



Prospects and Issues for U.S.-Saudi Nuclear Cooperation

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By Fred McGoldrick

Saudi Arabia has announced plans to construct 16 nuclear power reactors over the next 20 to 25 years at a cost of more than \$80 billion. China, France, the Republic of Korea, Russia, and the U.S. have bid to perform engineering, procurement, and construction work on two nuclear reactors. The Kingdom is expected to shortlist two or three preferred bidders by April and plans to select a winner by the end of this year.

The question of whether and under what conditions the U.S. should assist the Kingdom's nuclear program has roused the attention of U.S. lawmakers, nonproliferation specialists, and the nuclear industry who have all voiced a wide spectrum of views on the issue. Some argue the U.S. should not support the Saudi nuclear program because its acquisition of a nuclear capability is simply too dangerous given the volatility of the Middle East, Riyadh's desire to achieve nuclear parity with its bitter rival Iran, and Saudi dissatisfaction with the restraints that the major powers and the European Union placed on Iran's nuclear program in their 2015 nuclear deal with Tehran.

Others argue that, if U.S. firms are not allowed to compete, Riyadh will turn to other suppliers such as Russia or China that do not have as rigorous nonproliferation policies as the U.S.

By law, Washington would have to conclude a peaceful nuclear cooperation agreement (a so-called "123" agreement) with the Kingdom in order to export nuclear reactors, fuel, and equipment to that country. Prominent members of Congress and some nonproliferation specialists have advocated that, if the U.S. were to conclude a 123 agreement with the Kingdom, it should insist that

the Saudis accept the so-called "gold standard"--a legally binding commitment to forgo enrichment of uranium and reprocessing of plutonium--since these technologies could produce materials directly usable in nuclear weapons.

Gold Standard - Myths and Realities

Some press reports have mischaracterized U.S. policy on the gold standard as implying that it is a basic condition contained in all U.S. agreements. This is simply not the case. The Atomic Energy Act specifies a number of nonproliferation guarantees and assurances that cooperating partners must accept in U.S. 123 agreements. The gold standard is not one of them. The U.S. has 23 agreements for cooperation with other countries, international organizations, and groups of countries, including the 28 member states of EURATOM. The U.S. agreements with only two of these countries--the United Arab Emirates (UAE) in 2009 and the agreement with the authorities on Taiwan in 2014--contain this gold standard obligation.

In 10 agreements, the U.S. has given consent to enrichment up to less than 20% in uranium-235, and to reprocessing in its agreements with Japan, EURATOM, India and China. So the gold standard is by no means a standard or common feature of U.S. agreements.

Gold Standard, the Middle East, and Saudi Arabia

However, the U.S. has tried to make the gold standard the norm for future agreements with states in the Middle East,^[i] but has succeeded only in its agreement with the UAE. The U.S.-UAE agreement also contains a "most-favored nation" provision that allows the UAE to consult with the U.S. to revisit its gold standard commitment, if the U.S. concludes an agreement with any other non-nuclear state in the Middle East that does not contain the same restriction.

The U.S. tried and failed to obtain a gold standard commitment from Jordan. In a 2008 memorandum signed with the U.S., Saudi Arabia was willing only to register "its intent to rely on international markets for nuclear fuel and to not pursue sensitive nuclear technologies, which stands in direct contrast to the actions of Iran."^[ii] However, it refused to accept a legally binding commitment to forego such technologies.

Energy Minister Khalid al-Falih told the press in October 2017 that Saudi Arabia was committed to using its program for peaceful purposes, but was also committed to extracting uranium domestically and developing the nuclear energy sector as an industry. He added, "Whatever we do is going to be under strict compliance with international agreements. But we will not deprive ourselves of accessing our natural resources and localizing an industry that we intend to be with us for the long term."^[iii] Saudi Foreign Minister Adel al-Jubeir

said at the recent security conference in Munich, "Our objective is we want to have the same rights as other countries." [iv] The Saudis, like other parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), believe it has a right to pursue enrichment and reprocessing technologies.

Importantly, no other suppliers will require the gold standard as a condition of their supply. Some countries already have a foothold in Saudi Arabia with commercial agreements with South Korea (the SMART reactor) and China (high temperature gas reactors). The Kingdom has agreements with such countries as China, France, Russia, South Korea, and others involving various kinds of nuclear studies and R&D cooperation.

So the probability of the Saudis accepting the gold standard in an agreement with the U.S. is highly unlikely. The failure to conclude such an agreement will not only mean a loss of U.S. nuclear exports and related jobs, but a weakened nonproliferation regime in the Middle East and a loss of U.S. influence in Saudi Arabia. While other suppliers adhere to the nuclear export guidelines of the Nuclear Suppliers Group, U.S. nonproliferation controls on its nuclear exports go beyond those of other suppliers. A U.S. 123 agreement would also provide a framework for establishing invaluable person-to-person and institution-to-institution contacts and collaboration that can help advance American foreign policy and nonproliferation objectives for decades to come.

A Path Forward?

Is there some compromise that could satisfy both the Saudis and the Congressional advocates of the gold standard? Robert Einhorn of the Brookings Institution has suggested a creative approach [v] that would involve the conclusion of a standard 123 agreement of a fixed duration of 20-25 years and that would include all the nonproliferation guarantees required by U.S. law plus Saudi adherence to the Additional Protocol to its safeguards agreement with the International Atomic Energy Agency. The key element of the Einhorn proposal would be a legally binding Saudi commitment not to pursue enrichment and reprocessing capabilities during the agreement's first 15 years. Beginning in year 10, a bilateral fuel cycle commission would jointly evaluate future Saudi reactor fuel requirements and consider alternative means of meeting those requirements, including indigenous enrichment. Starting in year 15, the two parties could agree, by mutual consent, that Saudi Arabia could engage in certain fuel cycle activities (e.g. enrichment research and development).

We do not know whether the Saudis or the U.S. Congress would buy into such a deal. However, this is a middle ground position and may well be the best option available. But how such an approach is implemented may be key. One way is to adopt some version of the recently concluded U.S.-South Korea 123

agreement. That agreement does not contain the gold standard, and the U.S. did not give advance consent to the South Koreans for reprocessing or enrichment. Instead, a high-level bilateral commission will examine the technical and economic feasibility and nonproliferation acceptability of pyroprocessing (a form of reprocessing) and enrichment. If the commission's review is favorable, the U.S. could give advance consent to one or both of these operations in South Korea. U.S. consent would not require an amendment to the agreement, but it would be given through a so-called "subsequent arrangement process" as defined by the Atomic Energy Act where the Secretary of Energy, with the concurrence of the Secretary of State, could determine these activities would not result in "a significant risk of proliferation." He would then submit a report to Congress for 15 days of continuous session before the approval may take effect. In other words, this would be largely an executive branch decision with limited opportunity for Congressional review. A U.S.-Saudi 123 agreement could allow for the same procedure.

Alternatively, a 123 agreement with the Kingdom could require that any decision to relax the restriction on Saudi enrichment or reprocessing be made only by an amendment to the agreement. The administration would have to submit any such amended agreement to Congress where it must lie for 90 days of continuous session before it could enter into force. This would give the Congress the opportunity to disapprove the amended agreement or to approve it with conditions.

If the Saudis would agree to forgo enrichment and reprocessing for a specified time, they would clearly prefer the U.S. use the "subsequent arrangement" procedure for lifting such a condition. However, if the Congress proves willing to go along with a time-limited gold standard, it will likely not leave the decision to relax this restriction largely to the executive branch and insist that any changes to that standard be subject to Congressional approval of an amended agreement. This path may be the only one forward, if the U.S. is to have a role in the Saudi nuclear program.

The U.S. decision on nuclear cooperation with Saudi Arabia will be a hard one and will have important implications for U.S. foreign policy, national security, and nonproliferation interests in the Middle East and beyond.

[i] Existing agreements with Egypt and Turkey do not contain this standard.

[ii] 2001-2009 Archive for the U.S. Department of State, "U.S.-Saudi Arabia Memorandum of Understanding on Nuclear Energy Cooperation."

[iii] Rania El Gamal and Katie Paul, "Saudi Arabia hopes to start nuclear pact talks with U.S. in weeks - minister," *Reuters*, December 20, 2017, <https://www.reuters.com/article/us-saudi->

[energy-nuclear/saudi-arabia-hopes-to-start-nuclear-pact-talks-with-u-s-in-weeks-minister-idUSKBN1EE2PJ](#) (last accessed March 7, 2018).

[iv] "CNBC Interview with Saudi Foreign Minister, Adel Al-Jubeir," *CNBC*, February 19, 2018, <https://www.cnbc.com/2018/02/19/cnbc-interview-with-saudi-foreign-minister-adel-al-jubeir.html> (last accessed March 7, 2018).

[v] Robert Einhorn, "US-Saudi civil nuclear negotiations: finding a practical compromise," *Bulletin of Atomic Scientists*, January 12, 2018, <https://thebulletin.org/us-saudi-civil-nuclear-negotiations-finding-practical-compromise11426> (last accessed March 7, 2018).

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