Before MERC in the matter of Case No. 134 of 2012

MSEDCL Petition for approval of MYT Business Plan for the period of FY 2013-14 to FY 2015-16

Comments and Suggestions by

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10th May 2013, MERC, Mumbai

Why MYT?

- Statutory requirement
  - Section 61 of Electricity Act 2003
- National Electricity & Tariff Policies
- Forum of Regulators report recommending standard MYT framework
- Prevalent regulatory practice
  - Most states have adopted MYT regime

Objectives of any MYT framework

- Provide regulatory certainty to consumers, utilities and investors
  - Minimizing the perception of regulatory risk
- Facilitate sound planning practices and processes
- Address risk sharing mechanism between utility and consumers based on controllable and uncontrollable factors
- Reduce operational efficiency
- Reduce tariff in the long run

What needs to be done for successful MYT

- Reliable baseline data for making future projections
- Rigorous and scientific demand forecast
- Long term power purchase and capital expenditure plans
  - Managing coordination between different utilities and generators
- Continuous monitoring and evaluation of trajectories for various performance parameter
- Co-relating MYT exercise with supply and service quality and financial performance of the utility
  - Benefits should accrue to consumers in the form of predictable costs and reliable service

Implementation of second MYT

- Process began in December 2010
- Regulations notified 0n 4th February 2011 and came into force from 1st April 2011
- Utilities filed petitions requesting for deferment of implementation of MYT Regulations
- Cases filed before ATE, litigations are going on
- Exemption from these regulations granted by MERC till FY 13
  - Effectively, 5 year control period reduced to three years

Summary of MSEDCL MYT proposal

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Power purchase	32920	35869	42685	57058	67085
O&M	3296	3806	5486	6560	7635
Capex related	2733	3527	4760	5369	5703
Others	3028	4295	5088	4949	5334
Total ARR	41976	47498	58019	73936	85756
Revenue from Trading of Surplus Power	0	0	222	6857	9897
Distribution cost Rs Cr	9056	11629	15334	16878	18671
Sales in MU	81569	83615	93157	100855	109298
Distribution margin	1.11	1.39	1.65	1.67	1.71
Avg cost of supply (total ARR)	5.15	5.68	6.23	7.33	7.85
Avg cost of supply (reduced ARR)	5.15	5.68	6.20	6.65	6.94

Salient observations

- Proposal aims at almost doubling the total ARR in the span of next 3 years
- CAGR of Operations and maintenance costs is 18%
- CAGR of capex related costs is ~16%
- Mahagenco is still the largest source for MSEDCL power purchase and hence its cost affects overall cost of supply
- Power from central sector remains most economical (*high PLFs and low variable cost*)
- Share of private generation expected to rise
  - Subject to this power becoming available as per PPA rates and terms and conditions

MSEDCL power purchase basket

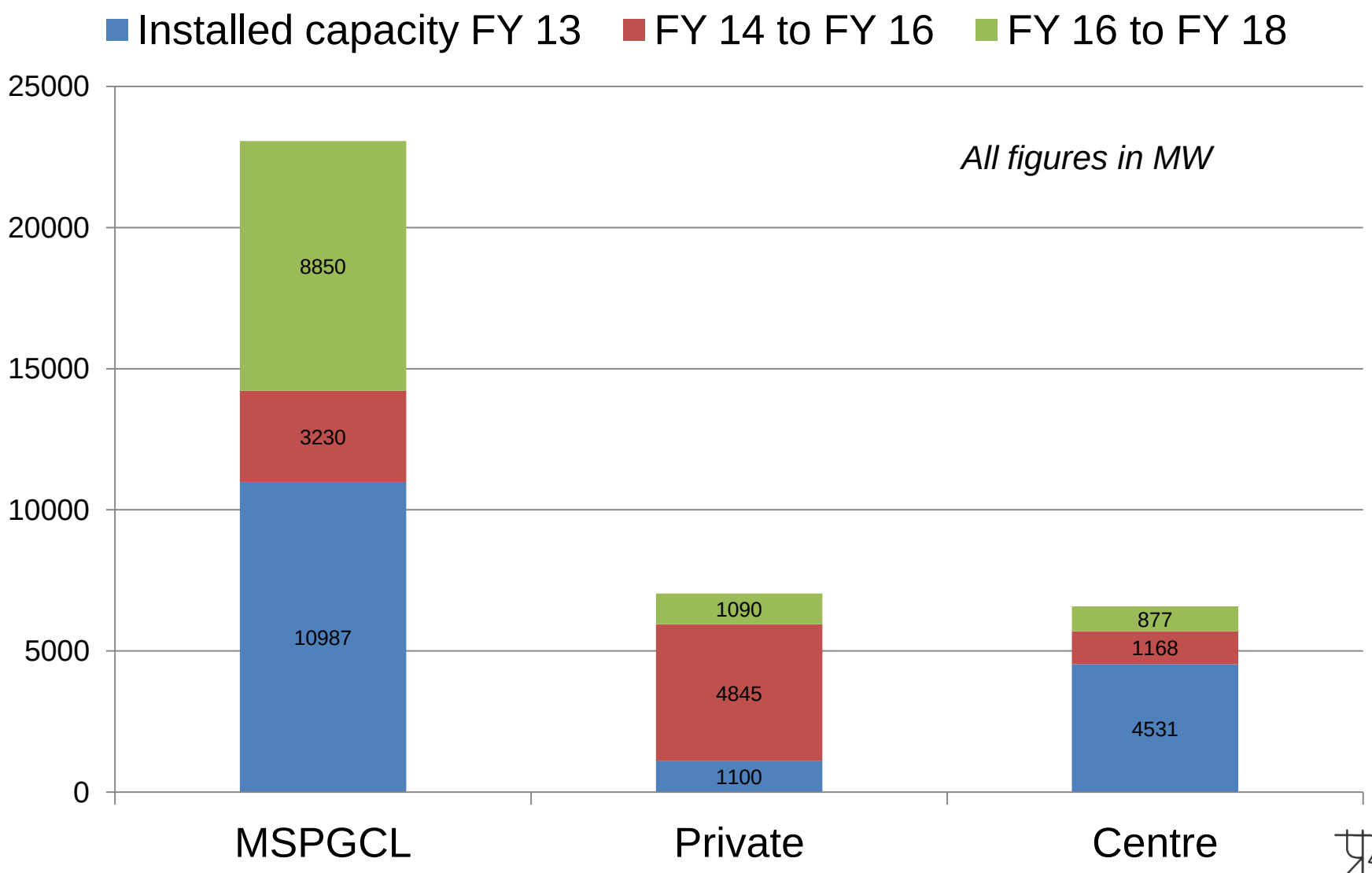
Source	FY 2012-13		FY 2013-14		FY 2014-15		FY 2015-16	
	Rs/unit	% share	Rs/unit	% share	Rs/unit	% share	Rs/unit	% share
Mahagenco	3.58	43%	4.11	41%	4.49	39%	4.70	40%
Centre	2.57	28%	2.78	28%	2.97	24%	3.12	23%
Private	2.93	4%	2.79	16%	3.15	24%	3.24	22%
RE	4.49	7%	5.31	7%	5.65	7%	5.92	8%
RGPPL	5.03	5%	4.75	5%	4.94	4%	5.18	3%
Market	4.00	11%	3.58	1%	3.50	1%	3.50	1%
Total	3.53	100%	3.70	100%	3.94	100%	4.14	100%

Projections made by MSEDCL are based on various assumptions and do not match with MSPGCL projections for the same period

Comparison of MSEDCL numbers with Mahagenco estimates

Year	Mahadiscom (Realistic)			Mahagenco (MYT)		
	Net Generation (MU)	Total cost Rs Cr	Cost Rs/u	Net Generation (MU)	Total cost Rs Cr	Cost Rs/u
2011-12	43075	13178	3.06	43437	13572	3.12
2012-13	43804	15703	3.58	43595	15644	3.59
2013-14	47675	19608	4.11	55398	19282	3.48
2014-15	56370	25306	4.49	70808	27923	3.94
2015-16	*65278*	*30682*	*4.70*	*78492*	*32103*	*4.09*

Capacity addition plan till FY 2017-18



Choice between devil and the deep sea

- Proposed capacity actually comes online
  - MSEDCL will have large amount of high cost surplus power
  - Selling surplus power in market may not recover the entire cost
  - Backing down will also impose costs
  - Result, consumers will have to bear higher tariff
- Proposed capacity does not come online
  - Deficit and possibly (selective) load shedding
  - High cost medium term power purchase to offset the demand supply gap
  - Consumers will have to bear with both load shedding as well as high cost power resulting in higher tariff

Dangers of ad-hoc planning approach

- Projections regarding costs, load Shedding and surplus generation are sensitive to various factors

- For example, a preliminary analysis of MSEDCL's surplus projections using a chronological generation optimization tool called 'Plexos' indicates that a large chunk of the surplus claimed by MSEDCL is available off-peak and off-season

- Any proceeds from such sale will not cover the costs to be paid by MSEDCL thus increasing the burden on the common consumer while subsidizing large consumers

→ In spite of having access to all the relevant data, commission has never undertaken any independent planning exercise and has relied on utility's submissions alone

Lack of coordination on part of MERC in power purchase planning

- Significant delays in commissioning of MSPGCL capacity
  - Standard delay is of about 2 years
  - Significant cost overruns on account of delays in commissioning
  - All new capacity of MSPGCL has average generation cost of more than Rs. 4 per unit
- Lack of clarity regarding certainty of capacity contracted through competitive bidding process
  - On going litigations
  - Some projects stalled
- MSEDCL may end up with large amount of high cost base load capacity
  - Inefficiency of power purchase planning is the single most contributor for increase in tariff

→An effective commission could have avoided this situation

  - Numerous submissions demanding appropriate action from commission have been made in this regard

Proposed Load shedding protocol…1

Table 6: Percentage DCL range and load shedding Hours.

Group	Other Region		Ag. Dominated Region	
	Distribution Collection Losses (DCL)	Load shedding hours	Distribution Collection Losses (DCL)	Load shedding hours
A	0% to 18%	3.15	0% to 21%	11.00
B	>18% to 26%	4.00	>21% to 29%	11.30
C	>26% to 34%	4.45	>29% to 37%	12.00
D	>34% to 42%	5.30	>37% to 45%	12.30
E	>42% to 50%	6.15	>45% to 53%	13.00
F	>50% to 58%	7.00	>53% to 61%	13.00
G1	>58% to 66%	7.45	>61% to 68%	13.30
G2	>66% to 74%	8.30	>68% to 76%	14.00
G3	Above 74%	9.15	Above 76%	14.00

Proposed Load shedding protocol…2

- It is not clear that proposed protocol is for what level of demand supply gap
- MSEDCL is proposing feeder level load shedding without having reliable mechanism for monitoring feeder load data
- MSEDCL has proposed to install AMR meters for ~24000 consumers but in spite of approval since 2006-07, AMR metering of 11kV feeders has not been undertaken
- Reliable and accurate feeder load data critical for loss estimation as well as load shedding accountability

→ Commission has failed to hold utility accountable for load shedding
  - Allowing utility to unilaterally change protocol
  - Admitting petition with this kind of ambiguous proposal
  - No insistence from commission to ensure compliance with its own directives (11 kV feeder metering)

Load management

- Capex of Rs. 2317 Cr approved for Goathan Feeder Separation scheme
- Additional capex of Rs. 268 Cr for Single phasing is also approved
- Petition has no data on actual and estimated load relief on account of these schemes
- No analysis of how it has affected load shape and load profile of MSEDCL
- Reporting of this under SLDC data is also not consistent in terms of format and terminology thereby making it difficult to make independent assessment

→ Commission has not done any independent analysis of this important issue which has direct bearing on hours of supply

Demand estimation…1

- Projection is based on assumption of increased supply availability and reduced hours of load shedding
  - It needs to be analyzed whether change in load shedding and load management patterns is significant enough
- Estimation of un-metered agriculture consumption
  - No analysis/scrutiny of utility's claims of 'inability' to provide metered connections
  - No analysis from the commission regarding correctness of index itself
  - Last tariff order, there was directive for MSEDCL to undertake study review the index that is used for calculating agriculture consumption.

Demand estimation..2

- Not enough analysis has been provided to explain how surplus Mus have been worked out
  - Seems like surplus has been calculated by simply deducting annual demand from availability
  - However, in spite of having annual surplus there can still be load shedding during peak season and peak periods
  - Further if surplus is available at off-peak, off season periods, it is questionable at what rate it can be sold in open market
- → Commission should have looked into these issues while admitting the petition itself
  - Example, assumptions for assessment of surplus generation, compliance with past tariff order, load management details, etc. should have been explicitly included

What have we achieved through MYT?

- Till date no rigorous demand forecast exercise based on actual economic data and realistic models
- Power purchase planning which accounts for more than 70% of the total cost has largely been ad-hoc or non-existent
- Mahagenco performance has been extraordinarily bad
- Huge amount of capex has been undertaken but no scrutiny independent or otherwise, regarding its efficacy and how it has improved service quality, if at all
- Numerous litigations are ongoing pertaining to the few cases where the commission has made any attempts at reducing costs or improving efficiency
- Overall, the MYT has only served for increasing tariffs more regularly than what they should and what they need to be

Commission largely responsible for failure of MYT

- Failure in power purchase planning
  - In spite of numerous submissions, no action taken which has resulted into ad-hoc planning
  - Consumers bear the burden of high cost power purchase or load shedding
- Failure in protecting consumer interests
  - SoP regulation amendment process started in August 2010, still not concluded.
  - Road-map for cross-subsidy reduction still not finalised
  - No benchmark data for reliability indices
  - LT general category tariff not being implemented
- Failure in holding the utilities accountable
  - Load shedding protocol, Un-metered agriculture sales, non adherence of performance norms, etc.

Review of MYT process

- In light of grave lapses on part of the commission in failing to achieve any of the MYT stated objectives, there is need to undertake a serious review as to what MYT regime can achieve and how it should be implemented, if at all

- Given the absence of independent analysis on part of commission and utility's reluctance to any kind of accountability for its costs and operations, it will be highly unfair to impose MYT regime based on a plan which is not even owned by the utility
  - Utility has categorically objected to MYT based planning and has considered all tariff components uncontrollable
  - Commission has approved such petition to form basis for public debate which itself is a travesty of the MYT process

- Hence the burden of this inefficiency of the commission must not be passed on to consumers

Summary of Prayas Submission

- MYT regime has been an utter failure in terms of controlling costs and/or improving predictability, efficiency and planning
- Inefficiencies on part of the commission largely responsible for this failure
- Utility is opposed to concept of MYT and controllable parameters, thereby making it difficult to workout any long term plan
- There cannot be long term tariff determination which is based on such grounds
- Therefore MYT should be deferred till the commission resolves issues pointed earlier and undertakes independent analysis at least on important issues (power purchase planning, unmetered agricultural consumption, Genco's operating norms, etc.)
- Till such time, tariff should be determined on yearly basis and presently for FY 13-14 alone

THANK YOU

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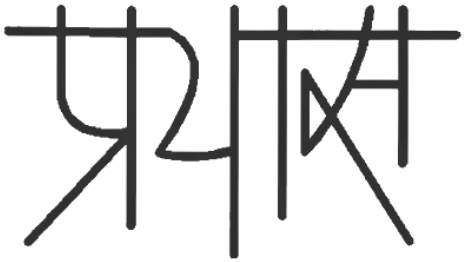

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