

Mumbai Power Crisis

MERC Case nos. 1/10, 7/10, 9/10, 16/10 and
GoM Memorandum

Preliminary Comments and Suggestions by
Prayas (Energy Group)

Ashwini Chitnis, Shantanu Dixit

28th June 2010

Context: Related Petitions

- Case no 1 of 2010: BEST's Petition for approval of Power Purchase Agreement dated 5th February 2010 between BEST and TPC-G
 - Case no 7 of 2010: RInfra petition seeking relief on account of critical issues (cross-subsidy and regulatory asset recovery) affecting its consumers
 - Case no 9 of 2010: RInfra petition seeking modification in current IBSM and moving to FBSM
 - Case no 16 of 2010: Tata's petition assailing legality of SLDC's action of not scheduling 160 MW for TPC-D
 - GoM Memorandum – Public hearing on 28th June 2010
- ➔ Combined submission by Prayas (Energy Group)

Importance of present proceedings

**Is Indian Electricity Regulatory
Framework capable of making
distribution licensees accountable ?**

Developments leading to current crisis...1

- RInfra has no long term PPA except with its own generating unit of 500 MW
- Nov 2007 PPA signed between BEST and TPC-G for 800 MW and TPC-D and TPC-G for 447 MW
- This led to a dispute between RInfra and TPC, the matter was escalated from MERC to ATE to Supreme Court
- May 2009 SC judgement stating that generator cannot be forced to supply to a distribution licensee in absence of PPA
- 25th June 2009 TPC-G announced its decision to withdraw the 460 MW of capacity that it was supplying to RInfra from 1st April 2010

Developments leading to current crisis...2

- Withdrawal of 460MW means further increase in already sky-high tariff of RInfra
- **From June 2009 to 1st April 2010 no action was taken by MERC or GoM**
- April 2010 GoM assigned five member committee to look into matter and suggest possible solution and requested TPC to maintain status-quo till the report comes out
- 7th May GoM submitted the Committee report to MERC and directed the commission to decide the appropriate solution
- Matter is before commission for public hearing on 28th June 2010

Highlights of Memorandum issued by GoM to MERC

- TPC should be obligated to use its generation capacity for Mumbai consumers
- Protect subsidized consumers of RInfra from abnormally high tariff
- TPC PPA with BEST for 100MW needs to be honored
- Remaining 360MW should be supplied to RInfra till 30th June 2010
- From 1st July 2010 TPC can allocate 160MW from this 360 to its own distribution business and remaining 200MW to RInfra till 31st March 2011
- RInfra has given in writing that it has secured 315MW power through bids which will become available from April 2011

Recommendations of Five member committee

- TPC, BEST and RInfra should solve the issue in amicable manner
 - RInfra should be give time bound plan to ensure adequate economical cost power and suitable penalties to be imposed if it fails to do so
 - MERC should make of use of EA 2003 provisions to reduce tariff of consumers and address issues of cross-subsidy
- MERC Mandate
- Protect consumer interests
 - Make licensees accountable – Distribution and Generation
 - Within the framework of E. Act 2003

Financial Implications of GoM recommendations

Timelines	MW	MU	Regulated Rate Rs/u*	market Rate Rs/u #	Diff in Rs Cr
1st April till committee published its report i.e. 7th May 2010, maintain status-quo	460	408	3.4	5.9	102
7th May to 30th June allocate 100 MW to BEST and remaining 360 MW to Rlnfra	360	467	3.4	5.9	117
1st July to 31/3/2011 allocate 160 MW to its TPC-D and balance 200 MW to Rlnfra	200	1249	3.4	5.9	312

Total Impact of the GoM recommendation is ~Rs.530

* As per MERC order for Rlnfra dated 15th June 2009

rate suggested by Tata in its representation made to GoM committee

Questions before the Commission

- Why there is no PPA between RInfra and TPC ?
- Who is responsible for not having PPA between RInfra and TPC ?
- What were and are the implications of the same for consumers and licensees ?
- What are the measures to protect consumer interest ?

Outline

- Background and context
 - Historical overview of Tata-RInfra PPA issue
- Utilization of TPC-G capacity
- Guiding principles
- Legality of SLDC's letters and action
- RInfra's IBSM petition
- Issues of Cross-subsidy and regulatory asset raised by RInfra
- Proposed Solution and legal framework

Historical Overview of Tata-Rel PPA issue

Importance of historical context

- The current crisis revolves around the issue of power allocation in absence of a formal Power Purchase Agreement
- Thus in order to decide fair power allocation it becomes indispensable to analyze the reasons that prohibited the parties from entering into a mutual agreement
- It is also important to reflect on the role played by the commission to ensure that appropriate actions were taken
- In this context history of events leading up to the present crisis becomes the most important fact to analyze

1995-1998

- Dahanu power station became operational in 1995
- Disputes between Tata and BSES regarding reactive power injection lead to instance of disturbance in western grid.
- **Government issued an order dated 19th Jan 1998 directing both parties to enter into an agreement to sort out the issue**
- To achieve Borivali inter-connection, TPC and BSES signed the Principles of Agreement (PoA) on 31st January 1998
- PoA of 1998 contemplated a detailed Power Purchase Agreement (PPA) be entered into between the parties which never materialized

1998-Dec 2005...1

- Electricity regulatory commissions Act was enacted in 1998
- 1999 MERC was established
- The section 22 of this act states that its ERC's function :“(n) to *adjudicate upon the disputes and differences between the licensees and utilities and to refer the matter for arbitration;*”
- However BSES/Reliance never approached the commission with any dispute related to TPC's unwillingness to enter into a PPA –
1999 – 2003 Four years

1998-Dec 2005...2

- 2003 – Electricity Act enacted in June 2003
- TPC filed a petition in Jan 2003 inter-alia contending that Reliance is asking for additional supply without guaranteeing off-take, case no 3 of 2003
- Sept 2003 - Reliance invited bids for procuring 1000 MW power
- PEG submission on BSES Tariff petition 2004
 - Prayas submitted that there should be a PPA between BSES and TPC as BSES has been purchasing substantial power from TPC. This would also help in ensuring reliability and continuity of power supply by islanding of Mumbai in case of Western Grid Failure.

1998-Dec 2005...3

- E. Act 2003 – S. 86 (f) *Commissions functions – To adjudicate upon the disputes between the licensees and generating companies ...*
- RInfra neither approaches commission for resolving dispute
neither procures long term power – **Another 2 years**
- Through its **order in case no 4 of 2003 dated 9th Dec 2005**
MERC directed Reliance to enter into a PPA within 3
months from the date of the order

Dec 2005-Dec 2006

- Even after a specific directive from MERC to enter into PPA Reliance did not file any petition for approval of PPA
- Dec 2006 BEST filed a modified petition seeking MERC approval of PPA between BEST and TPC-G for 800MW
- During the **one year time frame** between Dec 2005-Dec 2006 reliance never approached the commission in case there were any disputes with TPC regarding the PPA

Dec 2006-Nov 2007

- **July 2007** Reliance filed petition contending dispute between itself and TPC regarding allocation of TPC capacity in light of BEST and TPC PPA.
- During the proceeding of this matter counsel for REL submitted as follows:
 - *“as such, the EA 2003 has no independent mandatory provision requiring the execution of PPAs for procurement of energy though Section 86(1)(b) provides for the regulatory role of the State Electricity Regulatory Commission to approve “agreements for purchase of power”.*
 - *‘It was submitted by Shri. J.J. Bhatt that Section 86(1)(b) by using the word “including” does not mandate the execution of PPA by the distribution licensee and the Commission is well authorized to regulate the “electricity purchase and procurement process”. The said Section 86(1)(b) has refrained from the usage of the word “shall”, and therefore a distribution licensee is not under any mandate to execute PPA with a generator. In this regard, Counsel submitted that **REL is not relying on the Interim Order dated December 9, 2005 passed in Case 4 of 2003.***

MERC Order dated 6th Nov 2007

- Through the said order MERC approved the PPA for 800 MW between BEST and TPC-G and PPA of 447 between TPC-G and TPC-D to be effective from 1st April 2008
- In the same order MERC stated
 - *REL's recalcitrant attitude in seeking approval of the terms and conditions of its power procurement, deserves to be deprecated and the Commission administers a warning on REL.*
 - *REL being a distribution licensee and a generator, it is for REL to file the power purchase agreements for purchase of power from generating companies early, and written arrangements for procurement from its own generation division immediately, for approval of the Commission ... The Commission may take stern action in the event of such failure on the part of REL, in future.*
 - *REL-D is directed to file long-term Power Purchase Agreements for procurement of power from generating Companies and other sources at the earliest.*

1998 – 2007 : PPA not signed

➔ **For 8 consecutive years REL / Rinfra**

➔ Neither approached MERC for dispute resolution about PPA with TPC

➔ Neither procured any long term power

➔ Insisted that MERC can not direct it to enter into PPA with TPC

Impact on consumers and licensees

- Consumers had to pay over Rs. 1000 Cr. due to high cost, short term power purchase – PEG submission case no 121 of 2008
- Licensee did not lose a single rupee, all profits and incentives to be recovered from consumer
 - Return on Equity
 - Incentives for generation, efficiency gains
- **EA 2003 Section 42. (Duties of distribution licensee and open access):** *(1) It shall be the duty of a distribution licensee to develop and maintain an efficient, co-ordinated and economical distribution system in his area of supply and to supply electricity in accordance with the provisions contained in this Act.*

Capacity under development by Reliance Power

Name of Project	MW	Type
Rosa Plant - 1	600	Coal
Rosa Plant - 2	600	Coal
Butibori	300	Coal
Sasan	3960	Coal
Sahapur	1200	Coal
Sahapur	2800	Gas
Urthing Sobla	400	Hydro
Dadri	7480	Gas
MP Power	3960	Coal
Krishnapatnam	4000	Coal
Siyom	1000	Hydro
Tato - 2	700	Hydro
Kalai - 2	1200	Hydro
Total	28200	

MERC and Government observations about Rinfra Power Purchase ..1

- MERC issued RInfra tariff order on 15th June 2009
 - avg cost of supply of RInfra was Rs.7.07/u
 - 30% of Power requirement was met through high cost power purchase
- Excerpts from the Tariff order:
 - *“the Commission is of the view that the increased cost of power purchase on account of short-term purchase is due to the failure of RInfra-D to enter into any long-term contract for power procurement.”*

MERC and Government observations about Rinfra Power Purchase ..2

- Concerned by the public outcry over the high tariff GoM on 25th June 2009 issued a directive to MERC under section 108
- Excerpts from GoM directive under S. 108 for investigation of Rinfra
 - *“Government hereby directs Maharashtra Electricity Regulatory Commission to investigate as to whether M/s. Reliance Infrastructure Ltd. has discharged its duties as envisaged in the Act in the most economical and efficient manner so as to result in unnecessary avoidable burden on the consumers of that area and taken such further action as may be considered necessary.”*

MERC and Government observations about RInfra Power Purchase ..3

- In its order dated 8 Sep 2009 regarding investigation of Rinfra, MERC said that:
 - *Commission is therefore satisfied of the necessity to investigate into the procedure adopted by R-Infra-D and the reasons for procurement or non-procurement of power through long term power purchase agreements and related transactions as reflected in the books of accounts maintained by RInfra-D to ensure the optimal impact on cost of supply and tariff charged by RInfra-D.*

Conclusions of History

- Power purchase planning is the core responsibility of distribution licensee
- RInfra has failed in this primary responsibility as a distribution licensee
- MERC as well as GoM have repeatedly asked RInfra to enter into long term PPA and have warned that excess cost arising out of failure in this regard can not be passed on to consumers

Guiding Principles to address current crisis

- Interest of consumers, especially small and disadvantaged section should be protected
 - However consumer interest should not be confused with licensee's interests
- Distribution licensee must be made accountable
- Assets created based on certainty of regulated revenue and Mumbai demand should not be used for profit maximization
- Licensees that have planned adequate power purchase should not be penalised

Suggested Solutions

Utilization of TPC Capacity

Utilization of TPC Capacity ...1

- Generation assets have been created
 - Based on certainty of regulated revenue
 - Need for meeting Mumbai demand
- Failure of Rinfra to sign PPA can not be ground for seeking un-regulated and excessive profits

Utilization of TPC Capacity ...2

- Current shortage scenario should not be exploited at the cost of consumers, who are not at fault!
- TPCs own demand is increasing
- Entire surplus TPC capacity (excl BEST allocation) should be reserved for TPC – D and used for Mumbai consumers
- TPTCL should not be part of transaction – need to avoid trading margins

Legality of SLDC's letters and action

Case no 16 of 2010

PEG comments

- SLDC being an autonomous statutory body should function independently
- SLDC should dispatch power as per
 - valid agreements
 - specific legal directive to act otherwise
- In the present case, as stated earlier entire surplus TPC-G power (excl. BEST allocation) should be allocated to TPC D directly (without TPCTL)

RInfra petition seeking modification of present IBSM with FBSM

Case no 9 of 2010

RInfra's demands as per the said petition

- RInfra demands –
 - Replacing the present IBSM mechanism whereby settlement happens on monthly basis with FBSM under which the settlement will be done on 15 min basis
 - Pending implementation of FBSM, all inter-discom exchange of surplus power should happen at weighted avg regulated price of all units of TPC-G
- Moving to FBSM is a welcome initiative and should be expediated
 - PEG demanded metering status and the reasons causing the delay in implementation of FBSM in Transco APR cases.

Marginal cost Vs Avg regulated cost

- Fundamentally all distribution companies must stick to merit order dispatch
- Thus cheapest units will be utilized first leaving high cost units for use as surplus power
- The very idea of IBSM or FBSM is to encourage proper planning and scheduling of power
- If settlement is done at avg regulated price, consumers of surplus licensee will be in effect subsidize consumers of deficit licensee which is not fair
 - E.g if MSEDCL becomes surplus state and Gujarat becomes deficit state, will we sale surplus RGPPL power to Gujarat at Rs.4.5/u or at avg power purchase cost of MSEDCL of \sim Rs.2.5/u

PEG Comments

- Move from IBSM to FBSM is essential and the commission should find out why there has been such a long delay in implementing the same
- Having said that, principles cannot be flexible, there cannot be tinkering of set mechanism to compensate for a licensee's power purchase planning failure
- IBSM/FBSM should act as rewarding and penalizing mechanism for distribution licensees
- Settlement should happen as per marginal price and not average regulated price

RInfra petition seeking relief on account of
certain critical issues affecting its
consumers

Case no 7 of 2010

RInfra is seeking relief on two primary issues

- Issue of cross-subsidy:
 - On account of the stay on its tariff order dated 15th June 2009, only its high end commercial and industrial consumers are finding it lucrative to switch over to TPC-D
 - Migration of high end consumers is adversely impacting its lower end residential consumers
 - It has proposed a cross-subsidy surcharge for consumers who migrate
- Issue of recovery of regulatory asset:
 - By virtue of tariff order date 15th June 2009, regulatory asset of Rs.554 Cr is created
 - Pending recovery of Rs.1000 Cr on account of FAC and additional FAC
 - Deferred recovery of Rs.178 Cr from Tariff order for FY 09
 - Impact of Rs.217 Cr on account of ATE judgment in appeal no 117 of 2008

Generation Cost and Sales FY 10

Generation source	MU purchased	Cost per unit
DTPS	3915	2.47
Unit-5, 6 & 7	2502	3.38
Unit- 4	20	5.43
Hydel	420	1.83
IBSM	1306	7.00
External	1414	8.58

Source: MERC Tariff order 15th June 2009

Impact of cross-subsidy cannot be gauged without assessing impact of migration on high cost power purchase

The above power allocation is bound to change with further increase in high cost power

Particular	MU
Sales to Categories with energy charge \leq Rs.8.58/u	1122
Sales to Categories with energy charge \leq Rs.7/u	844

Source: MERC stay order 15th July 2009

Issue of Cross-subsidy

- In its petition RInfra has not given any assessment of impact of migration on its power purchase cost
- Present IBSM mechanism will further aid RInfra to reduce its power purchase cost as its settled on monthly MU basis and on marginal cost basis, and hence issues of peak and off peak demand will get addressed
- Any inter-licensee cross-subsidy surcharge is untenable as it defeats E. Act objective of un-bundling and licensees performance accountability
 - If Rinfra prayer is allowed Mumbai consumer should ideally cross-subsidize MSEDCL consumers too !

Issue of Regulatory Asset and deferred recovery

- Large part of the regulatory asset is because of power purchase practices of RInfra
- There is already an on-going investigation regarding the power purchase and capital expenditure
- As RInfra has failed in its primary responsibility of planning and procuring adequate economical cost power for its consumers, all costs arising out of this failure cannot be passed on to consumers
- Thus the 'prudent' cost of regulatory asset needs to be evaluated based on investigation report and other details
- However such 'prudent' value of Regulatory Asset needs to be recovered from all consumers of RInfra irrespective of switchover – as they were Rinfra consumers when this asset was created

Need to address difference in
consumer mix

Consumer mix issues ...1

- Differences in consumer mix should be reduced
 - To prevent cherry –picking
 - Ensure level playing field
- S. 23 of E. Act 03 – **Direction to licensees**
- If the appropriate commission is of the opinion that it is necessary or expedient so to do for **maintaining the efficient supply, securing equitable distribution of electricity and promoting competition**, it may, by order, provide for regulating supply, distribution, consumption or use thereof.

Consumer mix issues ...2

- MERC should direct transfer of appropriate group of consumers from Rinfra to TPC –D (under consumer switch-over framework)
 - Increase in consumer tariff due to switch-over, if any, to be bourn by Rinfra.
- ➔ This will also require TPC – G to allocate entire surplus, i.e. non-BEST capacity to TPC – D
- ➔ Any surplus will be used for Mumbai through IBSM / FBSM
 - ➔ Entire revenue from surplus generation will be utilized for reducing TPC – D ARR (I.e. TPC will not make excess profits)

Suggested Solution - Summary

Suggested solution – Summary ..1

1. IBSM / FBSM

- Settlement should continue at marginal cost
- Rinfra consumers should pay average regulated price for TPC generation
- Rinfra to absorb difference in marginal and average regulated TPC cost

2. Cross – subsidy due to switch - over consumers

- Limited impact due to offset of high cost of power purchase

Suggested solution – Summary ..2

3. Entire surplus TPC-G capacity (excl BEST allocation) to be utilised for Mumbai by allocation to TPC -D

4. Regulatory Asset

- Should be restated, based on ‘prudent’ expenses and outcome of ongoing investigation
- All Rinfra consumers, including switch-over consumers should be charged ‘regulatory asset surcharge’
- This surcharge should be proportional to ABR of particular consumer category

5. Addressing consumer mix difference

- Direct Rinfra to transfer a set of consumers to TPC-D, under ‘switch-over’ mechanism
- Rinfra to absorb incremental tariff, if any

Suggested Solution will ensure

- Distribution licensee will be made accountable for failure to procure reasonable cost power on long term basis
 - Generation assets created based on certainty of regulated revenue and Mumbai power needs will be available to Mumbai at regulated rates
 - Create level playing field for competition
- ➔ Adherence to MERC Mandate as per E. Act 03 and Government Memorandum
- ➔ Protect consumer interests
 - ➔ Make licensees accountable – Distribution and Generation
 - ➔ Within the framework of E. Act 2003

Legal Framework

- Section 42 Duties of distribution licensee
- Section 23 Directions to licensee
- Section 43 Duty to supply on request
- Section 60 Market Domination
- Ongoing Investigation of Rinfra-D as per section 128
- MERC issued specific 'warnings' and directives to Rinfra-D from time to time regarding making adequate provisions to meet its power demands
- National Electricity Policy and National Tariff Policy

Thank you!