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The Fact Sheet (Nov. 14, 2025) and What Comes Next: Implementing the ROK-U.S. Nuclear Cooperation

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Abstract

The ROK-U.S. Joint Fact Sheet released on November 14, 2025 represents a landmark in seven decades of bilateral nuclear cooperation—the first explicit U.S. endorsement of South Korea's nuclear-powered submarine program, fuel supply cooperation, and expanded rights to uranium enrichment and spent fuel reprocessing under the ROK-U.S. Atomic Energy Agreement. Yet translating this political commitment into legally binding implementation requires navigating a complex set of institutional, diplomatic, and technical challenges. This brief identifies three priority tasks: (1) leveraging the NPS-civil nuclear linkage to strengthen South Korea's negotiating position; (2) developing a domestic LEU-based production capability while managing the diplomatic dimensions of reducing HEU dependence; and (3) building a robust domestic consensus in parallel with international negotiations. South Korea must exercise strategic patience and meticulous negotiation to transform this political commitment into durable and substantive gains for both alliance cohesion and South Korea's long-term security and industrial interests.

Keywords

Nuclear-powered submarine (NPS), ROK-U.S. Atomic Energy Agreement, uranium enrichment·reprocessing rights, comprehensive alliance, nuclear safeguards, non-proliferation regime, November 14 Fact Sheet

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Key Contents and Assessment

On November 14, 2025, the ROK and U.S. governments jointly released the ROK-U.S. Joint Fact Sheet summarizing the agreements reached during the bilateral summit. The Fact Sheet is regarded as a comprehensive accord spanning trade and investment, advanced technology, defense and security, and energy cooperation. Among its provisions, the agreement on South Korea's construction of nuclear-powered submarines (NPS) and the expansion of its nuclear technology sovereignty stands out as particularly noteworthy. Through this agreement, the United States has expressed support for cooperation on key implementation details, including fuel supply arrangements, subject to further bilateral consultations. During the briefing, President Lee Jae Myung described nuclear-powered submarines as an "essential strategic asset for stability on the Korean Peninsula," noting that both leaders had aligned their commitment to advancing the initiative. This outcome is viewed as a dual achievement: it enhances the strategic autonomy of the ROK armed forces while reinforcing trust within the alliance. In particular, National Security Advisor Wi Sung-lac emphasized during the briefing that "discussions between the leaders proceeded from start to finish on the premise of construction in South Korea, with

no mention of building ROK nuclear-powered submarines in the United States." This statement underscores South Korea's expectation that the NPS program will be developed and constructed domestically.

The Fact Sheet also explicitly states that "the United States supports procedures that could lead to South Korea's civilian uranium enrichment and spent nuclear fuel reprocessing for peaceful purposes, provided these align with the ROK-U.S. Atomic Energy Agreement and comply with U.S. legal requirements." This represents a significant step forward in South Korea's long-standing effort to secure previously constrained rights under the bilateral nuclear cooperation framework. President Lee Jae Myung emphasized that this agreement opens the possibility for South Korea to independently develop and utilize nuclear fuel technology for peaceful and industrial purposes. Consequently, South Korea has established a critical pathway toward two key foreign and security policy priorities: the development of nuclear-powered submarines (NPS) and the expansion of South Korea's civilian nuclear fuel cycle capabilities.

The U.S. and major countries have offered diverse assessments of the 2025 ROK-U.S. agreement. The New York Times characterized the NPS cooperation as a "major policy shift", while the BBC described it as a "significant step in South Korea's relations with the U.S.," and Newsweek framed it as signaling "military alliance modernization."[1] Some analysts in Washington draw parallels to

1) Lily Kuo, "Trump Wraps Up Asia Trip With South Korea Visit." The New York Times (28 Oct 2025) https://www.nytimes.com/live/2025/10/28/us/trump-news-south-korea; Jake Kwon and Gavin Butler, "The agreement marks a significant step in South Korea's relations with the US and comes amid a period of growing tensions on the

prior allied naval nuclear propulsion arrangements, viewing the deal as a strategy to alleviate U.S. shipbuilding bottlenecks by harnessing allied industrial capacity. They suggest linking South Korea's NPS construction with its investments in the U.S. and alliance burden-sharing contributions could serve as a "Make American Shipbuilding Great Again" (MASGA) initiative or an opportunity to modernize the U.S. Navy. In a March 2026 analysis, the Center for Strategic and International Studies (CSIS)—a leading Washington think tank—analyzed the U.S. approval for Australia's NPS as a means to lighten America's defense burdens, distribute responsibilities among trusted allies, and enhance Indo-Pacific stability.[2] In a similar vein, CSIS cited the Congressional Budget Office (CBO) to argue that U.S. shipyards alone cannot meet the Navy's shipbuilding goals, positioning South Korea's shipbuilding prowess as a strategic asset for restoring U.S. naval strength.[3] Japan's Sasakawa Peace Foundation similarly analyzed the AUKUS agreement as grounded in a mutually beneficial structure between Australia and the United States, aimed at resolving U.S. shipbuilding bottlenecks, with expectations that Australia would contribute to revitalizing the American shipbuilding industry.[4]

Korean Peninsula." BBC (13 Nov 2025) https://www.bbc.co.uk/news/articles/c620qppzlgwo; Gabe Whisnant, "Donald Trump Makes Nuclear Submarine Deal with South Korea," Newsweek (29 Oct 2025) https://www.newsweek.com/trump-nuclear-submarines-south-korea-philadelphia-shipyards-10962421

2) Cynthia R. Cook and Charles Edel, "Accelerating Australia's Defense Capabilities and Enhancing Industrial Cooperation with the United States" Center for Strategic and International Studies (CSIS) (12 Mar 2025) https://www.csis.org/analysis/accelerating-australias-defense-capabilities-and-enhancing-industrial-cooperation-united

3) Namyeon Kwon, "Don't Miss the Boat: Considerations for US-South Korea Maritime Cooperation" CSIS (12 June 2025) https://www.csis.org/analysis/dont-miss-boat-considerations-us-south-korea-maritime-cooperation

4) Tomohiko Satake, "The Trump Administration's AUKUS Review: Trajectory and Long-term Implications" International Information Network Analysis, Sasakawa Peace Foundation (SPF) (2025.9.9.) https://www.spf.org/iina/en/articles/satake_02.html

However, South Korea differs fundamentally from Australia. While Australia acts primarily as a "buyer," South Korea possesses world-class commercial shipbuilding capabilities and a proven civilian nuclear power technology base—positioning it as a potential co-producer, distinct from Australia's role as a primary acquirer. Consequently, South Korea's ambitions should extend beyond merely acquiring U.S.-designed submarines. Instead, it should seek to advance negotiations toward a "co-production partnership" based on the Fact Sheet's commitment to "construction."

Three Key Challenges for Successful Follow-On Negotiations

To transform the outcomes of the U.S.-ROK summit into sustainable achievements, meticulous implementation planning and substantive bilateral cooperation are essential. Core technology cooperation and defense projects will unfold over extended periods, necessitating consistent pursuit across successive administrations and sustained political support from both sides. Diplomatically, South Korea faces the complex challenge of managing tensions with neighboring countries while realizing the agreed commitments amid geopolitical flux—requiring strategic use of this agreement to advance national interests and regional peace. To this end, the South Korean government must successfully negotiate the remaining core agenda items to convert this "political agreement" into a "sustainable and mutually beneficial system."

(1) Linking NPS Cooperation with Civil Nuclear Collaboration to Enhance Negotiating Leverage

Leading Washington think tanks have emphasized that the "modernization" of the U.S.-ROK alliance has evolved beyond mere military strengthening into a "comprehensive strategic alliance" encompassing economics, technology, cyber security, and beyond—representing the alliance's desirable future trajectory (CSIS, September 30, 2025).[5] This perspective aligns with recommendations from South Korean experts advocating the use of NPS negotiations as leverage for revising the ROK-U.S. Atomic Energy Agreement. (INSS Strategic Report No. 318, 2025). In this context, the Fact Sheet from the recent ROK-U.S. summit is evaluated as a crucial advancement toward realizing such a comprehensive strategic alliance between the two nations.

However, converting these commitments into legally binding agreements necessitates revising the ROK-U.S. Atomic Energy Agreement, which currently restricts South Korea's production of highly enriched uranium (HEU) and spent fuel reprocessing. Such a revision would require U.S. congressional approval and the establishment of appropriate legal arrangements for the transfer of nuclear fuel materials for naval propulsion purposes—a process that would necessitate careful coordination within the existing nonproliferation framework. National Security Advisor Wi confirmed

5) Kyeongdoo Jeong, "The Future of the ROK-U.S. Alliance: Adapting to a Changing World," CSIS (30 Sep 2025) https://www.csis.org/analysis/future-rok-us-alliance-adapting-changing-world; Victor Cha, "South Korea's Response to U.S. Demands: Minimize Risk, Maximize Reward." CSIS Geopolitics and Foreign Policy Department (7 Oct 2025) https://www.csis.org/analysis/south-koreas-response-us-demands-minimize-risk-maximize-reward

that “revising the ROK-U.S. Atomic Energy Agreement is necessary, with the extent of permissible activities to be determined through consultations.” Consequently, negotiations to amend the Atomic Energy Agreement are poised to emerge as a central agenda item moving forward.

For successful negotiations, South Korea requires strategic preparation. Ahead of formal revision talks, the South Korean government must prepare the following: First, to generate synergy with the administration’s national policy priorities, it is necessary to establish a cross-ministerial task force to meticulously coordinate details and refine strategies.[6] Second, by consistently supporting non-proliferation principles, it must build trust within the international community. Third, to ensure that follow-on consultations translate the agreement into tangible policy outcomes, it must secure robust domestic and international support bases.

(2) Establishing a Roadmap for Domestic Construction Capabilities and Technology Self-Reliance

While the South Korean nuclear-powered submarine (NPS) program has now entered its official track, significant technical and practical challenges lie ahead. Reactor propulsion system development is the core issue: although South Korea possesses world-class commercial nuclear power technology, its expertise in compact, high-output marine reactors remains at the initial stage. Given the unlikelihood

6) Although an official task force for the revision of the ROK-U.S. Atomic Energy Agreement has not been officially announced, working-level consultations reportedly began in September, 2025. Moreover, there are plans to establish a "Nuclear Non-proliferation Bureau" within the Ministry of Foreign Affairs, headed by a director-general, to oversee the amendment process.

of technology transfer for naval reactors from the United States, indigenous development capacity will therefore be essential to the program's long-term viability. National Security Advisor Wi stated during the briefing that South Korea "primarily sought U.S. assistance regarding the fuel (supply) for nuclear-powered submarines," signaling that bilateral cooperation on fuel supply will be a key agenda item going forward. Depending on the type of submarine South Korea constructs, the extent to which it secures nuclear sovereignty—including rights to uranium enrichment and reprocessing—will vary accordingly.

In future negotiations, South Korea faces the challenge of determining nuclear fuel procurement methods, with complex technical and policy options such as whether the United States will supply highly enriched uranium (HEU, over 80%) or South Korea will pursue independent development based on low-enriched uranium (LEU, under 20%). This process entails the dilemma of complying with the non-proliferation regime while securing nuclear technology sovereignty. In particular, it is crucial to transparently demonstrate to the international community that enrichment activities for nuclear-powered submarine propulsion are unrelated to nuclear armament, thereby building trust. Indeed, National Security Advisor Wi Sung-lac emphasized that "enrichment and reprocessing issues are unrelated to nuclear armament," clarifying that this agreement falls within the scope of peaceful use. Therefore, to solidify gains in technological sovereignty, follow-on consultations must establish legal and institutional frameworks, while sustained diplomatic efforts address both domestic and international concerns. To avoid conflicts with the non-proliferation regime, South Korea must make one of

the following strategic choices.

The first option is constructing a nuclear-powered submarine using highly enriched uranium (HEU) fuel. This allows operation for over 30 years without refueling; however, lacking HEU production capabilities, South Korea would likely depend on the United States for fuel supply and potentially return the submarine for repairs or decommissioning. The remaining two options involve developing a submarine reactor powered solely by low-enriched uranium (LEU), or constructing the hull domestically while procuring fuel abroad. If, under U.S. authorization, South Korea builds a submarine using LEU produced through limited domestic enrichment, it could secure restricted enrichment rights alongside nuclear fuel sovereignty for civilian reactors.

Even this scenario faces two major hurdles. First is persuading the U.S. Departments of Defense, State, and Energy—which stress non-proliferation norm compliance and view nuclear propulsion technology sharing as inherently difficult without congressional approval. Additionally, advancing nuclear submarine construction requires coordination with Nuclear Suppliers Group (NSG) member states.[7] Without convincing the U.S. Congress and NSG, South

7) Related international discussions have been centered on the earlier Australian case: 1) In September 2023, Chinese Ambassador Li Song emphasized at a discussion on nuclear material transfers related to Australian nuclear submarines that export control mechanisms, particularly the Nuclear Suppliers Group (NSG) and the Missile Technology Control Regime (MTCR), are part of the current nonproliferation regime along with the NPT. Li Song (Ambassador, Permanent Mission of the People's Republic of China to the United Nations and other International Organisations in Vienna), "H.E. Ambassador Li Song's keynote remarks under the agenda item on AUKUS nuclear-submarine cooperation requested by China at the September Board of Governors meeting of the International Atomic Energy Agency", 12 Sep 2025. https://vienna.china-mission.gov.cn/hyyfy/202509/t20250912_11707412.htm 2) On August 15, 2024, IAEA Director General Rafael Grossi emphasized that Australia is negotiating a suitable arrangement with the IAEA under Paragraph 14 of INFCIRC/153

Korea would remain externally dependent for nuclear fuel, with limited prospects for expanding enrichment and reprocessing rights; thus, ahead of ROK-U.S. Atomic Energy Agreement revision talks, it must launch intensive public diplomacy efforts. Ultimately, among the three options, independent LEU-based NPS development poses high technical challenges but is evaluated as the pathway that can simultaneously achieve long-term nuclear fuel sovereignty and enhanced competitiveness in nuclear power exports. Nevertheless, strategic selection must comprehensively consider development timelines, costs, and international approval procedures

(3) Securing Domestic Support is Essential

According to reports from the National Defense Committee's audit in October 2025, the government is reportedly examining options

—the Comprehensive Safeguards Agreement template—in connection with the naval nuclear propulsion agreement among Australia, the United Kingdom, and the United States, and that any such arrangement must remain fully compatible with Australia's obligations as non-nuclear-weapon state under the NPT. Rafael Grossi (Director General, International Atomic Energy Agency), "IAEA Director General Statement in Relation to the Agreement between Australia, the United Kingdom and the United States Related to Naval Nuclear Propulsion", 15 Aug 2024. https://www.iaea.org/newscenter/pressreleases/iaea-director-general-statement-in-relation-to-the-agreement-between-australia-the-united-kingdom-and-the-united-states-related-to-naval-nuclear-propulsion 3) At the recent IAEA Board of Governors (September 2025), the United Kingdom, on behalf of the three AUKUS countries, reconfirmed in a statement that once Australia's Article 14 safeguards proposal is finalized, it will be referred to the IAEA Board of Governors for appropriate action. Corinne Kitsell (Ambassador, United Kingdom to the IAEA) on behalf of Australia, the United Kingdom and the United States, "Nuclear safeguards: AUKUS statement to the IAEA Board of Governors, September 2025", 11 Sep 2025. https://www.gov.uk/government/speeches/nuclear-safeguards-aukus-statement-to-the-iaea-board-of-governors-september-2025 4) In April 2025, UNIDIR introduced the NSG as the primary multilateral export control arrangement addressing nuclear fuel and technology transfers and concluded that as naval nuclear propulsion development increases, transparent and comprehensive discussions are needed within the NSG, IAEA, and NPT frameworks. United Nations Institute for Disarmament Research (UNIDIR), Strengthening the NPT Safeguards Regime for Naval Nuclear Propulsion Development: Event Summary, Geneva, 25 July 2024 (published April 2025). https://unidir.org/wp-content/uploads/2025/04/UNIDIR_Strengthening_NPT_Safeguards_Regime_Naval_Nuclear_Propulsion_Development_Event_Summary.pdf

that could include construction of multiple nuclear-powered submarines beginning in the mid-2030s, with substantial per-unit cost estimates—though no formal program decision has been announced.[8] As this intersects with defense budget increases, support for U.S. Forces Korea, and large-scale U.S. investments, it could impose burdens on the public; thus, transparent information disclosure and broad national support must precede implementation.

First, objective cost-benefit evaluations and transparent disclosure are required. The government must transparently communicate to the public not only the program's strategic value for maritime security, but also its broader contributions to national industrial development, including advances in nuclear technology and shipbuilding competitiveness. Beyond military strengthening, it should explain long-term impacts on national industries, including nuclear technology advancement and enhanced shipbuilding competitiveness.

Second, communication with the National Assembly must be strengthened to forge bipartisan consensus. Both NPS construction and ROK-U.S. Atomic Energy Agreement revisions require parliamentary ratification. The government should initiate early consultations with the entire Assembly, including opposition parties, transparently disclosing agreements while persuasively demonstrating national interest gains. For this long-term project, deriving political consensus to ensure consistent advancement is particularly important.

8) Jeong Jae-hong, "Largest weapons project in history 'nuclear submarine'...'20 trillion won project cost' likely to form government-wide project team" JoongAng Ilbo (31 Oct 2025) https://www.joongang.co.kr/article/25378502

Third, diplomatic tension management with neighboring countries must proceed in parallel. The government should articulate the NPS program's strategic rationale within the context of defensive capability enhancement and alliance burden-sharing, while sustaining consistent diplomatic communication with neighboring states. Simultaneously, by consistently affirming compliance with non-proliferation principles and commitment to peaceful use, it must address international concerns through sustained transparency and multilateral engagement.

Conclusion

This ROK-U.S. summit Fact Sheet represents significant progress on South Korea's long-standing policy priorities of nuclear-powered submarine (NPS) construction and expanding enrichment and reprocessing rights. In particular, the explicit codification of U.S. support for South Korea's peaceful nuclear fuel technology utilization within the ROK-U.S. Atomic Energy Agreement framework signals new possibilities in bilateral nuclear cooperation. However, translating the Fact Sheet into substantive implementation requires navigating complex follow-on processes, including Atomic Energy Agreement revision, U.S. congressional approval, and Nuclear Suppliers Group (NSG) consent. Implementation will require careful navigation of U.S. legislative processes, coordination within the nonproliferation regime, and sustained engagement with neighboring states.

Three elements are essential for successful implementation. First, South Korea must leverage the available preparation period—ahead of the next scheduled review of the ROK-U.S. Atomic Energy Agreement—to build the negotiating foundations necessary for substantive expansion of enrichment and reprocessing rights. Second, it must select a nuclear fuel procurement approach and establish a domestic technology self-reliance roadmap to avoid core technology dependency. Third, transparent information disclosure and bipartisan consensus are needed to strengthen the domestic support base.

The November 14 Fact Sheet marks a significant step forward—one that opens concrete pathways for advancing South Korea's nuclear fuel cycle capabilities and defense industrial base. Realizing its full potential will require a carefully calibrated implementation approach, sustained domestic consensus, and proactive diplomatic engagement. The South Korean government is well-positioned to translate this political commitment into durable and substantive gains, provided it approaches the follow-on process with the strategic patience and precision the moment demands.