Nurturing French interests with Indian money

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In his visit this week, the French President, Francois Hollande, is likely to urge the Indian Government to conclude a giant, but questionable, deal to purchase six nuclear European Pressurized Reactors (EPRs) from the French company Areva for Jaitapur (Maharashtra). Though marketed as "the most advanced" reactor, the EPR is commercially immature; not a single reactor has been commissioned anywhere in the world. Moreover, at the construction sites at Olkiluoto (Finland) and Flamanville (France), costs and construction times have escalated dramatically from the initial projected figures, suggesting that each reactor will cost about Rs. 60,000 crores. So, all six could cost in excess of 3.5 lakh crores.

To put this figure in perspective, each of the two reactors that Areva is hoping to sell in the next five years are larger than Maharashtra's annual plan for 2012 (45,000 crores).² Shockingly, the Manmohan Singh Government agreed to purchase the reactors from Areva without even a nominal competitive bidding process. This contrasts sharply with the procurement rules in any branch of Government, including the Department of Atomic Energy (DAE), which mandate public tenders for any purchase above Rs. 10 lakh.

Cables revealed by Wikileaks suggest that this peremptory decision had been made by 2007.3 The Government's rationale was laid out by the previous secretary of the DAE, Anil Kakodkar. In a surprisingly forthright article penned for a Marathi daily in 2011, Kakodkar wrote "we also have to keep in mind the commercial interests of foreign countries and of the companies there ... America, Russia and France were the countries we made mediators in these efforts to lift sanctions, and hence, for the nurturing of their business interests, we made deals with them for nuclear projects."

¹ Reuters, 'EDF Raises French EPR Reactor Cost to over \$11 Billion', *Reuters* (Paris, 3 December 2012) http://www.reuters.com/article/2012/12/03/us-edf-nuclear-flamanville-idUSBRE8B214620121203 [accessed 6 January 2013]; Yle Uutiset, 'TVO Unperturbed by Nuclear Reactor's Spiralling Cost Estimates', Yle Uutiset < http://yle.fi/uutiset/tvo unperturbed by nuclear reactors spiralling cost estimates/6415992> [accessed 6 January 2013].

² Amberish Diwanji, 'Maharashtra Budget 2012: Brace Yourself for a Taxing Time', *Daily News & Analysis* (Mumbai, 27 March 2012) http://www.dnaindia.com/mumbai/report maharashtra-budget-2012-braceyourself-for-a-taxing-time_1667859> [accessed 10 February 2012]. ³ Wikileaks, 'Kakodkar Gives Positive Hearing to US Industry', 2007

http://wikileaks.org/cable/2007/03/07MUMBAI134.html.

⁴ Anil Kakodkar, 'जैताप्र प्रकल्प उर्जेचा; वाद अणूचा (Jaitapur: a Project for Energy but a Debate on Nuclear Issues)', सकाळ (Sakaal), 5 January 2011 http://www.esakal.com/esakal/20110105/4736010330231773078.htm [accessed 19 January 2013].

Indian officials are aware that this considerate attitude is costly. In another cable revealed by Wikileaks, the General Manager of the Nuclear Power Corporation (NPCIL) admitted that India "paid a 'high' price for French reactors from Areva."⁵

Not surprisingly, the Government has been reticent about discussing the modalities of the contract it is negotiating with Areva. It has failed to support its strident assertions that "the cost per unit of electricity from the Jaitapur plant ... will be competitive to the other power plants" with any substantive data on costs. When asked, it demurred, even in parliament, with the excuse that "the detailed project proposals ... are under finalization."

To check the veracity of the Government's claims, we recently used the best available public data on fuel prices and capital costs, assumed a substantial markdown to account for lower costs of labour in India, and estimated the expected tariff from the EPR reactors. This calculation involves some rather detailed accounting, but the basic procedure for setting the electricity tariff from nuclear plants was laid out the by the Executive Director of the NPCIL in 2008, during the debate on the Indo-US nuclear deal.⁸

By adapting this procedure to the EPR—and using the most recent guidelines of the Central Electricity Regulatory Commission—we estimated that if NPCIL were to follow Government regulations faithfully, the first-year tariff from the EPR would be about Rs. 14 per unit!⁹ This assumes that reactor construction starts next year and is completed on the same pattern as the Koodankulam I and II reactors, which, given the untested nature of the EPRs, is generous. The calculated tariff is a far cry from current or expected future tariffs from other baseload power projects.

Since it cannot pass on such a high tariff onto consumers, the Government may simply absorb a large loss and sell electricity at a lower price. However, every rupee of under-recovery will cost the exchequer about Rs. 1,000 crores each year. Just to halve the tariff from the first two reactors down to Rs. 7, the Government may need to spend Rs. 14,000 crores per year.

This is in addition to indirect subsidies in the existing revenue model. For example, NPCIL plans to put in its equity early, and then let it lie idle with no returns, for the entire period of construction that may easily extend beyond a decade. The Government may increase these

http://papers.srn.com/sol3/papers.cfm?abstract id=2214293> [accessed 10 February 2012].

⁵ Wikileaks, 'Indian Nuclear Establishment Highlights Reprocessing and Assured Fuel Supply Concerns to Visiting U.s. Nuclear Supplier Delegation Consulate Mumbai (india)', 2009

http://wikileaks.org/cable/2009/12/09MUMBAI479.html [accessed 6 January 2013].

⁶ NPCIL, 'NPCIL's Clarifications in Respect of Jaitapur Nuclear Power Project', 2010

http://www.npcil.nic.in/pdf/press 01sep10.pdf> [accessed 10 February 2012].

⁷ V Narayanasamy, 'Nuclear Reactors at Jaitapur: Answer to the Starred Question No. 484 by Shri P. Rajeeve' (Rajya Sabha Secretariat, 2012) http://www.dae.nic.in/writereaddata/rssq484.pdf [accessed 5 January 2013].

⁸ Sudhinder Thakur, 'Economics of Nuclear Power in the Indian Context', *Atoms for Peace*, 2 (2008), 59–67.

⁹ Suvrat Raju and M. V. Ramana, 'Cost of Electricity from the Jaitapur Nuclear Power Plant'

handouts in various ways—for example, by pressurizing public-sector banks to provide cheap credit for the project.

The issue at stake here is not Maharashtra's need for electricity. Rather it is why the Government has chosen this particular company, and its overpriced technology, to meet this need. The UPA administration has a penchant for handing out arbitrary contracts. However, the potential losses to the exchequer here are even larger than those estimated by the Comptroller and Auditor General in the telecommunication and coal-block scandals.

The country must decide whether it is acceptable for the Government to spend this huge amount of money, now and for several decades to come, just to "nurture" a French corporation.

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