Distribution sector reforms need of the hour …

The Power sector inherited by the incumbent government was under stress. The issues plaguing the sector were **1) fuel security, 2) fuel scarcity and 3) poor health of the distribution sector.** Over the last 10 months, the government seems to have been addressed the concern of fuel security with a transparent mechanism for allocating coal blocks via e-auction. The aggressive bids for operational and near operational mines by the power and non-power players highlighted the urgency to secure fuel for the long term. Further, CARE Research believes that the subsequent coal block auction of non-operational mines is likely to solve the issue of fuel scarcity to large extent in the medium term. Additionally, addressing the fuel scarcity for the end users (i.e. ramping up of coal production) would require sustained efforts from various state governments, environment ministry (state and central), miners (PSU and captive) and transporters (mainly the railways). In our view, funding required for ramp up of coal production was never (and will never be) a challenge. The solution lies in smart co-ordination and execution among various stakeholders with time bound outcome. However, till date not much progress has been made in terms evacuation of coal (progress on the three critical railway lines[1] which when operational can evacuate upto ~300MTPA of additional coal).

The third and the most critical issue is the poor health of distribution utilities (losses of ~Rs.700 bn in FY13). Aggregate bank funding to DISCOMs was ~Rs3.4tn as on 31st March, 2014. It is widely known that distribution segment is the weakest link in the entire power sector value chain. Unless structural reforms take place in this segment, long term prospects for the overall sector would be in jeopardy. High AT&C losses, unsustainable cross subsidy levels and pile up of regulatory assets have been a bane for the sector for a long time.

Fig 1: All India AT&C losses still remain high and sticky

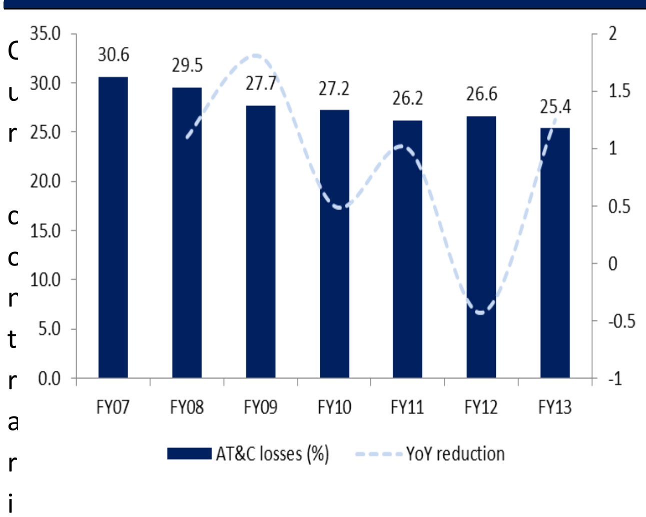
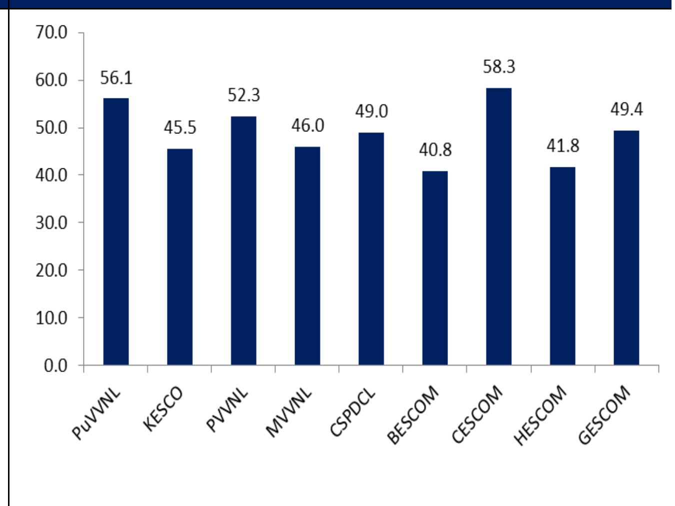


Fig2: cross subsidies in few DISCOMs at unsustainable levels..



Source: CEA, DISCOM petitions, CARE Research

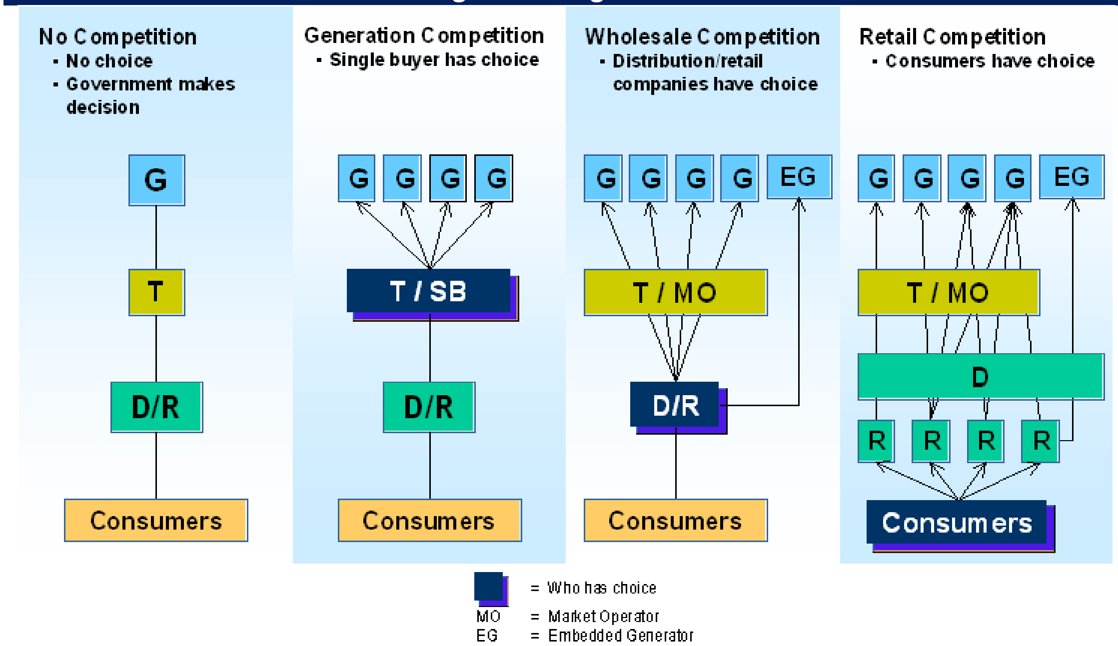
1 Tori-Shivpur-Kathotia Area (in North Karanpura, Jharkhand), Jharsuguda-Barpalli-Sardega (in IB Valley, Odisha) and Bhupdeopur-Raigarh-Mand Area (in Chhattisgarh),

The auction of coal blocks has resulted in three benefits 1) addressing the fuel security issue over the long term, 2) lower tariffs on account of aggressive bids by the end users (under long term PPA and non-pass through of variable charge i.e. fuel charge) and 3) higher revenue to state exchequer (royalty and taxes entirely to state) over a life of mine. Thus, we believe DISCOMs would be the key beneficiaries in terms lower (capped) tariffs and would in turn effect improve their cost overage ratios and stem the ever increasing losses. It can further rejuvenate the dormant Case-I/Case-II bids by DISCOMs.

Financial Restructuring Package (FRP) scheme has not achieved the desired results as analysed in our earlier article on **DISCOM restructuring (dated 10th Oct, 2012)**. Conditions put in FRP w.r.t regular tariff revision have not undertaken by states. FRP, to be successful, requires re-capitalisation of DISCOM balance sheets in the form of budgetary grants/soft loans. DISCOM restructuring (even if successful) alone cannot be a magic wand to solve sector's inherent problems. Serious second generation structural reforms in the Distribution sector are the need of the hour.

The Amendment to Electricity Act, 2003 (supposed to be taken up in the Parliament shortly) attempts to address these structural challenges of distribution sector to a certain extent. The key features of the bill include tariff rationalization for consumers, promotion of renewable energy and enhancing grid safety and security. The bill once cleared by Parliament would enable consumers to choose the company of their choice from which they want to buy power. In other words, the amendment to Electricity Act, 2003 would gradually transform present monolithic, monopolistic and opaque DISCOM structure into a multi-buyer, multi-seller model in the retail supply of power coupled with separation of content (Power supply) and carriage (wire business). With separation of the 'wire' business, the onus of development of the network would rest with carriage provider (currently state DISCOMs). Further, the supply business shall be opened up for competition for private players (wherein the incumbent state DISCOMs would be competing for the supply business).

Fig 3: Evolving Power sector structure



Source: CARE Research

On the contrary, under the current set-up Indian DISCOMs mostly comprise single entity laying last mile distribution lines and ensuring power supply to the end consumers. While the wire business by its very nature is a monopolistic and regulated-return earning business, retail supply is more conducive to provide consumer a choice in the form of multiple suppliers, as it involves purchase of electricity in bulk from generators and selling it to consumers, apart from customer services, billing, and collection of charges from consumers thereby improving collection efficiency and distribution losses. In the present market structure where the wire and retail business is handled by a single distribution company, conflict of interest makes DISCOMs wary of losing its retail segment to competition.

The separation of retail and wire business would be a two stage process. In the first stage, the existing wire distribution business of DISCOM would be separated. (Tariff filings of many DISCOMs show separate ARR of wire and retail business. Those DISCOMs who do not separate ARR filings have been instructed by respective state SERCs to file it from FY15/FY16 onwards). In second stage, ownership would be separated i.e. wire business may be owned by DISCOM or given as licensee to a third party. Similarly, the retail business may be undertaken by third party/parties (competition of supplier at the retail level. Existing retail business of DISCOM shall be deemed as one of the licensees.

However, before allowing this, certain serious anomalies need to be corrected in a phased manner. Presently, the distribution segment suffers from high AT&C losses (as shown in figure 1&2), which can be reduced to normative levels of 15% across the country by elimination of theft, improvement in billing and collection efficiency and improvement of T&D infrastructure at every voltage level. Secondly, unsustainable cross subsidy (i.e. Industrial/commercial consumers subsidize agricultural and retail consumers) levels is also a key anomaly. More importantly, cross subsidies in India are grossly under-estimated as its calculation itself by DISCOMs is grossly inaccurate. Ideally, cross subsidy should be calculated voltage-wise/category-wise to reflect actual cost of servicing any consumer. However, lack of base-line data on voltage-wise consumption gives an incomplete picture of actual cross subsidy levied. Hence, it is pertinent to gradually reduce cross subsidy (in a permissible limits) prior to introducing retail competition.

To give fillip to this process, a surcharge like Universal Charge (UC, as adopted in Philippines) could be introduced across all consumer categories and its collection could go towards formation of a state-wide/national fund to reduce the extent of cross subsidy in retail supply. A combination of declining AT&C losses and UC mechanism may reduce overall cross subsidy entailing cost reflective tariffs across consumer categories.

Critics would argue that reduction of cross subsidy would lead to an increase in agricultural and domestic tariffs which may not be practical due to socio-political compulsions. However, phased state government subsidy introduction for limited period to these cross-subsidized consumers and gradually increasing their tariffs, thereby reducing overall cross subsidy with a tariff shock could be a far superior option (than bearing a large cross subsidy only by high paying consumers) to make tariffs truly cost reflective.

A decline in industrial tariffs (by reduction in cross subsidy) would result in enhanced competitiveness auguring well for the subsidizing consumers through a meaningful growth in their consumption pattern.

Another anomaly that exists in the power distribution segment is accumulated financial losses i.e. regulatory assets. To correct this, a Special Purpose Vehicle (SPV) could be proposed to take over the regulatory assets recognised and approved by SERCs tariff order and transferred to this SPV. To recover the losses a regulatory surcharge can be levied for the limited period till the assets are fully recovered. Alternatively, the state can recapitalize the losses by infusing equity and improving overall efficiency of DISCOMs by making them profitable over the longer term.

The proposed amendment to Electricity Act, provides a fillip for renewable energy (minimum 10% of power should be generated from renewable resources). The bill also confers power to "appropriate commission" in this case, SERC to fix the minimum and maximum ceiling of tariff for sale or purchase of electricity for period of maximum one year to ensure reasonable prices of electricity (so that consumer do not get tariff shock which might be possible under current FPPCA mechanism).

Finally, CARE Research is of the opinion that the introduction of competition in retail power supply could be limited to commercial and industrial consumers (HV/EHV). Currently these consumers have to pay open access charges for sourcing power directly from generators. Over a period of time, with reduction in cross subsidy, open access charges could be minimised to create a level playing field for all the consumers. At this stage, it is very critical to establish 1) adequate and matching transmission capacity to optimise flow of electricity across regions, 2) vibrant short term power market, 3) accurate baseline data for voltage-wise consumers and 4) regulatory compulsions for ownership separation of wire and retail supply business. The last step is transfer of PPAs to these supply Licensees (present DISCOMs). Subsequently, the state government would invite competitive bids/purchase power from the power market for various distribution circles to ensure healthy competition in retail power supply segment across the country.

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