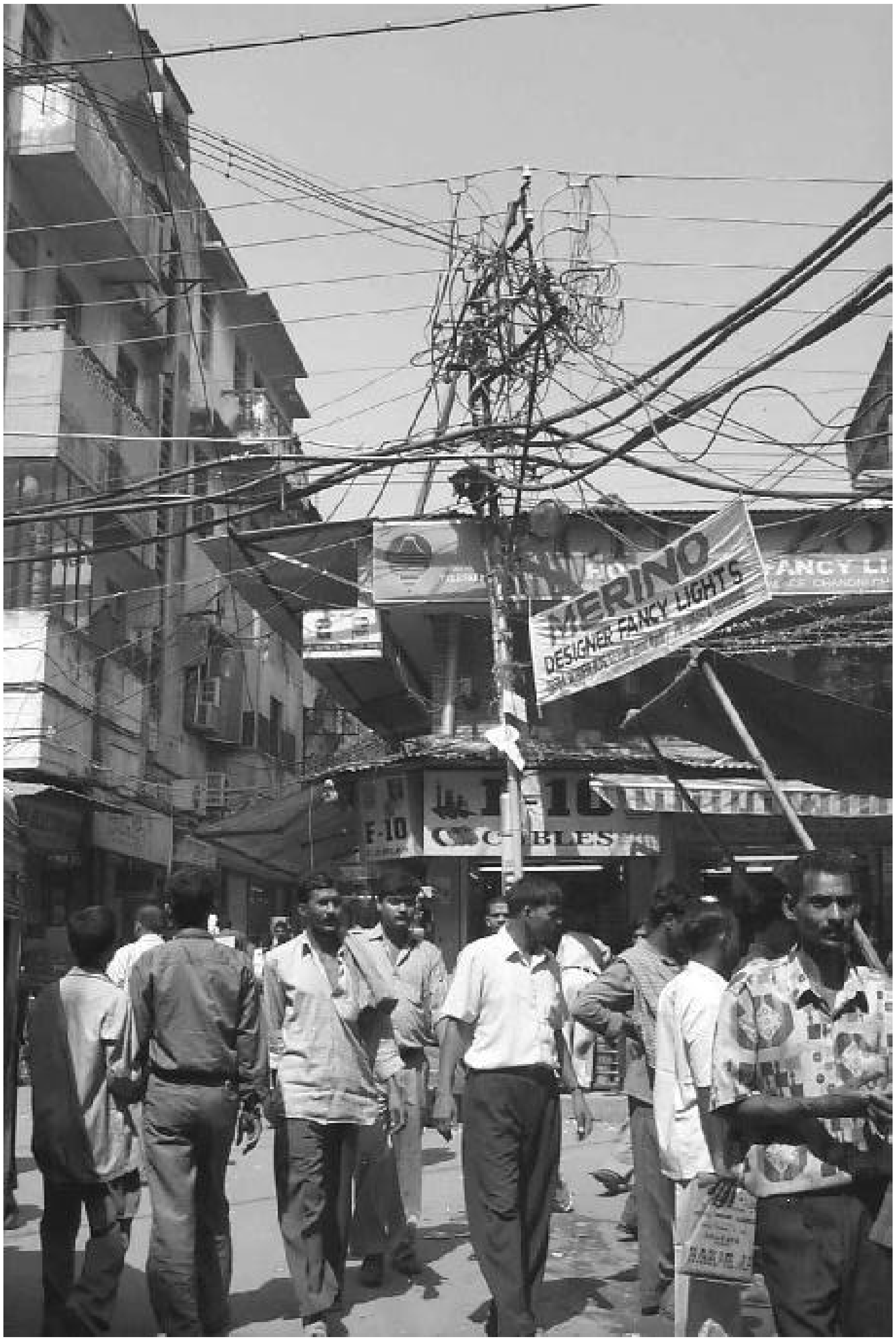
Power

From Privatisation to Competition



Mangled wires, mangled lives.

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At a Glance

Findings

- The Delhi Electricity Regulatory Commission (DERC), created by the Electricity Regulatory Commission Act, 1998 is the regulatory authority for the power sector in Delhi. Its responsibilities include determination of the tariff for electricity (wholesale, bulk, grid or retail), determination of the tariff payable for the use of transmission and promotion of competition, efficiency and economy in the activities of the electricity industry.
- In January 2001, the Delhi Vidyut Board (DVB) was divided into six successor entities: one holding company, one generation company (GENCO), one transmission company (TRANSCO) and three distribution companies (DISCOMs).
- Private DISCOMs are offered a Return on Equity (RoE) of 16% post-tax.
- Instead of creating competition between DISCOMs, the privatisation process has led to the creation of private monopolies.
- Rationale for privatisation: Transmission and Distribution (T&D) losses of DVB increased from 7% in 1953 to over 50% in 2000. Commercial losses of DVB increased from Rs 207 crore in 1993 to Rs 1,103 crore in 2000.

Reforms

- Ward-level Power Consumer Associations should take responsibility for contracting out power distribution services to private players. Competition among the firms and the threat of termination of contracts would drive down tariffs and increase efficiency.
- The provisions of the Central Electricity Act, 2003 should be effectively implemented and enforced, so that open access to the trans-

mission and distribution grids and power trading can be facilitated. This would also allow for setting up of captive power plants without any restrictions.

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According to the Constitution, the central as well as state government can set up guidelines relating to the power sector. The principal acts governing the power sector in Delhi before privatisation were:

- Indian Electricity Act, 1910
- The Electricity (Supply) Act, 1948
- The Electricity Regulatory Commission Act, 1998
- The Delhi Electricity Control Order (DECO), 1959
- The Delhi Vidyut Board Control Regulations 1998

These acts have been replaced by the Delhi Electricity Reforms Act, 2001 and the Central Electricity Act, 2003.

Institutions

Delhi Vidyut Board

Delhi Vidyut Board (DVB), the State Electricity Board of Delhi, was founded in 1997 and was the successor of the Delhi Electric Supply Undertaking (DESU). The DESU was a part of the Municipal Corporation in Delhi. DVB was placed under the Delhi government. As per the Electricity (Supply) Act, 1948 it controlled electricity generation, transmission and distribution in Delhi.

Delhi Electricity Regulatory Commission

After privatisation of DVB, the Delhi Electricity Regulatory Commission is the governing body.

The tasks of the DERC are:

- Determination of the tariff for electricity, wholesale, bulk, grid or retail
- Determination of the tariff payable for the use of transmission
- Regulation of power purchase and procurement process of the transmission utilities and distribution utilities
- Promotion of competition, efficiency and economy in the activities of the electricity industry

Problems in the Electricity Sector in Delhi

In the recent years, performance of the power sector in Delhi deteriorated dramatically due to various reasons:

- T&D losses (Transmission and Distribution losses) increased from 7% in 1953 to over 50% in 2000. Around 18% losses are transmission losses and 32% is lost due to power theft.
- Maintenance was neglected, leading to inefficiently working equipment.
- Commercial losses of DVB increased sharply from Rs 207 crore in 1993 to Rs 1,103 crore in 2000.

The problems of the electricity sector in Delhi before privatisation can be divided into three sections:

- Demand-Supply Imbalance
- Transmission and Distribution Losses
- Financial Position of the DVB

Demand-Supply Imbalance

While the peak demand for energy grew steadily over recent years, power supply from DVB owned power plants remained stagnant. In spite of an 'own' installed capacity of around 700 MW, DVB's power generation companies could not provide more than 300-350 MW. One reason for this is the age of the power stations. For example the Indraprastha Power Station, that provides 125 MW, is 30 years old and the gas turbine stations that provide about 250 MW are more than 10 years old. This results in very high production costs, due to the inefficient operating rate and the high consumption of fuel brought about by the age of the plants.

To solve this problem, between 1994 and 1995, three new projects with private sector participation were identified. But for various reasons, little progress was made in implementing these projects.

Transmission and Distribution (T&D) Losses

Another major problem in Delhi's power system is the high level of T&D losses. Between 1995 and 2001, T&D losses ranged between 40% to 50% of total power availability.

In its 'Strategy Paper on Power Sector in Delhi' DVB identified various reasons for the upsurge in T&D losses:

- Many consumers who are on metered supply still indulge in power theft. This phenomenon is observed in all categories of consumers, as also in industries and commercial establishments.

- Under the present legal framework it is not possible to provide consumers who live in unauthorised colonies with a legal connection. This leads to illegal tapping of power from the mains.
- Some industries and commercial establishments in non-conforming areas and urbanised villages resort to misuse or theft due to prevalent conditions of supply.

In addition, many users load more than the agreed limit, or tamper with the meters. On the issue of power thefts and their prevention, the 'soft approach' of successive governments, populism and compulsions of electoral politics are generally blamed.

Financial Position of the DVB

The Board's deficit rose from Rs 342.22 crore in 1994 to Rs 694.67 crore in 1998. The reasons for this, given by the DVB are:

- The billing system does not work efficiently. So for example only 57.3% of energy released in 1998 was billed and only around 88% of the amount billed was received as revenue.
- Because of continuous losses, on the eve of privatisation, outstanding accounts had reached a level of Rs 6,500 crore and DVB itself was owed over Rs 1,000 crore from various organisations.

Privatisation of the Energy Sector in Delhi

Steps Towards a Private Power Sector

The privatisation process started in February 1999 when a Strategy Paper was issued by the Delhi government, identifying the problems of the power sector in Delhi and emphasising the importance of restructuring of the DVB. It argued that huge financial inputs are required to improve the situation in Delhi's power sector, but that is not possible in the present organisational, financial, legal and regulatory environment of the DVB.

To improve this situation the Strategy Paper suggested several measures which should be taken.

- Setting up a Delhi Power Generation and Transmission Company
- Encouraging new generation in the private sector as well as in joint ventures
- Setting up new power distribution companies
- Establishing an independent statutory Delhi Electric Regulatory Commission that should be responsible for undertaking licensing of new capacity, prescribing performance standards and fixing tariffs

The next steps in the privatisation process were the establishment of the Delhi Electricity Regulatory Commission in December 1999, the promulgation of the Delhi Electricity Reform Ordinance in October, 2000 and its replacement by the Delhi Electricity Reform Act, 2001. The Delhi Electricity Reform Act, 2001 and policy directions by Delhi government provide the legal framework for the reorganisation and privatisation of the energy sector.

Terms of the Contract

At the end of October 2000, a tripartite agreement was executed between the Delhi government, DVB and representatives of DVB employees. The three parties agreed on a process for a smooth implementation of the policy for reorganisation and restructuring of DVB. The cornerstones of this process were:

- Non-retrenchment of employees
- Continuance of service in the successor companies without any change of terms and conditions
- Taking over liability for retirement benefits of the existing employees and retirees of the Board by establishing a Pension Trust Fund to which the government has to contribute Rs 860 crore.

In January 2001 the Delhi government approved the division of DVB into six successor entities; one holding company, one generation company (GENCO), one transmission company (TRANSCO) and three distribution companies (DISCOMs).

Out of six pre-qualified bidders, only two bids were received on the date of opening: one from Bombay Suburban Electricity Supply (BSES) Limited, bidding for all three distribution companies and the other from Tata Power Company Limited, which bid only for the north-northwest and southwest companies.

As the bids received were not acceptable (since loss reductions offered by the bidders were below the prescribed targets), the involved parties entered into negotiations. After six weeks of bargaining they agreed on modified loss reduction targets and other adjustments. Tata Power acquired a share of 51% of the North-Northwest Delhi Distribution Company Limited and BSES Limited obtained controlling interest of Southwest Delhi Electricity Distribution Company Limited and Central-East Delhi Electricity Distribution Company Limited.

Before selling the distribution facilities to Tata Power and BSES

Limited, the value of these units had to be determined. The problem was that the accounts of the DVB were not audited and that no 'fixed assets registers' (which could have given all the necessary details) existed. Therefore it was decided to use the business valuation method. According to this, the value of assets is reflected in *future tariffs*.

In accordance with this method the value of the DVB is Rs 3,160 crore (close to the book value of the unaudited accounts, i.e. Rs 3,024 crore). Ultimately, the assets were sold for Rs 2,360 crore to the new owners.

According to the transfer scheme, a specified loss reduction target to bring AT&C (Aggregate Technical and Commercial) losses down to 34% within five years has to be achieved by each distribution company.

If the AT&C loss reduction of a company is better than the minimum stipulated by the government, 50% of the additional revenue which arises out of the better performance, goes to the company, and the other half will be used for the purpose of tariff fixation. If the actual AT&C loss reduction of a DISCOM is worse than quoted in the bid, the whole short-fall has to be borne by the DISCOM. In case the actual AT&C losses of a DISCOM are worse than the minimum AT&C loss reduction level stipulated by the government but better than the loss reduction level quoted in the bid, the entire additional revenue from this better performance will be used for the purpose of tariff fixation.

DISCOMs will receive 16% guaranteed revenues on their assets till 2007. The precondition for this is that they achieve their AT&C loss reduction target and that their investments are approved by the Regulatory Commission. Liabilities and past losses of DVB are *not* going to be passed on to successor companies. All of them will start with a clean opening balancesheet.

To keep electricity prices down and to avoid a tariff shock, a loan of Rs 2,600 crore or of maximum Rs 3,450 crore is granted to the Transmission Company (TRANSCO). The loan has to be repaid by GENCO, TRANSCO and the three distribution companies within 13 years to the holding company. For the first four years DISCOMS enjoy a moratorium on repayment and a waiver on interest. If necessary, this can be extended to the fifth year.

Critique of the Privatisation Process

The privatisation of DVB has been criticised by many as being more of a negotiated bilateral deal and not a competitive bid. Too many large concessions were granted to favoured bidders and all of these would ultimately have to be paid by consumers and taxpayers.

Private DISCOMs are offered a Return on Equity (RoE) of 16% post-tax. If DISCOMs invest in measures that bring down AT&C losses, automatically increasing profits, this would also qualify as RoE. Also, the regulation which grants half of the money saved by recovering stolen units could lead to excess billing.

The loss reduction target of 34% within five years is not ambitious enough. It is easy for DISCOMs to achieve a much higher reduction. Many suggest that it should be no problem to reduce T&D losses to 10% in this period because this has been possible in other states.

Another detail of the privatisation scheme is that tariffs include an annual depreciation charge of 6.83%, which has to be paid by the consumers. While this is not out of the ordinary, the fact that the tariffs are calculated on the basis of total and not net equity (as in Mumbai, Kolkata, Ahmedabad) means that tariffs are calculated on a much higher cost price base.

There has also been some controversy over the asset valuation process. The valuation of assets is important in two ways. First, this determines the purchase price which has to be paid by the DISCOMs and secondly, it is the basis for the tariff calculations.

'The Commission had, after a public hearing, determined the gross fixed assets of DVB at Rs 3,841 crore in its order of May 23, 2001. In addition, capitalised works were valued at Rs 484 crore while works in progress were valued at Rs 1,078 crore. This added up to Rs 5,303 crore as the closing balance on March 31, 2002. Assuming that a modest Rs 100 crore would have been incurred as capital expenditure in the three months that followed, the total gross fixed assets would be Rs 5.403 crore as on July when DVB was restructured and split into five companies' (*Indian Express,* July 2, 2002). According to the Delhi government, the gross fixed assets including transmission and generation companies amount only to Rs 4,263 crore. So there is a gap of Rs 1,140 crore.

The GENCO is allowed to charge about Rs 2.50 per unit from the TRANSCO. TRANSCO then sells the power for Rs 1.47 to

DISCOMs. This means TRANSCO has to sell electricity *below* the purchasing price. The loss is born by the government and so by the taxpayers. In the first year this amount is estimated to be Rs 1,400 crore. The DISCOMs are allowed to sell electricity at an average tariff of Rs 4.16 to the consumers.

Further, instead of creating competition between DISCOMs, the privatisation process led to the creation of private monopolies. These monopolies were created in spite of a study carried out by an expert group on behalf of the government, which concluded that the only way to lower prices is to introduce competition. The reason for the low energy prices in Mumbai is, according to the panel, that two firms supply power to parts of the same market.

Reforms

Privatisation is the means to introducing competition in the electricity market, not an end in itself. Genuine competition would imply that electricity consumers are actually free to choose from competing service providers: this is simply not the case in Delhi today. While decentralisation of power transmission at the household level may be difficult (but not impossible) to implement, what can be done for a start is to decentralise utility provision at the ward level. Ward Level Power Consumers Associations could take responsibility for contracting out power distribution services to private players. Competition among the firms to supply each ward would drive down tariffs and increase efficiency.

The provisions of the Central Electricity Act, 2003, provides the basic legislative and statutory framework for increased competition in the energy sector. The important features of this Act are:

- Rationalisation of the 3 existing Acts into one Central Act
- Removal of a number of restrictive barriers to the flow of power in a competitive market scenario by opening access to transmission and distribution
- Freeing up of generation and captive power plants from licenses and techno-economic approvals
- The recognition that trading as a distinct activity would help usher in a market environment
- The formation of an expert Appellate Tribunal to hear appeals against State and Central Electricity Regulatory Commission orders

- Transferring the full range of regulatory and licensing functions to the Central and State Regulatory Commissions
- Deregulating tariffs in certain situations, for example in case of agreements between consumers and generating companies
- The distancing of government from the functioning of the sector after giving broad directions via the National Electricity Policy and the National Tariff Policy
- The conversion of the remaining State Electricity Boards into State Transmission Utilities and deemed licensees with the freedom (but not compulsion) to restructure and progress down the road to corporatisation and privatisation.

The state's role will be limited to regulating the sector and providing explicit subsidies to any group of consumers that it considers economically vulnerable.

—Prepared by Michael Stamminger with the help of Vidisha Maitra

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Delhi continues to be in grip of power crisis

Agencies/ New Delhi

Many parts of the capital continued to reel under severe power crisis on Friday, five days after transmission of electricity was privatised, forcing residents in some areas to come onto roads.

Most parts of east and north Delhi were affected by prolonged power breakdowns causing hardships to the people already reeling under sultry heat conditions. Some parts of posh south Delhi also felt the impact of power cuts.

Powerless in the Capital

EXPRESS NEWS SERVICE

New Delhi, April 13: Forget the rash promises. Forget the grand announcements of a deal clinched just in time. Forget the confounding confusion of the many voices in the Delhi Government. Back to reality, with the mercury prematurely soaring above 40 degree Celsius, the summer sun stings as sharply as ever. Especially in areas which have already gone without power for as many as seven hours at a stretch like Nizamuddin West, all claims of Chief Minister Shiela Dixshit and her sundry spokespersons assuring more power to the