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# Regaining U.S. Nuclear Energy Leadership

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The United States is losing its dominance in the nuclear export market, and with it, its ability to steer global non-proliferation and safety norms. This piece takes a brief look at responses to recover this leadership role. A preliminary introduction, the goal of this work is to crowdsource thoughts and impressions as this work develops over the next year. If you have comments, critiques, or contributions, please reach out to me at [dobrennan@ucsd.edu](mailto:dobrennan@ucsd.edu).

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# 1. Introduction

Since Dwight Eisenhower's 1953 Atoms for Peace initiative, 70 years of incremental achievements have engineered the nonproliferation security of a nuclear world. These achievements were not trivial. Guardrails against misuse were weak given the as-yet unregulated and undefined landscape practitioners were operating in. Working with allies and adversaries alike, new tools to counter proliferation were born out of immense diplomatic, technical, and economic efforts.

These achievements built upon Eisenhower's "grand bargains." Later codified into the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the NPT underwrites the inalienable right to pursue safe uses of nuclear energy, particularly for the developing world and with the collaboration of the nuclear powers.

Consistent U.S. leadership behind a nonproliferating nuclear environment has been integral to the longevity and success of these goals.<sup>1</sup> The construction of the International Atomic Energy Agency (IAEA), the Nuclear Suppliers Group, the Limited Test Ban Treaty, and the Joint Comprehensive Plan of Action, among others, have each been U.S.-driven.

The United States benefited from this dominance. From this vantage point the United States steered the global nonproliferation and safety agenda, exerted geopolitical influence, and learned and innovated from its developments, all of which contributed auxiliary support to the U.S. naval propulsion and nuclear weapons programs.<sup>2</sup>

## 1.1 An Inflection Point

Burgeoning interest in nuclear power introduces an inflection point. Industrial electrification, global economic development, climate change, air pollution, and energy security each drive today's renaissance in nuclear energy.<sup>3</sup> This renaissance coincides with deteriorating U.S. nuclear power leadership: declining domestic demand; an atrophying supplier industry and a diminishing skilled workforce; limited governmental support for exports; and slow, unpredictable implementation.

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<sup>1</sup> See Jessica Lovering and M. Granger Morgan. "As US nuclear exports decline, experts fear international safeguards will too." In: *Bulletin of the Atomic Scientists* (2021).

<sup>2</sup> See Michael Wallace et al. "Restoring U.S. Leadership in Nuclear Energy: A National Security Imperative." In: *Center for Strategic & International Studies* (2013).

<sup>3</sup> The IAEA have recently predicted a 50%–250% increase in global nuclear power capacity by 2050. See International Atomic Energy Agency. "Energy, Electricity and Nuclear Power Estimates for the Period up to 2050." In: *Reference Data Series 1* (2025). doi: <https://doi.org/10.61092/iaea.gwov-o544>

Current and potential partners are consequently less attracted to a U.S.-led solution to their nuclear energy goals; China and Russia are filling the vacuum. State-backed financing coupled with streamlined decision-making structures make both Russia and China attractive alternatives. Repatriating spent nuclear fuel makes Russian exports a particularly coveted product. China and Russia are hence in leading positions to establish century-long relationships with client states.<sup>4</sup> This rise in foreign exports erodes U.S. leadership. If U.S. exports capture only a fragment of the market, policy makers are left with fewer tools to influence proliferation decisions and secure commitments in other states.<sup>5</sup>

## 2. Remedies

Several suggestions have been posited to remedy this imbalance and return the United States to a position of influence and leadership—the policy of the current administration.<sup>6</sup> We separate these remedies into “hard” and “soft” responses: the former requiring industrial innovation; the latter requiring diplomatic innovation. Each response has their own benefits and limitations.

### 2.1 Hard Responses

Hard responses include government financing, new nuclear technology, and an empowered domestic fuel cycle industry. The sum of these programs points to a demonstrated commitment to domestic nuclear power, fostering international confidence in long-lasting support.

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<sup>4</sup> See Michael Wallace, Amy Roma, and Sachin Desai. “Back from the Brink: A Threatened Nuclear Energy Industry Compromises National Security.” In: Center for Strategic & International Studies (2018).

<sup>5</sup> See Mariano-Florentino (Tino) Cuéllar, Ernest J. Moniz, and Meghan L. O’Sullivan. “Preventing an Era of Nuclear Anarchy: Nuclear Proliferation and American Security.” In: Carnegie Endowment for International Peace, Harvard University Belfer Center for Science and International Affairs, and Nuclear Threat Initiative (2025).

<sup>6</sup> See Exec. Order No. 14300, FR Doc. 2025-09798. Ordering the Reform of the Nuclear Regulatory Commission (2025). <https://www.whitehouse.gov/presidential-actions/05/ordering-the-reform-of-the-nuclear-regulatory-commission/>

### 2.1.1 Government Financing

Myriad nuclear financing mechanisms exist, each dependent on a state's industrial and political contexts.<sup>7</sup> Following recent trade talks with Japan, \$80bn has been earmarked by the U.S. government for an equity stake investment in Westinghouse, with the posited option to force its eventual public listing.<sup>8</sup> However, such a move parallels the deteriorating demarcation between the state and its regulators, with potential impacts on the latter's independent autonomy.<sup>9</sup>

Government support may begin sooner than power generation, with President Donald Trump's recent Executive Order (EO) declaring to part-finance a government-owned, privately operated domestic fuel supply.<sup>10</sup> Fiercely expensive, these declarations remain subject to congressional approval.

### 2.1.2 New Nuclear Technology

New nuclear technology includes small- and micro-modular reactors (SMRs, MMRs), as well as alternative fuels. Many rely on spent fuel reprocessing (SFR) and are accompanied by the attendant nonproliferation concerns, namely, latent capabilities (for sovereign SFR capacity) and theft, signaling, and reprocessing promulgation (for U.S. SFR capacity).<sup>11</sup> Proponents of some SMRs/MMRs proclaim the build-own-operate (BOO) benefits of sealed lifetime cores, that is, those which require no refueling and can be removed for decommissioning.<sup>12</sup>

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<sup>7</sup> For a discussion on historic options, see Nuclear Energy Agency. Effective Frameworks and Strategies for Financing Nuclear New Build. Tech. rep. 7684. Organisation for Economic Co-operation and Development (2024).

<sup>8</sup> See Antoine Gara and Malcolm Moore. "US government and Westinghouse strike \$80bn nuclear reactor deal." In: *Financial Times* (2025).

<sup>9</sup> Since February 2025, the Office of Management and Budget oversees the regulatory process of the previously independent Nuclear Regulatory Commission. See Sofia Guerra and Heidy Khlaaf. "Fission for Algorithms: The Undermining of Nuclear Regulation in Service of AI." In: AINow Institute (2025); Dale Klein. "From Renaissance to Reality: Infrastructure for a Global Nuclear Fuel Cycle." In: Nuclear Newswire (2025); Tim McLaughlin and Timothy Gardner. "Trump's big nuclear reactor push raises safety concerns." In: *Reuters* (2025).

<sup>10</sup> With proposed financing mechanisms including "Procurement support, forward contracts, or guarantees," driving innovation and kick-starting a moribund industry. See Exec. Order No. 14302, FR Doc. 2025-09801. Reinvigorating the Nuclear Industrial Base. 2025. url: <https://www.whitehouse.gov/presidential-actions/2025/05/reinvigorating-the-nuclear-industrial-base/>

<sup>11</sup> See Mary Beth Nikitin and Mark Holt. "Managing the Nuclear Fuel Cycle: Policy Implications of Expanding Global Access to Nuclear Power." In: Congressional Research Service RL34234 (2012); Lance N. Larson and Mark Holt. "Considerations for Reprocessing of Spent Nuclear Fuel." In: Congressional Research Service R48364 (2025); Matthew Bunn et al. "The Economics of Reprocessing Versus Direct Disposal of Spent Nuclear Fuel." In: *Nuclear technology* 150.3 (2005), pp. 209–230.

<sup>12</sup> See Ahmed Abdulla and M Granger Morgan. "Nuclear power for the developing world." In: *Issues in Science and Technology* 31.2 (2015), pp. 55–61; Lovering and Morgan, "As US nuclear exports decline, experts fear international safeguards will too."

Lifetime cores nevertheless restrict the opportunities for physical inventory verification, this already being stretched by longer operation cycles.<sup>13</sup> Additionally, these client states may not remain an ally over these lengthy periods, and so reducing the reliance the client state has on regular U.S. fuel exports may prove inimical to protracted nuclear security.<sup>14</sup> This is an especially acute concern for high-assay low-enriched uranium- or plutonium-fueled reactor designs.<sup>15</sup>

### 2.1.3 An Empowered Domestic Fuel Cycle Industry

Recent EO<sup>s</sup> complement the above response through significant funding opportunities for domestic enrichment capacity, uranium supply, and SFR.<sup>16</sup> Operationalizing these EO<sup>s</sup>, however, may compete with the already strained modernization program.<sup>17</sup> Indeed, with the restriction requiring unobligated uranium for naval uses, the 2013 closure of Paducah Gaseous Diffusion Plant, and the redirection of plutonium for fuels, the finite stockpiles are a premium that may undercut modernization efforts if shared.<sup>18</sup> A move to fuel reprocessing will perpetuate if not exacerbate the logistical challenges of keeping a dual-track strategy with pit production. Legal issues with South Carolina notwithstanding, reversing the ongoing conversion of the Mox Fuel Fabrication Facility to the Savannah River Plutonium Processing Facility will take time and money.<sup>19</sup>

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<sup>13</sup> See International Atomic Energy Agency. IAEA Safeguards Glossary. Tech. rep. 3. International Atomic Energy Agency, 2022.

<sup>14</sup> See Richard Nephew and Matt Bowen. "Updating the 'Atoms for Peace' bargain for the new nuclear age." In: Bulletin of the Atomic Scientists (2025).

<sup>15</sup> Regardless, these fuels will require a major overhaul to supporting infrastructure before they can become mainstream. See Klein, "From Renaissance to Reality: Infrastructure for a Global Nuclear Fuel Cycle"; Friederike, Moritz Kütt, and Matthias Englert. "Proliferation issues related to fast SMRs." In: *Annals of Nuclear Energy* 85 (2015), pp. 725–731. ISSN: 0306-4549. doi: <https://doi.org/10.1016/j.anucene.2015.06.028>

<sup>16</sup> See Department of Energy. "DOE Announces \$2.7 Billion From President Biden's Investing in America Agenda to Boost Domestic Nuclear Fuel Supply Chain." In: Department of Energy (2024). <https://www.energy.gov/articles/doe-announces-27-billion-president-bidens-investing-america-agenda-boost-domestic-nuclear>; Exec. Order No. 14302, FR Doc. 2025-09801.

<sup>17</sup> Competing for feedstock and capacity (workspace, workforce, equipment, and so on). See Heather Williams. "Pitting Nuclear Modernization Against Powering AI: Trump's Plans for the U.S. Plutonium Stockpile." In: Center for Strategic & International Studies (2025); Alicia Inez Guzmán. "In a Looming Nuclear Arms Race, Aging Los Alamos Faces a Major Test." In: *The New York Times* (2025).

<sup>18</sup> See National Nuclear Security Administration. "Fiscal Year 2025 Stockpile Stewardship and Management Plan – Biennial Plan Summary." In: *Department of Energy* (2024).

<sup>19</sup> This is not the first time Savannah River Site has had to backtrack after considerable expense, noting the 2012 cancellation of the \$730M Pit Disassembly and Conversion Facility. See David Trimble. *Surplus Plutonium Disposition: NNSA's Long-term Plutonium Oxide Production Plans are Uncertain*. Tech. rep. United States Government Accountability Office. <https://www.gao.gov/assets/710/705783.pdf>

There remains concern over one EO's seeming fixation on operationalizing SFR for private nuclear vendors.<sup>20</sup> This concern is reinforced when we consider a recent Senate bill to assess the *"practicability, potential benefits, costs, and risks, including proliferation, of using dedicated [SFR] facilities."*<sup>21</sup> Whilst these declarations are prudent in their interest to research SFR's practicability, their language assumes SFR to be a foregone conclusion. It is small wonder that these pronouncements are supported by several private companies reliant on this conclusion.<sup>22</sup> Again, the deteriorating autonomy of, and the undue pressure on, previously independent bodies is cause for concern to some.<sup>23</sup>

## 2.2 Soft Responses

Soft responses include streamlining high-level coordination bodies, international fuel cycle programs, developing strategic non-nuclear trade or policy partnerships, and novel liability coverage. The sum of these programs points to an engaged and cooperative international landscape steered by the United States.

### 2.2.1 Streamlining High-Level Coordination Bodies

To overcome the bureaucratic hurdles prospective client states face, one response coordinates a one-stop-shop across the relevant groups within legislative and regulatory bodies: the Nuclear Regulatory Commission and the Departments of Energy, State, Defense, and Commerce.<sup>24</sup> Extensions to this incorporate financing bodies within this aggregate at the negotiation level—such as the U.S. International Development Finance Corporation, the Export-Import Bank of the United States, and the World Bank. By so doing, the level of support funding can then be predicated on alignment with, for example, IAEA prescriptions, use of the Additional Protocol or a 123 Agreement.<sup>25</sup> This streamlined strategy mirrors the bureaucratic attraction of Chinese and Russian exports.

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<sup>20</sup> This is a fixation that may sacrifice worker safety and nuclear security for cheaper operations. See Exec. Order No. 14300, FR Doc. 2025-09798; Trimble, Surplus Plutonium Disposition: NNSA's Long-term Plutonium Oxide Production Plans are Uncertain.

<sup>21</sup> Bill S.3016—Advancing Research in Nuclear Fuel Recycling Act of 2025, a re-submission of Bill S.5157. These bills are sponsored by Senator Ted Cruz (Texas, home of the Pantex Plant) and Senator Martin Heinrich (New Mexico, home of Los Alamos National Lab), two states with a potential to host major reprocessing industries.

<sup>22</sup> Notably Oklo, a favorite for "big-tech" companies, and Curio. See Ted Cruz U.S. Senator for Texas. "Sens. Cruz, Heinrich, Introduce Bill Advancing Research in Nuclear Fuel Recycling." In: Ted Cruz U.S. Senator for Texas (2025). <https://www.cruz.senate.gov/newsroom/press-releases/sens-cruz-heinrich-introduce-bill-advancing-research-in-nuclear-fuel-recycling>

<sup>23</sup> See Guerra and Khlaaf, "Fission for Algorithms: The Undermining of Nuclear Regulation in Service of AI."

<sup>24</sup> See Cuéllar, Moniz, and O'Sullivan, "Preventing an Era of Nuclear Anarchy: Nuclear Proliferation and American Security."

<sup>25</sup> This has implications on updating OECD export credit capabilities. See Nephew and Bowen, "Updating the 'Atoms for Peace' bargain for the new nuclear age."

Alignment with such prescriptions as the 123 Agreement need not be binary, but instead a context-dependent sliding scale may prove procedurally preferable.<sup>26</sup> If allowed to flex, the slow and uncertain 123 Agreements—ever the unappealing hindrance—may be expedited according to a nation state’s degree of commitment to U.S. safety demands.<sup>27</sup>

### 2.2.2 International Fuel Cycle Programs

Support for export financing may similarly be predicated on the client state joining an international or regional fuel cycle program, including spent fuel and/or decommissioning retrieval. Whether driven by the economic and strategic realities of the importer state, concerns of intergenerational responsibility,<sup>28</sup> or the nonproliferation concerns of exporter and regional states, this international model dilutes or removes any one importer nation’s access to proliferating capability.

Externalizing the fuel cycle—a supposed lure of the Russian BOO model—contradicts many client states’ declared interest in fuel cycle sovereignty.<sup>29</sup> To compete with China, the current U.S. administration is even considering conceding domestic enrichment capability to Saudi Arabia, potentially inciting regional conflicts with the UAE and Israel.<sup>30</sup> Moreover, potential exporter states (the United States, United Kingdom, and France) have themselves not sited a nuclear waste repository, and identifying a third-party nuclear waste host nation may incite coercive behaviors from more powerful states.<sup>31</sup>

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<sup>26</sup> See Richard Nephew. “Reconsidering US Nuclear Cooperation Agreements.” In: Columbia Center on Global Energy Policy (2020).

<sup>27</sup> This means a nation state achieves above the minimum expectations. See Nephew and Bowen, “Updating the ‘Atoms for Peace’ bargain for the new nuclear age.”

<sup>28</sup> See Nuclear Energy Agency. “Recycling: A Key Enabler for Sustainable Nuclear Fuel Cycles.” In: OECD Publishing (2025). On intergenerational responsibility, see also complementary discussions on capability theory in, e.g., Martha Nussbaum and Amartya Sen. *The Quality of Life*. Clarendon Press (1993).

<sup>29</sup> The 2008 Global Nuclear Energy Partnership indicated abundant interest by partner countries toward nuclear sovereignty. These partner countries nonetheless exhibit cognitive dissonance through their evident pursuit of Russian and Chinese exports. See H. Rept. 110-185. “Energy and Water Development Appropriations Bill.” (2008); Larson and Holt, “Considerations for Reprocessing of Spent Nuclear Fuel.”

<sup>30</sup> The UAE can renegotiate its 123 Agreement if the United States provides more favorable agreements for another regional power, raising concerns of favoritism. See Nicole Grajewski and Jane Darby Menton. “MENA at the Threshold? Proliferation Risks and Great Power Competition.” In: Texas National Security Review (2025); Vivian Nereim. “U.S. Revives Talks With Saudi Arabia on Transfer of Nuclear Technology.” In: *The New York Times* (2025).

<sup>31</sup> See Abdulla and Morgan, “Nuclear power for the developing world.”

### 2.2.3 Developing Strategic Non-Nuclear Trade or Policy Partnerships

A parallel approach, supporting diplomatic efforts through, for example, technology transfers, may reinforce a state's intent on aligning itself with U.S. nuclear exports. Indeed, with the credence supplied by whole-of-government or presidential backing, this avenue opens the door to a wide and long-lasting partnership with the United States.<sup>32</sup> For this reason, nation states have indicated a preference for U.S. nuclear energy, despite the cheaper options offered by Russia and China.<sup>33</sup>

### 2.2.4 Liability Coverage

A response particularly attractive for the Global South is the offer of bi- or multilateral nuclear accident liability coverage. Harmonizing the currently disparate global liability regime is the U.S.-led Convention on Supplementary Compensation for Nuclear Damage (CSC).<sup>34</sup> The CSC can strengthen U.S. export potential by expediting export discussions and facilitating investor involvement.<sup>35</sup> Shared international liability assures states they won't be priced out of nuclear power due to the risk of defaulting, lowering a states' barriers of entry to the export market.<sup>36</sup> The United States is currently reviewing how it treats MMR/SMR liability both domestically and abroad to better reflect their predicted smaller accident footprint.<sup>37</sup>

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<sup>32</sup> See Cuéllar, Moniz, and O'Sullivan, "Preventing an Era of Nuclear Anarchy: Nuclear Proliferation and American Security"; Lovering and Morgan, "As US nuclear exports decline, experts fear international safeguards will too."

<sup>33</sup> This was learned in conversation with members engaged with the U.S. FIRST program. This is notwithstanding the cognitive dissonance noted earlier.

<sup>34</sup> The U.K. joined as the 12th party most recently in October 2025. See Department of Energy. Section 934 Report. Tech. rep. Department of Energy (2018).

<sup>35</sup> "United States membership in the CSC is the lynchpin of a global nuclear liability regime." See Department of Energy. "Price-Anderson Act: Report to Congress." In: Department of Energy (2023).

<sup>36</sup> See Abdulla and Morgan, "Nuclear power for the developing world."

<sup>37</sup> This footprint is compared to large nuclear reactors. Both the Price-Anderson Act (domestic) and the CSC (international) are under review, the critiques of which are not few. See Mark Holt. "Price-Anderson Act: Nuclear Power Industry Liability Limits and Compensation to the Public After Radioactive Releases." In: Congressional Research Service IF10821 (2025); Department of Energy, Section 934 Report.

### 3. Discussion

Figure 1 presents these seven response archetypes and highlights their headline benefits and risks. Each of these responses builds off current institutions/partnerships introduced and empowered by the United States. All, however, require extensive modernization. Government financing (hard response) and non-nuclear partnerships (soft response) require continued congressional backing; an empowered fuel cycle (hard) requires immense support for the nuclear enterprise workforce and infrastructure; a streamlined coordination body (soft) and novel liability coverage (soft) require considerable bureaucratic alignment across multiple U.S. and international agencies.

The combination of hard and soft responses enables a complementary, multipronged approach. Where hard responses are limited by funding and political backing, diplomatic partnerships and international engagement may cover any shortfalls and instill confidence in potential payback. Where soft responses stall under diplomatic disputes, an established domestic market may recover nation states' confidence in U.S. commitments.

Multiplying nuclear power reactors and states will nonetheless strain existing safeguards and monitoring and verification practices. A strengthened IAEA will be essential to operationalize these expanded practices, not least to cover their larger portfolio, but further to cover the diverse and novel technologies within. This is certainly the case for international or regional fuel cycles, especially if enrichment and SFR capabilities are to become sovereign to the importer states.

Beyond existing post hoc mechanisms (the NPT, for example), there is little scope to complement these carrots with sticks. Certainly, it is questionable whether the United States and its market philosophy can or should punish an importer for pursuing cheaper Russian or Chinese exports given their potential security concerns.

The success of these efforts will depend both on political will and technology innovation. Government, private sector, and scientific community collaboration is essential to ensure these pursuits reinforce and not undermine global nuclear security. Incorporating proliferation resistance into U.S. export decision-making may help guide which designs merit government assistance.<sup>38</sup>

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<sup>38</sup> As argued by Cuéllar, Moniz, and O'Sullivan, "Preventing an Era of Nuclear Anarchy: Nuclear Proliferation and American Security."

### 3.1 Optimism vs. Skepticism

The United States likely cannot outcompete the cost and procedural attraction offered by centralized, state-owned Russian/Chinese exports. All seven responses may be required in tandem. In the optimistic case, congressional and public backing underwrites massive financial and bureaucratic support, revitalizing the domestic industrial base. Meanwhile, U.S.-steered diplomacy and regional partnerships gain financial and normative backing by both the allies and China,<sup>39</sup> forging and reinforcing alliances without inspiring claims of favoritism.

In the skeptical case, weak congressional and public support stagnates funding for the domestic industry. International diplomacy fails to reconcile regional security and sovereignty concerns, while flexible 123 Agreements generate cries of favoritism between nation states. For example, calls for regional cooperation in the Gulf states may collapse if the United States vouchsafes Saudi Arabia a domestic enrichment capability while the UAE remains bound to its gold-standard 123 Agreement.<sup>40</sup> Negotiating or renegotiating 123 Agreements then risks sporadic firefighting as agreements are rolled out across regions, weakening alliance goodwill and pushing some to alternative ports.

Reality lies somewhere in between, though it is plausibly slanted toward the skeptic. Resources are limited, and so hard responses—those that require government and private financing—can stumble under economic or political pressures. Increased support for international agencies like the IAEA is similarly stunted, especially during times of domestic economic hardship. Meanwhile, soft responses—those that require diplomatic negotiation—risk collapsing under exogenous international pressures. Certainly, regional fuel cycles, especially in the Gulf states, hinge on diplomatic achievements far beyond the confines of a nuclear industry.

The Saudi-Pakistan defense pact evinces a wider global trend: growing distrust over U.S. security assurances.<sup>41</sup> In pushing others to re-evaluate the strength of their alliances, these concerns can bleed over into states' nuclear export calculus and the benefits of tying oneself to the United States. Stepping back from the nuclear export market,

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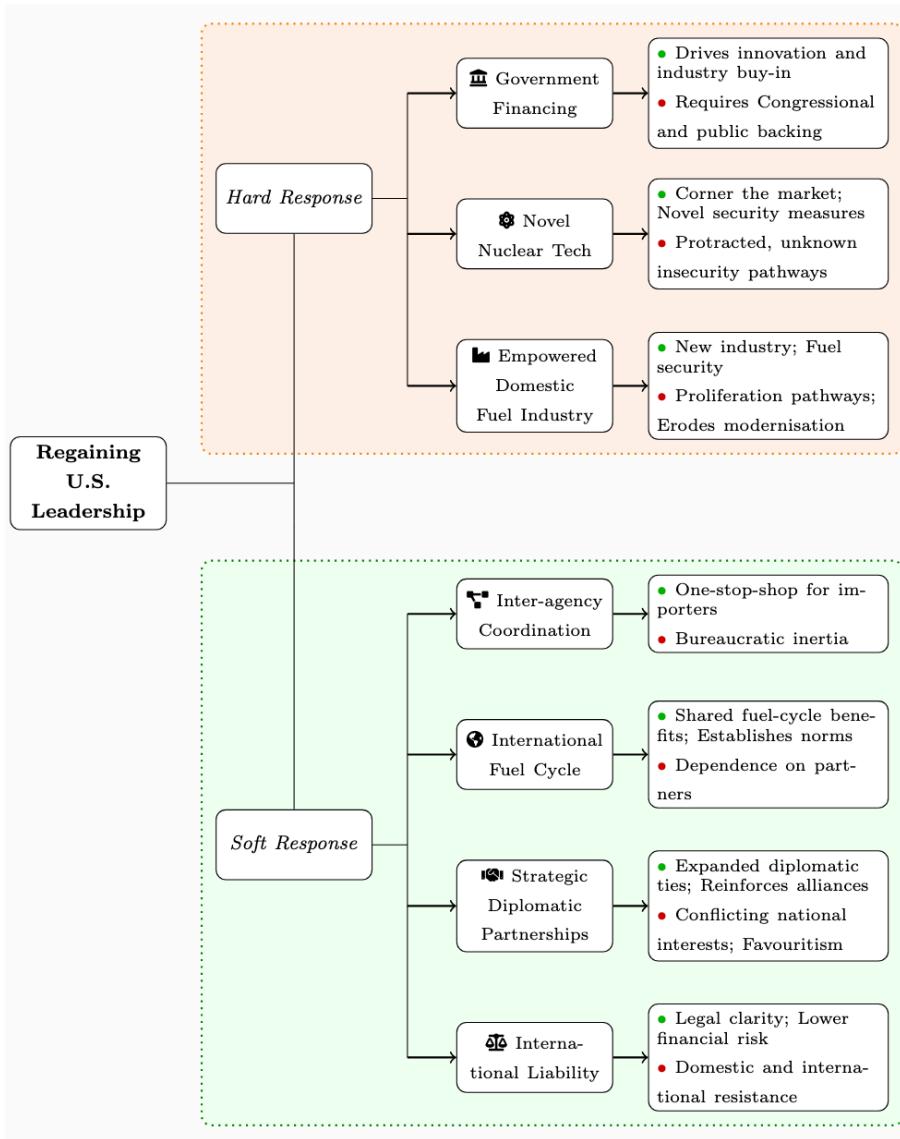
<sup>39</sup> The quixotic case may further consider Russia as part of this consortium.

<sup>40</sup> This echoes South Korea's recently emboldened reprocessing efforts (with U.S. support) to gain nuclear latency on par with Japan. See Choe Sang-Hun. "Trump Gives Legs to South Korea's Dream for Nuclear-Powered Subs." In: *The New York Times* (2025); Ellie Geranmayeh, Cinzia Bianco, and Camille Lons. "Saudi Nuclear Posture After the 12-Day War." In: *War on the Rocks* (2025); Grajewski and Menton, "MENA at the Threshold? Proliferation Risks and Great Power Competition."

<sup>41</sup> See Geranmayeh, Bianco, and Lons, "Saudi Nuclear Posture After the 12-Day War."

recovering confidence in U.S. security assurances may first be required to underwrite the United States as the principal partner. To this end, the recent F-35 announcement with Saudi Arabia may have gone some way to recover from this tilt.<sup>42</sup>

**Figure 1.** U.S. responses to regain nuclear power leadership. Each is categorized according to its more prominent characteristic. Leading benefits (green) and risks (red) for each response are shown.



<sup>42</sup> Note the Joint Declaration on the Completion of Negotiations on Civil Nuclear Energy Cooperation ensuring “[U.S.] and American companies will be the Kingdom’s civil nuclear cooperation partners of choice.” See Michael R Gordon and Alexander War. “Trump Says U.S. Intends to Sell F-35 Jet Fighters to Saudi Arabia.” In: *The Wall Street Journal* (2025); Fact Sheet: President Donald J. Trump Solidifies Economic and Defense Partnership with the Kingdom of Saudi Arabia. The White House (2025).

### 3.2 Recommendations

Recovering U.S. nuclear energy dominance is a daunting task. Multiple transformations in concert require considered efforts in this space. A domestic reprocessing industry underscores innovative designs at the cost of the attendant reprocessing risks.

Reforming the U.S. Nuclear Regulatory Commission risks opportunists taking advantage of concessions at the expense of worker safety and espionage.<sup>43</sup>

Reflecting on these challenges and proposed responses, we pull out several recommendations:

1. A one-size-fits-all export approach is incommensurate with the diversity of technologies and nation states. Updating the 123 Agreements to be more responsive to these changing landscapes (both in time and across nations) can support U.S. exports. This will require deft diplomacy as claims of favoritism come to the fore.
2. Empowering existing institutions and partnerships is essential to properly resource nonproliferation checks and balances. This includes increased support for the IAEA, reflecting the wider and deeper portfolio of nonproliferation monitoring and verification expected on the horizon. In a similar vein, domestic SFR and enhanced fuel fabrication should not compete with ongoing modernization efforts.
3. Given their established presence in the nuclear export market, it would be prudent to align good practice with China (and Russia, when the global political landscape allows). Tri- or multilateral agreements between the client state, the United States, and China can contribute to establishing a worldwide norm with minimal exporter-dependent deviations.<sup>44</sup> U.S.-Chinese cooperation to achieve third-party nonproliferation commitments is not without precedent.<sup>45</sup>

The attraction of the U.S. nuclear export market may yet be outside the control of its primary actors. U.S. security assurances have underwritten 70 years of favorable foreign policy initiatives. As these assurances appear to crumble, nation states may see diminishing attraction in a U.S. partnership.

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<sup>43</sup> Consider, for example, the EO's reduction to the minimum necessary personnel for the Advisory Committee on Reactor Safeguards, Exec. Order No. 14300, FR Doc. 2025-09798.

<sup>44</sup> For further discussion on this item, see Cuéllar, Moniz, and O'Sullivan, "Preventing an Era of Nuclear Anarchy: Nuclear Proliferation and American Security."

<sup>45</sup> Such as Algeria, 1991. See William Burr. "The Algerian Nuclear Problem, 1991: Controversy over the Es Salam Nuclear Reactor." In: The National Security Archive (2007). <https://nsarchive2.gwu.edu/nukevault/ebb228/index.htm>