

BUSINESS OPPORTUNITIES FOR SUPPLIERS: LOCALIZATION OF NUCLEAR SUPPLY CHAIN

Dr. Vijay Sazawal 6 April 2021

- The new mood of the country was set as far back as in September 2014, when the PM announced the "Make in India" Campaign. In May 2017, India announced plans to build 10 new indigenous reactors
- In May 2020, PM Modi announced a new Rs. 20 lakh Crore Special Economic package, "*Atmanirbhar Bharat Abhiyan (ABA)*," putting emphasis on self-reliance with a focus on strengthening local manufacturing and on building robust supply chains. Taken together with the Make in India campaign of 2014 which emphasized domestic industrial production and the new ABA program with emphasizes on growing exports, the business climate for indigenization of the nuclear supply chain is better than ever before
- But let me not underestimate the challenges that still lie ahead. Of the three foreign reactor suppliers who have been in discussions with the NPCIL, only one is moving ahead successfully. I am looking forward to the talk by my colleague from Rusatom Overseas. I am particularly keen to know how far they have invested in localization, given that Rosatom had earlier established a tentative target of 40% localization by the time construction begins for Kudankulam 5&6
- I am also looking forward to hear from my colleague from EDF because Jaitapur is a huge opportunity for them as well as for India. NPCIL has made the investment in the site and conducted preliminary site studies with Areva. So, it currently represents a non-performing asset (NPA) for NPCIL Finalizing that contract going would make everyone happy.
- The best I can say about the U.S.-India nuclear cooperation is that in October 2020, the two countries renewed their MOU affirming their nuclear energy partnership for another decade and highlighting the progress made in developing a Global Centre for Nuclear Energy partnership (GCNEP) in Bahadurgarh, Haryana.

- A few general comments regarding the domestic nuclear supply chain. First, some positives:
 - In spite of the slowdown due to Covid pandemic, Kakrapar-3 NPP in Gujarat achieved criticality in July 2000 and was connected to the grid in January 2021. There are plans to commission additional 20 NPP's, out of which 8 are presently under construction, that will generate additional 15,000 MWe by the end of the 15th Plan (2032). This will help domestic suppliers in planning their resources and priorities
 - The procurement process appears robust and fully transparent. I checked the NPCIL website which provides list of awards made to various suppliers both under <u>purchase orders</u> and under <u>site work</u>. I noted that a good number of private sector companies are responding to the tenders, and payments are made both in rupees and foreign currencies like EUR, GBP and USD.
- However, domestic suppliers have many challenges:
 - Manufacturing capacities were added which are mostly under-utilized
 - Financial stress due to delays in receiving payments from customer and in settlement of claims
 - Ability to retain trained manpower because of procurement holdups and poor predictability of business prospects
 - Bureaucratic holdups and delayed decision making
- But the customer also has a few concerns:
 - Regulatory lapses
 - Cost increases and construction schedule delays (VVER's)
 - Quality of work and staff proficiencies
- To begin the discussion:
 - I request the foreign reactor vendors to provide their assessment of whether it is cost effective for them to locate portions of their supply chain in India, and define the conditions that will make it a win-win situation for both
 - I request the domestic suppliers to address challenges in dealing with foreign reactor vendors, and what advice they would give to foreign reactor vendors from your accumulated experiences of dealing with NPCIL
 - Finally, this following question is for both parties: NPCIL signed four (4) Joint Venture (JV) agreements with NALCO, IOC, NTPC and L&T. How are those coming along? Other than L&T has any other supplier been involved? Since terms of the credit lines appear to define the contours of the size of localization for foreign reactors, can these JV's make a difference?

With that background, it is time to hear from our distinguished panel of speakers. Thank you.