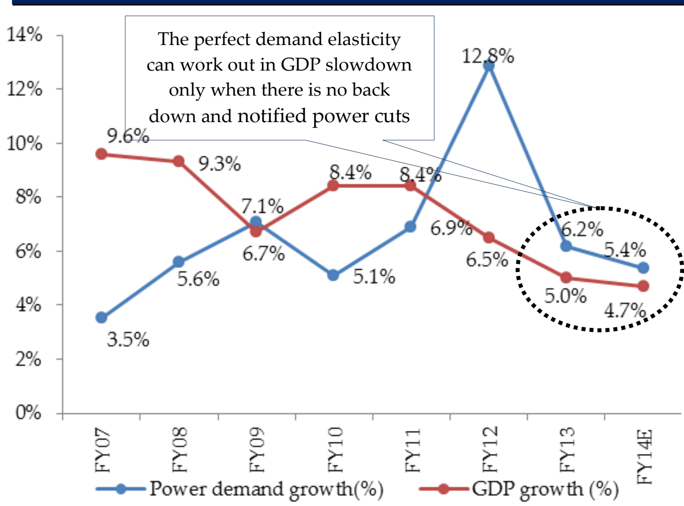
Power T&D Sector–The catch up game begins...

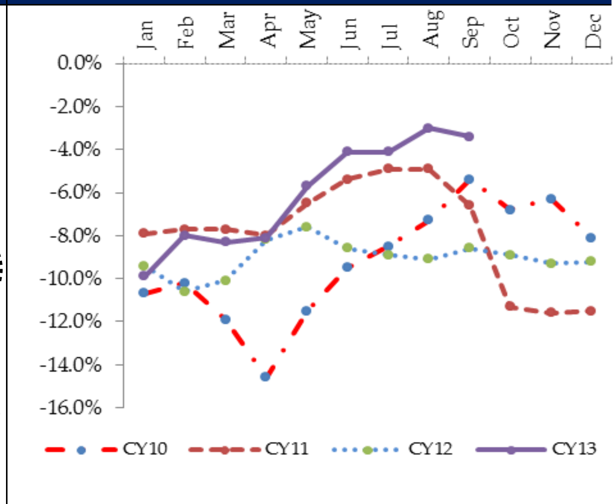
Demand at decade low, though early signs visible, gradual recovery expected

All-India power demand has tapered-off (March-Sept) in FY14 with a slowdown in GDP growth (since FY11/12) and delay in restructuring state DISCOMs. The demand grew by only 1.7% YoY in Sep-13 and 2.6% YTDFY14 led by off-take back-down by DISCOMs coupled with continuing load shedding in tier-II/III cities in Northern/Southern region. **CARE Research** expects a gradual recovery in power demand with DISCOMs going slow on 1) implementing financial restructuring package (FRP), 2) buying power from the open market and 3) entering into fresh long term power purchase arrangements (by inviting Case-I/II bids).

Demand growth witnesses a significant slowdown...

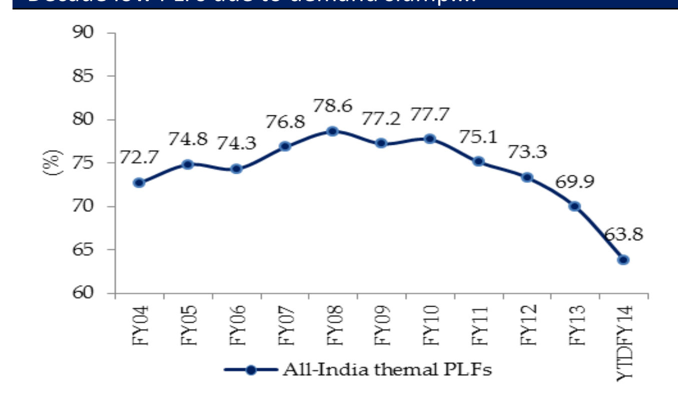


...Energy deficit too dipped to decade low

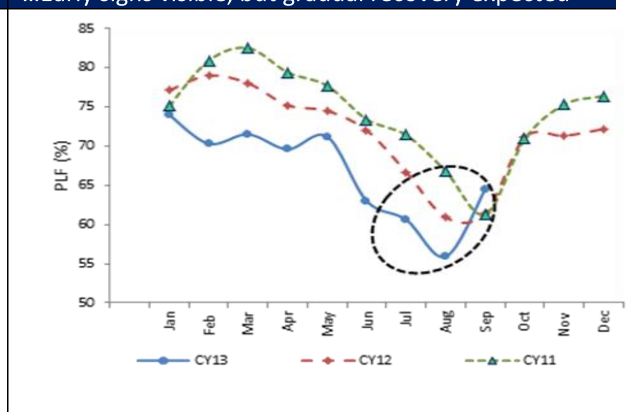


Source: CEA, CARE Research estimates

Decade low PLFs due to demand slump....



...Early signs visible, but gradual recovery expected



Source: CEA, CARE Research

CARE Research has analysed 11 states comprising of 30 DISCOMs. These states constitute ~80% of all-India power demand in the last three years and continue to dominate in the 12th Plan. While the power demand in these states grew at 5.9% CAGR in the 11th Plan (FY08-12), CARE Research expects it to grow at 6.1% CAGR in the 12th Plan (FY12-17E).

After analysing the power deficit scenario by state/region, **CARE Research** notes that the Northern region has been perennially deficit and is expected to remain so going forward. However, the individual states show divergent trends. While, UP and Haryana would remain chronically deficit, Punjab is expected to be power surplus by FY15E. With meagre capacity addition in the past, Karnataka is expected to remain power deficit till FY17. However, TN is better equipped to deal with power deficit, given a slew of central projects totalling ~2.4GW getting added by FY15E, synchronisation of southern grid with NEW (North-East-West) grid thereby enabling transfer of surplus power from western region to southern states. Western region is power surplus with states like Gujarat (GUJ) and Chhattisgarh (CGH) being already power surplus. Further, states like MAHA and MP have added faster capacity, which has surpassed the demand and is expected to do so in the near future. MP is expected to become power surplus in FY14E and is set to add ~6.0GW to its installed base by FY15E.

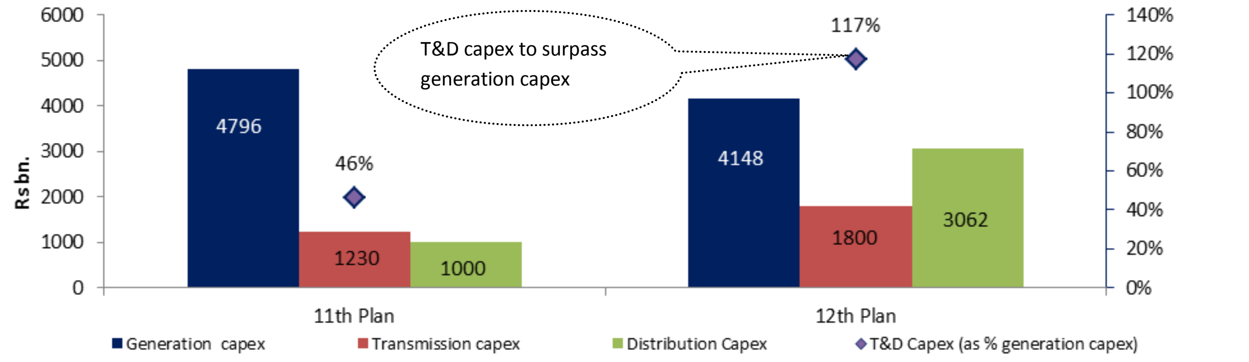
Regulatory environment in T&D sector evolving, regulatory independence is imperative

While, the regulatory environment in the power generation space is well developed, it is still in the early days for T&D sector. With the introduction of competitive based tariff bidding and rising private sector participation in the transmission sector, conflict of interest arises with PGCIL playing a dual role - transmission planning (as a CTU, POSOCO) and execution of interstate transmission projects and is thereby privy to commercially sensitive information. Going forward, **CARE Research** is of the opinion that POSOCO should be separated to provide a level playing field as there is increasing private participation in the transmission sector.

Indian transmission system lags generation; PGCIL to play a catch-up game

India has a three-tier transmission and distribution sector, consisting of the inter-regional grid, state grid and distribution networks. As a rule of thumb, for every rupee invested in power generation, a rupee should be invested in the Transmission and Distribution (T&D) sector. However, historically there has been an under investment in T&D sector resulting in the transmission system lagging the generation capacity addition. As a result PGCIL, (a pan India CTU) has to play a catch up game in the 12th Plan.

India is expected to witness a rise in share of T&D capex in the 12th Plan



Source: PGCIL, CARE Research

Tariff hikes alone can't bailout DISCOMs....structural improvement & financial discipline imperative

The 30 DISCOMs (11 states) under study have effected series of tariff hikes in the last three years. However, **CARE Research** believes that tariff hike alone can't bailout the DISCOMs given 1) substantial Regulatory Assets on DISCOM balance sheets, 2) untreated gap which has left tariffs far from being cost reflective, 3) unsustainable levels of cross-subsidization with a slowdown in high paying subsidizing consumers (such as commercial and industrial) and 4) emergence of group captive model wheeling away high paying consumers.

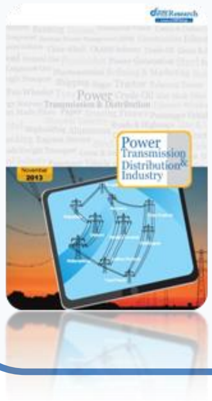
Distribution Franchise model is emerging as a preferred model for PPP in the Distribution sector...

Although, privatization in the Distribution sector was initially carried out in order to encourage the public private partnership through licensing model (TATA Power, CESC, Torrent and R-infra etc.), the Distribution Franchisee (DF) model is emerging as a preferred model due to 1) asset ownership resting with DISCOM, 2) acceptance of DF model (v/s privatization) by the stakeholders i.e. DISCOM, state government and the consumers on account of same tariff levels in the DF area/circle and 3) DF model is far more flexible, which can be offered to rural/semi-urban/urban areas/circle (v/s privatization interest seen only into urban areas). Further, there are various types of DF models developed to suit DISCOM needs and create supporting infrastructure to reduce AT&C losses to normative levels (~15%) in a time bound manner.

The DF arrangement is based on 1) input energy feed-in, 2) metering and billing arrangement to be improved by the franchisee and 3) capex required to reduce existing distribution losses coupled with improvement in collection efficiency by curtailing theft.

Distribution sector benchmarking...

CARE Research has developed a Proprietary Scoring Methodology for DISCOMs to comprehensively assess them based on four major parameters 1) state support, 2) regulatory environment and policy support, 3) key structural parameters and 4) key financial parameters. **CARE Research** believes that above mentioned parameters comprehensively assess the current position of DISCOMs given limited level of disclosures and non-availability of their audited financials in the specified time limit. Further, in **CARE Research's** endeavour to provide complete picture of practices followed by state regulator and actions of the state, we have also incorporated some qualitative aspects in our methodology. The scoring methodology is however constrained as only few financial parameters are available for FY11/FY12 and even has a lag of 2 years in case of some DISCOMs.



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