



Securing the ROK Nuclear Fuel Cycle: Implications for Southeast Asia

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SECURING THE ROK NUCLEAR FUEL CYCLE: IMPLICATIONS FOR SOUTHEAST ASIA

Alvin Chew

INTRODUCTION

The Republic of Korea (ROK) has been a prominent player in the global nuclear industry. The International Atomic Energy Agency (IAEA) has projected that global nuclear energy capacity will triple to 1000GW by 2050, primarily due to economies balancing the twin challenges of energy security and climate change.¹ Hence, nuclear energy will be ubiquitously deployed as countries embark on their energy transition pathways. As such, ROK is expected to play a leading role as a reliable exporter of nuclear reactors in the future.

The ROK's role in global nuclear power development could be expanded into Southeast Asia. There are currently no operating nuclear power plants (NPP) in Southeast Asia, but the region has recently made tentative moves towards the adoption of nuclear energy. Vietnam updated its 8th Power Development Plan (PDP) to include the deployment of nuclear energy by 2030. In addition to sealing a nuclear deal with Russia, Vietnam has also signed a Memorandum of Understanding (MOU) with the Korea Electric Power Corporation (KEPCO) to lay the groundwork for the bid to build Ninh Thuan Unit 2.² The Philippines, the only country in the region to have a NPP but which never became operational, has engaged Korea Hydro & Nuclear Power (KHNP) to revive its Bataan NPP, which was built in the 1980s by Westinghouse.³ ROK is also cooperating with Indonesia to introduce small modular reactors (SMRs) by 2039.⁴ In 2025, ROK entered into a bilateral Nuclear Cooperation Agreement to help Singapore build capacities to better understand and assess civilian nuclear technologies and nuclear safety.⁵

¹ Energy, Electricity and Nuclear Power Estimates for the period up to 2050, *The International Atomic Energy Agency (IAEA) publication*, 2024, https://www-pub.iaea.org/MTCD/Publications/PDF/RDS-1-44_web.pdf

² Aoife Brennan, 'South Korea joins bid for Vietnam's Ninh Thuan project, Westinghouse Technology licensing deal faces crucible', *The Economy*, 11 February 2026, <https://economy.ac/news/2026/02/202602287967>

³ Korea to assess rehabilitation of Philippine plant, *World Nuclear Association*, 7 October 2024, <https://www.world-nuclear-news.org/articles/korea-to-assess-rehabilitation-of-philippine-plant>.

⁴ Seok-min Oh, 'South Korea, Indonesia sign MOUs on nuclear power, mobility, key minerals', *Yonhap News Agency*, 10 September 2024, <https://en.yna.co.kr/view/AEN20230907007551320>.

⁵ Matthias Ang, 'Singapore and South Korea to cooperate in civilian nuclear technology and defence for new strategic partnership', *Mothership*, 2 November 2025, <https://mothership.sg/2025/11/singapore-south-korea-nuclear-cooperation/>.

ROK's civilian nuclear industry propelled into global prominence when it won the bid in 2009 to build the Barakah NPP in the United Arab Emirates (UAE).⁶ However, despite becoming a nuclear exporter, it does not have full autonomy in the nuclear fuel cycle chain, particularly in enrichment and reprocessing. As such, these limitations will impede ROK's progress to become a successful and vertically integrated supplier in the global nuclear energy market, including in Southeast Asia. Therefore, ROK is negotiating the possibility of indigenous uranium enrichment and spent fuel reprocessing under its nuclear cooperation with the United States.⁷

This policy brief argues that the basis of ROK-Southeast Asia nuclear power cooperation lies in enhanced cooperation on nuclear power between the ROK and US to secure a stable supply chain of enriched uranium that can be subject to IAEA safeguards, while deconflicting such cooperation with the joint ROK-US effort in the military sphere to provide ROK with nuclear-powered attack submarines. At the same time, the ROK should reconsider the necessity of acquiring reprocessing to close the fuel cycle.

THE EVOLUTION OF ROK'S NUCLEAR COOPERATION WITH THE UNITED STATES

Cooperation with the United States has been instrumental for the development of the ROK nuclear sector. Cooperation in nuclear energy between the ROK and the United States dates back to 1956, when the bilateral Nuclear Cooperation Agreement was signed between the two countries to foster strategic partnerships in the peaceful uses of nuclear energy. The cooperation was mainly focused on nuclear research which led to the construction of the *TRIGA Mark II* research reactor that came online in Seoul in 1962.

In 1974, the ROK and the United States entered a new framework of cooperation to expand its scope to include the development of civilian nuclear energy programme. Through Westinghouse, ROK got its first commercial NPP, *Kori 1*, which came online in Busan in 1978. Within a decade, ROK had transformed its initial nuclear programme from one that was reliant on foreign vendors, to an indigenous industry with a secured chain of supply and efficient project delivery. Today, almost 70 percent of its operating Pressurised Water Reactors (PWRs) are designed and built locally, albeit with intellectual rights from Westinghouse.

With its indigenous capabilities centred on light-water reactor technology, it is crucial for its nuclear industry to have access to enrichment. Although the US-ROK nuclear

⁶ South Korea awarded UAE nuclear power contract, *BBC News*, updated 27 December 2009, <http://news.bbc.co.uk/2/hi/8431904.stm>.

⁷ 123 Agreements for Peaceful Cooperation, *National Nuclear Security Administration (NNSA)*, updated Jul 2025, <https://www.energy.gov/nnsa/123-agreements-peaceful-cooperation>.

agreement (termed 123 Agreement)⁸ signed in 1972 and amended in 1974 preceded the US Nuclear Non-Proliferation Act of 1978, the agreement was fairly restrictive in terms of granting US allies their full rights to enrichment and reprocessing in the nuclear fuel cycle.⁹ Taking into account ROK's status as an emerging player in the global energy market, a successor 123 agreement was signed in 2015 that would enable ROK to seek 'advance consent' through an established high-level bilateral commission on issues of uranium enrichment as well as spent fuel management.¹⁰ In 2025, US President Donald Trump visited ROK President Lee Jae Myung and reaffirmed support for US-ROK expanded nuclear cooperation in three areas: NPPs construction, stable supply of nuclear fuel, and the development of spent nuclear fuel processing technology.¹¹

LEADING PLAYER IN THE GLOBAL NUCLEAR MARKET

Nuclear energy forms 30 percent of ROK's electricity mix. It currently operates a fleet of 26 reactors, generating about 26GW of electricity.¹² The 3 Pressurised Heavy Water Reactors (PHWRs) will be phased out and replaced with new PWRs under construction, thereby maintaining a minimum of 30 percent proportion of nuclear energy in its electricity grid capacity by 2030. In its finalised 11th Basic Plan for Long-Term Electricity Supply and Demand, the nation will also develop small modular reactor (SMRs) that will raise the county's share of nuclear power to 35 percent by 2038.¹³

The ROK's expansion of its nuclear industry is not confined to meeting domestic demands. The energy policies under former President Yoon's administration targeted an increase in the export of ROK's nuclear technology.¹⁴ Internationally, ROK has already achieved a significant milestone by building *APR-1400* reactors in the UAE. In Europe, the Czech Republic has decided to partner ROK to build *APR-1000* nuclear reactors at the Dukovany site. Bulgaria, Finland and Poland are some the other European countries

⁸ 123 Agreements for Peaceful Cooperation.

⁹ Although ROK had signed the NPT in 1968, it did not ratify it until 1975, when it became much clearer that the US will not allow ROK full rights to pursue enrichment and reprocessing under the US-ROK agreement.

¹⁰ US-Republic of Korea Agreement for Peaceful Nuclear Cooperation, *US Department of State*, September 2015. <https://www.state.gov/bureau-of-international-security-and-nonproliferation/releases/2025/01/u-s-republic-of-korea-r-o-k-agreement-for-peaceful-nuclear-cooperation>.

¹¹ Robyug Park, 'Expanding US-ROK Nuclear Cooperation', Asia Pacific Leadership Network (APLN) Policy Brief, December 2025. https://cms.apln.network/wp-content/uploads/2025/12/Park_Dec-2025.pdf

¹² Nuclear Power in South Korea, *World Nuclear Association*, updated February 2026, <https://world-nuclear.org/information-library/country-profiles/countries-o-s/south-korea>.

¹³ South Korea confirms need for nuclear reactors, *World Nuclear News*, 21 February 2025. <https://www.world-nuclear-news.org/articles/south-korea-confirms-need-for-new-reactors>

¹⁴ Yoon vows full-fledged support for nuclear power industry, *The Korea Times*, 30 October 2024, <https://www.koreatimes.co.kr/southkorea/politics/20241030/south-korea-president-yoon-commits-to-strong-support-for-nuclear-power-industry>

who could be partnering with ROK to expand their nuclear ambitions. In Asia, newcomer countries such as Vietnam, Philippines and Indonesia are engaging ROK as a potential supplier of reactors.

Yet again, the growth in nuclear capacity is not limited to large conventional NPPs. The recent push by big-tech firms, such as Amazon and Google, to adopt clean baseload power for their data centres has driven up the demand for SMRs, which offer more flexibility in terms of deployment.¹⁵ In 2026, ROK passed its SMR Special Act during one of its National Assembly's plenary sessions,¹⁶ which allows the construction of SMRs to meet its surging power demand from Artificial Intelligence (AI) and data centres.

The SMR Special Act will carry the momentum for the ROK's indigenous developed SMRs, the *SMART100* designed by the Korean Atomic Energy Research Institute (KAERI) as well as the *i-SMR* developed by KHNP, to attain full commercialisation by 2030. The city of Gyeongju aims to become ROK's first 'SMR Smart Net-Zero City' by hosting and promoting the deployment of 4 *i-SMR* modules by 2035.¹⁷ KHNP has also signed MOUs with Jordan as well as Sweden to strengthen the outreach of its SMRs to the Middle East and the Scandinavian regions respectively.

In Southeast Asia, the prospect of SMRs provides newcomer countries in the region with a good entry point into nuclear energy. SMRs will incur minimal power disruptions to these countries that have relatively smaller grid capacities. Hence, SMRs can be a viable option to replace aging coal or gas-fired plants as nuclear energy can complement renewables in the concerted effort to decarbonise the regional economies. The 'SMR Smart Net-Zero City' will be an attractive project that will resonate well with several countries in Southeast Asia, adding resilience to future electricity grids constituted mostly of renewable energy.

SECURITY OF ENRICHED URANIUM SUPPLY

In the next decade, it is quite likely that ROK will be a significant player in the nuclear market. Newcomer countries, particularly in Southeast Asia, will be keen in partnering with ROK to embark on building their nuclear capacities. In terms of technology, Korean designed reactors have a good operating track record. More importantly, the meteoric rise of ROK's nuclear industry owes much to the eco-system that its

¹⁵ Todd Barron, 'Big Tech's Nuclear Bet: Key Small Modular Reactors for Cloud Power', *World Wide Technology*, 18 November 2025, <https://www.wwt.com/blog/big-techs-nuclear-bet-key-small-modular-reactors-for-cloud-power>.

¹⁶ Hyung-im Jang, 'South Korea passes SMR Special Law to accelerate nuclear development', *Seoul Economic Daily*, 13 February 2026, <https://en.sedaily.com/technology/2026/02/13/south-korea-passes-smr-special-law-to-accelerate-nuclear>

¹⁷ Daeok Choi, 'Gyeongju ramps up bid to host first i-SMR', *The Asia Business Daily*, 13 February 2026, <https://www.asiae.co.kr/en/article/2026021812244486481>.

government has built up – a strong foundation in the educational and research sector that will eventually provide support to sustain its nuclear industry.

However, ROK is dependent on Russia for its enriched uranium, which could serve as a chokepoint for ROK to achieve full autonomy in the fuel fabrication process. Russia's control of more than 40 percent of the global supply of enriched uranium has caused energy security challenges.¹⁸ Several countries, including the United States, are trying to reduce their dependence on Russian nuclear fuels since the inception of the Russia-Ukraine war. As the demand for nuclear energy increases, it is imperative to diversify the supply of enriched uranium to other countries as a hedge against Russia's market dominance.

The ROK is ranked fifth in terms of civilian nuclear capacity installed (after the United States, China, France, Russia) but unlike other leading players in the nuclear power sector, it does not have its own uranium enrichment services in the country.¹⁹ The lack of indigenous enrichment facility poses a fuel security problem as PWRs require uranium fuels to be enriched from 3 to 5 percent purity. Therefore, it is essential for ROK to have its own enriched uranium if it is to maintain nuclear at 30 percent or above of its electricity mix.

The insecurity of enriched uranium supply is further compounded when ROK promotes the export of its PWRs. While a country can forge nuclear cooperation with ROK, the lingering factor of future enriched uranium supply will nevertheless weigh in when ROK bids for a nuclear project. In the case of the UAE, it has to keep to its 123 Agreement of not pursuing enrichment and thus has to secure its enriched uranium from international markets like Russia or France. Newcomer countries in Southeast Asia will likely pivot their decisions towards nuclear suppliers with a stable supply chain. Therefore, if ROK has the assurance of enriched uranium supply, it will be in a favourable position to win bids for NPP projects in the region.

SPENT FUEL MANAGEMENT

After more than 40 years of nuclear operations, the spent fuel from the NPPs in ROK is still being stored in their respective wet spent fuel pools. Spent fuel is not stored in dry-cask casings because ROK is working with the United States to explore pyroprocessing techniques to close the nuclear fuel cycle. While reprocessing of spent fuel will reduce

¹⁸ Muflih Hidayat, 'Reducing global dependence on Russian uranium: Challenges and Solutions', *Discovery Alert*, 29 September 2025, <https://discoveryalert.com.au/reducing-dependence-russian-uranium-2025-geopolitical-strategies/>.

¹⁹ Nuclear Share of Electricity Generation, *International Energy Atomic Agency (IAEA) PRIS*, updated 2024, <https://pris.iaea.org/pris/worldstatistics/nuclearshareofelectricitygeneration.aspx>.

the volume of nuclear waste, it is deemed to be uneconomical to pursue a closed fuel cycle because natural uranium is readily available.

In 2006, a report by the Boston Consulting Group assessed that a closed fuel cycle loop is less economical than an open fuel cycle, which led to the United States to do away with reprocessing for its civilian NPPs.²⁰ However, the US Nuclear Regulatory Commission (USNRC) recently awarded licence to Terrapower for the construction of Natrium, a sodium-cooled fast reactor with an internal high burn-up rate that is designed to reduce waste significantly.²¹ Therefore, ROK can work in furthering the pyroprocessing of spent fuels from advanced reactors, such as the Natrium, with high burn-up rates.

Still, ROK will argue that reprocessing in general will strengthen the security of the nuclear fuel supply because although natural uranium is aplenty, it does not have access to enriched uranium. If spent fuels from its LWRs are reprocessed using the PUREX process, the Mixed Oxide (MOX) fuel derived from the process can be used directly in LWRs. Furthermore, if ROK is allowed to reprocess its spent fuels, it can have the bandwidth to help reduce the volume of nuclear wastes for its clients. The options of partial or full spent fuel take back, offered by countries such as France and Russia, will be a very attractive proposition for newcomer countries in Southeast Asia to help manage nuclear waste in the region.

STRENGTHENING THE NPT

The ROK's erstwhile aspirations of developing nuclear weapons were first discovered in the 1975 under the administration of President Park Chung Hee.²² Even though the ROK signed onto the Non-Proliferation Treaty (NPT)²³ later that year, it proceeded even after Park's assassination in 1979 to experiment with extracting plutonium through reprocessing that could eventually be used in developing a nuclear weapon. It was also disclosed that in 2000, Korean scientists managed to enrich uranium via the laser

²⁰ Economic assessment of used nuclear fuel management in the United States, *The Boston Consulting Group report*, July 2006, https://web-assets.bcg.com/img-src/BCG_Economic_Assessment_of_Used_Nuclear_Fuel_Management_in_the_US_Jul_06_tcm9-132990.pdf.

²¹ Sonal C. Patel, 'A Historic First: NRC clears Terrapower's Natrium nuclear reactor for construction', *Power Magazine*, 4 March 2026, <https://www.powermag.com/a-historic-first-nrc-clears-terrapowers-natrium-nuclear-reactor-for-construction/>.

²² Peter Hayes and Chung-in Moon, 'Park Chung Hee, the CIA, and the Bomb', *NAPSNet Special Reports*, 23 September 2011, <https://nautilus.org/napsnet/napsnet-special-reports/park-chung-hee-the-cia-and-the-bomb/>.

²³ Treaty on the Non-Proliferation of Nuclear Weapons, *United Nations Office for Disarmament (UNODA) Database*, July 1968, <https://treaties.unoda.org/t/npt>.

isotope separation technique and failed to report the experiment to the IAEA.²⁴ At present, scepticism still revolves in granting the ROK full rights to enrichment and reprocessing.

On the other hand, despite these missteps, the ROK has also demonstrated that it intends to uphold its commitments to the NPT. It has acquired some degree of nuclear latency, but it has not moved further down the path of weaponisation. In fact, as this author has argued elsewhere, the treaty will become more robust if all the signatories possess the technical knowledge and materials to develop a bomb but altruistically decide not to do so.²⁵ Parties to the NPT willingly comply with the prescribed IAEA safeguard protocols in carrying out enrichment or reprocessing activities. This willing compliance strengthens the norm of peaceful nuclear use.

There are sufficient rationales for the ROK to not leave the NPT to develop nuclear weapons. Firstly, ROK will lose its US nuclear umbrella if it has its own nuclear weapons, thereby leading to a weakening of US security presence in the Korean Peninsula. Secondly, ROK will learn from its northern counterpart that it will be too costly to sacrifice its already developed economy and face global sanction if it leaves the NPT. Evidently, losing its economic advantage (ranked 13th largest in the world) due to international sanctions will affect its economic pillars of growth. Thirdly, leaving the 190 member NPT will also expel ROK from export control regimes such as the Nuclear Suppliers Group (NSG). Its nuclear industry, which has achieved export status, will be isolated globally, and quickly falter. Instead of harbouring intentions to develop nuclear weapons, ROK can play an exemplary role to remain in the NPT and leverages on its status of nuclear latency to promote the preservation of the treaty.

POTENTIAL FOR ROK-SOUTHEAST ASIA NUCLEAR POWER COOPERATION

The basis of ROK-Southeast Asia nuclear power cooperation lies in enhanced cooperation on nuclear power between the ROK and US to secure a stable supply chain of enriched uranium that can be subject to IAEA safeguards, while deconflicting such cooperation with the joint ROK-US effort in the military sphere to provide South Korea with nuclear-powered attack submarines. At the same time, the ROK should reconsider the necessity of acquiring reprocessing to close the fuel cycle. These recommendations are detailed below:

²⁴ Jungmin Kang, Tatsujiro Suzuki & Peter Hayes, 'South Korea's nuclear mis-adventures', *Nautilus Institute Special Report*, 10 September 2004, <https://nautilus.org/napsnet/napsnet-special-reports/south-koreas-nuclear-mis-adventures/>.

²⁵ Alvin Chew, 'Nuclear latency is not nuclear proliferation', *RSIS Commentary*, No. 14, 26 January 2026. <https://rsis.edu.sg/wp-content/uploads/2026/01/CO26014.pdf>.

Synergise ROK-US efforts to expand global market share: The United States was integral in helping the ROK develop its civilian nuclear expertise and industry, and at present, the United States will benefit from ROK's rapid rise to prominence in the international nuclear community.²⁶ As such, both countries should synergise their efforts to capture a larger share of the global nuclear market. Both the United States and ROK are second and fifth largest trading partners for the region respectively.²⁷ In the nuclear context, the region is declared a nuclear weapon-free zone under the 1995 Southeast Asia Nuclear Weapon-Free Zone (SEANWFZ) Treaty²⁸ and therefore abides closely to the guiding principles of the NPT. The regional perspective of civilian nuclear policies is deeply entrenched in the SEANWFZ Treaty. Hence, to gain access to the Southeast Asian market, the partnership between the ROK and the United States should result in the safe, economical and reliable supply of nuclear technologies with safeguard mechanisms that prevent the diversion of fissile materials to weaponisation.

De-conflict US-ROK civilian and military nuclear cooperation: Given the unequal status of both countries in the NPT, it is recommended to de-conflict nuclear cooperation between the civilian and military spheres. Domestically, ROK should emphasise the importance of non-proliferation and reinforce its intention to pursue nuclear cooperation for peaceful applications. This can be manifested in government speeches and national policies underlining that the country has no plan to acquire nuclear weapons. In addition, efforts can be dedicated to promoting the third pillar of the NPT – Civilian Application of Nuclear Energy. Such efforts will draw the US-ROK 123 Agreement to focus on the peaceful uses of nuclear energy while at the same time, preserving the guiding principles of non-proliferation. Cooperation in military applications, such as the propulsion of submarines, should be dealt with distinctly in another separate framework under the Ministry of National Defence (MND). As such, Southeast Asia will be confident that any development of a nuclear programme in partnership with the US-ROK consortium will be solely for peaceful applications.

Ensure stable fuel supply through ROK-US partnership: In terms of fuel supply, it will not be favourable for newcomers in Southeast Asia to deploy US or ROK reactors when both countries need to import enriched uranium from Russia. The US Centrus Energy Corp is building an enrichment facility in Ohio, US, that when operational, can produce High Assay Low Enriched Uranium (HALEU) fuel for SMRs and advanced

²⁶ Henry Haggard, 'How the US and South Korea can power the globe with nuclear energy', *Korea Economic Institute of America (KEIA), The Peninsula*, 28 April 2025. <https://keia.org/the-peninsula/how-the-u-s-and-south-korea-can-power-the-globe-with-nuclear-energy/>

²⁷ ASEAN Statistical Yearbook 2023, *ASEAN Secretariat publication*, Vol.19, December 2023, <https://www.aseanstats.org/wp-content/uploads/2023/12/ASYB-2023-v1.pdf>.

²⁸ Treaty on the Southeast Asia Nuclear Weapon-Free Zone, *Association of Southeast Asian Nations (ASEAN) Statement*, May 2012, <https://asean.org/treaty-on-the-southeast-asia-nuclear-weapon-free-zone/>.

reactors and is therefore expected to ease the global supply of enriched uranium.²⁹ Investments from KHNP into Centrus Energy will solidify the consortium partnership in the aspects of fuel supply. Furthermore, the sensitive process of enrichment is being carried out under the control of the United States.³⁰

Centrus Energy should also consider a franchise of its enrichment facility in the ROK which can be subjected to international safeguards by the IAEA. Similar to enrichment facilities like URANO and URENCO which serve the European markets, it will be logistically more secure and efficient to operate an enrichment facility in ROK to meet potential demand in Asia. Unlike the *APR-1400* whose intellectual property is attributed to Westinghouse, the *i-SMR* is wholly designed and developed by ROK, which technically implies that KHNP is entitled to enrich and fabricate its own fuel. However, ROK should not independently pursue enrichment on its own so as not to let its competitors cast aspersions on its reputable peaceful nuclear programme.

Reconsider the need to close the fuel cycle: As for reprocessing, ROK should not jump into the approach of closing the fuel cycle. Unless specific safeguard protocols are developed with the IAEA for reprocessing, ROK should explore other forms of managing its spent fuels. It is advisable to conduct a holistic study of feasible options to manage its spent fuels such as deep geological repositories, taking into consideration ROK's national interests and objectives on nuclear waste management. The basis of reprocessing spent fuel should be assessed based on whether it is economically viable, but ultimately, ROK should explore working with the United States and its allied partners to better manage the security of spent fuels and nuclear waste.

²⁹ Centrus expands uranium enrichment capacity, *Nuclear Engineering International*, 26 November 2024. <https://www.neimagazine.com/news/centrus-expands-uranium-enrichment-capacity/?cf-view>

³⁰ Mi-ha Jeong, 'KHNP expands uranium supply agreement with Centrus for nuclear collaboration', Chosun Biz, August 2025, <https://biz.chosun.com/en/en-industry/2025/08/26/ZPTKENS45D3TBTPIOKZOKZMOU/>.

CONCLUSION

Nuclear power will play a significant role in the transformation of Southeast Asian energy landscape. Regional economies will not only benefit individually in the energy transition, but energy security and grid resilience will also be enhanced in the region if nuclear energy can be added to the greening of the ASEAN Power Grid connection.³¹

As the region is a newcomer to nuclear energy, it needs to work with advanced nuclear countries for the safe, secure and economical deployment of nuclear energy. Securing the nuclear market in Southeast Asia will be a strategic imperative, but the region has options to choose from other global suppliers of nuclear technology.

ROK will need to compete with Russia, France and China, which all have their independent supplies of enriched uranium as well as spent fuels take-back or reprocessing options. Instead of independently developing its own capacities in these areas, the US-ROK cooperation is a win-win partnership that allows ROK to invest fiscally in the levelling up of the US nuclear power industry. ROK should ride on its nuclear cooperation with the United States to form a consortium to vie for the market in Southeast Asia. Such cooperation could also allow for maximum transparency and scrutiny to alleviate concerns about ROK's nuclear proliferation and provide the maximum amount of reassurance to the international community.

³¹ ASEAN Power Grid Updates 2025, *ASEAN Centre for Energy (ACE) publication*, November 2025, https://storage.googleapis.com/aceweb-bucket-261225/files/publication/1766846413_ASEAN-Power-Grid-Updates-2025_report.pdf.

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