

House Foreign Affairs Committee
Subcommittee on the Middle East and North Africa

The President's Iran Decision: Next Steps

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Washington, DC
October 25, 2017

The preamble to the Joint Comprehensive Plan of Action (JCPOA) asserts that the “full implementation” of the deal “will ensure the exclusively peaceful nature of Iran’s nuclear program.” In addition, the full implementation of the JCPOA “will positively contribute to regional and international peace and security.”¹ More than two years have now passed since the conclusion of the JCPOA. Therefore, it is a good time to review those aspects of the deal that require strengthening if the JCPOA hopes to deny Iran access to a nuclear weapons capability.

UN Security Council Resolution 2231 endorsed the JCPOA’s restrictions on Iran’s uranium enrichment and plutonium recovery, while adding restraints on Iran’s ballistic missile activities. These restrictions will be lifted when the JCPOA sunset clauses kick in. Six years from now, Iran will be able to start manufacturing advanced centrifuges, enabling it to gradually cut down its one-year nuclear breakout time. At the same time, if not earlier, restrictions on Iran’s missile program will be terminated.

The time to act is now, and not six years from now when the sunset clauses begin to take effect. It will be far harder to fix the deal once sunset clauses help Iran to permanently establish itself as a threshold nuclear state with the capability to manufacture and deliver nuclear warheads in a short period of time. Iran’s Foreign Minister Javad Zarif himself has stated that Iran will emerge from the deal with a stronger nuclear program.²

To increase the likelihood that the JCPOA ensures the peaceful nature of the Iranian nuclear program, there must be a far more robust and meaningful verification of the deal’s provisions. To that end, several measures will be necessary. First, the IAEA’s quarterly reports on the deal’s implementation must be enhanced, preferably in the manner I describe below. Next, the IAEA should complete the follow-up actions related to its investigation of the Possible Military Dimensions (PMD) of the Iranian nuclear program, including site visits and interviews with scientists.³ Third, the JCPOA and related agreements must apply to all sites related to the Iranian nuclear program, with no exceptions for military sites or any others. Fourth, Iran should ratify the Additional Protocol well before the sunset provisions take effect and before the IAEA issues a Broader Conclusion about the peaceful nature of the Iranian nuclear program. Fifth, the UNSCR 2231 limitations on ballistic missiles should be extended to cruise missiles, while the restrictions on missile ranges and payloads should be lowered. Finally, these and other measures should extend Iran’s one-year breakout time indefinitely into the future, while enabling more effective enforcement.

¹ Joint Comprehensive Plan of Action, Vienna, July 14, 2015, Preamble Section ii and Preface first paragraph. (<https://medium.com/@ObamaWhiteHouse/joint-comprehensive-plan-of-action-5cdd9b320fd>)

² Julian Borger, “Iran’s foreign minister urges Europe to defy US if Trump sinks nuclear deal,” *The Guardian* (UK), September 29, 2017. (<https://www.theguardian.com/world/2017/sep/29/iran-foreign-minister-zarif-europe-trump-nuclear>)

³ From 2002 onwards, the IAEA became increasingly concerned about the possible existence of undisclosed, nuclear-related activities in Iran involving military-related organizations, including activities related to the development of a nuclear payload for a missile. Subsequently, the IAEA identified outstanding issues related to these possible military dimensions of Iran’s nuclear program, as well as actions required by Iran to resolve these issues. The IAEA issued its PMD findings in the report: International Atomic Energy Agency, “Final Assessment on Past and Present Outstanding Issues Regarding Iran’s Nuclear Programme,” December 2, 2015. (<https://www.iaea.org/sites/default/files/gov-2015-68.pdf>)

The JCPOA – Does it block all of Iran’s pathways to a nuclear weapon?

Advocates of the JCPOA have repeatedly asserted that Iran is now subject to the most intrusive nuclear inspection regime ever. Furthermore, the measures put in place by the JCPOA promised to “block all of Iran’s pathways to a nuclear weapon.”⁴ It is not quite that simple. Arms control and nonproliferation agreements do not guarantee that a state will be blocked from getting nuclear weapons. A better metric against which to measure the JCPOA’s effectiveness is the goal of deterrence via early detection. Such deterrence is only possible when verification measures are fully and meaningfully implemented in a manner that applies to both declared and undeclared nuclear activities and facilities.

Iran’s nuclear weapons capability can be thought of as a tent with two main poles: the ability to build a nuclear warhead and the ability to deliver it. In most cases, this delivery is accomplished by missiles. To restrict the latter, UNSCR 2231 includes an ambiguous provision that “calls” on Iran not to develop and test missiles designed to be capable of carrying nuclear weapons.⁵ To prevent the former, the IAEA is charged with implementing a verification system based on three related agreements: Iran’s comprehensive safeguards agreement,⁶ the Additional Protocol,⁷ and the JCPOA – although some of the JCPOA’s measures will start to fade away in just six years.⁸

Additional constraints needed for Iran’s missile program

Iran’s ballistic and cruise missiles tests have demonstrated a reach of thousands of kilometers.⁹ The growing range of Iranian missiles indicates Tehran’s desire to go beyond pure deterrence.¹⁰ Experts at the UN Security Council have acknowledged that some of these missiles are capable of carrying nuclear warheads.¹¹ Despite such cause for concern, the ballistic missile limitations set

⁴ The White House, “The Historic Deal that Will Prevent Iran from Acquiring a Nuclear Weapon: How the U.S. and the international community will block all of Iran’s pathways to a nuclear weapon,” accessed October 23, 2017. (<https://obamawhitehouse.archives.gov/node/328996>)

⁵ United Nations Security Council, Resolution 2231, July 20, 2015. (https://www.iaea.org/sites/default/files/unsc_resolution2231-2015.pdf)

⁶ State parties to the Nuclear Nonproliferation Treaty (NPT) have to conclude a Comprehensive Safeguards Agreement (CSA) with the IAEA. Under a CSA, the IAEA has the right and obligation to ensure that safeguards are applied on all nuclear material in the territory, jurisdiction, or control of the state for the exclusive purpose of verifying that such material is not diverted to nuclear weapons or other nuclear explosive devices.

⁷ The Additional Protocol (AP) is a legal document granting the IAEA complementary inspection authority to that provided in underlying safeguards agreements. A principal aim of the AP is to enable the IAEA to provide better assurances about both declared and possible undeclared activities. Under the AP, the IAEA is granted expanded rights of access to information and sites.

⁸ Examples on such measures are monitoring of uranium mines, production of uranium ore concentrate, production of heavy water, manufacturing of centrifuge rotors and bellows, and installation of advanced centrifuges.

⁹ “Iranian Missile Launches: 1988-Present,” *Center for Strategic and International Studies*, October 12, 2017. (<https://missilethreat.csis.org/iranian-missile-launches-1988-present/>)

¹⁰ David Cooper, “Nebulous Language Enables Tehran’s Missile Ambitions,” *The Cipher Brief*, September 1, 2017. (https://www.thecipherbrief.com/article/middle-east/nebulous-language-enables-tehrans-missile-ambitions?utm_source=Join+the+Community+Subscribers&utm_campaign=82ea1db268-TCB+Sept+1+2017&utm_medium=email&utm_term=0_02cbee778d-82ea1db268-122476009)

¹¹ United Nations Security Council, 7990th meeting, June 29, 2017. (http://www.securitycouncilreport.org/atf/cf/%7B65BF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_pv_7990.pdf)

by UNSC Resolution 2231 expire six years from now, at most.¹² This expiration would give Iran free rein to develop its missile capabilities about the time the JCPOA permits Iran to start expanding its uranium enrichment capabilities, which could generate fissile material for nuclear warheads. Thus, any effort to fix the JCPOA or negotiate a complementary agreement should provide for capping the range of Iranian missiles and extending restrictions to cruise missiles currently under development.¹³

Additionally, due to the weakened language of Resolution 2231, there is no systematic monitoring of Iran's missile procurement efforts by the Security Council. This is a serious problem as indicated by reports from German intelligence agencies, which exposed about 30 such attempts in 2016, even after the implementation of the nuclear deal.¹⁴ The most direct means to address this problem is to amend Resolution 2231. If Russia or China is determined to block such a revision, the U.S. should use bilateral contacts with partners to press for the exposure of Iran's illicit acquisition of missile technologies. The U.S. should also consider whether it would be possible to rectify the situation by imposing secondary sanctions on foreign companies and banks that facilitate illicit Iranian procurement efforts.

Iran's commitments to remain a non-nuclear weapons state

Under the JCPOA, Iran commits itself not to acquire and develop nuclear weapons. Tehran has made such commitments before, yet the IAEA then uncovered a clandestine nuclear program with possible military dimensions.

Foreign Minister Javad Zarif has warned that if the U.S. withdraws from the nuclear deal, "then we're not bound by that agreement and we will then decide how we want to deal with it." "It does not mean that Iran wants to pursue a nuclear weapons option," Zarif said, "But what is important is if the deal is broken, then Iran has many options, one of which would be to have an unlimited yet peaceful nuclear energy program."¹⁵

As a party to the Nuclear Nonproliferation Treaty (NPT),¹⁶ Iran has frequently affirmed it has no desire for nuclear weapons. But in 2003, the IAEA found Iran in breach of its nuclear obligations

¹² The IAEA draws a "broader conclusion" only in countries with both a comprehensive safeguards agreement and an additional protocol in force, and when the IAEA has sufficient information and access to provide credible assurances to the international community of both the non-diversion of declared nuclear material from peaceful nuclear activities and the absence of undeclared nuclear material and activities. International Atomic Energy Agency, "Nuclear Safeguards Conclusions Presented in 2016 Safeguards Implementation Report," June 16, 2017. (<https://www.iaea.org/newscenter/news/nuclear-safeguards-conclusions-presented-in-2016-safeguards-implementation-report>)

¹³ Olli Heinonen, "Iran's missile tests reveal weaknesses of UN Security Council Resolution," *Foundation for Defense of Democracies*, February 8, 2017. (<http://www.defenddemocracy.org/media-hit/olli-heinonen1-irans-missile-tests-reveal-weaknesses-of-un-security-council-resolution/>)

¹⁴ Benjamin Weinthal, "Iran accused of trying to develop nuclear-tipped missiles," *Fox News*, October 20, 2017. (<http://www.defenddemocracy.org/media-hit/benjamin-weinthal-iran-accused-of-trying-to-develop-nuclear-tipped-missiles/>)

¹⁵ "Zarif: Nuclear renegotiation is a 'myth,'" *Tehran Times* (Iran), October 1, 2017. (<http://www.tehrantimes.com/news/417199/Zarif-Nuclear-renegotiation-is-a-myth>)

¹⁶ The NPT aims to prevent the spread of nuclear weapons and weapons technology, to foster the peaceful uses of nuclear energy, and to further the goal of disarmament. The treaty establishes a safeguards system under the

under the comprehensive safeguards agreement meant to ensure its fidelity to the NPT. Further IAEA investigations revealed that Iran had conducted a range of activities related to the development of a nuclear explosive device, which continued to some extent at least until 2009.¹⁷ Only the rigorous enforcement of a strict verification regime can help deter Iran from pursuing nuclear weapons.

Iran needs to ratify the Additional Protocol (AP)

Additional Protocols (APs) are complementary arrangements intended to strengthen the comprehensive safeguards agreements adopted by parties to the NPT. In 2003, following the initial revelations that it had violated its safeguards agreement, Iran signed its AP and agreed to implement the agreement provisionally, but ceased the implementation in 2005. Under the JCPOA, Iran has likewise agreed to implement the AP provisionally, while pledging to ratify the AP once the IAEA reaches a “broader conclusion” that the Iranian nuclear program is entirely peaceful. However, there is no fixed dead line for ratification. This is not an insignificant matter and should be addressed for two reasons. First, in accordance with IAEA verification principles, a “broader conclusion” has only been drawn (to date) when an AP is ratified and fully implemented. There are no reasons why Iran should be an exception from such a practice. Second, Iran has been slow in fulfilling its other nuclear promises. Tehran stated in 2003 that it would sign and ratify the IAEA’s Nuclear Safety Convention (NSC), but has not done so to date. This effectively makes Iran the only country – apart from North Korea – that has industrial-scale nuclear facilities not covered the NSC. Advocates of the JCPOA who point to the AP containing many commitments that will never sunset are pointing to a provisional implementation until the AP is actually ratified.

Enforcing and updating a one-year breakout time

One of the key goals of the JCPOA is to ensure that Iran will remain at least one year away from developing enough fissile material for a nuclear warhead. This one-year interval is known as Iran’s “breakout time.” The length of this breakout time depends on both the number and sophistication of the centrifuges Iran has installed, as well as the size of its stockpile of enriched uranium and centrifuges yet to be installed. In theory, maintaining a breakout time of at least one year would ensure that the U.S. and its partners have sufficient time to respond to Iran violations before it crosses the nuclear weapons threshold.

Iran committed, as part of the JCPOA, to decrease its stock of about 19,000 installed centrifuges to just 6,104, with only 5,060 of these designated for enriching uranium. This restriction will last for ten years, and all of the centrifuges will be first-generation models known as IR-1s. However, the nuclear deal does allow Iran to engage in limited research and development with its advanced centrifuges, including the IR-2m, IR-4, IR-5, IR-6, IR-7, and IR-8 models. In addition, the JCPOA caps the size of Iran’s stockpile at 300 kilograms of 3.67-percent enriched uranium for the next

responsibility of the IAEA, which also plays a central role under in the area of technology transfer for peaceful purposes. Under Article II of the treaty, the state undertakes not to receive nuclear weapons or other nuclear explosive devices and not to manufacture or otherwise acquire them, as well as not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.

¹⁷ International Atomic Energy Agency, “Final Assessment on Past and Present Outstanding Issues regarding Iran’s Nuclear Programme,” December 2, 2015. (<https://www.iaea.org/sites/default/files/gov-2015-68.pdf>)

fifteen years (e.g. uranium that contains 3.67 percent of the fissile isotope U-235).

Calculating breakout time depends on the number and types of centrifuges Iran has installed or could install from its current stock, as well as inventories of uranium feed materials. The estimated one-year breakout time reflects calculations based on the physical caps that the JCPOA imposes on Iran's centrifuge stocks as well as the natural and enriched uranium feed material available. What such calculations do not take into account is the potential for Iran to learn from experience how to enrich more efficiently, or to employ dual-use equipment allowed by the JCPOA. In addition, when the sunset clauses come into effect, this will further reduce Iran's breakout. Taking all these factors into consideration, current breakout time markers need to be periodically reviewed and constraints revisited.¹⁸ It also makes good sense to build in uncertainties and create a buffer when calculating a one-year breakout time, rather than relying on calculations that apply to best-case scenarios.

Efforts to calculate Tehran's breakout time should also not discount possible undeclared nuclear activities in Iran. While it is fairly easy to verify and monitor declared enrichment locations and nuclear materials, it is much more difficult to provide good assurances regarding the absence of undeclared nuclear materials and centrifuges Iran could have manufactured but not reported to the IAEA. In a report from June 2004, the IAEA noted that activities such as centrifuge component production in Iran are inherently difficult to verify without extensive inspections and historical knowledge. As such, the assurances that the Agency can provide are of a different nature from those achievable with respect to the diversion of nuclear material from declared sites.¹⁹

What does this mean in terms of enforcing a one-year breakout? Given the fact that Iran manufactured most of its key components such as centrifuge rotors and bellows at military-owned workshops, those sites should be subject to monitoring. At those workshops, Iran very likely retains the necessary machine tools for centrifuge manufacturing, while military personnel likely still have the expertise necessary to manufacture those pieces.

Discovering a clandestine enrichment or manufacturing installation is a difficult task, as shown by the revelation of the Fordow enrichment plant in September 2009. When exposed, Fordow was at an advanced stage of installation. Applying the lessons of Fordow means that the parties to the nuclear deal must close off the loopholes and interpretations that place the JCPOA in a weaker rather than stronger position. For example, Iran should be subject to "anytime, anywhere" inspections, understood per standard inspection procedures as 24-hour complementary access, including to military sites, in contrast to the JCPOA's 24-day timeframe. JCPOA negotiators have stated that the 24-day timeframe in no way prevents more rapid access, since 24 days is the maximum time allowed when accessing undeclared locations. On this point it is worth remembering that the 24-hour delay permitted by the Additional Protocol was to allow for administrative hold-ups while preserving the element of a surprise visit. There is no justification for a longer waiting period and the default should continue to remain at 24 hours.

¹⁸ Olli Heinonen and Simon Henderson, "How to Make Sure Iran's One-Year Nuclear Breakout Time Does Not Shrink," *The Washington Institute for Near East Policy*, June 17, 2015. (<http://www.washingtoninstitute.org/policy-analysis/view/how-to-make-sure-irans-one-year-nuclear-breakout-time-does-not-shrink>)

¹⁹ International Atomic Energy Agency, "Implementation of the NPT Safeguards Agreement in the Islamic Republic of Iran," June 1, 2004. (<https://www.iaea.org/sites/default/files/gov2004-34.pdf>)

To preserve a one-year breakout period, it is also indispensable for the IAEA to report quarterly – and in a transparent manner – on Iran’s holdings and production of enrichment feed material, uranium hexafluoride (UF₆), stocks of all types of centrifuges and rotors, and installations involved in manufacturing of the key components of centrifuges. Several member states have already requested such reporting at IAEA meetings. The secretariat should follow up on these requests expeditiously. Such requests are consistent with Article 5 of IAEA safeguards agreements, which forbids the dissemination of confidential proprietary information but specifically allows information relating to the implementation of agreements to be given to the Board of Governors.²⁰ Moreover, there is ample precedent for this kind of information sharing. Prior IAEA reports submitted as part of the EU-3 agreement with Iran presented both sufficient details as well as the context necessary to understand the inspection findings. The United States would be well within its right to introduce a resolution at the IAEA Board asking the secretariat to make such information available to the Board.

The case for IAEA access to military sites in Iran

Iranian leaders have declared that they will never allow IAEA inspectors to access military sites. This position is completely at odds with both the JCPOA and Iran’s comprehensive safeguards agreement.

Iran’s military industry has played a well-documented and important role in developing the country’s domestic manufacturing capacities. In 2003, half a dozen military-related workshops provided their services to the Atomic Energy Organization’s efforts at uranium enrichment. Additionally, the Fordow underground enrichment plant was built on a military site.

Under Article 1 of the IAEA comprehensive safeguards agreement, all nuclear facilities and materials inside state territory are subject to IAEA safeguards.²¹ Thus, there are no sanctuaries from which inspectors can be excluded – including military sites.

In the case of Iran, inspectors should request access to:

- Confirm that Iran is not conducting centrifuge manufacturing activities at locations where it was doing such work before the JCPOA;
- Address issues from the PMD file that remain unresolved, including interviews of scientists and follow-up regarding the uranium particles found at Parchin;²²
- Establish a baseline for future verification that nuclear weapons-related activities have not been reconstituted; and

²⁰ International Atomic Energy Agency, “The Text of the Agreement Between Iran and The International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons,” December 13, 1974.

(<https://www.iaea.org/sites/default/files/publications/documents/infcircs/1974/infcirc214.pdf>)

²¹ Ibid.

²² Olli Heinonen, “Uranium Particles at Parchin Indicate Possible Undeclared Iranian Nuclear Activities,” *Foundation for Defense of Democracies*, July 1, 2016. (<http://www.defenddemocracy.org/media-hit/olli-heinonen1-uranium-particles-at-parchin-indicate-possible-undeclared-iranian-nuclear-a/>)

- Verify and monitor the JCPOA's Section T, which prohibits "activities which could contribute to the design and development of a nuclear explosive device."²³

Since January 2016, when the JCPOA was implemented, IAEA reports have made no mention of verifying the first three items listed above. In June 2017, the IAEA's quarterly report stated, "The Agency's verification and monitoring of Iran's other JCPOA nuclear-related commitments continues, including those set out in Sections D, E, S and T of Annex I of the JCPOA." The report, however, provides no details on whether the IAEA actually verified Section T via first-hand observation or simply reviewed publications indicating relevant activities in the open literature. Even more significant, an IAEA staff member in a background briefing made a statement to the effect that the IAEA had not visited any military site since the JCPOA's implementation.²⁴ It is difficult to comprehend why a follow-up visit has not taken place at Parchin, where uranium particles were found in 2015. The IAEA has also presented evidence that Parchin hosted research related to multi-point detonations and the use of diagnostic equipment as part of a nuclear weapons research program.

It is crucial that the U.S. and its allies encourage the IAEA to faithfully conduct its mission and not shy away from seeking entry to sensitive sites in Iran where there is cause to do so. Continued investigation of the history of the possible military dimension of Iran's nuclear program must also continue. Indeed, the Additional Protocol specifically seeks to ensure, via additional access rights for the IAEA, that there is no indication of undeclared nuclear materials or activities in a state. Given the clandestine, complex, and possible military aspects of Iran's nuclear work, no military sites should be accepted as off limits. One option for the United States to consider is the introduction of a resolution at an IAEA Board meeting requesting that the secretariat complete verification activities related to the PMD file and Section T of the JCPOA.

IAEA reporting has to be enhanced

The IAEA has critical a role to play in preventing nuclear proliferation, thanks to its inspectorate's unique authority to access people, places, and facilities. The IAEA's full exercise of these rights is indispensable to the full and meaningful implementation of the JCPOA. It is equally necessary for IAEA investigations to produce impartial, factual, and transparent reports of its findings in written form. The importance of written reporting must be underscored since it represents the official record of its findings; any statements made by the IAEA secretariat in technical briefings – albeit helpful – are not entered in the official records.

It is also important to understand how to read the IAEA reports. For example, the secretariat states that it continues to verify the non-diversion of declared nuclear material in Iran, but it has not explicitly stated that there are no indications of diversion of nuclear material from declared inventories. The IAEA report states that Iran is implementing certain parts of the JCPOA. For other

²³ Such activities include computer models to simulate nuclear explosive devices, multi-point detonation, and diagnostic systems suitable for the development of nuclear explosive devices and explosively driven neutron sources.

²⁴ Francois Murphy, "U.S. pressure or not, U.N. nuclear watchdog sees no need to check Iran military sites," *Reuters*, August 31, 2017. (<http://www.reuters.com/article/us-iran-nuclear-inspections/u-s-pressure-or-not-u-n-nuclear-watchdog-sees-no-need-to-check-iran-military-sites-idUSKCN1BB1JC>)

parts of the JCPOA, such as the implementation of Section T, the IAEA has simply not reported on it or, as in its most recent report, simply states that it is monitoring it, but fails to explain how and to what extent such monitoring is conducted. Even in terms of implementation, the IAEA reports do not provide a clear picture of how and to what extent compliance with the JCPOA is understood. In other words, to ensure proper implementation, IAEA reports should provide more clarity by stating whether Iran has fully complied with its obligations, whether the IAEA has had full and timely access to all installations subject to verification and monitoring, and whether it has received all the information it requested. The IAEA should also provide greater clarity with regard to how verification and monitoring measures are being applied.

To be able to ensure that break-out time remains above one year, and to assess the implementation of the JCPOA and the safeguards agreements, the United States should request – as is permitted by Article 5 of the safeguards agreement – that the following additional facts be included to future quarterly reports:

- Uranium mining and ore concentration plants: IAEA reports should include, for example, the number of visits to mines and ore concentration plants, if access was provided in a timely fashion, and the amounts of ore concentrates (yellow cake) produced.
- Uranium conversion (to UF₆ and UO₂) activities: IAEA reports should include information on the stocks of uranium ore concentrates, stocks of UF₆ (feed material for uranium enrichment), stocks of UO₂, and the operating status of the conversion facilities.
- Uranium enrichment activities: IAEA reports should include information on the type and amount of uranium fed into cascades at each facility, the type and number of centrifuges installed at the Natanz Fuel Enrichment and Pilot Fuel Enrichment Plants, the number and types of centrifuge rotors stored under IAEA surveillance at Natanz, an assessment on whether IAEA surveillance measures are conclusive, and if complementary access and unannounced inspection access was provided in a timely fashion.

Conclusion

More than two years have now passed since the conclusion of the JCPOA. This is a good time to review areas of the deal that require strengthening in order to deny Iran access to a nuclear weapons capability, keep Iran well within the desired one-year breakout time, and to reevaluate the sunset clauses. It is important that both Iran and the IAEA fully implement their obligations under the JCPOA, CSA, and AP. Likewise, the IAEA should enhance its reporting on Iran's compliance with its obligations, and the IAEA Board has the authority to require more detailed reports.

The parties to the JCPOA should agree on parameters that keep Iran's nuclear breakout time above one year in perpetuity. In exchange for this restriction, the U.S. and its partners should consider providing Iran with nuclear fuel assurances and spent fuel take-back guarantees to deny it a rationale for further enrichment and reprocessing. Another key part of the conversation is to refocus attention on Iran's offensive ballistic and cruise missile program, with the goal of bringing it down to shorter ranges and payloads. Iran has repeatedly stated that the JCPOA is not

negotiable,²⁵ but there might be ways and means to complement the deal with additional binding arrangements.

²⁵ “Zarif: Nuclear renegotiation is a ‘myth,’” *Tehran Times* (Iran), October 1, 2017. (<http://www.tehrantimes.com/news/417199/Zarif-Nuclear-renegotiation-is-a-myth>)