

Towards reducing India's power sector AT&C losses

Dr. Ratnakar Gedam, **Wednesday, March 16, 2011, 10:44 Hrs [IST]**



Power, water, roads, sewers are critical infrastructure components that ensure socio-economic development of a country. Among these, the power sector plays a significant role and has become one of the most basic necessities of life. India has the fifth largest generation capacity in the world with an installed capacity of 170,228 mw. The power sector has immense growth opportunities and is expected to grow exponentially in the next five years. But, demand has not been matched with supply yet. In 2010-11, India faced a power deficit of 10 per cent and peak demand shortage of 13.3 per cent.

MAJOR CONCERNS

The major concern today is to provide electricity to every household of the country and curb inadequacies in generation, transmission and distribution, inefficient use of electricity, high technical and commercial losses that lead to substantial energy shortage. As per Union ministry of power statistics, the aggregate technical & commercial (AT&C) loss of India for 2008-09 was 28.44 per cent. It is a challenging task to realize the objectives of reducing AT&C losses, improving quality of power supply, increasing revenue collection, and improving consumer satisfaction.

EFFORTS BY GOVERNMENT OF INDIA

To enhance the efficiency and control these shortfalls, Government of India has taken several initiatives. Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) is one of them which aims at 'Power for All by 2012' by electrifying 1.2 lakh villages, and Restructured Accelerate Power Development Reform Programme (R-APDRP) to bring down AT&C losses to 15 per cent by implementing projects within 18 to 24 months. The XI Plan made attempts to reduce losses but APDRP was like a failure. APDRP was conceived with the objective of system strengthening and reducing the AT&C losses. In fact India has witnessed shift in policies from initially power generation to power transmission, distribution & coverage, and now reduction in AT&C losses. The R-APDRP has a target to reduce AT&C losses to 15 per cent by the end of XI Plan (March 2012) but it seems to be unachievable. We expect that it could be achieved by the end of XII Plan (March 2017).



SERIOUS PROBLEMS IN T&D OF POWER



Old worn-out and poor distribution network leading to frequent outages; skewed tariff structure; huge transmission & distribution (T&D) losses largely due to outright theft & unmetered supply; uneven low transmission/high transmission line ratio, overloaded distribution transformer/lines; lack of accountability at feeder level and in distribution setup of state electricity boards etc are some of the most prevalent problems in power transmission & distribution. Keeping in view the need to address these problems, Accelerated Power Development Programme (APDP) was launched in February 2000 to finance specific projects relating to

renovation and modernisation, life extension, up-rating of old thermal and hydel plants; and upgradation and strengthening of sub-transmission and distribution network (below 33kV or 66kV) including energy accounting and metering in the distribution circles. By 2002-03, it was realized that it had limitations and objectives may not be fulfilled in respect of improving financial viability of state power utilities, reduction of transmission and distribution (concept of AT&C losses was later devised) to around 10 per cent, improving customer satisfaction, increasing reliability & quality of power supply. There were schemes for metering of all types of consumers, feeder metering, distribution transformer (DT) metering, reliability and maintainability (R&M) of power sub-stations, capacitor placement/ replacement, R&M of transformers, service connection improvement, IT enabling including substation automation, construction of new sub-stations, construction of new lines, bifurcation of feeders, reconductoring etc.

To be able to implement R-APDRP successfully in the 11th Five Year Plan, an allocation of Rs.50,000 crore has been earmarked. Its scope extends to cover 1,403 towns (2,290.58 lakh population) through norm of each town with more than 30,000 population (10,000 in case of Special Category States), through 49 entities. Specific targets to be achieved including the utilities having AT&C losses above 30 per cent have to achieve the reduction of 3 per cent per year; and utilities having losses less than 30 per cent has to achieve a target of 1.5 per cent reduction per year.



With the current ongoing programs in power sector, it is expected that by the end of XII Plan, AT&C losses could be brought down to 15 per cent. While there has been a slow and gradual improvement, the current loss levels still pose a significant challenge for the country in going forward.

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