

Challenges and way forward in the Electricity Sector— some thoughts

Prayas, Energy Group

Trends and Way Forward in the State Electricity Sectors: An Experience
Sharing Workshop

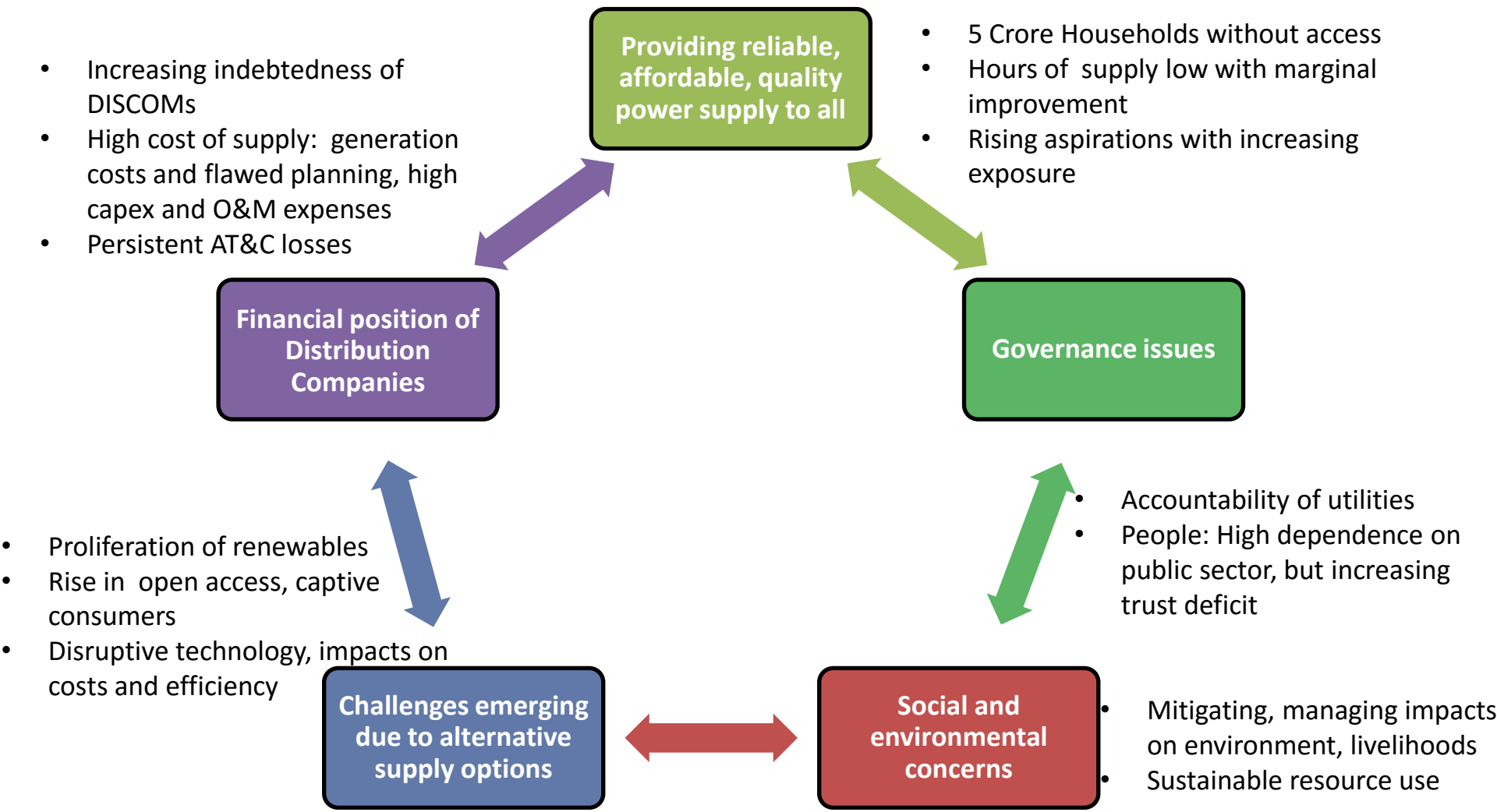
11th and 12th September

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Electricity sector in India

- Dynamic policy environment
 - UDAY, Power-for-all, revised environmental norms, SHAKTI
 - Lot of flux: potential policy amendments, technology driven changes, sales migration
- Ambitious targets
 - 175 GW renewable capacity by 2022
 - Significant ramp-up in coal capacity
 - 24 x 7 Power for All by Dec 2019
- Large public finance implications
 - Flagship electricity access program (DDUGJY) - ~Rs. 60,000 cr
 - UDAY – state governments to take on losses of more than ~2,50,000 cr
 - More than ~Rs. 65,000 cr annual revenue subsidy from state budget
 - Impact on banking sector due to power sector NPAs
 - Stranded assets and ‘surplus capacity’ also implies resource lock-ins.

Major challenges before the sector



Distribution Sector – New challenges → new approach

- Increasing sales migration due to high tariffs
 - Open Access and Captive options
 - HT sales growth rate in Punjab, Maharashtra and Madhya Pradesh has been negative in the recent past.
 - Most of the open access is on short-term basis (day ahead)
 - 40% increase in captive consumption in Gujarat (29,000 MU) and Rajasthan (11,300 MU) between FY11 and FY15
 - Falling prices of renewable energy
 - Latest discovered tariffs < Rs.3/kWh for large solar, <Rs.5/kWh for Rooftop solar and <Rs.4/kWh for wind
- Growing surplus power and its financial impact

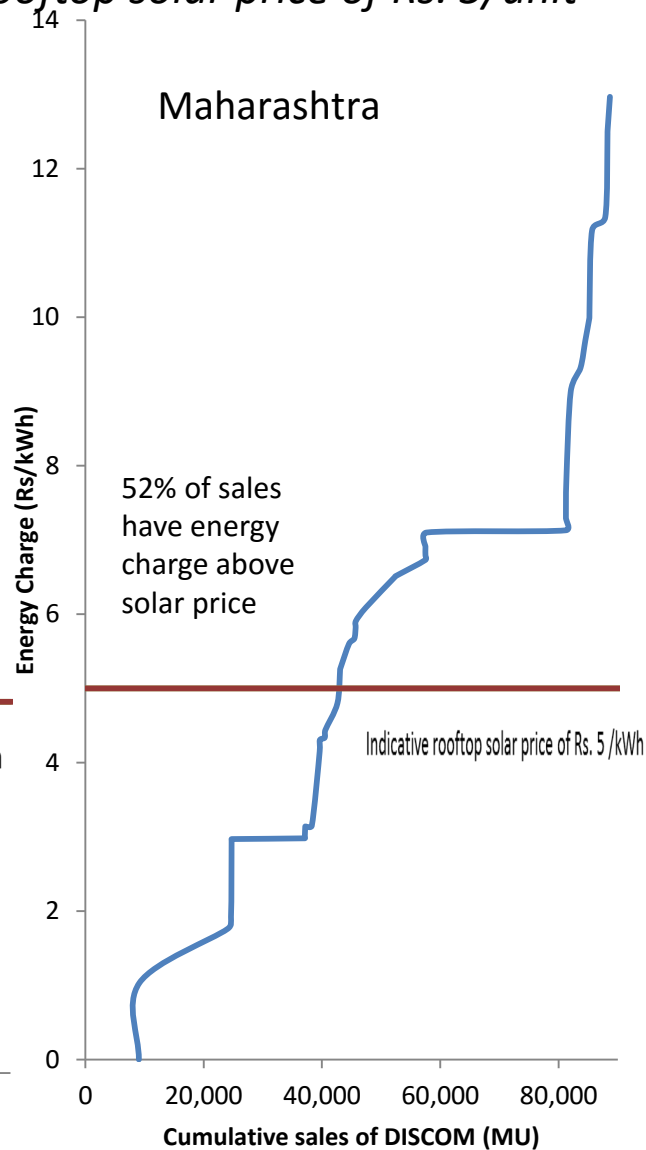
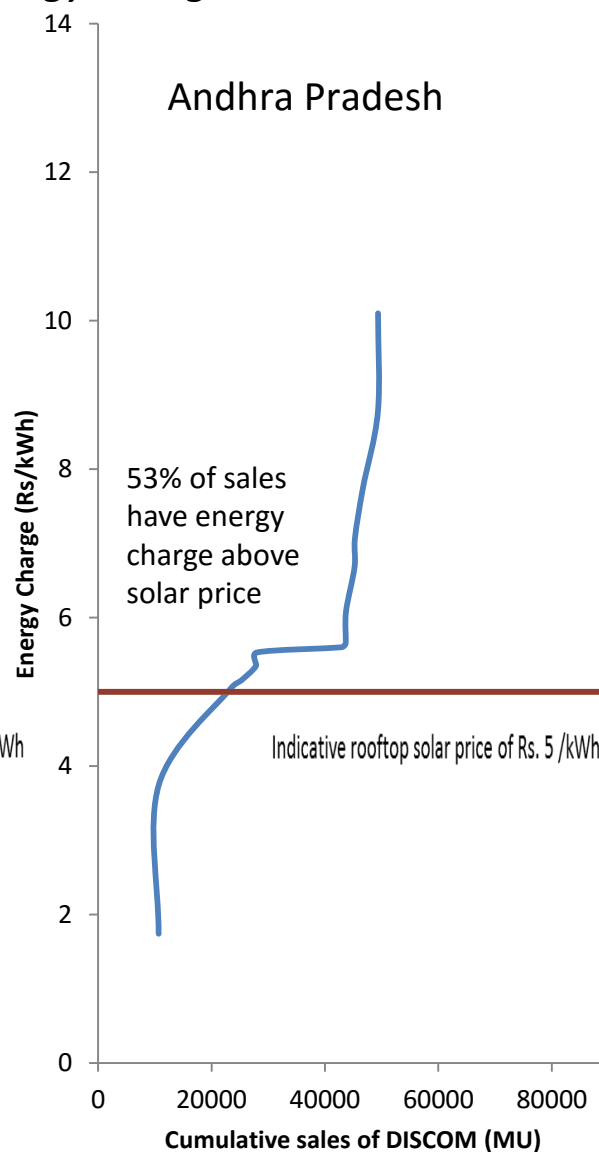
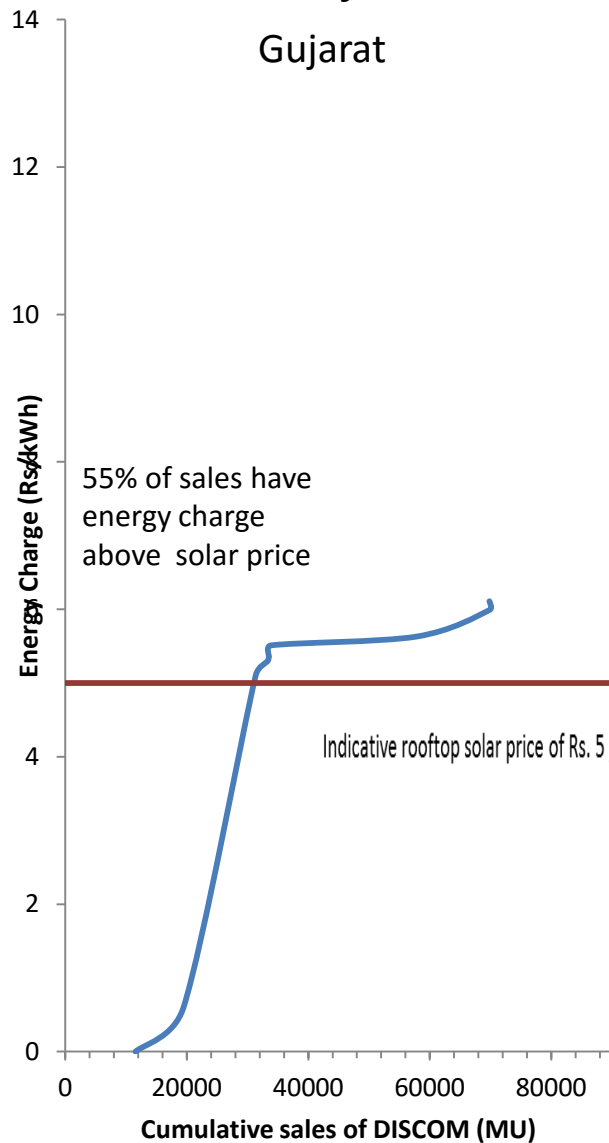
State DISCOM (2015-16)	Backing Down Reported (MW)	% of Contracted Capacity (%)	Fixed Cost Payments to due to Backing Down (Rs. Cr)	% of total fixed cost payments to generators	Fixed cost payments for backing down as compared to agricultural subsidies (%)
Rajasthan	1,798	14%	1,051	16%	59%
Punjab	3,457	27%	3,006	33%	51%
Maharashtra*	4,231	19%	2,828	21%	59%
Madhya Pradesh	2,444	17%	2,177	28%	40%
Gujarat	5,525	30%	3,823	36%	104%

Source: Various regulatory submissions and tariff orders

*Maharashtra data for the year 2016-17

Renewable energy: A feasible and lucrative option

About 50% of sales have energy charge above indicative rooftop solar price of Rs. 5/unit



Implications of changes...1

- Transition to future scenario can have severe financial impacts
 - Stranded capacity or 'surplus' power
 - Loss of revenue
- Power Procurement Planning to become more complex
 - Increasing role of RE
 - Significant Uncertainty in Demand
 - Major changes in DISCOM Operation
- Changing consumer mix → Change in DISCOM business
 - Increasingly difficult to sustain cross-subsidy based approach
 - DISCOM to continue to 'supply' small consumers
 - Supply and service quality issues will need to be focused on
 - Change in sales mix to have political economy implications as well.

Implications of change...2

- Significant implications for Governance
 - Increase in complexity
 - New players in the sector
 - Role of regulator / regulatory functions will need to change
 - Institutional capacity will be a major challenge
- Continuing trust deficit between different actors
 - With poor quality supply and rising tariffs
 - Issues with holding DISCOM and other players accountable

Broad contours for way forward

- Prioritise needs for the poor
 - Small consumers issues need to be focused on
 - Impact on tariff, supply and service quality to be significant
- Address trust deficit
 - Periodic monitoring of supply and service quality, utility performance
 - Increasing public availability of data and communication with all actors
- Sector policy making, regulation and implementation needs to be agile
 - To technological changes and Industry, market structure changes
- CSOs need to be open to new policy prescription and approaches
 - Look beyond set pathways
 - Consider multiple policy options
 - Open to emerging changes and new ideas

STATE LEVEL ENGAGEMENT: EXPERIENCE SHARING BY PEG

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Major lessons from state engagement...1

- Working with multiple actors and institutions
 - Agricultural demand re-estimation in Maharashtra
 - Collaborative effort by CSOs
 - Engagement with State Govt., regulatory commission, and academic institutions
- Significant traction for innovative approaches which addresses multiple objectives
 - Agricultural solar feeders in Maharashtra and Andhra Pradesh
 - Utilising the thrust on solar power to further farmers' interests
- Creative use of available spaces/opportunities to ensure long term accountability
 - Agricultural demand side management in Andhra Pradesh
 - Introducing accountability provision in programme

Major lessons from state engagement...2

- Long-term and consistent engagement necessary on multiple forums
 - Compensatory tariff/ competitive bidding related cases
 - Review of capacity addition by Mahagenco
- Proactive, analysis based policy/regulatory engagement
- Consistent collaborative engagement among CSOs
 - Maharashtra's active group of consumer representatives