



RATING CRITERIA FOR POWER DISTRIBUTION UTILITIES

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Introduction

With State Electricity Boards (SEBs) having to restructure themselves following the passage of the Electricity Act, 2003, the power sector is set to undergo a significant structural change. A key constituent of the evolving industry structure in each State will be the Distribution Companies (DISCOMs), which will be providing the “last mile” connectivity to the final consumers, both retail and wholesale. Several large players in the power sector plan to acquire majority stakes in the state-owned DISCOMs once they are up for privatisation. While traditionally, DISCOMs have been purchasing power from the State Transmission Utilities (Transcos) —usually the successors of the SEBs—through long-term power purchase agreements (PPAs), the procurement pattern could also undergo a change with the Electricity Act, 2003 allowing freedom to licensees to source power from any source. Also since Transcos are not allowed to trade in power as per the Electricity Act, 2003, the PPAs would also need to be reassigned. This write-up discusses ICRA’s rating criteria for DISCOMs who are primarily in the business of distributing electricity and do not have any embedded generation facilities.

Key Rating Criteria

State Government Support: As a key stakeholder in the restructuring of the industry, the extent of State Government support is perhaps one of the most important rating criteria for a DISCOM, at least in the initial stages. State Government

support manifests itself in various forms, with some of the most important ones being as follows:

- Takeover of liabilities of the erstwhile SEB at the time of operationalisation of DISCOMs to enable the new entities start operations on a clean slate, that is, free of past baggage.
- Treatment of Pension and Gratuity liabilities, write-off of State loans against receivables from State bodies, and securitisation of past dues.
- Transitory subsidy support to the utilities to ensure stability of cash flows during the interim period, i.e. before the entity attains commercial viability on a stand-alone basis. It is clear that the gap between costs and revenues can be expected to be bridged only gradually.
- Implementation of anti-theft laws.
- Timely release of concessional funds. Under the Accelerated Power Development and Reforms Programme (APDRP), Government of India, for instance, makes available concessional funds, including incentives linked to cash loss reduction, for undertaking Distribution reforms. The timeliness of the State Government in making available such funds to the utilities is also a reflection of State Government's sincerity in supporting them.
- Payments of dues from Government Departments. Traditionally, the track record of payment by Government departments to utilities has been unsatisfactory and ensuring prompt payment of dues to a DISCOM from these departments may also be considered as indicative of State Governments' implicit support to the power sector.

While all the above are inputs in the evaluation of State Government support, from a credit quality perspective, the key determinants are the financial strength of the State and its track record of actual subsidy release vis-à-vis what is promised in the Financial Restructuring Plan (FRP).

Regulatory Process: The transparency, predictability and consistency of the regulatory process have a key influence on the cash flows of any entity in a regulated environment. The key aspects of the regulatory process that ICRA evaluates may be classified as follows:

- **Timeliness of tariff orders:** Ideally, tariff orders should be passed and implemented by the first month of a financial year so that utilities know clearly the efficiency parameters that they are expected to comply with, as also avoid the problems associated with implementing tariff orders with retrospective effect. The other related issue is the implementation of tariff orders, especially relating to raises in agricultural tariff, which many State Governments have routinely delayed.

- **Tariff philosophy, especially regarding efficiency improvement targets:** Under the existing cost-plus tariff setting process, the distribution network costs is a pass-through, subject, however, to certain operating efficiency targets being met. The actual efficiency levels may be at variance with the ones assumed by the Electricity Regulatory Commissions (ERCs), which would mean that the utility is not able to recover, through tariffs, the costs it has incurred. The most contentious issue is that of Distribution losses that are allowed by the ERCs versus the actual, and the feasibility of meeting the Distribution loss reduction targets that have been set by the ERC.
- **Extent to which multi-year targets have been laid down:** Lack of predictability in the tariff setting process is a key uncertainty from the credit perspective. A multi-year tariff policy goes a long way in mitigating such uncertainties, and ICRA views as positive the move by certain ERCs in delineating the broad contours of a multi-year tariff policy.

Demographic Profile: The demographic profile of the service area that a DISCOM serves determines the quality of cash flows, as well as the extent of likely threat from competition. Given the level of cross-subsidy currently prevalent in the tariff structure, a high proportion of agricultural consumption inevitably implies greater burden of subsidy payment on the State Government, as well as relatively higher levels of cross-subsidy. At the same time, a higher proportion of Commercial and High Tension (HT) segment in the consumer mix implies greater vulnerability to competition in a liberal regime for captive power plants (CPPs) and in an open access scenario that allows freedom to consumers to source power from alternative sources.

The key determinants of demographic profile are:

- Proportion of various consuming segments
- Growth rates in different segments
- Extent of agricultural consumption
- Geographical dispersion of HT consumers

The extent of geographical dispersion within the HT segment is an indicator of concentration risk and hence competitive threats. ICRA also assesses the steps being taken by the utilities /State Government to minimise the impact of high-paying consumers switching from the incumbent licensee. ICRA notes, for instance, that utilities in some states have initiated supply of power to HT industrial consumers through a special incentive scheme at tariffs which are substantially lower than the normal tariff levels applicable for such consumers. Further, some State Governments have been levying taxes on captive power generation, which also mitigates the threat from CPPs to an extent, although questions remain about the sustainability of such measures.

Different DISCOMs, even within a State, can have greatly varying consumer mixes, and consequently, different levels of cost coverage from revenues, implying divergent credit profiles. It may also be noted that despite the progress of reforms, it is unlikely that many DISCOMs will be able to attain 100% coverage of costs from revenues in the immediate future. Therefore, the issues of relevance are the extent of the gap between the Average Cost of Supply (ACS) and Average Revenue Realisation (ARR), the trends in this gap, and the way the gap is bridged.

Cost Competitiveness: With an increasingly liberalised environment emerging in the country's power sector, the ability to withstand competition depends largely on cost competitiveness. Cost competitiveness, in the case of a DISCOM, is a function of two factors:

- Power purchase cost
- Operating efficiency

As things stand today, power purchase cost is beyond the control of an individual DISCOM, governed as it is by long-term PPAs with the Transcos. Besides, power purchase cost is normally allowed as a full pass-through for recovery through tariffs. However, the situation is set to change following the implementation of the Electricity Act, 2003. Since Transcos are not allowed to trade in power, DISCOMs may have to contract directly with the generating units, and several DISCOMs are likely to explore opportunities to procure power more dynamically, either by acquiring their own generating stations or buying power from cheaper sources even outside the State. Power purchase costs also may then be scrutinised more rigidly by the ERCs.

The key determinants of a DISCOM's operating efficiency, which ICRA evaluates while rating, are:

- Trends in AT&C¹ losses
- Employee per 1,000 consumers served
- Distribution costs per unit energy procured/distributed
- Proportion of metered sales
- Quality and reliability of service

The most important efficiency parameter for a Distribution Licensee is the success in reducing AT&C losses especially in relation to the regulatory targets that have been set. The AT&C loss, besides the T&D losses also incorporates the collection efficiency, which is an important efficiency indicator for a DISCOM since collection efficiencies typically tend to be on the lower side, especially where the service area has a large proportion of agricultural consumers.

Manpower cost is also an important element of a DISCOM's cost structure. However, several utilities

have been taking steps to outsource a part of meter reading, billing and collection function to lower the manpower intensity of operations. The other key components of a DISCOM's cost structure are essential Operation & Maintenance (O&M) costs (largely inflexible), depreciation, and interest charges. Interest charges are a function of the debt stock with which a DISCOM started its operations, the extent of uncovered deficit that needs to be debt funded, and the working capital requirement.

The proportion of metered sales is a crucial indicator of a DISCOM's operating efficiency since it directly impacts a DISCOM's ability to appropriately recover costs through tariffs. However, universal metering at the consumer end is an expensive process, and a key challenge for DISCOMs is therefore to balance the conflicting requirement of managing capital expenditure and reducing losses.

Quality and reliability of service is measured with respect to variables like Distribution Transformer Failure Rate, Interruptions, Outages, and Reliability Index.

Current Financial Position: ICRA evaluates the current financial position of a DISCOM as reflected by its profitability, capitalisation, and debt servicing indicators. The key parameter for assessing profitability is coverage of costs by revenues, without subsidy support from the State Government. However, to the extent that agricultural consumption is subsidised on specific directives from the Government, ICRA does factor in the subsidy component as well, to the extent that it has been received in a timely manner. Nevertheless, ICRA views excessive dependence on such subsidy support as negative from the rating perspective, given the concerns over sustainability and timeliness of subsidy inflows.

The other indicators of financial position include the ratio of debt to net worth, debt service coverage, interest coverage, and ratio of cash flows to total debt. Given that a DISCOM's cash flows are usually stable and predictable, it would be in a position to support a larger debt on its book as compared with an entity operating in a cyclical industry. However, as discussed, a DISCOM's ability to start operations with a moderate capitalisation is almost wholly dependent on the State Government support extended during operationalisation and the transitory phase.

Cash Flow Adequacy: ICRA draws up cash flow projections to assess the adequacy of a DISCOM's cash flows in relation to the debt being serviced. The key variables that have an impact on a DISCOM's debt servicing ability are:

- Ability to attain the AT&C loss targets specified by the ERC
- Capital expenditure that will be required to meet projected load growth, improve service and lower distribution losses

¹ Aggregate Technical & Commercial Losses, which reflects both the T&D losses as well as billing and collection efficiency

The ability of a DISCOM to meet distribution loss targets hinges on progress in areas like:

- Achieving metering at all levels, viz. 33 kV, 11KV, distribution transformers, and consumers, which facilitates the process of energy audit to identify high-loss feeders / areas
- Other steps like improving the proportion of HT lines, introducing High Voltage Distribution System (HVDS) , rationalisation of load profile and strengthening of Transformers
- Strict implementation of anti-theft laws
- Using information technology (IT) systems like SCADA²

ICRA evaluates a DISCOM's progress in these and other related areas, as also its track record in reducing distribution loss/AT&C loss.

DISCOMs usually have large capital requirements to meet the projected load growth, reduce losses and improve the quality and reliability of power,. The major sources of funding are consumer contribution, retained earnings (if any), funds under APDRP scheme, and commercial loans from banks and financial institutions (FIs). The cash flow analysis therefore factors in the likely funding requirements, the sources of funds, and the maturity profile of loans expected to be contracted.

Impact of Privatisation

Several DISCOMS, which are currently wholly owned by State Governments, are likely to be privatised in the near future. Differing models of privatisation have been used in the country so far (the Delhi model, for instance, uses a fixed transitory support along with a defined trajectory of AT&C loss reduction) and several more are likely to be used in future. ICRA will evaluate the impact of privatisation on DISCOMS as it actually happens.

Conclusion

ICRA believes that a DISCOM's credit profile is supported by several factors like stable and predictable cash flows and limited commodity price risks given that the power purchase cost is usually a pass-through. Also, while parallel networks are allowed as per the Electricity Act, 2003 replicating a distribution network poses practical as well as financial constraints, thus implying limited demand risks. However, there are risks that arise from factors like high distribution losses, skewed tariff structure, regulatory uncertainties and reliance on subsidy support from the State Government, especially during the transitory phase. Moreover, a likely increase in competition, especially for the lucrative HT consumers, may also have an unfavourable effect on a DISCOM's risk profile.

² SCADA, or Supervisory Control and Data Acquisition, is a system that enables an electrical utility to remotely monitor, control, coordinate and operate equipment. In a distribution network, it can help manage load, maintain quality, detect theft and thus reduce system losses.



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