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Nuclear Power Corporation of India Limited's Request For Proposal arrives without Necessary Changes in the Atomic Energy and Electricity Act.

In a significant move towards diversifying India's energy mix, the finance minister in July 2024 announced a major initiative to set up Bharat Small Reactors ("BSRs"). The statement detailed an ambitious plan to partner with the private sector to set up BSRs and conduct research and development on small modular reactors and newer nuclear technologies.¹ Furthermore, the finance minister also announced a target of 100 GW of nuclear power by 2047 in the FY 2025-26 Budget along with the development of five indigenously designed Small Modular Reactors ("SMRs"), to be operationalised by 2033.²

This strategic shift aims to make nuclear energy a substantial component of India's power generation portfolio and is a departure from traditional large-scale nuclear plants, offering more flexible and cost-effective nuclear power solutions. There are rare but extremely successful examples to cite for this solution to meet the country's energy needs. France meets 63% of its energy needs from its 57 Nuclear Power plants, generating nearly 63000 MWe of power.³ This makes nuclear power the largest part of the 92% power generated from low carbon sources in France.⁴

In this context, the Ministry of Science and Technology set out the government's vision for BSRs as part of its nuclear power programme in a written answer to the Lok Sabha in December, 2024.⁵ Consequently, Nuclear Power Corporation of India Limited ("NPCIL") invited Request for Proposals ("RfP") from private Indian industries for setting up 220 MW BSRs for captive use.⁶

While this initiative signals India's commitment to innovative energy solutions; it is pertinent to analyse the critical issues such as that of regulatory compliance among others, which stand as barriers to an efficient participation in the process for the industries intending to set up the BSR ("USER"). For a smooth private participation, it is vital to delve deeper into the nuances of the RfP issued by NPCIL for the ambitious BSRs.

¹ Ministry of Finance, "Highlights of the Union Budget 2024-25", Press Information Bureau, 23.07.2024 <https://pib.gov.in/PressReleaseSelfframePage.aspx?PRID=2035609#:~:text=The%20highlights%20of%20the%20budget%20are%20as%20follows%3A,a%20deficit%20below%204.5%20per%20cent%20next%20year>

² Ministry of Finance, "Highlights of the Union Budget 2025-26", Press Information Bureau, 01.02.2025 <https://pib.gov.in/PressReleasePage.aspx?PRID=2098353>

³ International Atomic Energy Agency, Country Nuclear Power Profiles, France <https://cnpp.iaea.org/public/countries/FR/profile/highlights>

⁴ Ibid

⁵ Ministry of Science and Technology, "Dr. Jitendra Singh calls for aligning all the government departments as well as the Centre and State efforts with a "whole of government" and "whole of science" approach to realise Prime Minister Sh. Narendra Modi's to transform into "Viksit Bharat" by 2047", Press Information Bureau, 15th Dec 2024 <https://pib.gov.in/PressReleasePage.aspx?PRID=2084607>

⁶ Nuclear Power Corporation of India Limited, Tenders, Request for Proposals https://www.npcil.nic.in/content/1012_1_RequestforProposal.aspx

In this context, there are significant conflicts between the proposed RfP and the existing regulatory regime. For example, clause 1 of the RfP states that the USER will have rights over the entire net electricity output from the Nuclear Power Plant (“NPP”). While operational control and assets of the NPP will be transferred to NPCIL, the USER will retain “beneficial ownership” of the net electricity generated.

However, more clarity on the nature of the beneficial ownership that would be retained by the individual needs to be provided, specially on the following two issues: whether the transfer of NPP assets to NPCIL would involve (a) complete transfer of the NPP assets to NPCIL with the USER retaining a contractual right to the exclusive use of the electricity generated; or (b) only hand over of possession of the NPP assets to NPCIL with the USER retaining ownership of the NPP assets.

Notably, as per the Electricity Act, 2003 (the “EA”) and the rules and regulations issued thereunder, the USER is required to own more than 26% of the captive generation plant in order for it to qualify as a captive generation plant for the purposes of the EA. However, as per the scheme proposed, it appears that the ownership of the NPP would vest with NPCIL for the life of the NPP. Therefore, an amendment would be required to the EA in order for the NPP to be treated as a captive generation plant.

Furthermore, Clause (iii) of the RfP states that the USER is expected to use the power for meeting its own captive power requirements. However, in case it wishes to sell the electricity to other customers, the tariff, therefore, will be determined by the Department of Atomic Energy (“DAE”) as per Section 22 of Atomic Energy Act, 1962 (“AE Act”). Such sale of power to other entities will also be subject to other applicable State and Central Government regulations.

On the one hand, the present clause as well as clause (ii)(a) of Annexure-3 of the RfP contemplate the entire power generated to be used for the USER’s own requirements. On the other hand, the present The RfP also offers a promising framework for private industries to play a vital role in participating in the process of advancing India’s clean energy goals. However, this new step comes with substantial financial and regulatory commitments that set significant challenges for the USER. Clause (v) of the RfP states that the USER will construct the project under NPCIL’s supervision and control. Upon completion, the asset will be transferred to NPCIL for operation and the USER will bear all tax liabilities, ensuring NPCIL incurs no tax costs. Moreover, if any tax is imposed by authorities, the USER will reimburse NPCIL. clause also envisages a situation where the user may wish to sell the electricity produced to other customers and that the tariff thereof will be determined by the DAE. The RfP contradicts itself on the question of whether the USER is permitted to sell the electricity produced to other customers despite the requirement of captive usage of the electricity.

In light of the potential issues highlighted, it is necessary to consider the need for revision in RfP and bringing into force amendments to the existing regulatory regime, in order to ensure greater feasibility and inclusivity for private participants.

It is relevant to note that the transfer of NPP assets without consideration to NPCIL would attract tax liabilities under Section 56 of the Income Tax Act, 1961 as well as GST. These taxes cumulatively would be a substantial amount and seem to be proposed to be borne by the USER. Hence, there is a lack of clarity if the Central Government provide any exemption to the applicability of such taxes on such transfer or if any steps are being taken for such exemptions.

Further, banks and financial institutions funding the project for the USER would need to create a charge on the NPP assets. However, due to the operation of the AE Act along with the provisions of the present RfP, it would not be possible for banks or financial institutions to enforce any charge on the NPP assets. This may restrict the ability of the USER to finance the NPP project.

Most importantly, amendments to the EA and AE Act will be necessary to facilitate private investment while ensuring compliance. During the FY 2025-26 Budget, assurances were made that amendments to the AE Act and the Civil Liability for Nuclear Damage Act, 2011 ("CLNDA") will be introduced to facilitate private sector participation.⁷

There is an obvious risk to investors who may engage in this public-private partnership without necessary regulatory feasibility. Given the pending challenge to the constitutionality of CLNDA as it stands⁸, and the scrutiny that any changes in the legislation of nuclear power would necessarily invite – there is an urgent necessity for these amendments to competently address these concerns.

⁷ *Supra 2*

⁸ *Common Cause V. Union Of India W.P (C) 464 of 2011*