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Expanding US-ROK Nuclear Cooperation

A strategic partnership for the carbon neutral era

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Korea Ulchin Nuclear Power Plant (Korea Ulchin NPP, via IAEA Image Bank, Flickr)

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Table of Contents

Acknowledgements

In this policy paper, I wish to touch on the backgrounds and objectives achieved through the process of negotiating the US-ROK Agreement for Peaceful Nuclear Cooperation, which I was directly involved in. I wish to provide readers with the intent and significance behind the 2015 agreement, and explain the achievements it has made and the challenges it has encountered.

This policy paper is a lightly edited translation of an original article that I wrote in Korean for the July 2025 issue of the Journal of the Korean Nuclear Policy Association, commemorating the 10th anniversary of the revised US-ROK Agreement for Peaceful Nuclear Cooperation.[i] It is reprinted here with permission, and with particular thanks to Professor Jun Bong-geun for his editorial input on the original article.

Park Robyug

Seoul, December 2025

[i] See original Korean: 박노벽, "한미원자력협력 확대와 우리의 역량 강화," 한국비확산·원자력저널 20 (July 2025), http://www.koreanuclearpolicysociety.org.

EXPANDING US-ROK NUCLEAR COOPERATION:

A STRATEGIC PARTNERSHIP FOR THE CARBON-NEUTRAL ERA

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Executive Summary

EXPANDING US-ROK NUCLEAR COOPERATION:

A STRATEGIC PARTNERSHIP FOR THE CARBON-NEUTRAL ERA

Park Robyug

The 2015 US-ROK Agreement for Peaceful Nuclear Cooperation represented a paradigm shift from the unilateral provisions that characterised the original 1974 agreement. The agreement between the Republic of Korea (ROK) and the United States established crucial provisions for spent nuclear fuel management, including recognition of pyroprocessing research, authorisation for overseas reprocessing entrustment, and cooperation across fifteen technical domains. Significantly, it guaranteed emergency fuel supply mechanisms, streamlined procedures for low-enriched uranium enrichment, and enabled the retransfer of US-origin materials to approximately forty countries without separate approval.

The post-2015 period has witnessed remarkable accomplishments that validate the agreement's strategic value. The crowning achievement came with Korea's successful bid for the Czech Dukovany nuclear project – a 26 trillion KRW contract representing Korea's entry into the European market. This success required resolving complex intellectual property disputes with Westinghouse.

President Trump's May 2025 executive order on nuclear revival fundamentally may transform the landscape for US-ROK cooperation. The order mandates constructing ten large nuclear plants by 2030 and expanding US nuclear capacity from 100 GW to 400 GW by 2050 – requiring approximately 12 GW of annual additions. For the ROK, this presents an unprecedented strategic opportunity to explore innovative collaborational frameworks.

This paper identifies three important areas for ROK-US cooperation:

The first area is expanded cooperation for nuclear power plant construction. For the US industry to achieve its ambitious goal of expanding nuclear generating capacity, it should forge cooperation that actively makes use of the ROK's accumulated technological expertise and extensive experience.

The second area is expanded cooperation for a stable supply of nuclear fuel. Global nuclear fuel supply chains are undergoing a fundamental realignment due to Western sanctions against Russia following its invasion of Ukraine. In this situation, it is critical to urgently establish a systematic cooperation framework between the two countries to ensure a stable supply of nuclear fuel.

The third area to consider is cooperation in developing spent nuclear fuel processing technology. Based on the results of the pyroprocessing joint research that the two

countries have steadily advanced over the past 10 years, a foundation can be established to systematically develop various plans related to spent nuclear fuel processing.

The path forward demands moving beyond formulaic debates toward cooperative creativity that serves mutual strategic interests. Success requires both nations to recognise that US-ROK nuclear cooperation extends beyond bilateral benefits – it represents leadership in the global transition toward carbon neutrality, addressing energy security challenges while advancing nonproliferation principles. By transforming this partnership into a genuine strategic partnership, both nations can secure their prosperity while establishing an energy cooperation framework that makes sustainable, carbon-neutral growth achievable worldwide.

INTRODUCTION: A NEW STARTING POINT FOR NUCLEAR COOPERATION

The International Conference commemorating the 10th anniversary of the 2015 revised US-ROK Agreement for Peaceful Nuclear Cooperation (hereafter, the 2015 US-ROK Nuclear Agreement)[1] was held in Gyeongju from June 23 to 24, 2025, and marked a significant turning point for nuclear cooperation between the Republic of Korea (ROK) and the United States. The conference served as a comprehensive forum for discussion, bringing together participants from industry, government, and academia. It was jointly organised by Korea Hydro & Nuclear Power (KHNP) and the Atlantic Council, a prominent American think tank, and was sponsored by the Korea Atomic Energy Research Institute (KAERI) and Doosan Enerbility. The event covered a broad range of topics, including the past and future of US-ROK nuclear cooperation, bilateral industry collaboration, nuclear fuel cycle cooperation, nuclear policy and non-proliferation, and strategies for expanding nuclear power plant exports.

The 2015 US-ROK Nuclear Agreement was provisionally signed on April 22, 2015, after over four years of intense negotiations, and ushered in a new era in the bilateral nuclear relationship. The Gyeongju conference, held a decade later, underscored the necessity of evaluating its achievements and charting a future course. In particular, diplomatic and security experts from both the United States and the ROK, along with representatives from nuclear energy companies, research institutions, and universities, participated as panelists to conduct in-depth discussions on the current status and challenges of cooperation in technical, industrial, and policy aspects. The conference drew particular attention through presentations by officials from the Czech government, which selected Korean nuclear power, and by students from South Africa and the Philippines studying at the KEPCO International Nuclear Graduate School (KINGS), who shared their perspectives on adopting nuclear power in their respective home countries.

The conference reaffirmed the rapid transformation in the US energy sector, as well as the United States' growing strategic necessity and awareness in confronting severe threats and challenges, including China's rapid nuclear expansion. This situation presents a strategic opportunity for the ROK to further strengthen nuclear cooperation with the United States. Far from being a mere retrospective, this international conference, held on the 10th anniversary of the revised agreement, became a meaningful starting point for planning the next decade. It also served as an opportunity to expand networks with key figures in the US nuclear industry and to reaffirm Korea's standing in the global nuclear market.

[1] Note on terminology: the US-ROK Agreement for Peaceful Nuclear Cooperation is often referred to as the 123 Agreement, referring to nuclear cooperation agreements between the United States and other countries, as stipulated under Section 123 of the US Atomic Energy Act of 1954. This paper will use the official name, or simply "the 2015 Nuclear Agreement" when referring to the specific revision of that year.

As it turned out, the 2015 US-ROK Nuclear Agreement has established itself as a key document not just for bilateral agreement, but also for global energy security and the transition toward carbon-neutral industries. The mutual commitment demonstrated by Korea and the United States suggests a shared intention to lead the peaceful use of nuclear energy and the safe energy transition through even closer collaboration over the next ten years.

This policy paper will detail the process of negotiating the 2015 US-ROK Nuclear Agreement, which the author was directly involved in. The paper will detail the intent and significance behind the 2015 US-ROK Nuclear Agreement, explain the achievements it has made and the challenges it has encountered, and outline three key areas for cooperation. Finally, the paper will provide the context for the upcoming revision of the agreement, which is currently being negotiated between the two countries.

THE INTENT AND SIGNIFICANCE OF THE 2015 REVISED AGREEMENT

The core objective of the 2015 US-ROK Nuclear Agreement was to establish a reciprocal and future-oriented foundation for cooperation to expand shared interests, reflecting South Korea's advanced status in the nuclear field.[2] This signified a deepening of mutual collaboration as a US-ROK nuclear energy alliance. It represented a strategic shift away from pursuing unilateral interests and competition – which can easily degenerate into a contentious relationship in the global nuclear industry – to prioritising mutual benefits through cooperation.

The revised agreement addressed various policy measures for the efficient management of accumulated spent nuclear fuel in both the United States and the ROK. The ROK received acknowledgment for its research activities concerning electro-reduction technology within its existing facilities for recycling technology (pyroprocessing), a method previously encouraged under the Bush administration. Furthermore, for sensitive areas designated for joint US-ROK research, criteria and procedures were established for determining the results of joint studies. Notably, the revision also included the ability for South Korea to send spent nuclear fuel overseas for entrustment reprocessing, such as to the UK or France. Specific plans require mutual agreement on the form and physical protection of returned material, and the two countries agreed to cooperate in 15 areas related to technology for storage, transportation, and disposal of spent nuclear fuel.

Secondly, to ensure a stable supply of nuclear fuel, the United States committed to striving to guarantee supply in emergency situations, while conditions and procedures were established for future low-enriched uranium (LEU) enrichment below 20 per cent. This holds significant importance for strengthening South Korea’s energy security. Thirdly, the agreement stipulated an advanced provision allowing for the retransfer

[2] The full text of the agreement is available at: “Agreement for Cooperation Between the Government of the Republic of Korea and the Government of the United States of America Concerning Peaceful Uses of Nuclear Energy,” 2015, https://fissilematerials.org/library/kr123.pdf.

(export) of US-origin equipment and materials – if exported by the ROK – to approximately 40 countries that have concluded nuclear cooperation agreements with the United States, without requiring separate approval. The provision also mandated that US regulatory bodies promptly process cases requiring licensing. Furthermore, control rights over nuclear materials became mutually exercisable by both the United States and the ROK, a change prompted by the potential for South Korea to export US nuclear power plants containing major Korean-made components. Additionally, a High-Level Committee was established to ensure the effective implementation of the Agreement.

Also, at the time, recognising the importance of establishing advanced systems in regulation and licensing, diplomatic efforts were made to facilitate communication channels between South Korea's Nuclear Safety and Security Commission (NSSC) and the US Nuclear Regulatory Commission (NRC), the independent US regulatory body. Consequently, in 2015, the regulatory bodies of both countries agreed to establish the US-ROK Nuclear Safety Steering Committee, which holds annual consultations. This allowed for the active exchange of information on advanced US standards for setting nuclear safety criteria, and further initiated policy and technical cooperation in establishing regulatory standards for reactor decommissioning, cybersecurity, and spent nuclear fuel management policy.

THE 2015 AGREEMENT NEGOTIATIONS

The pressures and challenges during the 2015 revision negotiations were substantial. The opportunity for a complete overhaul of the original 1974 agreement[3] after 41 years unfolded amid a storm of domestic and international pressure, and the intense media scrutiny placed enormous psychological strain on the negotiators. Especially considering the stance of the then-conservative ROK administration towards North Korea's nuclear provocations, public opinion was focused on every move. Also, internal pressure centered on the expectation that South Korea should receive "fair and equal treatment and recognition for its nuclear fuel cycle activities, similar to Japan."[4]

Essentially, the sentiment was, "If Japan can have it, why can't we?" However, this transcended mere competition or pride, ultimately becoming a matter of acceptance of ROK's proven performance grounded in robust, sustained civil nuclear policy and diplomatic capacity, alongside mutually beneficial partnerships.

Meanwhile, circumstances that indirectly influenced the agreement negotiations were already taking shape, notably the ROK's successful bid for the Barrakah nuclear power project in the United Arab Emirates (UAE). In 2009, the ROK won the bid for the UAE

[3] "Agreement for Cooperation Between the Government of the United States of America and the Government of the Republic of Korea Concerning Civil Uses of Atomic Energy," May 1974, https://media.nti.org/pdfs/StateandROKPeaceNuc1972.pdf.
[4] Under its corresponding agreement with the United States, Japan is allowed to reprocess spent reactor fuel. See: "Proposed Agreement Between the United States and Japan Concerning Peaceful Uses of Nuclear Energy," November 9, 1987, https://www.nrc.gov/docs/ML0413/ML041350444.pdf.

power plant, while the US company Westinghouse was limited to providing only some components. According to US officials at the time, when the United States concluded a nuclear cooperation agreement with the UAE – the first such agreement with a Middle Eastern country – it had strongly emphasised to Congress that Westinghouse was the frontrunner. South Korea's success was akin to winning the World Cup of the nuclear industry. US government officials reportedly experienced a shocking blow to their pride as a leading nuclear nation, and the incident solidified their commitment to strengthen support for their own nuclear export companies.

Second, South Korea reaffirmed its leading role in the field of nuclear nonproliferation. Following a request from the United States, South Korea hosted the Second Nuclear Security Summit in Seoul in 2012, positioning itself as a nonproliferation leader replacing Russia. This was not merely about hosting an event; South Korea was essentially conveying that it was ready to be a trustworthy partner in preventing nuclear proliferation.

Thirdly, the context was shaped by President Obama's announcement of a vision for a world without nuclear weapons. By promoting this vision, the United States emphasised a strong nonproliferation principle, which served as a backdrop for its efforts to curb the spread of nuclear fuel cycle issues. While this vision was presented as ambitious and idealistic, the contrasting geopolitical reality at the time involved the deepening of complex geopolitical tensions, exemplified by Russia's annexation of Crimea in 2014 and Xi Jinping’s emergence as the leader of China.

ACHIEVEMENTS AND CHALLENGES IN US-ROK NUCLEAR COOPERATION SINCE THE REVISION

The 2015 revision of the US-ROK Agreement for Peaceful Nuclear Cooperation transcended a mere technical restructuring. It set a new framework for a strategic partnership between the two nations. Consequently, continuous efforts were needed to solidify the substance of the revised agreement and create greater opportunities for deeper cooperation. A collaborative approach was necessary, founded on the realisation that seeking new avenues of cooperation with American companies, rooted in mutual trust, would yield more opportunities for both parties. However, the reality of cooperation between the two countries since the 2015 Agreement has experienced twists and turns. In South Korea's case, the joint research on pyroprocessing faced difficulties, reportedly due to the impact of the nuclear phase-out policy and the subsequent government decision to reduce the budget for scientific research. Furthermore, intellectual property rights (IPR) disputes concerning nuclear power plants occurred between the US and ROK industries, though these were resolved through an agreement on principles between the two sides. Efforts continue to leverage the expanded opportunities for US-ROK cooperation to restore mutual trust and create greater shared interests.

Key achievements since the agreement's conclusion

There have been three major positive developments since the agreement's conclusion. Firstly, Korea Hydro & Nuclear Power (KHNP) and Centrus signed a Low-Enriched Uranium (LEU) supply contract. In February 2025, KHNP signed a 10-year contract with Centrus for the supply of LEU for commercial reactors.[5] The ROK anticipates that this partnership will enable the fueling of next-generation technologies, such as Small Modular Reactors (SMRs). Centrus is currently the only US company licensed to produce High-Assay Low-Enriched Uranium (HALEU).

Secondly, the Czech nuclear power project in Dukovany. KHNP's successful bid for the Czech project marked the ROK's entry into the European nuclear market. To ensure the smooth progression of the Czech nuclear project, IPR issues with Westinghouse were resolved, and a contract worth approximately 26 trillion KRW for the Czech Dukovany nuclear power project was signed in June 2025.[6] This achievement came 16 years after the successful bid for the UAE nuclear power plant. This success demonstrates the ROK's capacity to export nuclear power to Europe, following the Middle East, but will require meticulous preparation of concrete strategies to overcome potential future challenges in new markets.

Thirdly, there was progress in the joint research on pyroprocessing technology. Research institutes in both the United States and the ROK have steadily advanced joint research on pyroprocessing technology for spent nuclear fuel management over the past decade, with further research currently underway. Moving forward, it will be necessary to explore further plans on how to make use of the results of this technological research.

PREPARING FOR THE NEXT REVISION OF THE US-ROK AGREEMENT FOR PEACEFUL NUCLEAR COOPERATION

A growing segment of public opinion in South Korea is calling for preparations for the next revision of the Agreement. Considering the new strategic changes and challenges emerging in the rapidly shifting global geopolitical landscape, substantial preparedness is required, and even greater difficulties should be anticipated. The world in 2025 looks fundamentally different from 2015, due to Russia's full-scale invasion of Ukraine and the intensification of strategic competition between China and the United States. Furthermore, Russia's threats to use nuclear weapons in the Ukraine war have undermined the principle of nonproliferation and fostered distrust by attempting to deter comprehensive Western support for Ukraine.

[5] "Centrus Awarded Korean Contract for Enriched Uranium," *World Nuclear News*, February 5, 2025, https://world-nuclear-news.org/articles/centrus-awarded-korean-contract-for-enriched-uranium.
[6] "KHNP Sets out Plans for USD18.6bn Czech Nuclear Project," New Nuclear, *World Nuclear News*, June 5, 2025, https://world-nuclear-news.org/articles/khnp-sets-out-plans-for-usd186bn-czech-nuclear-project.

On the other hand, Western sanctions following Russia's war in Ukraine have created a global demand for securing enriched uranium. The United States is currently accelerating efforts, including the introduction of funding bills through Congress to boost its own production facilities and increasing the production capacity of European enrichment companies. As a nation operating numerous nuclear power plants, it has become essential for South Korea to develop sophisticated mechanisms to ensure a stable supply of nuclear fuel.

President Trump's executive order on nuclear revival

On May 23, 2025, US President Donald Trump issued an executive order to revive nuclear power for the sake of energy independence. The United States urgently needed realistic solutions to address the anticipated surge in electricity demand stemming from facilities related to semiconductors, artificial intelligence, and data centers that typically consume 50-100 MW. Consequently, the necessity to expand power generation infrastructure in the United States has led to the accelerated construction of both large and small and medium-sized nuclear power plants. This is being treated as an urgent task, particularly given the threat to manufacturing and national security posed by China's extensive nuclear expansion.

Accordingly, President Trump's Executive Order on Nuclear Revival contains comprehensive measures aimed at the complete restructuring of the US nuclear industry.[7] Specifically, it first mandated the creation of a comprehensive report on strengthening the domestic nuclear fuel cycle to revitalise the nuclear industrial base. It also set a concrete goal of constructing 10 large nuclear power plants by 2030, requiring a significant expansion of the specialised nuclear workforce to support this ambition.

In terms of advanced reactor deployment, the order directed the installation and operation of advanced reactors at military bases by 2028 and instructed the US Department of Energy (DOE) to actively deploy and make use of advanced reactor technologies. Simultaneously, it ordered aggressive pursuit of nuclear cooperation agreements with other nations to promote the export of US nuclear power plants.

A particularly noteworthy aspect is the demand for reformative action by the Nuclear Regulatory Commission (NRC). The order aims to drastically accelerate the nuclear plant approval process, requiring completion within 18 months for new reactors and 12 months for existing ones. Through this action, the United States presented the ambitious plan to expand its nuclear generating capacity from 100 GW in 2024 to 400 GW by 2050.

Finally, the order calls for substantial reforms in the DOE's reactor experimentation sector. It demands the easing of regulations on operating experimental reactors, reforming procedures at National Laboratories for reactor testing, and allowing for the establishment

[7] "Reinvigorating the Nuclear Industrial Base," The White House, May 23, 2025, https://www.whitehouse.gov/presidential-actions/2025/05/reinvigorating-the-nuclear-industrial-base/.

of pilot programs outside National Laboratories. Furthermore, it aims to significantly streamline environmental review procedures.

These extraordinary measures are strategically driven not only by the need for the United States to meet rapidly increasing domestic electricity demand but also by the aim to reclaim global nuclear leadership in the face of China's nuclear expansion and Russia's aggressive global nuclear export policy. In line with the intent of this executive order, the US industry is moving swiftly to independently restart its nuclear energy infrastructure as part of a broader effort to revitalise manufacturing and maintain a competitive edge against rival nations. The US administration will need to coordinate with allies like the ROK to effectively implement its nuclear energy strategy, rather than just focusing on reducing defense spending burdens or addressing federal budget deficits. Furthermore, the effectiveness of President Trump’s Nuclear Revival Executive Order hinges on the Trump administration presenting concrete plans to simplify NRC regulations and resolve financial support issues related to nuclear plant deployment and development, in accordance with the order's directives.

RECOMMENDATIONS: NEW OPPORTUNITIES FOR US-ROK NUCLEAR COOPERATION

Immediately upon its inauguration, the current South Korean government has focused on challenges with the Trump administration, such as defense cost-sharing increases and tariff negotiations. Overcoming economic difficulties caused by the shrinking US export market is a major domestic concern. Moving forward, whether the United States and ROK can cooperate to seek innovative solutions to shared nuclear-related problems, leveraging President Trump's nuclear executive order, depends on the policy will of both sides. Based on the US-ROK Agreement for Peaceful Nuclear Cooperation, the South Korean nuclear industry must fundamentally strengthen cooperation in core areas. This requires a strategic approach focused on creating shared national interests for both countries. To increase the US nuclear generating capacity from its current level to 400 GW by 2050, as mandated by President Trump's executive order, the capacity must be expanded by approximately 12 GW annually over the next 25 years. Consequently, US technology development companies with urgent electricity needs, such as Microsoft, are stepping forward to directly produce electricity by acquiring even long-term shut-down plants like the Three Mile Island Nuclear Generating Station.

Nevertheless, if the increase in US domestic generating capacity remains at only 3 GW for the time being, whether the United States seeks solutions for the remaining capacity through international cooperation will become crucial. In accordance with the spirit of the US-ROK Agreement for Peaceful Nuclear Cooperation, and based on its provisions, the two countries can prioritise expanding their strategic partnership starting with three core areas of cooperation.

The first core area is expanded cooperation for nuclear power plant construction. For the US industry to achieve its ambitious goal of expanding nuclear generating capacity, it is vital to successfully forge cooperation that actively makes use of the ROK's accumulated technological expertise and extensive experience. Although the ROK has demonstrated its technical proficiency and project management capabilities through the Barakah NPP project in the UAE and the Dukovany NPP project in the Czech Republic, market penetration in the US energy sector is a different challenge. The possibility of completing construction within the agreed-upon timeframe and budgeted resources could be explored, provided that the United States offers various forms of cooperation to resolve site-related issues during domestic US nuclear plant construction.

The second area is expanded cooperation for a stable supply of nuclear fuel. Global nuclear fuel supply chains are undergoing a fundamental realignment due to Western sanctions against Russia following its invasion of Ukraine. In this situation, the urgent establishment of a systematic cooperation framework between the two countries to ensure a stable supply of nuclear fuel is critical. The 10-year LEU supply contract signed between KHNP and Centrus in February 2025 will serve as an excellent starting point for

this cooperation. Through this contract, if South Korea diversifies its supply sources, such as by importing US-sourced LEU, it can reduce its reliance on Russian-sourced uranium.

The third area to consider is cooperation in developing spent nuclear fuel processing technology. Based on the results of the pyroprocessing joint research that the two countries have steadily advanced over the past 10 years, a foundation can be established to systematically develop various utilisation plans related to spent nuclear fuel processing. This offers the potential to contribute a practical solution to the long-standing challenge of spent nuclear fuel disposal within the nuclear industry, thereby improving public acceptance of nuclear power among local residents.

Cooperation in the nuclear sector, as outlined above, can serve as an opportunity to expand the strategic mutual interests of both nations while securing the industrial leadership of the US-ROK alliance in the global nuclear arena. Amid the intensifying strategic competition between the United States and China, both the United States and Europe are recognising the importance of nuclear power as an essential baseload energy source for decarbonisation and the green transition. By actively strengthening US-ROK cooperation in response to rapid changes in the newly developing energy strategy landscape, it seems that the ROK can expand its industrial capabilities and advance into more fields globally, beyond the items suggested above.

CONCLUSION: DEVELOPMENT OF A RECIPROCAL PARTNERSHIP

Examining the 11th Basic Plan for Long-Term Electricity Supply and Demand,[8] confirmed by the Ministry of Trade, Industry and Energy in February 2025, it designated nuclear energy as a carbon-neutral power source and stipulated the construction of one Small Modular Reactor (SMR) by 2035 and two large-scale nuclear power plants during 2037-38, thereby maintaining nuclear power's proportion of total electricity production at the level of 30 per cent. The Lee Jae Myung administration, which has placed great emphasis on green energy, is legally mandated to review the plan on a biannual basis. Before the next review in 2027, the ROK and the United States will have signed a Memorandum of Understanding (MOU) pledging 200 billion of additional investment into strategic sectors. Taking these developments into account, there is ample room and scope to discuss specific nuclear cooperation proposals that would enable the industrial sectors of the ROK and the United States to achieve desired win-win outcomes to realise strategic collaboration. When the United States steps forward to cooperate with allied partners like the ROK as partners that generate mutually beneficial results, it can strengthen mutual trust and develop practical solutions. The US-ROK Agreement for Peaceful Nuclear Cooperation has evolved into a genuine partnership, moving away from the control and unilateral provisions that characterised the original agreement signed in

[8] "11th Basic Plan for Long-Term Electricity Supply and Demand (제 11 차 전력수급기본계획)," Ministry of Trade, Industry and Energy, February 21, 2025, https://www.korea.kr/briefing/pressReleaseView.do?newsId=156675471.

1974 and persisted for 41 years. It is vital to recall the spirit embedded in the agreement's development: an attempt to translate the complex technical aspects of nuclear activities into diplomatic terms that embody the principle of mutual benefit, thereby fostering a true 'partnership.'

The ROK was able to navigate this challenging journey thanks to the contribution and support of political, diplomatic, industrial, scientific, and expert personnel from both nations who sought to realise this vision at the time. Crucially, they successfully transformed domestic pressures and expectations into a forward-looking promise of US-ROK cooperation, paving the way for the effective operation and development of the collaborative framework inherent in that agreement today. Understanding and implementing the depth and spirit of this achievement is key.

Therefore, we do not have the luxury of merely acting as 'archaeologists of nuclear cooperation,' dusting off forgotten promises ten years after the agreement came into force. To revitalise the latent cooperative relationship, the industry and scientific communities must take action and lead the way under the spirit and vision of the full partnership that has guided them to this day, thereby pulling the political decisionmakers along. The ROK must move beyond the inertia of forgotten, formulaic debates and commit the will and effort necessary to quickly exercise and implement cooperative creativity.

Furthermore, both the United States and the ROK must consider cooperation aimed at global nuclear energy leadership. US-ROK nuclear cooperation can extend beyond the bilateral relationship to encompass broad cooperation with reliable third-party nations. Through nuclear power, both nations can simultaneously address rapidly increasing electricity demand and achieve the benefit of helping the United States, a fossil fuel exporter, avoid an energy dilemma.

In conclusion, the expansion of US-ROK nuclear cooperation will establish a partnership for a clean energy future, not only enhancing the national interests of both countries but also serving as a starting point for building an energy cooperation framework that makes carbon-neutral growth engine globally sustainable. Looking toward an energy future aiming for carbon neutrality, strengthening the US-ROK nuclear cooperation partnership will ensure the continued security and prosperity of both nations and create vast opportunities for a leap forward, enabling us to exert global nuclear energy leadership amid the worldwide strategic competition.

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About the Author

Park Robyug is a distinguished career diplomat and scholar with over three decades of experience in diplomacy and academia. He currently serves as Secretary General of the International Conference of Asian Political Parties (ICAPP). Having joined the Ministry of Foreign Affairs in 1980, he held key positions including Director-General for European Affairs and postings at the Korean embassies in Russia and the United States. He served as Ambassador to Ukraine and Moldova (2008–2011) and Ambassador to Russia (2015–2017), as well as the Chief Negotiator for the Civil Nuclear Cooperation Agreement with the United States (2011–2015) and Ambassador for Energy and Resources.

Following his diplomatic service, Amb. Park continued to contribute to academia as Adjunct Professor at the Korea National Diplomatic Academy and Visiting Professor at Hankuk University of Foreign Studies (2018–2022). Since November 2024, he has been a Visiting Professor at the Institute for Far Eastern Studies, Kyungnam University.

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The Asia-Pacific Leadership Network (APLN) is an independent, not-for-profit organisation and network of over 160 former, serving and emerging political, military, diplomatic and academic leaders from 22 countries across the Asia-Pacific, registered and headquartered in Seoul, South Korea. APLN's work addresses regional defence and security challenges with a particular focus on reducing nuclear weapons risks.

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