Executive Summary

NTPC is India's largest thermal power generating company. Its installed capacity as on 31 March 2007 was 27,404 MW. It identified 24 projects aggregating 22,430 MW that it decided to add to its capacity during 2007-12. Of these, two projects (760 MW) still await investment approval. Of the remaining 22 projects (21,670 MW), eight (6,130 MW) were unfinished projects of the capacity addition programme of 2002-07 carried forward to 2007-12.

By August 2010, the Company had commissioned five projects (4,220 MW). It is likely to commission another six (5,000 MW) by March 2012. Thus, there would be a shortfall of 59 per cent vis-a-vis its own target.

Against a total estimated project cost of ₹ 1,09,319 crore on 21 projects, the Company's expenditure up to March 2010 is ₹ 50,853 crore.

Performance Audit of the Company's Capacity Addition Programme has highlighted deficiencies in project management that led to the huge shortfall vis-a-vis its own targets. Audit observed that, with better planning, co-ordination and monitoring, the Company could have achieved capacity addition closer to the targets. Significant audit findings are narrated below.

Pre-implementation planning and financial tie-ups

- *The project management system developed by the Company (called as Integrated Project Management and Control System) requires the Management to develop a pre-order network and master network to ensure that all pre-order activities are completed in time. Audit noticed that the Company did not formulate the pre-order network laying down activity-wise scheduled dates for each pre-order activity. As such, there is no benchmark available for pre-order activities. The Company took 10 to 102 months from identification/conceptualisation to investment approval for its projects.*

- *The Company adopted super critical technology which is more cost effective, thermal efficient and environment friendly, in only 3 out of 18 thermal projects.*

- *Though the working group on power for XI Plan envisaged (February 2007) per MW cost at ₹ 4.00 crore and State and private sector entities approved projects at ₹ 4.34 and ₹ 4.68 crore respectively, the Company approved its comparable projects during the same period at ₹ 5.14 and ₹ 5.56 crore.*

- *The Company does not prepare cost estimates on current market prices of various elements. Despite significant time over run of 9-33 months, three projects were completed within approved cost although there was 61 per cent and 76 per cent increase in prices of steel and cement respectively.*

- *The Company tied up its finances well and no project at any time suffered for want of funds.*

Project implementation

- *There were delays in execution mainly due to poor performance of civil contractors, delay in supplies of material by main plant contractors, inequitable contracts and inordinately slow management responses to contractual problems. The main plant packages were awarded by the Company in 17 out of 19 cases to a single vendor without assuring itself on capacity and capability to deliver. Based on the anticipated date of commercial operation of 17 ongoing projects, the Company would take 60 to 200 months from conceptualisation to commercial production.*

Project monitoring and impact analysis

- *The Company has an elaborate system of project monitoring including monthly meetings of Project Review Teams (PRT). Audit observed that, though PRT meetings were held regularly, this did not have significant impact in containing delays in project execution. The monitoring mechanism of the Company failed in co-ordinating with main plant contractors to ensure timely supply of critical equipment.*

- *Due to delay in realising capacity addition, the Company would lose the opportunity of generating 1,69,440 million units involving ₹ 38,463 crore in revenue (over the period of delay from scheduled to actual/ anticipated date of commercial operation) and ₹ 2,056 crore additional return on equity available on account of timely completion of projects.*

Recommendations

This performance audit contains eight recommendations to help the Company improve its performance. Significant recommendations are:

- *NTPC should shorten the pre-implementation planning process and fix benchmarks for all the pre-order activities.*

- *The Company should consider adopting super critical technology in more and more projects as the technology is more cost effective, thermal efficient and environment friendly.*

- *Data bank of the prices of various inputs required for setting up a power plant should be maintained on real time basis for realistic cost estimation.*

- *The Company should explore the possibility of encouraging alternative sources of supply of main plant equipment to realise more competitive prices and shorter project implementation periods.*