MSEDCL Final True up for FY 2014-15, Provisional True up for FY 2015-16 and MYT Tariff Petition for the Period from FY 2016-17 to 2019-20 (Case No 48 of 2016)

Case 48 of 2016

Presentation

by

Prayas (Energy Group), Pune

20 July 2016

Pune Public Hearing

आरोग्य, ऊर्जा, शिक्षण आणि पालकत्व
या विषयांतील विशेष प्रयत्न

Summary of Issues raised in Case 121 of 2014

- Sales migration and its implications due to open access and rooftop solar
  - Backing down of contracted capacity
  - Loss of cross-subsidising consumers

- Current model is unsustainable as
  - Ceiling on subsidy support
  - Increasing tariffs will encourage sales migration
  - Creation of regulatory asset will only avert tariff shock

- Need to explore possibility of
  - sale of surplus power to reduce revenue requirement
  - Innovations in tariff design

- Commission to undertake planning process which includes
  - Demand estimation based on scientific methods which accounts for energy efficiency, unmetered consumption, price elasticity etc.
  - Scenario building exercise for assessing impact of sales migration
  - Institutionalise process for third part monitoring of supply quality and capital expenditure

Present proposal

Particulars	Amount	Unit
Revenue requirement estimated for FY 15-16	59,144	Rs Cr
Claimed revenue gap till FY 20	56,372	Rs Cr
Average cost of Supply in FY 15-16	6.15	Rs/unit
Projected average cost of supply in FY 20	7.66	Rs/unit

- Backing down of 6000 MW- 8000 MW every year
- Proposal to levy additional surcharge on open access which will effectively double CSS
- Fixed cost increase across all categories
- In spite of the trend, no increase in Open Access beyond FY 16, no migration on account of net-metering and rooftop solar
- For next 2 years, tariff increase proposed for HT industrial and commercial is 5.50% to 6.50%
  - 46 % of sales have energy charge > latest RTPV discovered rates

Shortcomings in the petition

- Power procurement related issues
  - Cost increase not accounted for
    - Levy of clean environment cess (Rs. 400/MT)
    - Increase in CIL notified coal price
    - Accounting for compliance to MoEF norms as per Environment (Protection) Amendment Rules, 2015.
  - No plans for sale of surplus power

- Distribution related issues
  - Estimation of O&M costs not as per MYT regulations
  - Capex based on unapproved grants
  - Supply and service quality concerns

- Incorrect and impractical agriculture sales estimate leading to artificial loss reduction

Assessment of impact of shortcomings using *RATE Model – developed by Prayas*

- **RATE** (**R**evenue **A**nd **T**ariff analysis for **E**lectric utilities) Model
  - Financial and performance analysis model *developed by Prayas*
  - Excel based transparent model
  - Provision for disaggregated inputs for various components of utility operations
  - Structured to assess impacts of changes in various parameters
    - Allows for comparison of 'What if' scenarios
    - Scenarios can be based on varying parameters such as capex, Opex, RE procurement, sales migration etc.

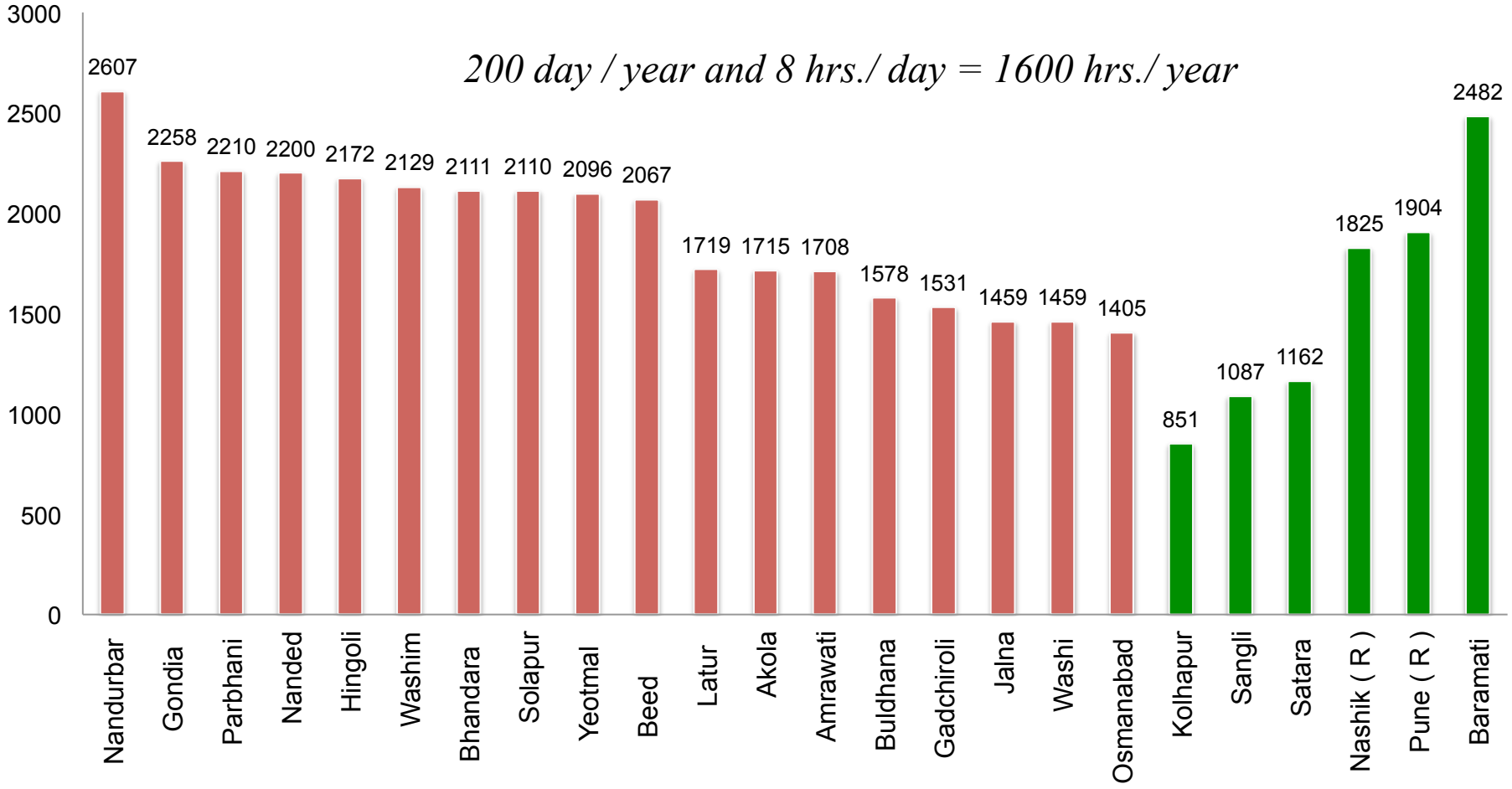
- Possibilities with RATE Model
  - Provide early warning signals for areas which need attention
  - Assess potential net impact of interventions or regulatory decisions
  - Consensus building among stakeholders

Potential Impact on Revenue Gap as per RATE

Financial Year	FY 17	FY 18	FY 19	FY 20
Factors that will inevitably increase cost	**(All figures in Rs CR)**			
Fuel cost increase	2102	2029	2109	2220
Coal Cess	*1401*	*1353*	*1405*	*1472*
Coal Price	*701*	*675*	*704*	*748*
Sales migration	922	1946	2807	3797
Loss of revenue due to open access with additional surcharge	*650*	*1317*	*1505*	*1847*
Loss of revenue due to open access without additional surcharge	*2002*	*2569*	*3188*	*3847*
Loss of revenue due to captive sales	*273*	*630*	*1302*	*1950*
Levy of carrying cost on revenue gap	1366	1766	1803	1270
Capital Expenditure funded through loans, not unapproved grants	220	721	1272	1804
Total Cost Increase	4610	6462	7991	9091
Factors that possibly can reduce cost with effort				
Reduction in Operations and Maintenance if as per MYT norms	-1443	-2082	-3131	-3942
Restatement of Distribution Loss	-1988	-4304	-7256	-10493
Sale of claimed surplus	-5977	-9068	-7296	-6322
Total possible cost reduction of 60% of above measures	-5645	-9273	-10610	-12454
Net reduction	**-1035**	**-2811**	**-2619**	**-3363**

Agricultural Sales estimation and impact on tariff

Hours of operation per year



FY 14-15 circle-wise data

Distribution loss estimation

- Data and analysis shows that agriculture sales estimation is flawed and unrealistic
- Restatement of agricultural sales and hence distribution losses to realistic level is a **MUST** for meaningful tariff determination
- Delaying this any further would be a travesty of the public process
- Considering appropriate agricultural pump hours of operation would imply that distribution losses are around 21-23% instead of the claimed figure of 16%

Cost reduction due to loss reduction	FY 16	FY 17	FY 18	FY 19	FY 20
Energy at distribution periphery	123747	127362	126946	131416	136126
Distribution loss as projected by MSEDCL (%)	16%	14%	13%	13%	13%
Distribution loss trajectory after restatement (%)	23%	21%	18%	16%	13%
Reduction in tariff due to re-estimation of sales		1988	4304	7256	10493

Backing down and surplus

Particulars	FY 17	FY 18	FY 19	FY 20
Capacity projected to be backed down in MW#	4869	7387	5944	5150
Potential generation in MU	34153	51815	41694	36124
Potential revenue from sale of 50% surplus @ Rs. 3.5/unit	5977	9068	7296	6322

 # This is capacity excluding stations such as Parali, Kawas and Gandhar which cannot be scheduled due to lack of water and fuel.

- No plan to sale the surplus power
- If surplus power is sold at Rs. 3.50 / unit significant reduction in revenue requirement is possible

Past interventions regarding capacity addition Planning

Date	Case no and details	PEG submission gist
20th January 2010	Case no 104 of 2009 for procuring 1000MW base load on medium term basis under International competitive bidding process (Case-1)	Direct MSEDCL to submit following information: • Demand supply forecast for next 5-10 years, • Immediate, medium and long term power purchase plans and the efforts it is undertaking in the same regard • Current status of all the projects expected to be commissioned in next 1-2 years Rationale for procuring the quantum proposed in the current petition in the context of the above mentioned points Without having such complete information and understanding it is difficult to comment on power purchase planning
29th June 2010	Case no 14 of 2010: Approval of 2000 (± 20 %) MW instead of already approved 1000MW base load power on Medium Term basis	As per the current petition, MSEDCL is seeking to double the quantum of requirement from 1000MW to 2000MW which again brings to fore all the issues that were raised by Prayas in its earlier submission
24th October 2010	Case no 56 of 2010: approval of 125 MW PPA with Adani Power Maharashtra Ltd and adoption of tariff.	CERC's report states that tariff discovered by MSEDCL is higher than cost plus tariff worked out for similar project. MSEDCL should justify, (based on the above planning process) why it still wishes to procure additional quantum at such high tariff instead of going for a fresh round of bidding for this additional requirement.
31st October 2012	Case 53 of 2012: approval of PPA for additional quantum between Indiabulls Realtech Ltd. (Nashik) and Adani Power Maharashtra Ltd	• Lack of Demand forecast analysis • No clarity regarding capacity addition in pipeline • Other developments that have direct bearing upon this case • Need for Suo-motu public process to asses power purchase planning
16th April 2015	Case no 121 of 2014: MYT petition for FY 2014-2016	In the last 3-4 years, on numerous occasions, including the MYT business plan approval process, it was submitted that MERC should undertake a thorough review of the capacity addition and actual generation as it has direct bearing upon the power purchase expense as well as surplus and/or load shedding.

Sale of Surplus and capacity addition plans

Need to think of ways to generate revenue from sale of surplus

- Potential options:
  - Sale to Mumbai discoms through medium term PPA
  - Sale to licensees and open access consumers outside the state
  - Incentivise large consumers to consume more than their previous year's total consumption
    - For every incremental unit (on a month to month basis) that is consumed over and above the past consumption level there could an incentive /rebate

- No new PPA
  - PPA initialed with RattanIndia for additional capacity of 660 MW should not be signed
  - No new MSPGCL / NTPC capacity
  - Explore surrender of stake in high cost NTPC plants such as Solapur, Mauda, etc.

Supply and Service Quality

Supply Quality

- Steep increase in O&M and Capital Expenditure
  - No related improvement in supply quality

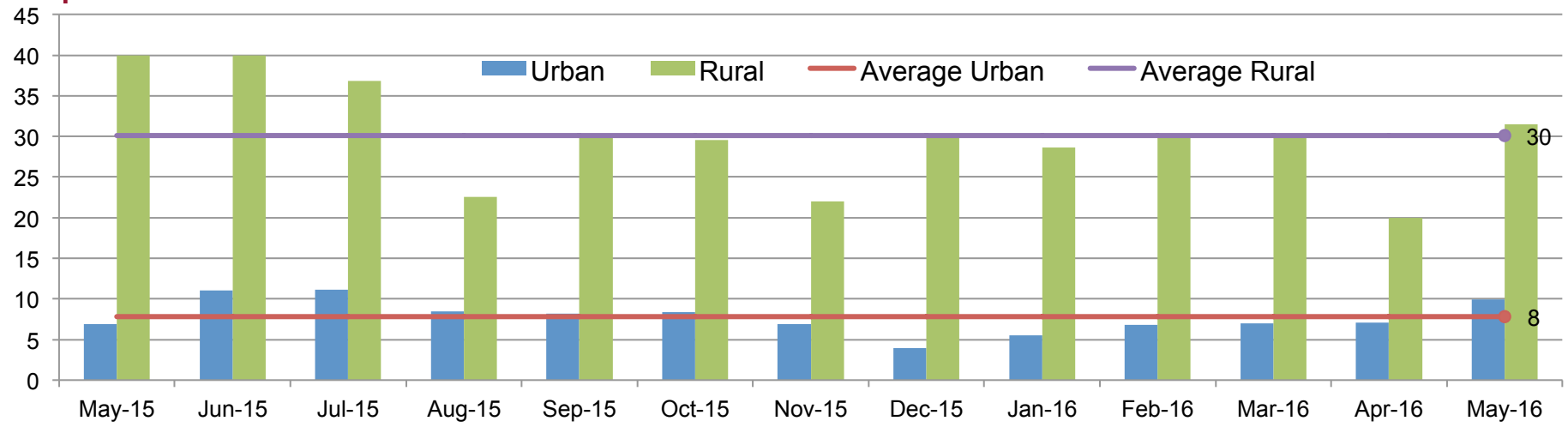
- Till date, no public process undertaken regarding compliance with Standards of Performance

- No analysis of reliability indices, feeder load data, load shedding and load management by MERC

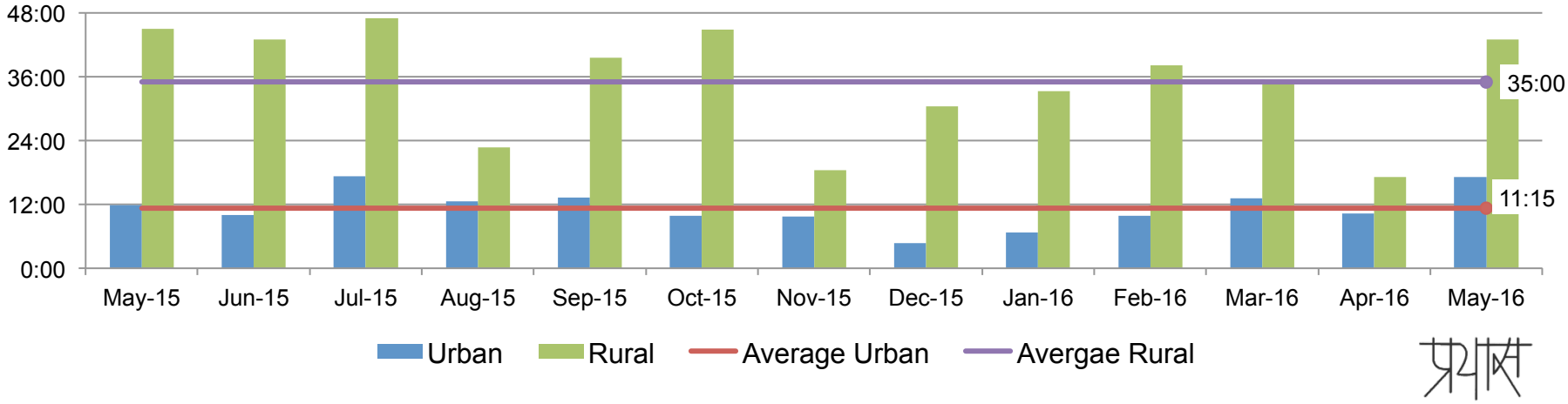
- No third party audit of capital expenditure or SoP compliance

- Anecdotal evidence suggests the supply quality in urban areas is also very poor

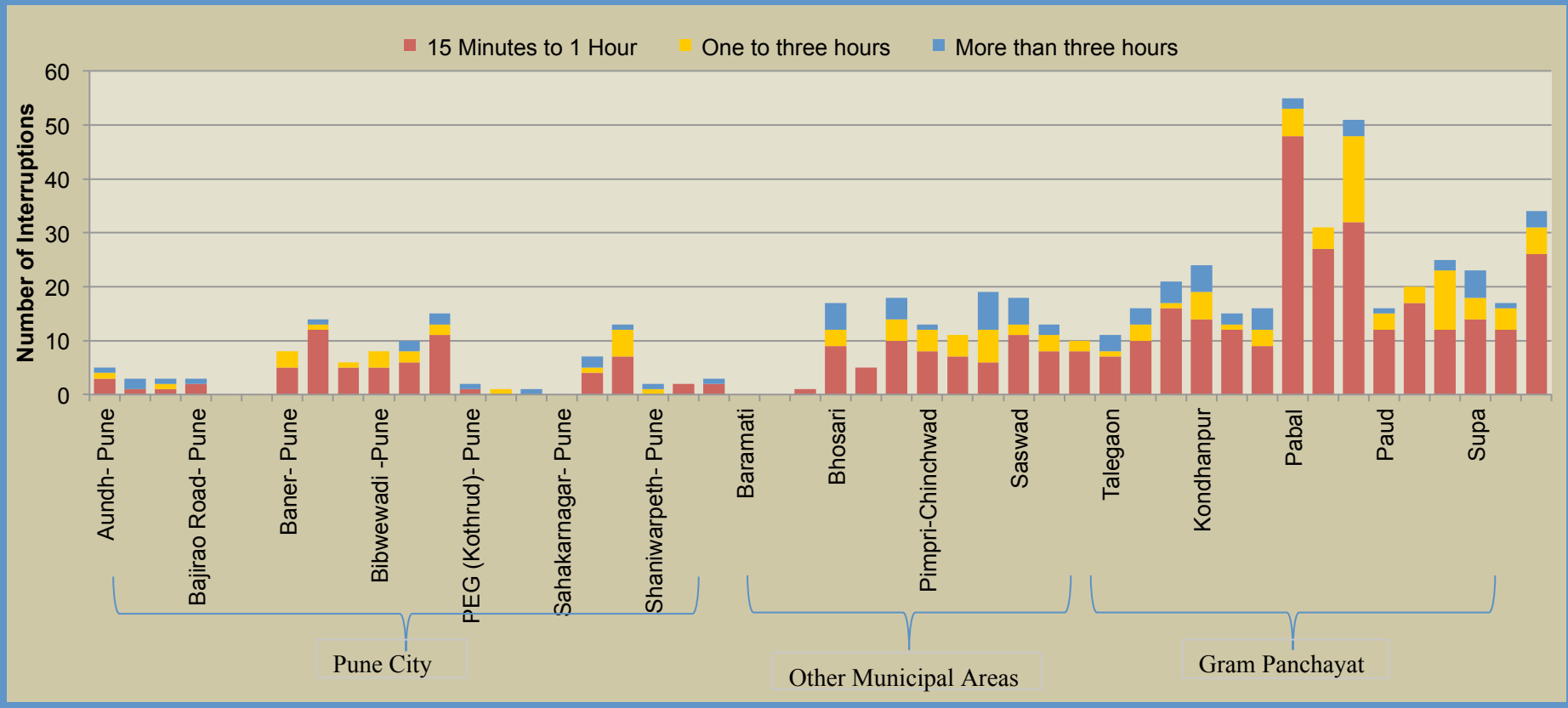
Number of Interruptions (> 15 mins) in Pune District during 2015-2016 difference in Urban and Rural status



Hours of No supply (> 15 mins) in Pune District during 2015-2016 difference in Urban and Rural status



Average number of interruptions (>15 Minutes) in Pune District during March-May 2016



Hours of Outage	Mar-16	Apr-16	May-16
Pune City	6	10	9
Other Municipal Areas	23	10	30
Gram Panchayat	34	17	42

Prayas (Energy Group)

ID : PDAL160703

Source : www.watchyourpower.org

PEG Submission …1

- Uniform tariffs for all LT consumers with a connected load of less than 10 kW and up to 300 units of consumption per month
  - Telescopic tariffs (say, with 2-3 slabs) with uniform slab-wise tariff across the categories
  - For consumption above 300 units, the tariff slabs as well the tariffs can vary across categories and can be charged high tariffs such that the proposal is revenue neutral

- Linking tariffs of small consumers to inflation to enable automatic and certain tariff increase
  - Small consumers (say, < 300 units per month) to say, inflation minus 2%.
  - Tariffs for such consumers should be revised automatically at the beginning of every financial year based on the previous year's inflation index.
  - Charges and the escalation in tariffs should be fixed for the MYT period and should not include FAC and other additional charges, as that will reduce tariff certainty.
  - Post the MYT period, the tariff design and the charges should be evaluated

PEG Submission …2

- Promote migration of consumers with connected load > 1 MW by supplying power based on fixed term contracts at mutually agreed rates:
  - Sales migration to open access, captive and renewable sources is an inevitability and DISCOMs need to evolve a new business model to accommodate this changing reality.
  - One approach to mitigate this impact would be to have separate tariff structures for large consumers who are eligible for open access (i. e: consumers with a connected load > 1MW) but choose to stay with the Discom for at least one or two years
  - MERC should monitor the supply and the rates to ensure no undue gains or loss accrue to either the regulated or the open access eligible consumers
  - Will also help in reducing adverse impacts of short term open access on discom's power purchase and revenue requirement

- ERC white paper – 10 year perspective plan
  - Focus on Competition issues, demand estimation and power procurement, finances, competitive supply for industries
  - Stakeholder consultation –public hearing etc.

Thank you

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