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Civil Nuclear Power – a New Dimension in China-Russia Strategic Cooperation

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Introduction

On May 19, 2021, Chinese President Xi Jinping and his Russian counterpart Vladimir Putin attended a virtual event celebrating the commencement of the biggest nuclear energy project in China. This marked the first day of construction of units 7 and 8 of the Tianwan Nuclear Power Plant and units 3 and 4 of the Xudapu Nuclear Power Plant in China, all of which will be employing the third-generation VVER-1200 reactors that are developed by Russia.¹ These developments stem from the agreements signed between the two countries in 2018, which also includes cooperation in the CFR-600 fast reactor pilot project and the supply of Radioisotope Thermoelectric Generator (RITEG) parts for China's lunar exploration program. The total value of the contract is estimated to be over USD 3 billion² making it one of the biggest cooperation agreements between the two countries. The reactors are expected to have a combined capacity of 37.6 billion kilowatt-hours annually at completion and is expected to contribute significantly in bringing down levels of Co2 emissions in China. However, this has raised questions if the cooperation agreement aim at just sustainable development and advancement in the field of nuclear R&D or if these developments also indicate geopolitical convergences at the backdrop of sanctions being imposed on China and Russia by the US and the European Union.

Challenging the West?

China and Russia appear to be firming their close ties as the US and the EU have imposed coordinated sanctions and restrictions on the two countries accusing them of human rights violations. This includes the mistreatment of the Uighur community in China's Xinjiang region and the poisoning of the Kremlin critic Alexei Navalny by Russian entities.³ The foreign ministers of China and Russia met soon after the sanctions were imposed, to condemn the West's actions and accused the US of political interference. China and Russia have also been emphasising on the strategic significance of this cooperation with the Global Times, a paper run by the Communist Part of China quoting Yang Jin, an expert working at the Chinese Academy of Social Sciences who stated "It is even more strategic than military cooperation".⁴ Yang further stated that "the restrictions launched by the US and its allies against China and Russia were doomed to fail. China and Russia will achieve more developments with or without Western participation".⁵ The China-Russia partnership is also perceived to be an attempt at setting a new framework and increasing their influence in global nuclear governance. In his speech during the ceremony last week, President Xi put forth a three-point proposal, one of which called for a strategic partnership to promote coordinated development for the governance of the global energy industry.⁶

Creating Spheres of Energy Dependencies?

There are concerns that Chinese and Russian dominance of the civil nuclear industry will result in creation of energy dependencies since a majority of the reactors being exported today come from these two countries. A report by a US think tank states that almost two-thirds of the new reactors being constructed globally are using designs from China and Russia.⁷ While China's nuclear industry is relatively young, it has made significant strides in the past few years. China has signed several agreements (or is in the process of signing MoUs) with countries such as Argentina, Bangladesh, Egypt, Kenya, Pakistan, Sudan, South Africa and Turkey among others. They have also won stakes in the Hinkley Point C project in the United Kingdom. In a meeting of China's political advisory body, a senior nuclear industry official stated that China could build at the least thirty overseas nuclear reactors through its Belt and Road Project by 2030.⁸

Russia, which has been a prominent player in the nuclear industry is continuing to extend its influence in the field claiming to have \$133 billion in foreign orders.⁹ Recently, Russia signed an agreement with the African Commission on Nuclear Energy to cooperate on nuclear projects.¹⁰

These developments are in stark contrast to the US and European firms which once held prominence in nuclear exports but are now facing problems of financial challenges and technological stagnation.¹¹ To counter the growing Chinese and Russian influence in the nuclear industry, former US President Donald Trump had called for the need to revitalise the once influential US nuclear industry¹². The US's Atoms for Peace programme initiated in the 1950s had facilitated the American nuclear industry to sell reactors to more than 50 countries globally.¹³ This not only boosted US ties with other countries but also paved way for it to become a global leader in nuclear technology, which allowed the United States to influence the formation of global norms in the field of nuclear power.

Conclusion

Amidst growing China-Russia nuclear energy cooperation, several questions persist. First, what would China and Russia's duopoly in the nuclear energy market mean for the nuclear industry? Will the two countries flout rules and establish their own conventions? Will nuclear trade become more lax, considering China's larger interest in commerce than in safety? This concern stems from the China-Pakistan energy nexus that has been perceived by the international community as a challenge to the existing non-proliferation systems, specifically the Nuclear Suppliers Group (NSG).

Questions of how the new China-Russia energy cooperation will pan out also persist considering that the two countries were competing for market share. Will this power dynamics change from competition to cooperation, with a shift in focus to dominate the energy market

together? Although, this appears to be unlikely in the long run, it would however depend on a number of factors, principally the way the West reacts to these developments.

Notes

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³ “EU, US impose sanctions on Russia over Alexei Navalny poisoning”. *DW.com*. March 02, 2021. <https://www.dw.com/en/eu-us-impose-sanctions-on-russia-over-alexei-navalny-poisoning/a-56747284>. Accessed on May 24, 2021.

⁴ Chu Daye and Yang Sheng. “Xi, Putin witness key nuclear energy project groundbreaking; cooperation has strategic significance”. *Globaltimes*. May 19, 2021. <https://www.globaltimes.cn/page/202105/1223955.shtml>. Accessed on May 24, 2021.

⁵ Ibid.

⁶ Ibid.

⁷ Chinese, Russian Nuclear Exports Threaten US Leadership. *Nei.org*. April 05, 2018. <https://www.nei.org/news/2018/china-russia-us-nuclear-leadership>. Accessed on May 24, 2021.

⁸ “China could build 30 'Belt and Road' nuclear reactors by 2030: official”, *Reuters*, June 20, 2019, <https://www.reuters.com/article/us-china-nuclearpower/china-could-build-30-belt-and-road-nuclear-reactors-by-2030-official-idUSKCN1TL0HZ>, accessed on June 06, 2020.

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¹⁰ “ROSATOM and the African Commission on Nuclear Energy Will Develop Cooperation in the Field of the Use of Nuclear Energy for Peaceful Purposes”. *Rosatom.ru*. September 22, 2020. <https://rosatom.ru/en/press-centre/news/rosatom-and-the-african-commission-on-nuclear-energy-will-develop-cooperation-in-the-field-of-the-us/>. Accessed on May 24, 2021.

¹¹ Manpreet Sethi, “The Asian Nuclear Power Landscape: A Contemporary Examination”, in *Security in Times of Uncertainty*. Asian strategic Review 2017, (Pentagon Press, New Delhi: 2018) https://idsa.in/system/files/book/book_ASR2017.pdf

¹² Tom DiChristopher. “The US is losing the nuclear energy export race to China and Russia. Here’s the Trump team’s plan to turn the tide”. *CNBC*. March 21, 2021. <https://www.cnbc.com/2019/03/21/trump-aims-to-beat-china-and-russia-in-nuclear-energy-export-race.html>. Accessed on May 24, 2021.

¹³ Mark Hibbs, “Other Issues Critical to Chinese Decision-making”, *The Future of Nuclear Power in China*, Carnegie Endowment for International Peace, May 14, 2018. <https://carnegieendowment.org/2018/05/14/other-issues-critical-to-chinese-decisionmaking-pub-76316>, accessed on June 02, 2020.