Protectionism Won't Fuel a Nuclear Renaissance

Jack Spencer and Daniella Markheim

Emergency funding legislation signed into law by the President in September 2008 (Public Law No. 110–329) included a non-budget amendment that will have a major impact on the United States' energy market. Advanced by outgoing Senator Pete Domenici (R–NM), the Domenici Amendment was intended to resolve a number of issues that are complicating America's uranium enrichment markets.

The most important of these issues is concern over the economic and national security implications of Russia's role as a stable supplier of uranium (currently fueling about half of all U.S. nuclear power reactors) at a time when the U.S. is potentially on the threshold of a nuclear renaissance. Given Russia's behavior in recent years, especially regarding Iran, Georgia, and NATO, these concerns deserve close analysis.

While the Domenici Amendment attempts to bring predictability to the marketplace, it does so at long-term expense to American consumers. It creates a bureaucracy-laden, protectionist approach to accommodating U.S. demand for fuel that will likely lead to higher energy prices, carves out specific market access for suppliers, guarantees market protection for domestic producers and certain suppliers (including the Russians), and does little to enhance nonproliferation efforts. Moreover, rather than depend on the open markets that allow utility companies to buy fuel from the best, most reliable sources, the amendment gives government bureaucrats the authority to manage significant portions of the U.S. uranium enrichment market and, perversely, will likely guar-

Talking Points

- Artificial limitations on uranium imports hurt America's consumers. Free trade in uranium fuel and services will promote high quality and low prices.
- Overturning inconvenient legal decisions with protectionist legislation does not advance U.S. interests. Instead, Congress should develop policy remedies that respect the authority of the courts. Not doing so undermines the rule of law on which America's system of governance depends.
- Expansion of nuclear power will result in increased demand for uranium. Growing fuel markets will create the environment that can sustain new enrichment capacity; artificially protecting domestic suppliers will not.
- The U.S. needs a domestic supplier of enriched uranium for national security purposes. If not commercially viable, uranium should be subsidized through national security budgets, not through electricity premiums.
- The U.S. and Russia must continue to convert Russian weapons-grade uranium for use in peaceful power reactors. This program should be separate from commercial activities.

This paper, in its entirety, can be found at: www.heritage.org/Research/EnergyandEnvironment/bg2221.cfm

Produced by the Thomas A. Roe Institute for Economic Policy Studies

Published by The Heritage Foundation 214 Massachusetts Avenue, NE Washington, DC 20002–4999 (202) 546-4400 • heritage.org

Nothing written here is to be construed as necessarily reflecting the views of The Heritage Foundation or as an attempt to aid or hinder the passage of any bill before Congress.



antee America's continued dependence on Russian uranium in the future.

The way to ensure that the U.S. can meet its nuclear energy demand—without institutionalizing vulnerabilities to uncertain suppliers and distorting markets—is to open the enriched uranium market to competition.

The Domenici Amendment: Bad Policy and Unintended Consequences

The American nuclear industry is undergoing a substantial transformation as it prepares to meet America's growing demand for clean, affordable, domestic energy. This new growth potential is especially pronounced in the uranium enrichment sector. The adjustments have resulted in increased uncertainty over the long-term viability of the industry and have sparked both political and organizational resistance to change. Congress and the Administration have made several attempts to help stabilize the market. The latest policy solution is the Domenici Amendment, which clarifies by which method and in what amount Russia can access the U.S. market. Unfortunately, the details of the policy do more harm to the American consumer than good. As a whole, the amendment:

 Relies on the faulty assumption that price alone defines the value of enriched uranium. The United States acquires about 20 percent of its electricity from nuclear power plants. These 104 plants are fueled by low-enriched uranium—about half of which is imported from Russia as part of U.S.-Russian nonproliferation agreements. These agreements will expire in December 2013, at which time Russia would have enjoyed complete access to the U.S. market. To avoid a flood of potentially cheap Russian enriched uranium that would ostensibly undermine the viability of domestic enrichers, the Domenici Amendment limits Russia to supplying only 20 percent of the U.S. market. The amendment, however, is based on the misperception that the value of enrichment services is based solely on price.

There is a benefit beyond price that consumers want and value. The reliability of a supplier to fulfill contracted services is of vital importance to utilities providing power to America's households and businesses. That is because at 5 percent, enrichment costs are a small percentage of the total cost of producing nuclear power.¹ When a plant loses over a million dollars per day during shut-downs, it is more important to keep the utility running than it is to save a nominal amount on fuel costs. Nuclear power suppliers recognize that it is better to spend more for enriched uranium from a reliable source than risk a break in supplying power to its customers. Thus, U.S. utilities will be less likely to purchase Russian enrichment services if that country is behaving erratically or if it threatens to disrupt fuel supplies.

- Limits incentives to expand domestic enrichment capacity to meet long-term demand. While the amendment does not explicitly mandate that the U.S. obtain 20 percent of its uranium from Russia, that will be the likely result which will have long-term negative implications for U.S. energy supplies. Based on Russia's past, potential suppliers assume that Russia will fill the 20 percent limit with below-cost product, essentially removing that portion of the market from competition. Once removed, domestic suppliers have no incentive to pursue that share of the market. This is exactly what is happening now. Two American and two European companies are currently planning to provide enrichment services in the U.S. Upon the completion of their projects, they will provide a quantity that is roughly equivalent to 80 percent of the current U.S. market. This means that the U.S. will be dependent on Russian uranium for a minimum of 20 percent of its nuclear fuel. In other words, about 12 million Americans (or nearly 5 million households) will depend on Russia to provide their electricity.²
- Implies unnecessary market guarantees to domestic suppliers. By limiting Russian imports, the government is signaling that domestic sup-

^{1. &}quot;Uranium Enrichment," World Nuclear Association, September 2008, http://www.world-nuclear.org/info/inf28.html (December 5, 2008).



pliers will be protected from foreign competition. While the amendment purports to protect expanded domestic enrichment, it does so at the expense of competition and market-based prices. Moreover, it is unclear that such protections are even necessary for domestic enrichers to be successful. Four companies have already committed to constructing new enrichment facilities in the U.S.—projects these companies have determined are feasible because of potential long-term demand for enriched uranium, not because of the prospect of government-imposed market guarantees. If these investments are based on the latter case, the economic rationale for them disappears. Enrichment companies should be forced to compete like any other sector of the market, and if they are unable to do so, they should be allowed to fail.

- Places bureaucrats in charge of the market**place**. Instead of allowing trained uranium fuel managers to assess risk and decide uranium procurement strategies for their firms, the Domenici Amendment authorizes the federal government to manage significant portions of the uranium market. It creates a complicated set of conditions, requirements, reviews, timelines, and authorities to decide who can supply what and to whom it can be supplied. Nuclear power plant operators rely on fuel managers who are responsible for scanning global uranium suppliers for reliable, low-cost sources of fuel to support their multibillion dollar operations. These managers are aware of the market restrictions already in place and have the expertise to decide how to best supply their companies with reliable sources of uranium fuel. There is no need for government to intervene in this facet of the industry.
- Gives preferential market access to a privileged few business and U.S. government consumers.
 Given that one of the stated justifications for government control of America's uranium enrichment market is to avoid becoming too dependent on any one supplier (for example, Russia), it seems coun-

terproductive to place limits on one sector while simultaneously lifting limits on others. The amendment defines three exceptions to the limits under which enriched uranium could be imported in any amount, from any source: 1) to fuel new reactor cores, 2) as an input for processing and reexport, and 3) to augment inventory held by the U.S. Department of Energy.

Thus, the amendment limits uranium supplies to the existing commercial electricity sector (for example, everyday consumers), while big business and the U.S. government will be allowed to scour the global marketplace to retain their enrichment services from the best supplier at the best price. Because this command-and-control approach to regulating the industry establishes a risk-averse status quo where investors only invest to meet guaranteed market demand, growing demand in the commercial market will likely require increasing America's reliance on Russian uranium. The amendment recognizes this very outcome, which is exactly why it provides so many opportunities to adjust the quota and relieves special interests from quota restrictions altogether.

• Accomplishes little to advance nonproliferation. The Domenici Amendment is also supposed to entice the Russians to convert additional weapons-grade uranium for use in commercial reactors. The amendment commendably supports the current policy of converting 500 metric tons of Russian weaponsgrade uranium for use in commercial reactors by the end of 2013. It also attempts to compel the Russians to continue their weapons-grade uranium conversion activities after 2013.

While the United States should express its strong desire that converted weapons-grade uranium continue to make up a portion of Russia's exports to the U.S., the incentives the amendment establishes to entice Russian participation are small and not likely to be effective. While the law would carve out another 5 percent of the American ura-

^{2.} The U.S. currently receives 50 percent of its uranium from Russia, which is equivalent to 10 percent of America's electricity. Twenty percent of Russian uranium would be equivalent to 4 percent of U.S. electricity. Four percent of the total U.S. population of 305 million is equal to approximately 12.2 million people.



nium fuel market for Russia if it agreed to convert another 300 tons of weapons-grade uranium, Russia can instead sell the same amount or more to other countries without facing the same conditions. By creating a solution that is not likely to work, the amendment diverts attention away from developing a more practical program.

Market Access Does Not Imply Dependence

It is critical that U.S. policymakers not lose sight of the distinction between having access to a particular supplier and becoming dependent on it. Eliminating America's dependence on Russian enrichment services is a desirable goal, but doing so should not sacrifice all of America's access to those resources. American utilities could choose to include some Russian enriched uranium as part of a diversified supply portfolio without becoming dependent on Russian suppliers. Indeed, most large nuclear utilities already implement a diversified supply strategy as a matter of company policy.

Any reform of America's uranium enrichment import/export policy must take this delicate balance into consideration. If America's relationship with Russia continues to degenerate and a determination is made to impose punitive action against Russia, controls on the uranium trade could be part of any resulting sanctions regime. While such a policy approach would result in eliminating America's dependence on Russian fuel suppliers, it would also remove a specific source of supply from American businesses and consumers. Regardless of whether sanctions would successfully motivate Russia to behave responsibly, there would be negative economic consequences that must be weighed against any foreign policy benefits stemming from economic sanctions.

Nuclear Power and Uranium Enrichment in America

The federal government heavily promoted nuclear power throughout the 1950s and 1960s. It

realized that a robust commercial nuclear sector would help to support its national security objectives. The federal government worked with industry on a host of military, civil, and commercial projects throughout that period. It provided lucrative guaranteed contracts and other subsidies that protected investments and assured private-sector access to the latest nuclear technology.

Although the industry grew, it became dependent on government. This left it vulnerable to shifts in public policy. When policy shifted toward outright opposition as the activist community convinced America's political left that nuclear power was dangerous, the industry predictably failed as investors, cut their losses, and moved capital to opportunities that were perceived as less threatened by increasing regulatory volatility.

A handful of companies survived and today make up America's nuclear industrial base. This includes those in the uranium enrichment business. Only one domestic company enriches uranium in the U.S. This company, USEC, was created in the 1990s to privatize and restructure America's enrichment complex, which was built to primarily support national security activities, not commercial enterprise.

USEC became a private company in 1998. The problem for USEC is that it was forced to compete in the commercial world with a Cold War national security infrastructure. It uses an outdated, expensive, and inefficient process of gaseous diffusion to enrich uranium—a production process that is financially unsustainable and has led USEC to engage in an ongoing modernization process. Its future hinges on using the more modern technology of gas centrifuges to enrich uranium.

Enriched Uranium: Supply and Demand Realities Today and Tomorrow

The capacity to enrich uranium is measured in separative work units, or SWU (the measurement of energy needed to separate U-235 from U-238).³

^{3.} In its natural state, uranium consists of several isotopes. The isotope needed to conduct fission—the process that creates the heat necessary to produce power—is uranium-235 (U-235) and makes up 0.7 percent of naturally occurring uranium. The remainder is primarily uranium-238 (U-238), which alone cannot fuel U.S. power reactors. However, for fission to be sustained in U.S. light-water reactors, the uranium fuel must consist of approximately 3 percent to 5 percent U-235. To reach this level, natural uranium must be enriched.



Backgrounder

While a few countries, such as Japan and China, have some enrichment capacity, most global demand is met by USEC, two European consortiums, and Russia. Total global SWU capacity is approximately 52 million, although national policies limit available capacity to about 43 million SWU.⁴

The United States currently requires about 14.4 million SWU annually to fuel its reactors.⁵ About half of this amount is supplied by Russia under the Megatons to Megawatts program, which ends in 2013. The other half is supplied by domestic and European sources: USEC, Eurodif (France), and Urenco (UK, Germany, and the Netherlands).

The four companies planning to provide enrichment services in the U.S. already have two projects—one in New Mexico and one in Ohio—under construction. Total U.S. SWU capacity will be about 11 million SWU once the four planned facilities become operational.⁶ However, given that two of the new facilities are based on technology that has yet to be commercially proven, the projected domestic capacity of 11 million SWU is uncertain.

Both the lack of domestic suppliers and the potential for future growth have attracted new investment in U.S. uranium enrichment capacity. The investment was made, however, under the assumption that the U.S. would limit the share of America's enriched uranium market available for Russia, as current U.S. government policy would suggest.

This assumption, however, began to unwind when recent court decisions overturned the legal foundation allowing the U.S. to restrict Russian suppliers. With mounting legal uncertainty over the terms of Russia's future market access in America, Congress and the Administration faced a compli-

cated policy conundrum: how to best assure reliable access to enriched uranium for power producers today and in the future. The Domenici Amendment was one such remedy.

An Agreement with Russia

In 1991, U.S. uranium miners and a uranium enrichment labor union accused Russia of dumping enriched uranium on the U.S. market. This instigated a Department of Commerce investigation into Russian trade in enriched uranium that could have resulted in additional duties on nuclear fuel imports. Instead, the U.S. and Russia signed a "Suspension Agreement" in 1992 that sought to define the conditions under which Russia could have access to the U.S. market. A critical provision of the agreement was one that lifted all restrictions on the import of any low-enriched uranium (LEU) so long as it used Russian, bomb-grade high-enriched uranium (HEU) as its feedstock.

This provision was executed as part of a program between the U.S. and Russia often referred to as Megatons to Megawatts. This highly successful program served two critical purposes: It removed weapons-grade HEU from the Russian arsenal and it provided the U.S. with a reliable source of fuel for its power reactors. Russia supplies fuel for about 10 percent of America's electricity through this program. The HEU agreement was set to last 20 years—during which time 500 metric tons of Russian HEU would be down-blended into nuclear fuel.⁸

With the expiration of Megatons to Megawatts on the horizon, the U.S. government has worked with Russia to amend the suspension agreement to develop new terms for Russian access to the U.S. market. Despite the fact that U.S. relations with

^{8.} USEC, "Megatons to Megawatts," http://www.usec.com/megatonstomegawatts.htm (December 8, 2008).



^{4.} AREVA, "Reference Document 2006," 2006, p. 77, and *The Global Nuclear Fuel Market, Supply and Demand, 2005–2030* (London, UK: The World Nuclear Association, 2005), p. 152.

^{5.} Federal News Service, "Hearing of the Senate Energy and Natural Resources Committee; Russian Uranium Antidumping Investigation," March 5, 2008.

^{6.} Marvin Fertel, "Written Testimony," testimony before the Committee on Energy and Natural Resources, U.S. Senate, March 5, 2008, at http://energy.senate.gov/public/_files/FertelTestimony030508.doc (December 5, 2008).

^{7. &}quot;Dumping" occurs when imported goods are sold in the U.S. market at less than the price of similar goods sold in the producer's home market or less than the cost of producing the goods. If these "dumped" goods are determined to cause material injury to U.S. domestic industry, they are subject to additional duties equivalent to the amount of the dumping margin.

Russia have deteriorated since the early 1990s when the original Suspension Agreement was signed, the agreement was amended in February 2008 and determined that Russia would be allowed to supply up to 20 percent of America's nuclear fuel between 2014 and 2020. But a recent court decision undermined the applicability, and thus legitimacy, of this policy approach to controlling imports of Russian uranium.

Restricting Trade in Enriched Uranium: The Legal Question

Russia has not been the only nuclear fuel supplier to face U.S. anti-dumping actions. A separate anti-dumping action was taken against European Gaseous Diffusion Uranium Enrichment Consortium, or Eurodif. Eurodif appealed the decision through the U.S. Court of International Trade and the Federal Circuit Court of Appeals. Both courts ruled that the process of enriching uranium was not subject to U.S. anti-dumping law because it represents the sale of a service, rather than a good. This decision undermined the basis for the U.S.–Russian Suspension Agreement and set in motion much of the controversy that exists today. The Supreme Court is currently reviewing the decision.

U.S. utilities have two ways to import enriched uranium. They may either purchase already enriched uranium or they can provide uranium feedstock 10 and have it enriched. In the second case, the utility would arrange for the feedstock to be delivered to a foreign enricher who then delivers uranium enriched from its own inventory. Compensation for the transaction includes transferring title of the delivered feedstock to the enricher as well as payment for the enrichment service. This arrangement is referred to as a SWU or enrichment contract.

Because the U.S. utilities retain title to the feed-stock uranium until they receive LEU from the enricher, the Federal Circuit Court found that there was no transfer of ownership, and thus no "sale," of the LEU from the enricher, in this case Eurodif, to the U.S. utilities, but only a "service." Thus, since no sale of merchandise occurred, the court ruled that anti-dumping laws did not apply.¹¹

That decision, if affirmed by the Supreme Court, will nullify the newly amended U.S.—Russia Suspension Agreement. While that agreement stated that Russia could supply up to 20 percent of America's enriched uranium, it would do nothing to prohibit Russia from supplying unlimited enrichment services, thus undermining the agreement's realworld credibility. The Domenici Amendment upheld the application of the amended suspension agreement by clarifying that any imported Russian uranium, regardless of contract type, would be considered part of the 20 percent quota.

The problem is that the Domenici Amendment upheld bad policy. The reality is that the amended Suspension Agreement was initially an inappropriate agreement because it artificially limited free trade and access to global energy resources. With the potential new expansion of the U.S. nuclear power industry, attempting to forecast future demand and determine market share for particular suppliers is fraught with uncertainty and is potentially costly for all stakeholders.

Russia's Impact on Uranium Markets

Russia will have a total of about 26 million SWU by 2010, but a domestic requirement of only about 8 million SWU at home. ¹² This will leave about 18 million SWU for the Russians to offer on the global market at potentially low prices. Investors in U.S. enrichment capacity worry that open competition

^{12.} International Atomic Energy Agency, "Multilateral Approaches to the Nuclear Fuel Cycle," February 22, 2005, p. 66, at http://www-pub.iaea.org/MTCD/publications/PDF/mna-2005_web.pdf (December 5, 2008), and Federal News Service, "Hearing of the Senate Energy and Natural Resources Committee; Russian Uranium Antidumping Investigation."



^{9.} Press release, "United States and Russian Uranium Agreement Reached," U.S. Department of Commerce, February 1, 2008, at http://www.commerce.gov/NewsRoom/PressReleases_FactSheets/PROD01_005136 (December 5, 2008).

^{10.} Feedstock is natural uranium in the form of uranium hexiflouride, which is natural uranium mixed with fluorine. It can be stored as a solid but turns to gas when heated, which is its state during enrichment.

^{11.} Eurodif v. United States, 411 F.3d 1355, 1364 (Fed. Cir. 2005) and Eurodif S.A. et al. v. United States, 423 F.3d 1275 (Fed. Cir. 2005) (collectively "Eurodif").

with Russia would result in low fuel prices—too low to bring a return on their multibillion dollar investments.

Global trends toward increasing the production of commercial nuclear power, however, should render this concern moot. India, China, Japan, the United Kingdom, and many other countries are all planning to build nuclear power plants in the years ahead. Russia also plans to build additional nuclear power plants, which means its own demand for enriched uranium will increase. The level of future demand is unclear; however, what is clear is that global demand will grow significantly in the future.

In 2007, then-President Vladimir Putin committed to roughly doubling Russia's nuclear power. Should this plan be realized, its 18 million excess SWU capacity quickly halves to about 10 million SWU, assuming that it supplies all of its own enrichment. In addition, Russia plans to export up to 60 nuclear power plants to other countries over the next 25 years. ¹³ Assuming that some, if not most, of these plants will include service agreements with fuel, most of Russia's excess capacity will be used as the global nuclear renaissance unfolds.

A caveat to this analysis, however, is the financial crisis that is currently gripping the global economy. This could affect many nations' plans to build new power generation, including nuclear energy. Should market conditions dictate that new power generation is either not needed or not required, the above calculations would clearly require revision. That is precisely why the U.S. should pursue market-based policies regarding energy. A well-grounded, market-based system will be flexible enough to respond to changing conditions. On the other hand, a more state-centric system, like that promoted in Russia, will be unsustainable.

Protectionism Does Not Bolster National Security

Reducing American dependence on foreign energy has been at the heart of the energy debate in recent years. But dependence on foreign sources of energy is not the problem. The problem arises when reliance on unstable or hostile foreign sources of energy creates unacceptable and unmanageable economic and strategic vulnerabilities. The fear that less expensive supplies of foreign nuclear fuel will drive out domestic production and leave America at the mercy of a foreign regime certainly plays on this argument, and seemingly provides justification for restrictions on foreign suppliers. In the case of uranium fuel, however, cost is not the most important factor. Because it represents such a small percentage of the total cost of nuclear electricity and the losses associated with shutdowns are so high, supply reliability is more important than cost.

U.S. national security also depends on policies that promote the country's economic well-being. The correct policy will consider the likelihood of becoming dependent on questionable foreign suppliers, like the Russians, and the likelihood that such a country would threaten the U.S. with supply interruptions, and also the cost of denying Americans access to foreign uranium enrichment resources.

Additionally, there are national security implications for not using a domestic supplier of enriched uranium for defense purposes. The United States relies on assured supplies of uranium for some of the most critical defense activities. While it is true that the U.S. must maintain domestic enrichment capacity for military use, the cost of maintaining this capability should not fall on U.S. nuclear power utilities and their customers. If domestic suppliers catering to defense demand cannot compete in commercial markets, then the needed capability should be budgeted and paid for through national security budgets.

What to Do

To ensure that the U.S. can meet its nuclear energy demand without creating unacceptable vulnerabilities or distorting markets, Congress should repeal the Domenici Amendment. Congress and the Administration should also:

• Reject calls to reassert protectionist policies. The Federal Circuit Court ruled that uranium enrichment is a service and, therefore, not subject

^{13. &}quot;Russia Eyes Construction of 40–60 Nuclear Reactors Abroad," Forbes, January 20, 2006, at http://www.forbes.com/business/feeds/afx/2006/01/20/afx2464492.html (December 5, 2008).



to U.S. anti-dumping law. Overturning this decision with legislation—precisely as the Domenici Amendment accomplished—in addition to being bad policy could open the door to a significant expansion of retaliatory trade remedies as a means to solve problems better addressed through other mechanisms.

- Recommend that utilities diversify sources of fuel supply. While the U.S. should neither fear foreign competition nor deny U.S. ratepayers access to inexpensive enrichment services, Russia has demonstrated a willingness to use energy dependence as political leverage against other countries. Consequently, the risk that Russia could apply the same pressure on the U.S. cannot be ignored. Instead, U.S. policy should look to the current best practices that many utilities have already adopted to protect themselves from relying on a single supply source. Strongly recommending that power providers diversify their sources for enriched uranium—with no discrimination by country—would effectively limit America's reliance on any single foreign producer. Such an approach would promote market stability and provide the long-term flexibility that utilities in a robust and diverse marketplace require.
- Create a uranium supply-disruption mitigation reserve. The U.S. Department of Energy controls large amounts of uranium that is not needed for national security purposes. ¹⁴ The Energy Department should undergo an audit to account for this uranium. Once established, this resource could be used to set up a temporary reserve. If any foreign supplier attempted to use its market power as leverage to achieve a political agenda, the U.S. could use this uranium to satisfy demand requirements during a transition period to more reliable suppliers. As the nuclear renaissance unfolds, this uranium could be released on the open market in the future.
- Pursue government-to-government talks to achieve nonproliferation objectives. The achieve-

- ments of the U.S.—Russian efforts to remove weapons-grade uranium from Russia cannot be overstated and should be continued. Unfortunately, the approach in the Domenici Amendment is not likely to advance this effort. Instead, the U.S. and Russian governments should engage in talks to develop a plan with a better chance of success.
- Work to achieve global open markets. Foreign markets are heavily protected against U.S. and other foreign sources of competition in the nuclear power and related industries. Freer trade not only makes sense for the U.S., it also makes sense around the world—especially with the global drive to diversify alternative sources of energy. The U.S. government should work through the World Trade Organization and directly with other countries to help reduce barriers to trade, thereby promoting competition and reducing market distortions.
- Assure adequate enrichment capabilities for defense purposes. The United States must have assured supplies of domestic enrichment to meet defense needs. If U.S. suppliers of enrichment services cannot competitively meet defense requirements in an open market, provisions to maintain their operation should be made through the defense budget rather than through protectionist policies.

Conclusion

America needs a reliable supply of enriched uranium to bring a nuclear renaissance to fruition and diversify the sources of energy the U.S. needs for its long-term economic growth and security. For more than 20 years, the U.S. has relied on protectionist policies to enforce guaranteed supply. It is time for the U.S. to embrace market-friendly policies to assure supply—reliably and efficiently—in the future.

—Jack Spencer is Research Fellow in Nuclear Energy in the Thomas A. Roe Institute for Economic Policy Studies, and Daniella Markheim is Jay Van Andel Senior Trade Policy Analyst in the Center for International Trade and Economics, at The Heritage Foundation.

^{14.} U.S. Government Accountability Office, Nuclear Material: DOE Has Several Potential Options for Dealing with Depleted Uranium Tails, Each of Which Could Benefit the Government, GAO-08-606R, March 31, 2008, at http://www.gao.gov/new.items/d08606r.pdf (December 5, 2008), and U.S. Department of Energy, "Nuclear Fuel Supply Security: Uranium Inventory," at http://www.ne.doe.gov/nuclearFuelSecurity/neNFSUraniumInventory.html (December 5, 2008).

