

# 'The global anti-nuclear lobby is fuelling protests'

India's nuclear power projects are facing a new set of challenges as a result of growing opposition to nuclear energy. In an interview with Sanjay Jog, Nuclear Power Corporation (NPC) Chairman and Managing Director S K JAIN makes an impassioned case for nuclear power in India. Excerpts:

## How did you fare during the 11th plan?

As you are aware, Nuclear Power Corporation (NPC) operates 20 plants with generation capacity of 4,780 MW. The 11th plan will end in March. We had hoped to complete a capacity addition of 3,160 MW. Except Kudankulam units I and II of 1,000 MW each, we have commissioned projects for 880 MW. The Kudankulam project could not be completed owing to the last-minute agitation by the local population.

We also started developing the Jaitapur project in Maharashtra, initially with two evolutionary pressurised reactors or EPRs of 1,650 MW each, which were procured from Areva. Four more EPRs of the same capacity will be procured in the latter stages of the project. We have signed an early contract with Areva but, owing to a review of the EPRs by the French regulator after the Fukushima accident in March last year, we are yet to sign a final contract. Recently, however, a report from the French regulator said there is no need to change the EPR design, which means costs will not go up and the techno-commercial terms with Areva will not have to be renegotiated. So we will be able to close the deal soon.

## What about the 12th plan?

We propose to launch projects with a total capacity of 19,500 MW comprising 10 pressurised heavy water reactors of 700 MW each and 10 light water reactors of capacities ranging between 1,000 MW and 1,650 MW. These projects will entail investments worth ₹4 lakh crore. We are confident that funding for these projects will not be a constraint. NPC has initiated action to broad-base its equity contribution by forming joint ventures with public sector undertakings. We will also mobilise funds from the domestic banks and financial institutions and go for external debt funding. I must tell you that NPC has assets worth ₹42,000 crore and a net worth of ₹23,000 crore. The company has cash reserves of ₹12,000 crore.

## Yes, but how do you propose to deal with the opposition to nuclear power projects going forward?

All I can say is that the opposition to nuclear plants is fuelled by the global anti-nuclear lobby, so-called environment activists and local politics. To meet this challenge, NPC has launched a massive campaign to reach out to people and provide them with the factual position on NPC's capabilities, safety and the economic performance of its plants in the most transparent manner possible.

The situation can be compared to waking people who are already awake but are wearing tinted glasses supplied by vested interests.



S K JAIN  
CMD, Nuclear Power Corporation

NPC has compiled detailed scientific data on radiation, environment impact and safety — these have been released in the public domain. The data are supplemented by national and international statistics. We are confident that the efforts we have put in will pay off in convincing people with regard to safety and livelihood.

Of course, another challenge is the high expectations of populations near upcoming projects of an improvement in the quality of life and the benefits that they will derive from the plants. We are focusing in a big way on corporate social responsibility (CSR) so that people are assured of the credibility of the provisions we have made, the ultimate aim being inclusive growth.

## Did the protests ahead of the commissioning of unit 1 of Kudankulam come as a surprise?

We had established a great rapport and relationship with the neighbourhood population over the years. Not only did the sudden protests surprise us, they were quite demotivating for the engineers and scientists. All the issues and concerns raised by the villagers have been addressed and fears have been allayed even by the expert panel appointed by the central government.

NPC is expected to incur a revenue

loss of ₹1,300 crore on account of a generation loss of 4,800 million units from Kudankulam by the end of the current fiscal. This is due to the delay in starting generation from the first phase, which was originally scheduled for mid-November, and from the second phase (scheduled for March) owing to the agitation by villagers who are demanding that the project be scrapped.

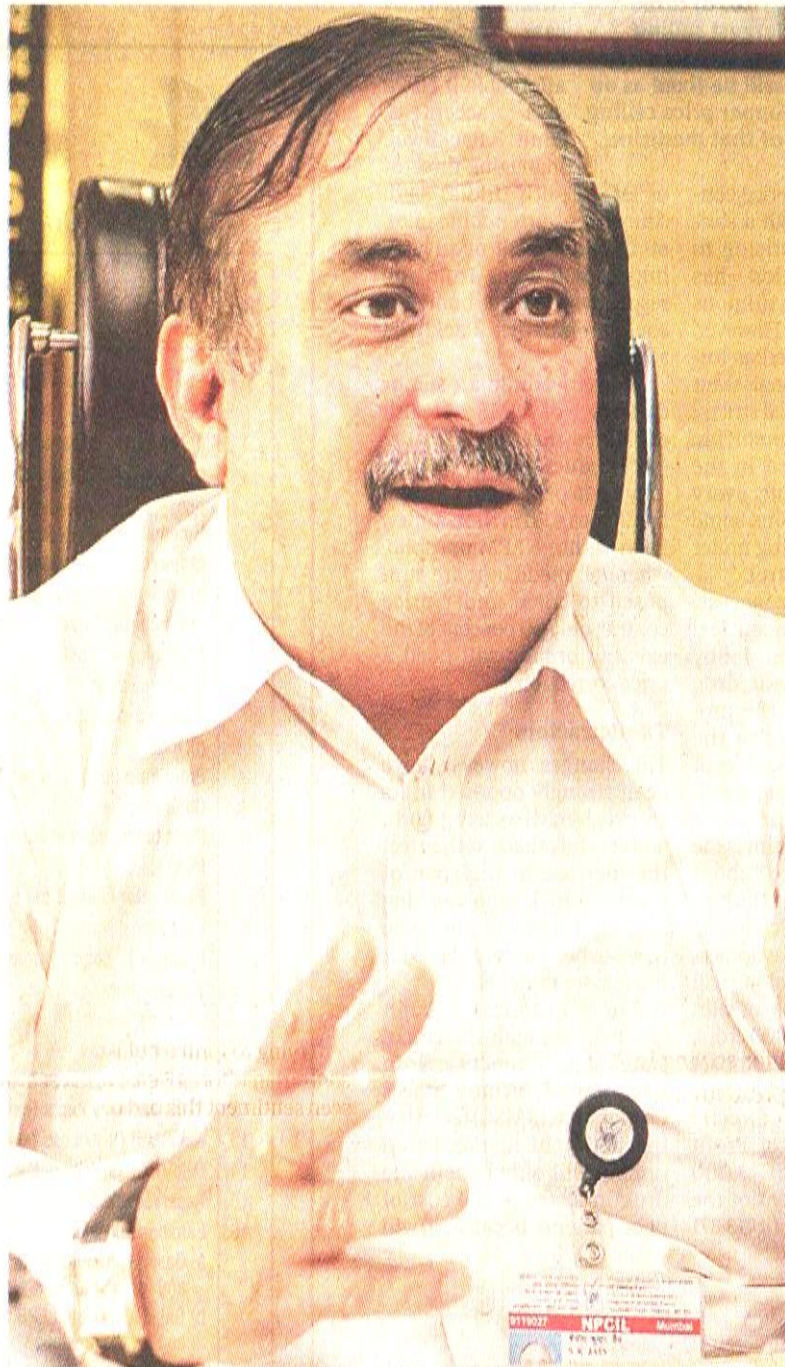
The company will also have to bear a monthly interest payment of ₹15 crore on a loan of ₹6,500 crore from the Russian government and a loss of ₹120 crore per month. So far an investment of ₹13,171 crore has been made in the project. And additional investment of about ₹1,500 crore will be required to complete it. Nearly 6,000 contract workers will have to be remobilised.

In the design of the Kudankulam reactor, many advanced safety features have been deployed to tackle a Fukushima type of disaster. These include a passive heat removal system that ensures the fuel is cooled even if power and cooling water are not available, as was the case in Fukushima. Also, 154 passive recombiners have been installed to avoid the formation of the explosive mixtures inside the containment.

## Why the opposition to the Jaitapur project?

There are questions about the proposed site in Maharashtra being in a seismic zone and also the deployment of EPRs, which the protesters claim are not designed from proven technology. EPRs are not experimental reactors or reactors of radical or revolutionary design which are yet to be tested; their design has evolved from well-proven reactors.

As for the project site, it actually has a much greater safety margin since there is no capable fault line within 30 km. The site is situated on a plateau, 25 metres high. Also, we are committed to spending on the betterment of amenities in the villages. We have prepared a comprehensive plan for the rehabilitation of project-affected people. Let me reiterate that NPC has always been a transparent and cohesive community citizen.



Nuclear radiation and environment safety have been given top priority. There won't be any compromise on safety.

**So, does nuclear power have a future in India?**

Nuclear power is an answer for the country to meet its ever-rising demand for power. We know there are constraints in the availability of coal, both within the country and from foreign suppliers. Several coal-rich countries have put additional terms and conditions for supply, which have added to the problems. Besides, there are constraints in the procurement of oil and gas especially due to developments in China and Iran. Now, fuel for nuclear

power can be stored for five to ten years. India has to pursue nuclear power projects to sustain growth at current levels. It is quite sad that a set of people are not only opposing addition to nuclear power capacity through imported technologies but also raising doubts about the country's desire to exploit thorium as an ultimate energy security source. A country like India, which is energy-importing, can ill afford to not exploit thorium. I must reiterate here that nuclear power is a clean and environment-friendly source of energy. The areas around all the country's operating nuclear plants testify to this; they are home to several critically endangered species of birds and animals.