

Building new generating capacity

The Central Government's Eighth Five-Year Plan (1992 – 1997) devotes 20 per cent of its planned capital spending (or the equivalent of US\$ 30 billion) to investment in the power sector, distributed as follows:

- Power generation: 69 per cent
- T&D development: 29 per cent
- Training, surveys, R&D: 2 per cent

The Plan originally called for creation of 48,000 MW of additional generating capacity by 1997. This was subsequently scaled down to 30,000 MW (90 per cent in the public sector, i.e. NTPC and the SEBs, and 10 per cent private), and most estimates now are that 20,000 MW at most will be added during the period, because of delays in CEA approval procedures and difficulties in obtaining financing. (The capacity added under this scenario, nevertheless, would be equivalent to two-thirds of Ontario Hydro's entire installed capacity).

The NTPC alone, which has 16 GW of installed capacity (in 10 coal-fired and five gas-fired stations, in a number of states), expects to commission another 10 GW by 2004 from new projects included in the 8th Plan. Most of this will be coal-fired. For its part, the NHPC currently has five hydro projects under construction, for a total of 1,555 MW.

Over the longer term, India's plans for the period 1992-2007 envision the addition of 143 GW, which would effectively triple the 1992 level of installed capacity. Most outside observers consider this target optimistic. The International Energy Agency anticipates, however, that 115 GW could be added by 2010, thus more than doubling the 1992

base. Of this total, the IEA expects 50-65 GW to be coal-fired, and 11 GW gas-fired; most of the rest will be hydro.

Opening the sector to private participation.

The Central Government has recognized that if there is to be any hope of meeting investment targets in electricity supply, it will have to rely heavily on the private sector, domestic and foreign alike. In 1991 — at the depth of an economic crisis — the Central Government announced a series of policy and legislative changes, which were expanded by subsequent decrees. Their main provisions (as they stood until early this year) are:

- Foreign investors are now allowed to own up to 100 per cent of generating facilities. They may build, own and operate generating stations of any size and type (except nuclear), and sell to any buyer (with State approval). Foreigners can invest either as *licensees* of the SEBs, to produce and distribute power within a defined locale, or as *generators* of bulk supply who may sell their power to the SEBs for distribution.
- Their debt-to-equity ratios may be as high as 4:1. The promoter's own share should be at least 11 per cent. Up to 40 per cent of the invested capital may be borrowed from Indian official agencies, leaving the rest to be raised privately, in India or abroad.
- A 16 per cent return-on-equity was assured for generating companies at a 68.5 per cent PLF, with additional returns allowed for higher PLFs. This was to be accomplished through a cost-plus approach that allows a two-part tariff to