



## CONTENTS

- Key Messages
- Background
- Performance of Discoms: A review
- Present practice of tariff-setting: Are we on track
- Highlights of current scenario
- Salient steps taken so far
- What more can be done: Some key suggestions
- Planning: Key to fructify changes
- Final words
- Acknowledgements
- References

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# Crisis in India's Electricity Distribution Sector: Time to Reboot for a Viable Future

## Key Messages

- Agricultural consumers benefit from electricity subsidies provided by the States but these consumers remain unmetered in many cases. Separating the feeder to irrigation pumps from other uses with assured electricity supply during the stipulated hours can contain excessive electricity consumption. In the case of low-income households that enjoy subsidized electricity which remain unmetered, prepaid meters can regulate their power consumptions.
- Discoms in many States are incurring massive losses due to increasing, unchecked regulatory assets. It is necessary that the States explore ways to liquidate them in a time-bound manner without further procrastination.
- The regulatory commissions need to devise ways to keep the State governments at arm's length from the State utilities. The governments should attempt to attract greater participation of private discoms.
- Autonomy of the State Electricity Regulatory Commission has remained elusive in reality. Scopes to revamp the current regulatory structure may be explored with the aim to keep the State government at arm's length from the tariff-setting exercise.
- It is necessary that the current monopolized structure of the distribution sector be reformed and competition be encouraged. One of the ways to manifest this is to separate carriage and content businesses of the distribution segment.
- Regulatory commissions should sensitize the consumers about the rationale of tariff setting and inform them before every tariff revision.
- Every concerned stakeholder should acknowledge the economic relevance at a national level of the present crisis. Political will of the governments (*i.e.*, State and Central) is essential to overcome many of the challenges.

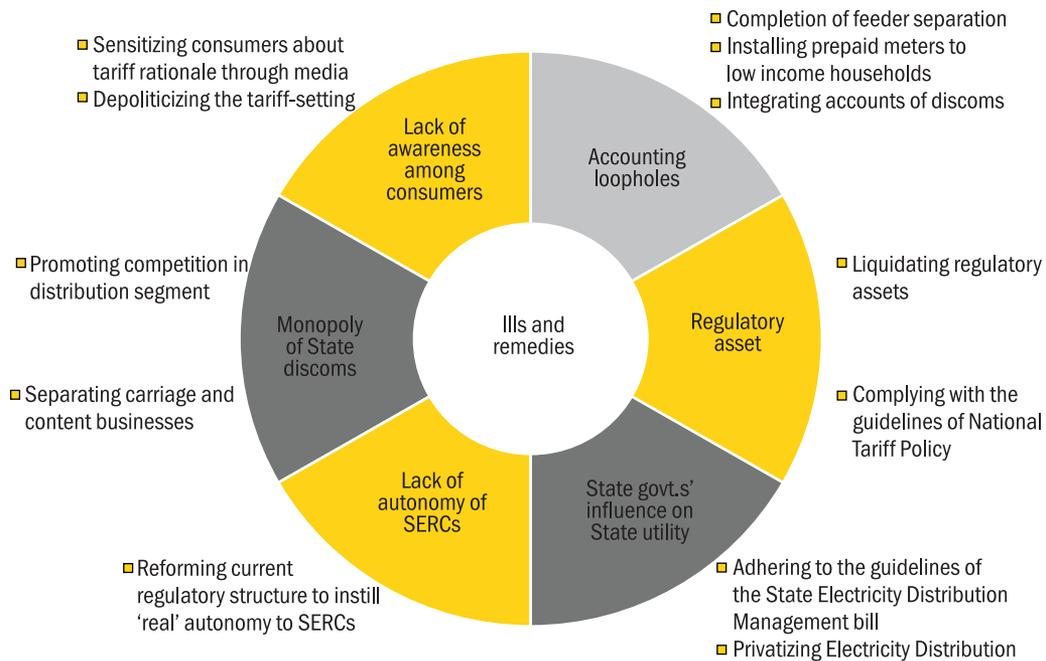


Figure 1: A glance at the possible ills and remedies of financial distress in power distribution sector

Figure 1 gives a snapshot of the findings of the policy brief.

## Background

In many developing countries including India, energy pricing is a subject that involves political economy and engages the interests of different stakeholders. The governments in these countries often exert their discretion to regulate energy commodity prices and provide direct subsidies to realize certain social and economic objectives. This can bring distortion in the market and incur revenue losses without realizing much the desired outcome as can be seen in case of the power sector in India.

Access to affordable electricity for all households in the country with per capita availability at over 1,000 units has been stated as one of the objectives of National Electricity Policy (the Ministry of Power, Government of India, 2005). However, the stated objectives are yet to be fully realized. The per capita electricity consumption in the country is reportedly about 883 kWh (Central Electricity Authority, 2013) in 2012, which is far below the world average consumption level (*i.e.*, around 2,892 kWh/ capita)<sup>1</sup> (Central Electricity Authority,

2013). Against this backdrop, in order to realize their social objectives, the governments at State level show keen interest in providing electricity for irrigation and domestic purposes at a considerably subsidized rate (electricity tariff-setting is a State subject in India). The power tariff is fixed lower than the cost of service for selected consumer categories such as agriculture and low-income domestic consumers.

Concerns have been raised regarding the efficacy of such support mechanism and long-term implications on the economy. Majority of the electricity distribution companies (*i.e.*, discoms), mostly state-owned, have struggled to maintain their financial solvency due to lack of cost-reflective tariff-setting. As distribution segment of the power sector caters directly to the end-users, which means, revenue flow of the sector originates here, any financial imbalance at this segment can potentially create shocks throughout the sector value chain.

Therefore, it is important to bring forth the issue of consumer electricity subsidies into policy discourse as despite continuing policy debate lacunae are still visible in the existing subsidy design, which is aggravated by insufficient oversight. Considering the current policy signals manifested by the incumbent Central

<sup>1</sup> Per capita electricity consumption is considered to have a strong linkage with Human Development Index; the latter is often used as standard yardstick to measure human development in a country.

government on subsidy reforms, this policy brief aims to draw attention of the governments at State and Central levels, policy-makers, and other concerned stakeholders to those systemic deficiencies, and subsequently puts forward a set of workable measures and a roadmap to contain the financial losses of discoms and avoid recurrence of present crisis.

### Performance of Discoms: A review

In the pre Electricity Act (2003) era, aggregate loss of the State Electricity Boards (SEBs) was reported to be around ₹25,000 crores in 2001–02 (The World Bank, 2014), which had cross-sector impact, especially on the public power producers to whom the SEBs had considerable volume of outstanding bills. The Electricity Act 2003 (EA 2003) is a milestone in the reform process of India's power sector. The EA 2003 attempted to bring accountability and transparency in power distribution sector through mandating unbundling of SEBs (*i.e.*, to form independent companies with separate financial accounts), establishment of independent regulatory commissions at State and Central levels and the Appellate Tribunal, and setting guidelines towards rationalization of electricity tariff. However, almost ten years after the enactment of the EA 2003, the combined losses of the utilities still remain at ₹92,845 crores<sup>2</sup> (Power Finance Corporation Ltd, 2013). Often loss-making discoms fail to pay the power producers for power purchases, which adversely affects investor sentiment in the power generation sector. Till March 2012, the outstanding dues payable by power utilities to Central public sector undertakings amounted to more than ₹13 thousand crores (Ministry of Power, Government of India). With few non-State discoms in the market and limited open access (bulk of the power sale being tied to long-term Power Purchase Agreements), power producers find limited alternative buyers for power.

The aforesaid predicament has a serious spill-over effect on lenders, primarily commercial banks and financial institutions. With increasing fund crunch, the players across the three segments of power sector have relied heavily on debt from commercial lenders and non-banking financial institutions. In a recent publication

(February 7, 2014), the Reserve Bank of India has underlined, “*the risks faced by banks on their exposure to the power sector due to rising losses and debt levels in state electricity boards*” (Lokare, 2014). Cumulative debt of discoms to banks and other financial firms is reportedly around ₹200 thousand crores as on 2013 (Kumar & Sethi, 2014). With mounting debt burden, State discoms' last refuge has often been government bailouts. For instance, in March 2013, the Haryana Government agreed to absorb ₹8,162 crores of debt liability of the State power utilities (Indian Power Sector. Com, 2013). Price rationalization is one of the key measures to address such issue. Therefore, it is useful to understand the current practice of tariff-setting and review the status of the electricity distribution sector of the States.

### Present practice of tariff-setting: Are we on track

The State Electricity Regulatory Commissions (SERCs) fix the tariffs through tariff orders in accordance with the National Tariff Policy 2006 (Ministry of Power, Government of India, 2006) and as per the provisions of the EA 2003. The tariff is set based on the estimated Annual Revenue Requirement (ARR) (Box 1) of the electricity distribution licensee(s) (discom) in a financial year.

#### BOX 1: WHAT IS THE ARR?

- The ARR comprises the sum total of power purchase cost (or cost of generation in case of licensee-owned power station), cost of capital, operational and maintenance cost, depreciation, interest on working capital, provision for tax, etc., followed by adjustment with preceding year's unaccounted expenses or revenue gaps.
- The ARR is determined *ex ante* for each financial year of a Control Period (as per the National Tariff Policy 2006 each control period should span over five years. The initial control period is allowed to be of three years).
- Tariff for the financial year is fixed based on the estimated ARR (provisional) and expected electricity sales.

To understand the problems related to tariff and subsidy, it is essential to take a look at the actual tariff dynamics. Box 2 presents an insight into the current scenario.

<sup>2</sup>Without accounting subsidy

**BOX 2: TARIFF AND SUBSIDY: ANY CONFLICT?**

- Average tariff for a consumer is measured from the total tariff-related revenue from the consumer category divided by total estimated electricity sales to the category. In an ideal case, average tariff for a consumer category should be at par with the cost of electricity supply.
- In actual practice, cross-subsidy can be observed where tariffs are less for domestic and agricultural consumers whereas commercial and industrial consumers are overcharged. The National Tariff Policy 2006 stipulates that the SERCs should endeavour to set the tariffs within  $\pm 20\%$  of the average cost of supply latest by the end of year 2010–11. In practice, few States complied with the above guideline though.
- Other than in the three States—Gujarat, Maharashtra, and West Bengal—the average tariffs for domestic consumers in all States in 2010–11 were less than 80% of the cost of supply. Also, only nine States could make the tariff for commercial consumers within 120% of cost of supply by 2010–11, whereas tariffs for industrial consumers were found to be within the limit only in five States.
- State governments (for example, Punjab, Karnataka, Delhi, and West Bengal) give assurance of monetary support (*i.e.*, government subsidy) to the State discoms on the condition of the latter offering tariff concessions to domestic and agricultural consumers.
- The EA 2003 stipulates that the subsidy from the government should be available to the discom upfront. However, in many cases utilities witness gap between the assured amount and actual subsidy received. Table 1 lists the latest available national records on the subsidy booked and received. It is sometimes seen that subsidies payable by the State governments are adjusted with the payable dues of the utilities to the States (*e.g.*, electricity duty) or by reducing the cost of power purchase from State-owned generating companies.

However, this is not the biggest concern. The major element contributing to the mounting losses of the discoms is the provision of regulatory assets. Box 3 highlights the significance of the latter.

**BOX 3: REGULATORY ASSET: IS IT AN ASSET OR LIABILITY?**

- Since tariff is estimated *ex ante*, actual revenue realized may not cover the annual revenue requirement. The gap is to be adjusted while estimating the ARR in the ensuing year. Only in exceptional circumstances (*“natural causes or force majeure”* situations), the SERC may carry forward the deficit with interests to be amortized in future. The former earmarks this revenue deficit as regulatory asset.
- The National Tariff Policy 2006 stipulates that the *“recovery of Regulatory Asset should be time-bound and within a period not exceeding three years at the most”*.
- Records reveal that the facility of regulatory asset is insidious in nature.
- Lack of timely cost-reflective tariff revision has resulted in its yearly nationwide magnitude to the tune of more than ₹70,000 crores and the interest component alone costs around ₹9,500 crores (The World Bank, 2014).

It is widely reported that the discoms in many States (such as Tamil Nadu, Rajasthan, Punjab, Uttar Pradesh, and Haryana) are incurring massive losses due to increasing, unchecked regulatory assets. States like Haryana and Tamil Nadu witnessed no tariff revisions for nine years (2001–10). Rajasthan also merits mention here. Figure 2 shows the top six States on the basis of losses registered by utilities in 2011–12.

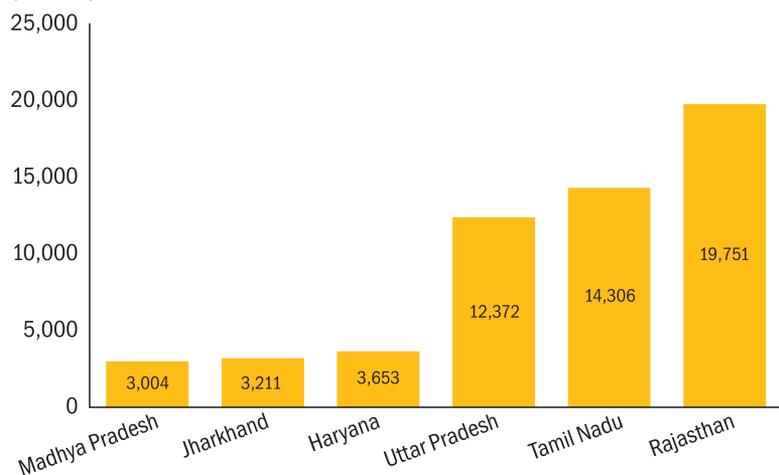
**TABLE 1: GOVERNMENT SUBSIDY STATUS**

Unit: ₹crores	2009-10	2010-11	2011-12
Subsidy booked	34,014	22,666	30,242
Subsidy received	19,074	20,295	25,832
Gap	14,940	2,371	4,410

**Note:** It is sometimes seen that subsidies payable by the State governments are adjusted with the payable dues of the utilities to the States (*e.g.*, electricity duty) or by reducing the cost of power purchase from State-owned generating companies.

**Data source:** The Performance of State Power Utilities for the years 2009–10 to 2011–12 (Power Finance Corporation Ltd, 2013)

State-wise losses (₹ crores)

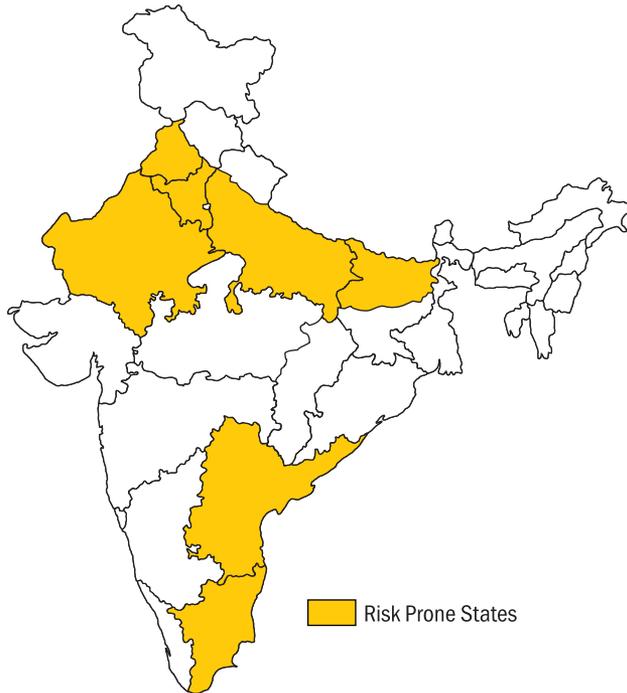


**Figure 2: States having highest losses (accrual basis) in 2011–12**

**Data source:** The Performance of State Power Utilities for the years 2009–10 to 2011–12 (Power Finance Corporation Ltd, 2013)

In such a situation, the State discoms face acute fund crunch in improving their electricity distribution infrastructures. The average pan-India Aggregate Technical & Commercial (AT&C) losses increased from 26.04% in year 2010–11 to 27% in 2011–12 (Power Finance Corporation Ltd, 2013).

## Highlights of current scenario



**Note:** The risk analysis of the States has been done based on the losses incurred by the utilities (actual as well as percentage increase), fiscal health of the States, and the increase in AT&C losses in the States.

Performance year is FY2011/2012.

- Aggregate losses of SEBs in the pre and post Electricity Act 2003 are reported to be ₹25,000 crores and ₹92,845 crores respectively. The Act failed to bring discipline in tariff-setting.
- Their cumulative debt as on 2013 amounts to ₹200 thousand crores. This has serious spillover effect on creditors and power producers.
- Hardly the SERCs adhere to the guidelines of National Tariff Policy. Provision of Regulatory Asset is often misused; nationwide magnitude is as high as ₹70,000 crores and the interest component alone is ₹9,500 crores.
- Government bailouts of the discoms may become inevitable. Paucity of funds impact investments in distribution infrastructure. AT&C losses rose to 27% in 2011–12.

## Salient steps taken so far

The Government of India has introduced schemes to incentivize investments in and improve operational efficiency of the distribution infrastructure such as the National Electricity Fund and Re-structured–Accelerated Power Development Reforms Programme (R-APDRP) (Parliament Standing Committee on Energy, 2013). Boxes 4 and 5 brief the aforesaid schemes.

### BOX 4: NATIONAL ELECTRICITY FUND

The Government of India approved the **National Electricity Fund** (Interest Subsidy Scheme) to promote capital investment in the distribution sector by providing interest subsidy, linked with reform measures, on the loans taken by public and private power utilities for various capital works under distribution projects. This scheme is applicable in the entire country and all distribution projects are considered. The works covered under the Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and the Re-structured–Accelerated Power Development Reforms Programme (R-APDRP) projects are not eligible to ensure non-duplication and non-overlapping of grant/subsidy towards investment. The requirement of funds for the power sector for the XIth Plan was estimated at ₹1,059,515 crores, which included ₹591,734 crores for the Generation sector, ₹15,875 Crores for Renovation & Modernization of existing generation plants, and ₹449,577 crores for the Transmission and Distribution (T&D) sector. The actual expenditure in the distribution sector is much below the estimates due to various reasons during the XIth Plan.

**Source:** Parliament Standing Committee on Energy (Parliament Standing Committee on Energy, 2013)

### BOX 5: RE-STRUCTURED–ACCELERATED POWER DEVELOPMENT REFORMS PROGRAMME

The objective of the **Re-structured–Accelerated Power Development Reforms Programme** is to facilitate State Power Utilities to reduce the level of AT&C loss to 15%. The programme has the following two major components.

**Part A:** For establishment of baseline data and IT applications for energy accounting/auditing & IT-based consumer service centers (expected investment: ₹10,000 crores).

**Part B:** Regular distribution strengthening projects (expected investment: ₹40,000 crores). Power Finance Corporation is the nodal agency.

Initially, funds for projects under both the parts would be provided through a loan. The entire amount of loan for Part-A projects would be converted into grant on the completion of the project and up to 50% (90% for special category States) loan of Part-B projects would be converted into grant on achieving the 15% AT&C loss in the project area on a sustainable basis.

Actual releases, ₹crores (loan/grant): 325/25 (in 2008–09); 1,321/1.26 (in 2009–10); 2,256/100 (in 2010–11); 1,600/68 (in 2011–12); 1,218/9.77 (in 2012–13), respectively.

**Source:** Parliament Standing Committee on Energy (Parliament Standing Committee on Energy, 2013)

However, the major scheme devised to revamp the distribution sector is the Financial Restructuring of the State-owned discoms. Under this scheme, the discoms and the State governments are required to take measures for achieving financial turnaround by restructuring their debt, which will have the support of a Transitional Finance Mechanism (TFM) by the Central government (refer to Box 6).

#### BOX 6: SALIENT FEATURES OF FINANCIAL RESTRUCTURING OF STATE-OWNED DISCOMS

1. (a) Fifty percent of the outstanding short-term liabilities (STL) as on March 31, 2012 are to be taken over by the State government. This shall be first converted into bonds to be issued by the discoms to participating lenders, duly backed by the State government guarantee. The State government will take over the liability during next 2-5 years by issuance of special securities in favour of participating lenders till the entire loan (50% of the STL) is taken over by the State government.
- (b) The State government would provide full support to the discoms for repayment of interest and principal for this portion.
2. The remaining 50% of the STL will be rescheduled by the lenders and serviced by the discoms with moratorium of three years on principal. Repayment of principal and interest is fully secured by the State government guarantee.
3. TFM in support of the restructuring effort will be provided by the Central government subject to certain conditions. The TFM has the following features.
  - (a) Providing liquidity support in the form of grant equal to the value of the additional energy saved by way of accelerated AT&C loss reduction.
  - (b) Incentive in the form of capital reimbursement of 25% of principal repayment by the State government on the liability taken over by the State government under the scheme.
4. A separate arrangement would be worked out for financing of operational losses and interest for the first three years.

*Source:* Ministry of Power, Government of India (Ministry of Power, Government of India, 2012)

Although the scheme was announced in 2012, it has “turned out to be a non-starter” owing to the failure of most of the eight States, accounting 80% of the aggregate losses, to meet the necessary criteria including formulating a detailed plan of the SERCs to liquidate the regulatory assets and reduce cross-subsidy within six months from the date of approval of the restructuring programme.

A new bill, i.e., **Model State Electricity Distribution Management Responsibility Bill, 2013**, holds promise to usher in accountability and professional management of electricity distribution in the States.

Box 7 highlights the key features of the bill.

#### BOX 7: KEY FEATURES OF THE MODEL STATE ELECTRICITY DISTRIBUTION MANAGEMENT RESPONSIBILITY BILL, 2013

1. The State government shall submit in each financial year before the State Legislature an electricity distribution management statement on the slew of measures taken with regard to electricity distribution. The measures will be concerning long-term planning, consumer protection, regulatory compliance, corporate governance, and financial restructuring of the State Distribution Licensee (SDL), so as to bring about the operational and financial viability of the SDL.
2. The statement shall define a set of key performance indicators (KPIs) related to each of the aforesaid aspects, giving stress to payment of dues by government departments and institutions, distribution loss cut trajectory, provisioning of subsidy, energy accounting and auditing, improvement in collection efficiency, and recovery of past receivables. The statement shall also mention the policies and strategies the State government plans to undertake to realize the KPIs.
3. The long-term planning shall require the SDL to estimate demand, AT&C loss, and availability of electricity on long-term basis and, contracts. Also, it shall have a time-bound roadmap to reduce AT&C loss.
4. With regard to compliance issue, the Bill requires the State government to evaluate twice a year the status of compliance by the SDL with the Electricity Act and Rules and Regulations, Policies, and Directives.
5. The State government and the SDL shall enter into a memorandum of understanding for setting targets for KPIs and performance evaluation of the SDL for each financial year.
6. Non-compliance of “duties” by the State government may attract appropriate action by the Central government that may render the State ineligible for power from unallocated quota, etc.

*Source:* Ministry of Power, Government of India (Ministry of Power, Government of India, 2013)

It is too early to comment the resulting impact of the Bill. Moreover, it is silent on matter concerning appointments to and functioning of the SERC.

### What more can be done: Some key suggestions

The current state of affairs of the power distribution sector can be attributed to operational lacunae and policy-related deficiencies. Therefore, salvaging the sector calls for a set of time-bound remedial measures, which can help overcome key hurdles, and broad strategies to realize a lasting solution. Notwithstanding, the complexity of the issue and the persistence of the problems over the years prompt the policy-makers to pay due attention to less-tested solutions and give them a fair trial.

The biggest concern to electricity distribution is insufficient metering of consumers. It leads to under-realization of electricity charges by the discoms which may trigger a vicious cycle of financial pitfalls. Non-billing of consumption not only imposes direct financial burden on the discoms, but also makes it difficult to project consumption pattern and set consumer tariffs in a Multi-Year Tariff framework<sup>3</sup>. Moreover, non-metering exaggerates the AT&C losses. Interestingly in most of these cases, the consumers benefiting subsidies are found to be in the un-metered group. With no credible information about consumption by the beneficiaries available, the SERCs have to depend on the utilities' inputs in fixing tariffs. Lack of measured data on consumption, especially for consumers benefiting subsidies compromises with the transparency required in dealing with public exchequer.

The problem of monitoring the consumptions of subsidy beneficiaries can be addressed by the following two measures.

**Feeder separation:** It is reported that feeder separation for catering to different power requirements can help regulate power consumption, especially in agriculture. To prevent over usage of irrigation pumps and limit power demand, currently many State governments have reportedly stipulated a certain hours per day of power supply (3-phase) to the irrigation pumps with a cap on the rated capacity of the pumps. In essence, the electricity consumption by the pumps during the stipulated hours is subsidized. However, in many cases the aforesaid step has not yielded the desired result. The reason is in most of the cases, electricity is provided to rural households (2-phase supply) and the irrigation pumps through the same feeder. This results in drawing of electricity by the pumps beyond the stipulated hours and thus putting more load than the projected demand which in turn takes toll on the quality of power supply to the households. The solution to this problem has been identified in separating the feeder to irrigation pumps from other uses. Some State governments have taken initiatives towards feeder separation. However, the implementation has not sailed through smoothly owing to certain key shortcomings. First, it is often found that the power supply to the irrigation pumps is irregular;

therefore, the consumer (farmer in this case) is not sure of when he can run the pumps. This has caused trust deficit among the consumers. The solution may lie in “*assured electricity supply for irrigation during a particular period of the day*”, say 6 am to 12 pm, “*without any interruption*”. The period of supply should be informed to the farmers beforehand and should take care of the farming requirement (*i.e.*, supplying power for irrigation during day time instead of after dusk). To make use of the load curve efficiently, the discom may explore scopes to supply power for irrigation purpose in a staggered manner, *i.e.*, the supply time (not the duration) may vary across regions. Gujarat is a success story in this regard. It is the first State in the country to implement feeder separation.

**Pre-paid meters:** Apart from agricultural consumers, low-income households also benefit from electricity subsidy and constitute a part of the un-metered group of consumers. Usually, the State governments put a cap on the consumption level up to which a household is entitled for subsidy. Hence, in such case, metering is unavoidable. However, it is found that even after metering, discoms face difficulties to bill the consumption. The reasons may include resistance from consumers, lack of enough human resource to execute door-to-door checking and monitoring of meters, etc. Installing pre-paid meters is envisaged to solve the problem to a large extent. Under this scheme, a household can claim free credits in a month which will allow it to draw electricity up to the monthly threshold (entitlement) of free electricity; however, the household will be allowed to draw power beyond the threshold of free electricity if the former is willing to buy credits for its total monthly consumption. Thus, the mechanism will allow the government to provide subsidy to households up to a stipulated consumption level. The government may also bring multi-tier credit tariff under this mechanism. Notwithstanding, these pre-paid meters help empower the households to monitor their own consumptions and give the discoms the opportunity to do away with the hassle of door-to-door meter checking. More importantly, this may help reduce AT&C losses and contain the subsidy volume. However, implementation of such programme requires closed coordination among administrations at different

<sup>3</sup> It is found that actual power demand much exceeding the projected sales compels the discom to purchase power through short-term agreements with producers or through open access, both these options are generally costly than power purchase through long-term Power Purchase Agreements.

levels (from State to local level) and comprehensive planning. Initially, the programme can be started in selected districts to get a feel of the challenges and rolled out to other places later in phases. A pilot project of installing pre-paid meters is underway in Guwahati.

Apart from metering, there is concern regarding transparency in the accounting practice of the discoms which often jeopardizes the review exercise of electricity tariff-fixing, undertaken by SERCs (also known as trueing-up). This raises concerns about credibility of trueing-up of tariff-orders and often delays the approval process of tariff-orders. The regulators should recognize that this may lead to graft. Effort should be made to computerize the accounting practice of the discoms with the help of sophisticated software like Enterprise Resource Planning (ERP), which will improve collection, archiving and management of operational and financial data. This will benefit the regulators in undertaking true-up of tariffs in a timely and transparent manner. It is worth mentioning that the present form of R-APDRP does not include computer-based integration of financial accounts of the discoms.

The aforementioned measures can help contain the losses in the power distribution sector but these should be complemented by key reforms in the sector which is essential to address systemic problems. The following section showcases certain reform opportunities related to electricity distribution sector.

### *Discipline in tariff-setting*

Mounting regulatory assets can be singled out as the key concern plaguing the discoms and the power sector at large over the years. Though the National Tariff Policy underlines that this facility can only be adopted as an “exception”, in reality, it has become a common practice. Moreover, till now very few SERCs have conformed to the guidelines spelt out in the Tariff Policy with regard to recovering regulatory assets. It is quite clear that discipline in setting tariffs is necessary to contain regulatory assets and avoid the same in future. The State actors should explore ways to liquidate the existing regulatory assets in a time-bound manner. They should acknowledge that carrying forward the accumulated regulatory assets can only accentuate the problem. This

apart, the SERCs should comply with the guidelines of the National Tariff Policy in letter and spirit with regard to fixing tariff. Cost-reflective tariff-setting is necessary to avoid accumulation of revenue deficits. As stated in the Tariff Policy, SERCs should avoid taking into account the subsidies “promised” by the State governments while fixing tariffs unless and until the subsidy is realized by the discoms upfront before the issue of tariff orders.

### *Institutional re-designing*

Though the Electricity Act 2003 attempted to bring accountability and transparency in power distribution sector, the desired outcome has remained elusive. In spite of unbundling, SEBs continue to function without much independence and are managed by State-appointed board members. The **Model State Electricity Distribution Management Responsibility Bill, 2013** has given stress on recasting the constitution of State-owned discoms. It delineates the responsibility of the State government to ensure that the number of functional directors does not exceed 50% of the board strength, the State-nominated directors are restricted to not more than two, and the number of independent directors shall be as per the provision of the Companies Act. However, it is yet to be seen to what extent the guidelines are followed and the resulting benefits. It is felt that the Bill may be lacking in terms of deterrent to non-compliance by the State government.

In the long term, the State governments may explore privatizing electricity distribution as maintaining status quo of the ailing public units leads to draining of public funds and devaluation of assets. However, in absence of cost-reflective tariff setting, improved regulatory structure and functional autonomy of the sector (*i.e.*, free from governmental interference), it would be difficult to attract interest of private players.

One major deficiency in oversight of the sector is the limited “*real*” independence of the SERCs to function—immunity from any influence from the State governments is questionable. Lack of financial independence and inadequate resource and infrastructure often handicap their functioning and compromise with their autonomy. Also, questions are often raised regarding appointments to key positions in the SERC.<sup>4</sup> At present, there is

<sup>4</sup> Recent judgment of the Supreme Court asking the Tamil Nadu Government to appoint a retired Supreme Court or High Court judge as the chairperson of the TN Electricity Regulatory Commission holds significance. The Supreme Court observed that the tribunal such as the SERC has far-reaching effect. Therefore, they must have essential trapping of the court.

no existing mechanism to oversee the functioning of the latter. Constituting a “super” regulatory body for oversight of the SERCs’ functioning which was thought of by the policymakers at one stage may not be practically possible. It is felt that stricter guidelines can be introduced to oversee the appointments to these regulatory bodies to avoid *conflict of interests* in appointments. The guideline may have provision to bar any former State officials getting appointed to any position in the SERC before three years from the end of their last tenure as the State official. With regard to appointment of former office-bearer of distribution licensee to the commission, similar norm should be applicable, which is, the appointee should not be a partner or an executive, or was not a partner or an executive in the distribution licensee during the preceding three years.

Moreover, a mechanism should be explored to subject the SERCs to strict adherence to applicable laws and regulations.

### Promoting competition

At present, the State-owned utilities enjoy monopoly over electricity distribution in most of the States. In absence of competition, there have been serious lapses in their functioning; the consequence being inefficient delivery of service by the utilities. It is essential that the stranglehold of the public utilities be broken and competition be encouraged in the sector.

Though privatization of the distribution sector was initiated quite some time back, it has remained limited to few circles like Delhi (in 2002) and Orissa (in 1999)<sup>5</sup>; no progress could be seen in other States. Moreover, except in Mumbai (where two private discoms are allowed to supply power in the same circle), the private discoms hold the license of catering to a specific circle with no other discom operating there. Hence, the consumers do not have a scope to choose their distributor. Alleged deliberate hike in cost of power by the private discoms often becomes a topic of debate in the political circle. Fair competition among discoms can weed away such market pitfalls. The government may explore bringing reforms in the Electricity Act whereby more than one discom can serve the same neighbourhood and thus, the consumers can exercise their right to choose their distributor. The

first step towards this is the separation of carriage and content businesses of the distribution sector. The Ministry of Power is planning to bring amendments in the Electricity Act necessary to separate distribution and the retail supply business, each having separate license to operate. However, the Ministry can only introduce requisite provision in the Act; the implementation largely depends on the State governments.<sup>6</sup> Resistance to such plan is expected from State discoms and certain quarters as no party would like to lose hegemony or undeserving advantage. Doubts have also been raised whether the Indian power architecture can accommodate further layers of operation. However, it ought to be noted that the Electricity Act allows open access implying a discom can have access to the wire network in lieu of paying the network owner a charge for transmission or wheeling. However, the regulator should make sure that the access to network becomes non-discriminatory. Considering the initial challenges in implementing the proposed idea, the Ministry may initiate the programme in selected circles only. After garnering sufficient experience and understanding the risks, it can be rolled out to other circles in phases.

### Creating public awareness

Informed consumers are the key for quality service delivery in an economy. Public participation is central to make the aforesaid strategies and measures effective which necessitates strong and apolitical public awareness programme, especially since tariff has been a contentious issue in political circle. The regulatory commissions should make use of the electronic and print media and information technology to reach out to the consumers. The government may stay away from such public awareness programmes to avoid politicization of the issue.

### Planning: Key to fructify changes

It is felt that timely implementation of schemes is the key to yield desired results. This not only fixes a problem before the latter reaches a crisis stage, it helps avoid losses to the exchequer because every delay leads to cost escalation or loss of opportunity cost, thus putting pressure on the budget. However, time-bound execution

<sup>5</sup> Calcutta Electricity Supply Corporation operating in Kolkata is the first private discom in the country. Tata Power Company Limited is also operating in Mumbai for decades now. These happened because of historic reasons.

<sup>6</sup> The latter being the custodian of electricity distribution in respective States.

necessitates preparedness of the actors to overcome any envisaged challenge. Considering the importance of recognizing the challenges and timely implementation of plans, the current policy brief attempts to formulate a target-setting matrix (Figure 3) for the measures and strategies discussed above. The envisaged hurdles may vary from engaging stakeholders to introducing new reforms. Desired timeline is set in view of the current status of the problem and the impact the measure can achieve. It is to be underlined that the given analysis is based on perception. The measures are also classified according to the jurisdictions of the concerned administrations at the State and Central levels since power is a concurrent subject in India. Nevertheless, it should be underscored that each of these measures requires active collaboration between both State and Central governments.

### Final words

Financial distress of the discoms is a raging issue in India for quite some time. However, little headway has been noticed to resolve it. The reason can be, instead of dealing with it as an issue with national economic relevance, it has become a political contention largely because electricity supply is treated here solely as

a public service. The authors feel that now it is time for the concerned administrations to perceive it as a *customer service* which will help bring quality in service and accountability in the sector.

As a matter of fact, the administrations are not actually unfamiliar to the proposed action-points; yet, little substantial has been achieved in reality. There are some cases where the administrations have attempted to implement them. For example, the State of Gujarat has carried out reforms in the electricity distribution sector which include rural feeder segregation across the State (under the Jyoti Gram Yojana launched in 2003), recasting the past debts of the SEB and breaking the hegemony of the SEB by unbundling the latter into seven companies: a holding company for trading, one generation company, one transmission company, and four distribution companies. Some other States are also making progress. Punjab has made strides in putting dedicated feeders for agriculture. Karnataka (537 feeders out of 1,746 have undergone separation under the Nirantara Jyoti Yojana (Chamundeshwari Electricity Supply Corporation Ltd, 2014)), Andhra Pradesh, Haryana, Maharashtra, Madhya Pradesh, and Rajasthan are also taking steps on this front (The World Bank, 2013). On November 20, 2014, the

Government of India approved the launch of Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY), a pan-India scheme to separate agriculture and non-agriculture feeders and implement metering of distribution transformers, feeders or consumers.<sup>7</sup> The cost of the scheme is estimated to be around ₹43,000 crores (Prime Minister's Office, Government of India, 2014).

However, with regard to restructuring the debts of discoms in the country, not much progress is seen. The State and Central governments are reportedly in favour of reworking on the financial restructuring package. On the other hand, everyone is keenly following the outcome of the **Model State Electricity Distribution**

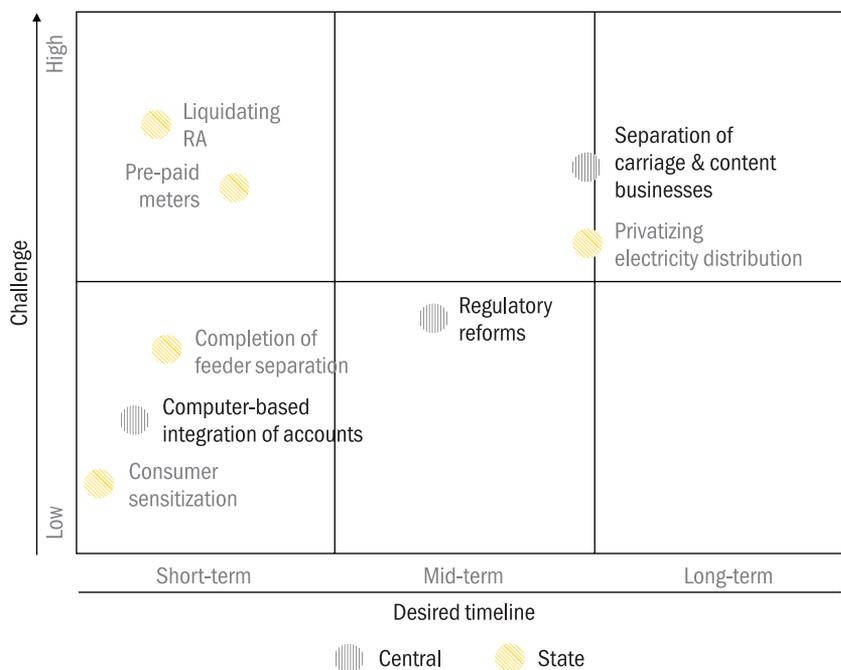


Figure 3: Target-setting matrix for reviving power distribution sector

<sup>7</sup> The remaining work related to rural electrification under the RGGVY scheme will be also subsumed.

**Management Responsibility Bill, 2013**, considered as a key regulatory step towards efficient functioning of distribution sector.

It is quite clear that the issues flagged in this policy brief are far from being resolved. And there is no single silver bullet to address the problems. However, a government with a strong political will is capable of steering the state or the country out of this crisis. It is high time the governments at State and Central levels appreciate that maintaining status quo is not an option, and show right intent to face challenges head on.

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