

REALIZING THE FULL POTENTIAL OF CANADA-INDIA NUCLEAR COOPERATION

WORKSHOP ORGANIZED BY THE ASIA PACIFIC FOUNDATION OF CANADA

Vijay K. Sazawal, Ph.D.

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- Preamble:
 - Roles of Dr. Bennet Lewis (NRC, AECL) and Jerry Grandey (CEO, Cameco Corporation)

- Introduction:
 - U.S. India nuclear deal was announced in July 2005, reasons were exclusively based on warming strategic and geopolitical relations between the U.S. and India
 - Commercial benefits to the U.S. industry: First ever paper on the subject drafted by the author at the behest of the U.S. India Business Council (USIBC) in February 2006
 - Secretary of State Dr. Condoleezza Rice used author's data to argue for U.S. Congressional support for the nuclear deal in an op-ed piece in the Washington Post on March 13, 2006
 - U.S. nuclear industry, however, was dismayed with my paper, displaying their lack of knowledge and familiarity with direction of the Indian nuclear program and its structure
 - **2006-2009 was the gestation period.** In 2008 GOI issued a letter committing to procurement of American supplied reactors without global tendering, IAEA India specific safeguards were agreed, 123 Agreement was signed, and India announced sites for American nuclear vendors
 - The new nuclear liability law ("The Civil Liability for Nuclear damage Act" – CLNDA) was passed by the Indian Parliament in 2010, implementing Rules were published in 2011
 - **2010-2014 was a stand-still time. The national Government in India changed in May 2014**
 - The author was invited by the new team in New Delhi to deliver a lecture on status and path forward for the U.S. India nuclear deal on August 8, 2014 at the Vivekananda International Foundation (VIF), a prominent Think Tank loosely affiliated with the ruling party. The author also met with the new National Security Advisor, Mr. Ajit Doval, former head of VIF, as the Prime Minister was preparing for his forthcoming trip to Washington
 - Following Prime Minister's visit to the U.S. in September 2014, a Contact Group was established by the two countries to resolve all contentious issues related to nuclear commerce on a fast track basis. An interesting feature was India's acceptance to allow U.S. nuclear suppliers be part of the Group
 - Agreement on liability and Administrative Arrangements reached by the time the U.S. President arrived in New Delhi on January 25, 2005

- During 2010 to 2014, I held numerous personal discussions with U.S. suppliers, USG officials (WH, State, DOE, Commerce) , and GOI officials in the PMO, AEC, MEA, DAE and NPCIL
- “Five Myths about the Indian civil nuclear program”: Annual Nuclear Export Control Symposium in Washington on February 10, 2014
 1. “Indian nuclear liability law is the most severe obstacle in consummating a commercial contract between U.S. nuclear suppliers and NPCIL”
 2. “India has no intention to award commercial contracts to U.S. nuclear reactor vendors”
 3. “India favors the Russian nuclear vendor over all other international nuclear suppliers”
 4. “India will import foreign nuclear reactors only if severe political and diplomatic pressure is put on India”
 5. “India has to buy foreign reactors at some time or the other because India has to address its growing demand for power consumption”
- Author met with Dr. R. K. Sinha and Dr. Sekhar Basu (AEC) on sidelines of the IAEA General Conference in Vienna on September 16, 2015 to present the roadmap for commercial convergence on the U.S. India nuclear deal
 - The roadmap was subsequently presented at a specially arranged meeting organized by the School of Advanced International Studies (SAIS) of Johns Hopkins University, a prominent Think Tank, in Washington, DC on September 24, 2015
 - Bottom line: “It can be done!”
- Major takeaways:
 - India’s strategy autonomy
 - India’s domestic energy policy (investment from PSU’s into NPCIL)
 - Affordability of western reactors (finance is key)
 - Nuclear liability: “Do not let the perfect be the enemy of the good.” Besides, compare India’s CLNDA (2010) to China’s Guo Han #64 (2007)
 - Closure of Government to Government nuclear commerce issues: Last Contact Group meeting in Washington on November 24, 2015 (Ratification of CSC, INIP, TCO timeline)
 - Indo-Japan civil nuclear agreement is the missing piece (Japanese Prime Minister Shinzo Abe visit to New Delhi in December 2015)
- Opportunities for Canadian industry:
 - Nuclear engineering and operator training and education from community colleges (polytechnic colleges) to university degrees
 - Investment in domestic PHWR nuclear supply chain in India (EDC Bank support)
 - Potential for a joint PHWR design and exports to emerging markets in Asia and Africa
 - Canadian-U.S. nuclear suppliers could consider cheaper supply chain alternatives with Indian partners