest. USTDA has been actively involved in project preparation work such as feasibility and front-end engineering and design (FEED) studies, including awarding a grant to Romania's RoPower for a FEED study for the country's first SMR plant in October 2022. At State Department, programs like the Foundational Infrastructure for Responsible Use of Small Modular Reactor Technology (FIRST) aim to build long-term relationships and engage in capacity building work, and through initiatives like Project Phoenix, State is beginning to conduct more pre-project preparatory work like feasibility studies, regulatory gap analyses, advisory services, etc. Agencies like NRC and USAID can play important roles in the development of regulatory and licensing frameworks, capacity building, technical assistance, and so forth.

However, for these agencies to more effectively execute these functions, they must be equipped with sufficient resources. Significantly increasing appropriations for USTDA to support early project development work and providing additional funding for the FIRST Program at State to meet increasing international interest and demand would be highly beneficial. Affording NRC the means to more deeply engage in international cooperation and assistance activities, including helping nascent programs develop and establish regulatory structures, is increasingly vital—particularly as we move towards advanced reactor designs. The Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy (ADVANCE) Act of 2023 would take international activities off the fee base and authorize the Commission to establish an International Nuclear Reactor Export and Innovation Branch within the NRC Office of International Programs. Ensuring that the NRC Office of International Programs is adequately staffed and providing sufficient funds for the agency's international work would maximize the effect of these provisions.

Enabling USTDA to Work More Broadly in Europe

USTDA is statutorily barred from operating in European markets, with just a few exceptions. Amending the European Energy Security and Diversification Act of 2019 to grant USTDA the authority to broadly work in Europe so that it can provide early project support (e.g., feasibility studies) to key markets would help the US better respond to growing demand in the region.

Conclusion

EXIM's near-death experience continues to have profound impacts upon the agency's culture, practices, structure, and risk appetite. External pressure and the default rate cap has set off a vicious cycle towards conservatism: as the agency exercises increasing caution in its lending, its total portfolio shrinks and hence also its default rate threshold in absolute terms—inducing even further caution.

However, it is clear now that breaking out of this cycle is not only in our commercial interest, but fundamental to our security and core values. We are not merely in an economic competition against China, but we are now in the midst of a greater struggle against authoritarianism: vying for technological supremacy, protecting democracy at home and abroad, demonstrating the strength of US commitments to our international partners and allies, and preserving global peace and security. There is no clearer illustration of this than the civil nuclear sector—there is now burgeoning international interest in US nuclear technology as countries seek to strengthen energy security and guard their sovereignty from the encroachment of our authoritarian rivals. If we choose to answer this call, we can assert ourselves as the standard bearers in international safety, security, and nonproliferation norms, ensuring that nuclear technology is deployed securely and peacefully to generate clean energy, advance economic development, and avert climate catastrophe.

EXIM is not just another export credit agency. It has the promise to be a powerful geopolitical tool and an instrument of our national security... if only we have the political will to empower it as such.

But this story doesn't just end with EXIM. There are important roles across the interagency, and while there are challenges at these individual agencies just like at EXIM, what is clearly needed is a catalyst or binder to put these tools together into coherent packages. For example, the International Nuclear Energy Act (INEA) of 2023 would encourage the establishment of a civil nuclear office within the Executive Office of the President that could coordinate these various financing solutions. Russia, China, and our other competitors on the world stage offer “one-stop shops” and integrated package deals on the table; improving coordination among federal agencies and with industry is vital so we can present competitive and cohesive offers.

And ultimately, when American companies win, *America wins*. There is too much at stake with the international nuclear market to leave this competition to the vagaries of fate—we must act quickly and decisively so that we come out on top.

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