# Developing an Adequacy Architecture for Power Procurement to Make 24/7 Power Supply a Reality

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Electricity customers in most parts of India are a deprived lot as the state discoms decide to feed electricity requirements indiscriminately or load shed them alternatively. Access to electricity remains poor - the per capita consumption today is less than 1,000 kWh, which is much lower than the world average of approximately 3,000 kWh. Supply to end consumers in many states is only for 12-14 hrs. Ironically, even as states claim to be power surplus, and trade surplus power at Rs 2.50/unit over exchange, diesel generators run at an average cost of Rs 15/kWh.

As per the PCRA report of 2013, diesel generation capacity is in the range of 60-90 GW. But, there are projects of around 6000-8000 MW capacity, which have access to coal, but are stalled because of lack of bidding opportunities thereby proving that there is something amiss and needs immediate attention.

The Electricity Act was framed with the objective of supplying adequate quality and affordable power to all. There is a specific law that obligates utilities to supply on request. Regulatory commissions are mandated to give adequate consideration to consumers' interests. However, in practice, this obligation has not been given due attention and consumer interests are disregarded by regulators and state discoms.

The key concerns for not meeting the 24*7-hr supply are as follows:

- **Inadequate demand estimation:** The demand forecasts by CEA capture only scheduled shutdowns. What it fails to measure in these forecasts is the unmet demand.
- **Sub-optimal utilization of generating capacities:** This is also hampering prospective investment in the generation segment.
- **Inadequate transmission capacities**
- **Financial constraints**

For addressing these key issues, regulators can consider the following measures:

- **Accountability of distribution utilities towards consumers:** State discoms should be made to better understand their responsibility of ensuring 24*7 supply. Discoms should be asked to draw up a detailed plan to ensure 24*7 supplies by 2019. For this we need to empower the consumer. Necessary regulations need to be put in place to ensure that utilities respond/behave responsibly and adhere to regulator-determined standards of quality and conditions of supply. We need to provide the consumer the right to get power, provided he pays his bills. All cuts in power (unscheduled cuts to begin with), over-voltage damages, etc., should be compensated for. Scheduled power cuts will have to be declared well in advance and also compensated to a different extent. Such compensation could be taken - but it will begin the era of consumer empowerment and correct reporting.

- **Measuring unmet demand and per capita consumption:** It is imperative that unmet demand is correctly forecasted/measured using a mechanism that records the number of hours of power not being provided by the state grid. This can be achieved by appointing a nodal agency dedicated to carrying out pilot projects to source data related to unmet demand. Such an exercise was initiated by the REC in the past. The REC had asked TPDDL for certain data. The same can be replicated elsewhere too.

- **Plan for procurement of power:** Each discom should be asked to draw up a detailed plan for procurement of power to ensure 24*7 supply by 2019. For starters, discoms should be asked to ensure a minimum of 20 hours of supply considering unmet demand.

- **Financial constraints:** Financial constraints should be removed, especially the ones relating to curtailment in supply to reduce losses or manage means, as tariffs are kept artificially low.

- **Monitoring mechanism:** Regulators can also consider introducing a monitoring mechanism to oversee the progress of discoms on these aspects. This platform could also serve as a support system for discoms to address any difficulties being faced.

**About the author**

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