

**Before the  
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION  
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**CASE No. 297 of 2018**

**Case of MSEDCL seeking recovery of annual fixed cost component in respect of the energy supplied to the State pool, recovery of differential amount towards variable charges, removal of anomalies and directions as regards overdrawal by Mumbai utilities in Balancing and Settlement Mechanism as per provision of ABT Order dated 17 May, 2007 in Case No 42 of 2006.**

**AND**

**MA 8 of 2019 in Case No. 297 of 2018**

**Miscellaneous Application of MSEDCL seeking the Commission's directions to MSLDC for immediate implementation of Decentralised Merit Order Dispatch with effect from 1 May 2019.**

Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) .....Petitioner

V/s

Maharashtra State Load Despatch Centre (MSLDC) ..... Respondent

BEST Undertaking (BEST)

The Tata Power Company Ltd. - (Distribution) (TPC-D)

Adani Electricity Mumbai Ltd. (Distribution) (AEML-D)

Mindspace Business Parks Pvt. Ltd. (MBPPL)

Gigaplex Estate Pvt. Ltd. (GEPL)

Maharashtra Airport Development Company Ltd. (MADC)

Central Railway

Nidar Utilities Panvel LLP

Maharashtra State Electricity Transmission Co. Ltd (MSETCL)

State Transmission Utility (STU) .....Impleaded Parties

**CASE No. 25 of 2019**

**Case of The Tata Power Company Limited (Distribution) seeking quashing of Bill dated 25 January, 2019 raised by Maharashtra State Power Committee towards provisional fixed charges for FY 2011-12 to FY 2017-18.**

AND

**MA 5 of 2019 in Case No. 25 of 2019**

**Miscellaneous Application of The Tata Power Company Limited (Distribution) seeking clarification/modification of the Commission's Interim Order dated 6 February 2019.**

The Tata Power Company Limited (Distribution) .....Petitioner

V/s

Maharashtra State Power Committee  
Maharashtra State Load Despatch Centre,  
Maharashtra State Electricity Distribution Co. Ltd. ....Respondents

**CASE No. 28 of 2019**

**Case of Adani Electricity Mumbai Ltd. seeking quashing of Bill dated 25 January, 2019 raised by Maharashtra State Power Committee towards provisional fixed charges for FY 2011-12 to FY 2017-18.**

Adani Electricity Mumbai Ltd- Distribution .....Petitioner

V/s

Maharashtra State Power Committee  
Maharashtra State Load Despatch Centre,  
Maharashtra State Electricity Distribution Co. Ltd. ....Respondents

**Coram**

**I. M. Bohari, Member  
Mukesh Khullar, Member**

Appearance during combined hearing dated 15 July, 2019:

For Maharashtra State Electricity Distribution Co. Ltd.	: Shri Ashish Singh (Adv.) Shri Paresh Bhagwat (Rep.)
For Tata Power Co. Ltd. (Distribution)	: Ms. Deepa Chavan (Adv.) Mr. Abhishek Munot (Adv.) Mr. Kunal Kaul (Adv.)
For Adani Electricity Mumbai Ltd. (Distribution)	: Shri. Ghanshyam Thakkar (Rep.)
For Maharashtra State Power Committee	: Shri Jitendra Patade (Rep.)
For Maharashtra State Load Despatch Centre	: Shri Anil Kolap (Rep.)
For BEST Undertaking	: Shri Rajendra Patsute (Rep.)
For Mindspace Business Parks Pvt. Ltd.	: Shri Nihil Chaugayla (Rep.)

**COMMOM ORDER**

**Dated: 26 September, 2019**

Issue pertaining to fixed charges and variable charges for the past period in the Cases under consideration, for the sake of convenience and brevity, were heard together and accordingly, are being decided together by this Common Order.

1. Maharashtra State Electricity Distribution Co. Ltd. (**MSEDCL**) has filed Case No. 297 of 2018 dated 17 October, 2018 seeking recovery of annual fixed cost component for the energy supplied by MSEDCL to the State pool along with carrying cost, seeking recovery of differential amount to be recovered towards variable charges along with carrying cost, removal of anomalies and directions regarding overdrawal of energy by Mumbai utilities. MSEDCL has cited Regulations 92 and 96 of MERC (Conduct of Business) Regulations, 2004.
2. **MSEDCL's main prayers are as follows:**
  - a. *To admit the Petition as per the provisions of Electricity Act 2003 and Regulation mentioned in the petition.*
  - b. *To issue directives regarding implementation of de-centralized scheduling and frequency linked deviation settlement mechanism.*
  - c. *To allow the recovery of estimated amount of Rs. 948.94 Cr towards fixed cost component for the net imbalance units supplied by MSEDCL to the state imbalance pool alongwith the carrying cost upto March 2018 Rs.179.08 Cr as mentioned in*

*para 37 and an estimated amount of Rs. 2468.33 Cr towards compensation of variable charges alongwith carrying cost upto March 2018 Rs. 632.05 Cr , thus to allow the recovery of total estimated amount of Rs. 4228.40 Cr.*

- d. To direct MSLDC to prepare monthly State Energy Account report.*
- e. To direct MSLDC not to pick up Koyna generation for achieving state Load Generation Balance and not allow Mumbai utilities to exploit the existing FBSM mechanism.*

**3. MSEDCL's Case is as follows:**

- 3.1 The Commission had issued the Order on 17 May, 2007 in Case No. 42 of 2006 regarding "Introduction of Availability Based Tariff Regime at State level within Maharashtra and other related issues" (**ABT Order**).
- 3.2 As per ABT Order, Maharashtra State Load Desptach Centre (**MSLDC**) developed Interim Balancing and Settlement Mechanism (**IBSM**) for carrying out balancing and settlement till the finalisation of Final Balancing and Settlement Mechanism (**FBSM**). IBSM was applicable from 1 October, 2006. Accordingly, billing under IBSM was started by MSLDC from 30 July, 2007 for the period October 2006 onwards. The billing under IBSM was "Weighted Average System Marginal Price" (**WASMP**) on monthly basis.
- 3.3 FBSM was implemented on 1 August, 2011 after approval of the Commission on 23 August, 2009 and after overcoming the constraints in its implementation. The Commission, vide its letter dated 7 July, 2011, also directed MSLDC to implement FBSM immediately and to sort out the issues during implementation phase.
- 3.4 FBSM is unscheduled interchange settlement mechanism in Maharashtra. The FBSM mechanism is WASMP based whereas Deviation Settlement Mechanism (DSM) is "System frequency linked".
- 3.5 From the beginning of the implementation of this mechanism, MSLDC, the implementing agency, experienced certain issues in operationalising FBSM. Hence MSLDC filed a Petition (Case No. 56 of 2012) on 8 June 2012 for removal of difficulties in the matter of operation and implementation of the ABT Order.
- 3.6 To address the issues raised by MSLDC and utilities, the Commission, vide Order dated 28 March, 2013, formed a Committee under the Chairmanship of Dr. S. A. Khaparde, Professor (Electrical Dept.), IIT, Mumbai to carry out a Zero Base Review of Balancing and Settlement Mechanism for Intra-State ABT in Maharashtra as compared to the system prevalent for Inter-State ABT in Rest of India and submit its report within a period of 3 months. The Committee submitted its report on the Zero Base Review along with its recommendations on 4 September, 2013.

3.7 The Commission, after considering the recommendations of the Committee and comments/suggestions of distribution licensees and MSLDC on the Committee Report, issued an Order on 11 April, 2014. The summary of this Order is as follows:

- (a) Implementation of de-centralized scheduling and frequency linked deviation settlement mechanism in Phase I; and
- (b) Implementation of State level customization in Phase II, for improving balancing and settlement mechanism after ensuring successful implementation of Phase-I.

3.8 Thereafter, further steps for revision in existing DSM were taken by the Commission. However, such mechanism is yet to be established.

### 3.9 **Least Cost Despatch in FBSM and its implication on MSEDCL**

3.9.1. Presently, the generators contracted by Mumbai utilities are higher on the Merit Order Dispatch (MOD) Stack prepared by MSLDC on account of their higher variable charges as compared with the generators contracted by MSEDCL.

3.9.2. Hence, when the demand in the State crashes or when the available generation is in excess of the demand in the State, the costlier Generating Units get backed down as per MOD principles resulting in utilization of the generators contracted by MSEDCL.

3.9.3. Thus, the cheaper Generating Units contracted by MSEDCL are utilized to fulfil the demand of the other utilities mainly Mumbai utilities. Thus, part of the contracted power of MSEDCL gets utilized to meet the demand of Mumbai utilities in case of low demand situations.

### 3.10. **Delay in FBSM billing and financial impact on MSEDCL:**

3.10.1. As per clause 5.2 of ABT Order, MSLDC-EA is responsible to issue FBSM weekly bill within seven days. However presently, these bills are issued with a lag of almost two years. The current status shows that these bills are issued by Maharashtra State Power Committee (MSPC) / MSLDC upto August 2016. On the other hand, (Western Region Power Committee (WRPC), the regional Inter-State UI settlement agency, has raised the DSM bills upto August 2018. MSEDCL and other Distribution Licensees have raised this issue in various forums and before the Commission on number of occasions. But the same is not being addressed.

3.10.2. This delay in processing weekly FBSM bills impacts MSEDCL which is directly affecting the tariff levied to approx.. 1.20 Cr. consumers of MSEDCL.

### 3.11. **Recovery of Annual fixed cost component in respect of MSEDCL for the energy supplied to the State pool:**

3.11.1. As per clause (b) of para 4.3.2 of ABT Order, the computation of 'FCR Pool Increments' and 'FCR Pool Decrements' shall be based on Available Capacity declarations as provided by the Generating stations. But MSLDC-CD has not

maintained the data of the declared capacity in respect of generating stations as required for computations of annual fixed cost settlement.

- 3.11.2. Further, the Commission by its Order dated 11 April, 2014 in Case No. 56 of 2012 has not provided the methodology for calculation of Fixed Cost Reconciliation (FCR) for the existing centralized FBSM mechanism.
- 3.11.3. FCR pool may not be necessary in de-centralized frequency linked balancing and settlement mechanism but the issue of recovery of annual fixed cost component in respect of MSEDCL for the energy supplied to the State pool needs to be addressed in existing centralized FBSM mechanism.
- 3.11.4. MSEDCL has raised the issue of annual FCR Pool in 21<sup>st</sup> and 22<sup>nd</sup> MSPC meetings held on 6 January 2016 and 8 February, 2017 respectively. However, the issue is not resolved which deprived MSEDCL of its legitimate entitlement of fixed part component of energy supplied to the State pool.
- 3.11.5. In absence of annual FCR, MSEDCL has worked out the approximate provisional amount to be recovered from the state pool towards fixed cost component based on average fixed charge per unit as paid by MSEDCL for FY 2011-12 to FY 2017-18 for the net imbalance units in respect of MSEDCL as under:

<b>FY</b>	<b>Net Imbalance Units in Mus</b>	<b>MSEDCL's Average fixed cost rate/Kwh, Rs.</b>	<b>Amount, Rs. Cr.</b>	<b>Interest component Rs. Cr.</b>	<b>Total estimated amount Rs Cr</b>
2011-12	-596.30	0.67	-39.95	-41.35	-81.30
2012-13	209.58	0.77	16.14	12.96	29.10
2013-14	1082.34	0.89	96.33	56.65	152.98
2014-15	1508.96	1.09	164.48	64.51	228.98
2015-16	2512.41	1.16	291.44	64.05	355.49
2016-17*	1393.00	1.37	190.84	22.25	213.09
2017-18*	1359.00	1.69	229.67	0.00	229.67
<b>Total</b>	<b>7468.99</b>		<b>948.94</b>	<b>179.08</b>	<b>1128.02</b>

Note : (+)ve units indicates underdrawal units and (-) ve units indicate overdrawal units

\* Units based on Daily System Report (DSR) data of MSLDC as provisional FBSM bills upto August 2016 are issued.

- 3.11.6. In view of the above, MSLDC may be directed to immediately initiate necessary action so as to enable MSEDCL to recover estimated amount of Rs. 948.94 Cr. towards fixed costs for FY 2011-12 to FY 2017-18 alongwith carrying cost upto March 2018 amounting to Rs. 179.08 Cr.

### **3.12. Limitations of existing FBSM and overdrawal by Mumbai utilities:**

3.12.1. It is seen from the monthly Daily Supply Reports (**DSR**) of MSLDC for the period between September 2017 to March 2018, the Mumbai utilities have overdrawn the power from the State pool when the energy rates at power exchange were very high. During this period, to control overdrawal from the central grid and for achieving Load Generation Balance (LGB) for the state, MSLDC has resorted to utilizing the generation from the Koyna Hydro Generating Station which is exclusively contracted with MSEDCL.

As per present FBSM framework, the Distribution Licensees overdrawing power needs to pay **WASMP**, which mainly consists of variable component of long-term intra-State generators of incrementing utilities. Thus, the Mumbai utilities have taken the undue benefit of provisions under FBSM mechanism during the period when the energy rates at power exchange were very high.

3.12.2. MSEDCL has informed MSLDC several times not to pick up Koyna generation for State LGB and instead pick up hydro contracted with Mumbai utilities. However, MSLDC has not responded to MSEDCL's request. Thus, by utilizing Koyna generation for State Load Generation Balance, MSLDC is not judiciously performing its role as system operator.

### **3.13. No consideration of rates of power exchange / partial consideration of bilateral power, in calculation of WASMP and corresponding financial burden**

3.13.1. Energy above 70% contracted quantum of short-term bilateral power is only considered for calculation of WASMP of underdrawing utility. Also, the rate of power purchased from the power exchange and Captive Power Plants (CPPs) are not considered. This has financially impacted MSEDCL which is supplying power to the pool at times by procuring the costly power from exchange and other such sources. This is directly affecting the tariff of 1.20 Crore consumers of MSEDCL.

3.13.2. WASMP of the underdrawing utility does not reflect actual variable energy rate of power purchased by that utility. Therefore, due to existing FBSM framework MSEDCL gets paid for its underdrawal at the net rate which is much lower than its average variable cost. Thus, MSEDCL is not compensated fully for the energy supplied to the pool. The difference as observed for FY 2011-12 to FY 2017-18 is as shown below:

<b>FY</b>	<b>Net Imbalance Units in Mus</b>	<b>Estimated amount to be recovered, Rs Cr.</b>	<b>Interest component</b>	<b>Total estimated amount , Rs Cr</b>
2011-12	-596.303	25.27	26.15	51.42
2012-13	209.576	66.09	53.09	119.17
2013-14	1082.342	256.46	153.91	410.38
2014-15	1508.965	519.76	203.84	723.60
2015-16	2512.408	606.64	133.33	739.97
2016-17*	1393.000	529.34	61.72	591.06
2017-18*	1359.000	464.78	0.00	464.78
<b>Total</b>	<b>7468.987</b>	<b>2468.33</b>	<b>632.05</b>	<b>3100.38</b>

Note : (+)ve units indicates underdrawal units and (-) ve units indicate overdrawal units

\* based on DSR data of MSLDC as provisional FBSM bills upto August 2016 are issued

3.13.3. In view of above, an estimated amount of Rs. 2468.33 Cr. along-with carrying cost upto March 2018 amounting to Rs. 632.30 Cr. is recoverable by MSEDCL for FY 2011-12 to FY 2017-18 due to difference between actual average variable cost of power purchase by MSEDCL and net rate receivable by MSEDCL in FBSM bills.

### **3.14. Monthly State Energy Account (SEA) Report:**

3.14.1. MSLDC used to prepare monthly state energy account i.e. Interim Balance Settlement Mechanism report (IBSM) prior to August 2011 wherein purchase and drawal of all utilities were accounted. This used to cover all generation including State owned generation, IPP's generation, RE generation and power purchase from central sector and interstate bilateral transaction from the concerned utilities. After implementation of FBSM, MSLDC has stopped preparing such monthly state energy account.

3.14.2. There is difference observed in MSEDCL's purchase as shown against metered injection and intra-OA purchase in respect of MSEDCL's purchase in 15-minute FBSM bill and 15-minute FBSM report issued by MSLDC. MSEDCL has also pointed out to MSLDC the discrepancy with regard to weekly FBSM bill for period 27 June, 2016 to 3 July, 2016. This issue is yet to be resolved by MSLDC. The Commission should direct MSLDC that it should issue FBSM bill in line with FBSM report prepared by it.

3.14.3. MSEDCL, through various letters, has requested MSLDC to prepare monthly state energy account report, in line with the IBSM report / monthly REA as prepared by WRPC for energy transacted in Western region, that will cover declared capacity, scheduled/actual generation, backdown units in respect of all generation in the state



including RE generation and OA consumers. This issue of preparation of such reports has been raised by MSEDCL in several MSPC meetings also. However, no such monthly state energy account reports are prepared by MSLDC.

**4. The issue-wise submission dated 20 December, 2018 of MSLDC is as follows:**

**4.1. Regarding implementation of de-centralized scheduling and frequency linked deviation settlement mechanism**

4.1.1. The preparatory work for regarding implementation of de-centralized scheduling and frequency linked deviation settlement mechanism is under process and MSEDCL is aware of the present status and its progress.

4.1.2. MSLDC will follow the directives of the Commission regarding implementation of de-centralized scheduling and frequency linked deviation settlement mechanism, if any.

**4.2. Recovery of total estimated amount of Rs. 4228.40 Cr towards annual fixed cost component and variable cost component**

4.2.1 Fixed Cost Reconciliation (FCR) was one of the issues raised in its Case 56 of 2012 filed by MSLDC for removal of difficulties in the matter of operation and implementation of the ABT Order. Also, various attempts have been made by MSLDC to arrive at a solution on this issue through deliberations and consultation in Forum of Load Dispatchers (FOLD), with the Commission and with Dr. Khaparde Committee for clarification and guidance in implementation of FCR module.

4.2.2 This issue of FCR was also discussed in various meetings of MSPC Sub-Committee and MSPC. However, constituents of MSPC could not arrive at any solution on the FCR methodology. Hence, in the 22<sup>nd</sup> MSPC meeting the Chairman, MSPC opined that the agenda items of FCR should not be taken in any of the forthcoming MSPC meetings till any directives are issued by the Commission in this regard.

4.2.3 MSEDCL is also aware of the fact that no FCR methodology has been worked out and also the Commission in its Order dated 11 April, 2014 had observed that the issue related to FCR becomes redundant when the frequency linked balancing and settlement mechanism is envisaged for implementation.

4.2.4 As regards the recovery of variable cost, MSLDC is issuing the weekly FBSM bills regularly by overcoming all the software/hardware related difficulties. The last bill issued is for second week of January, 2017. MSLDC is making all efforts to clear the backlog of FBSM bills which it has targeted to clear it by December 2019 or early by issuing almost 8 bills per month.

4.2.5 In view of the above, MSLDC will follow the directives given by the Commission in implementation of FCR and recovery of variable charges.

**4.3. Preparation of monthly State Energy Account report**

- 4.3.1 As per Para. 7.1 of ABT Order, MSEDCL is required to keep weekly energy account of inter and intra energy exchange and accordingly, MSLDC is keeping such weekly energy accounts and issues the weekly reports viz. Bilateral report, Injection and drawal reports along with weekly bills regularly. The same are also made available on MSPC's website.
- 4.3.2 However, preparation of the monthly state energy account report is an additional requirement raised by MSEDCL only and in order to fulfill this, MSLDC has issued Work Order to M/s Crafisol Technology Solutions Pvt. Ltd. on 20 October 2018 for development of software for generating monthly bilateral reports from weekly FBSM reports and the work is in progress.

#### **4.4. Picking up of Koyna generation**

- 4.4.1 MSLDC is responsible for optimum scheduling and dispatch of electricity within Maharashtra and must abide by Regulation 6.4.7 of the Indian Electricity Grid Code (IEGC). The present limit for Maharashtra State is  $\pm 250$  MW. Further, the demand pattern of Maharashtra is very dynamic and there are continuous variations in demand. Peak to off-peak variation is of the order of 6000 MW. MSLDC must operate the least-cost dispatch considering principles of the ABT Order and fast responding generation available within the state needs to be brought in order to adhere to the deviation limit specified in IEGC and amendments thereof.
- 4.4.2 MSEDCL's submission that the power generated from Koyna Hydro Generating Plant is used by Mumbai utilities is not factually correct as any power flowing from MSEDCL contracted generators to Mumbai Discoms is compensated at WASMP to MSEDCL by the Mumbai Discoms.
- 4.4.3 Further, it is requested that the Commission should take cognizance of the MSEDCL's correspondence on the use of Koyna Hydro Generating Plant since such correspondence creates hurdles in the functioning of MSLDC as a system operator envisaged under EA.
- 4.4.4 The Commission is requested to implead other state pool participants in the instant Case.

#### **5. Additional submissions dated 21 December, 2018 filed by MSEDCL stated as follows:**

- 5.1 Earlier submitted imbalance units (1393 MUs) for FY 2016-17 and FY 2017-18 were based on DSR data and same are replaced by the imbalance units for period April 2016 to December 2016 as per provisional FBSM bills issued by SLDC and for period January 2017 to March 2018 based on DSR data. Thus, the revised computation for fixed charges for the period FY 2011-12 to FY 2017-18 is as follows:

<b>FY</b>	<b>Net Imbalance Units in MUs</b>	<b>MSEDCL's Average fixed cost rate (Rs./kWh)</b>	<b>Amount (Rs. Cr.)</b>	<b>Interest (Rs. Cr.)</b>	<b>Total amount (Rs. Cr.)</b>
2011-12	-559.53	0.67	-37.49	-38.80	-76.29
2012-13	-23.01	0.77	-1.77	-1.42	-3.19
2013-14	1237.12	0.89	110.10	64.76	174.86
2014-15	1508.34	1.09	164.41	64.48	228.89
2015-16	2512.41	1.16	291.44	64.05	355.49
2016-17#	1848.81	1.37	253.29	29.53	282.82
2017-18*	1359.00	1.69	229.67	0.00	229.67
<b>Total</b>	<b>7883.14</b>		<b>1009.65</b>	<b>182.60</b>	<b>1192.25</b>

Note : (+)ve units indicates underdrawal units and (-) ve units indicate overdrawal units

\* Units based on DSR data of MSLDC as provisional FBSM bills upto December 2016 are issued.

# Imbalance units upto December 2016 are considered based on FBSM bills issued by SLDC and units for Jan 2017 to Mar 2018 are based on DSR report.

5.2 Similarly, the differential amount towards variable charges is also revised and the proposed revisions is tabulated below:

<b>FY</b>	<b>Net Imbalance Units in MUs</b>	<b>Estimated amount to be recovered (Rs Cr.)</b>	<b>Interest (Rs. Cr.)</b>	<b>Total amount (Rs Cr.)</b>
2011-12	-559.535	25.27	26.15	51.42
2012-13	-23.009	78.19	62.80	140.99
2013-14	1237.124	298.71	179.27	477.98
2014-15	1508.336	525.59	206.13	731.71
2015-16	2512.408	606.64	133.33	739.97
2016-17#	1848.811	374.73	43.69	418.43
2017-18*	1359.000	464.78	0.00	464.78
<b>Total</b>	<b>7883.135</b>	<b>2373.90</b>	<b>651.38</b>	<b>3025.27</b>

Note : (+)ve units indicates underdrawl units and (-) ve units indicate overdrawl units

\* based on DSR data of MSLDC ,

(#) imbalance units upto December 2016 are considered from prov. FBSM bills and units from Jan 2017 to Mar 2018 are based on DSR data.

- 5.3 As per existing FBSM framework, the deviations of Intra-state generators are to be borne by the contracting Discoms. Hence, there is no discipline in the generators regarding scheduling and controlling the generation in real time, which has resulted into undue burden and financial impact on Discoms and in effect, on the consumers at large. Hence, the Commission is requested to implement new intra-state DSM Regulation at the earliest.
- 5.4 As per terms and conditions of PPAs, MSEDCL has to make payments to its contracted generators within 30 days after the monthly energy bills are raised by the respective generators. However, the present FBSM billing is lagging by almost two years and this is causing huge financial loss to MSEDCL. MSEDCL had requested MSLDC for provisional recovery of FBSM bills from Mumbai utilities amounting to Rs 1296 Cr. and transfer the same to MSEDCL till the finalization of FBSM bills.
- 5.5 From the MTR Orders dated 12 September, 2018 in the matter of mid-term review of truing up of ARR for FY 2016-17 and provisional truing up of ARR for FY 2017-18 in respect of Mumbai utilities vide Case Nos. 200 of 2017, 69 of 2018 and 203 of 2017 for Adani Electricity Mumbai Ltd.- Distribution Business (**AEML-D**), the Tata Power Co. Ltd.- Distribution Business (**TPC-D**) and BEST Undertaking (**BEST**) respectively, it is observed that the Commission has approved the power purchase cost on account of the State's imbalance pool for the above Mumbai utilities as under:

Utility	FY 2016-17			FY 2017-18		
	Quantum (MU)	Cost (Rs. Crore)	Rate (Rs./Kwh)	Quantum (MU)	Cost (Rs. Crore)	Rate (Rs./Kwh)
AMEL-D	807.96	257.99	3.19	861.88	302.66	3.51
TPC-D	370.77	109.5	2.95	437.98	125.24	2.86
BEST	280.28	6.05	0.22	567.88	187.97	3.31
<b>Total</b>		<b>373.54</b>			<b>615.87</b>	
<b>Total cost (Rs. Cr)</b>	989.41					

- 5.6 Thus, these Mumbai utilities have already recovered Rs. 989.41 Cr. for FY 2016-17 and FY 2017-18 from their consumers through tariff and hence are liable to pay the same to FBSM pool account for energy drawn from the state pool under FBSM

mechanism. Further, the issue of provisional recovery of FBSM bills from Mumbai utilities for period FY 2016-17 and FY 2017-18 is also discussed in 24<sup>th</sup> MSPC meeting held on 11 December, 2018. These utilities have agreed in-principle for this provisional recovery of FBSM bills as sought by MSEDCL for period FY 2016-17 and FY 2017-18 as per methodology mentioned in MSEDCL's letter dated 12 November, 2018.

5.7 In view of the above , MSLDC may be directed to expedite raising the demand bill of Rs 989.41 Cr. for period FY 2016-17 and FY 2017-18 (which has already been recovered) to Mumbai utilities immediately and pass on the payable amount to MSEDCL at the earliest so as to reduce the financial burden of MSEDCL.

**6. At the hearing held on 21 December 2018:**

Both the Parties re-iterated their respective submissions as made out in the Petition/replies. The Commission directed that all State Pool Participants (SPPs) including STU/MSETCL be impleaded as Parties in the matter and MSEDCL shall serve copies of the Petition to them for their response within one week. Further, in response to the interim directions sought by MSEDCL, the Commission directed MSLDC to settle the MSEDCL demand of Rs. 989.41 crores by working out a provisional recovery of variable cost from FBSM pool for FY 2016-17 and FY 2017-18 with contributions from Mumbai Utilities pending final settlement of FBSM bills in due course. As the Mumbai Utilities have already recovered the imbalance power purchase cost from their consumers they would be required to pay the provisional amount to MSEDCL, as worked out and so apportioned by MSLDC.

**7. MSEDCL's submissions dated 14 January 2019 are as follows:**

7.1 It is MSLDC's responsibility to keep accounts of the quantity of electricity transmitted through the state grid and so to prepare the monthly state energy account report. Further, MSEDCL alone has not demanded the monthly state energy account report. Even Rinfra-D (now AEML-D) has raised the similar demand.

7.2 MSEDCL, vide letter dated 23 October, 2018, has not created any hurdle in the functionality of MSLDC but has only pointed out the issues to MSETCL/MSLDC which are part of MSLDC's responsibilities as per Section 32 of Electricity Act, 2003 (EA) since despite several communications, it was observed that Koyna generation, which is exclusively contracted with MSEDCL and the cost of which is exclusively considered in the ARR of MSEDCL, is used to control state and particularly overdrawal by Mumbai Utilities. Koyna generation is optimally utilized by MSEDCL exclusively for peak hour high demand period and when there is coal shortage. Further, MSEDCL does not get compensated at appropriate rate for its contracted Koyna generation when it is used to control state/Mumbai overdrawal or for system stability.

7.3 MSLDC may ask all utilities including Mumbai utilities for alternate power arrangement/peaking generation availability to match their respective shortfalls of

power rather than utilizing MSEDCL's contracted and least cost generation like Koyna for managing the State's Load Generation Balance. MSEDCL reserves its right to safeguard its interest for utilization of its contracted generation especially Koyna.

- 7.4 MSEDCL has informed MSLDC about the month-wise over-drawal by Mumbai Discoms and use of Koyna at the same time by MSLDC for the period June, 2018 to October, 2018. MSEDCL even pointed out to MSLDC regarding sale of power from TPC-D in power market during evening peak period in the months of June, 2018 to September, 2018 when it had no surplus power for sale of such power. Also the issue of overdrawl by Mumbai utilities based on 'Lodestar' data was also communicated by MSEDCL to MSLDC. However, MSLDC has not initiated any action to restrict Mumbai Discoms from overdrawal and instead has kept on using Koyna Hydro for state load generation balancing.
- 7.5 Also, vide its letter dated 23 October, 2018, MSEDCL has requested MSETCL to instruct MSLDC to develop a mechanism to monitor overdrawal by Mumbai Discoms based on their actual available generation and demand in real time operation.
- 7.6 MSEDCL has purchased 4019.70 MUs in FY 2017-18 at average rate of 3.72 Rs/unit and 5328 MUs in FY 2018-19 till December 2018 at average rate of 4.99 Rs/unit from energy exchange. The rates for the power purchased from the exchange are quite higher as compared to the rates considered for determination of WASMP as per laid down principles. As the rates of power purchase from exchange is not considered in WASMP of the underdrawing utility, the WASMP of such utility does not reflect the correct price which ultimately results in under recovery in variable charges of the underdrawing utility.
- 7.7 The rates of power exchange fluctuate a great deal. When demand goes high, power exchange rates rise considerably. At such times, it is observed that Mumbai utilities overdraw from the state grid rather than purchasing power from power exchange. MSEDCL procures power from exchange irrespective of high rates to meet its load generation balance and to avoid load shedding. MSEDCL has procured 920.09 MUs and 1375.67 MUs of power from power exchange at the average rates of Rs. 5.28 and Rs 6.11 per unit in the months of September, 2018 and October, 2018 respectively. But Mumbai utilities have drawn power from the state grid at WASMP which is much less than the power exchange rate. Mumbai utilities have overdrawn 53.055 MUs and 102.695 MUs of power from the state grid in the months of September 2018 and October 2018 respectively, as per DSR report and when MSEDCL was purchasing power from exchange. Such act of overdrawing of power from the state grid rather than arranging power from any alternate arrangement is unfair and is construed as gaming.
- 7.8 Pursuant to the Commission's Daily Order dated 21 December, 2018, MSLDC vide letter dated 27 December, 2018 has issued the provisional bill of variable cost of FBSM pool for FY 2017-18 only, from Mumbai utilities and stated that it will be in position

to complete the bills of variable cost of FBSM pool for FY 2016-17 by January, 2019. Thus, MSLDC has partially complied with the directives of the Commission.

- 7.9 The similar issue is continued in the current financial year FY 2018-19 also. The Mumbai utilities are overdrawing from the State pool from April 2018 till date. The overdrawal by Mumbai Utilities as per DSR report for the period April 2018 to December 2018 is 1139.89 MUs. Further, the Mumbai utilities are recovering tariff from their consumers during FY 2018-19 as determined by the Commission and they have not compensated the imbalance power purchase cost to MSEDCL in the current financial year.
- 7.10 The Commission may direct MSLDC to settle the issue of provisional recovery of variable cost in FBSM pool for FY 2018-19 also on ad-hoc basis on similar ground for FY 2016-17 and FY 2017-18 and direct MSLDC to pass on the amount receivable to MSEDCL for FY 2018-19 on immediate basis.

**8. The issue-wise submission dated 14 January 2019 filed by AEML-D is stated as under:**

**8.1 Principles adopted for recovery of variable charges through MOD and delay in finalization of bills**

- 8.1.1 MSEDCL, through, this Petition is seeking review of ABT Order and FBSM Code. Such review is not permitted when FBSM Code as approved by Commission is in force since the implementation of ABT mechanism. Further, MSEDCL was integral part of MSPC and various principles to be implemented under FBSM were approved unanimously by MSPC through various meeting. Further, it would be interesting to note MSEDCL was the Chairman of MSPC for 3 terms since inception of MPSC and it has never challenged the mechanism. Also, ABT Order was issued in May, 2007 and after completion of 11 years of its operation, MSEDCL is indirectly seeking the review of the said Order.
- 8.1.2 MSLDC has correctly implemented the principles related to the derivation of the WASMP, which were detailed in the FBSM Code (FBSM Code Clause. No. 7.6 and 7.7) in line with the ABT Order. Accordingly, the power flow in the Intra-State Pool is based on the MOD principles only and the under-drawal/over-drawal in the system by AEML-D is incidental and not by design. The settlement under the present mechanism is based on sound commercial principles, which have been agreed and implemented by the parties including MSEDCL.
- 8.1.3 MSEDCL's computation is contrary to the principles agreed by the parties and approved by the Commission. MSEDCL, without correctly analyzing the facts/contributors for lower realization of amount from the Pool for the energy supplied, is seeking to review the guidelines/principles of the existing mechanism which is in vogue for 7 years.

- 8.1.4 MSEDCL has done the computation based on the monthly net imbalance quantum and rate applicable for the respective months which is not the correct reflection of the actual realisation from imbalance pool, which is based on the time block wise settlement.
- 8.1.5 The energy was supplied by MSEDCL from various Generating units having different rates and during various time blocks (primarily off peak period), however while computing the impact it has considered the marginal station which has abnormally increased the amount not realized by MSEDCL (as allegedly claimed by MSEDCL in the Petition).
- 8.1.6 For FY 2015-16, actual realization by MSEDCL for energy supplied to the pool and amount paid by the Mumbai Utilities clearly reflect that lower realization of MSEDCL is mainly due to excess energy injected into Regional Pool at very low rate.
- 8.1.7 The energy supplied by MSEDCL for the period FY 2011-12 to FY 2017-18 to the pool is very large quantum and most of it has flown into the Regional Grid where net realization rate is very low or even penalty is made applicable for underdrawal. This phenomenon has largely affected the net realization of MSEDCL from the pool, whereas MSEDCL has wrongly interpreteded that Mumbai DISCOMs have paid lesser amount.
- 8.1.8 Based on the principles defined under the ABT Order, SLDC has raised weekly bills up to February, 2017 and one time provisional bill up for FY 2017-18 (as directed by the Commission by its Daily Order dated 21 December 2018). Accordingly, amount due towards the energy supplied by MSEDCL to the pool is settled through these bills and there is no question of additional settlement for the past period.
- 8.1.9 In view of the aforesaid, AEML-D has paid WASMP for the power drawn from the pool as per the bills raised by MSLDC (based on principles laid down by the ABT Order and FBSM Code as approved by the Commission) and MSEDCL is not entitled for any additional recovery of whatsoever nature towards compensation of variable charge. It is further submitted that all the bills raised by MSLDC from time to time are being settled/paid by AEML-D, hence DPC cannot be claimed by MSEDCL.

## **8.2 Fixed cost recovery of power supplied by MSEDCL in the imbalance pool**

- 8.2.1 As per the principles defined under the ABT Order, the capacity exchange is applicable only when any SPP is short of the capacity (not tied up generation capacity {Either Long Term /Short Term/Medium Term contract or renewable (RE) etc.} to meet the demand) and overdrawn power from the Pool. In case, the power is allocated through pool under MOD, FCR is not applicable as the receiving SPP has contracted the source to meet its requirement, but based on the State level surplus, SLDC has allocated the power under MOD as per FBSM code. Further the power scheduled under Standby arrangement or drawn from the regional pool will not call for FCR.



- 8.2.2 The methodology adopted by MSEDCL for computing is against the principles defined under ABT Order, as they have considered entire increment in to the pool as the FCR Volume, irrespective of whether other SPPs were short of capacity or otherwise. This is against the commercial principles as those SPPs who have received power from pool under MOD supply, will also have to pay Fixed Cost (FC) towards own contract/PPA and additional FC towards MOD supply thereby resulting in double charging of the FC.
- 8.2.3 Every SPP increments/decrements to the pool across different time blocks over a period of one year, hence settlement has to be undertaken at 15 minute level by considering power arranged by such SPP from its contracted sources such as Long /Medium Term Sources, Short Term Purchases, RE contracts etc. However the settlement must be undertaken at 15 minute trading time interval as prescribed in the ABT Order and FBSM Code and not on aggregate basis as requested by MSEDCL. If annual aggregate availability is considered, AEML-D will be surplus for the entire year as a whole. Though there is surplus at aggregate level, there are certain time blocks in the year wherein AEML-D has decremented in the pool. In view of the aforesaid, if the Commission decides to implement the FCR in terms of ABT Order, then such FCR computation has to be done at 15 minute time interval and not on aggregate basis as proposed by MSEDCL.
- 8.2.4 As seen from the data submitted by AEML-D in respect of the power incremented/supplied by MSEDCL, it has primarily gone in to the Regional pool and supply towards MOD. FCR is not applicable for both of these categories. There is a possibility that very small/miniscule portion of the supply by MSEDCL might have gone into the supply of over-drawal by other SPPs where FCR is applicable. Considering the said facts, the Commission may appropriately decide on need for implementation of FCR taking into consideration commercial principles defined under the ABT Order and not as per assumptions and approximations proposed by MSEDCL to avoid any unjust adverse impact on the Tariff of AEML-D consumers.
- 8.2.5 The Commission, in its Order in Case No. 56 of 2012 on the Petition filed by MSLDC recognized the difficulties and stated that the issue would get resolved upon implementation of frequency based settlement. Accordingly, it is clear that the Commission has itself recognized that the present mechanism does indeed lead to various implementation issues with respect to FCR, will therefore not reflect in the true and correct settlement of Fixed Cost as envisaged in the ABT Order. Evidently, therefore, the Commission has, in its considered view, allowed for the continuance of the present FBSM, without FCR settlement. Even if FCR is to be implemented in the present mechanism, the various difficulties listed out by MSLDC may be first eliminated/overcome, so that a true and correct settlement of Fixed Cost can be carried out only as per principles defined under the ABT Order.

### **8.3 Use of Koyna generation for State Load Generation Balance (LGB) by allowing Mumbai utilities to overdraw and exploit FBSM mechanism**

- 8.3.1 Day ahead demand forecast at 15 minute interval is mapped with the generation availability declared from all the contracted sources. The net shortfall on the day ahead basis is purchased in the day ahead market such that there is no shortfall and demand and supply is matched for every 15 minute time block for the next day. Further, during the day of operation, if there is a sudden increase in demand, power is arranged in the same day market to avoid any overdrawal from the pool. In case of tripping/reduction in contracted source generation, standby supply is availed from MSEDCL to avoid overdrawal. However, it is to be noted that it will not be practically possible to maintain NIL overdrawal from the Pool even by MSEDCL. Considering this peculiarities of the electricity, imbalance pool deviation settlement mechanisms are put in place for the integrated Grid operation where multiple parties are involved. The Scheduling and Despatch code approved by the Commission ensures that there is no SPP that could engage in consistent overdrawal / underdrawal to take the advantage of the market.
- 8.3.2 MSEDCL has not segregated the power supply under MOD and actual overdrawal and wrongly represented the facts, as supply under MOD is not overdrawal.
- 8.3.3 MSEDCL has done analysis of the overdrawal from the Daily System report (DSR) published on the SLDC's Website, which cannot form the basis of allegation of overdrawal due to the following factors:
- (a) The DSR is prepared based on the operational data recorded on the SCADA, which itself is not as accurate as SEM data.
  - (b) Mumbai Demand is computed based on the Gross generation of Mumbai at Mumbai periphery. Hence, demand computation is not correct as the Auxiliary consumption of the Generating Units gets added in the demand of Mumbai and it reflects as if Mumbai / AEML-D is overdrawing from the Pool.
  - (c) Many times the demand values are stuck up/frozen hence even though demand is lower it shows higher value and if we compare these numbers it shows over drawal.
- 8.3.4 AEML-D has demonstrated to SLDC /MSEDCL that there was no actual overdrawal during real time operations as and when the said issue was raised by them.
- 8.3.5 The operation of Koyna Hydro undertaken by SLDC is as per the Grid requirement and not for meeting the demand of AEML-D.

**9. In its submission dated 14 January, 2019, Mindspace Business Parks Pvt. Ltd. (MBPPL) stated as under:**

- 9.1 MSEDCL's claim is not in line with the ABT Order. For the small Distribution Licensee like MBPPL, it is an extra burden on account of assumptions made by MSEDCL and hence the Petition may be dismissed.
- 9.2 MSEDCL's submissions appear to be self-contradictory. When incrementing in the pool, MSEDCL claims to be purchasing costly power from the Power Exchange.

However, the power purchase from Power Exchange does not contribute to Weighted Average System Marginal Price (WASMP).

- 9.3 MSEDCL's claim towards actual variable charges is not in line with the present method of calculating WASMP approved by the Commission vide the ABT Order. It seems that MSEDCL is requesting for change in the existing mechanism, which is not appropriate, and thus liable for rejection.
- 9.4 The underdrawal and overdrawal is settled in State pool based on 15 minutes time block, thus the applicable rates and deviation are to be derived for 15 minutes time block separately. Contrary to the mechanism, the calculations submitted by MSEDCL is based on monthly net realization. Hence, such retrospective recovery claims should be summarily rejected.
- 9.5 As laid down in the ABT Order, the capacity exchange is applicable only if any SPP overdraws from the pool on account of not tying up generation capacity to meet such demand. The capacity exchange is not applicable when SPP overdraws through the pool in case of deviation under MOD. Thus, MSEDCL's claim for FCR towards the deviation is incorrect.
- 9.6 MBPPL has scheduled the power till date in view of applicable rates and mechanism approved by the Commission. FCR was never part of the mechanism approved by the Commission nor MSLDC has ever charged or mentioned the same. Hence, it is a surprise to MBPPL that MSEDCL has filed its Petition at such a later stage in spite of the Commission's confirmation about non-inclusion of FCR in its Order dated 11 April, 2014.

**10. In its submission dated 15 January 2019, TPC-D stated as under:**

- 10.1 Under the ABT Order, the basic intention of the Fixed Cost Reconciliation (**FCR**) is to compensate the generation capacity used by a Distribution Utility over and above its available contracted generation capacity. FCR needs to be carried out for each 15 minute time block and also based on the principles laid down in the ABT Order and not as proposed by MSEDCL in its Petition.
- 10.2 Further, the availability of Generators, which TPC-D had tied up during FY 2011-12 to FY 2017-18, was sufficient to meet its demand and the backdown was only because of MOD principles followed under the FBSM mechanism. Although, the Fixed cost computation has to be done for a particular trading period, the supply availability for TPC-D was over and above its demand considered on an annual basis. Hence, the UI purchase was only because of the backdown under FBSM mechanism. Accordingly, TPC-D is not liable to pay any amount towards Fixed Cost. Fixed cost, if at all payable, would be payable for a trading period where the available generation was lower than the demand of TPC-D which would be a rare case considering TPC-D had enough contracted generation capacity.

- 10.3 In addition to the above, the issue of Fixed Cost reconciliation was raised in the MSPC meetings wherein MSEDCL was a party and the same has been settled and closed.
- 10.4 MSEDCL's submissions for payment of variable charges is incorrect. MSEDCL is proposing a different mechanism through this Petition for payment of variable charges. TPC-D has paid all the provisional/Final FBSM Bills raised by MSLDC from August, 2011 to February, 2017. The total amount paid by TPC-D to UI pool till date is Rs 962.13 Crores. In addition to this, TPC-D had paid advance corpus of Rs. 49.38 Crores to the UI Pool. Further, these provisional Bills are issued after doing reconciliation by all Pool participants and hence claims for UI based on the new and different methodology by MSEDCL is not correct. All these provisional/Final UI Bills had been paid by TPC-D within the stipulated time period and hence, TPC-D is not liable to pay any amount of carrying cost. However, if any amount to be paid after finalization of FBSM Bills, TPC-D will pay the same to UI Pool.
- 10.5 In addition to the above, MSEDCL's contention regarding non-recovery of variable charges from Mumbai Discoms is not correct. TPC-D has analysed the data of the energy supplied to Mumbai Discoms and to the Regional Pool of UI on a sample basis for FY 2014-15. The analysis is presented in the Table below:

<b>DISCOM</b>	<b>Net Imbalance in MUs</b>	<b>Amount Paid in Rs. Cr.</b>	<b>Net Pool Rate in Rs. Unit</b>
TPC-D (A)	-417	102	-2.46
BEST (B)	-396	98	-2.47
AEML (C)	-32	43	-13.25
<b>Total for Mumbai Discom (D=A+B+C)</b>	<b>-845</b>	<b>243</b>	<b>-2.88</b>
WRPC (E)	-640	-57	2.45
<b>Total (D+E)</b>	<b>-1485</b>	<b>86</b>	<b>-0.85</b>

- 10.6 As seen from the above, MSEDCL has supplied a total of 845 MUs to Mumbai Discom during FY 2014-15 at WASMP of Rs. 2.88/ kWh while 640 MUs had been injected in the Regional Pool for which MSEDCL had paid a penalty at the rate of Rs 2.45/ kWh. This has resulted in a net realisation of Rs. 0.58 / Unit to MSEDCL for a total energy of 1485 MUs. As can be seen from the Table, the Mumbai Discoms had paid the highest marginal cost to MSEDCL under FBSM settlement mechanism and the low realization was on account of penalty paid by MSEDCL to regional UI. This issue is not an issue of FBSM mechanism.
- 10.7 Further, as per the current FBSM mechanism, energy purchased from power exchange and interstate sources is a "must absorb" by the Discom who purchases it while energy

purchased under intra-state bilateral has to be absorbed upto 70%. This energy being required to be mandatorily consumed by the Discom who purchases it cannot be utilised to arrive at the UI rate. These principles have been approved by all Pool Participants including MSEDCL and implemented for so many years. Now, raising an issue about methodology for calculation of UI rate after 7 years of operation of the FBSM mechanism and retrospectively demanding additional variable charges is unfair to the Mumbai Discoms who have been judiciously making all payments as per the FBSM mechanism. This is in disguise nothing but a Review requested of the current FBSM mechanism retrospectively which should not be allowed. Further, the Commission is already considering implementing the DSM mechanism and these issues, if any, should be addressed under the new mechanism.

- 10.8 Further, TPC-D is scheduling power under standby arrangement for the planned outages during the year. Mumbai Discoms, based on their demand, pay monthly fixed charges towards Standby to MSEDCL and variable charges (based on highest cost of power purchased by MSEDCL) for the energy consumed under standby. MSEDCL, in their Petition has not segregated such energy drawn by Mumbai Discoms during the year for which charges have been paid.
- 10.9 The claim of fixed cost is not acceptable as it is against the methodology provided in the ABT Order. The same has been communicated to MSEDCL by TPC-D through its letter dated 10 December, 2018.
- 10.10 In case of variable charges, as submitted above, MSLDC has raised the provisional bill upto FY 2016-17 for Rs. 95.22 Crores and TPC-D had paid the same. Further, MSLDC through its letter dated 27 December, 2018 has raised the provisional Bill of Rs 125.84 Crores for FY 2017-18 based on the amount approved under MTR Tariff Order. TPC-D has paid Rs 75.85 Crores after deducting the advance amount of Rs. 49.38 Crores paid as a corpus to the UI Pool. Thus, TPC-D is not liable to pay any amount towards the energy purchased under UI for FY 2016-17 and FY 2017-18.

**11. Hearing held on 15 January, 2019:**

- 11.1 Representative of MSLDC stated that:
- i. In pursuance of the interim directions issued vide Daily Order dated 21 December, 2018, MSLDC has raised the following bills based on variable cost to be recovered from the respective utilities for the FY 2017-18:

<b>Mumbai Utilities</b>	<b>Amount in Rs Crores</b>	<b>Corpus Amount paid in Rs Crores</b>
AEML-D	302.66	59.15
BEST	187.97	48.47

TPC-D	125.24	49.38
Total	615.87	157.00

ii. As against, the details of payments received are as follows:

<b>Mumbai Utilities</b>	<b>Amount in Rs Crores</b>
AEML-D	108.00
TPC-D	75.86
BEST	NIL

iii. Further, MSLDC has already issued FBSM bills till 26 March, 2017 and will be in position to issue bills till last week of March, 2017 within current week. Therefore, the provisional recovery of FBSM bills from Mumbai utilities for period FY 2016-17 shall be considered as per the actual issued bills by MSLDC.

11.2 Representative of TPC-D stated that it has paid the provisional bill raised by MSLDC towards variable cost recovery of FBSM pool. Representative of AEML-D stated that it has paid the partial payments of variable cost recovery of FBSM pool as the payments have not been recovered from erstwhile R-Infra-D. To a query of the Commission, representative of BEST cited the financial crunch for non-payment of the bills raised by MSLDC.

11.3 The Commission directed AEML-D and BEST to pay the balance amount immediately. As regards TPC-D's action of deducting the corpus amount of Rs. 49.38 Cr. while making payment, the Commission ruled that TPC-D needed to pay the provisional bills as claimed by MSLDC without linking the issue of corpus payment, since corpus needs to be maintained over and above the current payments. As regards the MSEDCL's claim of recovery of variable cost of FBSM pool for FY 2018-19 and the additional submission of MSEDCL, the Commission directed that the impleaded parties shall submit their replies, within one week with copies to all the Parties. The Commission also directed MSLDC to devise the methodology for the recovery of annual fixed cost, reconciliation of the same within the State pool and issue the bills for annual fixed cost within a week.

**12. On 16 January, 2019, MSEDCL filed its additional submission stating as follows:**

12.1 Vide its Daily Order dated 21 December, 2018, the Commission directed MSLDC to settle MSEDCL's demand of Rs. 989.41 Cr. by working out a provisional recovery of variable cost of FBSM pool for FY 2016-17 and FY 2017-18 from Mumbai utilities pending the final settlement of FBSM bills in due course. In response, MSLDC has

raised the bills of Rs. 615.87 Cr. for FY 2017-18 and out of the same, only Rs. 183.85 Cr. has been received by MSEDCL on 15 January, 2019. Hence, the Commission may direct Mumbai utilities to pay the balance amount at the earliest. On similar line of FY 2016-17 and FY 2017-18, MSLDC may be directed to pass the amount receivable to MSEDCL for FY 2018-19 on immediate basis.

- 12.2 Since MSEDCL is required to pay the charges payable to its generators within due date of 30 days otherwise Delay payment charges are attracted, on the similar line, the amount payable to MSEDCL towards variable charges for FY 2016-17, to FT 2018-19 be allowed to be recovered along with the interest (i.e. SBI PLR+\_4%).

Since, MSLDC has not taken any action for settlement of annual fixed cost component, suitable directions may be given to MSLDC for initiating necessary action.

13. **On 17 January, 2019, Gigaplex Estate Pvt. Ltd. (GEPL) filed an identical submission same as that of MBPPL as mentioned at Para. 9 above.**

14. **Issue-wise additional submission dated 31 January, 2019 filed by AEML-D stated as follows**

- 14.1 **FCR as per the revised working submitted by MSEDCL**

14.1.1 MSEDCL, in its submissions, has proposed and included towards FCR, the energy which has largely flown into the Regional Grid during the night off-peak time, when realization of variable cost was much lower than the actual cost as well. Thus, it appears that MSEDCL has inappropriately represented the facts related to FCR to make good the loss incurred by it in injecting power into the Regional Pool.

14.1.2 The Commission is requested to implement FCR on 15 minute time interval only and in accordance with the ABT Order i.e. not considering MOD power or power drawn under Stand-by support. Any methodology, other than as outlined in the ABT Order, will have adverse impact on AEML-D's consumers.

- 14.2 **Overdrawal by Mumbai DISCOMs and use of Koyna by MSLDC for managing State level Overdrawal:**

14.2.1 MSEDCL submission with regard to over-drawal is incorrect in view of the following:

- a. MSEDCL has not excluded the power requested under the Standby and the power supplied under MOD from the Mumbai Exchange data and has wrongly represented the entire drawal as over-drawal from the Grid.
- b. Further, the actual Mumbai exchange is inclusive of consumption of Indian Railways (CHOLA S/S) whereas the Scheduled Mumbai Exchange is the power scheduled only to Mumbai Utilities including Suburban Railways. This will artificially indicate over-drawal by Mumbai Utilities.
- c. SCADA data introduces error since accuracy class is lower and demand is measured at actual loss whereas AEML-D pays at InSTS loss, value stuck up etc.

14.2.2 To substantiate the aforesaid discrepancies, data for the month of November, 2018 on sample basis is evaluated based on the power scheduled from external sources to Mumbai and is extracted from the Iodestar software of MSLDC and data submitted by MSEDCL is as given below:

As Submitted by MSEDCL (Nov-18)		
Particulars	Symbol	Energy (MUs)
Scheduled Mumbai Exchange	A	-645
Actual Exchange	B	-855
UI	A - B	210
Over Drawl (O/D)		210
Under Drawl (U/D)		-0.10
As per Actual Calculation (Nov-18)		
Particulars	Symbol	Energy (Mus)
Scheduled Mumbai Exchange	A	-644
Actual Mumbai Exchange (Incl Of Chola)	B	-855
Chola Consumption (IR)	C	-29
Actual Mumbai Exc. (Excl. Chola)	D = B - C	-826
O/D from Schedule (Incl. of MOD Backdown)	E = A - D	182
MOD Backing Down of sources contracted by Mumbai DISCOMs	F	233
Net O/D (Excl. MOD Backdown)	E - F	-50

14.2.3 Thus, MSEDCL has evaluated overdrawal of 210 MUs for the month of November 2018, whereas actually after considering the consumption of CHOLA and backing down of generations contracted by Mumbai DISCOMs, there is no overdrawal on netting basis.

14.2.4 In view of the above, all the allegations of MSEDCL regarding overdrawal from the grid is a complete misrepresentation. The demand supply position of AEML-D is closely monitored and purchase decisions are undertaken on same day / day ahead basis. In case of tripping/reduced generation, standby support is sought from MSEDCL. From time to time, AEML-D has demonstrated to MSLDC/MSEDCL that allegation of overdrawal was unfounded. During FY 2017–18 and FY2018-19 also, there were number of queries from MSLDC on this issue and it has been demonstrated that there was no overdrawal by AEML-D.

14.2.5 On the usage of Koyna Hydro Generation for grid management, the grid operation is of paramount importance and system operators need to have flexible resources for controlling imbalances and frequency. The Commission may appropriately decide on



the use of Koyna Hydro Generation by MSLDC as per the IEGC and State Grid Code in order to ensure safe and secure grid operation.

**14.3 Ad-hoc provisional settlement for FY 2018-19:**

- 14.3.1 Provisional bill for FY 2018-19 cannot be issued. The Commission has allowed one time adhoc settlement for FY 2017-18 only because Mumbai DISCOMs had already recovered the amount whereas the settlement was pending on account of delay in finalization of FBSM bills wherein it is not the case for FY2018-19.
- 14.3.2 The Commission, in its approval of FAC for AEML-D from January, 2018, has not considered the quantum and cost of power purchase from pool that AEML-D had provisionally included. Therefore, energy and cost towards the Pool Imbalance is not considered in FAC from January,2018 onwards and is therefore not being recovered from the consumers. Hence, the settlement for FY 2018-19 should be undertaken under business as usual on weekly basis and not as one time as it will result into tariff shock for AEML-D's consumers.
- 14.3.3 The balancing power market i.e. DSM at Regional level or the FBSM at State level is implemented to bring in Grid discipline within the Pool participants and it is essential that methodology adopted for settlement should be based on principles approved by the Commission. MSEDCL is proposing the changes in the mechanism as per its convenience. MSEDCL's submissions in Case No 56 of 2012 show that MSEDCL had supported the present mechanism as the same was beneficial and was required to be continued.
- 14.3.4 MSEDCL was supporting the FBSM mechanism as during the earlier period MSEDCL was in shortfall and power was being supplied from Mumbai DISCOMs under MOD. Now the situation is reversed and review of the mechanism is being sought by MSEDCL. The market mechanism should not be changed to suit the convenience of some of the participants, The Commission has to take holistic approach considering development of the sector and market mechanism as such.
- 14.3.5 The billing proposed by MSEDCL is based on the operational data as available in DSR and not billing data. MSLDC has, many times, reported to the MSPC that they are not able to finalize the bills at the required pace as MSEDCL is not able to verify the bills and submit the comments on time. Therefore, MSEDCL itself can take initiative to expedite the billing.
- 14.3.6 The rates proposed by MSEDCL are marginal stations rate for settlement, whereas the backed down station / source of AEML have been cheaper in respective time slots. If MSEDCL methodology is adopted, it will impact AEML consumers. Market operation and MOD supply was undertaken based on the principles approved by the Commission and these principles cannot be changed for settlement post-facto as same may result in to uneconomic dispatch.

**15. In its submission dated 5 February 2019, BEST stated as under:**

15.1 MSLDC has raised a provisional bill of Rs.187.97 Cr. on BEST against recovery of variable cost of pool energy for FY 2017-18 and provisional bill of Rs. 112.68 Cr. against fixed charges of pool energy for FY 2011-12 to FY 2017-18.

### **15.2 Out of the queue bill bypassing procedure**

15.2.1 The bill dated 27 December, 2018 for Rs. 187.97 Cr. has been generated by MSLDC out of the queue bypassing the procedural billing mechanism. It appears that the figure of Rs. 187.97 Cr. has been drawn from BEST MTR Order in Case No. 203 of 2017 wherein the Commission has considered and approved a certain quantum of pool power based on BEST's submission. This figure is not final tried up figure and therefore, cannot be assumed to be accurate.

15.2.2 Moreover, for years together generally on an average 3 to 4 weekly FBSM bills were received by BEST every month and accordingly the expenditure has been planned and provided for in the budget. It becomes difficult to suddenly generate fund for this out of the queue bill and make payment.

15.2.3 MSLDC should process the bills at a faster pace and generate bills as per presently accepted billing mechanism and not to deviate from standard procedure since the amount involved is very high.

15.2.4 Since the bill is inaccurately generated bypassing standard procedure it would not be proper to levy any delayed payment charge.

### **15.3 Billing based on inaccurate assumptions**

15.3.1 In the calculation provided by MSEDCL for recovery of variable cost for FY 2017-18, it is assumed that the share of pool energy received by BEST is from MSEDCL which may not be true. It is likely that part of the energy component of MSEDCL has been exported to Central sector or part of the Central sector energy is utilized by Mumbai utilities. It has to be noted that the net energy decremented by BEST is to the State pool and not exclusively to MSEDCL. Furthermore, there are various parameters that need to be considered for arriving at the cost of energy exchange at 15 minute block basis for FBSM settlement. Therefore, any ad-hoc arrangement bypassing standard billing procedure for variable cost recovery may not be correct and will give wrong projection of provisional FBSM settlement.

15.3.2 The Commission in its MTR Order for BEST in Case No. 203 of 2017 has not explicitly specified the power purchase cost towards Pool imbalance for FY 2018-19. Therefore, any recovery of variable cost of pool energy for current financial year on ad-hoc methodology may not be correct.

### **15.4 Recovery of Fixed charges for the period from FY 2011-12 to FY 2017-18:**

15.4.1 The Fixed charges bill has not been generated since implementation of FBSM mechanism indicating that the mechanism has failed for accounting and billing for fixed charges in pool energy settlement.

15.4.2 MSLDC has given BEST a bill of Rs. 112.68 Crores dated 25 January, 2019. BEST, therefore, disputes the bill.

#### **15.5 Sufficient Capacity provision:**

15.5.1 During FY 2011-12 to FY 2017-18, BEST's average demand was about 550 MW wherein peak demand was around 900 MW and minimum demand was around 225 MW. During aforesaid period, BEST had a long term PPA of 932 MW with TPC-G and 20 MW with Welspun Energy Ltd. and additionally had other short term schedulable RE and bilateral contracts.

15.5.2 Also, there is a standby arrangement with MSEDCL for the support to the extent of 500 MW, for which BEST had paid annual capacity standby charges. At almost all times during these years, overall "Available Generation Capacity" provided by these contracted generators was well above the BEST's target drawal schedule on day-ahead basis.

15.5.3 In view of this and that BEST had sufficient contracted and available power its liability towards FCR pool volume is very much limited and therefore, bill generated based on assumptions is incorrect.

#### **15.6 Double payment of Fixed Charge**

15.6.1 The methodology adopted by the MSLDC in the present bill for calculation of recovery of Fixed cost component is arbitrary and not in accordance with the para. 4.3.2 of the ABT Order.

15.6.2 Making payment towards the fixed cost recovery as sought by MSLDC will lead to an anomaly wherein BEST will end up paying the fixed charges twice for the same capacity made available to meet its demand e.g. BEST is paying entire fixed charges to TPC-G for the capacity tied up, having already paid the charges to TPC-G, it has to again pay fixed charges for the pool energy in lieu of the backing down of TPC-G plants.

#### **15.7 Incorrect methodology**

15.7.1 The assumption of MSLDC that 60% pool decrement is over-drawal and 40% is backing down under MOD principle for all Mumbai utilities is incorrect for the purpose of generating bill for BEST.

15.7.2 BEST has always maintained enough tie-ups and made available the capacity considering its demand. The decrement to the pool was largely due to backing down of its contracted TPC-G generators.

15.7.3 In this background, Annual FCR, if any, should be based on the principles laid down in the para. 4.3.2 of ABT Order, and Balancing and Settlement Code and shall not be based on any ad-hoc methodology which contravenes the regulatory provisions of the ABT Order. The Commission may issue suitable guidelines in the matter to MSLDC.

- 15.7.4 Also, MSEDCL being part of MSPC is equally responsible for the billing mechanism and its efficacy as any other stakeholder. As such, sticking to the adopted billing procedure would be the most apt thing to do till new mechanism comes in to place.
- 15.7.5 Furthermore, it needs to be highlighted that in order to fulfill responsibilities in capacity of largest SPP, Mumbai utilities are paying MSEDCL Standby Charges to the tune of Rs. 396 Cr. for or against practically no units.
- 15.7.6 The Commission may issue necessary Orders to rectify present billing mechanism of MSLDC in order to generate bills in reasonable time limit of maximum two months.
- 15.7.7 BEST intends to pay the provisional bill dated 27 December, 2018 generated by MSLDC towards variable cost amounting Rs. 187.97 Crores, in accordance with the Orders of the Commission. In view of the financial difficulties the Commission is requested to allow BEST to pay the amount of Rs. 187.97 Cr. for FY 2017-18 in ten interest free monthly instalments. Alternately, BEST may be allowed to pay the regular provisional FBSM bills as and when generated by MSLDC.
- 15.7.8 BEST disputes the provisional bill dated 25 January 2019 raised by MSLDC of Rs. 112.68 Cr. towards Fixed cost of pool energy for FY 2011-12 to FY 2017-18 and prays that the Commission should give suitable directives to MSLDC to prepare correct bills based on the provisions of the ABT Order.

**CASE No. 25 of 2019 filed by TPC-D**

16. TPC-D has filed this Case on 30 January, 2019 under Section 32(3) read with Section 86 of the EA seeking quashing of MSPC's Provisional Fixed Charge Bill for FY 2011-12 to FY 2017-18 dated 25 January, 2019. Alongwith the Petition, TPC-D filed Miscellaneous Application (MA 4 in Case No. 25 of 2019) seeking an urgent listing of the matter (i.e. before 8 February, 2019) on the ground that TPC-D needed an interim relief against MSPC/MSLDC against the enforcement of the Fixed Charges Bills raised by MSPC.
17. **TPC-D's main prayers are as follows:**
- a. *Hold and declare that the Provisional Fixed Charges Bill under the Intra-State ABT for FY 2011-12 to FY 2017-18 dated 25.01.2019 issued by the Maharashtra State Power Committee is not in accordance with the principles/ methodologies set out by this Hon'ble Commission in Para 4.2.3 of its Order dated 17.05.2007 in Case No. 42 of 2006 read with Para 7.3.2 of the Final Balancing and Settlement Code, 2009;*
  - b. *Quash and set aside the Provisional Fixed Charges Bill under the Intra-State ABT for FY 2011-12 to FY 2017-18 dated 25.01.2019 issued by the Maharashtra State Power Committee;*

- c. *Pending adjudication of the present proceedings, pass an ex-parte, ad-interim order staying the operation and/ or enforcement of the Provisional Fixed Charges Bill under the Intra-State ABT for FY 2011-12 to FY 2017-18 dated 25.01.2019 issued by the Maharashtra State Power Committee and no coercive steps be taken against Tata Power-D;*
- d. *Alternatively, pending final disposal of Case No. 297 of 2018 filed by MSEDCL, pass an ex-parte, ad-interim order staying the operation and/ or enforcement of the Provisional Fixed Charges Bill under the Intra-State ABT for FY 2011-12 to FY 2017-18 dated 25.01.2019 issued by the Maharashtra State Power Committee and no coercive steps be taken against Tata Power-D;*
- e. *Pass appropriate directions, in the interest of transparency, directing issuance of public notice for conducting of a public hearing in the present Petition and in Case No. 297 of 2018 filed by MSEDCL as the impact of both the Petitions will be on the distribution licensees, including Tata Power-D's consumers;*

**18. Grounds of TPC-D's Case are as under:**

The grounds for filing the Petition are as under:

**18.1 MSPC/ MSEDCL's claim for Fixed Cost is time-barred:**

18.1.1 MSPC's levy of Annual Fixed Costs is time-barred and cannot be entertained by the Commission at this stage. In terms of Para 5.3 of the ABT Order read with the FBSM Code, MSLDC is required to undertake the reconciliation and settlement process on an annual basis. However, MSLDC has failed to do so, leading to the present crisis where Annual Fixed Costs are being levied on TPC-D for the period FY 2011-12 to FY 2017-18.

18.1.2 The Supreme Court in *Andhra Pradesh Power Coordination Committee & Ors. v. LancoKondapalli Power Limited & Ors.* reported as (2016) 3 SCC 468 has held that the provisions of the Limitation Act are applicable to disputes under the EA. Hence, any and all monetary claims beyond the period of 3 years are barred by limitation. In the present case, MSEDCL has claimed the Fixed Charge amounts for FY 2011-12 to FY 2017-18 only in October, 2018. Hence, MSPC/ MSEDCL's money claim pertaining to the period FY 2011-12 to FY 2013-14 is barred by limitation (limitation having expired in FY 2015-16 and FY 2016-17 respectively) and cannot be claimed from TPC-D in the year 2018-2019. Hence, the Impugned Bill ought to be quashed and set aside on this ground alone.

**18.2 Methodology prescribed by MSPC in the Impugned Bill is adhoc and contrary to the ABT Order dated 17 May, 2007 and the FBSM Code**

18.2.1 Without prejudice to TPC-D's contention in Case No. 297 of 2018 that the methodology applied by MSEDCL for computation of fixed charges is contrary to the principles laid down in the ABT Order read with FBSM code, it is submitted that in its Petition and in its Additional Submissions in Case No. 297 of 2018, the data submitted by MSEDCL

suggests that for FY 2011-12 to FY 2012-13, MSEDCL was drawing power from the imbalance pool, meaning that for the said period, MSEDCL is required to compensate the remaining State Pool. However, the fixed charges bill issued by MSPC suggests that even for FY 2011-12 to FY 2012-13, MSEDCL has supplied power to the State Pool and hence is liable to be compensated for the same.

18.2.2 In terms of Clause 6.5(c) of the ABT Order, MSPC cannot modify/ deviate from the principles laid down in in the Balancing and Settlement Code, without the approval of the State Pool Participants, meaning thereby that MSPC could not have unilaterally changed in methodology for computation of the Fixed Charges without the permission of the State Pool Participants. Prior to issuance of the Fixed Charges Bill dated 25 January, 2019, no meeting of the Members of MSPC as required in terms of the ABT Order was convened. During the meeting held on 23 January, 2019 (not convened by MSPC) and vide its letter/ e-mail dated 25 January, 2019, TPC-D has objected to any adhoc methodology being applied by MSPC for calculation of Fixed Charges. However, contrary to TPC-D's objections and in violation of Para 6.5(c), MSPC has issued the Fixed Charges Bill. Hence, the said Fixed Charges Bill ought to be quashed and set aside.

18.2.3 The ABT Order and FBSM Code are in the nature of subordinate legislation, issued under Section 181 of the EA and hence are binding not only on MSPC but also the Commission. Hence, the Fixed Charges Bill issued by MSPC ought to be set aside on this ground alone.

### 18.3 **No power with MSPC to prescribe a methodology for computing the Annual Fixed Costs**

18.3.1 MSPC is not a statutory body created under the EA. In fact, in terms of Para 6.1 of the ABT Order, the MSPC is a delegate of the Commission (under Section 97 of the EA), which was created by the Commission in its ABT Order. Hence, MSPC is required to work within the limits of the powers delegated upon it by the Commission in the ABT Order. [*NC Dhoundialv. Union of India* reported as (2004) 2 SCC 579 (Para 14) and *Cellular Operators Association of India vs. Union of India* reported as 2003 (3) SCC 186 (Para 27)]. Any order issued in excess of such powers will be illegal and void [*Distt. Collector, Chittoor v. Chittoor Distt. Groundnut Traders' Assn.* reported as (1989) 2 SCC 58, Para 4].

18.3.2 Paras 3.4.5, 6.1, 6.4.1 (I), 6.4.1 of the ABT Order provides that MSPC is required to act in accordance with the ABT Order and FBSM Code. No power has been entrusted unto MSPC to devise a new methodology under the ABT Order and FBSM Code. In any case, MSPC is not empowered to issue any Bill related to settlement of FCR Pool. Since, the order under which MSPC was created did not give these powers, MSPC could not have adopted the new methodology for computing the Annual Fixed Cost, let alone make the methodology applicable retrospectively.

- 18.3.3 In view of the above, the issuance of the Impugned Bill is ultra-vires the EA and contrary to the settled principles of law and ought to be set aside.
- 18.3.4 As regards, MSPC's erroneous assumption that the Commission's Daily Order dated 15 January, 2019 in Case No. 297 of 2018, permitted it to devise a methodology for recovery of fixed cost, it is submitted that, the Commission had merely directed MSPC to devise the methodology for "recovery" of annual fixed cost. Meaning thereby that, the Commission has merely asked MSPC to develop a methodology for recovery of the Fixed Charges (since the amount is to be recovered for a period of 7 years) and not for computation of the Fixed Charges. Hence, the Fixed Charges Bill levied by MSPC is also contrary to the directions of the Commission in its Daily Order dated 15 January, 2019. In this regard, it is pertinent to note that MSPC has failed to comply with the Commission's directions in its Daily Order. By way of the said Order, the Commission had also directed MSPC to undertake reconciliation of the Fixed Costs within the State pool. MSPC has failed to carry out any reconciliation and has merely adopted an adhoc methodology for computing TPC-D's liability towards Fixed Costs.
- 18.3.5 In any event, the Commission could not have passed a Judicial Order dated 15 January, 2019 contrary to the ABT Order and FBSM Code, which are in the nature of a subordinate legislation. In the hierarchy of laws, subordinate legislation supersedes the orders/ decisions passed by statutory bodies created under the law [Ref:-*PTC India Limited v. Central Electricity Regulatory Commission* reported as (2010) 4 SCC 603 (Paras 65-66)]. Accepting such an interpretation would make the Daily/ Interim Order dated 15 January, 2019 non-est. In any case, no amendment/ change in FBSM mechanism can be permitted without holding a public consultation in terms of Section 181 of the EA.
- 18.4 **MSPC's/MSEDCL's claim towards Fixed Cost cannot be allowed without conducting a prior public hearing**
- 18.4.1 TPC-D is a revenue neutral body. As such any and all expenses incurred by TPC-D (except penalties) are passed on to and recovered from TPC-D's consumers. Hence, the amount of Rs. 268,77,84,611/- levied by MSPC towards Fixed Charges for the period FY 2011-12 to FY 2017-18 will be passed onto and recovered from TPC-D's consumers through TPC-D's Tariff. The Tariff impact would be approximately Rs. 0.60/ kWh on TPC-D's consumers.
- 18.4.2 On account of such Tariff impact, the amount of Rs. 268,77,84,611/- ought not to be levied on TPC-D without first conducting a public hearing. In terms of Section 64(3) of the EA, the Commission is mandated to conduct a public hearing to seek the comments/ objections of the general public before passing on/ allowing any costs that has a direct impact on Tariff. The Impugned Bill seeks to levy a time barred demand on the consumers, while completely disregarding the various Tariff Orders passed by the Commission in the interregnum. In this regard, it may be noted that the Fixed Charges raised by MSPC relate to FY 2011-12 to FY 2017-18. From FY 2011-12 to

FY 2017-18, TPC-D's consumer mix has undergone significant alteration. Hence, it would not be fair to make TPC-D's current set of consumers pay Fixed Charges that ought to ideally have been levied 7 years ago.

18.4.3 TPC-D understands that, nowhere in MSEDCL's MYT/ MTR Orders has Fixed Charges relating to settlement of FCR Pool been reflected/ considered as a receivable from TPC-D and the other Mumbai distribution utilities. Further, the said amount of Fixed Charges has never been claimed by TPC-D in its MYT/ MTR Petition and/ or allowed by the Commission in TPC-D MYT/ MTR Orders. Hence, the Fixed Charges amount now claimed by MSEDCL/ MSPC ought not to be allowed until and unless the same is first approved for inclusion in the Tariff of the distribution utilities. Such inclusion of the Fixed Charges amount in the Tariff of TPC-D would necessarily require a prior public hearing.

19. **In its Reply dated 6 February, 2019, MSLDC stated as under:**

19.1 In its daily Order dated 15 January, 2019, the Commission has directed MSLDC to device a mechanism for FCR. This itself indicates that there is no approved mechanism and MSLDC has to device a mechanism and issue bills in the short span of seven days.

19.2 MSLDC has worked out on sample basis the number of time blocks for which backing down was done for FY 2016-17 and FY 2017-18. It is observed that an annually average period of backing down is about 40 % of total time blocks of the year.

19.3 In compliance with the above daily order, Provisional Fixed Charges bills are issued on ad hoc basis. MSLDC has considered that 40% of the annual energy which qualifies for exemption from payment of Fixed Charge on account of backing down of contracted generation and 60% of the energy drawn by utility from Unscheduled Interchange (UI) pool considered as over-drawal which qualifies for payment of Fixed Charge.

19.4 The Fixed cost bills issued are provisional bills. If any other methodology for computation of FCR is finalized by the Commission and MSLDC receives any directives in this matter by the Commission in such case the bills will be revised accordingly.

20. **In its reply dated 6 February 2019, MSEDCL stated as under:**

20.1 The issue of FCR and the payment of annual fixed charges by Mumbai utilities are consistently and repeatedly being discussed and under consideration of MSLDC, MSPC, Mumbai utilities and the Commission till date. However, the issue is not resolved.

20.2 The impugned bill is a provisional bill issued due to and in the exigencies stated therein which obviously will be finalized in accordance with the ABT Order, FBSM Code, Order dated 11 April, 2014 and interim Order dated 15 January, 2019 in Case No. 297 of 2018.



- 20.3 Para 12 of , in 22<sup>nd</sup> MSPC meeting dated 08.02.2017 , the Chairman, MSPC, Mr. Sethi, CEO, Tata Power, after deliberation on the FCR *instructed not to raise the FCR issue in any of the next MSPC meetings till any directives came from Hon'ble MERC on this regard.*
- 20.4 The Commission, vide its Daily Order 15 January, 2019 has passed the directives to MSLDC to issue the bills for annual fixed cost and redress the issue of FCR and the payment of annual fixed cost thereon. In compliance, MSPC has issued the provisional fixed cost bills to Mumbai utilities for period from FY 2011-12 to FY 2017-18. Thus as per the decision of 22<sup>nd</sup> MSPC, the Commission has now passed the directives for issue of FCR bills and the same are being complied.
- 20.5 The impugned bill clearly states that the said bill is provisional and subject to the finalization as per the ABT Order and FBSM Code.
- 20.6 Hence, TPC-D has no voice to object the billing and methodology for FCR and can not take the double stand as it was the instruction and the decision of then Chairperson of MSPC which was also the authority of Tata Power Ltd. This shows that TPC-D does not want to resolve this issue and does not wish to make the payment of annual fixed charges to MSEDCL even after recovering the FBSM charges through Tariff from its consumers and also wish to enjoy the benefits of incremented power of MSEDCL contributed to FBSM pool.
- 20.7 The Commission vide ABT Order has constituted the governance structure for implementation of ABT mechanism at state level. The Commission has constituted the MSPC and empowered MSPC for implementation of ABT mechanism at state level. Para. 6 of ABT Order provides methodology for computing Annual Fixed Cost.
- 20.8 As per the core functions and the responsibility vested in MSPC by the Commission, all the UI bills till date are issued by the Member Secretary, MSPC only, to all the SPPs and TPC-D is also one of the SPP who has received the same. Further, as per the provisions laid down in ABT Order and as per directives issued by the Commission in its Daily Order dated 15 January, 2019, MSPC has exercised it's right while issuing provisional fixed charges bill under intra state ABT for the financial year 2011-12 to 2017-18 to Mumbai utilities viz. TPC-D, BEST and AEML-D.
- 20.9 AEML-D's submission that "*No power has been entrusted unto MSPC to devise a new methodology..*" is completely misleading and afterthought to delay the reconciliation process and making payment of annual FCR and it is factually and legally incorrect.
- 20.10 The UI charges (imbalance pool) include FCR charges which are due and payable by the TPC-D to MSEDCL. In any event, TPC-D could have and should have claimed FCR charges under UI charges. MSEDCL should not suffer due to lack of proper provisioning and consideration of TPC-D.
- 20.11 The issue of making payment towards FCR bill is as per the provision of ABT Order and FBSM code. Hence, the issue of public hearing does not arise as it is not a policy

decision or a new regulatory aspect. It is the settlement of energy charges similar to variable FBSM charges which are being paid on annual basis by the utilities. Hence, TPC-D's contention is misleading.

20.12 The Commission before passing the MYT/MTR Order covering all the expenses including Power Purchase provided opportunity to the stake holders and public. In such a situation the Commission is not mandated to re-undergo or re-adopt the methodology provided under the Section 64 of the EA to conduct public hearing.

20.13 In the present case, the impugned bill is the provisional bill which is issued pursuant to Daily/Interim Order dated 15 January, 2019 passed by the Commission in Case No.297 of 2018 and the impugned bill clearly states in the accompanying note that:

- i. *Difficulties in implementation of FCR mechanism was elaborated by MSLDC in case no.56 of 2012 under removal of difficulties in the matter of operation and implementation of the intra state ABT Order.*
- ii. *Hon'ble Commission has directed MSLDC to devise the methodology for the Recovery of annual fixed cost, reconciliation of the same within the State pool and issue the bills for annual fixed cost in its para 8 of daily order dated 15.01.2019 in case no.297 of 2018.*
- iii. *Average Fixed Cost for respective financial year is considered from MSEDCL 's case no.297 of 2018.*
- iv. *As FCR module is not developed, therefore FCR calculation on the basis of compilation of 15 mins block wise settlement is not possible. Hence, fixed charges bills are prepared on the basis of energy drawn from the UI pool as per the MTR/ARR Order.*
- v. *MSLDC has considered 40% of the annual energy qualifies for exemption from payment of Fixed Charge on account of backing down of contracted generation and 60% of the energy drawn by utility from UI pool considered as overdrawl which qualifies to payment of fixed charge.*

20.14 The above extract shows that the provisional bill issued due to and in the exigencies stated therein which obviously will be finalised in accordance with the ABT order, FBSM Code, Order dated 11 April, 2014 passed in Case No. 56 of 2014 and interim order dated 15 January, 2019 passed in Case No.297 of 2018.

20.15 Hence, the Commission may not allow TPC-D's prayer and the Commission is requested to direct TPC-D for making immediate payment of annual fixed charges without any further delay.

**CASE No. 28 of 2019 filed by AEML-D**

21. Similar to TPC-D, AEML-D has also filed its Case on 4 February, 2019 seeking to quash MSPC's Provisional Fixed Charge Bill dated 25 January, 2019 under Intra State ABT for FY 2011-12 to FY 2017-18.
22. **AEML-D's main Prayers are as below:**
- i. *Quash and set aside the Impugned Bill dated 25<sup>th</sup> January 2019 (being Exhibit 'A' to this Petition).*
  - ii. *Pending the hearing and final disposal of the present Petition, stay the operation and/or enforcement of the Impugned Bill dated 25<sup>th</sup> January 2019 (being Exhibit 'A' to this Petition).*
  - iii. *Hold that pending the hearing and final disposal of the present Petition, declare that the amount of Rs.124,60,08,520 (INR One Hundred and Twenty-Four Crore Sixty Lakh Eight Thousand Five Hundred and Twenty) as levied vide Impugned Bill dated 25<sup>th</sup> January 2019 (being Exhibit 'A' to this Petition) is not payable and restrain the Respondents from taking any coercive action in relation thereto.*
  - iv. *Pass appropriate directions, in the interest of transparency, directing issuance of public notice for conducting a public hearing in the present Petition and in Case No. 297 of 2018 filed by Respondent No. 3 as the impact of both the Petitions will be on the distribution licensees, including the Petitioner;*
23. **AEML-D in its Petition has raised the same issues as raised by TPC-D in its Petition in Case No. 25 of 2018 except the issue of time limitation.**
24. **In its Reply dated 6 February 2019, MSLDC has re-iterated the similar reply as for TPC-D at Para. 19 above.**
25. **In its Reply dated 6 February 2019, MSEDCL has re-iterated the similar Reply as for TPC-D at Para. 20 above.**
26. **At the combined hearing held on 6 February 2019 in Case No. 25 of 2019 and 28 of 2019:**
- 26.1 The Parties reiterated their submissions as made in their respective replies. The Commission observed that both TPC-D and AEML agreed to pay the fixed charges if they are computed in consonance with the methodology defined by the Commission in ABT Order. Also, considering the difference between the Parties regarding the interim methodology being followed in calculation of the provisional fixed cost charges by MSPC, the Commission directed MSPC and MSLDC to have a meeting with all the members of MSPC including both TPC-D and AEML-D and MSEDCL. During this meeting, the members shall provide their views on the interim methodology to be followed while preparing the fixed charges bills on provisional

basis. MSPC, after considering the views/ comments of members shall decide the interim methodology to be followed for recovery of provisional fixed charges bills and thereafter if required revise the provisional bills. The Commission provided 10 days to complete the said activities.

26.2 The Commission also granted ad-interim relief to the Mumbai Utilities for payment of the provisional bills for fixed charges raised by MSPC on 25 January, 2019 subject to deposit of 20 % amount of the bills raised in MSLDC UI settlement account and directed to deposit the said amount within 7 days. MSLDC/MSPC was directed to pay the said amount to MSEDCL immediately thereafter. The Commission also ruled that these matters will be clubbed with Case No. 297 of 2018.

27. **Subsequent to hearing held on 6 February, 2019, TPC-D filed MA No. 5 in Case No. 25 of 2019 on 12 February, 2019 seeking clarification/ modification of the Daily Order dated 6 February, 2019. Prayers are as under:**

- a. *Allow the present Application seeking modification / clarification of this Hon'ble Commission's Interim Order dated 06.02.2019 in Case No. 25 of 2019;*
- b. *Modify / Issue an appropriate clarification to the Interim Order dated 06.02.2019 to the extent stated in Para 13 above;*
- c. *Alternatively, modify / Issue an appropriate clarification to the Interim Order dated 06.02.2019 to the extent stated in Para 14 above;*

28. **TPC-D in MA No. 5 in Case No. 25 of 2019 has stated as under:**

28.1 The Commission is requested to modify / issue a clarification to the Interim Order dated 6 February, 2019 by directing as under:-

- a. Any amount paid by TPC-D in excess of its actual liability towards Fixed Charges, as determined under the revised Provisional Fixed Charges Bill (prepared in accordance with the methodology/ principles laid down under the ABT Order read with the FBSM Code), shall be refunded by MSLDC to TPC-D, within a period of 7 days of finalisation of the revised Provisional Fixed Charges Bill, along with interest at the rate of SBI PLR +4% [Para 5.4(a) of the ABT Order and Clause 8.4(a) of the FBSM Code].
- b. Further, any amount paid by TPC-D as per the revised Provisional Fixed Charges Bill (prepared in accordance with the methodology/ principles laid down under the ABT Order read with the FBSM Code) which is in excess of its actual liability towards Fixed Charges as per the final reconciliation / settlement of the FCR pool later on, shall be refunded by MSLDC to TPC-D through adjustments in subsequent FBSM/ DSM bills.

28.2 This is without prejudice to TPC-D's rights to impugn any bill as provided in law. This is also without prejudice to the contentions of TPC-D that the ultimate payer of these amounts which is the common consumer has not been put to notice.

- 28.3 Alternatively, the Commission may consider modifying the Interim Order dated 6 February, 2019 by directing as under:-
- a. Once MSPC issues revised Provisional Fixed Charges Bill (on the basis of the principles laid down under the ABT Order read with the FBSM Code), in terms of the Commission's Interim Order dated 6 February, 2019, TPC-D shall make payments of the corrected and agreed amounts raised vide the revised Provisional Fixed Charges Bill within 7 days thereafter.
  - b. On final reconciliation/ settlement of the Pool, if it is seen that amounts paid by TPC-D pursuant to the revised Provisional Fixed Charges Bill, are in excess of its actual liability towards Fixed Charges, then such excess amount shall be refunded by MSLDC to TPC-D, within a period of 7 days, along with interest at the rate of SBI PLR +4% [Para 5.4(a) of the ABT Order and Clause 8.4(a) of the FBSM Code].
29. **In its Rejoinder dated 19 March 2019 to Reply of MSEDCL, AEML-D has stated as under:**
- 29.1 MSPC and MSLDC have completely misunderstood the order dated 15.01.2019 of the Commission in Case No 297 of 2017 wherein MSLDC has admittedly misinterpreted the direction in the daily order "*to devise the methodology*" as "*to devise the mechanism*".
  - 29.2 The Commission has already approved FCR Settlement Mechanism in its ABT Order and FBSM Code. Accordingly, there is no question of devising a new mechanism and if at all there are some operational issues in implementing the order of the Commission, same can be addressed based on the facts, rationale and appropriate software, etc.
  - 29.3 The "mechanism" refers to a defined process, whereas "methodology" refers to a specific set or system of methods. In this context, therefore, the direction of the Commission to MSLDC was to devise the specific method(s) (methodology) to implement the process (mechanism) already established vide the ABT Order.
  - 29.4 Misinterpreting the Order of the Commission, MSLDC has undertaken adhoc provisional billing assuming 60% of energy as overdrawal for the period FY2012 to FY2018 without any basis which is also relevant in the note mentioned in the impugned bill dated 25.01.2019.
  - 29.5 However, on post facto basis, MSLDC has submitted some rationale in its reply which is clearly an afterthought and is without any basis.
  - 29.6 The number of time blocks considered by MSDLC is without any rationale as the energy drawn in various time blocks is different and the weighted average rate will also vary based on the power supplied from pool in different time blocks. Generally most of the energy flow under the MOD happens during the night and off peak period when

AEML's contracted Generation gets backed down and hence the logic of the 40%/60% cannot be applied to arrive at the overdrawn energy.

- 29.7 In respect of contention of the annual fixed charges already being recovered in tariff in respect of pool quantum, it is respectfully submitted that no such recovery has been done by the Petitioner in tariff. The issue of FCR and payment of the same is the cost which is to be borne by the consumers. Accordingly, any additional cost being imposed upon consumers must necessarily, in the interest of transparency, be formalized after conducting public hearing as per Section 64 of EA03.
- 29.8 The provisional impugned bill issued by MSLDC is against all the generally accepted commercial principles as well as is contrary to the ABT Order and FBSM Code resulting into tariff shock to the consumers. Accordingly, the said impugned bill needs to be quashed and set aside.
- 29.9 The Commission may direct MSLDC to undertake the FCR settlement as per the principles defined under the ABT Order and FBSM Code at every 15 min time block and also reconcile the amount with the 20% paid by AEML as per the order dated 6 February, 2019 passed by the Commission.

**30. In its Rejoinder dated 19 March 2019 to Reply of MSLDC, AEML-D has reiterated the similar reply as for MSEDCL.**

**31. In its Reply dated 6 May, 2019 to MA No. 5 in case No. 25 of 2019, MSLDC has stated as under:**

31.1 MSLDC on behalf of MSPC operates UI pool account for settlement of amount receivable and payable between the SPPs. Hence, there is nothing on MSLDC to pay interest for any excess amount received towards the provisional fixed charges bill as claimed by TPC-D. In this regard the decision of the Commission will be followed by MSLDC.

**32. In the meantime, MSEDCL filed Miscellaneous Application (MA No. 8 of 2019 in Case No. 297 of 2018) on 9 April, 2019 seeking urgent and immediate intervention of the Commission seeking direction to MSLDC to implement the methodology of operation of Decentralised MoD i.e. utility wise Load generation balance from 1st of May 2019 was filed by MSEDCL with following prayers:**

- a) *Approve the methodology of operation of Decentralised MoD i.e utility wise Load Generation Balance (LGB) from 1st May 2019 as proposed by MSEDCL and Direct MSLDC to implement the same ;*
- b) *Direct M/s BEST to pay the amount of 187.97 Crs towards variable cost bill for FY 2017-18 and Rs. 22.54 Crs towards Fixed Charge bill immediately along with interest as per the directions in the daily orders dated 21.12.2018, 15.01.2019 and 06.02.201;*

- c) *To issue directives to Mumbai Utilities to pass on the excess recovered amount of Rs. 161.44 Cr towards power purchase form imbalance pool for FY 16-17 to MSEDCL immediately;*
- d) *To allow carrying cost from the month in which the MSEDCL's power contributed to UI pool and is actually utilized by Mumbai Utilities till the date of payment;*
- e) *Direct MSPC/MSLDC to comply with the directions in daily order dated 21.12.2018, 15.01.2019 and 06.02.2019 in entirety and on immediate basis.*

**33. MSEDCL in its Miscellaneous Application states as under:**

- 33.1 Total three meetings have been conducted by MSPC till date. However, so far no concrete decision has been taken by MSPC for deciding and finalizing the methodology to be followed for recovery of provisional fixed charges bills. Though MSEDCL and AEML-D, who holds 91% stake in Maharashtra's demand, have reached consensus on many issues, TPC-D and BEST who hold merely 9% share in Maharashtra's Demand are raising such issues where no solution could emerge and which are against the Regulations and practices followed by WRLDC/WRPC.
- 33.2 It appears that Mumbai utilities are exercising delay tactics by raising unnecessary issues time and again with no fruitful outcome of the meetings. Therefore, the objective of FBSM is lost and MSEDCL is deprived of its legitimate claims towards fixed cost in FBSM pool.
- 33.3 As per the structure of MSPC, the Chairman of MSPC can be appointed from amongst the Chief Executives of the Distribution Licensees on a rotational basis. MSEDCL has been able to chair the Committee only thrice from the formation of MSPC since 2007 till date even after having the major share of 82%. However, Mumbai utilities have chaired the Committee nine times and these utilities have used same practices of not recording the minutes of the proceedings incorporating all the points raised by MSEDCL.
- 33.4 Instead of resolving the issue, the Mumbai utilities have referred the issue to the Commission. MSPC has failed to address the issues time and again and it needs to be looked into accordingly.
- 33.5 Recently, the Commission has notified new DSM Regulation which shall be effective before 1st of April 2020. In the background of the financial impact as pointed out by MSEDCL and the failure of MSPC to resolve the UI settlement issues, MSEDCL submits that till the implementation of the said Regulation, it is essential to implement a new methodology to settle the UI amongst the Distribution utilities in Maharashtra to avoid the future financial burden on MSEDCL due to its major utilisation of generation capacity for Mumbai utilities.

33.6 In view of this, the Commission may consider utility-wise decentralised MOD i.e. utility wise LGB with effective from 1 May 2019. In case of any requirement of power due to shortfall in tied up /contracted generation availability, Mumbai utility may approach MSEDCL for supply of power to mitigate the shortfall and MSEDCL observing the availability may supply such power to such utility in real time basis with mutual consent in line with procedure which is followed by RLDC in case for utilization of Central Sector's (NTPC) Un-Requisitioned Source (URS) Power of one discom by other discoms in the region. This supplied power may be settled at the actual tariff (fixed + variable) of the highest on bar generating unit in MOD or contracted power purchased in the market (Bilateral / exchange) by MSEDCL.

33.7 Till March 2019, MSEDCL has only received an amount of Rs. 283.24 Cr. against the bill amount of Rs. 615.38 Cr. raised by MSLDC, which is evident from the Table below.

Utilities	Bill raised by MSPC (Due date 11.01.2019) Rs. Crore	Amount paid to SLDC Rs. Crore	Amount received by MSEDCL Rs. Crore	Balance amount wrt MSPC's bill Rs. Crore
A	B	C	D	E = B - D
AEML-D	302.66	158	158	144.66
BEST	187.97	0	0	187.97
TPC-D	125.24	125.24	125.24	0
Total	615.87	283.24	283.24	332.63

33.8 MSEDCL has already made payments to the generators against the said imbalance pool units used by Mumbai Utilities and this low cost imbalance units are already used by BEST and AEML-D in FY 17-18 and MSEDCL is being deprived of its legitimate claims.

33.9 To recover this legitimate claim of MSEDCL and to safeguard its financial interest, MSEDCL has recovered the due payable balance amount of Rs. 144.66 Cr. by M/s AEML from the payable amount of M/s Adani Power Maharashtra Ltd, Tiroda (M/s APML), Company under the same group and has also intimated to the Commission and also the MSLDC for necessary adjustment in the accounts.

33.10 TPC-D and AEML-D have paid 20% of the billed amounts towards provisional fixed charges under Intra State ABT for FY 2011- 12 to FY 2017-18 as per the directives given by the Commission in its Daily Order dtd 6 February, 2019. However, BEST has not paid amount of Rs. 22.54 Cr pertaining to them. The details are shown in Table below:

Utilities	Bill raised by MSPC	20% bill raised by MSPC to be	Amount paid to MSLDC	Balance amount wrt 20% of
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	(Due date 8.2.2019) Rs. Crore	paid by 13.2.2019 Rs. Cr.	and received by MSEDCL Rs. Crore	MSPCs bill Rs. Crore
A	B	C	D	E = B - D
<b>AEML-D</b>	124.60	24.92	24.92	0.00
<b>BEST</b>	112.68	22.54	0	22.54
<b>TPC-D</b>	268.78	53.76	53.76	0.00
<b>Total</b>	506.06	101.21	78.68	22.54

33.11 Despite the specific directives of the Commission vide Daily Orders dated 21 December, 2018, 15 January, 2019 and 6 February, 2019, BEST has not made any payment against variable cost of FY 17-18 and FCR totalling Rs.210.51 Cr. (Rs.187.97 + 22.54 Crs ) and thus MSEDCL has been deprived of its legitimate claim. This act of BEST is the contempt of the Commission's Order and therefore, the Commission is requested to take action against BEST for non-compliance of the directives issued by the Commission including but not limited to payment of the due amounts.

33.12 FBSM billing for FY 2016-17 upto March 2017 is completed. It is observed that the amount paid by Mumbai Utilities towards FBSM bills for FY 2016-17 is lesser than the amount recovered by them towards power purchase from imbalance pool for FY 2016-17 as shown in the table below.

Particulars	TPC-D	BEST	REL-D	Total
Amount paid by Mumbai Utilities towards FBSM bills in FY 2016-17	38.40	-31.83	205.54	212.10
Amount Approved in MTR/ Recovered by Mumbai Utilities	109.50	6.05	257.99	373.54
Excess Recovered for FY 16-17 by Mumbai Utilities (Rs. Cr.)	71.10	37.88	52.45	161.44

33.13 From the above table, it is observed that Mumbai Utilities have over recovered to the extent of Rs. 161.44 Cr from consumers towards power purchase from imbalance pool. MSEDCL therefore requests the Commission to issue directives to Mumbai Utilities to pass on the excess recovered amount of Rs. 161.44 Cr to MSEDCL immediately as Mumbai Utilities have been using imbalance pool power during FY 2018-19 for which no compensation is received by MSEDCL till date.

33.14 During MSPC sub Committee meeting held on 22 March, 2019, Mumbai Utilities have principally agreed for payment of UI charges on provisional basis to MSEDCL. However, MSLDC has not raised the provisional bill for FY 2018-19 and hence the Mumbai Utilities have not been able to make any payment in the absence of bill. Hence, MSEDCL urges the Commission to pass appropriate directives to MSLDC to

recover and pass the balance UI bills of Variable charges for the FY 2018-19 on provisional basis for the pool energy.

33.15 Further, MSEDCL requests the Commission to allow carrying cost from the month in which the MSEDCL's power contributed to UI pool and is actually utilized by Mumbai Utilities till the date of payment.

34. **MSLDC filed its reply on 6 May, 2019 to MSEDCL's Miscellaneous Application and has stated as under:**

34.1 Scheduling and Dispatch of the Generating Stations in the State is being carried out by MSLDC on the principles of centralized MOD as per the clause 4.1.1(b) of the ABT Order.

34.2 BEST has paid Rs 24.69 Cr. However, Rs. 12.83 crore has been utilized for payment of WRPC bills and the amount was not transferred to MSEDCL considering the insufficient balance in MSLDC UI account.

34.3 In pursuance of the directives given by the Commission in its Daily Order dated 6 February, 2019, no consensus is reached among SPPs and hence, the Commission may direct MSPC to resolve and conclude the issue of FCR before 30 June, 2019.

34.4 As regards the recovery of variable cost for FY 2018-19, MSPC will issue bills for variable cost of FBSM pool after the receipt of approved imbalance units and rate decided by the Commission.

35. **BEST submitted its reply dated 7 May, 2019 to Miscellaneous Application filed by MSEDCL. In its reply BEST reiterated its earlier submissions and further stated that:**

35.1 BEST agrees with the methodology of decentralized MOD. However, recently, the Commission has issued guidelines for operation of MOD under ABT on 8 March, 2019, which specify the continuation of centralized MOD principle for operation of intra state generators.

36. **On 7 May, 2019, AMEL-D has filed its reply to MA of MSEDCL which states as under:**

36.1 There are issues regarding treatment of hydro generation, TPC-G Unit 6, and other issues and the same are not resolved yet between the Parties and therefore the same will have to be adjudicated by the Commission.

36.2 As regards implementation of de-centralized/ utility-wise MOD with effect from 1 May, 2019, the Commission in its Statement of Reasons (SoR) issued along-with DSM Regulations, 2019 on 1 March, 2019 has clearly mentioned the reasons for implementation of the said Regulations from 1 April, 2020. Accordingly, a revised mechanism for deviation settlement is already approved in-principle. The

implementation is deferred to allow preparatory time to the utilities. Hence, any modifications at this stage to the existing FBSM mechanism may not be carried out.

**37. In its additional submission dated 7 May, 2019 in Miscellaneous Application MA No. 8 of 2019 in Case No. 297 of 2018, MSEDCL has stated as under:**

37.1 MSEDCL has conserved water in Koyna Hydro Generating Plant in order to meet expected peak demand in March to May, 2019 and to reduce power purchase cost by avoiding the costly power purchase from the open market. The balance Koyna water in current water year as on 30 April, 2019 was 23.26 TMC. Hence, in order to optimally utilize allocated water quota, MSEDCL has planned Koyna water utilization of 0.75 TMC per day for balance days of current water year.

37.2 Accordingly, MSEDCL vide its letter dated 30 April, 2019 has requested MSLDC to schedule the contracted thermal generation of MSEDCL in such a way so as to meet the demand of MSEDCL with complete utilization of Koyna water quota of current water year upto 31 May, 2019 and to utilize Koyna Hydro generation to meet the demand of MSEDCL.

**38. At the hearing held on 8 May, 2019**

38.1 On the issue of provisional FCR methodology, the Commission observed that MSPC/MSLDC as per Daily Order dated 6 February 2019 was required to decide on the interim methodology to be followed for recovery of provisional fixed charges bills after considering the views/ comments of members. These activities were to be completed by MSPC within 10 days.

38.2 In the absence of any submission on the interim methodology for recovery of provisional fixed charges bills by MSPC, the Commission directed MSLDC to submit its proposed interim methodology/principles for recovery of provisional fixed charges bills along with supporting relevant information and assumptions to the Commission within seven days for consideration of the Commission. MSLDC may share such proposed interim methodology/principles for recovery of provisional fixed charges bills with members of MSPC.

**39. In its submission dated 21 June, 2019, MSLDC has stated as under:**

As per the directives of the Commission vide Daily Order dated 8 May, 2019, interim methodology/principles are being proposed for recovery of provisional fixed charges bills. Following points with regard to FCR calculation are summarized as under.

Sr	Issue	Proposal	Rationale
1	Declared availability of RE injection	Availability of RE generators should be considered as per actual.	Even if installed capacity of RE generator is more, depending on weather conditions actual energy available to contracted

Sr	Issue	Proposal	Rationale
			utility is limited. Hence, actual injected energy is considered as availability.
2	Declared availability of Hydro	Hydro generators capacity should be considered as per actual.	Hydro capacity is used as peaking power up to the extent of its installed capacity and all the times it is almost below installed capacity or even no injection in to the grid. Considering installed capacity or day maximum capacity (as being used as peaking station) as availability will result in capacity which is not practically possible due to water utilization constraints imposed by Krishna Water Tribunal. Further, no utility is under utilizing hydro capacity and entire hydro capacity is utilized as per water availability. In order to match annual water quota hydro capacity is judiciously being utilized by contracted utility and no balance water capacity is left out.
3	Declared availability of standby power to Mumbai from MSEDCL.	MSEDCL provides standby power to Mumbai utilities as per Order dated 16 March 2018 in case No. 72 of 2016, in the event of loss of contracted capacity. This power is scheduled to Mumbai utilities as and when required by them.	Mumbai utilities are paying for standby power as a contingency reserve and MSEDCL is supporting in the event of genuine requirement irrespective of its availability. Therefore, when this power is scheduled to Mumbai utilities, the schedule of standby power should be considered as availability to respective Mumbai utilities.
4	Treatment of regional UI	The cost of regional power is linked to frequency / DSM rate and there is no such FC component, therefore consideration of Regional over drawal may not be associated with FC computation.	During Regional Over drawal, any over drawal over and above its availability by State SPPs may be said to be met from the power drawn from the Regional Pool. However, fixed charges are not applicable for regional Pool Drawal and the charges for Regional Over drawal / Under drawal including Net UI charges is passed on to the SPP who is overdrawing on the basis

Sr	Issue	Proposal	Rationale
			of State merit order despatch. Drawal of UI from Central pool cannot be considered as contracted capacity of drawing utility.
5	Availability of units under Economic shut down, Zero scheduling and Reserve shut down.	Calculations for two scenarios, one with inclusion of U-6 and second without inclusion of U-6 are attached for perusal of the Commission for further directions.	TPC unit 6 was under economic shut down since July 2013. However, this unit was synchronized to the grid in some instances. After 6 April, 2015 unit was not synchronized with grid till termination of PPA i.e. 31st March, 2018 due to Merit Order Despatch and acute requirement of this unit did not arise during this period. As per MERC order in case no 172 of 2014, CI. No. 3.7 (a) <i>a. "MSLDC will monitor the flow of power over MSETCL tie lines, and will instruct TPC-G to bring Unit 6 on bar, if the situation warrants, with 24 hours notice."</i>
6	Calculation of declared capacity on 15 min basis	Day ahead DC of all generators is maintained by MSLDC in offline mode.	MOD scheduling, backing down by MSLDC and revisions by Generators are over written on day ahead DC and finally implemented schedule is available in system. DC tracking feature is not available in scheduling software for FBSM.

40. At the hearing held on 15 July, 2019, the Parties re-iterated their respective submissions. MSEDCL stated that MSLDC has not provided the calculations with regard to FCR. The Commission directed MSLDC to submit the same to the Parties. The Commission directed the parties to file their written submissions on the interim methodology for billing of Fixed Charges. MSEDCL's through its additional submission dated 12 July, 2019 and 23 July, 2019, AEML-D through its submission dated 12 July, 2019 and 23 July, 2019, BEST through its submission dated 22 July, 2019 and TPC-D through its submission dated 15 July, 2019 and 26 July, 2019 provided their respective comments on the MSLDC's interim methodology/principles.

41. **The respective submissions of the Parties on the methodology submitted by MSLDC are as under:**

	<b>Issue 1: Declared availability of Hydro and RE injection</b>
MSEDCL	<ul style="list-style-type: none"> <li>• Hydro stations cannot be run 24x7 for whole year and actual generation always depends on the restricted water availability in the dam. Many times these hydro stations are backed down by MSLDC to utilise them during the peak demand periods considering the limited availability of water. Declared availability of hydro stations for a year will always be more than the maximum possible generation. Hence, following the provisions of ABT order to consider declared capacity of backed down generators as availability for FCR calculations will not be correct and will lead to incorrect calculations of FCR.</li> <li>• TPC-D’s contention that payment of FCR charges in addition to payment of capacity charges of hydro will result in double payment of capacity charges is misleading as utilities are utilizing full capacity of hydro during the water year.</li> <li>• If declared capacity of hydro generators is considered as availability, scenarios of incrementing/decrementing utilities will be incorrect as almost all the utilities will appear to be incrementing and actual incrementing utility in real time ( most of the times MSEDCL) will be deprived of its legitimate claim of fixed cost compensation.</li> <li>• Hence, DC of hydro stations need to be considered based on actual generation during the corresponding time block in line with the CERC Regulations and practices followed by regional power committees in the country and not on day ahead basis declared by concerned utility.</li> <li>• RE generators availability should be considered as per actual.</li> </ul>
AEML-D	<ul style="list-style-type: none"> <li>• Hydro generation is dispatched by MSLDC as per State Grid Code Regulations, 2006 based on grid requirement and generally vary too much from schedule/day ahead plan. Therefore, it should be accounted at actual.</li> <li>• The scheduling is done on rolling basis. If generation dispatch is lower in early days, then hydro generation will be higher in later part of the year, so if accounted as per schedule/actual whichever is higher- the net availability will be higher than its possible generation. The generation availability from hydro generating stations cannot exceed the water availability.</li> <li>• It impacts the parties which have supplied power to the pool as they are deprived of fixed charges.</li> <li>• RE generators availability should be considered as per actual.</li> </ul>
BEST	<ul style="list-style-type: none"> <li>• As per Para 4.3.2 of ABT Order and Para 7.3 of FBSM code, the settlement of capacity exchanges among SPP is to be carried out for each trading block of 15-minutes. The FCR increments and decrements are based on available capacity declarations as provided by Generating stations. Further, for purpose of FCR, the generating station is deemed to be available up to its declared capacity, even though it is backed down for the reason not attributable to itself.</li> </ul>

	<ul style="list-style-type: none"> <li>● Hydro generation is scheduled by TPC-G on daily basis as per requirement of its stakeholders i.e. BEST &amp; TPC-D and considering allocated water availability. On real-time basis, depending upon system condition, MSLDC directs TPC-G to back own hydro generator considering state scenario like transmission constraints, grid security, etc. This results in actual hydro generation being lower than the schedule not attributed to said generator.</li> <li>● BEST pays fixed cost to TPC-G based on capacity declared by Hydro generating stations depending on water availability. If actual generation is considered as availability for FCR, then BEST will end up paying Fixed Cost twice for scheduled capacity minus actual generation, in first instance to its tied up generator i.e. TPC-G Hydro and in second instance to generator of other SPP. This double payment for same capacity is fundamentally incorrect and should not be allowed.</li> <li>● Therefore, the consideration of only actual hydro generation for computation of FCR by MSLDC is against set principle of ABT Order and FBSM code.</li> <li>● BEST suggests that maximum of schedule or actual hydro generation needs to be considered as Declared Capacity/availability of Hydro unit for FCR settlement.</li> <li>● RE generators' availability should be considered as per actual.</li> </ul>
TPC-D	<ul style="list-style-type: none"> <li>● The contentions of MSEDCL/ MSLDC/AEML-D regarding Hydro Generation are incorrect and contrary to the ABT Order read with the FBSM Code. In terms of the ABT Order read with the FBSM Code, if a generating company has declared its availability for each trading period, the same has to be considered for the purpose of computing FCR for the same trading period, even when such generating station was directed to be backed down. Neither the ABT Order nor the FBSM Code makes any distinction in terms of thermal generating stations or Hydro generating stations. MSLDC's recommendations (as supported by MSEDCL and AEML) amounts to providing two different rules for computing declared capacity for thermal power plants vis-à-vis hydro stations. Thus, the availability/ schedule given by hydro stations of both thermal generating stations and Hydro generating stations has to be considered for the purpose of computing FCR for each trading period.</li> <li>● Hydro power plants generally do not cater to base load. They are operated or directed to be backed down, irrespective of their schedule, as per system requirements. Unlike a thermal power plant, a hydro power plant can generate electricity depending on the availability of water, and after considering the water requirement for drinking, industrial and irrigation purposes. Further, TPC-G declares availability of its Hydro Stations based on the water availability for the day. Thus, no unfair advantage is being given to the hydro stations if the declared capacity of the hydro stations is considered on the basis of the availability declared by them.</li> </ul>

- Further, while Hydro power plants provide a day ahead schedule to MSLDC, the actual generation may vary significantly as compared to the schedule since the Hydro generation capacity is used by MSLDC to manage system requirements. Hence, depending on system conditions, Hydro generators are directed to either ramp up or lower generation as compared to the schedule. Hence, according to the principles laid down in the ABT Order, if Hydro generation is backed down for reasons not attributable to the generator, such generation has to be considered as deemed available for the purpose of FCR.
- Distribution licensees are paying Fixed Charges on the basis of the availability declared by the hydro stations dependent on the availability of water. If for the purpose of computing FCR, declared capacity is considered at actual injection, then the distribution licensees would be burdened with the payment of fixed charges in spite of making provisions for meeting their entire demand. For e.g. a distribution licensee has scheduled 300 MW from Hydro, which together with the schedule from other generators meets the entire demand of such distribution licensee. However, in real time the Hydro generation is backed down for system requirement. In such a scenario, if actual hydro generation is considered for FCR computation, the Distribution Licensee will unnecessarily have to bear the Fixed Charges even though adequate power was made available to meet the distribution licensees demand while on the other hand also increasing the Fixed Charge component towards the Availability of Hydro Generation. The ABT mechanism has been premised on avoidance of double payment of fixed charges. Therefore, taking into consideration the actual generation it will be in teeth of this philosophy and hence ought to be rejected by the Commission.
- Further, Hydro being peaking power plants, this phenomenon would occur frequently. This aspect has not been duly considered by MSLDC in its assumptions, since the hydro stations shall be deemed to be available upto its 'declared capacity', even though hydro stations were directed to back down due to system constraints, grid security etc.
- It is worth noting that, consumers of the distribution licensees are already burdened on account of non-scheduling of cheaper hydro power. These consumers would further be burdened with payment of double capacity charges. The genesis/ basis of Fixed Charges in terms of the FBSM Code is that the utilities/ SPPs shall not be liable to pay fixed charges twice. Therefore, in terms of the FBSM Code, it is essential that while computing FCR, the Declared Capacity or the Actual Generation of the Hydro Stations, whichever is higher, is considered and not otherwise. Hence, MSLDC's assumption qua treatment to be given to Hydro Stations are wrong and denied.
- The generation capacity of Koyna Hydro is fully contracted with MSEDCL, whereas TPC-G-Hydro is contracted to BEST and TPC-D in the ratio of 51.17%



	<p>and 48.83 % respectively. When TPC-G Hydro is scheduled by MSLDC on day ahead basis, the generation is allocated as a ratio of PPA % and not as per the requirement or demand of individual contracted distribution utilities (i.e. BEST and TPC-D). Similar methodology is followed for scheduling of Trombay Generation to BEST and TPC-D. Hence, there is always some power flow through the state pool between two Discoms (BEST and TPC-D) as demand is not in the same ratio of generation allocation. The actual generation may vary significantly as compared to the schedule since the Hydro generation capacity is used by MSLDC to manage system requirements. In the FBSM billing, the actual generation is also allocated to Discoms in the ratio of PPA%. Because of this methodology of allocation, if actual Hydro generation is considered, there is always power flow between the two Discoms which will be treated as overdrawal in each time block of 15 minutes in the FCR calculations. Such overdrawal(s) should not be considered for FCR.</p> <ul style="list-style-type: none"> <li>• Even though TPC-D has already paid the entire fixed cost for the power contracted with the Hydro Generation, AEML-D has submitted that Hydro Generation has to be considered as per actuals and not as per the Availability declared. This is contrary to AEML-D’s own submission on the issue of ‘accounting for Short Term contracts/ generation sources arranged by Discoms’. On the said issue of short term contracts/ generation sources, AEML-D has submitted that “all short term contracts except non firm RE sources should be considered as per declared availability instead of actual generation/schedule”. It is evident that while on one hand AEML-D is opposing consideration of Availability of Hydro Generation for TPC-D, it is making the exact same request for its short term contracts i.e. they should be considered as per declared availability instead of actuals.</li> <li>• RE generators’s availability should be considered as per actual.</li> </ul> <p>Since there is no payment for unscheduled Short term power, the same should not be considered for FCR pool computations. AEML-D’s submissions in this regard ought to be rejected outright.</p>
	<p><b>Issue 2 : Declared availability of standby power to Mumbai from MSEDCL.</b></p>
MSEDCL	<ul style="list-style-type: none"> <li>• The prime motive of standby arrangement is to provide the uninterrupted and reliable supply to Mumbai utilities in the emergent conditions such as tripping of Mumbai embedded generation. MSEDCL has been providing the standby support to Mumbai utilities as and when required under such mentioned special circumstances by picking up MSEDCL’s generating station or even shedding the load in its Licensee area so that the consumers in Mumbai to get uninterrupted supply.</li> <li>• MSEDCL is making power available to the extent of 550 MVA/ 500 MW, till such time the Mumbai utilities make alternative arrangement. The meaning and purpose of standby arrangement is clear from the Orders of the Commission and are as under:</li> </ul>

Order dated 7 December, 2001 in case No. 7 of 2000, relevant para is as under:  
.....41. *Standby charges are levied for the standby capacity that one utility, generally larger in size, provide to another utility, smaller in size, to meet emergent conditions. Standby capacity constitutes a special backup arrangement, which needs to be activated occasionally under certain special circumstances such as planned or forced outages in power plants. The purpose behind having this kind of backup arrangement in the case under consideration is to ensure an uninterrupted supply of electricity in an important metropolitan city like Mumbai cannot afford to have any interruptions in the supply of electricity for the simple reason that the city is the economic and financial hub of the country.....*

Order dated 31 May, 2004 in case No. 7 of 2000, relevant para is as under:

*212. The Commission has considered all the aspects of the standby charges and the objects underlying the concept of standby. The Commission finds that the standby charge is akin to an insurance premium, in the sense that it is a cost necessary to be incurred as an insurance cover for the eventuality of interruptions in power supply in a metropolis like Mumbai. By payment of this standby charge, the Utilities in Mumbai are assured of supplying uninterrupted power. At the same time, this standby charge has to be incurred irrespective of whether the standby facility is utilized or not. To that extent, the standby charge is a fixed cost for the concerned Utility and has to be recovered from its consumers.*

- The Commission has very rightly held the Standby charges as akin to insurance premium. Standby charges are not fixed charges and are the charges paid for surety of supply to the consumers of Mumbai metropolis. Mumbai utilities have to pay the standby charges to MSEDCL irrespective of whether the standby facility is utilized or not. Hence, linking of standby charges with FBSM for FCR calculations as submitted by AEML-D and TPC-D is totally incorrect. Also the contention of TPC-D that ‘paying both Standby Charges and Fixed Charges under the ABT Order read with the FBSM Code amounts to a double levy on the Mumbai utilities’ is irrelevant and misleading. Mumbai utilities need to pay the standby charges irrespective of whether the standby facility is utilized or not and to that extent only the Commission has treated the standby charges as fixed charges and allowed Mumbai utilities for recovery of the same from consumers.
- Standby power is a schedulable power and MSEDCL schedules standby support to Mumbai utilities from the power available from its own contracted generators. MSLDC in its submission dated 21 June, 2019 has rightly submitted that ‘standby power is a contingency reserve and MSEDCL is supporting in the event of genuine

	<p>requirement irrespective of its availability’ and further stated to consider the standby power as availability for FCR calculations only when this standby power is scheduled.</p> <ul style="list-style-type: none"> <li>• Therefore, MSEDCL is of the view that the standby power availed by Mumbai utilities in the event of tripping of their contracted generation capacity may only be considered in declared availability of Mumbai utilities and not against the reduction in capacity. The standby capacity cannot be considered as deemed available in the event of reduction in contracted generation capacity.</li> </ul>
AEML-D	<ul style="list-style-type: none"> <li>• Mumbai Distribution Licensees are paying Rs 396 Cr. p.a. towards the hot standby facility provided by MSEDCL irrespective of the usage by the licensees. Effectively upto 550 MVA capacity is immediately made available if any of the contracted sources trips or is under outage.</li> <li>• Therefore in case of tripping / outage (planned / force) of any contracted source of a Mumbai Distribution Licensee (including bilateral), the capacity of that source to the extent of declared availability should stand restored by the stand-by capacity of MSEDCL.</li> <li>• FCR cannot be sought to the extent of capacity made available under stand-by arrangement, as that would amount to double counting – payment of fixed charges under Stand-by arrangement as well as payment of Fixed Cost of concerned generator under FCR.</li> </ul>
BEST	<ul style="list-style-type: none"> <li>• MSLDC has proposed that the standby power scheduled from MSEDCL shall be considered as availability to respective Mumbai Discoms.</li> <li>• Mumbai discoms are annually paying fixed charge of Rs. 396 Crore towards standby capacity upto 550 MVA. As per standby arrangement between Mumbai Discoms and MSEDCL, it is obligatory on part of MSEDCL to provide hot standby in the event of forced/ planned outage or reduction of contracted generation of Mumbai discoms. Therefore, whenever there is loss/reduction of generation capacity, equivalent capacity is provided from standby arrangement. As such the availability is kept undisturbed after standby power starts flowing and should be deemed fully available for computation of FCR.</li> <li>• Consideration of capacity equivalent to power scheduled from MSEDCL will amount to double charging to Mumbai Discoms during planned/forced outage of its contracted generation for the component declared capacity minus power scheduled from MSEDCL.</li> <li>• BEST therefore suggests that standby capacity equivalent to loss/ reduction in contracted generation of Mumbai Discoms during planned/forced outage should be considered as deemed available for FCR computation.</li> </ul>

TPC-D	<ul style="list-style-type: none"> <li>MSLDC and MSEDCL's submissions are contrary to the fundamental premise of the approved standby arrangement as well as the ABT Order read with the FBSM Code.</li> <li>Standby capacity should be considered as deemed availability for the purpose of FCR computation whenever any of the contracted generation capacity is either under outage or tripping.</li> <li>TPC-D has challenged to MSLDC's assumptions qua Unit 6, Hydro Generation and Standby capacity. Pursuant to the Commission's Interim Order dated 6 February, 2019, TPC-D has paid an amount of Rs. 53,75,56,922/- [i.e. 20% of Rs. 268,77,84,611] towards Fixed Charges. However, as per the MSLDC's computation, it is quite evident that MSEDCL's claim is nowhere near the actual liability of TPC-D qua Fixed Charges, if any. Hence, the amount paid by TPC-D towards Fixed Charges ought to be refunded forthwith.</li> </ul>
<b>Issue 3 : Treatment of regional UI</b>	
AEML-D	<ul style="list-style-type: none"> <li>Power drawn from Regional Pool is priced at DSM rate + other charges ( Fixed cost not applicable).</li> <li>Overdrawing SPP pays entire amount ( WASMP, Net UI charges)- generally costly power.</li> <li>However, in the FCR methodology being considered by SLDC, Regional power drawal is not excluded from the total over-drawal.</li> <li>This would mean that receiving party will receive excess amount at time block level without supplying actual power, whereas the decrementing party will bear additional amount – first in the regional pool and then again as FCR.</li> <li>Accordingly, FCR should not be applicable for power drawn from Regional Pool, as such drawal is not from the generation availability of any of the Discoms of Maharashtra.</li> </ul>
TPC-D	<ul style="list-style-type: none"> <li>On account of Integrated Grid Operations, there is either overdrawal or underdrawal from the Regional Pool in the State Grid in almost all time blocks. These deviations from schedule (overdrawal/ underdrawal) are charged at the DSM rate along with other applicable charges, if any. The power drawn from the Regional Pool is allocated to the decrementing SPP, as per the cause and effect basis, and such decrementing SPP pays the DSM charges. Fixed Charges cannot be made applicable for such power drawn from the Regional Pool.</li> <li>In the event, power has been supplied from Regional Pool, then FCR shall not be made applicable for such quantum as fixed charges are not applicable for the power drawn from the Regional Pool which is also admitted by MSLDC in its submissions.</li> </ul>

	<b>Issue 4 : Availability of units under Economic shut down, Zero scheduling and Reserve shut down</b>
MSEDCL	<ul style="list-style-type: none"> <li>• ‘Declared Capacity’ as per the CERC (Terms and Conditions of Tariff) Regulations, 2014 is: <i>‘Declared Capacity’ or ‘DC’ in relation to a generating station means, the capability to deliver ex-bus electricity in MW declared by such generating station in relation to any time-block of the day as defined in the Grid Code or whole of the day, duly taking into account the availability of fuel or water, and subject to further qualification in the relevant regulation.’</i></li> <li>• Capability to deliver electricity in MW in relation to any time block of the day on real time basis has to be considered as DC for calculation of FCR. TPC unit 6 was under Economic Shutdown and not on bar continuously for last four years.</li> <li>• Vide its Order dated 12 September, 2018 in Case No. 65 of 2018 in the matter of mid-term review for TPC-G, Commission has mentioned that 500 MW TPC Unit 6 was kept under economic shut down on the request of its Beneficiaries, as the energy charge rate was high. The Energy Charge of TPC Unit 6 as determined by the Commission for FY 2017-18 is Rs. 13.03 per unit.</li> <li>• Commission’s Daily Order dated 21 January, 2016 in Case No. 133 of 2015 states that; <i>TPC-G has submitted that minimum 24 Hrs is required to bring Unit 6 on bar from cold start.</i></li> <li>• So called availability of TPC Unit 6 was not at all available practically to MSLDC for real time grid operations. Beneficiaries of TPC-G Unit 6 i.e. BEST and TPC-D, knowing the fact of practically non-availability of generation from TPC-G Unit 6, arranged for cheaper power from other sources. The Economic shutdown of TPC-G Unit 6 has enabled BEST and TPC-D to save power purchase cost of @ Rs. 2518 Cr.</li> <li>• MSEDCL also agrees with AEML-D’s submissions regarding TPC-G Unit 6 which states that “while computing the FCR, accounting of the capacity for unit 6 will result in artificially increasing the availability, thereby double counting the capacity” as alternate cheaper power procured in lieu of economic shutdown of TPC Unit 6 is already considered in FCR. Such double accounting of power availability will lead to incorrect FCR computations and injustice to the other stakeholders bearing its commercial implications.</li> <li>• In view of above, the declared capacity of TPC-G Unit-6 under economic shutdown period should not be considered in FCR calculations.</li> </ul>
AEML-D	<ul style="list-style-type: none"> <li>• Unit 6 was under economic shut down/idle capacity.</li> <li>• 24 hours advance notice was required for startup.</li> <li>• Unit 6 was not available for grid operation during real time.</li> </ul>

	<ul style="list-style-type: none"> <li>• Alternate capacity tied up in lieu of Unit 6 is already considered for FCR computation.</li> <li>• Considering availability of Unit 6 will amount to double counting of available capacity.</li> <li>• It distorts the FCR computation—under this scenario the payment of FCR will be done without any flow of power (against the core principle of FCR).</li> </ul>																						
BEST	<ul style="list-style-type: none"> <li>• MSLDC in its recommendation has provided with two scenarios, one with inclusion of TPC-G’s Unit-6 and second excluding Unit-6.</li> <li>• Unit-6 was on economic shutdown based on the Commission’s Tariff Order. “Declared Capacity” of Unit-6 during period of its economy shutdown in between July 2013 to March 2018 and was submitted to MSLDC on daily basis by TPC-G. Unit-6 was considered under MOD stack prepared by MSLDC during said period and its annual availability has also been certified by MSLDC. Unit was operated for system requirement as and when directed by MSLDC. Unit was available as per its declared capacity since 6 April 2015 for any eventual system requirement.</li> <li>• Further, the availability of Unit-6 for aforesaid period was considered in the approved ARR of TPC-G by the Commission as follows: <table border="1" data-bbox="469 987 1423 1402"> <thead> <tr> <th>Sr. No.</th> <th>MERC Order</th> <th>Year</th> <th>Approved Availability of Unit-6</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Case No. 6 of 2015 dtd. 26 June, 2015</td> <td>2013-14</td> <td>85.58 %</td> </tr> <tr> <td>2</td> <td>Case No. 32 of 2016 dtd. 8 August, 2016</td> <td>2014-15</td> <td>99.96 %</td> </tr> <tr> <td>3</td> <td rowspan="3">Case No. 65 of 2018 dtd. 12 September, 2018</td> <td>2015-16</td> <td>92.99 %</td> </tr> <tr> <td>4</td> <td>2016-17</td> <td>99.56 %</td> </tr> <tr> <td>5</td> <td>2017-18 (provisional true-up)</td> <td>100 %</td> </tr> </tbody> </table> </li> <li>• The principle laid down in Para 4.3.2 of ABT Order and Para 7.3 of FBSM code clearly specify that generating capacity is deemed to be available to its declared capacity as long as it is not backed down due to reason not attributed to such generating station. As TPC-G has declared its availability till 31 March 2018, same should be considered for computation of FCR.</li> <li>• BEST has paid Fixed cost of Unit-6 till 31 March, 2018 to TPC-G. If declared capacity of Unit-6 is not considered for FCR, then payment to contracted generator of other SPP shall result in double payment towards fixed cost and this will ultimately burden BEST’s consumers.</li> <li>• Declared Capacity/ availability of TPC-G’s Unit-6 during economy shutdown should be considered for computation of FCR, as the plant was very much part of</li> </ul>	Sr. No.	MERC Order	Year	Approved Availability of Unit-6	1	Case No. 6 of 2015 dtd. 26 June, 2015	2013-14	85.58 %	2	Case No. 32 of 2016 dtd. 8 August, 2016	2014-15	99.96 %	3	Case No. 65 of 2018 dtd. 12 September, 2018	2015-16	92.99 %	4	2016-17	99.56 %	5	2017-18 (provisional true-up)	100 %
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	<p>BEST's PPA, TPC-G had declared availability, SLDC had certified availability and BEST paid the fixed cost of the same to TPC-G.</p>
<p>TPC-D</p>	<ul style="list-style-type: none"> <li>• Non-consideration of Unit 6 availability for Fixed Cost Computation is contrary to the ABT Order and the FBSM Code. BEST and TPC-D have expressed during the MSPC meetings that Unit 6's availability is to be considered for the purpose of computing FCR.</li> <li>• From FCR calculation under ABT Order, it is clear that as long as the generating company has declared its availability, the same would have to be considered for the purpose of computing Fixed Charges. Further, the generating capacity would be deemed to be available as long as the backing down of generation or shutdown of its plant is not due to reasons directly attributable to the generating company (i.e. planned or unplanned outage due to any technical issue with the generating company). Thus, in terms of the principles laid down in the FBSM Code and ABT Order, the availability declared by Unit 6 is to be considered while computing the Fixed Charges, since Unit 6 had declared its availability/ 'declared capacity' for FY 2011-12 to FY 17-18. This is evident from the certificates issued by MSLDC which are available in the public domain.</li> <li>• MSEDCL/AEML-D's contention that the availability declared by Unit 6 ought not to be considered for computing FCR since it is under economic shutdown, is contrary to the FBSM Code read with the ABT Order. MSEDCL/ AEML-D's submission is a disguised attempt to devise a mechanism which is not in line with the principles enshrined in the ABT Order read with the FBSM Code. The conclusion of MSEDCL/ AEML-D' submission would be that Fixed Charges of generating companies which are not in the MoD stack should not be considered for the purpose of computing Fixed Charges, which is not the intent of the ABT Order or the FBSM Code.</li> <li>• In any case, the term 'declared capacity' has been defined under MERC (Multi Year Tariff) Regulations, 2015 as under:- <ul style="list-style-type: none"> <li>“ ...</li> <li>(25) <i>“Declared Capacity” means, in relation to a generating Station, the capability to deliver ex-bus electricity in MW declared by such generating Station in respect of any time-block of the day as defined in the State Grid Code or whole of the day, taking into account the availability of fuel or water, and subject to further qualification in the relevant Regulation....”</i></li> </ul> </li> <li>• The definition of 'declared capacity' under the MYT Regulations is the same as that under CERC's Tariff Regulations, 2014. Definition of declared capacity is in the context of capability of the generating station to generate electricity in respect of any time-block of the day or whole of the day and not in the context of actual generation of electricity or generation of electricity immediately or whether that</li> </ul>

generators on bar. Unit 6 is capable of generating and delivering the electricity as per the 'declared capacity'. Therefore, the availability declared by Unit 6 squarely falls within the definition of 'declared capacity'. This has been demonstrated by Unit 6 time and again, and is supplemented by the data provided by MSLDC in its Submissions dated 21 June, 2019 regarding Unit 6 being brought on bar. In fact, MSLDC in its Submissions dated 21 June, 2019 has acknowledged that Unit 6 was brought on bar within 24 hours of its instructions. Unit 6 has never failed to comply with the instructions issued by MSLDC. Post 15 July, 2015, Unit 6 has not generated as there was no such instructions from MSLDC to do so.

- Merely because Unit 6 takes 24 hours to come on bar, does not mean that Unit 6 is not available for generating electricity. Even as per the Scheduling and Despatch Code (Regulation 9), Generating Stations are required to provide their schedules 24 hours prior to the date of scheduling meaning thereby that, as per the Scheduling and Dispatch Code, TPC-G's Unit 6 is always available since it can come on bar within 24 hours. Hence, MSEDCL's contention that since Unit 6 takes 24 hours to come on bar it is not available for generating electricity is contrary to the Scheduling and Dispatch Code. The said Code itself permits a generating station to come on bar within 24 hours if it has provided a prior 24 hours schedule. In any case, the definition of Availability as defined under Regulation 8(a) of the MYT Regulations, 2015 does not require a Unit to be on bar. The definition of Availability as per the MYT Regulations, 2015 is as under:-

“ ....

*(8) (a) "Availability" in relation to a thermal Generating Station/ Unit for any period means the average of the daily average declared capacities as certified by MSLDC for all the days during that period, expressed as a percentage of the installed capacity of the Generating Station/ Unit minus the normative auxiliary consumption in Megawatts (MW), as specified in these Regulations ...."*

- In fact, as per the above definition of Availability, a Unit is deemed to be Available so long as MSLDC has certified its average declared capacity, which in the present case has been done by MSLDC with respect to TPC-G's Unit 6. In fact, accepting MSEDCL/ AEML-D's submissions would amount to adding words to the definition of Availability which is not permissible in law.
- From the year 2015, MSEDCL was always aware that Unit 6 was under economic shutdown. For the entirety of FY 2015-18, MSEDCL has never contended that availability of Unit 6 cannot be considered for computing FCR. Hence, now MSEDCL is estopped from contending the same at such a belated stage. As regards AEML-D, it is submitted that AEML-D has no locus to question the availability of Unit 6 especially since the availability of Unit 6 has been certified by MSLDC and has been recorded in the various Tariff Orders.



- In any case, neither the ABT Order nor the FBSM Code provides that the availability of a unit of a generating station under economic shutdown cannot be considered for computation of FCR. Hence, such conditions cannot now be imposed or sought to be imposed. Adding such a condition at this stage would amount to reading new words into the ABT Order and the FBSM Code, which is impermissible in law.
- During the hearing held on 15 July, 2019, MSEDCL had, while relying upon Clause 4.3.2(b) of the ABT Order, contended that if there is an issue attributable to the generating company, then the availability declared by the said Unit cannot be considered for the purpose of computing FCR. MSEDCL's submission ought to be rejected outright. MSEDCL is attempting to distort the intention and meaning of Clause 4.3.2(b) of the ABT Order, to the prejudice of TPC-D. Clause 4.3.2(b), *inter alia*, states that for the purpose of computing FCR, generating stations shall be deemed to be available upto its declared capacity, *even though it may be backed down for reasons not attributable to such generating stations*.
- Backing down of Unit 6 is not because of reasons attributable to Unit 6 and is with the permissions/ blessings of the Commission and at the request of the contracting Licensees, in order to avoid loading the consumers with expensive power. In fact, the Economic Shutdown of Unit 6 is in line with the intent of the ABT Order and the FBSM, i.e. despatch of least cost power to the consumers.
- In view of the above, the computation provided by MSLDC considering the availability of Unit 6 ought to be accepted by the Commission.
- In this regard, in its submissions dated 11 July, 2019, AEML-D has provided its own computation of FCR viz, one considering declared capacity of Unit 6 i.e. Scenario 1 and the other without considering the declared capacity of Unit 6 i.e. Scenario 2.
- In this regard, it is submitted that while computing FCR considering the declared capacity of Unit 6, AEML-D has shown that it shall end up paying substantially more than all the other Utilities. This is incorrect and a deliberate attempt on the part of AEML-D to mislead the Commission. On a cursory glance of the FCR computation provided under Scenario 2 it is evident that while computing total FCR (in MW) AEML-D has not deducted the quantum of power towards 'WR Supply deduction' (which is prefixed with a '-' sign) from its FCR. This is diametrically opposite to the computation shown by MSEDCL under Scenario 1. Meaning thereby that under Scenario 2, MSEDCL's total FCR (in MW) is deliberately and incorrectly shown as 150 MW, whereas it should be shown as 50 MW. Hence, the total impact shown by AEML in case Unit 6 declared capacity is considered for computation would be far lower.

	<b>Issue 5 : Calculation of declared capacity on 15 min basis</b>
MSEDCL	<ul style="list-style-type: none"> <li>MSLDC in its submission dated 21 June, 2019 on proposed methodology for FCR computation has stated that since DC tracking feature is not available and due to MOD scheduling, backing down by SLDC and revision by generators, day ahead DC is overwritten by software and only finally implemented schedule is available in software. However, it is not clarified by MSDLC which DC is considered by MSLDC for computation of FCR.</li> <li>The DC is revised by generators during real time operations based on coal stock, coal quality, water and other operating parameters of machines. Hence, availability given by generators during real time is more realistic and only the same DC is available to meet demand.</li> <li>MSEDCL submits that every day at the end of day, the generators inform final DC of the day via email to MSLDC. Hence, if MSLDC is not having data of final DC of all generators, the same may be consolidated from final DC informed by generators by email.</li> </ul>
	<b>Issue 6 : Transmission loss</b>
AEML-D	<ul style="list-style-type: none"> <li>The FBSM provisional bills are issued based on the provisional transmission loss whereas Final FBSM bills are issued based on actual loss as declared by SLDC for respective Month.</li> <li>FCR will be a final bill and hence it should be based on the actual loss as declared by SLDC.</li> </ul>
TPC-D	<ul style="list-style-type: none"> <li>In terms of Clause 4.3.2(d) of the ABT Order, FCR computation has to be done at the G&lt;&gt;T interface by accounting for actual Transmission Loss. However, based on the provisional bills issued by MSLDC, it is evident that MSLDC has computed FCR considering Transmission loss as declared for scheduling purposes. Such a computation is contrary to the principles laid down under the ABT Order. Hence, FCR should be computed considering actual transmission loss.</li> </ul>
	<b>Issue 7 : Short Term Bilateral Purchase</b>
AEML-D	<ul style="list-style-type: none"> <li>Intra-State Short Term contracts are backed down up to 70% contracted capacity i.e. contracted power is available but is backed down by SLDC.</li> <li>If FCR is made applicable, it will be against the principle defined under the Order and it will impact Distribution Licensees whose STOA contracts were backed down.</li> <li>As entire quantum was tied up by licensee and the same was backed down by SLDC due to grid conditions, FCR computation should be done considering the 100% contracted capacity as the licensee had tied up the power but same was backed down by SLDC based on FBSM mechanism to optimise the system cost.</li> </ul>

BEST	<ul style="list-style-type: none"> <li>MSLDC in its submission has not considered availability of Intra-state generator sourced by Discom under Short-term contracts for computation of FCR.</li> <li>In order to meet the shortfall after considering availability from long/medium term contracted sources, Discoms arrange power through short-term contracts. If the contracted power source is from Intra-state generator with installed capacity above 50 MW, the MOD principle is made applicable to such generator and MSLDC issues instruction to such generator to back down to the extent of 30% of its declared capacity, as per state's load-generation balance scenario.</li> <li>The principle laid down in Para 4.3.2 of ABT Order and Para 7.3 of FBSM code clearly specify that generating capacity is deemed to be available to its declared capacity as long as it is backed down for the reason not attributed to such generating station. The set principle for FCR settlement does not distinguish duration of the contract.</li> <li>Declared availability by Intra-state Generators with installed capacity above 50 MW under short-term transactions (excluding RE generators) should be considered for computation of FCR.</li> </ul>
	<p><b>Issue 8 : FCR Rate</b></p>
MSEDCL	<ul style="list-style-type: none"> <li>Regarding average per unit fixed cost para 4.3.2 (h) of ABT order states that, <i>For the purpose of determining 'overall average per unit fixed cost' of contributing Pool participant, total fixed cost payable by the Pool Participant for the generating stations_contracted by that FCR Pool Participant during the fiscal year under consideration shall be divided by 'total energy units' injected by generating station and to be paid for such FCR Pool Participant during the fiscal year, in accordance with the PPA conditions shall be considered.</i>  From above, it is clear that average per unit fixed cost has to be determined as,  FCR rate = (total fixed cost payable to the generating stations during the fiscal year/units injected during the fiscal year by generating stations*)  *units injected by generating stations having two part tariff only need to be considered.</li> <li>Power is purchased from RE sources, open market and short term power sources with composite Tariff. Here, fixed cost part cannot be exactly separated from composite Tariff. Hence, units purchased from such sources need to be excluded in calculations of FCR rate. Hence, MSEDCL requests that submission of M/s. AEML-D to consider entire energy purchased by incrementing utility for FCR rate calculations shall not be accepted as consideration of same will reduce FCR rate and incrementing utility will be deprived of its legitimate claim</li> </ul>

AEML-D	<ul style="list-style-type: none"> <li>• Fixed cost of all sources as approved by the Commission divided by Total consumption by Distribution Licensee including power purchased through bilateral contracts and RE as approved by the Commission in applicable Tariff Order.</li> </ul>
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**42. BEST's submission dated 22 July, 2019 covers the following additional issues:**

**42.1 Payment towards MSLDC bill for Variable/Fixed cost of UI pool energy:**

- a. BEST has already made payment towards FBSM/ WRPC bills and receivable amount from FBSM bills is adjusted, to the extent of Rs. 36.64 Crores in MSLDC UI settlement account towards provisional variable cost bill of Rs. 187.97 Crore for FY 2017-18. In its submission dtd.12 July, 2019, MSEDCL has stated that they have received Rs. 18.47 Crores towards above bill amount from MSLDC. MSEDCL and MSLDC may reconcile the receivable amount.
- b. Considering present financial difficulty faced, BEST once again prays the Commission to allow to make pending payment amount in 10 interest free monthly instalments or alternately, to allow paying the regular provisional FBSM bills as and when generated by MSPC.

**43. AEML-D's additional submission apart from above submission is as under:**

MSLDC has raised provisional FBSM bill of Rs 302.66 Crore for FY 2017-18 as per directions of the Commission in Case No 297 of 2018. AEML-D had paid Rs 173.36 Crore and MSEDCL has adjusted Rs 144.66 Crore from APML dues as against the balance outstanding amount of Rs 129.3 Crore. AEML-D submits that excess amount adjusted needs to be refunded by MSLDC/MSEDCL to AEML-D.

**44. TPC-D's submission dated 26 July, 2019 covers the following additional issues:**

**44.1 Illegal set-off of MSEDCL's claims against AEML, from the receivables of APML**

44.1.1 In its Additional Submissions dated 9 April, 2019 and its Note dated 8 May, 2019, MSEDCL has stated that in order to recover its legitimate dues towards variable charges (Rs. 144.66 Cr) from MSEDCL, MSEDCL has recovered the said amount from the amounts payable by MSEDCL to APML for procuring power from APML. Such a set-off of AEML-D's Variable Charges dues is unconscionable and is violative of the principles set out in the ABT Order read with the FBSM Code.

44.1.2 MSEDCL's actions are on the assumption that:-

- a. The power consumed by AEML-D from the State Pool has solely been supplied by MSEDCL, and
- b. MSEDCL has waived the interest/ delayed payment charge component on Variable Charges to be recovered by it.

44.1.3 Till the time the Final Variable Charges bills are not issued, it is an incorrect presumption on the part of the MSEDCL that it alone has supplied power to the pool

and thereby to AEML-D. Further, in terms of Para 5.4 (b) of the ABT Order and Para 8.4 (b) of the FBSM Code, any delay in payment of Variable and/ or Fixed Charges shall result in levy of penal interest at the rate of short term SBI PLR+4% per annum. By setting off its Variable Charges claim against AEML from the amounts payable by MSEDCL to APML, MSEDCL has in fact waived the interest/ delayed payment charge that ordinarily would have been levied on AEML-D for delayed payment of Variable Charges.

44.1.4 Further, the delayed payment charge levied on account of delayed payment of Variable Charges is the entitlement of the incrementing utility whose power is being procured by the decrementing utility. Since no reconciliation of the imbalance pool has yet been carried out, it is incorrect for MSEDCL to presume that it alone has supplied power to the pool and is hence entitled to Variable Charges along with interest thereon. MSEDCL's actions may have resulted in denying another utility who has actually supplied power to the imbalance pool, its legitimate claim towards delayed payment charge. Giving legitimacy to such a transaction will amount to differential treatment being meted out to different distribution utilities.

#### 44.2 **Erroneous claim of Variable Charges for the period FY 2018-19**

44.2.1 In its Additional Submissions dated 9 April, 2019, MSEDCL has contended that the excess Variable Charges recovered by Mumbai utilities from their consumers for FY 2016-17 ought to be passed on to MSEDCL as Variable Charges towards power supplied by MSEDCL to the State pool during FY 2018-19. MSEDCL's contention is incorrect and contrary to regulatory practices. In this regard, it is pertinent to note that:-

- a. By its MTR Order dated 12 September 2018 in Case No. 69 of 2018, the Commission had allowed TPC-D to recover provisional power purchase from the imbalance pool to the tune of Rs. 109.5 Crores for FY 2016-17.
- b. The above amounts have been recovered by TPC-D from its consumers and hence, the Commission by its Ex-Parte Interim Order dated 21 December, 2018 had directed MSLDC to work out provisional recovery of variable cost of FBSM pool for FY 2016-17 and FY 2017-18 from Mumbai utilities pending final settlement of FBSM bills in due course.
- c. On 27 December, 2018, MSLDC issued the provisional Variable Charges bill for FY 2017-18 and stated that it would be in a position to complete the March, 2017 provisional bill by January, 2019.
- d. MSLDC has completed the provisional FBSM billing for FY 2016-17 upto March, 2017. The Variable Charges required to be paid by TPC-D for FY 2016-17 comes upto Rs. 88.50 Crores. The same has been paid by TPC-D.

44.2.2 Since this excess amount has been recovered from the consumers, propriety requires TPC-D to pay the said amount back to the consumers. By no stretch of imagination can this excess amount, which pertains to power drawn by TPC-D from the imbalance pool

in FY 2016-17, be adjusted against MSEDCL's provisional claims towards Variable Charges in FY 2018-19 (especially when the provisional bills for FY 2018-19 are yet to be prepared and issued by MSLDC/ MSPC). MSEDCL has sought the amounts as a trade advance, without determination of the distribution utilities' liability to pay and/ or such amount becoming due and payable. This is also on an assumption that for the concerned FY, TPC-D would be required to pay into the pool and MSEDCL would be entitled to receive the same. This is impermissible under law and the extant regulatory framework.

44.2.3 In this regard, it is submitted that in the table at Para 50 of its Additional Submissions dated 9 April, 2019, MSEDCL has erroneously mentioned that TPC-D's actual Variable Charges liability for FY 2016-17 is Rs. 38.40 Crores. In fact, the correct amount [as mentioned in Para 74(d) above] is Rs. 88.50 Crores.

#### 44.3 **Miscellaneous Issues raised by MSEDCL**

44.3.1 MSEDCL has contended that:-

- a. MSEDCL and AEML-D together hold 91% stake in Maharashtra's demand and have consensus on many issues raised during the MSPC meetings;
- b. However, BEST and TPC-D who hold merely 9% stake in Maharashtra's demand are raising irrelevant issues, as a result of which there will be no viable solution to the issue of Fixed Charges.

44.3.2 The aforesaid submissions are of no consequence and are misleading. TPC-D and BEST are not raising issues which are contrary to Regulations and practices followed by WRLDC/ WRPC. In fact, TPC has at all times contended that the methodology for computation of Fixed Charges has to be in line with the principles laid out in the ABT Order read with the FBSM Code. In terms of Para 6.3(f) of the ABT Order, all decisions of MSPC have to be based on consensus with at least 3/4<sup>th</sup> of its members supporting it fully. Meaning thereby that, a distribution licensee's share in the load/ demand of Maharashtra is not the criteria for decisions to be taken by the MSPC.

44.3.3 MSEDCL has contended that:-

- a. The chairmanship of MSPC has been held by MSEDCL only thrice since its formation, despite MSEDCL having 82% share in the load/ demand of Maharashtra;
- b. The Mumbai distribution licensees have chaired the MSPC nine times and have tried to delay the procedure so that no consensus on issues pertaining to FCR are taken.

44.3.4 The aforesaid submissions of MSEDCL are irrelevant for the purpose of the present proceedings. Further, MSEDCL's sole intent is to create prejudice against the Mumbai distribution licensees.

44.3.5 In terms of Para 6.3 of the ABT Order:-

- (a) The Chairmanship of MSPC shall be on rotational basis.

(b) The tenure of Chairman shall not exceed a period of 1 one year.

- 44.3.6 The intention of keeping the Chairmanship of MSPC on rotational basis, is to ensure equal and non-discriminatory representation of all the members of the MSPC. Further, MSEDCL's contention that the Mumbai utilities have intentionally not resolved the issue of FCR is incorrect. It is submitted that, there is no power with the MSPC to devise a new methodology for computation and recovery of Fixed Charges. MSPC is a creation of the ABT Order and is required to function within the limits of the powers entrusted upon it under the ABT Order. Hence, MSPC is not empowered to take any decisions/pass any resolutions which are contrary to the ABT Order.
- 44.4 As regards MSEDCL's claim for carrying cost, it is submitted that neither the ABT Order nor the FBSM Code provides for carrying cost over and above a distribution licensee's liability to pay Variable/ Fixed Charges. The ABT Order and the FBSM Code only contemplates levy of penal interest in the form of delayed payment charge if the FBSM bills are not paid on time by the distribution licensees. There cannot be any carrying cost until and unless there is fructified liability to pay. Till date, there is no determination of such liability in terms of the ABT Order read with the FBSM Code. Wherever such liability has been fructified, and has become due and payable, TPC-D has made the appropriate payments towards the same.
- 44.5 As regards, MSEDCL's submissions pertaining to Koyna Hydro being picked up by MSLDC for balancing State Load Generation to restrict overdrawal from the grid, it is submitted that the same is an issue between MSEDCL and MSLDC. Further, TPC-D has been meticulously doing its load generation management and MSEDCL's submission that Koyna Hydro generation has been picked up for meeting Mumbai demand is baseless.
- 44.6 As regards the issue of non-consideration of exchange power rates/ partial consideration of bilateral power in calculation of WASMP, it is submitted that the relief sought by MSEDCL would require an amendment of the ABT Order read with the FBSM Code. Any such amendment can only be made after following due process and can be made applicable only prospectively. In any case, the relief sought by MSEDCL has been rendered infructuous in light of the new DSM Regulations which shall come into effect from 1 April, 2020.

#### **Commission Analysis and Ruling:**

45. Present Petition has been filed by MSEDCL essentially stating that it is entitled to recover a substantial amount from the other SPPs viz. TPC-D, BEST and AEML-D through MSPC/MSLDC towards fixed charges and variable charges on account of pool energy supplied by it under the present FBSM framework for the period from FY 2011-12 to FY 2017-18.
46. After going through the submissions from the Parties, the Commission is of the opinion that primarily two issues need to be addressed in the present proceedings which require

consideration of the Commission. The issue-wise analysis is undertaken by the Commission as follows:

**A] Recovery of variable cost component for the net imbalance units supplied by MSEDCL to the state imbalance pool**

47. MSEDCL has stated that energy above 70% of contracted quantum of short-term bilateral power is only considered for calculation of WASMP of underdrawing utility. Also, the rate of power purchased from the power exchange and CPPs are not considered. Hence, WASMP of the underdrawing utility does not reflect actual variable energy rate of power purchased by that utility. Therefore, MSEDCL gets paid for its underdrawal at the net rate which is much lower than its average variable cost due to existing FBSM framework. MSEDCL has estimated amount of Rs. 2468.33 Cr. along-with carrying cost upto March 2018 amounting to Rs. 632.30 Cr. as recoverable by MSEDCL for FY 2011-12 to FY 2017-18 due to difference between actual average variable cost of power purchase by MSEDCL and net rate receivable by MSEDCL in FBSM bills. Vide its additional submission dated 21 December, 2018, MSEDCL revised the amount to Rs. 3025.27 Cr. by considering the imbalance units based on provisional FBSM bills instead of DSR data.
48. In this context, the Commission would like to highlight that principles for imbalance pool settlement has been outlined under Intra-State ABT Order (Case 42 of 2006). The imbalance pool settlement entails combination of (a) settlement of energy exchange amongst state pool participants for their increments/ decrements vis-à-vis their contractual entitlement (b) settlement of over-drawal/ under-drawal vis-à-vis their schedule energy considering allocation of regional UI charges and (c) settlement of capacity exchange amongst state pool participants by way of Fixed Cost Reconciliation, as per the principles outlined under the said Intra-State ABT Order (Case 42 of 2006) dated 17 May 2007 and the Final Balancing and Settlement Code (FBSM Code) approved by the Commission vide its Letter No. MERC/MON/TRA/12/2009/1641 dated 26 August 2009.
49. Commission notes that the para 4.6 of Intra-state ABT Order (Case 42 of 2006) and Para. 7.6 of the FBSM Code provide the basis for computation of Ex-Post Imbalance Pool Price (Settlement Price). The relevant extracts are reproduced below:

***7.6 Basis for computation of Ex-Post Imbalance Pool Price (Settlement Price)***

.....

*(d) The Ex-Post Imbalance Pool Value 'is the aggregate of product of weighted average variable cost of the marginal stations of the contributing State Pool Participant and the imbalance pool increments' by the contributing State Pool Participant into the imbalance pool for a particular trading period. For the purpose of determining the marginal station for a particular State Pool Participant, the Merit Order Stack for that State Pool Participant comprising the*



*generating stations to the extent of generation capacities contracted by that State Pool Participant based on their variable cost shall be drawn and the same shall form the basis for determining marginal station in respect of that State Pool Participant.*

*(e) The variable cost of each generating station for the purpose of Merit Order Stack and for computation of Ex-Post Imbalance Pool Price' shall be the per unit energy charge outlined in the energy bill for the instant calendar month corresponding to the settlement period in respect of each generating station. In case of generating stations having billing cycle spread over two calendar months, the latest information as available pertaining to previous billing cycle shall be considered for the purposes. The per unit energy charge in the energy bill shall be in accordance with the energy charge as approved by the Appropriate Commission for the intra-state and central generating stations. In addition to the above, the fuel cost adjustment surcharge computed based on the methodology approved by the appropriate Commission shall be included in the variable cost of the generating station for the purpose of Merit Order Despatch Stack. The Variable cost for other bilateral power purchases and purchases through traders shall be in accordance to the PPA entered between the parties."*

50. Further, the issue of treatment of short term bilateral contracts (intra-state and inter-state), treatment of power procurement through collective transactions (power exchange) and treatment for power purchase from CPP/Merchant Generation for determination of WASMP was extensively deliberated and covered while approving the FBSM Code. MSLDC had submitted draft FBSM Code alongwith MSPC recommendations covering several issues for approval of the Commission. The Commission while approving the FBSM Code vide its letter no. MERC/MON/TRA/12/2009/1641 dated 26 August 2009 has elaborated on its views and provided guidance for the treatment of the same under Annexure-II (ref. Issue no-10B/Issue no-10C), the extracts of which are elaborated under following paragraphs.

“

.....

***Issue-10A: Powers of the MSLDC in the matter of curtailment or cancellation of the schedules for the bilaterally contracted power***

.....

***Issue-10B : Inclusion of these contracts in the determination of the marginal price of the pool***

**Issue Description**

*The second issue with regard to inclusion of these bi-lateral contracts in the determination of the System Marginal Price is a more contentious issue. The*

*bilateral power contracts under the consideration can be categorised as “controllable” and “uncontrollable”. “Controllable” contracts can be those which do not financially impact the licensees in case of cancellation or curtailment of schedules, while the “un-controllable” contracts are those which have a financial implication on the licensee in case of cancellation or curtailment of schedules due to having penalty clauses or “take or pay” kind of obligations under the contract. E.g. In case a Licensee 1 has a bilateral contract with a “take or pay” kind of an obligation. In case the MSLDC backs down this contracted power on application of MoD principles, the licensee 1 would be obligated to make the payments under the said contract on account of contractual obligation and in addition to the same, he would also have to pay at the pool marginal price for allocation of power from some other cheaper generation station. Thus, the financial impact would be much higher.*

*Proposed Changes by MSPC and Basis for Changes claimed by MSPC*

*Thus, the issues discussed above are placed for the consideration of the Hon’ble commission and appropriate guidance is requested in the matter of operation of the Merit Order Despatch Principles by MSLDC on a regular basis as envisaged under the FBSM.*

*Hence, it is very important that this categorisation has to be taken into consideration while **deciding on the issue of whether these contracts should be considered for the purpose of computation of the System Marginal Price or not.***

*Further, another issue that crops up from these “uncontrollable” bilateral contracts is that typically these bilateral contracts would be higher cost contracts as compared to the other long term power sources contracted by the licensee. Hence, if these contracts are considered as uncontrollable and included in the MoD as “must run” stations, it may result in some of his cheaper stations getting backed down. Accordingly, if these bilateral contracts are also considered while determining the System Marginal price, they would figure in top marginal stations and hence would be loaded onto the pool in case the concerned licensee is incrementing to the pool. Hence, the burden of such high cost power is unreasonably loaded onto the other pool participants who have decremented the pool. **Thus, the decision with regards inclusion of these plants into the pool from which system marginal price is determined has to be carefully taken.***

*On the flip side, non-inclusion of these “uncontrollable” contracts into the pool while determining the system marginal price may lead to a situation where the Merchant / Captive / Independent generators would be benefitted for under-generation as they would end up paying the state generating station’s variable price as the pool price which may be lower than their generation costs and also there is a possibility that one of the licensees may be benefitted by having to pay*

lower marginal prices and may not think of entering into any bilateral contracts for meeting its demand. **Hence, the licensees who enter into the bilateral contracts to meet their demands may be at a disadvantage in the present scenario. (emphasis added)**

Remarks/Comments/ Guidance of the Commission:

• **Such bilateral contracts arrangement although treated as ‘MUST RUN’ will have to be considered for the purpose of computation of system marginal price.**

• **Above principle to include short term power purchase while computing weighted average system marginal price (WASMP) has already been clarified or re-emphasised by the Commission under its Order dt.13th Feb, 2007 in the matter of petition filed by MSDCL under Case 36 & 41 of 2006. (emphasis added)**

### **Issue-10C : Treatment of transactions through Power Exchange**

#### Issue Description

Though MSLDC has the power to curtail or cancel the intra-state bilateral power transactions, there is no provision for such curtailment in the power exchange’s rules and regulations. This may lead to a situation wherein such transactions through the power exchanges would need to be considered as ‘must-run’ contracts even though the cost of such power might be much higher than other available power. Thus, the issues as discussed under the previous point would also crop up in the power transactions through the power exchanges

#### Proposed Changes by MSPC and Basis for Changes claimed by MSPC

Thus, the Hon’ble Commission is requested to guide the MSPC on the said issue.

Remarks/Comments/ Guidance of the Commission:

• **Same as above**

• **Transactions through power exchange will have to be treated in a similar manner as treatment proposed for short term bilateral transactions until interState open access regulations for bilateral or collective (through power exchange) transactions are modified. (emphasis added)**

51. Further, the issue of computation of the “Weighted Average System Marginal Price” was further clarified in the Commission’s Order dated 13 February 2007 in the matter of Case 36 & 41 of 2006. The relevant extracts of the Commission’s said Order in Case 36 & 41 of 2006 dated 13 February 2007 are reproduced here under:

“

6. In Case No. 41 of 2006, the Petitioners have sought the implementation of the methodology of “marginal cost of the supplying utility” instead of “weighted

average system marginal price” for the settlement of overdrawal and underdrawal by various TSUs.

7. The Commission is of the view that the meaning of the terms ‘weighted average system marginal price’ in the impugned Order and ‘marginal cost of supplying utility’ as referred at paragraph 38 of the Order dated October 20, 2006 (Case 54 of 2005), are no different. The Petitioners have wrongly interpreted the term ‘weighted average system marginal price’ of the supplying TSU (or under-drawing TSU) to over-drawing TSU to be ‘overall average per unit power purchase cost’ of Petitioners for the month. The Commission would like to clarify that the ‘weighted average system marginal price’ should be derived for the ‘quantum of energy units’ being supplied by concerned TSU (say, Petitioners in this case) from its marginal sources of supply to the extent of ‘overdrawal quantum’ by other TSU and not for entire quantum of power purchase as contemplated by Petitioners. **The Commission observes that determination of ‘weighted average system marginal price’ for supplying TSU to overdrawing TSU in the above manner, will include costly short term power purchase, as the same would form part of marginal price in accordance with the merit order stack. (emphasis added)**

8. For the sake of abundant clarity, the Commission would like to elaborate the above principle through an illustration as under:

*Illustration: If TSU-1 (say, TPC) overdraws 400 MU from TSU-2 (say, Petitioners) during a month and as per merit order for TSU-2, there are three marginal sources contributing to 400 MU comprising as under. (i) 100 MU procured from marginal source-1 at Rs 7.00 per unit, (ii) 200 MU procured from marginal source-2 at Rs 6.00 per unit and (iii) 100 MU procured from marginal source-3 at Rs 4.00 per unit. The ‘weighted average system marginal price’ of the supplying TSU-2 (MSEDCL) for overdrawal of 400 MU by TSU-1 (TPC), in this illustration shall be Rs 5.75 per unit.*

52. In light of the above, MSEDCL’s contentions that the rate of power purchased from the Power Exchange and CPPs should also be considered for WASMP calculation is in line with the principles outlined under approved FBSM Code.
53. However, inspite of the Commission’s clear directions as mentioned above, same do not appear to have been implemented till date. Neither MSPC nor MSLDC deemed it necessary to approach the Commission intimating the difficulties, if any, in implementing the above directions or seeking review of these directions. Therefore, omission on part of MSLDC and MSPC on this count is not acceptable to the Commission.
54. Further, while passing the Mid Term Review Orders for BEST Undertaking, AEML-D and TPC-D, the Commission had noted that the quantum of energy purchased through

the imbalance pool was significantly high for FY 2015-16 and FY 2016-17, sometimes at around 10% of the overall power purchase quantum and more than the quantum of power purchased through the bilateral sources and Power Exchange. Such high percentage was on account of the lower rate of the imbalance pool power. The Commission had stated that the imbalance pool mechanism should not be treated as a source of procuring power and is only meant for settling the deviations in the real time power interchange between various pool participants. Accordingly, BEST Undertaking, AEML-D and TPC-D in their respective MTR Orders were directed that they should plan their power procurement in a way that the purchases from the imbalance pool are minimised. The Commission is of the view that consideration of the rate of power purchased from the power exchange and CPPs for WASMP calculation would curb the tendency among the SPPs to consider the imbalance pool mechanism as a source of procuring power which would result into improved grid discipline.

55. Consideration of the rate of power purchased from the Power Exchange and CPPs for WASMP calculation has impact on the settlement of the variable charges on account of imbalance pool.
56. **Hence, the Commission hereby directs MSLDC to recompute the WASMP for the period from FY 2011-12 to FY 2017-18 after including the rate of power purchased from the Power Exchange and CPPs. Thereafter, MSLDC shall recalculate the imbalance pool settlement for these years in accordance with the applicable principles laid down in the ABT Order and FBSM Code and work out the associated liabilities of SPPs for raising the supplementary bills for these years. The above activity shall be completed by MSLDC by 31 January, 2020. Also, MSLDC is directed to consider the rate of power purchased from the Power Exchange and CPPs for WASMP calculation for future FBSM bills with immediate effect from this Order.**
57. Vide its additional submission dated 21 December, 2018, MSEDCL has raised the issue of provisional recovery of FBSM bills from Mumbai utilities for period FY 2016-17 and FY 2017-18. MSEDCL stated that the Commission has approved the power purchase cost on account of the State's imbalance pool for the Mumbai utilities amounting to Rs. 989.41 Cr. for FY 2016-17 and FY 2017-18. Since, the Mumbai utilities had already recovered Rs. 989.41 Cr. from their consumers through tariff and hence are liable to pay the same to FBSM pool account for energy drawn from the state pool under FBSM mechanism. MSEDCL has sought directions to MSLDC to expedite for raising the demand of Rs 989.41 Cr. to Mumbai utilities immediately and pass on the payable amount to MSEDCL at the earliest so as to reduce the financial burden of MSEDCL. The Commission, vide its Daily Order dated 21 December, 2018, directed MSLDC to settle the MSEDCL's demand of Rs. 989.41 crores by working out a provisional recovery of variable cost of FBSM pool for FY 2016-17 and FY 2017-18 from Mumbai Utilities pending final settlement of FBSM bills in due course.

58. The Commission notes that MSLDC has completed issuing FBSM bills for FY 2016-17 and therefore issued the provisional bill of variable cost of FBSM pool for FY 2017-18 only. The status of payment till March, 2019 is as follows:

<b>Utilities</b>	<b>Bill raised by MSPC (Due date 11.01.2019) Rs. Crore</b>	<b>Amount paid to SLDC Rs. Crore</b>	<b>Amount received by MSEDCL Rs. Crore</b>	<b>Balance amount wrt MSPC's bill Rs. Crore</b>
A	B	C	D	E = B - D
AEML-D	302.66	158	158	144.66
BEST	187.97	0	0	187.97
TPC-D	125.24	125.24	125.24	0
<b>Total</b>	<b>615.87</b>	<b>283.24</b>	<b>283.24</b>	<b>332.63</b>

59. MSEDCL has contended that FBSM billing for FY 2016-17 upto March 2017 is completed. It is observed that the amount paid by Mumbai Utilities towards FBSM bills for FY 2016-17 is lesser than the amount recovered by them towards power purchase from imbalance pool for FY 2016-17 as shown in the table below.

<b>Particulars</b>	<b>TPC-D</b>	<b>BEST</b>	<b>REL-D</b>	<b>Total</b>
Amount paid by Mumbai Utilities towards FBSM bills in FY 2016-17	38.40	-31.83	205.54	212.10
Amount Approved in MTR/ Recovered by Mumbai Utilities	109.50	6.05	257.99	373.54
Excess Recovered for FY 16-17 by Mumbai Utilities (Rs. Cr.)	71.10	37.88	52.45	161.44

60. From the above table, it is observed that Mumbai Utilities have over recovered to the extent of Rs. 161.44 Cr from consumers towards power purchase from imbalance pool. MSEDCL therefore requested the Commission to issue directives to Mumbai Utilities to pass on the excess recovered amount of Rs. 161.44 Cr to MSEDCL immediately as Mumbai Utilities have been using imbalance pool power during FY 2018-19 for which no compensation is received by MSEDCL till date.
61. Vide its additional submission dated 14 January, 2019, MSEDCL has stated that similar issue is continued in the current financial year FY 2018-19 also. The Mumbai utilities are overdrawing from the State pool from April 2018 till date. These utilities are recovering tariff from their consumers during FY 2018-19 as determined by the Commission and MSEDCL has not been compensated for the imbalance power in the FY 2018-19. MSEDCL has requested the Commission to direct MSLDC to settle the issue of provisional recovery of variable cost in FBSM pool for FY 2018-19 also on ad-hoc basis on similar ground of FY 2016-17 and FY 2017-18 and direct MSLDC to pass on the amount receivable to MSEDCL for FY 2018-19 on immediate basis.

62. On this issue, AEML-D has contended that since January, 2018, energy and cost towards the Pool Imbalance is not considered in FAC, same is therefore not being recovered from the consumers. Hence, MSEDCL's request for provisional recovery towards variable cost in FBSM pool for FY 2018-19 should not be allowed by the Commission.
63. In this context, the Commission notes that under MERC (Multi Year Tariff) Regulations, 2015, FAC mechanism is provided to allow recovery (gain or loss) on account of variation in the cost of fuel and power purchase as against what is approved in the MYT/MTR Order. Thus, the Distribution Licensees are required to plan their power purchase in such a manner so that their own requirement is met through the contracted sources and any additional procurement resulting in extra quantum or extra cost is allowed to be recovered by that entity through FAC. The power from imbalance pool cannot form a part of the power purchase planning for a Distribution Licensee. Hence, the Commission finds that there is no merit in the contention of AEML-D on this issue.

However, the Commission also notes that it has allowed one time adhoc settlement for FY 2016-17 and FY 2017-18 only because Mumbai DISCOMs had already recovered the amount that had been approved by the Commission in the MTR Orders wherein truing up/ provisional truing up for these two years had been undertaken by the Commission. Truing up/provisional truing up for FY 2018-19 is yet to be carried out. Under these circumstances, the Commission rules that provisional bill for FY 2018-19 cannot be issued as prayed by MSEDCL.

64. Besides, the over-recovery or under-recovery by licensees (if any) under provisional true-up of the previous years will have to be dealt with at the time of final true-up and reflecting in adjustment of revenue gap/(surplus) (if any) for the benefit or to account of the consumers of the respective licensees. The same cannot be considered for inter-se adjustment of settlement of the imbalance pool amongst state-pool participants for the subsequent years.
65. Further, vide its submission dated 5 February, 2019, BEST has objected to the recovery of provisional charges for FY 2017-18 citing that no truing up has happened for FY 2017-18. In this context, the Commission notes that although final truing up has not been undertaken for FY 2017-18, the amount has been allowed to be recovered under provisional truing up for FY 2017-18 and BEST has actually recovered the amount from the consumers. **Hence, the Commission does not find any merit in the submissions of BEST on this issue.**

**B] Recovery of fixed cost component of the net imbalance units supplied by MSEDCL to the state imbalance pool**

66. MSEDCL has stated that in absence of annual FCR, it has worked out the approximate provisional amount to be recovered from the state pool towards fixed cost component based on average fixed charge per unit as paid by MSEDCL for FY 2011-12 to FY

2017-18 for the net imbalance units and estimated an amount of Rs. 1128.02 Cr inclusive of the interest component.

67. Before analysing each issue, it is imperative to see the principles of FCR as stipulated in the ABT Order and the FBSM Code.

***“4.3.2 Annual Fixed Cost Settlement***

*(a) For the purposes of settlement of capacity exchanges amongst State Pool Participants, the MSLDC-CD shall work out the Fixed Cost Reconciliation (FCR) Pool volume comprising ‘FCR Pool Increments’ and ‘FCR Pool Decrements’ by each State Pool Participant corresponding to each trading period in accordance with the principles outlined hereunder.*

*(b) The computation of ‘FCR Pool Increments’ and ‘FCR Pool Decrements’ shall be based on Available Capacity declarations as provided by the Generating Stations. The Generating Stations shall abide by backing down instructions issued by MSLDC on account of system constraints, grid security aspects etc. For the purpose of Fixed Cost Reconciliation, the generating stations shall be deemed to be available upto its declared capacity, even though it may be backed down for the reasons not attributable to such generating station. Further, it is clarified that during real-time operations if required, SLDC may seek to verify available capacity of the generating station upto ‘declared capacity’ and issue despatch instructions accordingly.*

*(c) ‘FCR Pool volume’ shall be based on excess or shortfall in ‘loss adjusted drawal’ by State Pool Participant corresponding to a particular trading period vis-à-vis ‘overall generation capacity’ declared to be available to State Pool Participant based on ‘forecasted availability’ furnished by the generators contracted by the concerned State Pool Participant.*

*(d) The excess in ‘loss adjusted drawal’ shall be termed ‘decrements’ to ‘FCR Pool volume’ whereas ‘shortfall’ in ‘loss adjusted drawal’ shall be termed as ‘increments’ to ‘FCR Pool volume’. Such ‘FCR Pool Increments’ and ‘FCR Pool decrements’ shall be tracked for each trading period over the annual settlement period.*

*(e) ‘FCR Pool Reconciliation’ shall take place on annual basis, taking into consideration the aggregate of 12-monthly ‘FCR Pools’ for each trading period.*

*(f) The ‘Rate Basis’ for determination of FCR pool price for settlement shall be ‘overall average per unit fixed cost’ of the contributing Pool Participant into ‘FCR Pool’.*

*(g) FCR Pool value shall be determined as aggregate of product of ‘overall average per unit fixed cost’ of the contributing FCR Pool Participant and the ‘FCR Pool increments’ by the contributing FCR Pool Participant into the FCR pool.*

*(h) For the purpose of determining ‘overall average per unit fixed cost’ of contributing Pool participant, total fixed cost payable by the Pool Participant for the generating stations contracted by that FCR Pool Participant during the fiscal year under consideration shall be divided by ‘total energy units’ injected by generating station and*



to be paid for such FCR Pool Participant during the fiscal year, in accordance with the PPA conditions shall be considered.

(i) FCR Pool Price to be paid by the FCR Pool Participants decrementing to 'FCR Pool' shall be determined as ratio of 'FCR Pool Value' to 'FCR Pool volume'.

(j) Based on 'FCR Pool Increments' and 'FCR Pool Decrements' and the 'FCR Pool Price' (to be determined in accordance with the principles outlined above), the 'FCR Pool Amount Payable' and 'FCR Pool Amount Receivable' in respect of each State Pool Participant corresponding to each trading period shall be determined.

(k) The aggregate of 'FCR Pool Amount Payable' and 'FCR Pool Amount Receivable' corresponding to each trading period over the period of one fiscal year in respect of each State Pool Participant shall form the basis for 'Net FCR Pool Amount Payable' or 'Net FCR Pool Amount Receivable' by the respective State Pool Participant for that fiscal year.

.....

### **5.3 Settlement of FCR Pool**

**(a) The MSLDC shall prepare Annual 'Statement of FCR Pool Settlement' corresponding to capacity exchange amongst the FCR Pool Participants for each trading period** over the monthly period of each fiscal year under consideration commencing from April in accordance with the 'FCR energy account' reconciliation principles.

(b) The MSLDC shall present such Annual 'Statement of Imbalance Pool Settlement' to State Pool participants for its payment within fifteen calendar days from the end of the fiscal year corresponding to the preceding fiscal year.

(c) The 'Statement of FCR Pool Settlement' shall clearly provide for following distinct statements of settlement:

(i) Settlement of Imbalances (capacity exchange) amongst FCR Pool Participants in accordance with 'FCR Pool Volume', separately for each month of the Fiscal year.

(ii) Aggregate net position of settlement amongst the FCR Pool Participants.

(d) MSLDC shall raise Bills on the FCR Pool Participants which shall be due for payment and shall be binding on all FCR Pool Participants to settle the payment on due date, which shall not be later than fifteen days from date of invoice or within 30 days from end of fiscal year.

(e) In case of any discrepancy or clarification, concerned State Pool Participant shall bring to the notice of MSLDC such discrepancy with necessary corrections/modifications. MSLDC in turn, shall issue 'Supplementary Bill' to FCR Pool Participants immediately upon receipt of notification/approval from concerned State Pool Participant with due modifications/adjustments (credit note/debit note) as may be necessary."

68. Further, the issue of Fixed Cost Reconciliation Pool (FCR Pool Increment/Decrement), FCR Pool Value and Rate for FCR Pool was extensively deliberated and covered while approving the FBSM Code. MSLDC has submitted draft FBSM Code alongwith MSPC recommendations covering several issues for approval of the Commission. The Commission while approving the FBSM Code vide its letter no. the Commission vide its Letter No. MERC/MON/TRA/12/2009/1641 dated 26 August 2009 has elaborated on its views and provided guidance for the treatment of the same under Annexure-I (ref. Issue no.-1) and Annexure-II (ref. Issue no-7), the extracts of which are elaborated under following paragraphs.

**Issue no. 1 : Calculation of FCR Pool Value**

**Issue Description**

*The section '4.3.2 Annual Fixed Cost Settlement' in the Order dated 17th May 2007 in Case No 42 of 2006 states the following:*

*'(g) FCR Pool value shall be determined as aggregate of product of 'overall average per unit fixed cost' of the contributing FCR Pool Participant and the 'FCR Pool increments' by the contributing FCR Pool Participant into the FCR pool.'*

**Proposed Changes by MSPC and Basis for Changes claimed by MSPC**

*In the Final Balancing and Settlement Code, Section 7.3.2 (g), the above mentioned methodology for computation of the FCR Pool Value has been changed to:*

*'(g) **The FCR Pool Decrements shall be allocated amongst the contributing FCR Pool Participants in the ratio of their Increments and this shall be called the 'FCR Volume Allocation'**. FCR Pool value shall be determined as aggregate of product of 'overall average per unit fixed cost' of the contributing FCR Pool Participant and the 'FCR Volume Allocation' of the contributing FCR Pool Participant into the FCR pool.' (emphasis added)*

*The order issued by the Commission defines that the 'FCR Pool volume' shall be based on excess or shortfall in 'loss adjusted drawal' by State Pool Participant corresponding to a particular trading period vis-à-vis 'overall generation capacity' declared to be available to State Pool Participant from his contracted generation. Hence, as the FCR pool volume is being determined based on the actual loss adjusted drawal and forecasted availability, the sum of increments to the FCR pool by contributing participants never be equal to the sum of decrements to the FCR pool by contributing participants. **Hence, in order to maintain a balanced payment pool, the payments would be made by decrementing utilities in the ratio of their decrements to the incrementing utilities in the ratio of their increments.** (emphasis added)*

*This has been further illustrated in Annexure IV of the FBSM Code:*

*'The FCR Pool Decrements shall be allocated amongst the parties which have incremented to the pool and this shall be called the 'FCR Volume Allocation'.*

*For e.g. FCR Volume Allocation for TPC-D = Total FCR Pool Decrements x ( FCR Increments by TPC-D / Total FCR Increments )*

*The FCR Pool Value shall be the sum of the product of FCR Volume Allocation and the average per unit fixed cost of the Incrementing participants i.e. FCR Volume Allocation of TPC-D \* Avg. per unit Fixed cost of TPC-D*

*Finally, FCR Pool Price will be the ratio between FCR Pool Value and sum of FCR Pool Decrements in order to allocate the FCR Pool Value between the decrementing participants.'*

*Thus, the FCR Pool Price so derived shall be multiplied by the amount of decrement by the concerned participant and the product shall be the FCR Pool Amount Payable by the decrementing Pool Participant. **This has also been illustrated under Step 2 of Annexure IV of the FBSM Code.***

Remarks/Comments/ Guidance of the Commission:

**b• Proposed suggestion is approved as no change in the Order principle is envisaged. It only supports to remove ambiguity in FCR pool operationalisation.** FCR pool volume allocation is necessary as FCR pool increments shall always be greater than FCR pool decrements. (**emphasis added**)

**Issue no. 7 : Calculation of overall average per unit fixed cost for FCR Pool**

Issue Description

As per Section 4.3.2 (h) of the Order dated 17th May 2007 in Case No 42 of 2006, the Commission has stated the following:

*“(h) For the purpose of determining ‘overall average per unit fixed cost’ of contributing Pool participant, total fixed cost payable by the Pool Participant for the generating stations contracted by that FCR Pool Participant during the fiscal year under consideration shall be divided by ‘total energy units’ injected by generating station and to be paid for such FCR Pool Participant during the fiscal year, in accordance with the PPA conditions shall be considered.”*

Proposed Changes by MSPC and Basis for Changes claimed by MSPC

*It was the opinion of some of the members of MSPC that since fixed cost gets paid at 80% (or as applicable) availability levels, the calculation of overall average per unit fixed cost should take into account generation at 80% (or as applicable) availability as against the ‘total energy units’ injected during the year.*

*In case the existing methodology for computation of the overall per unit fixed cost for the FCR pool was adopted, it would mean that irrespective of whether the generation plant was available for the minimum threshold level of 80% (or as applicable) for total fixed cost recovery or not, it would be compensated for a cost which he may actually may not be eligible to recover on account of lower availability.*

Remarks/Comments/ Guidance of the Commission:

- Proposed **modification is not acceptable as it amounts to deviation** from Order principles.

- Further, actual injection lower than threshold level shall be dealt with as per provisions under Tariff Regulations and contracting arrangements between generating company and distribution licensee, as the case may be. **The fixed cost reconciliation or capacity exchange amongst the State Pool Participants will have to be treated strictly as per the Order principles stipulated under the Intra-State ABT Order, unless otherwise the same are modified. (emphasis added)**

69. The Commission notes that the premise for undertaking settlement of imbalance pool and settlement of Annual fixed cost are two distinct activities. Imbalance pool settlement entails establishing energy exchange amongst the state pool participants whereas FCR Pool settlement entails establishing capacity exchange amongst the state pool participations. Settlement of imbalance pool is based on the ‘target dispatch schedule’ for the generators and the ‘target drawal schedule’ for the SPPs to be finalized by MSLDC. However, settlement of FCR is based on the excess or shortfall in ‘loss adjusted drawal’ by SPPs corresponding to a particular trading period vis-à-vis the ‘overall generation capacity’ declared to be available to SPP based on ‘forecasted availability’ furnished by the generators contracted by the concerned SPP. In addition, methodology and principles for FCR Pool computations have been further elaborated under issue-wise description, alongwith illustrations, while approving the FBSM Code. Hence, the imbalance pool volume and the FCR pool volume will be different in terms of quantum as against same quantum that is wrongly claimed by MSEDCL for settlement of FCR Pool volume.
70. It is observed that MSEDCL has considered the FCR pool volume same as that of the imbalance pool volume and therefore the Commission is of the opinion that the amount sought to be recovered towards the fixed charges for FY 2011-12 to FY 2017-18 is based on incorrect assumptions.
71. Notwithstanding the above fact, the Commission notes that it is an admitted fact that till date FCR reconciliation has not been undertaken by MSLDC. MSLDC had raised its issues related to FCR reconciliation in its Case No. 56 of 2012 where it had approached the Commission highlighting its difficulties in the matter of operation and implementation of the Intra-State ABT Order in Case No. 42 of 2006. MSLDC, inter alia, had raised the following issues:

**“ O. Calculations of Fixed Cost Reconciliation (FCR) Pool**

.....

3.111. MSLDC also requested the Commission to guide MSLDC as to how to consider declared capacity of the Hydro generating stations which are operated to maintain the State UI and system conditions. This has an impact on the FCR pool imbalance of MSEDCL.

3.112. MSLDC submitted that many SPPs have entered into Long Term and Short Term transactions where Short Term transactions involve only a composite rate. MSLDC submitted that under such circumstances it is unclear as to whether the power purchase cost of the short term consumer should be considered for computation of overall average per unit fixed costs.

3.113. MSLDC also submitted that there is a standby arrangement between Mumbai DISCOMs and MSEDCL. Therefore, MSLDC wanted to clarify whether to consider such an arrangement for gauging the impact on FCR pool imbalances.

**Recommendation of the Study**

3.114. This difficulty was raised as a part of the rejoinder submitted by MSLDC. The Committee Report does not explicitly address this difficulty. However, some of the similar issues mentioned earlier are addressed by it and in line with them, it can be inferred that as the new Intra-State ABT Order would be based on the frequency linked mechanism, it would no longer require fixed cost reconciliation as the Unscheduled Interchange (UI) rate is a single part tariff inclusive of both Fixed and Variable cost of generation. Therefore, this issue regarding the FCR Pool would cease to exist after migration to the frequency linked mechanism.

**Comments and Suggestions of Distribution Licensees & Petitioner**

3.115. No stakeholder has provided any views on this issue. MSLDC was directed by the Commission to submit a report enlisting potential solutions on the difficulties faced in implementation of existing Intra-State ABT Order. In reply to this direction, MSLDC commented that in case of decentralised model, there would not be any issue with respect to the FCR pool amount payable / receivable.

**Commission's views**

3.116. The Commission agrees with the views of MSLDC. It is of the view that if the frequency linked balancing and settlement mechanism is adopted, the issue regarding the inclusion of STOA generators in the FCR Pool would not arise and such a problem would get resolved. As the Commission does not intend to amend the existing FBSM system, it analysed the issue for the impact on the frequency linked balancing and settlement mechanism. It observed that the issue related to FCR becomes redundant when the frequency linked balancing and settlement mechanism is being envisaged to be implemented.”

Thus, the issue related to FCR and recovery of Fixed Costs had been raised earlier also, but same could not be resolved.

72. Vide Daily Order dated 15 January, 2019 in the present proceeding, the Commission directed MSLDC to devise the methodology for recovery of annual fixed cost, reconciliation of the same within the State pool and issue the bills for annual fixed cost within a week. In response to the Commission's direction, MSLDC had worked out on sample basis the number of time blocks for which backing down was done for FY 2016-17 and FY 2017-18. Based on its observations that annually, average period of backing down was about 40 % of total time blocks of the year, it had issued Provisional Fixed Charges bills on ad hoc basis. MSLDC had considered that 40% of the annual energy which qualifies for exemption from payment of Fixed Charge on account of backing down of contracted generation and 60% of the energy drawn by utility from Unscheduled Interchange (UI) or Imbalance pool considered as over-drawl which qualifies for payment of Fixed Charge.
73. It is observed that this methodology is not strictly in line with the Intra-State ABT Order (i.e. FBSM mechanism) as the calculations have been made on sample basis and the results so obtained have been used for calculation of Fixed charges for FY 2011-12 to FY 2017-18. Besides, it completely ignores the time-block wise ascertainment of capacity exchange and principles for Fixed Cost Reconciliation as outlined under the said Intra-State ABT Order (Case 42 of 2006). The Commission further notes that MSLDC itself has stated that the Fixed cost bills issued are provisional bills. If any other methodology for computation of FCR is finalized by the Commission and MSLDC receives any directives in this matter by the Commission in such case the bills will be revised accordingly.
74. TPC-D objected to the bills raising various contentions such as time barred claim beyond limitation period, adhoc methodology without approval of SPPs, lack of power with MSPC to prescribe a methodology for computing the Annual Fixed Costs and other issues. BEST and AEML-D also objected to these bills raising similar grounds. Case No. 25 of 2019 and Case No. 28 of 2019 had been filed by TPC-D and AEML-D respectively seeking quashing these bills.
75. Vide Daily Order dated 6 February, 2019, the Commission acknowledged the differences among the Parties on the issue of billing methodology of Fixed Charge Reconciliation and directed MSPC and MSLDC to have a meeting with all the members of MSPC. The Commission further directed that during this meeting, the members shall provide their views on the interim methodology to be followed while preparing the fixed charges bills on provisional basis. MSPC, after considering the views/ comments of members shall decide the interim methodology to be followed for recovery of provisional fixed charges bills and thereafter if required revise the provisional bills. The Commission provided 10 days' time period to complete the said activities. The Commission also granted ad-interim relief to the Mumbai Utilities for payment of the provisional bills for fixed charges raised by MSPC on 25 January, 2019 subject to deposit of 20 % amount of the bills raised in MSLDC -UI settlement account and

directed to deposit the said amount within 7 days. MSLDC/MSPC was directed to pay the said amount to MSEDCL immediately thereafter.

76. TPC-D filed its Miscellaneous Application in Case No. 25 of 2019 seeking /refund of the excess amount paid by TPC-D, if any, post finalization of revised Provisional fixed charges bills and also on final reconciliation / settlement of the FCR pool later on.
77. Vide Daily Order dated 8 May, 2019, the Commission directed MSLDC to submit its proposed interim methodology/principles for recovery of provisional fixed charges bills along with supporting relevant information and assumptions to the Commission within seven days for consideration of the Commission. The Commission further stated that MSLDC may share such proposed interim methodology/principles for recovery of provisional fixed charges bills with members of MSPC.
78. In accordance with the above direction, MSLDC submitted the interim methodology/principles on for recovery of provisional fixed charges bills. The Commission, thereafter, received comments from the Parties on the SLDC's submission which are covered in Para. 41 above. MSLDC also submitted the FCR calculations for four months of FY 2016-17 i.e. May 2016, July 2016, October 2016 and March 2017. While calculating FCR for these four months, MSLDC has considered two scenarios viz. one with consideration of declared capacity of TPC-G's Unit 6 and one without the same, which are detailed out as under.
- i. Abstract of FCR calculations with consideration of declared Capacity of TPC Unit 6 as submitted by MSLDC:

Months	May-16			Jul-16		
	Incrementing (kWh)	Decrementing (kWh)	Charges (Rs)	Incrementing (kWh)	Decrementing (kWh)	Charges (Rs)
AEML	15,029	-20,016,677	-26,096,818	596	-32,299,510	-42,215,635
BEST	3,016,794	-58,830	3,543,964	2,111,885	-426	2,536,172
MSEDCL	14,599,613	-184,977	18,761,172	28,390,481	0	37,126,632
TPC	3,338,941	0	4,679,423	1,955,628	0	2,752,843
Railway	215,902	-925,795	-887,741	123,816	-282,470	-200,011

Months	Oct-16			Mar-17		
	Incrementing (kWh)	Decrementing (kWh)	Charges (Rs)	Incrementing (kWh)	Decrementing (kWh)	Charges (Rs)
AEML	2,835	-15,280,842	-19,944,376	141,210	-12,540,198	-16,359,166
BEST	1,629,383	-18,038	1,934,292	3,776,105	0	4,557,947
MSEDCL	12,591,617	0	16,471,581	7,693,796	-3,631,546	5,225,990
TPC	1,266,609	0	1,782,600	4,878,797	0	7,032,692
Railway	80,075	-271,639	-244,097	268,927	-587,091	-457,463

- ii. Abstract of FCR calculations without consideration of declared Capacity of TPC Unit 6 as submitted by MSLDC:

Months	May-16			Jul-16		
	Incrementing (kWh)	Decrementing (kWh)	Charges (Rs)	Incrementing (kWh)	Decrementing (kWh)	Charges (Rs)
AEML	46,132	-20,016,677	-26,099,327	1,032	-32,299,510	-42,222,698
BEST	960,190	-3,009,143	-2,779,790	874,801	-858,586	-92,046
MSEDCL	21,737,728	-184,977	28,070,833	32,017,515	0	41,909,157
TPC	1,633,165	-604,569	1,479,475	774,755	-366,713	587,098
Railway	363,946	-925,795	-671,192	139,175	-282,470	-181,512

Months	Oct-16			Mar-17		
	Incrementing (kWh)	Decrementing (kWh)	Charges (Rs)	Incrementing (kWh)	Decrementing (kWh)	Charges (Rs)
AEML	10,082	-15,280,842	- 19,936,945	489,586	-12,540,198	- 16,137,948
BEST	780,960	-380,677	443,463	932,074	-8,376,127	-9,869,553
MSEDCL	15,816,973	0	20,713,909	17,628,765	-3,631,546	17,998,495
TPC	388,342	-1,162,470	-1,002,000	6,397,883	-938,756	8,008,155
Railway	99,272	-271,639	-218,428	625,410	-587,091	851

79. As can be seen from above tables for both scenarios, the liability among the SPPs varies significantly depending upon the scenario. Hence, the issues pertaining to TPC-G Unit 6 and also other issues such as treatment of hydro generation, treatment of declared availability of RE injection, treatment of Standby Power, treatment of regional power etc. (which are not resolved yet between the Parties) will have to be decided by the Commission. Accordingly, the issue-wise analysis and ruling is given below:

**Issue 1: Declared Availability of RE injection**

80. MSLDC has stated that even if installed capacity of RE generator is more, actual energy available to contracted utility is limited depending on weather conditions. Hence, actual injected energy should be considered as availability. **It is observed that there is agreement among all the SPPs on this issue and hence the Commission rules that actual injected energy by RE Generator should be considered as availability for FCR computation.**

**Issue 2: Declared Availability of Hydro**

81. The Commission notes that AEML-D and MSEDCL has suggested that actual injection needs to be considered for Hydro Station for FCR purpose whereas as per TPC-D and BEST, maximum of schedule and actual injection needs to be considered.
82. The Commission notes that all the Parties have suggested different approaches on this issue vis-à-vis that mentioned in the ABT Order and also the FBSM Code as the ABT



Order specifies the Availability of the Generating Stations to be considered while FCR computation.

83. TPC-G states that neither the ABT Order nor the FBSM Code makes any distinction in terms of thermal generating stations or Hydro generating stations.
84. However, the Commission is of the view that although no such specific distinction is made in ABT Order /FBSM, the treatment of these plants need not be identical on account of the following reasons:
- i. Thermal Generating cater to base load whereas Hydro Generating Stations generally do not cater to base load. Hydro capacity is used as peaking power up to the extent of its installed capacity and all the times it is almost below installed capacity or even no injection into the grid.
  - ii. Thermal Generating Units are scheduled and dispatched based on MOD stack whereas Hydro Generating Units are not part of MOD stack.
  - iii. Hydro Generation depends upon availability of water and there are other constraints such as water utilization constraints imposed by Krishna Water Tribunal, hence the declared capacity form Hydro Station may not be available when required.
  - iv. As mentioned by MSLDC, Day ahead Scheduled generation is subjected to change on real-time basis based on demand requirement of State and hence if actual generation is lowered than schedule, the water quantum is saved and can be used in future resulting in higher schedule in future.
  - v. The beneficiaries of Hydro Generating Stations pay only 50% of the fixed charges to the Generating Company towards the availability and rest of the charges are linked to the actual generation. Hence, there is no merit in the contention of TPC-G and BEST that they would be end up paying Fixed Cost twice, if the actual generation is considered for Hydro Generating Station instead of its availability.
  - vi. As mentioned by TPC-G itself, while Hydro power plants provide a day ahead schedule to MSLDC, the actual generation may vary significantly as compared to the schedule since the Hydro generation capacity is used by MSLDC to manage system requirements.
85. **In light of the above, the Commission is of the view that maximum of Schedule / maximum of Actual generation (as contended by TPC-G and BEST) cannot be considered for FCR and only actual generation should be considered for the purpose of FCR pool computations.**

### **Issue 3: Availability of units under Economic shut down, Zero scheduling and Reserve shut down**

86. As informed by MSLDC, there is disagreement between the Parties on these issues as well. As per MSLDC's submissions, Unit 6 of TPC-G is focal point. As per AEML-D

and MSEDCL, declared capacity of Unit 6 should not be considered. As per TPC-G and BEST, declared capacity of Unit 6 needs to be considered in line with ABT Order.

87. After analyzing submissions of the Parties, the Commission makes the following observations:

- i. It is the matter of fact that TPC-G Unit 6 was under economic shut down from July, 2013 till March 2018 (i.e. end of PPA between TPC-G and BEST).
- ii. In MYT Petition, in Case No.179 of 2011, TPC-D itself had stated that that in order to optimise the cost of power purchase and the resultant tariff, it had not considered any purchase from Unit 6 on Oil and RLNG for FY 2013-14 and FY 2014-15 and these Units may be resorted to again, in case there was need to do so, to overcome the transmission constraints if experienced going forward or if it was found that the variable cost of generation from these Units is lower than the alternate cost of power that is available. In view of TPC-D's above submissions, the Commission didn't consider any generation from Unit 6 while projecting the power purchase expenses of TPC-D for the MYT control period. Same view had been taken by the Commission in the BEST's MYT Order. Thus, there was no specific direction of the Commission to keep Unit 6 under economic shutdown. Rather, beneficiaries of Unit 6 opted not to schedule its generation for reducing their respective Tariff.
- iii. Except for the few instances as mentioned by MSLDC in its submissions, there was generation from Unit 6 to meet the demand of Distribution Licensees. All other times, the Unit was under shutdown and TPC-D and BEST had resorted to alternate source to meet their requirements.
- iv. In Case No. 133 of 2015, TPC-G had requested 24 hours notice to be provided for each start under MSLDC direction. Hence, Unit 6 was not available for grid operation during real time. However, the same was also brought into operation on various occasions on need basis at the following instances:
  - a) From 7<sup>th</sup> Apr to 12<sup>th</sup> July 2014 for meeting summer peak of Mumbai
  - b) From 28<sup>th</sup> Jul to 31<sup>st</sup> Jul 2014 as TPC-G's unit-5 and unit-7 were under outage
  - c) From 3<sup>rd</sup> Sep to 11<sup>th</sup> Sep 2014 for ensuring reliable supply during Ganesh festival
  - d) From 30<sup>th</sup> Sep to 21<sup>st</sup> Nov 2014 for meeting increased demand of Mumbai
  - e) From 3<sup>rd</sup> Jan to 17<sup>th</sup> Feb 2015 due to outage of Unit-5 (500 MW) for capital overhaul and boiler re-certification
  - f) From 18<sup>th</sup> Mar to 19<sup>th</sup> Mar 2015 for attending to oil leakage from pedestal oil catcher of bearing no.3 of Unit-5
  - g) From 19<sup>th</sup> Mar to 20<sup>th</sup> Mar 2015 due to tripping of Unit-5 and as per instruction of MSLDC
  - h) From 23<sup>rd</sup> Mar to 6<sup>th</sup> Apr 2015 due to transmission constraints on account of outage of 220kV Kalwa-Salsette-3 and increase in Mumbai demand

- i) After 6<sup>th</sup> Apr 2015 unit was not synchronised with the grid till termination of PPA i.e. 31<sup>st</sup> Mar 2018, due to merit order despatch and acute requirement of this unit did not arise during this period.
- v. Clause 3.7 (a) of the Commission's Order in Case 172 of 2014 dated the Commission noted as under:

**"3.7 a. MSLDC will monitor the flow of power over MSETCL tie lines and will instruct TPC-G to bring Unit-6 on bar, if the situation warrants, with 24 hours notice."**

14. The Commission observes that, in pursuance of the mandate of the EA, 2003, the State Grid Code Regulations, 2006 specify provisions for the safe, secure and reliable operation of the grid and to take care of unforeseen or emergent contingencies, including grid disturbances. **Under Section 32(1), MSLDC is the apex body for ensuring integrated operation of the power system in Maharashtra. In discharge of its functions under Section 32(2), MSLDC is required to carry out optimum scheduling and despatch of electricity; monitor grid operations; carry out real-time operations for grid control and despatch of electricity in accordance with the Grid Standards and State Grid Code; keep accounts of the quantity of electricity transmitted through the grid; and exercise supervision and control over the intra-State transmission system.** Section 33 requires all Transmission /Distribution Licensees and generating companies connected with the operation of the power system to comply with MSLDC's directions since it has to undertake real-time system management which is dynamic in nature. MSLDC issued directions with regard to Unit 6 and related dispensations considering the demand and fluctuations in embedded generation. Unit 6 power was used to cater the increase in load, but MSLDC also had to deal with situations when the forecasted requirement was wide off the mark because of sudden reductions in supply due to outages of other generating Units such as Unit 5 (500 MW).

**15. In view of the foregoing, the Commission directs all the concerned constituent Licensees to comply with the methodology, scheduling and other directions given by MSLDC from time to time for sharing of TPC-G Unit 6 generation and its subsequent commercial settlement."** (emphasis added)

- vi. Accordingly, TPC-G has declared available capacity of Unit-6 from time to time and certified by MSLDC and the same has been considered by Commission for the purpose of Fixed Cost recovery of Unit-6 as per MYT/MTR Orders issued from time to time.
- vii. MSLDC has presented two scenarios in its sample computations of FCR Pool volume for FY 2016-17 (viz. Scenario-1: considering Declared Capacity of TPC-G Uni-6 and Scenario-2 : without considering Declared Capacity of TPC-G Unit-6). Non-inclusion of declared available capacity of the contracted generating

capacity in FCR Pool volume results under-statement of the FCR Pool Increments for the distribution licensee(s) that have contracted such generation capacity; despite it being certified to be available and paid for its fixed costs. **Accordingly, the Commission deems it fit to include declared available capacity of Unit-6 as certified by MSLDC as per Scenario-1 for the purpose of FCR Pool computations in respective years.**

88. **In view of the above, the Commission is of the opinion that declared capacity of TPC Unit 6 should be considered for the purpose of FCR computation in respective years.**

#### **Issue 4 :- Declared availability of standby power to Mumbai from MSEDCL**

89. MSEDCL provides standby power to Mumbai utilities in the event of loss of contracted capacity. This power is scheduled to Mumbai utilities with the consent of MSEDCL as and when required. On this issue as well, there is differences of opinion among the SPPs. While AEML-D, BEST and TPC-D suggested that decaled availability of standby power should be considered in both cases i.e. planned outage or tripping of Units of Mumbai Utilities. MSEDCL, on the other hand, suggested that it should be considered only in case of tripping of Mumbai Units.
90. The Commission notes that Order dated 7 December, 2001 in Case No. 7 of 2000 stipulates that standby support needs to be provided in both cases such as forced outage as well as planned outage. The relevant para is as under:

*.....41. Standby charges are levied for the standby capacity that one utility, generally larger in size, provide to another utility, smaller in size, to meet emergent conditions. Standby capacity constitutes a special backup arrangement, which needs to be activated occasionally under certain special circumstances such as planned or forced outages in power plants. The purpose behind having this kind of backup arrangement in the case under consideration is to ensure an uninterrupted supply of electricity in an important metropolitan city like Mumbai cannot afford to have any interruptions in the supply of electricity for the simple reason that the city is the economic and financial hub of the country.....*

91. **In view of the above, the Commission agrees with MSLDC's proposal that when standby power is scheduled to Mumbai utilities with the consent of MSEDCL, the schedule of standby power needs to be considered as availability to respective Mumbai utility and accordingly should be considered for the purpose of FCR Pool computations.**

#### **Issue 5: Treatment of Regional UI**

92. As per AEML-D, FCR should not be applicable for power drawn from Regional Pool, as such drawl is not from the generation availability of any of the Discoms of

Maharashtra as there is no fixed cost associated with such power. Therefore Regional power drawl should be excluded from the total over-drawl. As per TPC-D, in the event, power has been supplied from Regional Pool, then FCR shall not be made applicable for such quantum as fixed charges are not applicable for the power drawn from the Regional Pool. **In this context, the Commission notes that fixed charges are not applicable for regional Pool Drawl & the charges for Regional Overdrawl / Under drawl including Net UI charges is passed on to the SPP who is overdrawing on the basis of State merit order despatch. Drawl of UI from Central pool cannot be considered as contracted capacity of drawing utility. The cost of regional power is linked to frequency / DSM rate and there is no such FC component. Hence, Regional Overdrawl should not be associated with FC computation.**

**Issue 6: Calculation of Declared capacity on 15 min basis.**

93. The Commission notes that as per clause No. 7.3.2 of FBSM Code, for the Annual Fixed Cost settlement amongst State Pool Participants, the MSLDC-CD shall work out the Fixed Cost Reconciliation (FCR) Pool volume comprising ‘FCR Pool Increments’ and ‘FCR Pool Decrements’ by each State Pool Participant corresponding to each trading period. However, as per MSLDC’s submissions, as FCR module is not developed by MSLDC, therefore FCR calculation on the basis of compilation of 15 mins block wise settlement is not possible.
94. Thus, MSLDC has informed that DC tracking feature is not available in scheduling software for FBSM. However, day ahead DC of all generators are maintained by MSLDC in off line mode. Further, MOD scheduling, Backing down by MSLDC and revisions by Generators are over written on day ahead DC and final implemented schedule is available in system.
95. The Commission hereby expresses its displeasure on the MSLDC’s submission that FCR module has not been developed by it in spite of lapse of about 8 years since implementation of FBSM. The issue of FCR has been kept lingering because of inaction of MSLDC. It is only on the present Petition filed by MSEDCL, the issue of FCR computation which is an important element of FBSM mechanism has been raised before the Commission. However, MSLDC being convener of MPSC which is responsible of the implementation of FBSM Code needed to take proactive approach on this issue.
96. The Commission notes that as per Clause 4.2 of Intra-state ABT Order (Case 42 of 2006) the “Trading Period” for the settlement of energy exchange and capacity exchange amongst the state pool participation is the time block of 15-minute duration. Further, the Clause 4.3.2 of the said Order outlines the methodology for computation of the Fixed Cost Pool Volume and Value and Clause 5.3 of the said Order outlines the modality of settlement of Annual Fixed Cost Reconciliation for the capacity exchange amongst the state pool participants. The relevant extracts of the Clause 5.3 are as under:

“5.3 (a) The MSLDC shall prepare Annual ‘Statement of FCR Pool Settlement’ corresponding to capacity exchange amongst the FCR Pool Participants for each trading period over the monthly period of each fiscal year under consideration commencing from April in accordance with the ‘FCR energy account’ reconciliation principles.

(b) The MSLDC shall present such Annual ‘Statement of Imbalance Pool Settlement’ to State Pool participants for its payment within fifteen calendar days from the end of the fiscal year corresponding to the preceding fiscal year.

(c) The ‘Statement of FCR Pool Settlement’ shall clearly provide for following distinct statements of settlement:

(i) Settlement of Imbalances (capacity exchange) amongst FCR Pool Participants in accordance with ‘FCR Pool Volume’, separately for each month of the Fiscal year.

(ii) Aggregate net position of settlement amongst the FCR Pool Participants.

97. Further, as highlighted under earlier paragraphs at Para 68, approved FBSM Code has further clarified on the methodology and issues associated with the FCR Pool computation.

98. Thus, it is evident that the FCR Pool computations for capacity exchange amongst the pool participants have to be undertaken for each “trading period” of the month, while settlement of such FCR Pool for the capacity exchange amongst the state pool participants will have to be undertaken on annual basis alongwith detailed statement of month-wise capacity exchange. **Accordingly, the Commission rules that FCR Pool computations should be undertaken in accordance with the principles outlined in the Intra-state ABT Order and FBSM Code.**

99. The Commission further notes that there are few other issues raised by SPPs for which MSLDC, in its submission, has not provided its views. **The Commission is of the view these issues need to be clarified to avoid any ambiguity in future. These residual issues are listed below along with the Commission’s ruling:**

a. Consideration of declared capacity:

The Commission notes that the Declared Capacity is revised by generators during real time operations based on coal stock, coal quality, water and other operating parameters of machines. Hence, the Commission agrees with the view of MSEDCL that availability given by generators during real time is more realistic and same DC is available to meet demand. Hence, the revised Declared capacity needs to be considered for FCR.

b. Transmission Loss:

Since FCR computation is done on annual basis and **same would be a final bill**, the Commission agrees with suggestions of AEML-D and TPC-D that should be based on the actual transmission loss as declared by SLDC.

c. **Short Term Bilateral Purchase:**

The Commission is of the view that Declared availability by Intra-state Generators with installed capacity above 50 MW under short-term transactions (excluding RE generators) should be considered for computation of FCR as MOD principle is made applicable to such sources/ transactions.

100. As mentioned at Para. 78 above, MSLDC has submitted the FCR calculations for four months of FY 2016-17 i.e. May 2016, July 2016, October 2016 and March 2017. While calculating FCR for these four months, MSLDC has considered two scenarios viz. one with consideration of declared capacity of TPC-G's Unit 6 and one without the same. **The Commission finds that the 4 months calculation done by MSLDC with consideration of the declared capacity of TPC-G's is generally in line with the methodology and principles as approved under this Order and hence the Commission directs MSLDC to follow this approach for computation of the FCR Pool Volume and FCR Pool Value for the period from FY 2011-12 to FY 2017-18 and accordingly MSLDC shall issue not the provisional but only the final bills for settlement of fixed charge reconciliation pool amongst SPPs. The said activity shall be completed by MSLDC within a period of one year from the date of issue of this Order. The amount already paid by the SPPs shall be adjusted while raising the bills.**
101. Since, the settlement of fixed charges as mentioned at Para. 100 above and the recomputation of the imbalance pool settlement and the associated liabilities of SPPs as mentioned at Para. 56 above has to be done by MSLDC for past seven years i.e. FY 2011-12 to FY 2017-18 and that too in a timebound manner, it is directed that MSPC shall form a sub-committee/task force headed by MSLDC which would consist of Officers from MSEDCL , BEST, AEML-D , TPC-D and Indian Railways. The members of MSPC shall provide necessary support to MSLDC so as to ensure that MSLDC is in a position to complete the above task within the timeframe stipulated in this Order.
102. TPC-D has stated that the Supreme Court in *Andhra Pradesh Power Coordination Committee & Ors. v. LancoKondapalli Power Limited & Ors.* reported as (2016) 3 SCC 468 has held that the provisions of the Limitation Act are applicable to disputes under the EA. Hence, any and all monetary claims beyond the period of 3 years are barred by limitation. In the present case, MSEDCL has claimed the Fixed Charge amounts for FY 2011-12 to FY 2017-18 only in October, 2018 which is barred by limitation (limitation having expired in FY 2015-16 and FY 2016-17 respectively) and cannot be claimed from TPC-D in the year 2018-2019.

103. In this context, the Commission is of the view that the present proceeding is not a dispute proceedings among the Parties. Rather, the issue that arose here is regarding the implementation of the directions given by the Commission in ABT Order and the FBSM code for settlement to be carried out in line with approved principles stipulated under ABT Order and FBSM Code on account of imbalance pool and FCR pool. Hence, there is no merit in TPC-D's claim that the claims made by MSEDCL are time-barred.
104. MSEDCL in the Petition has also sought carrying cost of Rs. 811.13 Cr. on its claimed recovery towards fixed cost component and differential variable charges for the net imbalance units supplied by MSEDCL from FY 2011-12 to FY 2017-18. This carrying cost has been calculated by MSEDCL upto March, 2018.
105. In this context, the Commission notes as follows:
- i. From FCR calculations submitted by MSLDC for four months of FY 2016-17 i.e. May 2016, July 2016, October 2016 and March 2017, it is seen that the three incrementing utilities (i.e. MSEDCL, TPC-D and BEST) together are entitled for an amount of Rs. 10.65 Cr. approximately which is receivable from the other two decrementing utilities (i.e. AEML-D and Indian Railways). Considering the fact that FCR reconciliation has not been undertaken since FY 2011-12, the Commission is of the view that the amount payable by the decrementing utilities and receivable by the incrementing utilities would be substantial. Further, on account of the omission on part of MSLDC and MSPC to consider rate of power purchased from the Power Exchange and CPPs for WASMP calculation, there might be further liability on the decrementing utilities which would be payable to the incrementing utilities. While acknowledging the legitimate amount payable to the incrementing SPPs, it is necessary to compensate the incrementing SPPs for delayed recovery of the respective amounts.
  - ii. It is settled principle that carrying cost is generally payable under following circumstances:
    - (a) claim of legitimate expenditure accepted but recovery is deferred, e.g. interest on regulatory assets;
    - (b) claim not approved/settled within a reasonable time; and
    - (c) disallowed by the Commission but subsequently allowed by the superior authority.
  - iii. Further, in the present case, the amount that the incrementing utilities are entitled to receive, pertains to past periods from FY 2011-12 to FY 2017-18 and same can only be recovered in FY 2019-20 and FY 2020-21 (i.e. timeframe given in this Order for raising the bills towards differential variable charges and FCR computation respectively), the carrying cost for these years would accrue and the incrementing SPPs would be entitled to the carrying cost.



- iv. Also, as pointed out by MSEDCL, in accordance with the terms and conditions of PPAs, the Distribution Licensees are required to make payments to their respective contracted generators within specified timeframe (generally upto 30 days) after the monthly energy bills are raised by the respective generators, else delay payment charges are attracted. Under such circumstances, if there is delay in recovery of fixed charges towards the capacity shared with other decrementing SPP, the corresponding incrementing SPPs would need to be compensated alongwith the carrying cost/interest.
- v. Whenever the recovery of amount is deferred/delayed, the financing of the gap in cash flow arranged by the SPP from lenders and/or promoters and/or accruals, needs to be paid for by way of carrying cost.

**In view of the above, the Commission deems it appropriate to hold that the carrying cost would be payable to the incrementing SPPs alongwith the amount towards re-computed imbalance pool settlement on account of revised WASMP and also towards settlement of fixed charge reconciliation pool . The carrying cost would be payable by the decrementing SPPs in the same proportionate/ratio that these SPPs have decremented the imbalance/FCR pool. The interest rate for the carrying cost shall be the interest rate approved by the Commission while allowing the Interest on Working Capital in the Tariff Order of Incrementing SPPs for the respective years. In the absence of Tariff Order for incrementing SPPs, the interest rate approved by the Commission for MSEDCL shall be considered. The decrementing SPPs would be entitled to claim the amount paid by them towards re-computed imbalance pool settlement on account of revised WASMP and also towards settlement of fixed charge reconciliation pool including the carrying cost thereof, in their respective MYT/MTR/Truing up Petitions. In case of re-computed imbalance pool settlement, the carrying cost shall be due from the date of respective weekly bills which have already been raised by MSLDC towards the imbalance pool settlement. In case of fixed charge reconciliation pool, the carrying cost shall be due from the timeframe as mentioned in the FBSM Code i.e. from the end of fifteen calendar days from the end of the respective financial year. The carrying cost shall be computed till the period the respective bills are raised by MSLDC.**

- 106. The Commission further notes that the payment directions (provisional variable charges for FY 2017-18 and 20% provisional fixed charges) issued during the present proceeding have been complied by AEML-D and TPC-D by paying the provisional variable charges for FY 2017-18 and the 20% interim charges towards the fixed charges. However, BEST is yet to pay these charges. Considering BEST's request, the Commission allows BEST to pay the balance payment in six monthly installments along with the delayed payment charges as mentioned in the ABT Order over the duration of the installment period.

107. The Commission also notes and agrees with the contention of MSEDCL regarding immediate implementation of de-centralized scheduling and frequency linked deviation settlement mechanism. It has stated that due to present FBSM framework, the cheaper Generating Units contracted by MSEDCL are utilized to fulfil the demand of the other utilities mainly Mumbai utilities and MSEDCL is not timely and adequately compensated by the present FBSM mechanism. The delay in processing weekly FBSM bills financially impacts MSEDCL and its consumers. MSEDCL has requested that the Commission should implement new intra-state DSM Regulation at the earliest. Further, MSEDCL filed Miscellaneous Application on 9 April, 2019 seeking the directions to MSLDC to immediately implement the methodology of operation of Decentralised MoD i.e. utility wise Load generation balance from 1<sup>st</sup> May 2019. MSEDCL cited the lack of consensus among the SPPs on the issue of finalizing the methodology to be followed for recovery of provisional fixed charges bills and the corresponding the delay in getting the recovery of fixed charges.
108. In this regards, the Commission notes that while the draft MERC (DSM) Regulations, 2018 were published for seeking comments, MSEDCL objected to the concept of implementation of deviation settlement mechanism in two phases and stated that commercial arrangement should come into force from the date of notification of MERC (DSM) Regulations, 2019. The Commission has duly acknowledged the concerns of MSEDCL in the Statement of Reasons (SOR) dated 1 March, 2019 and as mentioned in the SOR, the establishment of interface metering, communication infrastructure, AMR facility available at all interface points, associated hardware/software including trial operation are crucial for implementation of energy accounting and any form of balancing or deviation accounting mechanism. Accordingly, upon notification of DSM Regulations an implementation period of at least up to 12 months including trial operation period is necessary for various stakeholders to set up the systems and facilities as mentioned above. The SAMAST Report published by Forum of Regulators (FOR) also envisages one year period for implementation of DSM framework. **The above preparatory work has already been initiated. In view of the above, MSEDCL's prayer seeking immediate implementation of MERC (DSM) Regulations, 2019 cannot be granted. However, the status of required preparedness is being reviewed and the date of commercial implementation of DSM framework shall be notified separately.**
109. The Commission notes the non-compliance on part of SLDC with regards to preparation of reports as mandated in the ABT order. This issue of preparation of such reports had also been raised by MSEDCL in several MSPC meetings also. However, no such monthly state energy account reports are prepared by MSLDC.
110. In this regards, the Commission notes that as per Para. 7.1 of ABT Order, MSLDC is required to keep weekly energy account of inter and intra energy exchange and accordingly, such weekly energy accounts are being maintained by MSLDC and the weekly reports viz. Bilateral report, Injection and drawl reports along with weekly bills

are issued by MSLDC regularly. MSLDC has also stated that in order to enable preparation of monthly reports, MSLDC has issued Work Order to M/s Crafsol Technology Solutions Pvt. Ltd. for development of software for generating monthly bilateral reports from weekly FBSM reports and the work is in progress. **The Commission directs SLDC to take full responsibility in timely execution of the work order. The issue raised by MSEDCL on preparation of monthly state energy accounts would require to be resolved in time bound manner by MSLDC.**

111. MSEDCL has also sought directions to MSLDC not to pick up Koyna generation for state LGB and allow Mumbai utilities to exploit the existing FBSM mechanism. In this context, the Commission notes that the Clause 7(XX) of Scheduling and Dispatch Code provides the factors to be considered by MSLDC for scheduling of InSGS Hydro Generating Stations. This Scheduling and Dispatch Code has been stipulated under the MERC (State Grid Code) Regulations, 2006. The Commission is in the process of amending the MERC (State Grid Code) Regulations in light of the various amendments made by the Central Electricity Regulatory Commission in the Indian Electricity Grid Code and also in light of the recent MERC (Deviation Settlement Mechanism & related matters) Regulations, 2019. MSEDCL may raise its concerns regarding the operations of Koyna Hydro Generating by MSLDC during this process.
112. Hence, the following Order:

#### **COMMON ORDER**

1. **Case Nos. 297 of 2018, 25 of 2019 , 28 of 2019 and M.A. No. 05 of 2019 in Case No. 25 of 2019 are partly allowed.**
2. **MA No. 8 of 2019 in Case No. 297 of 2018 is rejected.**
3. **Maharashtra State Load Despatch Centre is directed to consider the rate of power purchased from the Power Exchange and Captive Power Plants (CPPs) for Weighted Average System Marginal Price (WASMP) calculation for next Final Balancing Settlement Mechanism Code (FBSM) bills with immediate effect from this Order.**
4. **Maharashtra State Load Despatch Centre is further directed to recompute the WASMP for the period from FY 2011-12 to FY 2017-18 after including the rate of power purchased from the Power Exchange and CPPs. Thereafter, Maharashtra State Load Despatch Centre shall recalculate the imbalance pool settlement for these years in accordance with the applicable principles laid down in the Availability Based Tariff (ABT) Order and FBSM and work out the associated liabilities of State Pool Participants (SPPs) for raising the supplementary bills for these years. The above activity shall be completed by Maharashtra State Load Despatch Centre by 31 January, 2020.**


5. **Maharashtra State Load Despatch Centre is directed to follow methodology and principles (as mentioned at Para 80 to Para 98 ) as approved under this Order for computation of the Fixed Cost Reconciliation (FCR) Pool Volume and FCR Pool Value for the period from FY 2011-12 to FY 2017-18 and accordingly MSLDC shall issue the final bills for settlement of fixed charge reconciliation pool amongst SPPs. The said activity shall be completed by MSLDC within a period of one year from the date of this issue of Order. The amount already paid by the SPPs shall be adjusted while raising the bills.**
6. **The carrying cost would be payable to the incrementing SPPs alongwith the amount towards re-computed imbalance pool settlement on account of revised WASMP and also towards settlement of fixed charge reconciliation pool. The carrying cost would be payable by the decrementing SPPs in the same proportionate/ratio that these SPPs have decremented the imbalance/FCR pool. The interest rate for the carrying cost shall be the interest rate approved by the Commission while allowing the Interest on Working Capital in the Tariff Order of Incrementing SPPs for the respective years. In the absence of Tariff Order for incrementing SPPs, the interest rate approved by the Commission for MSEDCL shall be considered. The decrementing SPPs would be entitled to claim the amount paid by them towards re-computed imbalance pool settlement on account of revised WASMP and also towards settlement of fixed charge reconciliation pool including the carrying cost thereof, in their respective MYT/MTR/Truing up Petitions. In case of re-computed imbalance pool settlement, the carrying cost shall be due from the date of respective weekly bills which have already been raised by MSLDC towards the imbalance pool settlement. In case of fixed charge reconciliation pool, the carrying cost shall be due from the timeframe as mentioned in the FBSM Code i.e. from the end of fifteen calendar days from the end of the respective financial year. The carrying cost shall be computed till the period the respective bills are raised by MSLDC.**
7. **Since, the settlement of fixed charges as mentioned at Para. 100 above and the recomputation of the imbalance pool settlement and the associated liabilities of SPPs as mentioned at Para. 56 above has to be done by Maharashtra State Load Despatch Centre for FY 2011-12 to FY 2017-18 and that too in a timebound manner, it is directed that MSPC shall form a sub-committee/task force headed by MSLDC which would consist of Officers from MSEDCL , BEST, AEML-D, TPC-D and Indian Railways. The members of MSPC shall provide necessary support to MSLDC so as to ensure that MSLDC is in a position to complete the above task within the timeframe stipulated in this Order.**
8. **Considering Brihan Mumbai Electric Supply and Transport Undertaking's request, the Commission allows BEST to pay the balance payment (provisional variable charges for FY 2017-18 and 20% provisional fixed Charges) in six**

monthly installments along with the delayed payment charges as mentioned in the ABT Order over the duration of the installment period.

9. The Commission is in process of amending the MERC (State Grid Code) Regulations 2006 in light of the various amendments made by the Central Electricity Regulatory Commission in the Indian Electricity Grid Code and also in light of the recent MERC (Deviation Settlement Mechanism & Related Matters) Regulations, 2019. Maharashtra State Electricity Distribution Company Ltd. may raise its concerns regarding the operations of Koyna Hydro Generating by Maharashtra State Load Despatch Centre during this process.

Sd/-  
(Mukesh Khullar)  
Member

Sd/-  
(I. M. Bohari)  
Member

  
(Abhijit Deshpande)  
Secretary

