

PUSHING THE WRONG ENERGY BUTTONS

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The idea of India importing nuclear reactors is a zombie one with serious concerns about their cost and safety

For more than a decade, no major meeting between an Indian Prime Minister and a U.S. President has passed without a ritual reference to India's promise made in 2008 to purchase American nuclear reactors. This was the case in the latest joint statement issued during U.S. President Donald Trump's first official two-day visit to India (February 24-25), which stated that "Prime Minister Modi and President Trump encouraged the Nuclear Power Corporation of India Limited and Westinghouse Electric Company to finalize the techno-commercial offer for the construction of six nuclear reactors in India at the earliest date".

Red flags in the U.S. deal

- Because of serious concerns about cost and safety, the two organisations should have been told to abandon, not finalize, the proposal.
- Indeed, it has been clear for years that electricity from American reactors would be more expensive than competing sources of energy.

- Moreover, nuclear reactors can undergo serious accidents, as shown by the 2011 Fukushima disaster. Westinghouse has insisted on a prior assurance that India would not hold it responsible for the consequences of a nuclear disaster, which is effectively an admission that it is unable to guarantee the safety of its reactors.
- The main beneficiaries from India's import of reactors would be Westinghouse and India's atomic energy establishment that is struggling to retain its relevance given the rapid growth of renewable.
- In 2018, the Kushner family's real-estate business was bailed out by a Canadian company that invested at least \$1.1-billion in a highly unprofitable building in New York. Earlier that year, Brookfield Business Partners, a subsidiary of that Canadian company, acquired Westinghouse Electric Company. It violates all norms of propriety for Mr. Kushner to be anywhere near a multi-billion dollar sale that would profit Brookfield enormously.

What renewable can offer

- Analysts estimate that each of the two AP1000 units being constructed in the U.S. state of Georgia may cost about \$13.8 billion. At these rates, the six reactors being offered to India by Westinghouse would cost almost ₹6 lakh crore.
- If India purchases these reactors, the economic burden will fall upon consumers and taxpayers. In 2013, we estimated that even after reducing these prices by 30%, to account for lower construction costs in India, the first year tariff for electricity would be about ₹25 per unit. On the other hand, recent solar energy bids in India are around ₹3 per unit. Lazard, the Wall Street firm, estimates that wind and solar energy costs have declined by around 70% to 90% in just the last 10 years and may decline further in the future.

How safe?

- Nuclear power can also impose long-term costs. Large areas continue to be contaminated with radioactive materials from the 1986 Chernobyl accident and thousands of square kilometres remain closed off for human habitation. Nearly a decade after the 2011 disaster, the Fukushima prefecture retains radioactive hotspots and the cost of clean-up has been variously estimated to range from \$200-billion to over \$600-billion.
- The Fukushima accident was partly caused by weaknesses in the General Electric Company's Mark I nuclear reactor design.
- But that company paid nothing towards clean-up costs or as compensation to the victims, due to an indemnity clause in Japanese law. Westinghouse wants a similar arrangement with India. Although the Indian liability law is heavily skewed towards manufacturers, it still does not completely indemnify them. So nuclear vendors have tried to chip away at the law. Instead of resisting foreign suppliers, the Indian government has tacitly supported this process.
- Starting with the Tarapur 1 and 2 reactors, in Maharashtra, India's experiences with imported reactors have been poor. The Kudankulam 1 and 2 reactors, in Tamil Nadu, the only ones to have been imported and commissioned in the last decade, have been repeatedly shut down.

- The idea of importing nuclear reactors is a “zombie idea” that, from a rational viewpoint, should have been dead long ago. In fact an earlier plan to install AP1000s in Mithi Viridi, Gujarat was cancelled because of strong local opposition. In 2018, Gujarat Chief Minister Vijay Rupani declared that the reactors “will never come up” in Gujarat. The Prime Minister should take a cue from his own State and make a similar announcement for the rest of the country.

SOURCE: *The Hindu*