



FACT-FINDING COMMITTEE

Report on Up-surge in Electricity
Bills in Mumbai

Volume I - Report

June, 2019

ACKNOWLEDGEMENT

The Maharashtra Electricity Regulatory Commission appointed a Fact-Finding Committee to look into, *inter alia*, the reasons for the sudden upsurge in the consumption, and examine other reasons which might have led to hike in electricity bills in Mumbai and also recommend corrective steps, if any, to ensure that such incidences do not recur.

The Committee would like to thank the Commission for their support to the Fact-Finding Committee. We wish to place on record the support provided by Shri G. D. Patil, Director Tariff, MERC, in analysing the information submitted by the distribution licensees in the backdrop of the regulatory framework of the Commission.

We would like to express our deepest appreciation to Smt. Rujuta Gadgil, Dy. Director MERC, and Secretary of the Committee, in assisting the Committee in getting necessary record and painstakingly compiling and presenting the data of the distribution licensees to facilitate the Committee to draw necessary inferences. We also thank Shri Pramod Burle, Regulatory Officer, for his support in the work of the Committee.

We thank all the concerned Distribution Licensees and also the Maharashtra State Load Dispatch Centre for sharing their information, which enabled the Committee to appreciate the issues, corroborate the data, and arrive at conclusions.

The Committee has tried its best to address the issues underlined in the terms of reference of the Committee, and hope that its findings will be helpful in avoidance of recurrence of the situation arising out of the upsurge in electricity demand, and consequential hike in electricity bills and consumers' complaints.

(Vijay L. Sonavane)

Member

(Satish Bapat)

Member

(Ajit Kumar Jain)

Member

LIST OF ABBREVIATIONS

Abbreviations	Expansion
AAA	AAA and Sons Enterprises Private Limited
ABR	Average Billing Rate
ADTPS	Adani Dahanu Thermal Power Station
AEML-D	Adani Electricity Mumbai Ltd (Distribution)
ATE	Appellate Tribunal of Electricity
BEST	Brihanmumbai Electric Supply and Transport Undertaking
CA	Consumer Account
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGRF	Consumer Grievance Redressal Forum
CRM	Customer Relationship Management
DEEP	Discovery of Efficient Electricity Price
DLs	Distribution Licensees
DPC	Delayed Payment Charges
DSPPL	Dhusar Solar Power Private Limited
EA, 2003	Electricity Act, 2003
ELCB	Earth Leakage Circuit Breaker
EO	Electricity Ombudsman
ERC	Electricity Regulatory Commission
FAC	Fuel Adjustment Charge
FBSM	Final Balancing and Settlement Mechanism
FOR	Forum of Regulators
GoM	Government of Maharashtra
HHU	Hand Held Units
IGRC	Internal Grievance Redressal Cell
IR	Infra-Red
LT	Low Tension
MERC	Maharashtra Electricity Regulatory Commission
MSEDCL	Maharashtra State Electricity Distribution Company Limited
MSLDC	Maharashtra State Load Dispatch Center

Abbreviations	Expansion
MTR	Mid Term Review
MYT	Multi Year Tariff
PPA	Power Purchase Agreement
RAC	Regulatory Asset Charges
RF	Radio Frequency
RINL	Reliance Innoventures Limited
R power	Reliance Power Limited
SAP	System Application and Products
SEB	State Electricity Board
SERC	State Electricity Regulatory Commission
STLF	Short Term Load Forecasting
Tembhu	Tembhu Power Private Limited
ToR	Terms of Reference
TPC-D	The Tata Power Company Limited (Distribution)
Vector Green	Vector Green Energy Private Limited
VIPL	Vidarbha Industries Private Limited

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1. Background

- 1.1** Distribution of Electricity is a Regulated Licensed Business. The Electricity Act, 2003 (EA 2003), authorizes the State Electricity Regulatory Commission (SERC) to grant License for distribution of electricity. The Act also empowers the SERC to determine the retail electricity Tariff, and the Distribution Licensee is obliged to levy the Tariff to the consumers as approved by the SERC.
 - 1.2** Maharashtra Electricity Regulatory Commission (MERC) is the SERC for the State of Maharashtra, performing its duties under the Electricity Act, 2003. The State of Maharashtra has four major electricity Distribution Licensees, namely the Maharashtra State Electricity Distribution Company Limited (MSEDCL), the Brihanmumbai Electric Supply and Transport Undertaking (BEST), Adani Electricity Mumbai Ltd (Distribution) (AEML-D), and The Tata Power Company Limited (Distribution) (TPC-D). MSEDCL is a State Government Company and is operating in two wards in the Eastern suburbs, and the BEST, an Undertaking of the Municipal Corporation of Greater Mumbai, is operating in Mumbai City area. AEML-D and TPC-D are two private Distribution Licensees, operating mainly in Mumbai Suburban area, TPC-D also has its area of supply overlapping with that of BEST.
 - 1.3** After following due regulatory process, the MERC issued Tariff Orders dated 12th September, 2018 for the above-named Distribution Licensees revising electricity Tariffs for the FY 2018-19 and FY 2019-20. Revision in Tariff was made applicable from 1st September, 2018.
 - 1.4** In the month of November 2018, there were various media reports on consumer agitations on the sudden surge in electricity bills of AEML-D's consumers in Suburban Mumbai. Taking serious note of these reports and complaints of the consumers regarding electricity bills, the Commission vide notice dated 4th December, 2018, sought explanation from AEML-D. (Volume I: Annexure -1)
 - 1.5** In response, AEML-D submitted its explanations on dated 6th December, 2018, broadly on the following lines (Volume I: Annexure-2):
 - 1.5.1** Higher electricity bills in November, 2018 were due to prolonged high temperature and high humidity levels in October, 2018, as a result, about 15% more electricity units were consumed as compared to previous month. Such
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increase in consumption pushed the residential consumers progressively to higher tariff slabs. In addition, there were unrecovered amounts of earlier Fuel Adjustment Charge (FAC), part of which was also recovered in the bills. The Commission revised the tariff with effect from 1st September 2018, as per Tariff Order dated 12th September, 2018. Although, average Tariff increase for FY 2018-19 was 0.24%, the increase varied across consumption categories. Combined impact of all these factors escalated the electricity bills of the consumers.

1.5.2 During the initial period of changeover of ownership of Distribution License from R-Infra to AEML, there was an agitation by the meter readers and other employees from 27th August, 2018 to 1st September, 2018. As actual meter readings of large number of consumers were not available, around 4.35 lakhs residential consumers were billed on average consumption (assessment) basis.

1.6 The Commission scrutinized the above explanation and took a view that prime facie, increase in billed consumption for October, 2018 was very high and required detailed enquiry. Accordingly, the Commission constituted a Fact-Finding Committee to look into, *inter alia*, the reasons for the sudden upsurge in the consumption, and examine other reasons which might have led to hike in electricity bills in Mumbai and Mumbai Suburbs, and also to recommend corrective steps, if any, to ensure that such incidences do not recur.

1.7 In the interim, vide its letter dated 7th December, 2018 (Volume I: Annexure-3), the Commission directed the AEML-D to take following measures:

- a. AMEL-D should verify metered consumption of the consumers who have been billed significantly higher than their average consumption.*
- b. If any excess billing was found out, the same should be refunded to the consumers along with admissible interest as per Regulations.*
- c. Organize special camps for addressing consumer complaints related to excessive billing. Provide adequate publicity about such camps.*

AEML-D was directed to take above steps immediately so that desired impact becomes apparent from the billing cycle beginning dated 10th December, 2018.

2. Terms of Reference of the Fact-Finding Committee

2.1 The Maharashtra Electricity Regulatory Commission vide its notification dated 10th December, 2018 (Volume I: Annexure-4) constituted a two members Fact Finding Committee, comprising of Shri. Ajit Kumar Jain (IAS Retd.) State Information Commissioner, Maharashtra, and Shri. Vijay L. Sonavane (Ex. Member, MERC), to look into the complaints of excessive bills of the Consumers of Distribution Licensees, supplying electricity in Mumbai and Mumbai Suburban Area.

2.2 Terms of Reference, as mentioned in the notification dated 10th December, 2018 are as follows: -

- i. Fact finding of the reasons for the sudden upsurge in the consumption / other reasons which might have led to increase in electricity bills in Mumbai and Mumbai Suburbs.*
- ii. Recommend corrective steps, if any, to ensure that such incidents of sudden hike in electricity bills do not recur.*

The scope of the fact-finding exercise is for the period of FY 2018-19 (April, 2018 to December, 2018), FY 2017-18 and any other past period, if found necessary.

2.3 The Commission, vide above notification directed, Adani Electricity Mumbai Ltd (Distribution), Tata Power Co. Ltd. (Distribution), Brihanmumbai Electric Supply and Transport Undertaking, and Maharashtra State Electricity Distribution Company Ltd. (Mulund and Bhandup circles) to provide necessary information and documents as required by the Fact-Finding Committee.

2.4 The Committee was expected to submit its report to the Commission, by 31st March, 2019. However, one of the Members Shri Vijay L. Sonavane, could not attend the meetings of the Committee in February and March, 2019 due to health reasons. The Committee therefore requested the Commission to appoint one more Member, and also to extend the period of the Committee by two months till 31st May, 2019. The Commission vide its Notification dated 27th March, 2019 (Volume I: Annexure -5) appointed Shri. Satish Bapat (Ex. Chief Engineer, Maharashtra State Electricity Distribution Co. Ltd.) as the third Member of the Fact-Finding Committee, and extended period of the Committee up to 31st May, 2019.

3. Working and Methodology of the Committee

3.1 Approach

- 3.1.1 In pursuance of the ToR, the Committee held discussion with the Officials of the Commission, examined the provisions of the EA 2003, and Regulations of the Commission, to understand regulatory legal framework of Tariff fixation. The Committee designed formats in which information was obtained from the DLs. The Committee held several meetings with them, and heard their submissions on the issues framed. The Committee gave opportunity to the consumers, who had registered their complaints with the Commission, to submit documents in support of their complaints.
- 3.1.2 The Committee examined the data related to upsurge in electricity demand during the reference period, across distribution licensees and corroborated with the data shared by the Maharashtra State Load Dispatch Centre (MSLDC). The Committee visited the MSLDC at Kalwa, in Thane district to understand the mechanism of load dispatch to DLs and examine their record of load dispatch during the reference period.
- 3.1.3 As the complaints received by the Commission were largely about the hike in the electricity bills of AEML-D, the Committee particularly analysed those complaints and scrutinized the record of the AEML-D to verify the action taken, to redress those complaints. The Committee also visited the office of the AEML-D and verified their record regarding the redressal of complaints. The Summary of formal meetings (Volume I: Annexure-6) of the Committee is as below: -

3.2 First Meeting: 27th December, 2018

- 3.2.1 The Committee met the Chairman MERC, to discuss the terms of reference of the Committee, and understand the expectations of the Commission from the Fact-Finding Committee.
- 3.2.2 The Committee deliberated on the approach for the Fact-Finding exercise. It scrutinized the Reply submitted by the AEML-D. The Committee also looked at the nature of complaints and listed the parameters, on which, the

Committee decided to obtain information from the DLs. Committee decided to seek following details from the DLs in Mumbai: -

3.2.3 Meter Reading:

- a) Method / technology adopted for meter reading.
- b) Whether the meters were read internally by their own staff, or was it outsourced?
- c) The number of meters read per day by a meter reader.
- d) Methodology for crosschecking the correctness of the meter readings.
- e) Process for transferring meter reading data to billing software.
- f) Method of determining average consumption if meter reading is not available.
- g) Information about Billing Cycle.
- h) Complaints regarding meters and period required for replacement of Faulty meters.

3.2.4 Levying of Fuel Adjustment Charge (FAC):

- a) Analysis and Reasons for FAC charges levied in the months of August 2018/September 2018 /October 2018/November 2018 /December 2018.
- b) Basic reasons for changes in FAC, if any
- c) Is there a delay in submission/approval of FAC charges?
- d) Table of Actual FAC recovered in month & FAC approved by MERC.

3.2.5 Meter Reading during Workers Agitation (only for AEML-D):

- a) How many consumers were assessed on average consumption basis during 5-day agitation by the Meter Readers?
 - b) Efforts of reassessment of Bills, after the agitation:
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- i) Week wise Bills corrected
- ii) Number of consumers complaints redressed and the amount credited (from 1st Sept till date)
- c) How many consumers used “Read Your Meter” option and accordingly their complaints were redressed and the amount adjusted in the subsequent bills?

3.2.6 Climatic conditions and Power Consumption:

- a) Data of daily temperature (minimum/maximum) and humidity for September, 2018 to December, 2018.
- b) Was there any correlation, which can be established between the Temperature and Humidity, and the Sale of Electricity in the licensed areas of the DLs?

3.2.7 Implementation and Effect of MTR Order: 12th September, 2018

- a) The date from which modified tariff was made actually effective. (after Modification in IT).
- b) Process of levying tariff differential (may be credit or excess charges) for those bills, which were issued in September, 2018 with earlier tariff.
- c) Do you feel that after the issue of Tariff Orders, there is a need to compute electricity bills of a few sample consumers (before & after revision), so that consumers get better idea of the impact of tariff revision. This could be published along with notice of tariff revision on the websites of the DLs for better transparency.

3.2.8 Grievance Redressal of Consumer Bills:

- a) Are the consumers aware of the Grievance Redressal mechanism of IGRC→CGRF→EO, as envisaged in the EA 2003? Has the DL made efforts in this direction, through media campaign or consumer camps etc.?

- b) What happens to a consumer who has been sent a higher bill, based on average consumption, the consumer has not represented. How does he get credit of amount wrongly billed and charged? How many such consumers were detected and their issues redressed during last 6 months (month wise).

3.3 Second Meeting Date: 25th February, 2019

- 3.3.1 The Secretariat of the Committee informed the Committee that as decided in the first meeting, all DLs in Mumbai have been directed on 28th December, 2018, to submit information to the Committee. Accordingly, all DLs have submitted their details which have been circulated to Members of the Committee.
- 3.3.2 The Committee examined the provisions of the EA, 2003 and MYT Regulations, 2015 and discussed the implication of MYT Order and MTR Order on the procurement of power by the DLs and consumer tariff. The Committee particularly analysed the provisions related to the FAC and its bearing on the unit cost of electricity supplied to the consumers.

3.4 Third Meeting: 27th February, 2019

- 3.4.1 The Committee resumed discussion on the regulatory framework of power sector and interacted with Member, and the Secretary, MERC to understand the view point of the Commission. Secretary, MERC explained in detail about Power Sector reforms and important components of Generation, Transmission and Distribution Business. Concept of FAC was also explained.
 - 3.4.2 The Committee examined the complaints of electricity consumers, received directly by the Commission, and clarification in that regard furnished by AEML-D. As clarifications on some of the complaints were not received, the Committee asked the Secretariat of the Committee to seek clarification on such complaints from AEML-D.
 - 3.4.3 The Committee also decided to give opportunity to all the complainants to submit any additional document in support of their complaints, within 15 days.
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3.4.4 The Committee decided to call DLs for interaction and presentation on their respective submissions.

3.5 Fourth Meeting: 22nd March, 2019

3.5.1 The Secretariat of the Committee informed that as directed during last meeting, complainants were requested to submit additional documents, if any, in support of their original complaints. However, no submission was received. The Committee therefore decided to consider the original complaints and verify the redressal reported by the AEML-D.

3.5.2 The Committee examined, in detail, the response of AEML-D, dated 6th December, 2018 which was filed in response to Commission's notice dated 4th December, 2018.

3.5.3 It is observed that AEML-D has stated seasonal variations in temperature, as one of the reasons for high energy bills. The Committee decided to verify this claim of AEML-D, by crosschecking with submissions of other DLs, and MSLDC data. The Committee noticed that the BEST Undertaking had not submitted details in required format; it was therefore decided to seek the details from the BEST Undertaking.

3.5.4 Following data regarding slab wise consumers submitted by AEML-D, as per the instructions issued by the Commission vide letter dated 7th December, 2018 was examined by the Committee: -.

Table 3-1: Number of consumers under Residential Category

Consumer slab	No. of consumers under Residential Category			
	October, 2018	November, 2018	December, 2018	January, 2019
0-100	660696	743714	955918	1116250
101-300	965707	966611	879292	772495
301-500	235095	191996	107847	80766
500 and above	135572	98545	60010	38544
Total	1997070	200866	2003067	2008055

From the above data the Committee observed that number of consumers in different slabs has undergone change over the period.

- 3.5.5 On examining AEML-D's submission, the Committee observed that twenty-five billing cycles of AEML-D start from 16th day of each month and end on 15th day of the following month. The Commission has approved MTR Order in Case No. 200 of 2017 on 12th September, 2018 with effect from 1st September, 2018. As revision in tariff requires changes in billing software, there could be a possibility that AEML-D could not implement revision in tariff from 12th September, 2018 itself and affected the rise in the following month. The Committee therefore decided to seek details (including sample bills) from the AEML-D about recovery of differential tariff.
- 3.5.6 The Committee further observed that for the period from 27th August, 2018 to 1st September, 2018, the AEML-D could not read the meters of consumers who were under billing cycles from 11 to 15, due to workers agitation, and average bills were issued to such consumers. The Committee decided to examine the impact of workers agitation and assessment-based billing on the number of complaints received.
- 3.5.7 The Committee also studied the FAC mechanism and the issues highlighted by the AEML-D on the same. It was decided that methodology followed by other DLs will also be studied and discussed with them. The Committee decided to study the submissions of other DLs in the next meeting.
- 3.5.8 The Committee considered temporary unavailability of Shri Vijay L. Sonavane, and felt the need of one more technical expert to be associated with the Committee. It was also felt that the Committee may not be in a position to complete its work by 31st March, 2019, as stipulated in the Notification of the Commission dated 10th December, 2018. It was therefore decided to request the Commission to appoint one more member and also extend the period of the Committee by two months upto 31st May, 2019.

3.6 Fifth Meeting: 29th March, 2019

- 3.6.1 The Commission vide its Order dated 27th March, 2019 appointed Shri Satish Bapat, Ex Chief Engineer, MSEDCL as the third Member and also extended the term of the Committee till 31st May, 2019. Accordingly, Shri Satish Bapat attended the meeting.
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- 3.6.2 The Committee once again referred to the complaints of the consumers, directions issued by the Commission to AEML-D and submissions by AEML-D as a response to Commission's notice dated 4th December, 2018.
- 3.6.3 In order to understand the implication of tariff rise vide MTR Order dated 12th September, 2018, it was decided to ask the AEML-D to simulate the electricity bills for 54 complainants, by considering its units consumed in October, 2018 but applying the tariff prevailing during August, and September, 2018.
- 3.6.4 Further, to ascertain the impact of increased consumption on migration of consumers from lower slab to higher slab, it was decided to seek analytical data representing movement of consumers in each slab to other slabs.
- 3.6.5 On the issue of average / assessed bills, it was decided to seek details from AEML-D about the process adopted while working out assessed consumption and subsequent adjustments on availability of actual meter reading.
- 3.6.6 The Committee decided to have presentation on these issues from AEML-D, and finalized the formats in which the information was to be submitted by AEML-D. The Committee directed the Secretariat of the Committee to circulate the formats and schedule next meeting on 5th April, 2019 wherein AEML-D would make presentation on the above issues.

3.7 Sixth Meeting: 5th April, 2019

3.7.1 The Committee was informed by the Secretary, that the AEML-D has submitted a presentation on the issues discussed in the last meeting, and as advised through the mail dated 1st April, 2019. AEML-D has highlighted following major factors for increase in electricity bills in the month of October, 2018 (Volume II: Annexure-4):

- a) Tariff Hike: - Although average tariff increase as per MTR Order is 0.24% for FY 2018-19, individual tariff categories have different percentage of tariff increase. There is 4 % increase in 0-100 units' slab and 1% increase in 101-300-unit slab for residential category consumers, without considering FAC. AEML-D has 70% of

residential consumers consuming electricity up to 300 units per month; they were therefore most affected by the MTR revision.

- b) Increase in Temperature: -Average Temperature in October, 2018 had increased as compared to previous year due to deficit in monsoon, causing increase in consumption. The consumers therefore shifted from lower consumption slab to higher slab. As under the telescopic tariff structure applicable to residential tariff category, higher slabs attract higher tariff, shift to higher slabs caused further increase in their electricity bills.
- c) Increase in FAC: -Short Term Power Purchase cost in the month of September, 2018 and October, 2018 is much higher than the approved rate in MTR Order, thereby increasing overall power purchase cost. Also, the Commission has allowed recovering additional amount from the consumers in post facto FAC approval. These factors have contributed to increase in electricity bills in the month of October, 2018. The officials of the AEML-D have stated that they restricted actual recoverable FAC to Rs. 0.50 per unit from November, 2018 onwards, in order to reduce the impact of higher tariffs on the consumers. This led to under recovery of Rs. 140 crores till March, 2019.
- d) Billing on Assessed Consumption: -Due to agitation by unionized employees from 27th August, 2018 to 1st September, 2018, during which period transition from R-Infra to AEML, was also underway, 4.35 lakh consumers from 11 to 15 billing cycles were billed on assessed units. On availability of actual meter readings, these bills were adjusted to reflect actual consumptions and slab benefit was also given, wherever found eligible.

3.7.2 AEML-D has also presented how the consumers in residential category have moved from one slab to another in the months of September to December, 2018. It is noted that though large number of consumers have shifted from lower slab to higher slab in the month of October, 2018, reversion from higher slab to lower slab has also been observed in subsequent months.

- 3.7.3 On the issue of correcting assessed bills, AEML-D has submitted that meters installed at consumer premises have facility of storing data for last six months. Whoever has filed complaints regarding assessed billing, the AEML-D have downloaded the stored data from meters of those consumers, and after verifying actual consumption, gave appropriate credit including slab benefits, in their electricity bills for the following months. From 4.35 lakh bills issued on assessment basis, stored data of around 35% of consumers was downloaded and used for adjusting their electricity bills as per actual consumption. It is also stated that the adjustments / corrections in assessed bills is through billing software and there is no manual intervention involved.
- 3.7.4 Committee suggested to the AEML-D to have a communication strategy for effective and transparent communication of sudden environmental changes and other factors which may have impact on the electricity bills, and also efforts being taken by AEML-D to avoid any inconvenience to consumers.
- 3.7.5 AEML- D showed the simulated data of the complaints registered with the Committee. The Committee asked AEML-D to submit its action plan if such situation arises again.
- 3.7.6 The Committee directed AEML-D to submit the following:
- (i) The details of action taken on 54 Complaints, received by the Commission.
 - (ii) Action plan to avoid such type of agitation / turbulence in future.

3.8 Seventh Meeting: 30th April, 2019

- 3.8.1 As Shri Vijay Sonavane, Member of the Committee recovered the meeting of the FFC was conducted in his presence on 30th April, 2019. All members were present. In the mean while the Committee visited the MSLDC at Kalwa, district Thane on 26th April, 2019.
- 3.8.2 The Committee discussed the submission of AEML-D regarding the rise in average temperature and its effect on the power consumption and the electricity bills. The Committee observed that the information obtained at the MSLDC during the visit of the Committee supports the submissions of
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AEML-D. It was decided to verify the same phenomenon across utilities, and also examine the process adopted by other utilities for meeting the rise in electricity demand.

- 3.8.3 The Committee discussed the issue of need to purchase Short Term Power at higher rate, and the reasons behind the failure of Vidarbha Industries Private Limited (VIPL), one of the Long-Term Power sources of AEML-D, to supply the contracted power. This increased the requirement to procure Short Term Power. The Committee decided to verify the Power Purchase Agreement (PPA) of VIPL with AEML-D including relevant penalty clauses for non-delivery of the contracted power to AEML-D. The Committee also decided to verify whether AEML-D has taken appropriate action against VIPL as per the terms and conditions of PPA for non-delivery of power.
- 3.8.4 The Committee also decided to verify month wise projections of demand, and planning of power procurement by AEML-D to meet the demand, and also actual power procured against the same, to understand the actual purchase of Short-Term Power during the reference period, which directly contributed to increase in FAC.
- 3.8.5 The Committee found out variations in methodologies, adopted by DLs in assessing average consumption, as against the provision of three months average provided in the Supply Code Regulations, 2005 of the Commission. The Committee also wanted to understand the system of cross checking of meters, in cases where abnormally high readings are noticed by the utilities. The Committee felt that it may be useful to develop a system of alerting the consumers through electronic short messages, if any abnormal rise in the power consumption is noticed. This will help the consumers in regulating their power consumption and reduce the number of billing related complaints.
- 3.8.6 The Committee decided to call utilities for making presentation on such consumer relation issues. Accordingly, the next meeting of the Committee was scheduled on 13th May, 2019. The Committee directed the Secretariat to call representatives of all the utilities for making short presentations on

above issues, and for seeking their clarification on any other issue related to ToR of the Fact-Finding Committee.

3.9 Eighth Meeting: 13th May, 2019

3.9.1 As per the directives of the Committee, representatives of all DLs namely TPC-D, BEST, MSEDCL and AEML-D appeared before the Committee and made presentations on the issues mentioned in the following paragraphs.

3.9.2 The DLs mainly covered the following issues in the presentation:

- a) Highlights of data submitted earlier to Fact-Finding Committee- meter reading process, billing cycles, process of computing assessed consumptions etc.
- b) Effect of seasonal variation in electricity consumption (statistical details of August to December, 2018 vis-a-vis previous year).
- c) Month wise information of complaints related to excess bills during August to December, 2018
- d) Power Procurement planning for meeting peak demand and failure of Long Term contracted sources to supply committed power.
- e) Reasons for variation in FAC levied in the month of August to December, 2018.

3.9.3 TPC-D Presentation: -

- a) TPC-D stated that it has started proactive features and had made aware its consumers by circulating informative letter along with electricity bills at the time of implementation of MTR Order to avoid consumers unrest. TPC-D through its dashboards share information of the tariff with consumers. Proper explanation/ guidance is given to the consumers at the customer care centre. TPC-D stated that it is usual to receive high bills complaints in the month of April/May and in the month of October/November due to temperature variation.

- b) Electricity bills are generated through SAP system. The software is adjusted in accordance with the date of implementation of MYT/MTR Tariff Order. Arrears on account of rise in tariff, in case of retrospective effect of Tariff Order, are spread over two months so as to reduce its burden on the consumers instantly.
- c) The calculation of adjustment due to new Tariff Order is shown separately on the bills. Also bill calculator facility is provided on TPC-D's website so that consumers can calculate their own bill.
- d) Meter reading of consumers is recorded through Hand Held Units (HHU), where data is stored and inserted into SAP system. System is designed in such a way that any unusual variation in the monthly meter reading (excess/less) is immediately highlighted.
- e) TPC-D suggested to the Committee that Tariff Order should be implemented with prospective effect, as billing software system requires 10-15 days for making necessary changes.

3.9.4 The Committee directed TPC-D to submit details of power procurement planning month wise and actual power purchase showing details of sources. The Committee also directed them to submit data of the impact on demand due to increase in temperature.

3.9.5 BEST in its presentation highlighted the information on the number of complaints filed with the BEST. The officials representing the BEST stated that it is quite usual to receive high bills complaints in the month of April/May and in the months of October/November due to temperature variation.

3.9.6 MSEDCL stated that it is following a software based central meter reading system covering consumers all over Maharashtra. The Customer Relationship Management (CRM) software has inbuilt feature of Credit adjustment, where adjustment in the bills is done automatically. Complaints are registered and forwarded to particular subdivision for redressal automatically.

3.9.7 The MSEDCL was requested to provide a write up on the mobile application used for billing system.

3.9.8 The Committee required the AEML-D to focus their presentation mainly on following issues:

- a) Reasons stated by VIPL for lower generation – whether these are verified by the AEML-D.
- b) Provisions in PPA relating lower generation – action taken by the AEML-D.
- c) AEML-D's action plan in case VIPL continue to generate at lower level.

3.9.9 AEML-D Presentation:

- a) AEML-D explained the basis for projection of future demand at the time of filing MYT/MTR Petitions. AEML-D takes into consideration power available from firm sources, the requirement of Short-Term Power, and the alternative arrangement in case any one of the firm power sources fails to supply contracted power.
 - b) AEML-D presented the data of number of complaints received and addressed by it along with the classification of the same.
 - c) AEML-D informed the Committee that it had issued notices to the VIPL, under contractual obligations and has not released fixed charge for the quantum of power not supplied. Also, amount to the tune of Rs 400 Cr has been deducted from their bills.
 - d) AEML-D suggested to the Committee that Tariff Order should be implemented prospectively or as per financial year as billing software system requires 10-15 days for making suitable changes. AEML-D also suggested to allow liberty to the DL to levy FAC according to the consumption pattern of the consumers.
 - e) AEML-D informed that it has executed a contract of banking of power with generators in other states so that cheaper energy will be available to the consumers in Mumbai. Under such arrangement diversity in
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electricity demand amongst the different States in the Country is effectively utilised. During low demand period of one State it can bank its surplus contracted power to other States who is witnessing high demand. And such State subsequently returns such banked energy to first State during its low demand period which may be high demand season for first State.

- f) AEML-D also shared their plan to install Smart Meters and digital payment schemes to reduce the human interface, and the complaints.

3.10 Ninth Meeting Date: 17th May, 2019

3.10.1 AEML-D in its submissions had informed the Committee that the complaints of the consumers received during the reference period were redressed, credit including slab benefit if due, was passed on through necessary corrections in the bills as per actual reading, through billing software. The Committee wanted to verify their claims and the grievance redressal process adopted by the AEML-D.

3.10.2 The Committee obtained the record of all the 12392 complaints filed during the reference period, and randomly selected 100 complaints. The Committee visited the Office of AEML-D at Bandra on 17th May, 2019 and scrutinized the bills of some of the selected consumers to verify the process of correction in the bills as per actual reading, and giving credit and the slab benefit. The Committee also checked physical record of a few sample bills of the consumers to verify the veracity of the submission of the AEML-D (Volume II: Annexure-8 and 9). The Committee found no discrepancy in software record and the physical record of the bills in terms of tariff rates, slab benefit and assessment.

3.11 Tenth Meeting: 21st May, 2019

3.11.1 The Committee met to examine all the submissions made by the DLs in light of the issues before the Fact-Finding Committee. After prolonged discussion the Committee drafted its preliminary observations and recommendations, which were then finalised in the subsequent meetings, and are mentioned in the relevant chapter, of this report.

4. Legal Frame work of Electricity Sector

4.1 Background of Legal Framework:

Electricity is concurrent subject under the Constitution of India and hence Central Government and State Government have powers to make Laws relating to the electricity.

Post-independence, development of the Electricity Sector was entrusted with respective States through the creation of State Electricity Boards (SEBs) under the Electric (Supply) Act of 1948. SEBs were expected to develop electricity networks which till then had been quite rudimentary, and add generation capacity. SEBs were broadly expected to operate on commercial principles.

By the 70s, however, many of the SEBs started incurring losses because of many factors which included direct political interference, mismanagement, poor industrial relations, and shop floor practices. Losses of the SEBs mounted. Not only did SEBs not add sufficient capacities, but many were operating their generating stations far below the optimal. This made SEBs increasingly dependent on budgetary allocations from their respective Governments reducing their ability to add generating capacity, and most importantly to carry out the periodic maintenance and upkeep of their distribution assets.

The year 2003 marked a new beginning of reforms in the Electricity Sector in India with enactment of the new Electricity Act replacing the legal framework for the sector hitherto governed by the Electric Supply Act of 1948 and the ERC Act of 1998. Its objectives of the EA 2003, as stated in the preamble were “to consolidate the laws relating to generation, transmission, distribution, trading and use of electricity and generally for taking measures conducive to development of electricity industry, promoting competition therein, protecting interest of consumers and supply of electricity to all areas, rationalization of electricity tariff, ensuring transparent policies regarding subsidies, promotion of efficient and environmentally benign policies, constitution of Central Electricity Authority (CEA), Regulatory Commissions and establishment of Appellate Tribunal and for matters connected therewith and incidental thereto”.

Clearly the main aim of the EA 2003 is to promote competition through competitive generation, captive generation with open access, inter-state and intrastate trading,

and competition in distribution through open access and/ or multiple licensees. This, along with measures such as metering, universal access, independent regulations, theft control, reduction in cross-subsidies were aimed at improving operational and financial performance of the entities in distribution and other parts of the sector.

4.2 Tariff Policy

In pursuance with section 3 of the EA 2003, the Central Government notified the Tariff Policy. According to the Act, the Central Electricity Regulatory Commission (CERC) and SERCs are to be guided by the Tariff Policy in framing its regulations. Also, the SERCs are expected to follow the principles and methodologies specified by the CERC for generation and transmission. Forum of Regulators (FoR) is expected to facilitate consistency across SERC regulations especially in distribution. The Tariff Policy recognizes that it is important to balance the requirement of providing fair and appropriate return on investment to attract investments in the sector and to ensure reasonability of user charges for the consumers. Accordingly, the policy lays out the following objectives:

- a) Ensuring availability of electricity to consumers at reasonable and competitive rates;
- b) Ensuring financial viability of the sector and attracting investments;
- c) Promoting transparency, consistency and predictability in regulatory approaches across jurisdictions and minimizing perception of regulatory risks;
- d) Promoting competition, efficiency in operations and improvement in quality of supply.

The Tariff Policy underscores the need for the distribution segment of the sector to become solvent and efficient for the realization of full potential of the development of the sector. The Electricity Regulatory Commission (ERC)s therefore need to strike a balance between commercial viability of the distribution licensees and consumer interests. Loss making utilities need to be transformed into profitable ones and efficiency in operations need to be encourage by sharing the efficiency

gains between consumers and licensees through MYT framework specified in the Act.

4.3 Multi Year Tariff Framework:

Section 61 of the EA 2003 states that the ERCs, while determining tariffs, shall be guided by the Multi-Year Tariff (MYT) principles in addition to the other guidelines, such as, determination of tariff so as to encourage competition, efficiency, economical use of resources, recovery of cost of electricity in a reasonable manner, rewarding efficiency in performance, etc.

MYT framework is defined as a framework for regulating the Generating Company or licensees over a period of time wherein the principles of regulating the returns/profits of licensees and the trajectory of individual cost and revenue elements of the Utility are determined in advance.

The concept of MYT gives an element of certainty to all stakeholders. The basic premise is that tariffs would not fluctuate beyond a certain bandwidth unless there are force majeure conditions.

The consumer would have a fair idea of what to expect in the next three to five years and the Utility would also be able to plan its business having known the principles for tariff determination for the control period.

The MERC have framed MYT Regulations, by exercising its power conferred under Section 61 and Section 62 of EA, 2003. The MYT Regulations, 2015 (which is applicable for FY 2016-17 to FY 2019-20) lay down following:

- a) The financial principles for calculating aggregate revenue requirement and expected revenue from tariff and charges;
- b) Improvement trajectory for specific variables;
- c) Annual review of performance vis-à-vis the approved forecast and categorization of variations in performance into controllable factors and uncontrollable factors;
- d) Mechanism for pass-through of approved gains or losses on account of uncontrollable factors;

- e) Mechanism for sharing of approved gains or losses arising out of controllable factors.

MYT Regulations involves following stages for Tariff determination:

- a) MYT determination for each year of the control period i.e. FY 2016-17 to FY 2019-20 through its MYT Order which needs to be issued at start of the Control Period. In present cases, MYT Orders were issued by the Commission in October/ November, 2016.
- b) Mid Term Review process which the Commission undertook performance review of first two years and revised the tariff for FY 2018-19 and FY 2019-20. In the present case, MTR Orders were issued on 12th September, 2018.

4.4 Fuel Adjustment Charge: -

The FAC mechanism has been devised in pursuance of Section 62(4) of the EA, 2003 read with various Judgments of the Appellate Tribunal for Electricity (ATE) to enable DLs to pass through variations in power purchase cost to consumers regularly during the year without waiting for tariff revision. This is beneficial to both DLs as well as the consumers. When power purchase costs decline, the FAC mechanism enables the benefit to be passed on to consumers at regular and short intervals, without the carrying cost that DLs would have to pay otherwise. Similarly, when such costs are rising, the FAC mechanism helps DLs to maintain their financial liquidity by recovering all or part of the impact without subjecting consumers to large carrying cost and a possible tariff shock at the time of the next regular Tariff revision. Except for the first month after the Tariff Order, the FAC levied by the Licensees is vetted by the Commission ex post facto. This expedites the process of pass-through of actual variations in power purchase costs. Any error found during post facto vetting is corrected by adjustment in the next month's FAC computations. The variation in power purchase costs also undergoes detailed prudence check in the subsequent Tariff proceedings. At that stage, the revenue collected through FAC is also considered in the total revenue of the DLs before determining revenue gap /surplus for the relevant year based on critical scrutiny and approval of expenditure.

Provisions in MYT Regulations, 2015 relevant to approval of FAC

Regulation 10 - provides a mechanism for pass-through of gains or losses on account of uncontrollable factors, as follows -

10.1 The aggregate gain or loss to a Generating Company on account of variation in cost of fuel from the sources considered in the Tariff Order, including blending ratio of coal procured from different sources, shall be passed through as an adjustment in its Energy Charges on a monthly basis, as specified in Regulation 48.6.

10.2 The aggregate gain or loss to a Distribution Licensee on account of variation in cost of fuel and power purchase, covered under Regulation 9.1, shall be passed through under the Fuel Adjustment Charge (FAC) component of the Z-factor Charge (ZFAC), as an adjustment in its Tariff on a monthly basis, as specified in these Regulations and as may be determined in orders of the Commission passed under these Regulations, and shall be subject to ex-post facto approval by the Commission on a quarterly basis :

Provided that the ZFAC for the first month of the first year of the Control Period shall require the prior approval of the Commission, based on prudence check;

Provided further that the Distribution Licensee shall submit, in the stipulated formats, details of the variation between expenses incurred and those approved by the Commission, and the detailed computations and supporting documents as may be required for verification by the Commission for the first month of the first year of the Control Period, for prior approval of ZFAC:

Provided also that the Distribution Licensee shall submit the details of variation in fuel costs relating to power generated from own generation Stations and cost of power procured for the first month of the first year of the Control Period, after completion of the first month.

10.3 The ZFAC component shall be applicable to the entire sales of a Distribution Licensee without any exemption to any consumer.

10.4 *The ZFAC component shall be computed and charged on the basis of actual variation in cost of fuel and power purchase relating to power procured during any month subsequent to such costs being incurred, in accordance with these Regulations, and shall not be computed on the basis of estimated or expected variations in fuel costs.*

10.5 *After approval by the Commission of the ZFAC for the first month of the first year of the Control Period, the Distribution Licensee shall submit such details, in the stipulated formats, of the variation between expenses incurred and the figures approved, and the detailed computations and supporting documents as may be required for verification by the Commission for the subsequent months of the Control Period for post-facto approval of ZFAC:*

Provided that the first quarter of the first year of the Control Period shall include the first month of the first year of the Control Period, for which prior approval of ZFAC is required:

Provided further that the Distribution Licensee shall submit the details of variation in fuel costs relating to power generated from its own generation stations and cost of power procured for the subsequent months of the Control Period on a quarterly basis within 60 days of the close of each quarter, for-post facto approval:

Provided also that the Distribution Licensee shall submit the ZFAC levied to all consumers for the preceding quarter vis-a-vis the ZFAC recoverable, along with the detailed computations and supporting documents as may be required, for verification by the Commission:

Provided also that the Distribution Licensee shall provide details of the Commission's approval of levy of ZFAC on its internet website.

10.6 *The formula for computation of the FAC component of Z-factor Charge is as follows: --*

$$\text{ZFAC (Rs crore)} = F + C + B,$$

Where,

ZFAC = Z-factor Charge component for FAC;

F = Change in fuel cost of own generation and cost of power purchase as covered

under Regulation 9.1;

C = Carrying Cost for any under recovery/over recovery, computed at the Base

Rate prevailing at the beginning of the month, plus 150 basis points;

B = Adjustment factor for over-recovery/under-recovery.

10.7 *The calculation for FAC to be charged for the month “n” is as follows:*

—

$$ZFAC_n (\text{Rs crore}) = F_{n-2} + C_{n-2} + B_{n-2},$$

Where,

F_{n-2} = Change in fuel cost of own generation and cost of power purchase for the

month “n-2”, and shall be computed as

$$F (\text{Rs. Crore}) = AFC, \text{ Gen} + AFC, \text{ PP},$$

Where,

AFC, Gen = Change in fuel cost of own generation, to be computed based on the directives and norms approved by the Commission, including heat rate, auxiliary consumption, etc.;

AFC, PP = Change in variable and/or fixed cost of power procured from other sources, which would be allowed to the extent it satisfies the criteria prescribed in these Regulations and the prevailing Tariff Order, and subject to applicable norms;

C_{n-2} = Carrying cost for any under recovery/over recovery for the month “n-2”;

$$B_{n-2}(\text{Rs. Crore}) = ZFAC_{n-4} - R_{n-2}$$

Where:

B_{n-2} = Adjustment factor for over-recovery / under-recovery for the month “n-2”;

$ZFAC_{n-4}$ = ZFAC for the month “n-4”;

R_{n-2} = ZFAC for the month “n-4” actually recovered in the month “n-2”;

10.8 The total ZFAC recoverable as per the formula specified above shall be recovered from the actual sales in terms of “Rupees per kilowatt-hour”:

Provided that, in case of unmetered consumers, the ZFAC shall be recoverable based on estimated sales to such consumers, computed in accordance with such methodology as may be stipulated by the Commission:

Provided further that, where the actual distribution losses of the Distribution Licensee exceed the level approved by the Commission, the amount of ZFAC corresponding to the excess distribution losses (in kWh terms) shall be deducted from the total ZFAC recoverable.

10.9 The ZFAC per kWh for a particular Tariff category/sub-category/consumption slab shall be computed as per the following formula: —

$$ZFAC \text{ Cat (Rs/kWh)} = [ZFAC / (\text{Metered sales} + \text{Unmetered consumption estimates} + \text{Excess distribution losses})] * k * 10,$$

Where:

ZFAC Cat = ZFAC component for a particular Tariff category/sub-category/consumption slab in ‘Rupees per kWh’ terms;

k = Average Billing Rate / ACOS;

Average Billing Rate = Average Billing Rate for a particular Tariff category/sub-category/consumption slab under consideration in 'Rupees per kWh' as approved by the Commission in the Tariff Order:

Provided that the Average Billing Rate for the unmetered consumers shall be based on the estimated sales to such consumers, computed in accordance with such methodology as may be stipulated by the Commission:

ACOS = Average Cost of Supply in 'Rupees per kWh' as approved for recovery by the

Commission in the Tariff Order:

Provided that the monthly ZFAC shall not exceed 20% of the variable component of Tariff or such other ceiling as may be stipulated by the Commission from time to time:

Provided further that any under-recovery in the ZFAC on account of such ceiling shall be carried forward and shall be recovered by the Distribution Licensee over such future period as may be directed by the Commission.

10.10 The consequential impact of decisions of higher Courts or Tribunals or Review Orders passed by the Commission on the Generating Company or Licensee shall be passed through under the 'Other Uncontrollable Cost' component of the Z-factor Charge (ZOUC) as an adjustment in the Tariff on a yearly basis for the second and fourth Years of the Control Period, as may be determined in the Order of the Commission passed under these Regulations.

10.11 The impact of change in the inter-State and intra-State transmission charges

payable by the Distribution Licensee for the second and fourth Years of the Control Period shall be passed through under the ZOUC as an adjustment in the Tariff of the Distribution Licensee on a yearly basis, as may be determined in the Order of the Commission passed under these Regulations.

10.12 *The ZOUC shall be determined based on a Petition filed by the concerned Generating Company or Licensee.*

10.13 *The consequential impact of decisions of higher Courts or Tribunals or Review*

Orders passed by the Commission on the Generating Company or Licensee, and the impact of change in the inter-State and intra-State transmission charges payable by the Distribution Licensee, for the first and third Years of the Control Period shall be addressed in the Multi-Year Tariff Order and Mid-term Review Order, respectively.”

4.5 Billing:

Section (50) of EA, 2003 empowers the Commission to specify Electricity Supply Code. Relevant portion of the EA, 2003 is extracted as under:

“The State Commission shall specify an electricity supply code to provide for recovery of electricity charges, intervals for billing of electricity charges, disconnection of supply of electricity for non-payment thereof, restoration of supply of electricity; measures for preventing tampering, distress or damage to electrical plant, or electrical line or meter, entry of distribution licensee or any person acting on his behalf for disconnecting supply and removing the meter; entry for replacing, altering or maintaining electric lines or electrical plants or meter and such other matters.”

Exercising its power, the Commission has notified “Electricity Supply Code and Other Conditions of Supply Regulations, 2005.” The relevant portion related to Billing of Consumers is as under:

“15 Billing

15.1 Intervals for Billing and Presentation of Bill

15.1.1 Except where the consumer receives supply through a pre-payment meter, the Distribution Licensee shall issue bills to the consumer at intervals of at least once in every two months in respect of consumers in town and cities and at least once in every three months in respect of all

other consumers, unless otherwise specifically approved by the Commission for any consumer or class of consumers.

15.2 Bill Details

15.2.1 The bill to the consumer shall include all charges, deposits, taxes and duties due and payable by the consumer to the Distribution Licensee for the period billed, in accordance with the provisions of the Act, these Regulations and the schedule of charges as approved by the Commission under Regulation 18.

15.2.2 The Distribution Licensee shall, upon request by the consumer, explain the detailed basis of computation of the consumer's bill.

15.2.3 Unless otherwise agreed between the Distribution Licensee and the consumer, the bill shall be in Marathi and / or in English.
14_MERC_Supply Code_Eng

15.2.4 The bill shall include, inter alia, the following information:

- a) Consumer No., name and address;*
- b) Name of office of Distribution Licensee having jurisdiction over the supply;*
- c) (i) Type of supply (i.e. single phase, three-phase LT or HT); (ii) Contract demand / Sanctioned Load;*
- d) Category of consumer (i.e. domestic, commercial etc.);*
- e) Meter No.;*
- f) Billing period (dates to be mentioned);*
- g) Previous meter reading of the billing period / cycle with date;*
- h) Present meter reading of the billing period / cycle with date;*
- i) Multiplying Factor of the meter;*

- j) Number of units (e.g. kWh, RkVAh/kVArh, kVAh, etc.) consumed during the billing period and, where relevant for determination of charges, during different time slots in the billing period; k) Maximum demands during the billing period;*
- l) Average power factor during the billing period;*
- m) Last six months consumption;*
- n) Date of the bill and due date of payment;*
- o) Billing details - The details for the current month demand and arrears shall be furnished in the bills;*
- p) Security deposit details;*
- q) Table showing the various components of applicable tariff;*
- r) Details of subsidy, if any, under Section 65 of the Act;*
- s) Mode of payment and collection facilities;*
- t) Telephone number and address of Customer Service Centre where the consumer can make a bill-related complaint;*
- u) Telephone numbers and address of the Forum constituted in accordance with the Grievance Redressal Regulations;*
- v) In case of cheques and bank drafts, the receiving authority in whose favour the amount should be drawn.*

15.2.5 A notice of disconnection to a consumer under Section 56 of the Act shall be served in the manner provided for in Section 171 of the Act: Provided that such notice may be served only where the consumer neglects to pay any sum or any charge under Section 56 of the Act: Provided further that such notice shall be served separately and shall not form part of the bill.

15.3 Billing in the Absence of Meter Reading

15.3.1 In case for any reason the meter is not accessible, and hence is not read during any billing period, the Distribution Licensee shall send an estimated bill to the consumer: Provided that the amount so paid will be adjusted after the readings are taken during the subsequent billing period(s).

15.3.2 If the meter remains inaccessible after two consecutive efforts to effect a meter reading, then in addition to any remedy available to the Distribution Licensee under Section 163 of the Act, the consumer shall be served not less than seven clear working days' notice to keep open the premises for taking the meter reading on the days stated in the notice: Provided that the notice shall also indicate the times at which the Authorised Representative shall remain present to read the meter.

15.3.3 Where the consumer fails to keep the meter accessible on the days and at the times stated in the notice in Regulation 15.3.2 above, the same shall be deemed to be a refusal of entry under the provisions of sub-section (3) of Section 163 of the Act and the consequences thereunder shall apply.

15.3.4 Without prejudice to the provisions of the Act, nothing in Regulation 15.3.3 shall apply where the consumer has provided prior intimation to the Distribution Licensee, with cogent reasons, of any temporary inaccessibility to the meter and has sought a facility for advance payment in accordance with Regulation 15.6.

15.3.5 For the purpose of this Regulation 15.3, the estimated bill shall be computed based on the recorded consumption of the last billing cycle for which the meter has been read by the Distribution Licensee.

15.4 Billing in the Event of Defective Meters

15.4.1 Subject to the provisions of Part XII and Part XIV of the Act, in case of a defective meter, the amount of the consumer's bill shall be adjusted, for a maximum period of three months prior to the month in which the dispute has arisen, in accordance with the results of the test taken subject to furnishing the test report of the meter alongwith the assessed bill.:

Provided that, in case of broken or damaged meter seal, the meter shall be tested for defectiveness or tampering. In case of defective meter, the assessment shall be carried out as per clause 15.4.1 above and, in case of tampering as per Section 126 or Section 135 of the Act, depending on the circumstances of each case.

Provided further that, in case the meter has stopped recording, the consumer will be billed for the period for which the meter has stopped recording, up to a maximum period of three months, based on the average metered consumption for twelve months immediately preceding the three months prior to the month in which the billing is contemplated.

15.5 Payment of Bills

15.5.1 The due date for the payment of a bill shall be mentioned on the bill and such due date shall be not less than twenty-one days from the bill date in the case of residential and agricultural consumers, and not less than fifteen days in the case of other consumers.

15.5.2 In case the consumer does not receive the bill or, having received the bill, has lost the bill, he shall, before the receipt of the next bill, report the same to the officer designated by the Distribution Licensee to address such cases.

15.5.3 Where the consumer visits the office of the designated officer in person, the designated officer shall, after verifying the identity of the consumer, communicate to the consumer, on the spot, the amount of the bill and due date for payment, and arrange to issue a duplicate bill within three days from the date on which the consumer reported the non-receipt or loss of bill, as the case may be:

Provided that where the consumer reports the non-receipt or loss of bill over the telephone, the designated officer may also communicate the amount of the bill over the telephone, after completion of suitable identity verification procedure:

Provided further that the non-receipt of bill or loss of bill does not excuse the consumer from discharging his obligation to make payment within the due date for payment of electricity charges.

15.5.4 A consumer who neglects to pay his bill is liable for levy of delayed payment charges and interest on arrears in accordance with relevant the orders of the Commission, appropriation of security deposit and / or disconnection of supply in accordance with the provisions of the Act and these Regulations.

15.5.5 The Distribution Licensee may offer incentives to consumers for making prompt or early payment of their bills, in accordance with the relevant orders of the Commission.

15.6 Advance Payment

15.6.1 The Distribution Licensee shall provide consumers the facility to make advance payment of charges for electricity supplied.

15.6.2 On payment of the advance amount in accordance with Regulation 15.6.1 above, the Distribution Licensee shall issue a receipt to the consumer for the amount held as advance.

15.6.3 The Distribution Licensee shall pay interest on the amount deposited by a consumer at a rate equivalent to the bank rate of the Reserve Bank of India.

15.7 Settlement of Arrears in Bill Payments

15.7.1 The Distribution Licensee may, at its discretion, allow consumers the facility of payment of arrears by way of instalments: Provided that the facility of payment of arrears by way of instalments shall not affect the liability of the consumers to pay interest and additional charges for delayed payment as per the relevant orders of the Commission from time to time, until all arrears have been cleared.”

4.6 Consumer Grievance Redressal Forum:

Section (42) of EA, 2003 specifies Duties of DLs. Relevant portion of the EA, 2003 is extracted as under:

- a) *Section 42 (5): - Every distribution licensee shall, within six months from the appointed date or date of grant of licence, whichever is earlier, establish a forum for redressal of grievances of the consumers in accordance with the guidelines as may be specified by the State Commission.*
- b) *Section 42 (6): - Any consumer, who is aggrieved by non-redressal of his grievances under sub-section (5), may make a representation for the redressal of his grievance to an authority to be known as Ombudsman to be appointed or designated by the State Commission.*
- c) *Section 42 (7): - The Ombudsman shall settle the grievance of the consumer within such time and in such manner as may be specified by the State Commission.*
- d) *Section 42 (8): - The provisions of sub-sections (5), (6) and (7) shall be without prejudice to right which the consumer may have apart from the rights conferred upon him by those sub-sections.*

In exercise of the powers conferred on it by sub-sections (r) and (s) of Section 181 read with sub-sections (5) to (7) of Section 42 of the EA, 2003 (36 of 2003) and all other powers enabling it in this behalf, the Commission has notified “*Maharashtra Electricity Regulatory Commission (Consumer Grievance Redressal Forum & Electricity Ombudsman) Regulations, 2006.*”

These regulations also provide Guidelines to the DLs in the State for establishing a three-tier system i.e. Internal Grievance Redressal Cell (IGRC), Consumer Grievance Redressal Forum (CGRF) and Electricity Ombudsman (EO) for redressal of grievances of consumers and for the appointment of the EO by the Commission.

These regulations provide for making representation against non-redressal of grievances of consumers and the time and manner of settlement of grievances by the EO and for matters incidental and ancillary thereto.

Basic Principles underlying CGRF and EO

Basic Principles of formation of CGRF and EO are as follows:

- a) It shall protect the interest of consumers;
- b) It shall inform consumers of their rights;
- c) It shall facilitate and expedite the redressal of grievances;
- d) It shall ensure that consumers can also have a remedy in the event of failure or delay on the part of the DLs in redressing their grievances.

5. Submission of AEML-D and Other Distribution Licensees

5.1 AEML-D's submission dated 6th December, 2018

In its reply to the notice of the Commission dated 4th December, 2018, the AEML-D primarily highlighted the following reasons for increase in Electricity bills in October, 2018.

5.1.1 MTR Tariff Order:

- a) Tariffs were revised as per MTR Tariff Order in Case No 200 of 2017 dated 12th September, 2018. Even though the average increase in tariff for all categories is 0.24% for FY 2018-19, it has translated to 4 % increase in 0-100 unit's slab and 1% increase in 101-300-unit slab for residential category consumers without considering FAC.
- b) About 70% consumers (Numbering 1626403) of the total residential consumers (single phase plus three phase) of AEML-D out of a total of 1997070 number of residential connections are in the bracket of up to 300 units a month; the tariff revision impacted these consumers more.

5.1.2 Increase in consumption due to poor Monsoon and High temperature in October, 2018:

- a) Monsoon in 2018 has been particularly deficient, because of which the months of September and October, 2018 in particular have registered higher than usual temperature and humidity. The Average Temperature in October, 2016 was 27.7 Degrees, which increased to 29.1 Degrees in October, 2017 and further to 31 Degrees in October, 2018. A rise of one degree in temperature raises the electricity demand by 40-50 MW in AEML-D's area of supply. Category-wise consumption growth between September, 2018 and October, 2018 significantly increased (by more than 100 MU or about 15%).
- b) Residential consumers are subject to telescopic tariff structure; therefore, surge in consumption pushes them to higher slabs which attract higher tariff. This led to higher billing as increased consumption was billed in higher tariff slabs. In AEML-D area, out of total about 20 lakh residential consumers, nearly 1,10,000 consumers shifted from

slabs of 0-100 and 101-300 to higher slabs of 301-500 units and >500 units. In fact, most of the consumers moving to 301-500 units and >500 units slab in October, 2018 belonged to 0-100 units' slab in September, 2018. This shift in consumption in the month of October, 2018 is the salient reason of increase in electricity bill of residential consumers.

- c) MTR Order applicable w.e.f. 1st September, 2018 was implemented on 22nd September, 2018 after completing necessary changes in billing system. However, by this time, bills for about 16 lakh residential consumers had already been issued, containing consumption for the period from 1st September, 2018 onwards, at the old tariff rates. Hence, after implementation of the Tariff Order, those bills had to be revised retrospectively, and differential amount was billed in October 2018, thereby increasing the billing amount of October, 2018 of those consumers.

5.1.3 Increase in FAC:

- a) The FAC charged in September 2018, October 2018 and November 2018 pertain to the power purchase cost of July 2018, August 2018 and September, 2018 respectively. The Short-Term power purchase rate approved in the MTR Order is Rs. 3.50 per unit, while the actual Short-Term power purchase rate has been as high as Rs. 6.31 per unit in September, 2018.
- b) Incidence of higher consumption and consequently higher purchase of power in month of October, 2018 is not unique but this time, the purchase quantum through the exchange increased due to concurrent reduction in supply of power by VIPL to AEML-D.
- c) Data for Month-wise purchase of power from April 2017 to November 2017 and April 2018 to November 2018, for all Mumbai Licensees shows that October purchase is almost as high as power purchase in peak summer month of May. Further, in a break-up of AEML-D's source-wise purchase, October, 2018 purchase of Short-Term power has considerably increased over than October, 2017.
- d) To avoid higher exchange prices AEML-D has entered in to banking

arrangement. Therefore, November 2018 onwards the cost of Short-Term power purchase by AEML-D will be reduced which would give relief to the consumers in the form of FAC reduction.

- e) The Commission has approved additional FAC recovery of Rs. 28.34 crore for December, 2017 to March, 2018 Quarter, mainly due to non-consideration of Imbalance Pool Quantum and Cost, which pushed up the actual weighted average power purchase cost and resulted in additional FAC. AEML-D has phased out the above recoveries over a period of three months, it is still leading to increase in FAC and corresponding increase in bill amount.
- f) Due to the methodology of MERC of not considering both Imbalance Pool Quantum and cost, FAC for the month of September, 2018 (costing month, with November, 2018 being billing month) worked out to about 68 paise per unit, which is fairly high leading to higher billing.

5.1.4 Average Billing vs. Actual Meter Reading:

- a) AEML-D strictly follows the provisions of EA 2003 and Supply Code Regulations, 2005 with regard to assessment of consumption in case actual meter reading is not available due to any reason. Assessment of reading is required to be carried out due to reasons of door lock, inability to read for any other unavoidable reason, dangerous board wiring, etc.
- b) However, at the time of closing of R Infra-AEML transaction on 29th August, 2018, assessment was required on a comparatively larger scale for billing cycles between 27th August, 2018 to 1st September, 2018 on account of mass agitation by the concerned employees. Around 4.35 Lakh residential consumers were billed on assessed consumption basis, due to non-availability of meter reading.
- c) Subsequently AEML-D successfully resolved the agitation and normalized the operations. AEML-D pro-actively appealed to the consumers to provide meter reading photographs and corrected the assessed bills based on the reading provided. Due date for all consumers was extended by six days so as to prevent Delayed Payment

Charges (DPC) and disconnection. As a result, about 40,000 consumers whose bills were based on assessment were adjusted and credit, based on actual reading was given in the bill for the month of October 2018. From October 2018, all consumers are being billed on actual reading basis, except in cases where assessment is required in normal course of business.

- d) In addition to the own initiative of adjusting bills of about 40,000 consumers as discussed above, AEML-D has also resolved 12392 high billing complaints between 1st October, 2018 to 30th November, 2018. Out of these complaints, the meters were sent for lab testing in about 2000 cases and, only 35 cases, the meters were found to be beyond accuracy limits. In rest of the cases, the consumers only perceived the meters to be running faster.

5.1.5 AEML-D has taken following steps to dispel high billing perception:

- a) W.e.f. 30th November, 2018, apart from its existing customer's touch-points, AEML-D has also taken additional measures to address the bill related issues, which includes:
- (i) Designated Kiosks at eight Customer Care Centres, spread across AEML-D's entire distribution area;
 - (ii) Distinct email id has been circulated for complaint resolution pertaining to energy bill queries; Priority channel at their 24 x 7 help line 19122.
 - (iii) Customer awareness through sustained communication, using Print Media, Social Media- Twitter & Facebook;
 - (iv) Fliers distributed along with the Energy Bills.

5.1.6 Steps taken by Adani Group to resolve inherited legacy issues: -

- a) Prior to taking over the business, from R-Infra, the distribution business had been suffering from various issues, which were promptly resolved by the new Management, immediately on take-over. These are highlighted below:
-

- b) Pending Fault repairs: Upon takeover on 29th August, 2018, AEML-D inherited 4678 pending HT and LT network faults. These had not been attended to by the erstwhile management due to material and cash shortage, that the business was grappling with. AEML-D attended to and repaired almost 85% of the total outstanding faults (about 3990 nos.) in the months of September, 2018 to November, 2018, which has significantly improved network availability and ensured faster restoration of supply in the event of breakdowns.
- c) Call Centre has seen an improvement in Service Level by 28% in comparison to August, 2018:
 - i) Improvement in Call Centre Network & SIP Bandwidth;
 - ii) Resolution of Commercial Issues pertaining to the outsourced Call Centre agency.
- d) Direct access to Top Management: Customers can send mails to the AEML-D CEO's Email ID, which are directly addressed by consumer service cell under CEO Office.
- e) Large number of pending purchase Orders were cleared, which expedited capital expenditure as well as repair works and business operations.

5.2 The Commission vide its letter dated 7th December 2018, directed AEML-D to take following steps immediately so that desired impact becomes apparent from the next billing cycle beginning 10th December, 2018 and directed to submit the compliance on fortnight basis:

- a) *AEML-D should verify metered consumption of the consumers who have been billed significantly more on their average consumption.*
- b) *If any excess billing was found out, the same should be refunded to the consumers along with admissible interest as per Regulations.*
- c) *Organize special camps for addressing consumers complaints related to excessive billing. Provide adequate publicity about such camps*

5.3 As per the directives given by the Commission, AEML-D has submitted fortnight compliance report (Volume II: Annexure -2) as follows:

5.4 Compliance as on 22nd December, 2018 vide letter dated 2nd January, 2019:

5.4.1 AEML-D submitted that entire consumer base is spilt in 25 cycles for the purpose of meter reading and billing. The 1st cycle reading starts on 16th of a particular month and 25th cycle reading on 15th of the subsequent month. On account of workers agitation between 27th August, 2018 to 1st September, 2018, total 435230 consumers falling in 11th to 15th cycles were billed on assessed consumption, instead of actual meter reading,

5.4.2 AEML-D has verified metered consumption of the consumers who were billed on assessed consumption and has taken following actions:

5.4.3 Proactive slab benefits were passed to 38532 Consumers in September, 2018 billing Month.

5.4.4 Slab benefit to 193036 consumers was given in December, 2018 billing month. The above refunds pertain to principal amount only. The interest component corresponding to the same would be reflected in the subsequent billing cycle, post verifying the receipt of payment of August, 2018 bill which was assessed. Details are provided in the table below:

Table 5-1: Details of assessed consumers

Sr No	Particulars	Count	Value (Rs Cr)
1	No. of Customers estimated (All Categories)	435230	
2	Non- Residential Customers	57747	
	Non-Residential Customer's bills Amended	5223	0.78
3	Residential Customers	377483	
4	Details of Slab benefit based on actual meter reading		
a	Slab benefit given in Sep-18 Billing	38532	3.99
b	Slab benefit being given in Dec-18 Billing	193036	1.44
c	Customers where actual metering reading was more than the estimated amount (i.e. assessment was on lower side)	145915	

5.4.5 Cycle wise distribution of benefits being given in December, 2018 billing was as below:

Table 5-2: Cycle wise distribution of benefits being given in December, 2018 billing

Category	Cycle No	Total Consumers	Credit Nos	Credit Amount (Rs)
Residential 3 Ph	11	8021	5195	791010
Residential 1 Ph	11	64995	34217	2221730
Residential 3 Ph	12	7143	4658	710918
Residential 1 Ph	12	63128	34403	2352195
Residential 3 Ph	13	9541	7910	992924
Residential 1 Ph	13	56717	32119	2071728
Residential 3 Ph	14	7681	5443	849802
Residential 1 Ph	14	57525	33857	2181632
Residential 3 Ph	15	5388	3478	419691
Residential 1 Ph	15	58812	32476	1841036
Total		338951	193036	14432666

5.4.6 AEML-D had set up eight special camps to address consumer concerns across all five divisional locations. Also, a dedicated e-mail id: billsupport.aeml@adani.com is created and shared with customers to address their concerns. Further, the information pertaining to setting up of camps and creation of dedicated-mail id was also shared through print media, social media and AEML-D website.

5.5 Compliance as on 6th January, 2019 vide letter dated 8th January, 2019:

5.5.1 In continuation to earlier compliance report, AEML-D had provided the status pertaining to verified meter consumption for these 435230 consumers as below:

Table 5-3: Details of Slab benefit given to consumers as on 6th January, 2019

Sr No	Particulars	Count	Value (Rs Cr)
1	No. of Customers estimated (All Categories)	435230	
2	Non- Residential Customers	57747	
3	Residential Customers	377483	
4	Details of Slab benefit based on actual meter reading		
A	Slab benefit given in Sep-18 Billing	38532	3.99

Sr No	Particulars	Count	Value (Rs Cr)
B	Slab benefit being given in Dec-18 Billing out of 193036 consumers	162723	1.29
C	Balance assessment under processing	30312	
D	Customers where actual metering reading was more than the estimated amount (i.e. assessment was on lower side)	145915	

5.5.2 Cycle wise distribution of benefits given in December, 2018 (Out of 193036 consumers) billing was as below:

Table 5-4: Cycle wise distribution of benefits given as on 6th January, 2019

Category	Cycle No	Credit Nos	Credit Amount (Rs)
Residential 3 Ph	11	4297	713232
Residential 1 Ph	11	30204	1968649
Residential 3 Ph	12	4079	667627
Residential 1 Ph	12	30098	2132796
Residential 3 Ph	13	6328	919409
Residential 1 Ph	13	27654	1916004
Residential 3 Ph	14	4684	799803
Residential 1 Ph	14	26469	1762500
Residential 3 Ph	15	2852	397178
Residential 1 Ph	15	26058	1655960
Total		162723	12933158

5.5.3 Refunds pertain to principal amount only. The interest component corresponding to the same would reflect in the subsequent billing cycle, post verifying the receipt of payment of August, 2018 bill which was assessed.

5.5.4 AEML-D has continued with special camps to address consumer's complaints and dedicated E Mail Id. The statistical data as on 6th January, 2019 is as follows:

Table 5-5: Statistical data of special camps as on 6th January, 2019

E-mail facility		Special camps	
Complaints received (Nos.)	3111	Consumers visited (Nos.)	3921
Response sent (Nos.)	3111	Grievance resolved (Nos.)	3743
		Resolution in process (Nos.)	178

5.6 Compliance as on 21st January, 2019 vide letter dated 28th January, 2019

5.6.1 With respect to the earlier report submitted vide letter dated 8th January, 2019; assessment of credit for 30312 consumers was under processing, out of which credit for 1398 consumers has been processed. Cycle wise breakup is given below:

Table 5-6: Cycle wise distribution of benefits given as on 21st January, 2019

Category	Cycle No	Credit Nos	Credit Amount (Rs)
Residential 3 Ph	11	6	7183
Residential 1 Ph	11	33	5227
Residential 3 Ph	12	3	741
Residential 1 Ph	12	15	1581
Residential 3 Ph	13	3	398
Residential 1 Ph	13	8	420
Residential 3 Ph	14	4	5415
Residential 1 Ph	14	1305	82688
Residential 3 Ph	15	2	773
Residential 1 Ph	15	19	11248
Total		1398	115674

5.6.2 The interest for the credit cases (where the payment is received) is being passed in the electricity bill for the month of January, 2019.

5.6.3 AEML-D has continued with special camps to address consumer's complaints and dedicated E Mail Id. The statistical data as on 20st January, 2019 is as follows:

Table 5-7: Statistical data of special camps as on 21st January, 2019

E-mail facility		Special camps	
Complaints received (Nos.)	3816	Consumers visited (Nos.)	4456
Response sent (Nos.)	3816	Grievance resolved (Nos.)	4310
		Resolution in process (Nos.)	146

5.7 Compliance as on 5th February, 2019 vide letter dated 9th February, 2019

5.7.1 In continuation to the earlier report submitted vide letter dated 28th January, 2019, further credit for 1337 consumers has been processed. Cycle wise breakup is given below:

Table 5-8: Cycle wise distribution of benefits given as on 5th February, 2019

Category	Cycle No	Credit Nos	Credit Amount (Rs)
Residential 3 Ph	11	402	39091
Residential 1 Ph	11	560	50837
Residential 3 Ph	12	6	2686
Residential 1 Ph	12	36	25417
Residential 3 Ph	13	2	315
Residential 1 Ph	13	72	106921
Residential 3 Ph	14	14	7245
Residential 1 Ph	14	199	66932
Residential 3 Ph	15	2	71
Residential 1 Ph	15	44	54233
Total		1337	353748

5.7.2 For the interest for the credit cases (where the payment is received), till 5th February, 2019, interest has been passed on to 1.39 lakh consumers amounting to Rs.3.02 lakhs.

5.7.3 AEML-D has continued with special camps to address consumer's complaints and dedicated E Mail Id. The statistical data as on 5th February, 2019 is as follows:

Table 5-9: Statistical data of special camps as on 5th February, 2019

E-mail facility		Special camps	
Complaints received (Nos.)	4169	Consumers visited (Nos.)	4846
Response sent (Nos.)	4169	Grievance resolved (Nos.)	4681
		Resolution in process (Nos.)	165

5.8 Compliance as on 20th February, 2019 vide letter dated 25th February, 2019

5.8.1 In continuation to the earlier report submitted vide letter dated 9th February, 2019, further credit for 3315 consumers has been processed. Cycle wise breakup is given below:

Table 5-10: Cycle wise distribution of benefits given as on 25th February, 2019

Category	Cycle No	Credit Nos	Credit Amount (Rs)
Residential 3Ph	11	252	25291
Residential 1 Ph	11	485	72319
Residential 3 Ph	12	311	25255
Residential 1 Ph	12	498	188637
Residential 3 Ph	13	484	23162
Residential 1 Ph	13	290	59935
Residential 3 Ph	14	135	7588
Residential 1 Ph	14	404	88718
Residential 3 Ph	15	109	6094
Residential 1 Ph	15	347	78403
Total		3315	576033

5.8.2 AEML-D has continued with special camps to address consumer's complaints and dedicated E-mail Id. The statistical data as on 20 February, 2019 is as follows:

Table 5-11: Statistical data of special camps as on 25th February, 2019

E-mail facility		Special camps	
Complaints received (Nos.)	4432	Consumers visited (Nos.)	5086
Response sent (Nos.)	4432	Grievance resolved (Nos.)	5042
		Resolution in process (Nos.)	44

5.8.3 AEML-D has submitted the statistical information of special camps arranged to address grievances of consumers:

Table 5-12: Summary statistical information of special camps

Information as on	Footfall	Differential	Differential no. of days	Footfall per Day
06/01/2019 (from 01/12/2018)	3921	3921	37	106
20/01/2019	4456	535	15	36
05/02/2019	4846	390	16	24
Present report	5086	240	16	15

5.8.4 In view of the negligible footfall of consumers in the special camp as mentioned above, AEML-D has closed these special camps w.e.f 1st March, 2019. The special E-mail facility is available to the consumers.

5.9 Compliance as on 27th March, 2019 vide letter dated 28th March, 2019

- 5.9.1 In continuation to the earlier report submitted vide letter dated 25th February, 2019, further credit of Rs. 0.04 Cr for 3157 consumers has been processed. Slab benefit has been passed on to 210463 consumers amounting to Rs. 5.43 crore and there is no further credit due.
- 5.9.2 For the interest for the credit cases (where the payment is received), interest of Rs.0.03 crore is passed on to 141721 consumers and there is no further interest due.
- 5.9.3 Special camps have now been closed. However, the special e-mail facility billsupport.aeml@adani.com continues to be available to the consumers.
- 5.9.4 Slab benefit was not passed to 13814 consumers having credit amount lower than Rs 1 and to 7291 consumers due to vigilance cases/ move out cases.
- 5.9.5 From the table above it is observed that slab benefit was passed on to 210463 consumers amounting to Rs. 5.43 crore out of 4.35 lakh consumers billed on assessed bill in the month of August, 2018.

5.10 The Committee sought information from AEML-D about billing cycles, area covered under the same, procedure for issuance of the bill for overlapping period, number of complaints received at various forums etc via mail dated 26th March, 2019. In response to that mail AEML-D submitted the following information to the Committee vide letter dated 29th March, 2019 (Volume II: Annexure-3):

- 5.10.1 AEML-D's license area is divided into five divisions. In order to cover all the consumers, meter reading takes place at different places across five divisions simultaneously every day (except on Sunday and on holidays). Thus, different set of consumers across the five divisions are covered under a single cycle. In other words, AEML-D's distribution area is not divided linking them to particular cycle and is almost evenly covered under each billing cycle i.e. from 1st to 25th. Generally, billing cycle starts by 16th of every month and ends by 15th of next calendar month. 'Reading to Invoicing' is generally done within 3 working days.

5.10.2 AEML-D stated that as the tariff was applied retrospectively from 1st September, 2018, differential amount between the tariffs was billed in the subsequent month and it was separately highlighted in the bill as “Important Message”. AEML-D submitted the sample cases of overlapping of tariff as follows:

- a) New tariff rates came into effect from 1st September, 2018 as per the Order dated 12th September, 2018. Thus, there were 12 cycles of August, 2018 billing month wherein part of consumption fell in August, 2018 calendar month and rest in September, 2018 calendar month. Similarly, there were 12 cycles of September, 2018 billing month wherein part of consumption fell in August, 2018 calendar month and rest in September, 2018 calendar month, as shown in the table below

Table 5-13: Sample cases of overlapping of tariff

Billing Month	Reading Start	Reading End	Overlapping Cycles Nos
August-2018	14/08/2018	12/09/2018	14 to 25 (12 Nos)
September-2018	14/09/2018	13/10/2018	01 to 12 (12 Nos)

- b) Sample 1 (For August, 2018 Overlapping Cycles):

- i) Consider a Consumer pertaining to Cycle 19: This consumer was billed for consumption between 6th August, 2018 to 5th September, 2018 with respect to Old Tariff in August, 2018 billing month for which the Meter Reading was taken on 5th September, 2018. The MTR Order was issued on 12th September, 2018 and therefore in this bill, the consumer was billed as per Old Tariff even for his September, 2018 consumption days.
- ii) Next Meter Reading for September, 2018 billing month was taken on 6th October, 2018. For this, the consumer was billed as per New Tariff. Also, arrears (adjustments) were levied in this particular bill by computing the pro-rata August, 2018 consumption through:

- Old tariff between 6th August, 2018 to 31st August, 2018

- New tariff between 1st September, 2018 to 5th September, 2018

c) Sample 2 (For September, 2018 Overlapping Cycles):

i) Consider a Consumer pertaining to Cycle 08: This consumer was billed for consumption between 23rd August, 2018 to 22nd September, 2018 w.r.t:

- Old tariff between 23rd August, 2018 to 31st August, 2018.
- New tariff between 1st September, 2018 to 22nd September, 2018.

5.10.3 AEML-D submitted the information about the Complaints received as follows: -

Table 5-14: Details of Complaints received

Sr No	Source	Type	Nos
1	FFC	Billing / Consumption Related	46
		Others	4
		Sub-total	50
2	CGRF	Billing / Consumption Related	6
		Others	13
		Sub-total	19
3	Ombudsman	Billing / Consumption Related	1
		Others	17
		Sub-total	18
4	AEML (Special Camps)	Billing / Consumption Related	5086
	AEML (E-Mail: Billing Support)		5228
		Sub-total	10314
5	Total		10401

5.10.4 AEML-D in response also submitted the summary of number of consumers (belonging to different cycles) who had been billed on estimation basis in accordance with the Supply Code Regulations, 2005 and SOP Regulations, 2014 as under:

Table 5-15: Normal trend of number of consumers billed on accessed basis monthly

Billing Month	October-2018	Billing month	November-2018
Cycle	Count	Cycle	Count
1	1170	1	1123
2	1225	2	1103
3	1342	3	1128
4	1090	4	989
5	1130	5	1036
6	1006	6	1076
7	1219	7	1333
8	1075	8	1299
9	1223	9	1371
10	1344	10	2634
11	1427	11	2789
12	1209	12	2760
13	1268	13	2440
14	1299	14	2928
15	1212	15	2291
16	1351	16	2836
17	1216	17	3135
18	1346	18	2608
19	1520	19	2834
20	1480	20	2674
21	1284	21	1520
22	1514	22	1305
23	1476	23	1214
24	1513	24	1259
25	1522	25	1537
33	724	33	55
35	32	35	2
Grand Total	33217	Grand Total	47279

5.11 As directed by the Committee vide mail dated 1st April, 2019, AEML-D has submitted the detail analysis of 54 registered complaints and factors for increase in FAC (Volume II: Annexure-5) as follows:

5.11.1 Complaints Summary: -

- a) Out of the list of 54 complaints, complaint by MLA Shri Mangesh Kudalkar was not received by AEML-D. Four other complainants did not provide their Consumer Account (CA) number in their complaints.

- i) Shri. Dhanesh Jain had initially made the complaint without CA number but later clarified through mail that he was not aware of the revision in tariffs and therefore the matter is resolved.
 - ii) Shri. Rajan Madan had not provided CA number or any his contact details, so it was not possible to respond to the complaint.
 - iii) Shri. Suresh Krushnarao Patil had general queries on revision in tariff and tariff setting process and has not provided his CA number.
 - iv) Shri. Vitthalrao Gaikwad (General Secretary, MEWU) has raised general issues.
- b) AEML has provided the details of actual bills of rest 49 consumers (actuals for October, 2018, September, 2018 and August, 2018 along with simulated bills considering October, 2018 consumption and tariffs prevailing in August, 2018 and September, 2018) in the prescribed format. Variation between actual bill for October, 2018 and simulated bills for September, 2018 and August, 2018 (considering the consumption for October, 2018) was also provided in prescribed format. It is seen that energy charges and wheeling charges were low in August, 2018, which increased in September, 2018 and October, 2018 due to upward revision in energy charges and wheeling charges post tariff revision. Regulatory Asset Charges (RAC) were high in August, 2018, which reduced in September, 2018 and October, 2018 due to reduction in RAC post tariff revision. FAC vary from month to month depending upon variation in the power purchase price.

5.11.2 FAC Justification: -

- a) AEML-D computes FAC in accordance with Regulation 10.2 of MYT Regulations, 2015 and charges to its consumers in every billing month. FAC charged to consumers is submitted to the Commission on quarterly basis for approval on post facto basis. The difference between the approved power purchase cost (weightage average of different sources) and the actual power purchase cost for a month manifests itself as FAC for the month. FAC for the n^{th} month is charged to consumers in $(n+2)$

th month as per MYT Regulations, 2015. Category wise per unit FAC to be charged to different consumers is derived in accordance with MYT Regulations, 2015. The average power purchase rates approved for FY2018-19 in AEML-D's MYT Order in Case No. 34 of 2016 and MTR Order in Case No. 200 of 2017 are as under:

Table 5-16: The average power purchase rates approved in MYT/MTR Order

Source / (Rs. PU)	MYT Order	MTR Order
DTPS	4.21	3.86
VIPL	4.38	4.47
DSPPL	10.31	10.31
New Solar		3.53
Existing Non-solar	5.21	5.18
New Non-solar		3.45
Short Term	3.14	3.50
Surplus sales		(3.59)
Base Rate	4.32	4.09

Note: FAC from April 18 to June 18 was computed considering approved rate of Rs. 4.32/kWh and from July 18 onwards, FAC was computed considering approved rate of Rs. 4.09/kWh.

- b) Reduction in base power purchase rate - As seen from above table, approved rate of power purchase has reduced to Rs. 4.09 per unit from Rs. 4.32 per unit, which resulted in minimum FAC of 23 Paise per unit in addition to prevailing power procurement cost variation.
- c) Exclusion of quantum and cost of purchase from Imbalance Pool –
 - i) AEML-D procures power from existing long-term sources and short-term sources to meet its demand in license area. Any deviation between demand and availability is met from Imbalance Pool. However, MSLDC has been issuing the provisional Final Balancing Settlement Mechanism (FBSM) bills for different months much later. AEML-D used to compute FAC by considering quantum and cost of power procurement from Pool on provisional basis, in absence of FBSM bills from MSDLC. Till third quarter of FY 2017-18, the Commission had also considered the quantum and cost of

power procurement from Pool on provisional basis while approving FAC on post facto basis. From fourth quarter of FY 2017-18, the Commission changed its methodology of approving FAC and computed FAC without considering quantum and cost of Imbalance Pool. Due to this, the actual weighted average power purchase rate for the month increased, thus increasing the computed FAC.

- ii) The Commission, in the post facto approval letter dated 24th October, 2018, had allowed AEML-D to recover Rs. 28.34 Crore along with carrying cost in the next billing cycle. Also, the Commission, in the post facto approval letter dated 14th November, 2018, had allowed AEML-D to recover Rs. 25.91 Crore along with carrying cost in the next billing cycle.
- iii) In order to keep the impact of these amounts low on FAC, AEML-D had spread these amounts over three months for recovery. However, due to the change in methodology of computation of FAC, the stand alone FAC for the month also increased.
- iv) AEML-D has entered into banking transaction w.e.f. October, 2018 onwards. Since banking transaction is similar to an FBSM transaction, where energy drawn from the Pool is consumed by consumers, without a corresponding cost implication in the same month, due to unavailability of bills, AEML-D has not considered the quantum and cost of banking for computation of FAC from October, 2018 onwards.
- d) Lower availability of Power from VIPL - While approving the average power purchase rate in MYT / MTR Order, the Commission had considered the quantum of purchase from VIPL at 85%. However, the actual availability of power from VIPL has been significantly low (for FY 2018-19, the availability of VIPL had been 46.5% only). Due to shortfall of energy from VIPL, AEML-D has to procure power from short term sources at higher rates, which increases FAC.
- e) Higher cost of power purchase from Short Term sources – The Commission had considered rate of Short-Term power purchase at Rs. 3.50 per unit for FY 2018-19 at the same level as that of Short-Term

power purchase rate in first half of FY 2017-18. However, in reality the actual short-term prices for purchase from power exchange and bilateral sources have increased significantly, resulting in increase in FAC.

- f) AEML-D has computed theoretical FAC for each month from April, 2018 by considering
- i) Scenario I - The quantum and cost of power from Imbalance Pool / Banking, in addition to quantum and cost of power from other sources i.e. earlier method of computing FAC.
 - ii) Scenario II - Quantum and cost of power from VIPL considering 85% availability every month in addition to quantum and cost of power from Imbalance Pool / Banking and other sources (Additional units from VIPL adjusted in Short term sources / banking)
 - iii) Scenario III - Considering the cost of short-term sources / banking at Rs. 3.50 per unit, in addition to quantum and cost of power from VIPL with 85% availability every month and quantum and cost of power from Imbalance Pool / Banking (Additional units from VIPL adjusted in Short term sources / banking)

The per unit FAC computed by AEML-D from April, 2018 and theoretical FAC computed in the above scenarios are as under:

Table 5-17: Computation of FAC

Particulars / (Rs. PU)	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19
FAC as per MYT Regulations, 2015	0.33	0.50	0.24	0.56	0.18	0.68	0.90	0.70	1.76	0.74
FAC charged by AEML-D*	0.33	0.50	0.24	0.56	0.18	0.68	0.50	0.50	0.50	0.50
Scenario I	0.33	0.50	0.20	0.39	0.14	0.61	0.72	0.63	1.11	0.45
Scenario II#	0.36	0.41	0.20	0.32	0.25	0.66	0.35	0.41	0.94	0.35
Scenario III	0.13	0.00	0.08	0.32	0.24	0.20	-0.21	0.20	0.73	0.35

Note: FAC in December, 2018 is significantly high compared to other months because of Rs. 24.92 Crore of fixed cost of FBSM paid to MSEDCL.

**AEML-D has charged FAC of Rs. 0.50 per unit from October, 2018 onwards in order to keep the impact on FAC low. The under recovery in FAC due to restricting FAC to Rs. 0.50 PU till January, 2019 is Rs. 140 Crore.*

#The FAC with VIPL at 85% availability in Scenario II works out to be more than the FAC in Scenario I in April,2018, July,2018 and September,2018 as the short-term purchase rates were lower than VIPL power purchase rates in those months.

g) Steps taken by AEML-D for reducing the impact of FAC on consumers

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The following steps were taken by AEML-D to reduce the impact of FAC on consumers.

- i) In order to keep the impact of recovery of additional amounts of Rs. 28.34 Crore and Rs. 25.91 Crore low on FAC, AEML-D had spread the recovery of these amounts over three months, instead of recovering it in one month as directed by the Commission.
- ii) AEML-D charged FAC of Rs. 0.68 per unit in September, 2018. This contributed to significant increase in electricity bill of consumers in September, 2018, resulting in large public discontent.
- iii) The FAC computed from October, 2018 onwards were even higher than Rs. 0.68 per unit. Charging such higher FAC would have resulted in further public discontent. Therefore AEML-D has restricted FAC charging to Rs. 0.50 per unit as against the FAC computed as per MYT Regulations, 2015.

5.12 As directed during the Committee's meeting held on 5th April, 2019, AEML-D vide its email dated 30th April, 2019 has submitted causes of high electricity bills, measures taken by it and action plan to avoid such consumer unrest in future (Volume II: Annexure-5). Same are summarized below:

Causes / Contributing factors:

Complaints regarding high electricity bill by some of the consumers of AEML-D were a result of certain events that occurred simultaneously during the specific months from August, 2018 to October, 2018. Those are summarized below:

5.12.1 Workers Agitation:

- a) 'Indefinite Strike' by unionized employees lasted for five days (from 27th August 2018 to 1st September 2018). Due to the agitation by meter readers, bills of about 4.35 lakh consumers across the AEML-D's distribution area were raised on Estimated Consumption.
- b) Estimation was done on the basis of previous 3 months actual consumption (May, 2018 to July, 2018) as per the Regulation 7.2 of SoP Regulations 2014. The average meter reading considered in August, 2018 billing month was on the higher side as the consumption during May, 2018 was higher, being a summer month. This led to the perception of inflated billing for some of the consumers.

5.12.2 Tariff Revision:

- a) The Commission issued the MTR Order on 12th September, 2018 revising the tariffs for AEML-D consumers, which was effective from 1st September, 2018. While the average increase in tariff on an overall level for AEML-D is 0.24% in FY 2018-19, it translated to 4% increase in tariff (ABR) for 0-100 units' slab in Residential category and 1% increase in 101-300 units' slab, even without Fuel Adjustment Charges. About 70% (more than 16 Lakh) of the total residential consumers of AEML-D are in the bracket of up to 300 units a month, which were affected by change in tariff.
- b) To implement new tariffs across different consumer categories, AEML-D had to make necessary changes in the billing system. The same was completed on 22nd September 2018 and necessary adjustments due to the new tariff (for the period 1st September, 2018 to 21st September, 2018) were included in the next month's bill of consumers who could

not be charged the new tariff in the last month. In the process certain set of consumers had to pay arrears in addition to normal increase in monthly bill due to tariff revision, which led to a perception of higher bill.

5.12.3 Increase in FAC in September, 2018:

- a) FAC charged in the billing month of August, 2018 was Rs. 0.24/ unit, whereas the FAC charged in the billing month of September, 2018 increased to Rs. 0.56/unit. The FAC charged in September 2018, October 2018 and November 2018 pertained to power purchase cost of July 2018, August 2018 and September 2018 respectively. The Short-Term power purchase rate approved in the MTR Order is Rs. 3.50 per unit, while the actual Short-Term power purchase rate has been as high as Rs. 6.31 per unit in September, 2018, which reflected in FAC.
 - b) Further, the Commission approved additional FAC recovery of Rs 28.34 Cr. for December 2017–March 2018 Quarter in the post facto approval letter dated 24th October, 2018 and Rs. 25.91 Cr for April 18 – Jun 18 Quarter in the post facto approval letter dated 14th November 2018, with a direction to recover the amounts in the next billing month with carrying cost. These additional amounts were due to non-consideration of Imbalance Pool Quantum and Cost, which pushed up the actual weighted average power purchase cost.
 - c) Even though AEML-D took a decision to spread out the recovery of additional amounts so as to prevent tariff shock to consumers, this resulted in higher FAC in the billing month of November, 2018 starting from 16th November 2018.
 - d) The actual availability of power from VIPL had been significantly low during FY 2018-19 at 46.5% as against approved level of 85%. This reduction of availability is primarily due to fuel shortage at VIPL. In order to meet the demand, AEML-D had to procure higher quantum of Short-Term power at higher rates, resulting in increase in FAC.
 - i) The increase in FAC in September, 2018 billing month also led to the perception of inflated billing for some of the consumers.
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5.12.4 Increase in consumption in October,2018:

- a) Actual consumption of consumers increased further in October, 2018 billing month due to higher temperature in October, 2018, again giving rise to the perception of inflated billing. Due to increase in consumption, some of the consumers who were in 0-100 slab in September, 2018 month shifted to higher slabs. Similarly, consumers in 101 – 300 slabs in September, 2018 month shifted to higher slabs of 301-500 slab or > 500 units slab. This resulted in increase in electricity bill for such type of consumers.
- b) The rise in average temperature in October, 2018 compared to the average temperature in October, 2017 was 1.9 degree Celsius. Generally, a 1 Degree change in temperature causes the demand to rise by 40-50 MW in AEML-D's area of supply. AEML-D's system consumption growth between September, 2018 and October, 2018 has significantly increased (by more than 100 MU or about 15%). Similarly, AEML-D's system consumption growth between October, 2017 and October, 2018 had significantly increased (94 MU or about 11%). This led to higher billing as increased consumption by the consumers resulted in applicability of higher tariff slabs as per Tariff Order.

5.12.5 Mitigation Measures undertaken by AEML-D:

- a) AEML-D undertook certain steps after takeover of Mumbai Distribution Business to resolve the issues related to business and to address the perception of high billing, such as:
 - i) Agitation was called off by swift intervention of the new Management.
 - ii) Slab benefits to 210463 consumers amounting to Rs. 5.43 Crore along with applicable interest was provided whose bills had been estimated.
 - iii) AEML-D had set up 8 number of special camps and dedicated E-mail channel for swift redressal of billing grievances.

Consumers were also given option of sharing their readings for billing amendments.

- iv) Strengthening of the Call Centre to address billing related queries.
- v) AEML-D held meetings with beat journalists (print media), Policy makers (MP, MLA and Councillors), Opinion makers, Housing Societies to make them aware of actual facts.

5.12.6 Proposed Measures to avoid re-occurrence in future:

- a) Appropriate interventions that are proposed to be taken by respective stakeholders to avoid recurrence of such instances are listed below.

- b) **Outsourcing / Technological Interventions:**

Any agitation by employees, directly affects the consumer related services such as meter reading, bill distribution, cash collection centres, no supply complaints, repair of cable & equipment faults, etc. Increased dependency on permanent manpower to perform various consumer related tasks can potentially cause situations where such agitation could adversely affect consumers. Solutions to this range from wide adoption of Outsourcing to Technological interventions / automation. While AEML-D is assessing these options and will shortly approach the Commission with automation solutions, a positive regulatory outlook is the need of the hour, where the focus of regulatory approval is required to include avoidance of high indirect cost and improved public services during emergent situations. This will not only safeguard consumer interest during employee agitation, but also during general agitation call given by political parties.

- c) **Smart Metering:**

Implementation of smart metering will enable availability of meter reading online. Smart meters coupled with consumer's smart phone can keep consumers updated on his consumption and energy bill amount. This will reduce manual meter reading/downloading and even

despatch of bills which in-turn will prevent billing issues and related complaints.

d) Adoption of Digital Payments:

Mandatory provision of bill payments through electronic platform will eliminate consumer inconvenience due to non-availability of cash collection centres in case of strike.

e) Outsourcing:

No supply complaints, cable faults & equipment's repair cannot be directly resolved by technology interventions as it requires physical repair. 'Outsourcing', however, can reduce dependence on permanent employees, who could potentially strike en-masse and paralyse the operations. This will not only help making required manpower available during strike but will also optimize the cost.

f) Tariff Revision:

The perception issue around revision in tariff can be addressed by timely issue of Tariff Orders. It is suggested that Tariff Order should be issued at least 15 days prior to the effective date. This will not only allow time for Licensees to make the changes in their billing system but will also allow Licensees to issue necessary advance communication to consumers regarding change in tariff. Consumers also get time to control their consumption or adjust their usage according to impact of such tariff revision.

g) Fuel Adjustment Charges:

- i) Provision of FAC is for timely recovery/refund of variations in Licensee's power procurement cost. Following Regulatory measures may be adopted to arrest the impact of FAC:
- ii) While approving Aggregate Revenue Requirement (ARR), appropriate consideration should be given towards prevailing exchange prices for Short Term power, gestation period required for procuring power from a new source, such as new Renewable Energy

(RE) source, as per Standard Bidding Documents (SBD) timelines. It is generally seen that in ARR, power purchase is approved in energy terms simply by considering all shortfall in energy terms as deficit. In reality, due to load curve, there is both shortfall and surplus at different times of the day. AEML-D always prepares its hourly projected schedule and estimates its Short-Term purchase and Short-Term sale requirement accordingly in its Petition. The same should be considered while approving the ARR so that base tariff more appropriately reflects the power purchase cost, thereby reducing the chances of FAC.

- iii) It is a well-known fact that Imbalance Pool Bills are significantly delayed. However, not having a bill for the month for Pool purchase does not mean that Licensees has not absorbed power from the pool. In fact, Licensee's estimation of Pool Purchase Quantum and cost is generally very close to the reality, when the bills are finalised by MSLDC. Therefore, Pool power purchase and all such purchases where bills are delayed should be allowed on estimation basis in FAC. This will ensure that FAC is even throughout the year and there are no abnormal changes due to change in methodology of computation or to account for delayed bills, received later.
- iv) Although, there is cap of 20% (of energy charge + RAC) on recovery of FAC, it is difficult to know in advance what will be perceived as tariff shock by the consumers. Like in present case 63 paise FAC during the high consumption month also contributed to public discontent. In view of this, keeping the cap 20%, Licensee should be allowed to plan and smoothen the recovery of FAC based on its own assessment of variation in power procurement cost throughout the year, in such a way that by the end of financial year, under-recovery is limited to 10% of recoverable FAC.

5.13 The Committee sought information from AEML-D power purchase agreement with VIPL, correspondence with VIPL for non-performance up to the mark as per terms and conditions of PPA, power procurement planning considering such incidences and required to make a small presentation on 13th May, 2019 covering these points vide mail dated 2nd

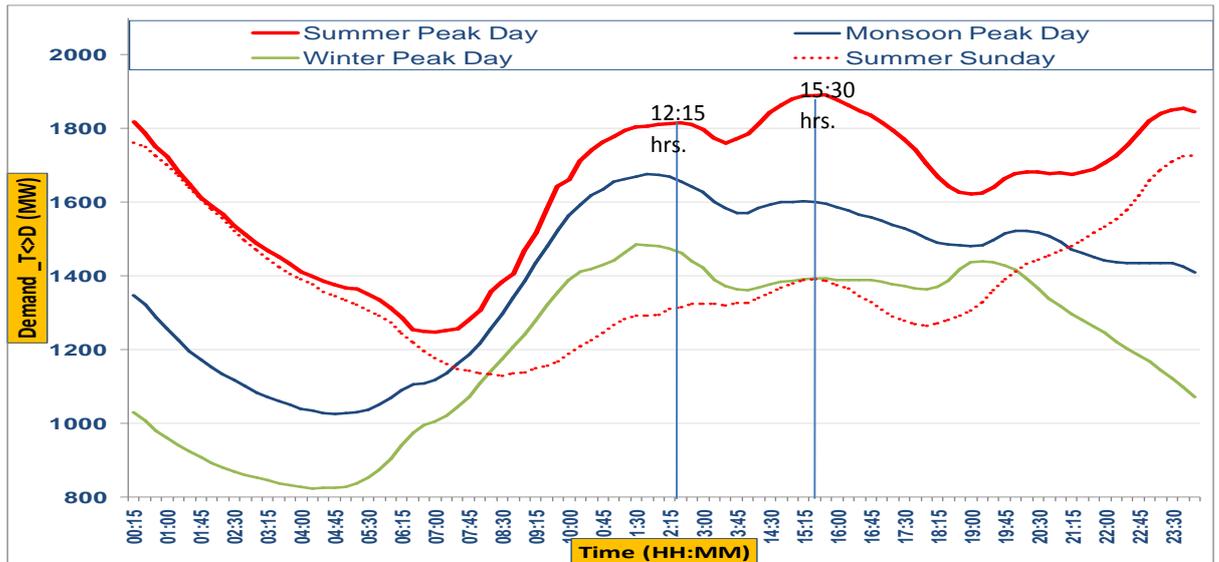
May, 2019. AEML-D in its presentation (Volume II: Annexure-7) has covered the following details: -

5.13.1 Billing Cycle: -

AEML-D is following current practice for issuing cycle wise billing which covers 15 days of the current month in which the bill is issued for previous month. If the billing cycle modality to be changed as per calendar month, for the last billing cycle for billing previous month current month reading will be considered skipping previous month reading. Therefore, it is not feasible to adopt the billing calendar month wise as it will not ensure correct consumption for the billing month. Billing month starts from 16th of the current month to 15th of next month. Billing of high-end consumers is done as per calendar moth. FAC of n-2 moth is charged in the bill of n month.

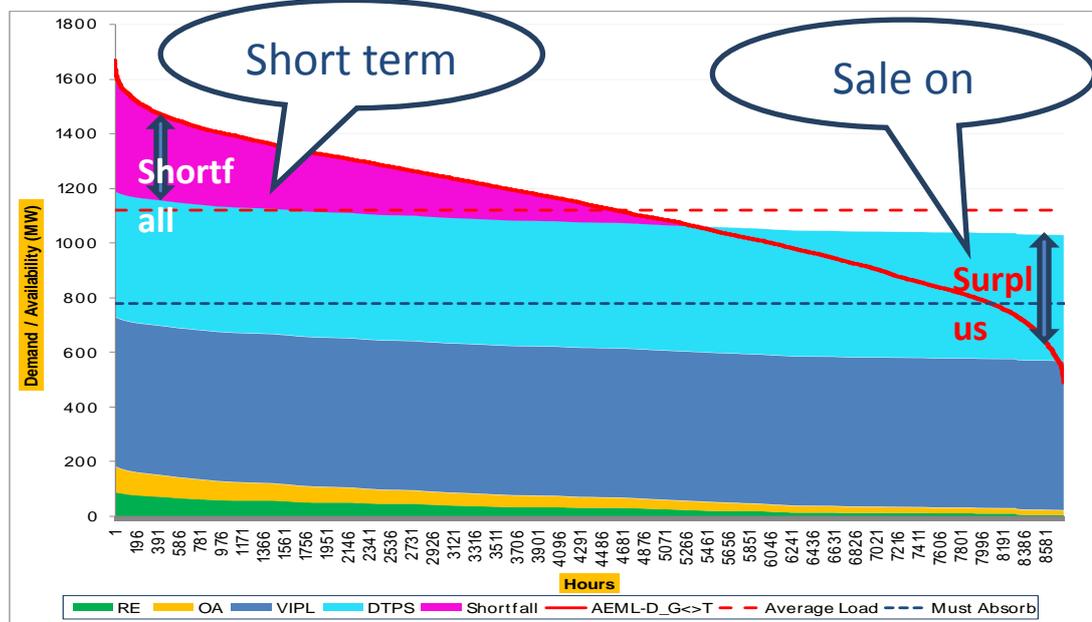
5.13.2 Power Procurement Planning: -

- a) AEML-D has very peculiar demand pattern, Demand is very low during winter months and it is at maximum during the summer and in October & November months of the year. Annual peak demand is around three times than the annual off-peak demand. Even on Sundays and Holidays the demand drops substantially due to closure of Office load. The varying nature of load during the day time and across different seasons, holidays poses challenges in planning the supply side (Generation) to meet the demand with assured availability at optimum cost. The typical season wise peak day curve is shown below:



- b) The base load is defined as the continuous demand observed by the system throughout the year. The base load requirement of any system is dependent upon the nature of load catered by the system, consumption mix, seasonality, geographic location of the distribution licensee, etc. The minimum demand for AEML-D is around 450 MW – 500 MW during the night period of winter season whereas the minimum load during the Peak months is to the tune of 1100 MW. The peak demand during summer is > 1600 MW, which complicates the definition of the base load which is 450 MW minimum across the year. However, a Long-Term tie-up of 450 MW only would leave AEML-D’s consumers exposed to extreme risk of unavailability and price volatility of Short-Term power in the market. Therefore, the Base Load should be chosen such that it neither generates a lot of deficit nor a lot of surplus, thereby being the most optimal and least risky solution. This can be achieved if the Base load requirement is close to or same as the Average demand of AEML-D. This is also supported by operational experience of AEML-D.
- c) As can be seen from the figure below, at base load = average load = Base load generation capacity, the surplus and shortfall quantum is the most optimum and AEML-D will be able to manage these surplus/shortfalls without any System constraints and in the most economical manner. This level of Long-Term / Medium-Term generation capacity assures reliable and continuous availability of supply. AEML-D,

therefore, submits that given the high variability of demand in AEML-D's area, Average demand is considered Base demand for the purpose of meeting the same with Long-Term / Medium-Term generation capacity due to its distinct advantage of having a balanced deficit/surplus position.



- d) Further, on the basis of above strategy of a balanced deficit/surplus position, Long/Medium term capacity to be tied up should be at the level at which the consumers are neither exposed to a great deal of dependence on Short Term power thus exposing them to undue risk of price and availability in Short Term market, nor is the surplus too much to cause undue loss on sale of surplus power.
- e) AEML, to meet its demand, has entered into Long Term PPA with Adani Dahanu Thermal Power Station (ADTPS) and VIPL. Further, for any shortfall, based on the forecast, power is purchased in short term market either through bilateral arrangements (through e-tendering on Discovery of Efficient Electricity Price (DEEP) portal), Banking of Power or on Power Exchange on day ahead basis.
- f) To optimize its power purchase, AEML-D plans its procurement at different stages throughout the year. Broadly it involves the demand side projections, evaluation of migrated consumer's demand, supply

side availability considerations and arriving at the surplus / shortfall positions. Broadly, planning is done at the following Stages:

- i) Yearly
- ii) Quarterly / Season wise
- iii) Monthly
- iv) Daily
- v) Same day (in case of generation tripping, sudden demand drops etc.)

g) Seasonality has a major impact on the demand causing the power requirement to be different in different seasons. For effective management of surplus / shortfall, decisions are taken on a seasonal basis. Any buy /sale decision is taken based on following factors:

- i) Power requirement varies between 15-minute time blocks. AEML-D load varies up to 100 % in off peak months during the day which is “peak” period and during night which is “off peak” and more than 300% during various months of the year. There is diversity in inter-seasonal requirement as well;
- ii) Power buy / sale opportunities are mostly available for Round the Clock (RTC) and Peak / Off Peak Period and not time-block wise i.e. even though power requirement for AEML-D may be only in specific peak hours, contracts for such supply do not normally exist in the market for specific hours;
- iii) Base load contracts are cheaper compared to peak load contracts;
- iv) Commercial minimum / must absorb conditions are stipulated in bilateral power contracts (Take or Pay contracts);
- v) No variation is allowed. Uniform scheduling of power is required to be done during the day/month in question;
- vi) Hourly variation is allowed in daily quantum on Power Exchange;

- vii) RE and Infirm Power are must absorb conditions as per the relevant Regulations;
 - viii) The power prices on Power Exchanges and in Bilateral Market vary significantly during the day/year;
 - ix) Estimation of demand at 15 min level for the consumers migrated to other licensees for supply is to be taken into account since these consumers are on the AEML-D's network.
- h) While taking any Buy / Sale / Scheduling decision, AEML-D is required to take into consideration the above constraints in the most optimum manner. All the decisions are taken ex-ante basis with sufficient lead time by considering the factors mentioned hereinabove to optimize power purchase cost while ensuring availability of 24X7 power supply in the commercial capital of the country.
- i) Further, as per the MERC (State Grid Code) Regulations, 2006 all the distribution licensees have to forecast their requirement on Day Ahead ("DA") basis and arrange the power to meet the entire requirement. To forecast the demand of consumers supplied by AEML-D, procedure adopted by AEML-D is as given below:
- i) The DA demand forecast is made for the total system as a whole at T<>D level, which includes demand of consumers on the AEML's network, as well as consumers supplied by TPC-D on the AEML-D's network;
 - ii) Thereafter, the change-over consumption estimate, as provided by TPC-D, is subtracted from the DA demand forecast to arrive at the net demand of the AEML-D at T<>D level;
 - iii) The G<>T interface level requirement of AEML-D is arrived by grossing up this demand by the InSTS Transmission Loss.
- j) As mentioned above, AEML-D undertakes the forecasting of the requirement on DA basis and considering the DA availability projected by the contracted Long / Medium term sources and any firm bilateral and Banking contracts, the DA power is purchased on the Power
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Exchange and the same is scheduled by MSLDC. Any changes in actual demand and supply vis-à-vis that estimated on a DA basis may result into surplus injection in the pool or drawl from the Pool. Such imbalance in the Pool is settled as per Intrastate ABT Mechanism introduced by Commission by its Order dated 17th May, 2007 in Case No 42 of 2006. After this planning is done and intimated, MSLDC operates the Pool based on State level Merit Order Dispatch and actual Grid operation takes place in real-time. During the actual operation, the Generators are backed down or ramped up as per the instructions of MSLDC. Also, in reality the demand varies from the projected quantum and MSLDC undertakes demand and supply balancing for State as a whole. All these actions result in imbalances and these imbalances are settled by MSLDC through the Intrastate ABT Settlement Mechanism.

- k) AEML-D has submitted details of Long-Term sources and rough requirement of Short-Term power as below: -

Table 5-18: Details Long Term Power Sources

Source	Contracted Capacity in MW	Type	PPA Term	Variable Rate (Rs/Unit)
DTPS	500	Coal	Feb- 2023	3.34
VIPL	600	Coal	Mar-2039	2.19*
RINL	45	RE-Wind	Mar-2022	5
Rpower	45	RE-Wind	Jun-2026	5.81
AAA	3.375	RE-Wind	Apr-2022	5
DSPPL	40	RE-Solar	Mar-2037	10.31
Tembhu	4.5	RE-SHP	Apr-2045	4.26
Vector Green	18	RE-Wind	Apr-2022	5
	6	RE-Wind	Apr-2023	5.07
Short Term Power purchase	Upto 400	Bilateral/Power Exchange		

- l) AEML-D submitted the data of Power Purchase for FY 2018-19 and its projections for the same as follows: -

Table 5-19: Details of power projections and actual power procurement in FY 18-19 by AEML-D

Sr No	Month	Projections at the time of MTR Petition in MW	Actual Power Purchase excluding OA in MW
1	April 2018	882	869
2	May 2018	957	938
3	June 2018	883	842
4	July 2018	821	754
5	August 2018	813	768
6	September 2018	830	791
7	October 2018	861	938
8	November 2018	748	796
9	December 2018	696	666
10	January 2019	691	611
11	February 2019	659	589
12	March 2019	848	751
	Total	9688	9313

m) The Committee directed AEML-D to make submission about reasons behind the low power generation by VIPL, provisions in PPA for low power generation and action plan to cope up with the situation. AEML-D has made following submission in response to the queries of the Committee

n) During FY 2018-19 cumulative availability of VIPL is 46.55%, VIPL monthly availability is tabulated as under:

Table 5-20: VIPL's monthly availability

Month	Availability %	PLF %	Month	Availability %	PLF %
April, 2018	44.33%	42.76%	Oct. 2018	50.76%	49.92%
May, 2018	44.11%	44.13%	Nov. 2018	70.79%	53.72%
June, 2018	52.32%	50.09%	Dec. 2018	72.28%	63.12%
July, 2018	62.50%	51.91%	Jan. 2019	22.94%	18.11%
August, 2018	37.84%	36.91%	Feb. 2019	0.00%	0%
Sept, 2018	98.77%	96.82%	March, 2019	0.00%	0%

- o) VIPL has cited Coal Shortage as a reason for lower availability; AEML-D have many times sought coal stock and other associated details from VIPL. However, VIPL has not provided any details. Various correspondences were made with VIPL in this matter. Non availability of generation from VIPL has led to scheduling of more power from other sources under Short term from open market.
- p) Under the PPA tariff for supply of electricity is determined by the Commission based on MERC Tariff Regulations. As provided in the Tariff Regulations, AEML-D has adjusted Fixed Charges in proportion to the Availability. Article 11.1.1 of the PPA triggers Sellers Event of Default in case Sellers fails to achieve Normative Availability for 24 months during last 36 months, and requires Procurer to issue “Procurer Preliminary Default Notice” and giving Seller 90 days consultation period to cure its default.
- q) VIPL has failed to achieve Normative Availability for twenty (20) Months during the last thirty-six (36) Months accordingly, AEML-D has at various instances requested VIPL to take remedial actions however, VIPL continues its default and has taken no action to cure the same.
- r) AEML-D will initiate Long-Term / Medium-Term bids with approval of the Commission
- s) In the meantime, till the finalization of Long Term / Medium Term power, AEML-D will continue to meet its power purchase requirement from Short Term market – Bilateral Market and Power Exchange. It is pertinent to mention that AEML-D’s power purchase cost has reduced by approximately 31 Crore for the period VIPL was not available; this is because of the fact that VIPL cost fixed as well as variable is highest among comparable plants.
- t) **Medium Term Bidding:**

AEML is also perusing with competent authorities, seeking approval to initiate Case 4 bidding for procurement of power under Medium Term. Under bidding process AEML will offer partial quantity of coal

allocated to our Dahanu TPP. This will add to available generation with AEML and coal requirement of Dahanu TPP can be met through Imported Coal Dahanu being a coastal plant.

u) Long Term Bidding:

- i) AEML plan to initiate bid for long term power procurement under Case – 1 bidding process from plants having coal linkage.
- ii) AEML-D has applied to Central Electricity Authority through Government of Maharashtra for allocation of coal to AEML under SHAKTI B(iv). Upon allotment of coal we shall initiate competitive bidding for procurement of power on Long term basis.

5.14 Submission of TPC-D:

5.14.1 As directed by the Committee, TPC-D vide its mail dated 27th May, 2019 submitted the details of month wise planning of power procurement and actual power purchased in FY 2018-19 and impact on demand due to variation in temperature as follows (Volume II: Annexure-7):

- a) To manage the variations in Demand and available generating capacities, Demand is forecasted on monthly basis, every quarter, taking into consideration the available generation, seasonal variation, trend of consumers seeking power on open access etc. and shortfall of available generation to meet demand (base / peak) is computed for every month. This becomes the basis for Short Term procurement.
 - b) During major unit outages, shortages are met through bilateral contracts. For this, tender is floated in MSTC DEEP portal. For e.g. during the outage of 500 MW Unit-5 in January, 2019, part of which has been tied up with TPC-D, tender through DEEP Portal was floated and 25.5 MUs Bilateral power (from LMEL and JSWEL) was procured.
 - c) On day ahead basis, TPC-D load is forecasted using the Short-Term Load Forecasting Program (STLF) developed in collaboration with IIT Bombay & TCS.
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- d) Based on the day ahead Load forecast, available generation, bilateral contracts, if any, open access consumers purchase, shortfall, if any, is computed. Same is met by bidding in power exchange. During FY-19 Tata Power-D procured 129 MUs thru Exchange at Rs 3.92 PU for 175 days in a year.
- e) During forced outage / tripping of major unit, Standby power is availed as per the requirement. During FY-19 TPC-D procured 3.4 MUs under standby arrangement for 2 days in a year.
- f) TPC-D has submitted month wise power procurement projections details and actual power purchase as follows:

Table 5-21: Details of power projections and actual power procurement in FY 18-19 by TPC-D

Quarter	Month	Estimated Avg. Peak Demand (MW)	TPC-G (MW)	RE (MW)	OA Cons Power (MW)	Shortfall (MW)	Remark
Q-1	Apr-18	835	647	55	105	28	Met by day ahead purchase thru Exchange
	May-18	880	647	70	105	58	Met by day ahead purchase thru Exchange
	Jun-18	845	647	90	120	Nil	--
Q-2	Jul-18	795	647	105	125	Nil	--
		795	562	105	125	Nil	Unit- 7 Outage - No shortfall
	Aug-18	775	647	90	115	Nil	--
	Sep-18	785	647	60	105	Nil	--
Q-3	Oct-18	850	647	40	105	58	Met by day ahead purchase thru Exchange
	Nov-18	725	647	40	105	Nil	--
	Dec-18	665	647	45	105	Nil	--

Quarter	Month	Estimated Avg. Peak Demand (MW)	TPC-G (MW)	RE (MW)	OA Cons Power (MW)	Shortfall (MW)	Remark
Q-4	Jan-19	645	416	35	105	89	Unit-5 Outage. Tender was floated thru DEEP Portal
	Feb-19	670	647	35	105	Nil	--
	Mar-19	795	647	45	105	Nil	--

g) TPC-D has submitted the MUs details for FY 2017-18 and FY 2018-19 with respect to the temperature variation thereof as follows:

Table 5-22: MUs details for FY 2017-18 and FY 2018-19 with respect to the temperature variation for TPC-D

Particulars	Aug	Sep	Oct	Nov	Dec
MUs in FY18	136.35	139.81	149.65	133.76	111.02
MUs in FY 19	133.27	130.09	146.09	155.14	114.40
Temp in FY 18	30.54	31.51	33.52	34.16	31.16
Temp in FY 19	30.09	31.41	36.16	35.35	32.34

5.15 Submission of MSEDCL:

5.15.1 MSEDCL in its presentation focused on the central billing system utilized for its consumers. MSEDCL has shared the data and the process of central billing system via mail dated 16th May, 2019 as follows (Volume II: Annexure-7):

5.15.2 Meter Reading is to be carried out for Low Tension (LT) consumers by methods as follows:

- (i) Static type meter and Electromagnetic meter by Mahavitaran Mobile App.

- (ii) Infra-Red (IR) and Radio Frequency (RF) communication mode meters by HHU.

5.15.3 The scope of work of meter reading is governed by Centralized billing system which is started in MSEDCL from 1st August, 2018. Under centralized billing the reading date of consumer is fixed.

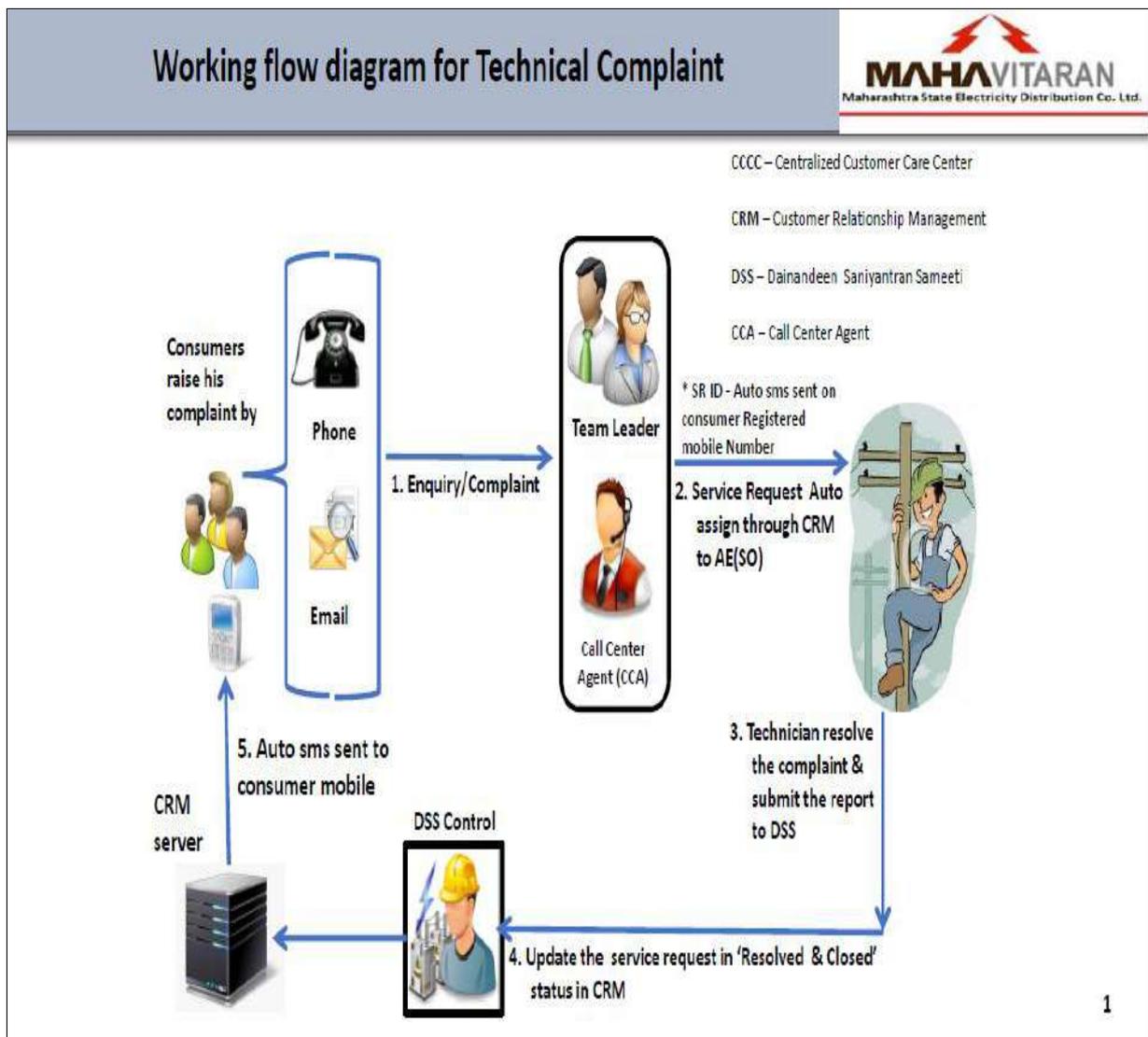
5.15.4 The Centralized Billing system of MSEDCL which includes Meter reading, Validation and Bill generation is detailed below:

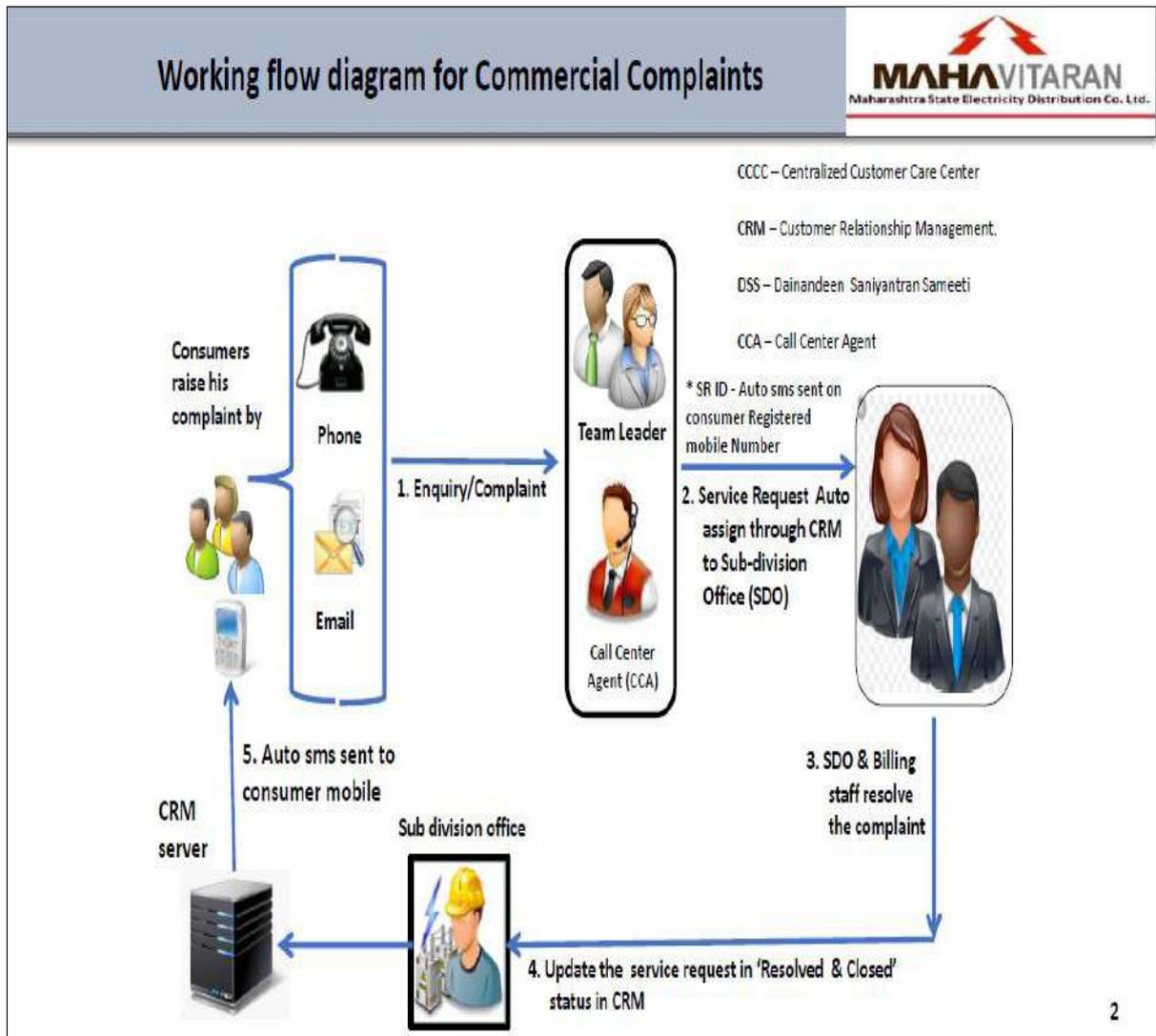
- i) Readings of all consumers of Division/Sub-Divisions to be completed within date 1 to 25 of every month.
 - ii) The master data for schedule date wise reading job is prepared considering static changes such as Meter replacement, TD/PD, reconnection, NSC, change of name etc. fed into system upto one day prior to reading date.
 - iii) Reading date through web console (e.g. reading job for 1st day of month will be given on prior one day in evening).
 - iv) SMS regarding Meter reading date and time slot will be communicated to consumer on registered mobile nos. one day prior to reading date. Agency will have to carry out meter reading accordingly without deviation, except when allowed in exceptional cases on next day of reading date.
 - v) Meter reading agency has to complete reading of assigned job in next two days i.e. scheduled reading date +1 day. This reading job will get automatically closed on next date of scheduled reading date. (e.g. reading job for 1st day of month will be automatically closed on 2nd day of month.)
 - vi) All the reading captured in day should be uploaded on server on the same day. Bulk uploading of reading is not allowed, Meter reader will have to upload the reading data on real time basis immediately after taking reading otherwise penalty is applicable for delay in uploading of reading data.
-

- vii) SMS regarding details of meter reading and consumption is given to consumer after meter reading is uploaded to server.
 - viii) IT System will check and validate the readings uploaded by meter reader at the end of first day. On 2nd day, the exceptional reading (mobile App meter readings that do not meet validation conditions in IT system) will be verified with photo of meter reading by outsourced validation team set up by H.O. If reading is corrected as per photo, revalidation will be done otherwise reading will be sent to Subdivision. On 3rd and 4th day of meter reading, Subdivision will verify reading and if required carry out check reading and upload it on server which will be revalidated on end of 4th day. Thus, Centralized Billing processes of validation, verification and submission of check reading before Bill generation on 5th day will reduce the cases of Incorrect billed and Average billed consumers.
 - ix) On day 2, SMS is sent to the consumer whose meter reading is not made available by Meter reader or reading not taken (RNT) then these consumers are allowed to upload self-reading to server through Mahavitaran Mobile App within 48 hours. (e.g. on 3rd and 4th day of month).
 - x) All readings received through Meter reader agency or Subdivision validation or self-reading from Consumers is taken up for processing in billing system on 5th day.
 - xi) The bills of all consumer in date wise reading job is generated on 5th and 6th day of scheduled reading date and consumer bill date will be 6th day of schedule reading date.
 - xii) Centralized Billing system will upload the subdivision wise daily Bill printing files on the web console with access given to Contractor for downloading the bill printing file. Agency has to print the generated bills on the same day or within 12 Hrs. whichever is earlier. (e.g. on 6th day of month.)
 - xiii) The Tracking of daily Bill printing will be monitored by concerned subdivision through Mobile App of which report will be accessible
-

on web console for viewing by Division, Circle & Zone. Report will be used for counting delay in printing.

- xiv) Agency has to start distribution of bills to consumers immediately after printing on 6th day of scheduled reading date and complete Distribution of bills within next two days for Urban area and within next 3 days for Rural from bill date. (e.g. 7th and 8th day of month for Urban area and 7th, 8th and 9th day for Rural area.)
- xv) Under Centralized Billing system reading of all Residential, Commercial, Public services, Public water works, Streetlight, Others is carried out except LT Ag, Industrial > 20KW and HT consumers.





5.16 Submission of BEST: -

BEST in its presentation (Volume II: Annexure-7) shows the share of consumer in the area and shared the number of complaints filed with BSET. BEST stated that its usual practice to receive high bills complaints in the month of April/May and in the month of October/ November due to temperature variation. BEST has received 1492 complaints of high billing in the month of October and November, 2018.

The Committee has considered the above submissions and has recorded its observations in subsequent chapters of this report.

6. Cross sectional analysis of data submitted by Distribution Licensees in Mumbai

6.1 As required under ToR, the Committee has to undertake cross sectional analysis of practices being followed by four DLs viz. AEML-D, TPC-D, BEST and MSEDCL operating in Mumbai and Mumbai Suburbs. Accordingly, information on various aspect such as power procurement, levy of FAC, average/ faulty meter billed details, actual levy of revised tariff etc. were sought in the prescribed format from these Distribution Licensees.

6.2 Accordingly, AEML-D vide letter dated 11th January, 2019; TPC-D vide letter dated 16th January, 2019, BEST vide letter dated 6th February, 2019 and MSEDCL via mail dated 14th January, 2019 submitted (Volume II: Annexure-1) the information required by the Committee. Same are summarized in table below:

Table 6-1: Cross sectional analysis of practices being followed by four DLs

Sr No	Details Sought	MSEDCL (Mumbai area)	TPC-D	AEML-D	BEST
1	Procedure adopted for Meter reading /equipment used	<ul style="list-style-type: none"> • For HT Consumers: read with Automated meter reading (AMR) & Meter Reading Instrument (MRI) • LT: read with Hand-held Meter (HHU), Data Central Unit (DCU), For LT Load > 20 kW reading through AMR 	<ul style="list-style-type: none"> • For HT: - Automated meter reading (AMR) is for HT • Common Meter Reading Instrument (CMRI) for Monthly Billing consumers Manual, For LT: - HHU, CMRI, AMR, Manual 	<ul style="list-style-type: none"> • Hand-held Meter Reading Instruments (MRI) Cycle Billing Consumers having load < 20 kW • Common Meter Reading Instrument (CMRI) for Monthly Billing consumers having load > 20 kW Automated meter reading (AMR) is partially for HT Consumers 	<ul style="list-style-type: none"> • HT consumers: - read with optical fibre port connected to server • LT consumers: -HHU

Sr No	Details Sought	MSEDCL (Mumbai area)	TPC-D	AEML-D	BEST
		& MRI, remaining manually		No smart and prepaid meters	
2	Meter reading activity	Outsourced	Outsourced	Departmental	Departmental
3	Daily Meter reading in numbers	Average 150-200	Average 320	Average 350	Average 350-450
4	Cross checking mechanism of meter reading	Field officers	<ul style="list-style-type: none"> • IT system validations in SAP • spot validation check feature in HHU • shadow meter reading by randomly selecting meters and checking by internal staff 	<ul style="list-style-type: none"> • internal slab wise validations based on last month's consumption in HHU and then in SAP System • Subsequent to these checks for the implausible cases are 	<ul style="list-style-type: none"> • Ramcram machine software • Reading if found high or low of average gives indication and again checked by meter readers

Sr No	Details Sought	MSEDCL (Mumbai area)	TPC-D	AEML-D	BEST
				referred back to the field teams for verification before final invoicing	
5	Method of determining average consumption if meter reading is not available	last 3 months average units	billed based on daily units calculated from 12 months average units	On last 3 months average units.	Last 12 months average
7	Process of determining average consumption	IT process	SAP system	SAP system	Programmed system
8	Billing cycle	Billing cycle from 1st day of that month and completed on 25th day of that month.	<ul style="list-style-type: none"> • 25 billing cycles starting from 5th of every month till 28th of every month. 	<ul style="list-style-type: none"> • 30 billing cycles • 1 to 25 Nos for LT consumers upto 20 kW load • 33, 35, 36, 	Daily 50000 consumers metered

Sr No	Details Sought	MSEDCL (Mumbai area)	TPC-D	AEML-D	BEST
			<ul style="list-style-type: none"> Billing for all HT consumers and some LT consumers having high consumption is done on the 1st day of every month 	<p>37 for LT consumers equal to and above 20 kW load</p> <ul style="list-style-type: none"> 31 (HT consumers) Daily 1 lakh consumers metered 	
10	Delay in submission/ approval of FAC	Submitted in time	FAC charged in line with MYT regulation 2015 Currently post facto approval for FAC for the period from July 2018 to September 2018 (Q2 of 2018) is in process	no delay in submission	no delay in submission of FAC for post-facto approval

Sr No	Details Sought	MSEDCL (Mumbai area)	TPC-D	AEML-D	BEST
11	Reasons for variation in FAC from Aug 18 to Nov 18	Positive FAC due to change in Law and Lower approved PP cost in MTR, Increase in PP cost	Change in actual sale and change in fuel cost	Lower approved PP cost in MTR, Increase in PP cost	Increase in PP cost
14	Effect of Climatic condition on electricity consumption	The change in temperature and humidity having impact on electrical sale	The change in temperature and humidity having impact on electrical sale	Temperature and Heat Index has direct correlation with the System Energy requirement of AEML-D	The change in temperature and humidity having impact on electrical sale
15	Actual implementation of MTR Order (which was effective from 1.9.2018)	IT system 2.10.2018 Differential adjusted in bill of October, 2018	effective for billing from 1st October, 2018 Differential adjusted in bill of October, 2018	SAP Billing System by 22.09.2018 Differential adjusted in bill of October, 2018	Applicable from 1 November, 2018
20	Creating awareness about CGRF mechanism	Website, mobile app, electricity bills	Website, on Electricity bills	Website, on Electricity bills,	On Electricity bills, Website

6.3 The Committee observed that there is variation in method adopted by Distribution Licensee for computing average consumption in case of actual meter reading is not available. MSEDCL and AEML-D is calculating assessed consumption based on average of last three months consumption as per provision of Supply Code Regulations, 2005, whereas TPC-D and BEST is assessing the consumption based on average of 12-month consumption.

7. Consumers Grievances

7.1 Post constitution of Fact-Finding Committee, 54 complaints of high inflated bills in the area of AEML-D were received to the Committee. These complaints were registered by the Committee and AEML-D were directed to take appropriate action/ corrective measures for resolving the grievance and submit report accordingly.

7.2 After taking corrective measures, AEML-D has submitted report summarizing action taken in each of the 54 complaints. This report includes details of 49 complaints only (Volume II: Annexure-5). AEML-D has reported that it was not able to take any action on the remaining 5 complaints referred by the Fact-Finding Committee for the following reasons:

- a) Complaint by MLA Shri. Mangesh Kudalkar was a general complaint against increased electricity bills and no specific details were received by AEML-D.
- b) Shri. Dhanesh Jain had initially made the complaint without CA number but later clarified through the mail that he was not aware of the revision in tariffs and therefore the matter is resolved.
- c) Shri. Rajan Madan had not provided CA number or any contact details, so it was not possible to respond to the complaint.
- d) Shri. Suresh Krushnarao Patil had general queries on revision in tariff and tariff setting process and has not provided his CA number.
- e) Shri. Vitthalrao Gaikwad (General Secretary, MEWU) has raised general issues. The complainant did not provide his Consumer Account (CA) number in his complaint.

7.3 Summary of complaint and action taken against balance 49 complaints is summarized in table below:

Table 7-1: Summary of complaints and action taken by AEML-D

SN	Name of Consumer	Consumer Category	Consumer's Issue	Findings upon investigation	Credit passed on?
1	Sagar Dinesh Pandey	Residential Single Phase	High Bill in general	1. Actual consumption of consumer. 2. Slab jump in Sep'18. 3. Increased consumption in Nov'18 Billing	NA
2	Niteen Bhujbal	Residential Single Phase	High Billing & Consumption in Oct	1. Meter reading estimated in Aug due to strike. 2. Actual consumption increased in Oct (305) with slab jump. 3. This led to the consumer to perceive that consumption increased manifold during Sep (96) - Oct (305)	NA
3	Jaynish Shah & Pratiti Shah	LT Commercial II (a)	Inflated bill	1. Meter reading estimated in Aug due to strike. 2. Actual consumption increased in Oct (125) & Nov (122) with slab shifting compared to Sep (78 Units).	NA
4	Rajib Bhattacharjee (Abhijit	Residential Three Phase	High Billing & Consumption from Aug to Nov	1. Actual increased consumption with upward slab jump from Sep to Dec. 2. Past consumption in same months during last year (2017) shows same trend.	NA

SN	Name of Consumer	Consumer Category	Consumer's Issue	Findings upon investigation	Credit passed on?
	Kulkarni/Arrpieta Kulkarni)				
5	Usha Doshi (Kailash Doshi/ Parekh Doshi)	Residential Single Phase	High Billing & Consumption in Oct	1. Meter reading estimated in Aug due to strike. 2. Actual consumption increased in Oct (155 Units) & Nov (147 Units) with slab shifting compared to Sep (99 Units).	NA
6	Beenu Himanshu Karla	Residential Three Phase	High Billing & Consumption in Sep & Oct	1. Upward slab shift in Sep'18 & Oct'18.	NA
7	Anand Chopra (Shree Sai CHS Ltd.)	Residential Three Phase	High Billing & Consumption	Actual consumption increased in Oct & Nov with slab jump compared to Sep for both the Accounts.	NA
8	Aprajita Shishoo	Residential Single Phase	High Billing & Consumption	1. Billing estimated in Aug due to strike. 2. Actual consumption increased in Oct (538) & Nov (658) with slab jump in Nov compared to Sep. 3. This led to the consumer to perceive that consumption increased manifold during Sep (421) - Oct (538) - Nov (658).	NA

SN	Name of Consumer	Consumer Category	Consumer's Issue	Findings upon investigation	Credit passed on?
9	Rina Gala	Residential Single Phase	High Billing & Consumption	1. Meter reading estimated in Aug due to strike. 2. Actual consumption increased in Oct (125) & Nov (125) with slab jump compared to Sep. 3. This led to the consumer to perceive that consumption increased manifold during Sep (98) - Oct (125) - Nov (125).	NA
10	Sagar Agarwal	Residential Three Phase	High Billing & Consumption	1. Higher actual consumption with upward slab jumps in Sep, Oct & Nov	NA
11	Kiran Jadhav	Residential Three Phase	High Billing & Consumption	1. Higher actual consumption with upward slab jumps in Oct & Nov	NA
12	Mukesh Kumar	Residential Three Phase	High Billing & Consumption in Oct	1. Upward slab shift in Oct'18 based on actual consumption	NA
13	Ashish Kotekar	Residential Three Phase	Inflated Bills in Sep & Oct.	1. Actual consumption. 2. Slab jump in Sep'18. 3. Increased consumption in Oct'18 Billing	NA
14	Dilip Jagasia	Residential Three Phase	High Billing & Consumption in Oct & Nov	1. Upward slab shift in Oct'18 and Nov'18 based on actual consumption	NA

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SN	Name of Consumer	Consumer Category	Consumer's Issue	Findings upon investigation	Credit passed on?
15	Abba Enterprises	LT Commercial II (a)	High Billing & Consumption in Oct & Nov	1. Upward slab shift in Oct'18 and Nov'18 based on actual consumption	NA
16	Palani samy / Sharmila Nagarkar	Residential Three Phase	High Billing & Consumption in Oct & Nov	1. Actual consumption increased in Oct & Nov with upward slab jump compared to Sep: Sep (379) - Oct (674) - Nov (575)	NA
17	Dayanand Shetty (Consumer: Nilesh Shetty)	Residential Three Phase	1. Govt / MERC should Verify bill components. 2. Concern about Applicability of various charges	Consumption as per usual trend.	NA
18	Prafulla Gandhi	LT Commercial II (a)	1. Govt / MERC should Verify bill components. 2. Concern about Applicability of various charges	Consumption as per usual trend (0-100 slab only).	NA

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SN	Name of Consumer	Consumer Category	Consumer's Issue	Findings upon investigation	Credit passed on?
19	Mohan Kamble	Residential Single Phase	Increase in Dec Bill	Consumption as per usual trend; Dec: 95 Units	NA
20	Sunetro Ghosal (Shantabaai Pawar)	Residential Single Phase	High Bill in general	Consumption as per usual trend.	NA
21	Manish Kothari	Residential Three Phase	High Billing & Consumption in Sep & Oct	Actual increased consumption throughout the months.	NA
22	Madhumitha, Lake Homes Society, Pawai	Residential Three Phase	High Billing & Consumption inspite of 3 days occupancy in Oct	Actual increased consumption throughout the months with Oct being minimum (114 Units).	NA
23	Jimmy George	Residential Three Phase	High Billing & Consumption	Actual consumption increased in Oct & Nov.	NA
24	Satyam Mishra	LT Commercial II (a)	High Billing & Consumption	1. Actual consumption increased in Sep & Oct.	NA

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SN	Name of Consumer	Consumer Category	Consumer's Issue	Findings upon investigation	Credit passed on?
25	Kunal Kamdar (Jem & Associates)	LT Commercial II (a)(B)	High Billing & Consumption	1. Actual increased consumption in Oct & Nov	NA
26	Naval Rungta (West Developers)	Residential Single Phase	High Billing & Consumption	1. Actual increased consumption in Sep & Oct	NA
27	Deepak Govind (Akruti Nirman Ltd.)	Residential Three Phase	High Billing & Consumption in Nov despite being not at home from 10th Nov to 2nd Dec.	Consumers' non-occupancy is reflected in Dec billing period with reduced consumption (102 Units), relatively lower than preceding and succeeding months.	NA
28	Elton Almeida	Residential Single Phase	High Billing & Consumption	1. Units estimated in Aug due to strike. 2. Actual consumption increased in Oct (905) & Nov (738) compared to Sep. 3. This led to the consumer to perceive that consumption increased manifold during Sep (608) - Oct (905) - Nov (738).	NA
29	Deepak Jain (K K Kohli)	Residential Single Phase	High Billing & Consumption in Oct	1. Actual increased consumption (slightly) in Oct & Nov	NA

SN	Name of Consumer	Consumer Category	Consumer's Issue	Findings upon investigation	Credit passed on?
30	All India Anti-Crime Bureau (NGO)- (Ms. Hemlata Shah)	LT Commercial II (a)	High Billing & Consumption in Oct	1. Actual increased consumption in Oct & Nov	NA
31	JCB, Mumbai North (Mrs. Joesna Ganpati Badkar)	Residential Single Phase	1. General query on tariff revision 2. Concern about media outcry	Consumption as per usual trend.	NA
32	Veeral Dodhia	Residential Three Phase	High Billing & Consumption in Oct & Nov	1. Actual increased consumption in Oct & Nov	NA
33	Mayur Gupta	Residential Single Phase	High Billing & Consumption in Nov	1. Actual consumption increased in Nov (218 Units) as compared to Oct (118 Units)	NA
34	Gopal Pandey (M/s. Daffodil D CHS Ltd.)	Residential Three Phase	Society Bill (Common Area) increased by 4 times in Oct'18	1. Very high Oct consumption was reported in the system along with tampering flag. 2. However, no meter tamper detected during the site visit. 3. Billing Units amended based on past average consumption with slab benefits.	Yes

SN	Name of Consumer	Consumer Category	Consumer's Issue	Findings upon investigation	Credit passed on?
35	Subhash Sarfare (M/s. Shradha Costin)	Residential Single Phase	Increase in Sep Bill	1. Units estimated in Aug due to strike. 2. Amendment done and slab benefit given.	Yes
36	Vijay N Bhuvad	Residential Single Phase	High Billing & Consumption in Oct & Nov	1. Meter reading estimated in Aug due to strike. 2. Bills proactively amended to provide slab benefit to consumer. 3. Actual consumption increased in Oct (217) & Nov (307) with slab jump in Nov compared to Sep. 4. This led to the consumer to perceive that consumption increased manifold during Sep (130) - Oct (217) - Nov (307).	Yes
37	Vishal/ Pratik Shah	Residential Single Phase	Bill increased by 45%	1. Aug'18 Bill estimated due to strike.2. Bill amended and applicable slab benefit provided3. Actual consumption increased in Nov'18 with slab jump.	Yes
38	Smt. Rajani Sawant	Residential Single Phase	High Billing & Consumption in Sep & Oct	1. Meter Reading estimated in Aug due to strike. 2. Amendment done and slab benefit given.	Yes

SN	Name of Consumer	Consumer Category	Consumer's Issue	Findings upon investigation	Credit passed on?
39	Denzal Kinny Leo	Residential Single Phase	High Billing & Consumption in Sep	<p>1. Reading was being estimated as display of meter was defective and due to 'Access' issues.</p> <p>2. Upon getting the downloaded reading in Sep, actual consumption was on higher side i.e., consumer was previously under-billed on estimated basis.</p> <p>3. Necessary amendments carried out and slab benefits given.</p>	Yes
40	Yogesh Vora	Residential Three Phase_CO	Inflated bill	<p>1. Incorrect reading due to display issue resulted in over-charging.</p> <p>2. Bill amended and applicable slab benefit given,.</p> <p>3. Actual consumption increased in Oct (776) & Nov (661) within same slab.</p>	Yes
41	Conwood Agencies Pvt. Ltd. (Sanjay Jagtap)	LT Commercial II (a)	High Billing & Consumption	<p>1. Reading was being estimated as display of meter was defective.</p> <p>2. Upon getting the downloaded reading in Sept, necessary amendments carried out and slab benefits given.</p>	Yes

SN	Name of Consumer	Consumer Category	Consumer's Issue	Findings upon investigation	Credit passed on?
42	Atul Kanani	Residential Three Phase	High Billing & Consumption in Oct	1. Incorrect reading due to display issue resulted in over-charging. 2. Bill amended and applicable slab benefit given.	Yes
43	Amata khosla (Manoranjan Khosala)	Residential Three Phase	High Billing & Consumption in Nov	1. Readings were estimated due to 'Access' issues. 2. Bills amended and applicable slab benefits given.	Yes
44	Vanishree Shetty / Pramila Shetty	Residential Single Phase	Sudden increase in Sep Bill	1. Aug'18 Bill was estimated due to strike. 2. Slab benefit was given in next bill. 3. Meter was replaced due to display issue. 4. Error in new meter change entry. Initial reading was wrong. 4. Consumer's bill was subsequently amended by referring the actual reading.	Yes
45	Varun Bohra	Residential Single Phase	Increase in Sep Bill	1. Suspected error in recorded consumption due to 'earthing' issue in consumer side installation. 2. Upon inspection, it was found that Earth Load indicator of Meter was ON indicating leakage to earth somewhere in consumer's premise.	Yes

SN	Name of Consumer	Consumer Category	Consumer's Issue	Findings upon investigation	Credit passed on?
				3. Bills amended on prorated units and credit given.	
46	Anita Gupta	Residential Three Phase	Clarification on 'Adjustments'/ Other Charges	<p>1. Customer opted for ECS and the same has been stopped due to NACH. Hence payment was not made through ECS.</p> <p>2. Further, bill amount and ECS returned charges debited in next bill under head "Adjustment".</p> <p>3. Customer needed to apply fresh for NACH to opt this facility.</p>	Yes
47	Sundar Acharya (Ms. Jayanti & Mr. Prasanna P Kumar)	Residential Three Phase	Levy of 'Other' Charges in Bills & High Consumption	<p>1. Bill Payment dated 09.07.18 of Rs 2500 returned by bank.</p> <p>2. This due payment alongwith applicable charges as per SOC were debited and shown under 'Other' charges.</p> <p>3. Consumers' consumption is in line with usual trend.</p>	NA
48	Balachandra Menon	Residential Single Phase	Amount deducted; payment not reflected	<p>1. Customer made payment of Rs. 5260 for CA 100348144 and Rs. 390 for 102732420 on 28/10/2018 through credit card</p> <p>2. Confirmation Delay from bank.</p>	Yes

SN	Name of Consumer	Consumer Category	Consumer's Issue	Findings upon investigation	Credit passed on?
				3. DPC levied as per system. 4. Customer did not get PPI. 5. Customer made complaint regarding same and requested to reduce additional charges and give PPI.	
49	Suresh Savaliya	Residential Single Phase	Non-reflection of payment	1. Consumer has done On-line payment by SBI card which got failed at bank's end. 2. No transaction details were provided. 3. Transaction was traced using Bill desk team (third-party service provider for that particular gateway)	NA

7.4 Observations of the Committee: -

7.4.1 The Committee found that all the complaints registered with the Committee were attended by AEML-D. The physical record of these complaints was cross checked by the Committee and found consistent with the submission made by AEML-D. The Committee secretariat vide email dated 5th March, 2019 and 3rd April, 2019 had requested these complainants to provide additional documents, if any, to support their grievance. In response complainant (Vanishree Shetty, Varun Bohara, Naval Rungta, Bhalchandra Menon and Jimmy George) have informed that their grievances have been resolved. Except this no other submission has been received by the Committee.

7.4.2 From the action taken report submitted by AEML-D, the Committee has observed that some of the complaints are from the cycles from 11th to 15th which was affected by agitation by meter readers, but remaining complaints, are from different cycles, in the nature of complaint of excess billing, or about payment issues or are generic in nature. AEML-D has verified the installed meters and replaced those by new ones, wherever the meters were found faulty. Other complaints were resolved by AEML-D by billing on actual meter reading and slab credit given wherever due. Summary of Complaints is as follows:

Table 7-2: Details of grievances redressed by AEML-D

Sr No	Classification of complaints and action taken	Cases	Credit Given
1	Normal Consumption found (No Slab Shift)	17	0
2	Bill found increased due to higher consumption and slab shift	16	0
3	Assessment based bills; slab benefit given	5	5
4	Assessment based bill (Access Issue) Slab Benefit given	1	1
5	Assessment Based bill (Defective Display); Slab benefit given	4	4
6	Payment Transaction Issue	4	2
7	Complaint of high Consumption due to Meter Tamper Event, but on verification meter found okay	1	1
8	Consumer was assessed on higher side due to non-availability of ELCB	1	1
	Total	49	

- 7.4.3 Complaint of Shri. Dyanand Shetty a consumer of BEST was related to levying different charges in electricity bills. The Committee found that these charges are as approved by the Commission in respective Tariff Order.
- 7.4.4 The Hon'ble Energy Minister has marked the application of Shri. Mangesh Kudalkar (MLA) to the Commission to examine the nature of the complaint. The Commission has already constituted the Fact-Finding Committee on the upsurge of the bill. Therefore, the complaint of Shri. Kudalkar has been taken care of by the Committee.
- 7.4.5 The Committee also sought simulation of electricity bill for the month of August to October, 2018 based on actual units recorded in October, 2018. It is found that energy charges and wheeling charges were low in August 18, which increased in September 18 and October 18 due to upward revision in energy charges and wheeling charges post tariff revision. Regulatory asset charges were high in August 2018, which was reduced in September 2018 and October 2018 due to reduction in RAC post tariff revision. There is 2-5% hike in overall bills of September, 2018 considering all factors in comparison with August, 2018.
- 7.4.6 In addition to 54 complaints received by the Fact-Finding Committee, AEML-D has also received complaints directly. The Committee directed AEML-D to submit the details of the Complaint received by them through special camps organized in its area or received through dedicated E mail. The Fact-Finding Committee also asked for line action taken to redress these complaints. The AEML-D submitted a list of 5086 complainants received at the special camp, and list of 5228 complaints received through the E-Mail.
- 7.4.7 To verify the action taken by AEML-D, the Committee decided to select 100 sample cases from the list of complaints provided by AEML-D. For drawing out such sample, the Committee segregated these complaints as per geographical operational zone of AEML-D and based on weightage of each zone in total number of complaints received, weightage in sample selection has been decided for each zone. Thereafter, based on such weightage, individual sample from each zone is selected by taking

complaints after regular intervals from the alphabetically arranged list of that particular zone. List of such sample of 100 complaints were communicated to AEML-D for providing details of documentary evidence of action taken by it.

- 7.4.8 The Committee visited the Office of AEML-D at Bandra on 17th May, 2019 and verified randomly the bills of the consumers to check correctness of bills including the assessment as per actual reading, and the benefits slab of benefit given. Physical record of a few sample bills of the consumers was also examined. The Committee found no discrepancy in software and in the physical verification of such bills in terms of tariff rates, slab benefit and assessment.

8. Issues and Observations

8.1 Terms of Reference required the Committee to find out facts for sudden upsurge in electricity consumption and other reasons which might have led to increase in electricity bills in Mumbai and its suburbs, and suggest corrective steps to avoid such incidents in future.

8.2 Scope of fact-finding exercise covers all the DLs in Mumbai. Accordingly, the Committee have sought details from all the Licensees in Mumbai. However, as consumer's unrest was noticed in the area of the AEML-D, the Committee has conducted its fact-finding exercise by keeping AEML-D as focal point and then correlate it with the other DLs in Mumbai. The Committee is recording its observation in the following paragraphs:

8.3 What were the probable causes of consumer unrest?

In the month of November, 2018, there were various media reports on consumer agitations on the sudden surge in electricity bills of AEML-D's consumers in Mumbai Suburban area. There appear to be two broad reasons for such unrest:

8.3.1 The complaints arose out of large number of electricity bills issued in the month of September, 2018 and October, 2018, based on average consumptions and not on actual meter reading. This is because large number of meters could not be read due to workers agitation in August / September, 2018. A total of 4.35 lakh bills were raised on the assessment basis, considering average consumption by the consumers. These bills were served in accordance with the billing cycles.

8.3.2 The months of September and particularly October, 2018 marked high temperatures and humidity, resulting in surge in power requirement. The telescopic tariff structure particularly of the residential consumers led to levy of higher tariff as the consumers moved up to higher consumption brackets.

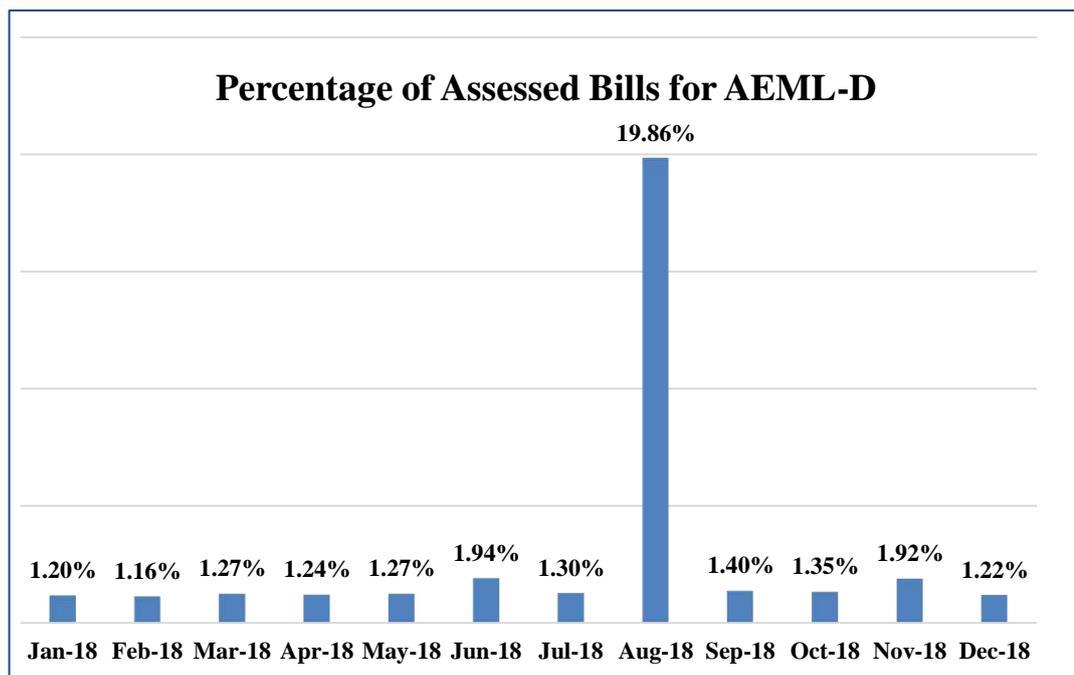
8.3.3 The Committee scrutinised above explanation, and found it consistent with the data provided by AEML-D and other DLs. This is elaborated in the following part of the report.

8.4 Was there a correlation between the complaints and the workers agitation

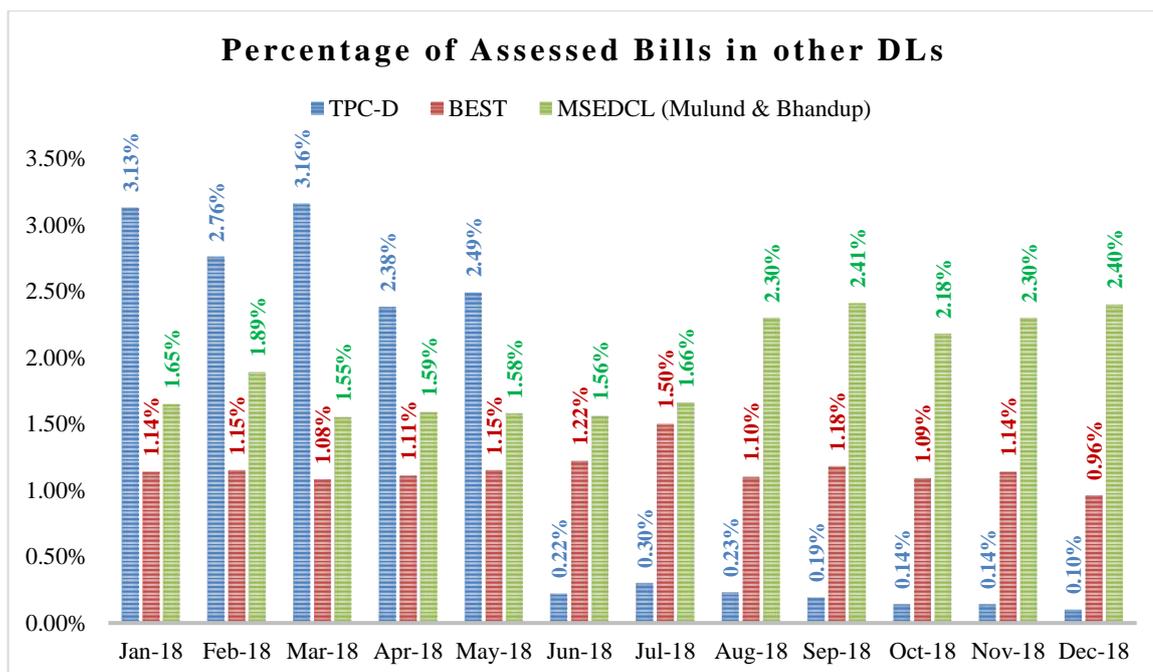
and consequent raising of assessment-based electricity bills?

8.4.1 The Committee observed that there was an agitation by the workers' union immediately after the transfer of management from R-Infra to AEML. As explained by the AEML-D the agitation was on some legacy issues inherited by the present Distribution Licensee. As explained by the AEML-D, out of a total of 24.48 lakh consumers, 4.35 lakh consumer meters in the billing cycle number 11 to 15 could not be read during the agitation.

8.4.2 The data on Consumer grievances shared by the AEML-D indicate that out of a total of 12392 complaints, 3596 complaints were related to assessment-based bills of agitation period. AEML-D has submitted month wise of 2018, of assessment-based billing on account of faulty meters, or inaccessible meters, as follows:



8.4.3 The data also reveals that usually every month a few consumers are billed on the assessment basis as their meters are not read due to various reasons. Similar trend of billing on assessment basis can be seen in other DLs as shown in graph below:



8.4.4 Thus, on an average, assessed bills in any month does not exceeds 3% of total billed issued. Same is true for AEML-D also, except for the billing month of August, 2018. The number of complaints arising out of bills raised on assessment basis by AEML-D were abnormally high for the period when the workers union resorted to agitation. The Committee is of the view that though the workers agitation was not the sole reason of consumers unrest, it did certainly contribute to public outcry.

8.4.5 The Committee notes that AEML-D has taken following actions regarding 4.35 lakh consumers who were billed on assessment basis:

Table 8-1: Details of Assessed Consumers

Sr No	Particulars	Number of Consumes	Value (Rs Cr)
1	No. of Consumers billed on assessment basis	435230	
2	Non- Residential Consumers	57747	
	Non- Residential Consumer's bills Amended	5223	0.78
3	Residential Consumers	377483	5.43
a	<i>Details of Slab benefit based on actual meter reading</i>	231568	5.43
b	<i>Customers where actual metering reading was more than the estimated amount (i.e. assessment was on lower side)</i>	145915	
4	Total (2+3)	435230	6.21

8.4.6 The Committee noted that only 38532 consumers were given credit in the billing month of September, 2018 and other eligible consumers received credit from December, 2018 onwards. On enquiring about the same, AEML-D has clarified that practice adopted by it (earlier RInfra) for amendment of assessed bills on availability of actual meter reading was manual. Estimated bills were identified manually and manual credit was passed in subsequent bill. In case, if consumers complaint / approach before the next billing, special meter reading was arranged, and bill were amended immediately. However, such manual correction was found to be difficult in view of large number of assessed bills in the month of September, 2018 on account of non-availability of meter reading due to employee's agitation. Hence, to resolve the issue, IT program development was undertaken on an urgent basis to 'auto amend' the estimated bills and pass appropriate credit in subsequent bills. The program development, testing and implementation was completed in last week of December 2018. Thereafter, the credit was issued to eligible consumers along with the interest. The Committee observes that the former DL, R-Infra should have undertaken the process automation much earlier which would have helped AEML-D to redress consumer grievances much faster. Now that, this has been done by AEML-D, the Committee expects that consumer'- grievances related to assessed bills would be redressed in much shorter time.

8.5 Whether there was an unusual rise in temperature during September, and October, 2018?

8.5.1 The Committee examined these explanations of the DLs on this issue in light of the data of Indian Metrological Department, which was independently gathered from the website of that department. The Committee noted the following observations in the Annual Climate Summary, 2018 published by Indian Metrological Department

“During October, maximum temperature was above normal by about 2 to 3°C, over parts of Saurashtra and Kutch, Madhya Pradesh, Maharashtra, Chhattisgarh, North Interior Karnataka, Telangana, coastal Andhra Pradesh and Rayalaseema.”

8.5.2 The Committee also collected past three years data of temperature variation and average rainfall in Mumbai which shows is tabulated as below:

Table 8-2: Data of last three years of temperature variation in Mumbai

Maximum Temperature (°C) in Mumbai			
Month	Year		
	2016	2017	2018
January	29	29	29
February	30	31	31
March	32	32	32
April	33	33	33
May	33	33	33
June	31	31	31
July	28	29	28
August	28	29	28
September	28	30	30
October	30	32	35
November	31	31	34
December	31	29	31

(Source: -worldweatheronline.com)

Table 8-3: Data of last three year of average rainfall in Mumbai

Rainfall in Mumbai						
Month	Year					
	2016		2017		2018	
	No of days	Rainfall in mm	No of days	Rainfall in mm	No of days	Rainfall in mm
June	23	292.84	28	248.56	25	211.4
July	31	655.43	31	415.14	28	289.91
August	31	384.73	31	216.57	29	179.57
September	21	222.83	22	84.07	14	29.02
October	8	26.12	11	57.65	7	32.4

(Source: -worldweatheronline.com)

8.5.3 From the data it is observed that the highest maximum temperature was recorded in the month of October, 2018 as compared with other years. Further as compared to September, 2018, there was 5⁰ Celsius rises in temperature of October, 2018. Also, there is reduction in average rainfall in the year 2018. Thus, an inference can be drawn, that there was an unusual rise in temperature during October, 2018.

8.6 Was there an actual surge in power demand across all DLs in Mumbai?

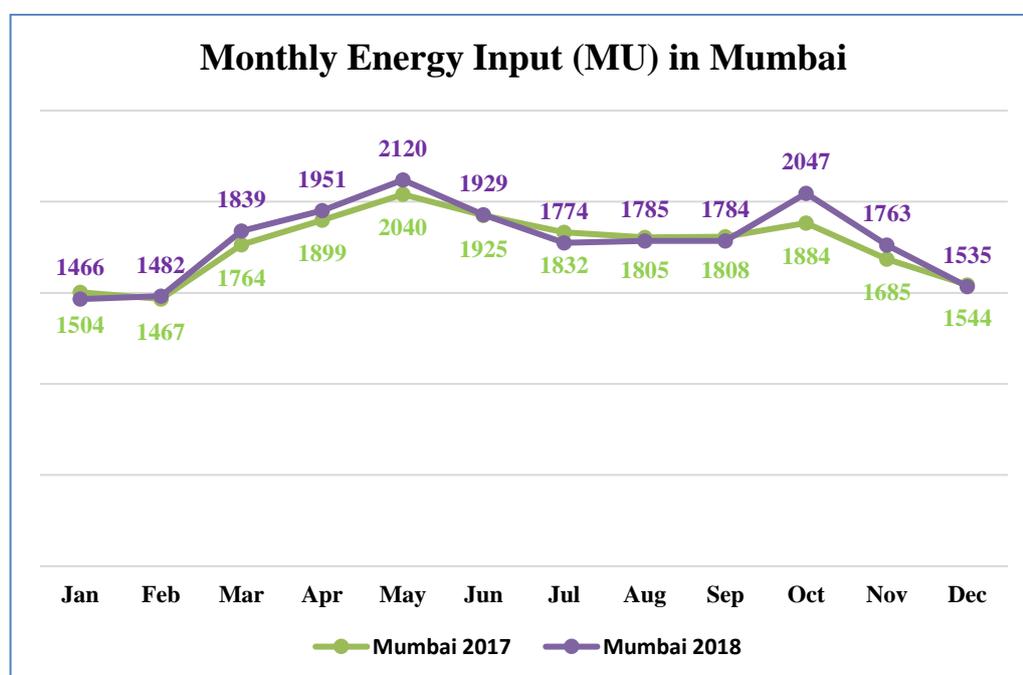
8.6.1 The Committee obtained the explanations of all the DLs in Mumbai. All the DLs have reported rise in electricity demand during October, 2018. This is corroborated from the data provided by the MSLDC.

Table 8-4: Input MUs data for Maharashtra and Mumbai published by MSLDC

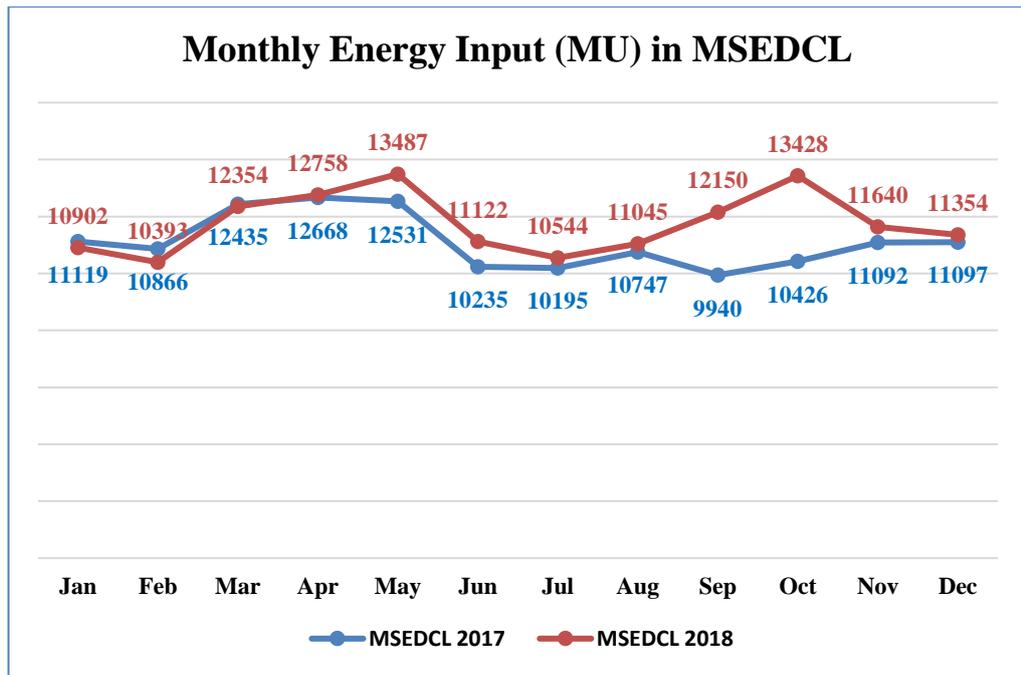
	Input (MU)					% Increase in Input Energy			
	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Sep Vs Aug	Oct Vs Sep	Nov Vs Oct	Dec Vs Nov
MSEDCL	11045	12154	13428	11640	11367	10%	10%	-13%	-2%
Mumbai	1785	1784	2047	1763	1535	0%	15%	-14%	-13%
State	12830	13938	15475	13403	12902	9%	11%	-13%	-4%

(Source – Daily System Report published by Maharashtra State Load Despatch Centre)

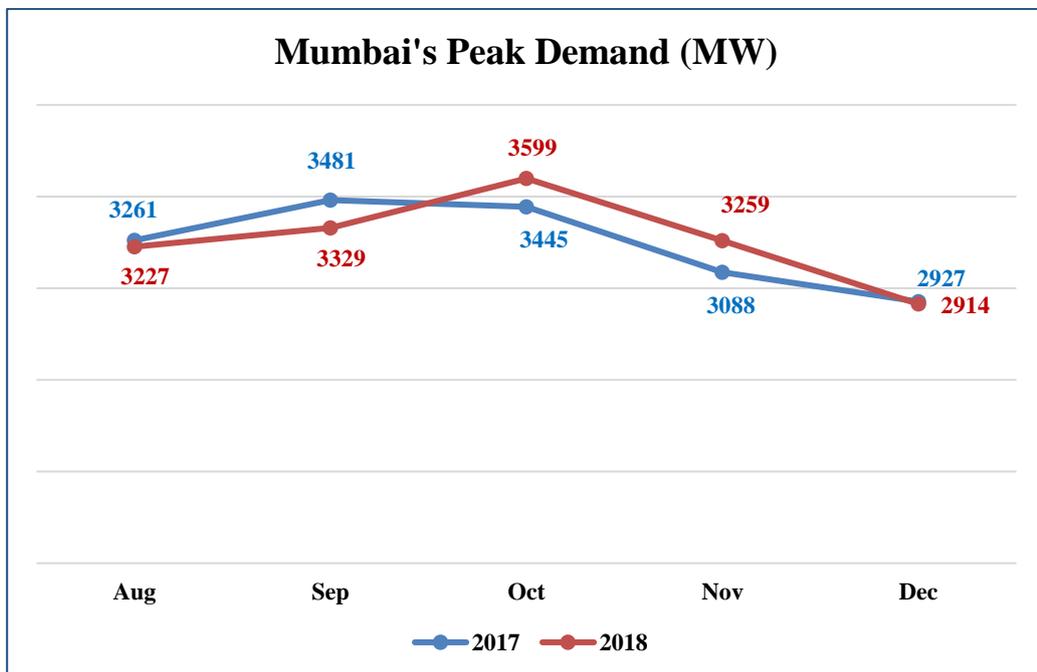
8.6.2 Mumbai has seen 15% increase in input energy in the month of October, 2018 as compared to September, 2018. Further, Mumbai’s Energy input for October, 2018 (2047 MU) was 9% higher than previous years input for October, 2017 (1884 MU). In fact, consumption in October, 2018 is almost equal to summer month of May, 2018.



8.6.3 Similar (10%) rise in input energy is observed in MSEDCL area which served consumers in rest of Maharashtra.



8.6.4 The Committee also observes there is 5% rise in peak demand in the month of October, 2018 and November, 2018 as compared to previous year FY 2017-18 which is represented as follows



(Source – Daily System Report published by Maharashtra State Load Despatch Centre)

8.6.5 The months of September and particularly October, 2018 marked high temperatures and humidity resulting in surge in power requirement. Once, the temperature started reducing, power demand shows reduction in

months of November and December, 2018. Thus, the Committee observed a positive correlation between temperature and electricity consumption. Above data obtained from the MSLDC conclusively establishes a surge in power demand caused by high average temperature recorded in the month of October, 2018 in Mumbai.

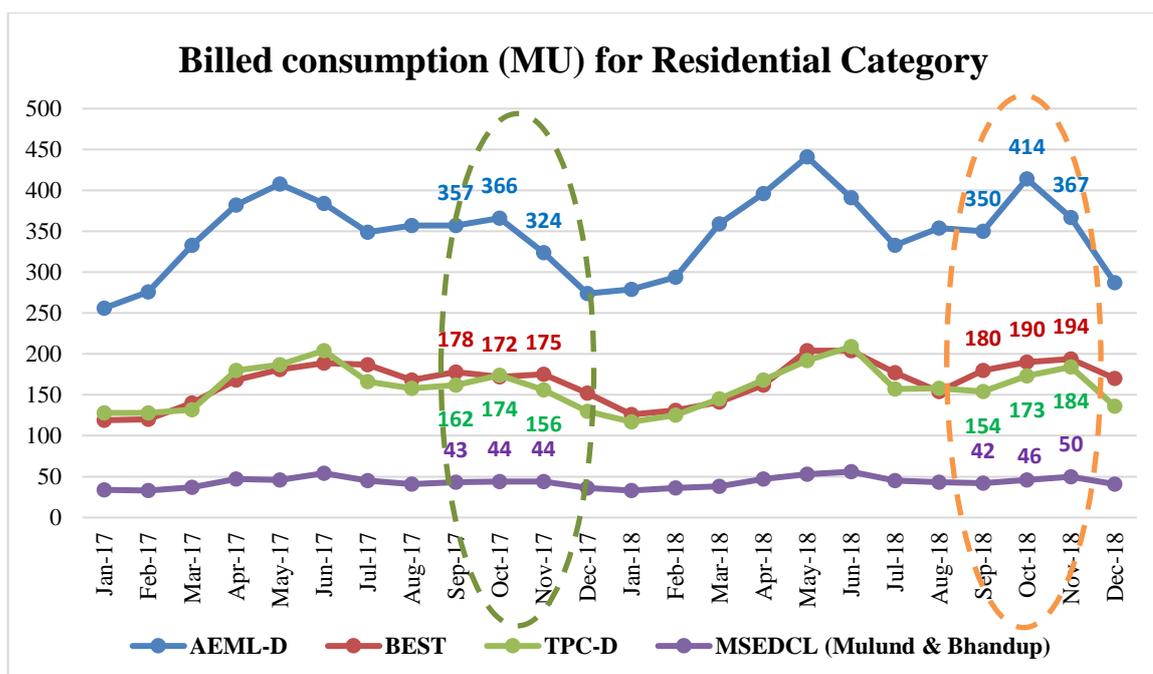
8.6.6 The Committee also analysed the consumer mix of different DLs in Mumbai. As shown in table below the residential consumers are 70-90% of the total consumer base in Mumbai.

Table 8-5: consumer mix of different DLs

Sr. No.	Name of Licensee	Total Number of consumers as per MTR Order	Residential consumers	% w.r.t total number of consumers
1	AEML-D	2448092	1987725	82%
2	TPC-D	713365	677353	95%
3	BEST	1049391	761376	72%

(Source: - MTR Orders approved by the Commission)

8.6.7 As shown in Input Energy Graphs above, input energy has been increased in the month of October, 2018. Such increased in input energy have been reflected in energy billed to consumers. As can be seen from the graph below, billed consumption for the month of October, 2018 is not only higher than previous month's consumption but is also higher than that billed in previous year i.e. October, 2017.



(Source: - Information submitted by Licensees)

8.6.8 Telescopic Tariff structure has historical background, wherein the rate of electricity increases with consumption. This is widely accepted tariff structure in most of the States, which has been adopted for residential consumers in Maharashtra. Telescopic Tariff structure for AEML-D has been illustrated in table below:

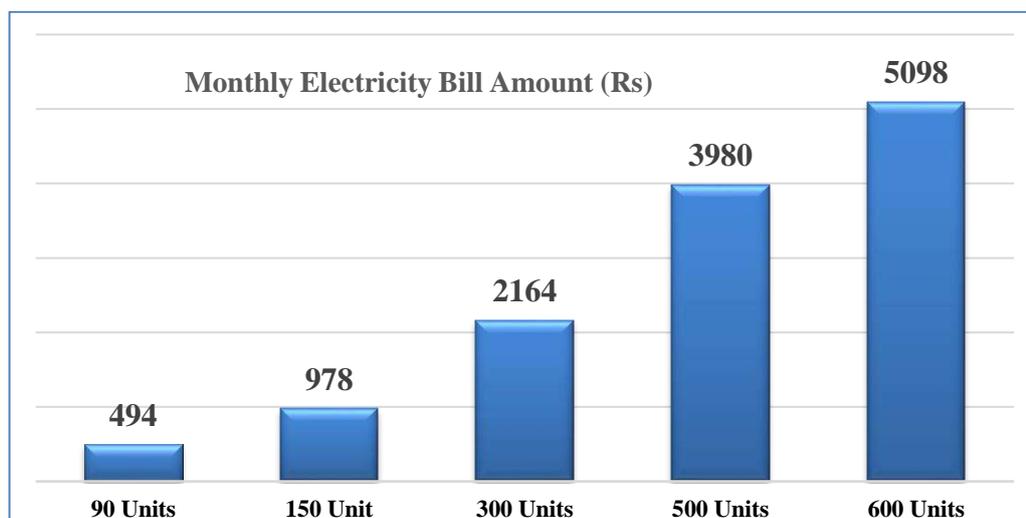
Table 8-6: Telescopic Tariff structure of AEML-D

Consumption (Unit)	Monthly electricity tariff rate			
	Fixed Charge (Rs/ Month)	Wheeling Charge (Rs/ Unit)	Energy Charge (Rs/Unit)	Regulatory Asset Charge (Rs/Unit)
0-100	65	1.57	3.00	0.20
101-300	105		6.02	0.32
301-500			7.15	0.36
Above 500	130		8.90	0.46

(Source: - MTR Order of AEML-D)

8.6.9 The Telescopic Tariff structure incentivises the consumers to consume less electricity. With increased monthly consumption, consumers are required to pay incremental energy charge at higher rate. MERC has approved Telescopic Tariff for different energy consumption slabs.

Following graph illustrates increase in monthly electricity bill with increased consumption:



8.6.10 The impact of Telescopic Tariff structure during the reference period was faced by on the residential consumers and resulted in a large number of consumers moving to upward slabs from their normal consumption brackets. This particularly occurred for the consumers of AEML-D who are normally in the 0-100 and 101-300 slabs.

Table 8-7: Impact of Telescopic Tariff structure on the residential consumers

Category/ Consumption Slab	Sep-18	Oct-18			
	Total	0-100	101-300	301-500	>500
LT-I Residential					
0-100	767490	602180	154971	7973	2366
101-300	962113	57232	782056	110937	11888
301-500	176746	1449	20186	109735	45376
>500	81977	430	958	6216	74373
Total	1988326	661291	958171	234861	134003

(Source- AEML-D's Presentation to the Committee on 5 April, 2019)

8.6.11 AEML-D has submitted the data of slab change over from August, 2018 to November, 2018 keeping the base of number of consumers in the previous month.

Table 8-8: Slab changeover consumer data from August, 2018 to November, 2018

Slab	Single phase (number of Consumers)			Three Phase (number of Consumers)		
	in previous month	in current month	% change	in previous month	in current month	% change
As compared to August, 2018; Consumer slab change for September, 2018						
0-100	709352	714647	0.74%	51896	52,843	2
100-300	889885	874678	-0.01%	90,192	87,435	-3
301-500	117228	123371	5.24%	53,926	53,375	-1
>500	24947	28716	15	50,900	53,261	5
As compared to September, 2018; Consumer slab change for October, 2018						
0-100	714647	616585	-13.72%	52,843	44,706	-15.40
100-300	874678	892833	2%	87,435	65,338	-25.27
301-500	123371	175867	42.55%	53,375	58,994	10.53
>500	28716	56127	92.46%	53,261	77,876	46.22
As compared to October, 2018; Consumer slab change for November, 2018						
0-100	616585	693,512	11.09%	44,706	45,116	0.92
100-300	892833	882410	1.18%	65,338	80,408	23.06
301-500	175867	132521	32.71%	58,994	58,558	-.74
>500	56127	32969	70.24%	77,876	62,832	-19.72

(Source: - AEML-D's Presentation to the Committee on 5 April, 2019)

8.6.12 Based on the above data, an inference can be drawn that a large number of consumers migrated from lower consumption slabs to higher consumption slabs in October, 2018, and subsequently reverted to the lower slabs in November, 2018. Such change in consumption slab is clearly attributable to seasonal variations, in temperature.

8.6.13 The Committee observed similar pattern of consumption slab shift in respect of other DLs as summarised in the table below:

Table 8-9: Consumption slab shift in respect of other DLs

TPC-D	LT Residential					
	Unit	Aug-18	Sept-18	Oct-18	Nov-18	Dec-18
	0-100	119161	121854	109648	99415	152488
	101-300	391431	389192	352223	339733	384261
	301-500	102669	100411	123866	133348	73371
	501 & Above	38211	37142	57905	67955	28036
	Total	651472	648599	643642	640451	638156

BEST	LT Residential					
	Unit	Aug-18	Sept-18	Oct-18	Nov-18	Dec-18
	0-100	246378	209905	195779	201864	229901
	101-300	388227	391756	375422	364143	378328
	301-500	73866	95189	110788	109395	89177
	501 & Above	41965	54532	69927	77024	55353
	Total	750436	751382	751916	752426	752759

MSEDCL (Mulund and Bhandup)	LT Residential					
	Unit	Aug-18	Sept-18	Oct-18	Nov-18	Dec-18
	0-100	96931	100013	90589	87289	106187
	101-300	137776	135821	133674	130495	125781
	301-500	18256	17083	24544	28097	18662
	501-1000	4749	4360	7518	9869	5288
	Above 1000	1397	1367	1576	1767	1366
Total	259109	258644	257901	257517	257284	

(Source: Data submitted by Licensees as per requirement of the Committee)

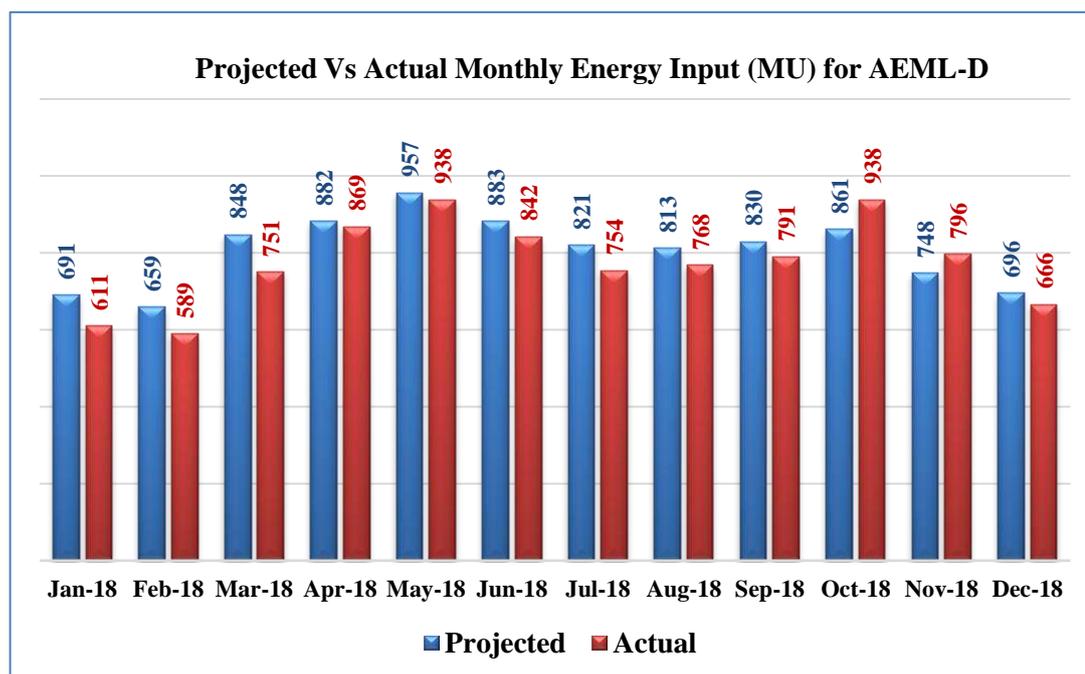
(Note: - Data of TPC-D, BEST and MSEDCL is mix of old and new consumers)

8.6.14 Thus, an inference can be drawn that due to increase in temperature, in October, 2018, DLs have witnessed surge in power demand. Most of residential consumers have shifted from lower consumption slab to higher consumption slab which has resulted in increase in their monthly energy bills. However, with subsequent fall in temperature in month of November and December, 2018, electricity consumption has reduced and consumers have shifted back to lower consumption slab with lower electricity tariff.

8.7 How was the additional demand of power managed by DLs particularly AEML-D and did it result in procurement of costlier power?

8.7.1 As the consumption rose with the soaring temperature, the DLs were obliged to procure more Short-Term power at a higher rate compared to PPA power and the tariff approved by the Commission under the MYT/MTR. This inference is based on the data provided by the DLs and, which is corroborated by the data obtained independently from the MSLDC. The Fact-Finding Committee visited the MSLDC on 26th April, 2019.

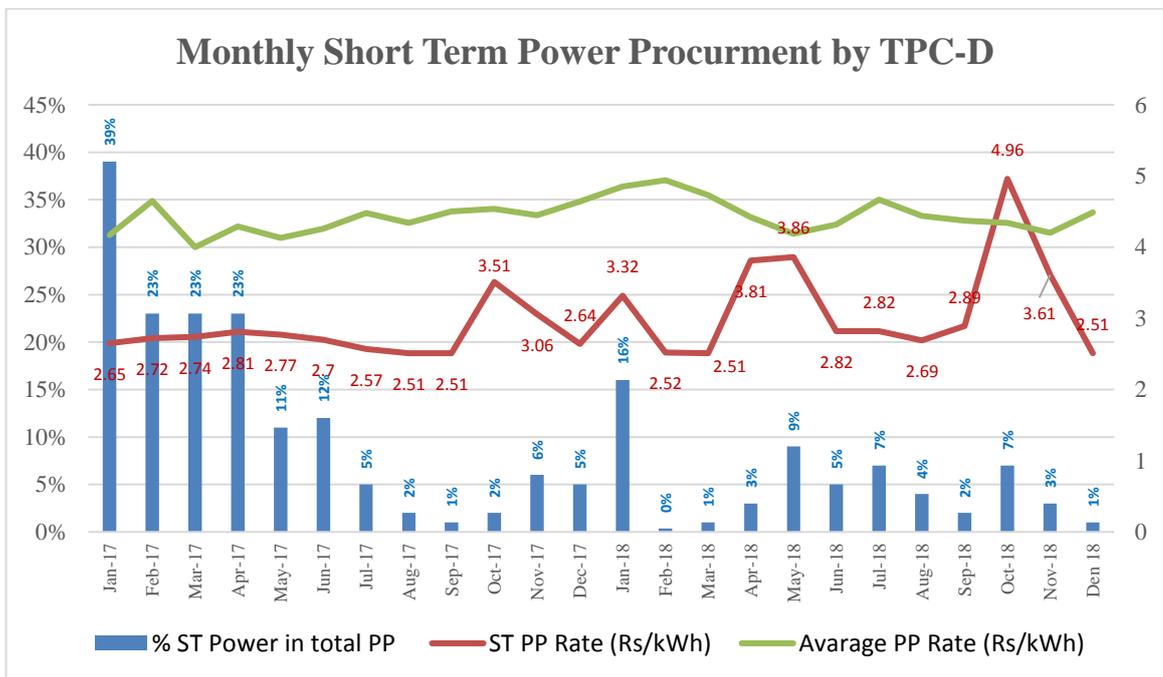
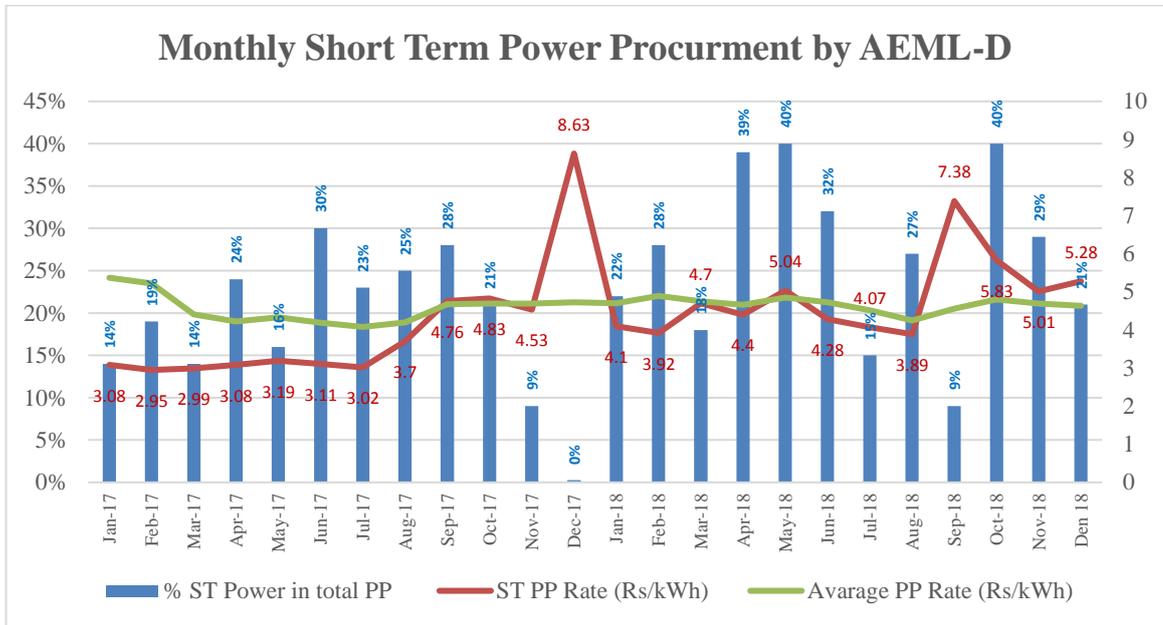
8.7.2 Further, as can be seen from the graph below, actual energy drawn by AEML-D in FY 2018-19 is lower than its monthly energy requirement projection in its MTR Petition, except for the month of October, 2018 wherein AEML-D actual energy input is higher by 77 MU compared to its projections.

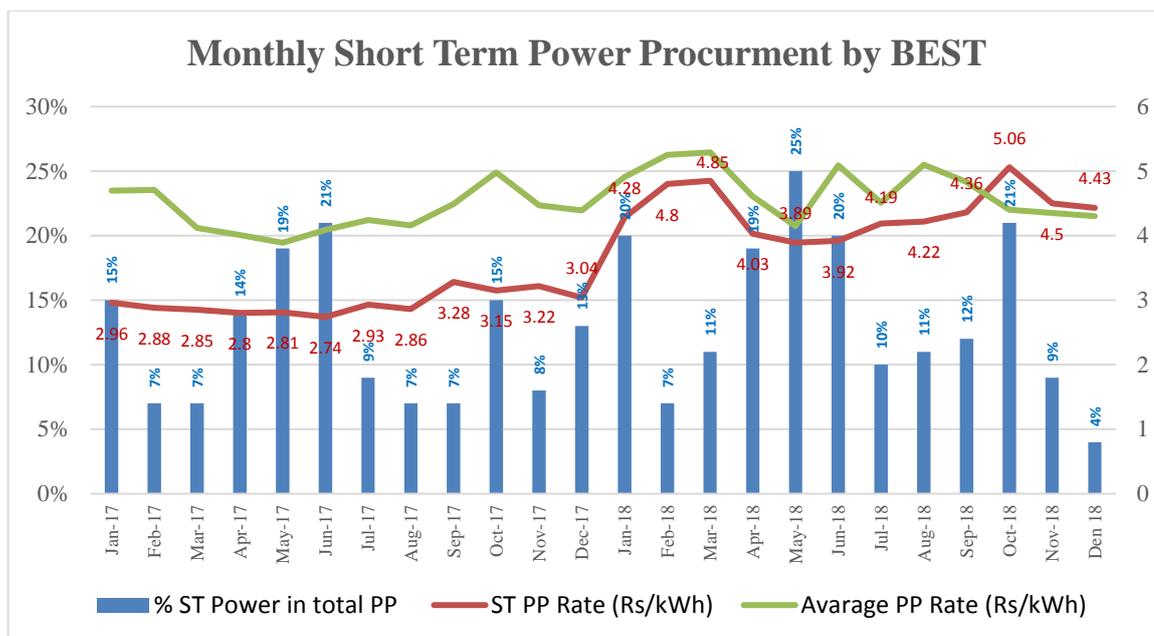


(Source: - AEML-D's Presentation to the Committee on 13th May, 2019)

8.7.3 The Committee has also analysed power procurement details submitted by DLs in Mumbai and represented in graphical format below. As power procurement of MSEDCL is undertaken for its entire area as a whole, same cannot be carved out for Mulund and Bhandup. Further, below graph is focusing on short term power procurement, for which MSEDCL

has lower contribution in its total power purchase cost. Hence, for the purpose of analysing Short-Term power procurement, procurement undertaken by AEML-D, TPC-D and BEST has been analysed and shown below:





(Source: - Information submitted by Licensees)

8.7.4 The Committee observed that during high demand month of October, 2018, all DLs have to resort to procurement of Short-term power for meeting increased consumer demand. Such procurement of power was at rate higher than the average power purchase cost of the DL.

8.7.5 The Committee also notes that TPC-D and BEST have also resorted to short term power procurement in other months, however rate of such procurement was lower than its average power procurement rate. Whereas in case of AEML-D, contribution of Short-Term power procurement in its total power procurement is quite higher (above 20% in 9 months of year 2018) reaching upto 40%. Also, rate of Short-Term power procurement is near to or above its average power procurement rate.

8.7.6 During the visit to MSLDC, the Fact-Finding Committee came to observe poor generation of power by VIPL with whom AEML-D has signed Long Term power procurement agreement for 660 MW. In fact, VIPL has been under shutdown since February, 2019. In FY 2018-19, VIPL’s power availability was just 46%. AEML-D is sourcing such huge shortfall through Short Term procurement. The Committee is of the opinion that such arrangement may not survive in long term. In case short term electricity rate in the market increased further, AEML-D’s consumer will have face huge tariff increase. The Commission may like to direct AEML-

D to deal effectively with VIPL's short supply of power as early as possible.

8.8 What was the contribution of FAC to the consumer bills of September to December, 2018?

8.8.1 In accordance with MYT Regulations, 2015, the FAC for a particular month of electricity supplied is billed after 2 months. However, due to legacy issues and billing systems adopted by the DLs, 2 months lag period is varying across the DLs. Following table provides for the month for which FAC has been computed and levied in billing month of November, 2018 across the DLs in Mumbai.

Table 8-10: Levy of FAC

Particulars	Distribution Licensee			
	AEML-D	TPC-D	BEST	MSEDCL
FAC for the month	Sep 2018	Sep 2018	Aug 2018	Aug 2018
Levied in the billing month	Nov 2018	Nov 2018	Nov 2018	Nov 2018

8.8.2 Average FAC levied by various DLs to its consumers in Mumbai is tabulated below:

Table 8-11: Details of Average FAC levied by DLs

Month	AEML-D	TPC-D	BEST	MSEDCL
Jan-18	0.34	0.35	0.53	0.07
Feb-18	0.44	0.59	0.06	0.07
Mar-18	0.35	0.83	0.02	-0.03
Apr-18	0.37	0.92	0.68	0.10
May-18	0.22	0.51	0.84	0.18
Jun-18	0.33	0.20	0.82	0.20
Jul-18	0.50	0.00	0.23	0.07
Aug-18	0.24	0.26	-0.36	0.08
Sep-18	0.58	0.63	0.68	0.32
Oct-18	0.18	0.41	0.24	0.63
Nov-18	0.68	-0.07	0.65	0.19
Dec-18	0.50	-0.08	0.69	0.20

(Source: - Information submitted by Licensees)

8.8.3 As can be seen from above, FAC rate is varying from negative (rebate to consumer) to positive (additional levy to consumer) depending upon

variation in power procurement rate for that particular month. BEST's high rate of FAC during the month of April to June 2018 is on account of REC procurement by BEST for fulfilling its Renewable Purchase Obligations.

- 8.8.4 In case of AEML-D, highest FAC rate is Rs. 0.68/kWh which is billed November, 2018. FAC at this rate is contributing to 7% in electricity bills of Residential consumer consuming 100 units a month. FAC rates for most of other months is much lower than this rate and hence would contribute much lower part in total bill of consumer.
- 8.8.5 The Committee also analysed reason for high FAC rate of Rs. 0.68 /kWh of AEML-D and found that main reasons is increased in per unit rate of DTPS power (from Rs. 3.86/kWh considered in Tariff Order to Rs. 4.23 /kWh in actual) and procurement of Short-Term power at higher cost (Rs. 7.38/kWh).
- 8.8.6 In subsequent month, AEML-D has restricted the effect of FAC to 50 Paise per unit.
- 8.8.7 AEML-D has attempted to project that the change in principles of FBSM adjustments has caused increase in FAC. However, AEML-D has not clarified the necessity of drawing more energy from the pool. If strict discipline is maintained in procurement of power as projected, the possibility of drawing energy from pool may reduce automatically and there would be no occasion of impact of FBSM adjustments. It would also be worthwhile to note that the Commission in its MTR Order has specifically directed that the licensee should avoid drawl of more energy from pool. AEML-D appears not to have taken due cognizance of this direction of the Commission and has continued to draw more energy from the pool, consequently resulting in FAC variation. Further, the Committee found that in the FAC of 68 paise/unit (levied in November, 2018), the impact of alleged change in FBSM methodology is just 5 paise/unit which is not major part of FAC levied to consumers.

8.9 Was the electricity tariff charged to the consumers as per Tariff Orders?

- 8.9.1 The Committee examined a few sample bills and checked up different components of energy bill such as fixed charge, wheeling charges, RAC and the energy charge etc. in light of the approved MTR Tariff Order in Case No. 200 of 2017 dated 12th September, 2018. The bills were found to be in accordance with approved tariff.
- 8.9.2 The Commission approved MTR tariff Order on 12th September, 2018 for all Distribution Licensees. This was brought in effect from 1st September, 2018. The revision in Tariff as approved by the Commission for AEML-D was 0.24% on average basis, however the impact on residential consumers in low tariff consumption slab (0-100 and 101-300 units per month) was around 4% and 1% respectively.
- 8.9.3 AEML-D could not implement the revised Tariff Order immediately as it required some modifications in the billing software. Its effect was given on 22nd September, 2018 and the bills raised after that date were based on the revised tariff. The bills of consumers' cycle between 1st to 21st September, 2018 had already been raised on the basis of old tariff. Bills of such consumers in next billing cycle were raised on the basis of revised tariff, and also included tariff differential amount for the earlier month. From the details submitted by AEML-D it is observed that such adjustment has contributed average 1% in electricity bills of 13.89 lakh Residential consumers in the billing month of October, 2018.
- 8.9.4 The Committee notes that as in case of AEML-D, other DLs also took some time to implement revision in tariff as approved by the Commission, and hence adjust differential amount in subsequent electricity bills of the consumers.
- 8.9.5 The Commission has issued the MTR Order on 12th September, 2018 and has made the revised Tariff effective from 1st September, 2018. AEML-D has implemented such revised tariff w.e.f. 22 September, 2018. As stated by AEML-D, such retrospective levy of tariff order has also contributed in increased electricity bills of consumers in October, 2018. However, the Committee found that impact of such retrospective levy of revised tariff is around 1% on average basis of the total amount billed to Residential consumer. Therefore, the Committee is of the opinion that

such retrospective levy of tariff did not contribute substantially in increased electricity bill amount.

8.9.6 In its analysis, the Committee try to find out which factor affects more significantly for increased electricity bills of consumers. As stated in earlier part of the Report, in the month of October, 2018 due to increase heat, most of Residential consumers have consumed more electricity which leads to change of tariff slab. In table below, illustrative example of a Residential consumer who was consuming 100 units per month has been considered and factors (Tariff Revision, Variation in FAC and Slab Change) causing its bill increased when it shifts to 300-unit slab in month of October, 2018 (billing month of November, 2018) has been segregated below:

Table 8-12: Details of factors (in %) contributed for increased electricity bills

Particulars	Residential Consumer									
	AEML-D		TPC-D (Direct)		TPC-D (Changeover)		BEST		MSEDCL	
Base Consumption (Aug 2018) (kWh)	100		100		100		100		100	
Base Electricity Bill (Aug 2018) (Rs)	480		429		453		330		498	
Increased Consumption (Nov 2018) (kWh)	300		300		300		300		300	
Electricity Bill (Nov 2018) (Rs)	2248		2016		1865		1541		2189	
Increase in Electricity Bill (Rs)	1768		1587		1412		1211		1690	
Contributors to Increased Bill										
Tariff Revision	113	6%	254	16%	-77	-5%	13	1%	28	2%
Variation in FAC	127	7%	-51	-3%	-61	-4%	192	16%	35	2%
Tariff deferential due to slab change	1528	86%	1385	87%	1549	110%	1006	83%	1627	96%
Total	1768	100%	1587	100%	1412	100%	1211	100%	1690	100%

Thus, change in tariff slab due to increased electricity consumption is single largest (83% to 110%) and prominent reason for high amount of electricity bills of the consumers across the DLs.

8.10 Whether the AEML-D and others DLs took necessary measures to address and mitigate grievances of the consumers per directions of the Commission?

8.10.1 The Commission vide its letter dated 7th December, 2018 directed AEML-D to:

- a) *AMEL-D shall verify metered consumption of the consumers who have been billed significantly more of their average consumption.*
- b) *If any excess billing is found out, the same should be refunded to the consumers along with admissible interest as per Regulations.*
- c) *Organize special camps for addressing consumers complaints related to excessive billing. Provide adequate publicity about such camps.*

8.10.2 AEML-D submitted first fortnightly compliance on 2nd January, 2019, reporting that they had set up eight Special Camps to address consumer's concerns across all five divisional locations. Also, a dedicated E-mail ID was created and shared with customers to convey their concerns. During the visit of the Committee to their office on 17th May, 2019 their officials explained to the committee, how they addressed the complaints received?

8.10.3 AEML-D has received 12392 numbers of high bill related complaints, 7111 in the October, 2018, and 5281 in November, 2018. The These grievances were redressed by AEML-D as follows:

Table 8-13: Details of grievances redressed by AEML-D

Sr No	Type of Action	Total Complaints
A	By explaining that increased bill amount is due to increased consumption (meter Checked on site)	9698
B	Meter Replaced for Lab Testing	2078
i	Meter found within accuracy limits (Replaced on Customer's request)	2043
ii	Meters found beyond accuracy limits	35

Sr No	Type of Action	Total Complaints
C	Slab Benefit given	580
D	Earth Leakage indication on customer side	36
E	Grand Total (A+B+C+D)	12392

8.10.4 The committee observed that 9698 complaints (78% of total 12392) were redressed by explaining the consumers about increased consumption and its effect on tariff. Only 580 complaints (4.6%) were found eligible for slab benefits. Further, as compared to total consumer mix of 24.48 lakh, these complaints were just 0.05 % which is comparatively low in number.

8.10.5 Subsequently the following Complaints were also received and redressed by AEML-D at special camps and through dedicated E-Mail. Details are as below:

Table 8-14: Details of complaints received at special camps and through dedicated E-Mail

Sr. No.	Description	No. of Complaints	Period of Complaints
1	AEML Special Camps	5086	01.12.2018 to 31.03.2019
2	AEML Billing Support (Email)	5228	

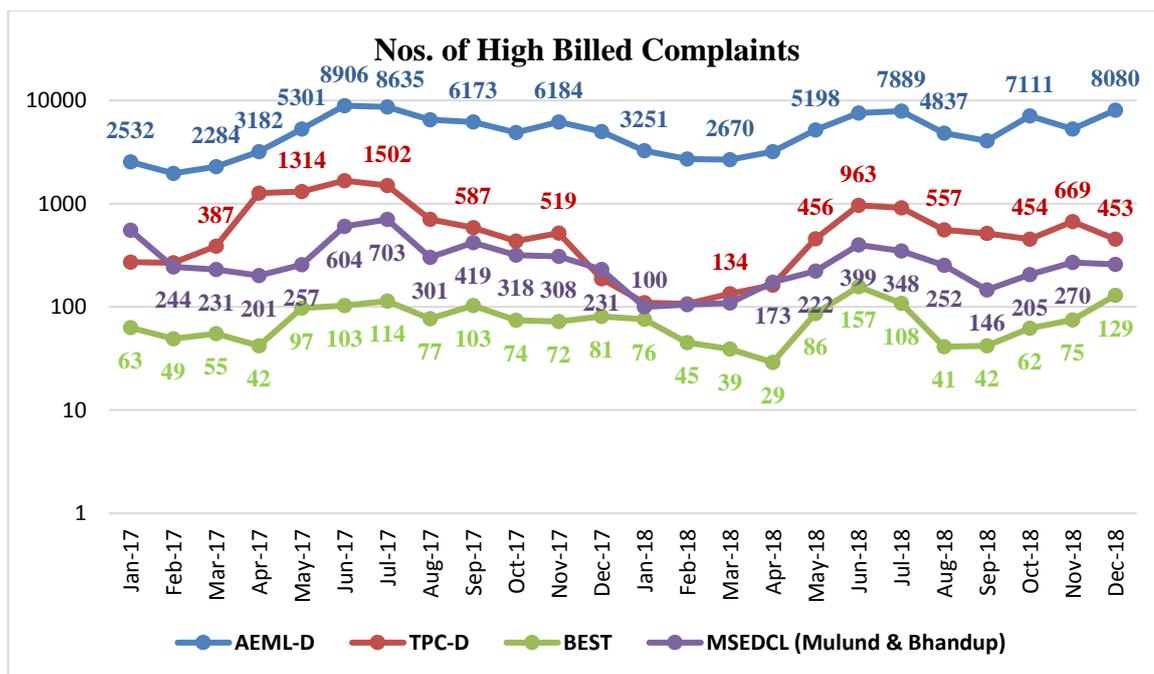
8.10.6 The Committee also examined 54 complaints received by the Committee through the Commission and asked AEML-D to inform the action taken on the same. The Committee also informed the complainants via mail dated 5th March, 2019 and dated 3rd April, 2019 to furnish additional documents if any in support of their complaint. However, no documents were received from them. The Complaints registered with the Commission are broadly categorised as follows:

Table 8-15: Action Taken on 54 Complaints

Sr No	Classification of complaints and action taken	Cases	Credit Given
1	Normal Consumption found (No Slab Shift)	17	0
2	Bill found increased due to higher consumption and slab shift	16	0
3	Assessment based bills; slab benefit given	5	5
4	Assessment based bill (Access Issue) Slab Benefit given	1	1
5	Assessment Based bill (Defective Display); Slab benefit given	4	4
6	Payment Transaction Issue	4	2
7	Complaint of high Consumption due to Meter Tamper Event, but on verification meter found okay	1	1
8	Consumer was assessed on higher side due to non-availability of ELCB	1	1
9	No specific details of consumer provided / generic compliant	5	0
	Total	54	

8.10.7 Summary of these complaints and the action taken there on by AEML-D is covered in Chapter 7 of this report. During the visit of the Committee to AEML-D on 17th May, 2019 sample complaints were crossed checked with physical records and it was observed that the complaints has been resolved in accordance with Rules and Regulations.

8.10.8 During discussion, DLs have stated that during high consumption months there is increase in number of complaints related to high bills which they resolved by explaining the same to concerned consumers. To ascertain the trend of consumer complaints, the Committee sought monthly data of high billed complaints from January 2017 to December, 2018 and represented in graph below. It is observed that number of complaints across DLs increased in the months subsequent to high consumption months.



(Source: - Information submitted by Licensees)

8.11 Have the DLs considered taking long term measures to avoid such situations of sudden hike in electricity bills?

8.11.1 AEML-D and other DLs have shared the data regarding incidences of assessment-based bills due to difficulties in reading the meters. During their interaction with the Committee they explained the reasons such as locked premises and inaccessible meter rooms responsible for non-reading of the meters and consequential billing on assessment basis. The AEML-D has shared their plans for converting existing meters into Smart meters in a phased manner, adoption of digital payments and outsourcing for enhancing the efficiency. The Committee observes that the MSEDCL is using SMS service on mobile phones as an effective medium of communicating with the consumers through the billing process starting with advance intimation to consumers regarding the date, and time with the visit of meter reader, actual reading or reasons of reading not been taken, intimating the consumer to send self-reading in case actual reading is not available, informing bill amount and due date and informing them for non-payment of bills. The Committee is of the view that this practice, started by the MSEDCL could be replicated by all the other DLs considering wide network and usage of mobile phones, particularly in Mumbai.

8.11.2 The Committee examined the submission of the DLs to the Commission at the time of periodic tariff fixation. The submission includes projection of month wise power requirement including seasonal variations, and sources for power purchase. The DLs have to ensure that they procure adequate committed quantum of power from declared sources by enforcing the provisions of PPAs. The Commission generally approves power purchase quantum on yearly average basis for Mumbai based Licensees. However, the Committee is of the view that month wise quantum of power purchase should be mandated in the tariff order for Mumbai based Licensees. This practice is followed in case of approval accorded to the MSEDCL. This would help in better planning for meeting fluctuations in power demand due to seasonal variation. This may help in ensuring more efficiency as well, in terms of enforcing PPAs of the DLs with the generators concerned.

8.12 Policy Suggestions by DLs:

Distribution Licensees, during the course their interaction with the Committee expressed the following views in terms of policy inputs.

8.12.1 Revision of tariff should be with prospective effect as there is a time lag involved in adopting such revision in billing software. This would also help in giving advance intimation to the consumers about tariff revision, and reduce the number of complaints that are currently received on account of retrospective implementation of tariff. The Committee notes that MYT Regulations provides specific timelines for submission of ARR petitions by the licensees, which have to be disposed of by the Commission within 120 days. It is generally observed that the licensees, and more particularly DLs do not adhere to the prescribed time lines, and submissions of ARR petitions get delayed. The Distribution Tariff can only be determined after the Generation and Transmission Tariff is determined. All these factors are considered for determining the tariff and Tariff Orders are issued keeping certain minimum time lag. If the DLs submit ARR petitions within the prescribed time limits and also make available the necessary data as may be required by the Commission subsequently well in time, it is expected that the Tariff Orders would be

issued before the date of implementation of revised Tariff. However, this is possible only when all the DLs adhered to the prescribed timelines.

8.12.2 AEML-D also shared information regarding a contract of banking of power with generators in other states so that cheaper energy will be available to the consumers. Under such arrangement electricity demand diversity amongst the different States in the Country is effectively utilised. During low demand period of one State it can bank its surplus contracted power to other States who is witnessing high demand. And such State subsequently returns such banked energy to first State during its low demand period which may be high demand season for first State. The Committee notes that such type of banking arrangement has already been adopted and implemented by MSEDCL in past and the Commission has recognised the same in relevant tariff Orders.

8.13 Issues related to Metering:

8.13.1 The Committee is of the view that upgradation of consumer meters to smart meters could improve the accuracy in billing through minimisation of human interface. This could also enable online recording of the energy consumption and facilitate the information to consumers on real time basis.

8.13.2 The Committee observed that the DLs have the mechanism to detect abnormal meter readings either at the time of meter reading or else at the time of generation of energy bills. Distribution Licenses can proactively test the meter of a consumer whose consumption in a particular month abnormally exceeds (say two times or three times) the average consumption, and if the results of such tests are informed to the consumer by way of a message on his immediate ensuing bill, consumer grievances about excess billing may reduce to some extent

8.13.3 Practice adopted by the TPC-D of proactively alerting the consumers regarding ensuing high consumption months through letters and suggesting energy saving tips can be adopted by all Distribution Licensees. This enables the consumers to self-regulate own consumption and also helps in demand management.

8.13.4 The Committee observed variation in the procedure adopted by different DL's for estimating average consumption where actual meter reading is not available. In case of AEML-D and MSEDCL an average of actual power consumption of preceding three months is considered whereas in case of the TPC-D and the BEST, an average of preceding 12 months is considered for this purpose. When enquired, TPC-D explained that by considering average of preceding 12 months, seasonal variations in the consumption are adequately captured and the calculated consumption comes near to the actuals. The Supply Code Regulations, 2005 provides for an average of actual consumption of preceding three months. To analyse these two approaches, the Committee prepared illustrative tables as below:

Table 8-16: Comparison of Average Assessment (12 months Vs 3 months)

Particular	Month												12-month Average
	1	2	3	4	5	6	7	8	9	10	11	12	
Monthly Consumption (kwh)	250	245	350	355	450	340	300	295	305	390	370	340	333
3 Month Average				282	317	385	382	363	312	300	330	355	

8.13.5 The above data does not indicate any distinct advantage in considering the average consumption of 12 month for assessed bills. As in case of average of consumption of 3 months, average of 12 months could also be higher or lower than the actual consumption. As the average of three months has been stipulated in the Regulations, Distribution Licensee are expected to follow the same.

8.13.6 The Committee found that maximum number of the consumers who migrated to higher tariff slabs belonged to 0-100 tariff slab category. Therefore, it is expected that the impact of higher tariff was more on such consumers because of telescopic tariff structure.

9. Summary of Conclusions and Recommendations

- 9.1** Terms of Reference of the Fact-Finding Committee, appointed by the Commission, was to find out facts for sudden upsurge in electricity consumption and other reasons which might have led to increase in electricity bills in Mumbai and its suburbs, and suggest corrective steps to avoid such incidents in future.
- 9.2** The scope of fact-finding exercise covered all the Distribution Licensees in Mumbai and the Committee has accordingly obtained and scrutinised relevant information of all the Distribution Licensees. However, the consumer unrest was about high electricity bills in the licence area of the AEML-D, the Committee has therefore conducted the fact-finding exercise by keeping AEML-D at the focal point, and then compare its data with the information provided by other Distribution Licensees in Mumbai.
- 9.3** The Distribution Business in Mumbai suburban area was transferred from R-Infra to AEML in the last week of August, 2018. The transition period was marked by workers agitation. As a result of workers' agitation, a large number of electricity meters could not be read during the period from 27th August to 1st September, 2018. Out of a total of 24.48 lakh consumers, bills of 4.35 lakh consumers in September, 2018 were raised on the basis of the average consumption of previous three months, which included the period of high-power consumption of May and partly of June before the onset of Monsoon. This triggered a number of complaints about high amount of bills. The data on Consumer's grievances shared by AEML-D indicate that out of total of 12392 complaints, 3596 complaints were related to assessment-based bills of the agitation period.
- 9.4** Details of Distribution Licensee wise percentage of electricity bills issued on average basis in the period of January, 2018 to December, 2018 is tabulated below:

Table 9-1: Percentage of electricity bills issued on average basis

% of Accessed bills issued	TPC-D	BEST	MSEDCL	AEML-D	
				Excluding employee agitation	Employee Agitation period
Year 2018	1.26%	1.18%	1.92%	1.39%	19.86%

9.5 Percentage of assessed bills across DLs is around the same level except for AEML-D during employee agitation period. During this period, assessment based bills were nearly 20% of the total number of consumers as compared to yearly average of 1.39%. Thus, workers agitation did result in a large number of complaints.

9.6 The Committee has come to a conclusion the there was an unusual rise in temperature in October 2018, that caused higher than normal consumption of electricity during that month. As consumption of October is billed in November, table below indicate rise in billed consumption during November, 2018.

Table 9-2: Rise in billed consumption

Sr. No.	Licensee	Category	Monthly Sales (MU)				Month on Month increase (%) in sales		
			Sep-17	Oct-17	Nov-17	Dec-17	Oct Vs Sep	Nov Vs Oct	Dec Vs Nov
1	AEML-D	Residential	357	366	324	274	2%	-12%	-15%
		Total Sales	717	729	663	581	2%	-9%	-12%
		Category	Sep-18	Oct-18	Nov-18	Dec-18	Oct Vs Sep	Nov Vs Oct	Dec Vs Nov
		Residential	350	414	367	287	18%	-11%	-22%
		Total Sales	695	800	722	616	15%	-10%	-15%
		% Increase 2018 Vs 2017							
		Residential	-2%	13%	13%	5%			
Total Sales	-3%	10%	9%	6%					
2	TPC-D	Residential	162	174	156	130	7%	-11%	-17%
		Total Sales	375	400	357	304	7%	-11%	-15%
		Category	Sep-18	Oct-18	Nov-18	Dec-18	Oct Vs Sep	Nov Vs Oct	Dec Vs Nov
		Residential	154	173	184	136	12%	6%	-26%
		Total Sales	378	433	412	341	14%	-5%	-17%
		% Increase 2018 Vs 2017							
		Residential	-5%	-1%	18%	5%			
Total Sales	1%	8%	15%	12%					
3	BEST	Residential	178	175	172	152	-2%	-1%	-12%
		Total Sales	397	393	389	358	-1%	-1%	-8%
		Category	Sep-18	Oct-18	Nov-18	Dec-18	Oct Vs Sep	Nov Vs Oct	Dec Vs Nov
		Residential	180	190	194	170	5%	2%	-12%
		Total Sales	399	407	427	379	2%	5%	-11%
		% Increase 2018 Vs 2017							
		Residential	1%	9%	13%	12%			
Total Sales	1%	4%	10%	6%					
4	MSEDCL (Mulund & Bhandup)	Residential	43	44	44	36	1%	1%	-17%
		Total Sales	89	91	89	79	2%	-3%	-11%
		Category	Sep-18	Oct-18	Nov-18	Dec-18	Oct Vs Sep	Nov Vs Oct	Dec Vs Nov
		Residential	42	46	50	41	8%	8%	-18%
		Total Sales	88	95	96	78	8%	1%	-19%
		% Increase 2018 Vs 2017							
		Residential	-2%	5%	13%	12%			
Total Sales	-1%	4%	8%	-2%					

The rise in temperature and consumption of electricity was observed across the areas of all the distribution licensees. The information provided by the DLs on this issue has been corroborated with the energy purchase data obtained from the MSLDC.

9.7 Such increased consumption has caused Residential consumers to move in upward slab of telescopic tariff structure. Maximum numbers of consumers (70 to 94%) of DLs are belongs to this category. As can be seen from the table below, with changing environmental conditions, Residential consumers are moving upward or downward in consumption slab:

Table 9-3: Slab Shift of Residential Consumers

Consumption	Month	% of Residential Consumers			
		AEML-D	TPC-D	BEST	MSEDCL
Less than 100 units per month	Sep 2018	38%	19%	52%	39%
	Oct 2018	33%	17%	49%	35%
	Nov 2018	37%	16%	48%	34%
	Dec 2018	48%	24%	50%	42%
above 100 units per month	Sep 2018	62%	81%	48%	61%
	Oct 2018	67%	83%	51%	65%
	Nov 2018	63%	84%	52%	66%
	Dec 2018	52%	76%	50%	58%

Thus, in the month of October, 2018, Residential consumers have shifted from lower consumption slab to higher slab.

Thus, in the month of October, 2018, Residential consumers have shifted from lower consumption slab to higher slab. Same phenomenon is observed if November 2018 consumption is compared with that of November, 2017, as shown in table below:

Table 9-4: Slab Shift of Residential Consumers (Nov-17 Vs Nov-18)

Particulars	Slab wise number of consumers		% change Nov-18 Vs Nov-17
	Nov-17	Nov-18	
0-100 Units			
AEML-D	826616	743714	-11%
TPC-D	118906	104016	-14%
BEST	374458	360159	-4%
MSEDCL	95484	88096	-8%

Particulars	Slab wise number of consumers		% change Nov-18 Vs Nov-17
	Nov-17	Nov-18	
101-300 Units			
AEML-D	930184	966611	4%
TPC-D	376135	344612	-9%
BEST	207569	197950	-5%
MSEDCL	130750	130696	0%
301-500 Units			
AEML-D	149743	191996	22%
TPC-D	101808	134800	24%
BEST	91583	108739	16%
MSEDCL	21771	28120	23%
500 Units and above			
AEML-D	70604	98545	28%
TPC-D	44750	68831	35%
BEST	58292	77864	25%
MSEDCL	6630	9880	33%

Thus, as compared to previous year, number of consumers in lower slab has been reduced and there is increase in number of consumers in higher consumption slabs in the month of November, 2018 across all the Distribution Licensees in Mumbai.

- 9.8** Higher demand led all the DLs to purchase more short-term power. The mechanism of Fuel Adjustment Cost, provided in the regulatory framework adds to the energy charges of the consumers. As Tariff Order provides for a telescopic tariff structure for residential consumers, higher consumption of electricity pushed the consumers to higher tariff slabs, which also contributed to higher energy bills. Contribution of each of these parameter on increased electricity bill across DLs for a consumer who have moved upward in its consumption slab from 100 units to 300 units per month has been factored in following table:

Table 9-5: Contributor to Increase in Tariff

Contributor to Increase in Tariff	Increase in Tariff (consumer shift from 100 units to 300 units slab)							
	AEML-D		TPC-D		BEST		MSEDCL	
	Rs.	%	Rs.	%	Rs.	%	Rs.	%
Slab Change	1528	86%	1549	110%	1006	83%	1627	96%

Tariff Revision	113	6%	-77	-5%	13	1%	28	2%
FAC variation	127	7%	-61	-4%	192	16%	35	2%
Total	1768	100%	1412	100%	1211	100%	1690	100%

Thus, increased consumption associated with slab change has contributed 83 to 96% in increased tariff for Residential consumers.

- 9.9** The Committee notes that AEML-D is sourcing almost 27% of its energy requirement through Short Term sources. Further, rate of such sources is also higher than the average power purchase rate of AEML-D:

Table 9-6: Rate and % of Short-Term Power Procured

Particulars	AEML-D	TPC-D	BEST	MSEDCL
% of Short Term Power Procured	27%	5%	15%	5%
Rate of Short Term Power (Rs/kWh)	4.78	3.49	4.28	4.84
Average Power Purchase Rate (Rs/kWh)	4.67	4.47	4.72	4.50

Sourcing of such large quantum through short term route would become costly affairs when rate in short term market increases. Hence, AEML-D needs to take steps to reduce its dependence on short term sources. Also, trend of power supply by VIPL to AEML-D has been very erratic and in fact, the VIPL has been under shutdown since February, 2019. In FY 2018-19, VIPL's power availability was just 46%. The Committee is of the opinion that such arrangement may not be sustainable in long term. AEML-D shall deal effectively with the situation arising out of VIPL's short supply of power, as early as possible to ensure that the consumers will not be unnecessarily burdened with higher energy charges on this count.

- 9.10** The committee has examined the complaints received by AEML-D during this period and also the submission of the AEML-D on the redressal measures. The committee observes that the DL has obtained the actual meter readings subsequently and slab benefit/ credit have been passed on to the consumers wherever due. The AEML-D has particularly complied with the directives of the Commission to hold special consumer camps, received consumer complaints and taken appropriate remedial action on the basis of the merit of the complaint. The consumer also had the option of approaching the three tier

complaint redressal system of IGRC, CGRF and the Ombudsman, if they were not satisfied by the action of the AEML-D. The AEML-D has also submitted satisfactory explanation on 54 complaints that were received by the Committee.

9.11 The Committee has physically verified the record submitted by AEML-D and has confirmed that the electricity bill have been raised on the basis of the tariff approved by the Commission.

9.12 Notwithstanding above, the Committee notes it would have also been possible for AEML-D to depute the meter reading staff immediately after the agitation was over to take meter readings of the skipped billing cycles by temporally rearranging or relocating the available manpower. This could have significantly reduced the quantum of consumer complaints on account of billing on average basis. However, no such initiative appears to have been taken by AEML-D. There is no doubt that AEML-D has taken different steps/measures to redress the grievances of the consumers which were received in large numbers in the month of November, 2018. It is necessary to point out that these steps/measures have been taken by AEML-D largely after the intervention by the Commission. It is therefore important that in future, not only the AEML-D but all the DLs in the State remain vigilant to anticipate consumer grievances, and take proactive measures to avoid consumer complaints, and resolve such complaints promptly, without waiting for public outcry or intervention by the Commission or the Government.

9.13 The Committee also notes that adverse weather conditions i. e. increase in temperature and increase in humidity with reduction in rainfall cannot be said to be a totally new phenomenon. Similar situations have been noticed in the past also. AEML-D could have anticipated the increase in demand during September-October, 2018, and could have alerted its residential consumers about the possibility of higher electricity bills on account of slab shift. Such advance action of AEML-D would have reduced the consumer unrest. In addition, the AEML-D was fully aware that large number of the consumers from the residential category had been billed on the average consumption basis, and this would lead to dissatisfaction amongst such consumers. They could have engaged with such consumers and handled the situations more effectively.

- 9.14** The Committee notes that such situation may arise again in case of recurrence of difficulties in reading the meters and also on account of higher energy consumption due to weather conditions. In fact such phenomena of higher consumption due to weather conditions occur every year twice, first prior to monsoon, in May and partly in June, and again in October.
- 9.15** It is recommended to switch over to smart meters in a phased and time bound manner so that on one hand manual interface in meter reading could be minimised and on the other hand the consumers could have the facility of viewing their consumption on the real time basis. Till such time the changeover takes place the DLs may communicate the level of consumption, date of meter reading, the recorded reading and amount of bill etc through short messages on consumer mobile phones as practiced by the MSEDCL.
- 9.16** The Committee also observed that as the DLs have the mechanism to detect abnormal meter readings either at the time of meter reading or generation of energy bills, the DLs can proactively test the meters of such consumers whose consumption is abnormally high and accordingly inform the consumers by way of messages or record on the ensuing bill . This will enhance transparency in billing and reduce consumer complaints to some extent.
- 9.17** Practice adopted by TPC-D of proactively alerting the consumers regarding ensuing high consumption months through letters and suggesting energy saving tips can also be adopted by other DLs. This enables the consumers to self-regulate own consumption and also helps in demand management.
- 9.18** The Committee observed the initiative of AEML-D of executing a contract of banking of power with generators in other States so that cheaper energy will be available to the consumers. This concept of banking has already been adopted and implemented by MSEDCL in past. The Commission has also recognised the same in respective tariff orders. This could be adopted by other DLs with a view to reduce the cost of power.

ANNEXURES



महाराष्ट्र विद्युत नियामक आयोग

Maharashtra Electricity Regulatory Commission

MERC/ Legal / 2018-19/ 1297

4 December, 2018

Notice seeking Explanation

Subject : Explanation regarding media report of increased electricity bills of consumers

The Commission has issued the Mid Term Review (MTR) Order dated 12 September, 2018 in Case No. 200 of 2017 and thereby revised the Tariff applicable in the area of Adani Electricity Mumbai Ltd (Distribution Business) (AEML-D) with effective from 1 September, 2018. Average tariff increase approved in MTR Order for FY 2018-19 is around 0.24%.

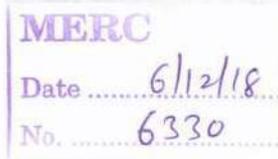
However, from the media reports, it is observed that large sections of AEML-D's consumers are continuously agitating against unduly excessive electricity bill received by them recently. Further, there are complaints about issuance of electricity bills based on average energy consumption instead of actual meter reading.

The Commission has taken serious note of these reports highlighting consumer grievances with respect to surge in their electricity bills which is not commensurate with the marginal hike in the tariff approved by the Commission.

I am directed to seek explanation of AEML-D within 24 hours detailing facts of the matter and the steps taken by AEML-D to remedy the situation.

(Dr, Rajendra Ambekar)
Executive Director, MERC

To,
The Chief Executive Officer,
Adani Electricity Mumbai Limited,
Devidas Lane, Off SVP Road,
Near Devidas Telephone Exchange
Borivali (W), Mumbai – 400 092



AEML/MERC/Response to Notice on Increased Electricity Bill/2018

December 06, 2018

By Hand Delivery

**The Secretary,
Maharashtra Electricity Regulatory Commission,
13th Floor, Centre No. 1, World Trade Centre,
Cuffe Parade, Colaba, Mumbai – 400005.**

Dear Sir,

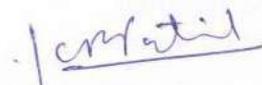
Sub: Response to Notice seeking explanation regarding media report of increased electricity bills of consumers

Ref: Letter No. MERC/Legal/2018-19/1297, dated 04.12.18

Vide reference above, the Hon'ble Commission has sought explanation from AEML regarding media reports on increased electricity bills of consumers. Please find attached herewith AEML's submission in this regard.

Thanking You,

Yours faithfully,



**(Kishor Patil)
Sr. Vice President - Regulatory
Adani Electricity Mumbai Ltd.**

Encl: As above.

AEML Response to Notice dated 04.12.2018

AEML is in receipt of MERC Notice dated 04.12.2018, seeking explanation based on media report about excessive billing to consumers as well as complaints of electricity bills based on average energy consumption.

With regard to the above Notice, AEML provides its point-wise response as under. For the sake of brevity, we have summarised the explanation herein-below, which is followed by detailed submissions:

1. Synopsis of AEML's submission on issues affecting consumer billing:

- a. Electricity bills to Residential Consumers have predominantly increased due to (i) increase in consumption of electricity by consumers due to seasonal impact, (ii) increase in tariff subsequent to the MTR Order and (iii) increase of rate of Fuel Adjustment Charges - FAC (due to high short-term power purchase cost and issues with FAC workings as per approvals issued by the Hon'ble Commission).
- b. During the month of October in the current year due, temperature and humidity has been unusually high to weak monsoon. The electricity consumption during Oct 18 by residential category has increased by 18% as compared to previous month of Sept 18 due to seasonal change. The said increased consumption has also resulted in billing under higher slab tariff. However, temperatures have started normalizing thereafter; therefore consumption and consumer is started witnessing declining trend during the month of November.
- c. Though, the Hon'ble Commission has approved an average of 0.24% increase in tariff for AEML as a whole, its impact on low end residential consumers (up to 100 units / month consumption) is around 4%.
- d. FAC has increased due to increase in short term purchase cost due to high rates on power exchange during October 18 of about Rs 6 per Kwh, coupled with higher quantum of short term power purchase from exchange on account of increased demand and drastic reduction in availability of power from VIPL. The power purchase cost is expected to reduce due to reduction in requirement of short term power and reduction in the rate of power purchase from Exchange.
- e. The Hon'ble Commission has, vide Vetting Orders dated 24th Oct 2018 and 14th Nov 2018, approved additional recovery of FAC, by changing its earlier methodology of FAC approval.
- f. To reduce the impact of FAC on the consumers, AEML has not only spread the past under recovery over a longer period, but has also entered into banking transaction w.e.f. October 2018 thereby reducing the purchase from exchange during the period when prices are high, this will reduce FAC from December onwards.
- g. At the time of take-over of the business by Adani Group, there was an ongoing flash strike by Employees owing to past issues, leading to disruption in normal business operations. This resulted in a relatively higher bills sent to consumers based on assessed consumption, instead of actual meter reading. However, upon

taking over, AEML has re-assessed such bills and has reduced the bills of about 40,000 consumers. During this period AEML also empowered its consumers with an option of "Read your Meter", and has revised the bills basis the meter reading submitted by the customers. All meters were read in the subsequent cycles and appropriate credit including slab benefit was passed on to the affected customers.

- h. AEML has initiated appropriate steps to address consumer queries by setting up dedicated help desks at all the zonal offices, prioritized channel at its 24 x 7 helpline 19122 and dedicated email ID.

2. Detailed submissions follow:

A. Tariff Increase approved by MERC in MTR Order:

1. As shown in the Table 7-28 on Page 382 of the MTR Order (extract reproduced as **Annexure 1** herewith), the Hon'ble Commission has approved an Average Tariff increase of 0.24% for AEML for FY 2018-19, by finding out the revenue increase required over Revenue available from tariffs existing till August 2018.
2. The average increase in tariff required as shown above is then spread over the various consumer categories and, depending upon the constraints of Cross-Subsidy Reduction, the increase / decrease in individual category tariffs is then worked out. The tariff increase / decrease at individual category-level, as approved by the Hon'ble Commission in the MTR Order, is attached herewith as **Annexure 2**.
3. A perusal of the above indicates that while the average increase in tariff on an overall level for AEML is 0.24% in FY 2018-19, it has translated to 4% increase in tariff (ABR) for 0-100 units slab in Residential category and 1% increase in 101-300 units slab, even without Fuel Adjustment Charges (discussed subsequently).
4. About 70% of the total residential consumers of AEML are in the bracket of upto 300 units a month, as shown in the table below:

Slab	Number of Consumers (1 Ph + 3 Ph)
0-100	6,60,696
101-300	9,65,707
301-500	2,35,095
500and above	1,35,572
Total	19,97,070

B. Increase in consumption due to poor Monsoon and October temperatures:

1. The Hon'ble Commission would appreciate that the pattern of monsoon of current year has been particularly deficient, because of which the months of September and October in particular have had higher than usual temperature and humidity. The Average Temperature in October 2016 was 27.7 Degrees, which increased to 29.1 Degrees in October 2017 and further to 31 Degrees in

October 2018. A graphical representation of daily temperature variation from 1st April 2018 till 30 Nov. 2018 is included herewith as **Annexure 3** herewith.

2. Generally, a 1 Deg. Change in temperature causes the demand to rise by 40-50 MW in AEML's area of supply. Indeed, our category-wise consumption growth between Sept. 2018 and October 2018 has significantly increased (by more than 100 MU or about 15%). This led to higher billing as increased consumption will be billed in higher tariff slabs.. The category-wise increase in sales between Sept 2018 and Oct 2018 is attached as **Annexure 4** herewith. The increase in consumer bills with increase in consumption, due to telescopic application of slabs is demonstrated herewith as **Annexure 5**.
3. While the relative change in amounts is one aspect, in percentage terms, it can be seen to be of higher order. In the month of October 2018, the consumption of all residential consumers significantly increased; as has generally been the pattern in every October. Coupled with that, the change of tariff slab, significantly increased the bill amount.
4. AEML has carried out an analysis of consumption of its residential consumers to identify how many consumers have moved from lower tariff slabs to higher tariff slabs between Sept. 2018 and October 2018. The summary results of the analysis are given below:

Slabs (Units)	No of consumers in each slab Sept 2018	No of consumers in each slab Oct 2018	Customers migrated from existing slab
0-100	7,58,570	6,52,457	(-)1,06,113
101-300	9,66,414	9,61,809	(-) 4,605
301-500	1,77,817	2,36,155	(+) 58,338
>500	82,555	1,34,935	(+) 52,380
Total	19,85,536	19,85,536	

5. As is evident from the above, in a total base of about 20 lakh residential consumers, about 1,10,000 consumers have shifted from slabs of 0-100 and 101-300 to higher slabs of 301-500 units and >500 units. In fact, most of the consumers moving to 301-500 units and >500 units slab in Oct 2018 belonged to 0-100 units slab in Sept 2018. AEML submits that this shift in consumption in the month of Oct. 2018 is the salient reason of increase in electricity bill of residential consumers.
6. While Sept & Oct 2018 months were high consumption months due to weather conditions in Mumbai, the consumption in the month of November and December months would be lower due to onset of winter which would result in lower consumption by the consumers and consequently lower bills. As can be seen from the tables attached at **Annexure 6** herewith, the actual billing of the consumers have started coming down due to reduced consumption in November due to onset of winter.

7. Further, cycle-wise comparison of consumer billing between Sept. 2017 – Sept. 2018, Oct 2017-Oct. 2018 and Nov. 2017-Nov. 2018 is attached at **Annexure 7** herewith, which clearly shows the increased consumption and billing October, followed by reduction in both, in November 2018.
8. AEML further submits that the MTR Order was issued on 12.09.2018 and was applicable w.e.f. 1st Sept. 2018; which was implemented on 22nd Sept. 2018 after completing necessary changes in billing system. However, by this time, bills for about 16 lakh residential consumers had already been issued, containing consumption for the period from 1st Sept. 2018 onwards, at the old tariff rates. Hence, after implementation of the Tariff Order, those bills had to be revised retrospectively, in the next billing cycle and difference amount was billed in the Month of October 2018, increasing the billing amount of Oct month of those consumers.

C. Increase in Fuel Adjustment Charges (FAC):

1. AEML submits that subsequent to the issue of the MTR Order, its Fuel Adjustment Charge (FAC) has increased considerably on account of lower Base Rate (Wgtd. Avg. Power Purchase Rate) as approved in the MTR Order, as against what was approved in earlier Tariff Order. This is shown as **Annexure 8** herewith.
2. AEML submits that since the issuance of the MTR Order in Sept 2018, the FAC is being computed using the revised Base Rate (Rs. 4.09 per unit) as shown above. The FAC charged in Sept. 2018, Oct. 2018 and Nov. 2018 pertain to the power purchase cost of July 2018, Aug. 2018 and Sept 2018 respectively. The Short-Term power purchase rate approved in the MTR Order is Rs. 3.50 per unit, while the actual Short-Term Power Purchase Rate has been as high as Rs. 6.31 per unit in Sept 2018.
3. AEML submits that purchase of higher consumption and consequently higher purchase of power in month of October 2018 is not unique but this time purchase quantum from exchange increased due to reduction in generation by VIPL to AEML. In **Annexure 9** attached herewith, AEML submits month-wise purchase of power from April 2017 to Nov. 2017 and April 2018 to Nov. 2018, for all Mumbai Licensees, which shows that October purchase is almost as high as power purchase in peak summer month of May. Further, a break-up of AEML's source-wise purchase is provided as **Annexure 10** herewith, which shows that October 2018 purchase of short-term power has considerably increased over than October 2017.
4. A graphical representation of how short-term market (IEX) rates have risen in the last two years (October 2016 till November 2018) is included herewith as **Annexure 11**. As can be seen with some reduction in power prices at the Power exchange also to avoid higher exchange prices AEML has entered in to banking arrangement. Therefore, November onwards the cost of short term power purchase by AEML will reduce from November which will give relief to the consumers in the form of FAC reduction.

5. Further, the Hon'ble Commission has approved additional FAC recovery of Rs. 28.34 crore for Dec 2017–March 2018 Quarter, mainly due to non-consideration of Imbalance Pool quantum and Cost, which pushed up the actual weighted average power purchase cost and resulted in additional FAC. AEML submits that while it has, in consumer interest, taken a decision to phase out the above recoveries over a period of three months, it is still leading to increase in FAC and corresponding increase in bill amount.
6. As a result of all of the above factors and using the MERC methodology of not considering both Imbalance Pool quantum and cost, AEML's FAC for the month of September 2018 (costing month, with Nov. 18 being billing month) worked out to about 68 paise per unit, which is fairly high leading to higher billing. By virtue of this letter, AEML again requests the Hon'ble Commission to revisit its approach towards quantum and cost of power purchase from Imbalance Pool. AEML submits that if Imbalance Pool quantum (energy) is considered for FAC computation (even without the provisional cost), it will push down the FAC considerably and provide immediate relief to consumers.

D. Average Billing vs. Actual Meter Reading:

1. As regards, the perception that AEML is carrying out consumer billing based on average (assessed) consumption instead of actual meter reading, AEML submits that it discourages billing based on assessed consumption and strictly follows the provisions of Electricity Act and Supply Code Regulations with regard to assessment of consumption in case actual meter reading is not available due to any reason. Assessment of reading is required to be carried out due to reasons of door lock, inability to read for any other unavoidable reason, dangerous board wiring, etc.
2. However, at the time of closing of Adani – Reliance transaction on 29.08.18, assessment was required on a comparatively larger scale for billing cycles between August 27th 2018 to 1st Sept. 2018, on account of mass strike by concerned employees for impending issues of the then incumbent, which affected business operations. Around 3.53 Lakh residential consumers were issued bills on assessed consumption, due to non-availability of meter reading. AEML (then Rlnfra) had, vide letter dated August 28, 2018, informed the Hon'ble Commission about the strike as required under the Licensing Regulations; a copy of which is attached herewith as **Annexure – 11**.
3. Upon taking over the business on 29th August 2018, AEML successfully resolved the agitation and normalized the operations. AEML pro-actively appealed to the consumers to provide meter reading photographs and corrected the assessed bills based on the reading provided. Due date for all consumers was extended by Six days so as to prevent 'delayed payment charges' and disconnection. As a result, about 40,000 consumers whose bills were based on assessment were adjusted and credit, based on actual reading is given in the bill for the month of October 2018. From October 2018, all consumers are being billed on actual reading basis, except in cases where assessment is required as explained above, in normal course of business.

4. In addition to the own initiative of adjusting bills of about 40,000 consumers as discussed above, AEML has also resolved 12,392 high billing complaints between 1st Oct. 2018 to 30th Nov. 2018. The **Annexure 12** attached herewith provides the break-up of the same. It can be seen that out these complaints, the meters were sent for lab testing in about 2000 cases and, only 35 cases, the meters were found to be beyond accuracy limits. In rest of the cases, the consumers only perceived the meters to be running faster.
5. The Hon'ble Commission would further appreciate that the issue of large-scale assessment of bills, due to employee strike, was mostly related to bills issued under the previous Tariff Order and not related to bills issued under the MTR Order.

E. Steps taken by AEML to dispel high billing perception:

1. AEML submits that, even though, as demonstrated above, the high billing issue, is largely an issue of perception, it has taken a number of steps on its own to educate the consumers about electricity consumption and billing and also to resolve all high billing complaints in an accelerated manner.
2. W.e.f. 30-Nov-18, apart from its existing customers touch-points, AEML has also taken additional measures to address the bill related issues, which includes:
 - i) Designated Kiosks at our eight Customer Care Centers, spread across AEML's entire distribution area;
 - ii) Distinct email id has been circulated for complaint resolution pertaining to energy bill queries;
 - iii) Priority channel at our 24 x 7 help line 19122.
 - iv) Customer awareness through sustained communication, using:
 - a) Print Media
 - b) Social Media- Twitter & Facebook
 - c) Fliers distributed along with the Energy Bills

F. Steps taken by Adani Group to resolve inherited legacy issues

1. In the time leading to the transaction between Adani and Reliance, the distribution business had been suffering from various issues, which were promptly resolved by the new Management, immediately on take-over. These are highlighted below:
 - a. Pending Fault repairs: Upon takeover on 29th Aug. 2018, AEML inherited pending HT and LT network faults to the tune of 4,678 Nos. These had not been attended to by erstwhile management due to material and cash shortage that the business was grappling with. AEML has attended to and repaired almost 85% of the total outstanding faults (about 3,990 nos.) in the months of Sept. 2018 to Nov. 2018, which has significantly

improved network availability and ensured faster restoration of supply in the event of breakdowns.

- b. Call Centre related: Call Center has seen an improvement in Service Level by 28% in comparison to Aug-18:
 - Improvement in Call Center Network & SIP Bandwidth;
 - Resolution of Commercial Issues pertaining to the outsourced Call Center agency
 - c. Direct access to Top Management: Customers can send mails to the AEML CEO's Email ID, which are directly addressed by consumer service cell under CEO Office.
 - d. Large number of pending purchase Orders were cleared, which expedited capital expenditure as well as repair works and business operations
2. The RPO was not met for various reasons in FY 16-17, FY 17-18 and in FY 18-19 and such shortfall is now included in FY 18-19 and FY 19-20 as per the MTR Order. All RPO of FY 18-19 is considered by the Hon'ble Commission to be met by purchase of RE energy in FY 18-19 itself and all unmet RPO of FY 16-17 and FY 17-18 is added to the RE requirement of FY 19-20. Because additional RE was not tie-up to meet its RPO since FY 16-17 onwards, the unmet RPO of FY 18-19 (considered at about Rs. 3.50 per unit in MTR Order) is actually being replaced by procurement of short-term power at high rates, leading to FAC.
3. Further, as explained earlier, the additional FAC recovery worked out by the Hon'ble Commission vide its Vetting Orders also pertains to the period prior to change in management, but it is now affecting the billing carried out by AEML and contributing to consumer ire.

We further wish to submit that there are comparisons being drawn between Delhi residential consumer billing and Mumbai consumer billing, without informing consumers that, in Delhi, the residential consumers consuming upto 400 units / month are given 50% subsidy in their bills by the State Govt.

AEML requests the Hon'ble Commission to consider the submissions above. AEML would be happy to provide any further information and clarifications as the Hon'ble Commission may require.

Annexure 1 (Average Tariff Increase approved in MTR Order dated 12.09.18 for FY 18-19):

Particulars	Notation	FY 18-19
Sales (MU)	A	8,579
ARR (Rs. Crore)	B	6,825
RA Recovery (Rs. Crore)	C	471
Past Gap (Rs. Crore)	D	493
Less: Revenue from OA/changeover (Rs. Crore)	E	(411)
Net Recovery required from own consumers (Rs. Crore)	$F = B+C+D-E$	7,379
AcoS (Rs. PU)	$G = F/A$	8.60
Revenue from existing Tariff from own consumers (Rs. Crore)	H	7,362
ABR at existing tariff (Rs. PU)	$I = H/A$	8.58
Tariff Increase required	$J = G/I - 1$	0.24%

Source – Page 382 of MTR Order (Table 7-28)

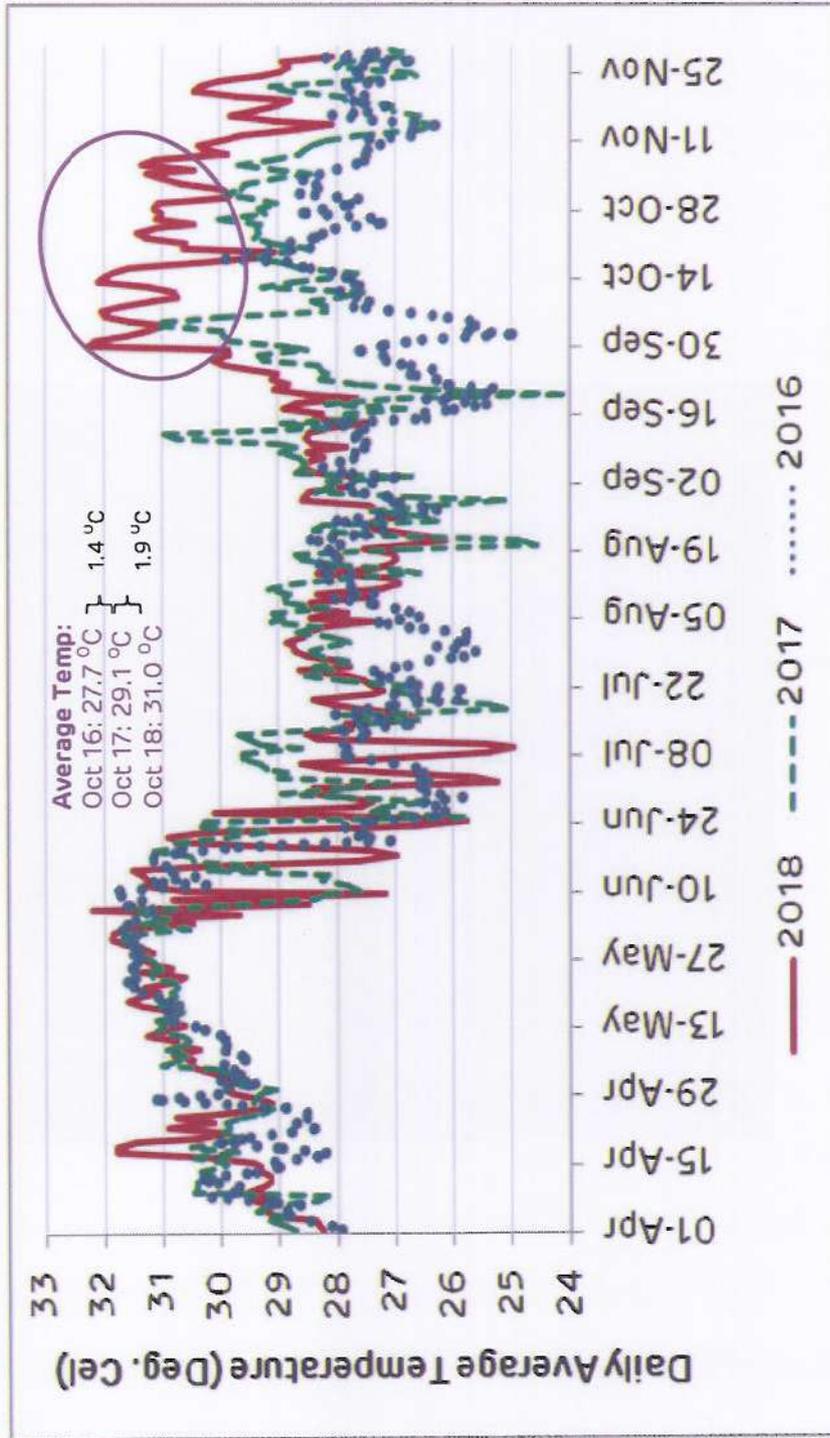
Annexure 2 (Category wise tariff Increase approved in MTR Order dated 12.09.18 for FY 18-19):

Category / (Rs./kWh)	Tariff till 31.08.18	Tariff w.e.f. 01.09.18*	% Increase / (Decrease)
LT Category			
LT I - Below Poverty Line	4.66	4.83	4%
LT -I Residential			
0-100**	4.58	4.78	4%
101-300**	8.48	8.58	1%
301-500**	10.46	10.13	-3%
> 500**	12.50	11.83	-5%
LT II (a) (< 20 kW)	10.66	9.91	-7%
LT II (b) (20-50 kW)	10.90	10.61	-3%
LT II (c) (> 50 kW)	11.45	11.16	-3%
LT III (A)	8.87	8.87	0%
LT III (B)	9.59	9.59	0%
LT IV (PWW)	9.15	8.81	-4%
LT-V (Adv & Hoardings)	13.15	11.38	-13%
LT VI (Street Lights)	9.12	8.89	-3%
LT-VII (A) (TSR)	8.04	7.86	-2%
LT-VII (B) (TSO)	11.72	11.21	-4%
LT VIII (Crem & Burial)	7.16	7.03	-2%
LT IX (A) (PS-Govt)	8.34	8.23	-1%
LT IX (B) (PS-Others)	8.73	8.64	-1%
LT X (a) (Agri-Pumpsets)	5.74	5.85	2%
LT X (b) (Agri-Others)	7.39	7.41	0%
HT Category			
HT I (Ind)	10.07	9.37	-7%
HTII (Comm)	10.76	10.05	-7%
HT III (GHS)	9.43	8.91	-6%
HTIV (PWW)	8.58	8.28	-3%
HT V (Metro) 33 KV	8.49	8.02	-6%
HT VI (A) (PS-Govt)	9.15	8.67	-5%
HT VI (B) (PS-Others)	9.99	9.53	-5%
HT VII (Temp)	10.09	9.45	-6%
Overall	8.58	8.60	0.24%

*Page 412 of the MTR Order (Table 7-57), **Page 433 of the MTR Order (Annexure I)



Annexure 3 (Daily Temperatures from 01.04.18 to 30.01.18)



Source: 15 Min Temperature Log measured by Automatic Weather Station

Annexure 4 (Increase in Sales in Oct 18 Vis a Vis Sept 18):

Tariff Category as per MTR Order	Sep-18 (MUs)	Oct-18 (MUs)	Percentage Increase in Oct 18 over Sept 18
LT Category			
LT -I Residential (1-Ph)			
0-100	137.33	143.72	5%
101-300	93.45	115.25	23%
301-500	14.38	24.67	72%
> 500	4.74	9.27	95%
LT -I Residential (3-Ph)			
0-100	21.03	21.79	4%
101-300	30.67	35.22	15%
301-500	15.65	21.61	38%
> 500	32.56	42.75	31%
LT II (a) (< 20 kW)	150.23	166.97	11%
LT II (b) (20-50 kW)	18.96	21.72	15%
LT II (c) (> 50 kW)	44.04	50.22	14%
LT III (A)	15.30	15.98	4%
LT III (B)	33.01	36.85	12%
LT IV (PWW)	1.05	1.11	5%
LT-V (Adv & Hoardings)	0.26	0.28	6%
LT VI (Street Lights)	4.80	4.93	3%
LT-VII (A) (TSR)	0.56	0.56	0%
LT-VII (B) (TSO)	0.67	0.67	0%
LT VIII (Crem & Burial)	0.10	0.11	8%
LT IX (A) (PS-Govt)	2.10	2.38	13%
LT IX (B) (PS-Others)	9.61	11.72	22%
LT X (a) (Agri-Pumpsets)	0.00	0.01	99%
LT X (b) (Agri-Others)	0.01	0.02	40%
Sub-total	630.53	727.79	15%
HT Category			
HT I (Ind)	20.58	24.50	19%
HTII (Comm)	27.48	28.59	4%
HT III (GHS)	3.15	3.67	16%
HTIV (PWW)	0.71	0.67	-5%
HT V (Metro) 33 KV	2.52	2.82	12%
HT VI (A) (PS-Govt)	0.60	0.67	11%
HT VI (B) (PS-Others)	7.49	8.84	18%
HT VII (Temp)	1.14	1.16	2%
Sub-total	63.66	70.93	11%
Total	694.20	798.71	15%

Annexure 5:

Increase in Electricity Bill (Base consumption of 100 units per month):

Particulars	Base Scenario	Scenario 1	% Increase	Scenario 2	% Increase	Scenario 3	% Increase
Consumption (kwh)	100	110	10%	120	20%	130	30%
Fixed Charges	60	95	↓	95	↓	95	↓
Energy Charges	260	316		372		429	
Wheeling Charges	170	187		204		221	
RA Charges	20	23		27		30	
FAC	10	12		14		16	
Sub-total (Rs.)	520	633		712		790	
Duty (16%)	83	101		114		126	
ToSE	16	18	19	21			
Total (Rs.)	619	752	21%	845	36%	937	51%

Increase in Electricity Bill (Base consumption of 300 units per month):

Particulars	Base Scenario	Scenario 1	% Increase	Scenario 2	% Increase	Scenario 3	% Increase
Consumption (kwh)	300	330	10%	360	20%	390	30%
Fixed Charges	95	95	↓	95	↓	95	↓
Energy Charges	1384	1600		1816		2032	
Wheeling Charges	510	561		612		663	
RA Charges	86	98		109		121	
FAC	46	53		59		66	
Sub-total (Rs.)	2121	2406		2692		2977	
Duty (16%)	339	385		431		476	
ToSE	48	53	58	63			
Total (Rs.)	2509	2844	13%	3180	27%	3516	40%

Increase in Electricity Bill (Base consumption of 500 units per month):

Particulars	Base Scenario	Scenario 1	% Increase	Scenario 2	% Increase	Scenario 3	% Increase
Consumption (kwh)	500	550	10%	600	20%	650	30%
Fixed Charges	95	120	↓	120	↓	120	↓
Energy Charges	2824	3272		3719		4167	
Wheeling Charges	850	935		1020		1105	
RA Charges	164	189		213		238	
FAC	89	102		114		127	
Sub-total (Rs.)	4022	4617		5186		5756	
Duty (16%)	644	739		830		921	
ToSE	80	88	96	104			
Total (Rs.)	4746	5443	15%	6112	29%	6781	43%

Annexure 6 (Billing Summary for Residential Consumers : Cycle 1 to 14):

Cycle	Consumers (Lacs)	Energy Billed (MU)				Amount Billed (Rs Cr)			
		Aug-18	Sep-18	Oct-18	Nov-18	Aug-18	Sep-18	Oct-18	Nov-18
1	0.93	12	13	16	15	10.3	11.3	14.2	14.3
2	0.97	14	14	17	16	11.6	11.6	15.5	15.4
3	0.97	13	14	16	15	11.1	11.7	14.5	14.5
4	0.97	14	14	17	16	11.6	12.2	15.8	15.0
5	0.97	14	13	16	15	11.3	11.1	14.9	14.0
6	1.00	14	13	17	14	11.4	11.1	15.6	13.2
7	0.96	14	13	18	15	11.2	11.5	16.5	13.7
8	1.02	14	14	18	15	11.4	12.4	16.5	14.0
9	1.00	13	14	17	14	10.9	12.2	15.0	13.2
10	0.97	13	13	16	14	10.8	12.2	14.8	13.5
11	1.00	15	11	16	14	13.1	10.0	14.4	13.1
12	0.96	15	10	16	14	13.0	9.2	14.0	13.3
13	0.95	15	10	16	14	13.3	8.9	14.5	12.8
14	0.95	15	10	16	14	13.0	8.6	14.4	12.5

- Note-**
- (1) Consumer number include all Cycle Consumers
 - (2) Energy & Amount billed is only for Residential Consumers

Annexure 7:

Increase in Sales and Billing in Sept 18 Vis-a-Vis Sept 17:

Cycle No	Sep-17			Sep-18			Sept-18 Vs Sept-17	
	No of Customers	Energy Consumption (MUs)	Bill Amount (Rs Crs)	No of Customers	Energy Consumption (MUs)	Bill Amount (Rs Crs)	% Increase in MUs	% Increase in Billing
1	93368	20.54	19.14	92354	20.36	20.86	-1%	9%
2	93870	20.82	19.36	97462	20.71	21.06	-1%	9%
3	93155	21.24	19.63	97118	21.17	21.38	0%	9%
4	95569	20.68	18.83	97034	19.98	19.82	-3%	5%
5	95511	19.74	17.99	96614	18.81	18.76	-5%	4%
6	100999	20.13	18.12	99445	18.85	18.59	-6%	3%
7	98343	20.37	18.47	96843	19.71	19.68	-3%	7%
8	99811	19.42	17.41	102008	19.30	19.24	-1%	11%
9	97572	20.09	18.67	99600	20.70	21.43	3%	15%
10	95552	19.12	17.76	97450	20.69	21.46	8%	21%
11	100865	19.39	17.62	110805	17.53	17.95	-10%	2%
12	93542	17.76	16.06	101702	15.93	16.36	-10%	2%
13	94534	20.01	18.99	100108	17.85	18.85	-11%	-1%
14	93461	22.48	20.98	96046	16.64	17.39	-26%	-17%
15	92746	20.77	19.40	98242	17.24	17.91	-17%	-8%
16	97260	21.24	19.46	96905	20.04	20.44	-6%	5%
17	96789	22.10	20.37	97344	21.83	22.45	-1%	10%
18	96845	23.60	22.12	98894	23.40	24.46	-1%	11%
19	99489	22.61	20.96	100795	23.14	24.03	2%	15%
20	96099	21.59	19.65	97082	22.21	22.76	3%	16%
21	100155	20.54	18.48	99407	21.31	21.73	4%	18%
22	94906	20.16	18.47	97309	22.00	22.68	9%	23%
23	95116	19.26	17.67	98119	21.52	22.26	12%	26%
24	95323	19.14	17.51	97348	22.03	22.96	15%	31%
25	98731	19.27	17.32	100893	22.10	22.65	15%	31%

Increase in Sales and Billing in Oct 18 Vis-a-Vis Oct 17:

Cycle No	Oct-17			Oct-18			Oct-18 Vs Oct-17	
	No of Customers	Energy Consumption (MUs)	Bill Amount (Rs Crs)	No of Customers	Energy Consumption (MUs)	Bill Amount (Rs Crs)	% Increase in MUs	% Increase in Billing
1	91840	20.55	19.28	92612	23.64	23.96	15%	24%
2	96035	22.15	20.85	97444	25.04	25.38	13%	22%
3	95515	20.55	18.97	96959	24.10	24.28	17%	28%
4	96984	19.92	18.14	96819	23.67	23.68	19%	31%
5	96355	19.52	17.93	96458	22.98	23.05	18%	29%

Cycle No	Oct-17			Oct-18			Oct-18 Vs Oct-17	
	No of Customers	Energy Consumption (MUs)	Bill Amount (Rs Crs)	No of Customers	Energy Consumption (MUs)	Bill Amount (Rs Crs)	% Increase in MUs	% Increase in Billing
6	99005	22.17	20.39	99369	23.81	23.77	7%	17%
7	96427	22.65	20.97	96791	25.05	25.29	11%	21%
8	100304	21.89	19.96	101849	24.46	24.10	12%	21%
9	98995	22.35	21.10	99699	24.72	25.04	11%	19%
10	95149	21.88	20.80	97509	24.52	24.91	12%	20%
11	100082	21.74	20.10	101304	23.60	23.48	9%	17%
12	96389	21.15	19.46	99794	22.46	22.04	6%	13%
13	94111	23.67	22.60	100400	25.97	26.35	10%	17%
14	92640	20.44	19.06	99102	24.94	24.98	22%	31%
15	91806	18.71	17.46	95242	21.67	21.79	16%	25%
16	95693	19.14	17.45	97121	21.75	21.50	14%	23%
17	97294	20.31	18.66	97195	22.66	22.44	12%	20%
18	97157	21.80	20.42	98930	24.34	24.49	12%	20%
19	99333	22.23	20.69	101041	24.78	24.85	11%	20%
20	96804	19.96	18.10	97122	21.07	20.57	6%	14%
21	99201	18.62	16.77	99566	20.00	19.57	7%	17%
22	96030	19.32	17.69	97377	23.34	22.79	21%	29%
23	95713	19.41	17.84	99018	22.34	22.14	15%	24%
24	96148	20.32	18.83	97604	22.67	22.58	12%	20%
25	98680	20.02	18.15	100838	22.41	21.92	12%	21%

Increase in Sales and Billing in Nov 18 Vis-a-Vis Nov 17:

Cycle No	Nov-17			Nov-18			Nov-18 Vs Nov-17	
	No of Customers	Energy Consumption (MUs)	Bill Amount (Rs Crs)	No of Customers	Energy Consumption (MUs)	Bill Amount (Rs Crs)	% Increase in Mus	% Increase in Billing
1	92248	21.64	21.64	92222	22.50	23.87	4%	10%
2	96193	21.42	21.28	96940	23.77	25.20	11%	18%
3	96440	21.71	21.36	96522	22.94	24.11	6%	13%
4	96867	21.11	20.52	96417	21.77	22.55	3%	10%
5	95831	20.81	20.09	96104	20.96	21.82	1%	9%
6	98552	18.71	17.96	99127	20.09	20.62	7%	15%
7	96306	19.19	18.59	96171	20.78	21.55	8%	16%
8	101006	18.39	17.48	101535	20.18	20.58	10%	18%
9	99544	19.44	19.29	99015	20.97	22.14	8%	15%
10	95932	19.37	19.26	97118	21.43	22.69	11%	18%
11	100271	19.29	18.78	99883	20.30	20.98	5%	12%
12	95800	17.49	16.77	95707	20.02	20.58	15%	23%

Cycle No	Nov-17			Nov-18			Nov-18 Vs Nov-17	
	No of Customers	Energy Consumption (MUs)	Bill Amount (Rs Crs)	No of Customers	Energy Consumption (MUs)	Bill Amount (Rs Crs)	% Increase in Mus	% Increase in Billing
13	94660	20.08	20.11	94689	21.94	23.28	9%	16%
14	93509	18.83	18.53	93750	20.75	21.69	10%	17%

Note: November Billing in progress from Cycle 15 onwards

Annexure 8 (Av. Power Purchase Rate approved in MYT Order dated 21.10.16 and MTR Order dated 12.09.18 for FY 18-19):

Sources	MYT Order dated 21.10.16*			MTR Order dated 12.09.18**		
	Quantum (MU)	Cost (Rs. Crore)	Rs./Unit	Quantum (MU)	Cost (Rs. Crore)	Rs./Unit
ADTPS	3,647	1,537	4.21	3764	1453	3.86
VIPL	4,060	1,779	4.38	3896	1744	4.47
DSPPL	69	71	10.31	69	71	10.31
New Solar				206	72	3.53
Existing Nonsolar	207	108	5.21	205	106	5.18
New Nonsolar				892	308	3.45
Short Term	2,156	677	3.14	968	339	3.50
Surplus sales				-32	-11	3.59
REC		210				
Total	10,138	4,381	4.32	9,968	4,082	4.09

*MYT Order, Page No. 328 (Table 6-40), **MTR Order, Page No. 259 (Table 6-50)

Annexure 9 (Month wise Power Purchase of Mumbai Distribution Licensees at G-T):

Month	2017			2018		
	AEML System	TPC System	BEST	AEML System	TPC System	BEST
Apr	867	483	431	887	496	442
May	939	513	470	963	535	482
Jun	869	499	444	872	495	444
Jul	820	465	420	792	459	405
Aug	818	455	412	806	450	403
Sep	830	452	413	813	450	400
Oct	864	479	413	958	495	470
Nov	744	434	382	812	444	403
Growth of Oct Vs Sep	4.06%	5.89%	-0.07%	17.79%	9.89%	17.31%

Annexure 10 (Month wise Source wise Power Purchase of AEML-D):

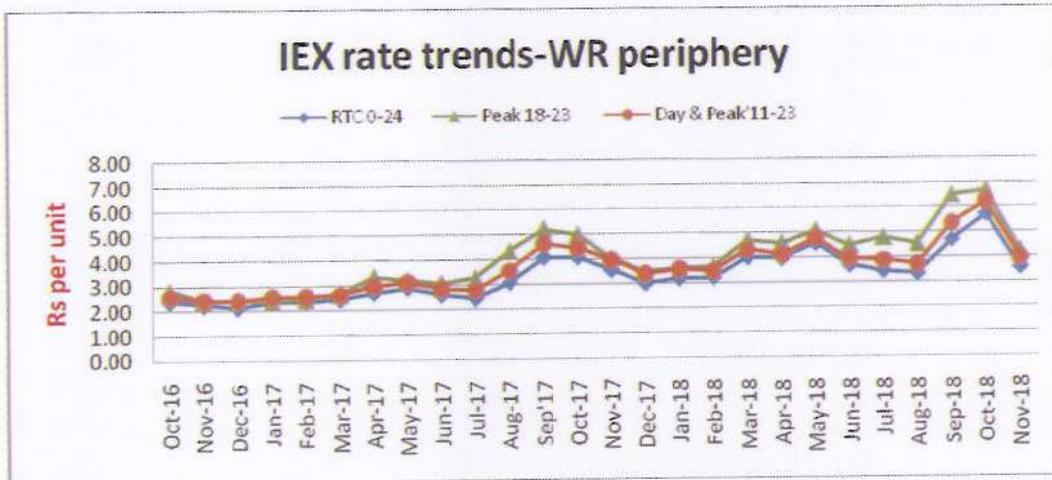
FY 17-18:

Month / (MU)	AEML-D	ADTPS	VIPL	MSEDCL Standby	RE Solar	RE Non Solar	Short Term Purchase				Pool Imbalance		
							Firm	Day Ahead	Day Ahead Sale	Intraday / Contingency		OA Purchase	
Apr-17	867	315	268	0	6	15	38	155	0	0	9	19	41
May-17	939	286	347	1	6	21	44	102	0	0	3	21	108
Jun-17	869	268	157	0	6	32	22	236	0	0	0	21	127
Jul-17	821	281	159	0	5	52	0	178	0	0	1	30	115
Aug-17	819	281	186	0	5	31	0	195	0	0	2	25	93
Sep-17	831	252	244	3	6	13	0	224	0	0	8	17	65
Oct-17	864	242	324	0	6	5	20	152	0	0	4	11	100
Nov-17	744	282	334	1	5	6	0	70	-8	-8	3	18	34
YTM	6754	2208	2018	5	44	174	124	1311	-8	-8	31	164	682
Percentage		32.7%	29.9%	0.1%	0.7%	2.6%	1.8%	19.4%	-0.1%	-0.1%	0.5%	2.4%	10.1%

FY 18-19:

Month / (MU)	AEML -D	ADTPS	VIPL	MSEDCL Standby	RE Solar	RE Non Solar	Short Term					
							Firm	Day Ahead	Day Ahead Sale	Intraday / Contingency	OA Purchase	Pool Imbalance
Apr-18	887	308	168	2	6	11	47	288	0	0	16	40
May-18	963	329	179	5	6	17	64	315	0	0	26	22
Jun-18	872	303	197	12	5	29	20	234	0	2	29	41
Jul-18	792	272	211	4	5	52	0	111	0	0	37	100
Aug-18	806	268	150	1	5	49	0	208	0	0	35	90
Sep-18	813	307	380	1	6	15	0	76	-10	0	26	12
Oct-18	958	321	203	7	6	8	112	263	0	2	18	19
Nov-18	812	261	211	7	5	6	161	74	-3	0	17	73
YTM	6901	2369	1698	39	45	185	404	1568	-14	6	205	397
Percentage		34.3%	24.6%	0.6%	0.6%	2.7%	5.9%	22.7%	-0.2%	0.1%	3.0%	5.8%

Annexure 11 (Month wise Power Prices discovered at IEX):



**Disruption in normal operations of Rlnfra-D due to Non-Cooperation
Movement called by Unionised Staff**

Anupam Patra  Secretary MERC

28/08/2018 05:07 PM

Cc: Vivek G Mishra, Kishor Patil, Bapurao Tilekar, "Mehendale Swati
R"

August 28, 2018

The Secretary
Maharashtra Electricity Regulatory Commission
13th Floor, Centre No.1, World Trade Centre,
Cuffe Parade, Colaba,
Mumbai 400 005

Dear Sir,

**Sub: Disruption in normal operations of Rlnfra-D due to Non-Cooperation Movement
called by Unionised Staff**

Ref: Regulation 8.6.8 of MERC (General Conditions of Distribution License) Regulations, 2006

With respect to the above subject, please find enclosed herewith Rlnfra's submission.



Draft letter to MERC on Union Disruption.pdf Poster by Union.pdf Letter to Police Stns.pdf

Regards,
Anupam Patra (अनुपम पात्रा)
Dy General Manager,
Regulatory Affairs,
Reliance Infrastructure Ltd.

+91-22-30098704
+91-7666912229

RELIANCE

Reliance Infrastructure Limited
Devidas Lane, Off SVP Road
Near Devidas Telephone Exchange
Borivali (W)
Mumbai 400 103.
CIN: L75100MH1929PLC001530

Tel: +91 22 3009 9999
Fax: +91 22 3009 8852
www.rinfra.com

August 28, 2018

The Secretary
Maharashtra Electricity Regulatory Commission
13th Floor, Centre No.1, World Trade Centre,
Cuffe Parade, Colaba,
Mumbai 400 005

Dear Sir,

Sub: Disruption in normal operations of Rlnfra-D due to Non-Cooperation Movement called by Unionised Staff

Ref: Regulation 8.6.8 of MERC (General Conditions of Distribution License) Regulations, 2006

The Regulation 8.6.8 of MERC (General Conditions of Distribution License) Regulations, 2006 provides as under:

"The Distribution Licensee shall duly inform the Commission about any incident restricting it from meeting its obligations under the Distribution Licence granted including any act of omission or commission by others and steps taken by the Distribution Licensee to mitigate the effect of such incident."

In accordance with above, we seek to bring the following to the notice of the Hon'ble Commission:

1. The Union of Workers has been making certain untenable demands. The workers have started indulging in non performance of their duties on account of a Non-Cooperation call issued by Mumbai Electric Sangharsh Samiti from 27/08/2018 08:00 am impacting the normal operations. The regular Repair & Maintenance works of distribution network is also affected from 27/08/2018 morning.
2. Rlnfra has always strived to maintain highest quality of services by providing uninterrupted electricity supply to all its consumers. However, under the present circumstances, it is likely that Rlnfra, as a Distribution Licensee, may fail to honor its

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obligations. In view of the non performance of activities by the Activists, affecting our performance level and may also lead to non-compliance of few Standard of Performance norms.

3. In order to prevent the occurrence of untoward incidents, Rlnfra has requested for deployment of police bandobast. Rlnfra has also issued notice to the employees that uninterrupted supply of electricity is recognized as an Essential Service under the Maharashtra Essential Services Maintenance Act (MESMA), 2017 and that strike is prohibited in our Organization under MESMA.

Rlnfra submits that it is making all efforts to normalize the aforesaid situation and would keep the Hon'ble Commission informed of any developments in this regard.

Thanking You.

Yours Faithfully
For Reliance Infrastructure Limited



Vivek Mishra
Addl. Vice President – Regulatory Affairs

CC: The Tata Power Company Limited, Corporate Centre, Block A, 34, Sant Tukaram Road,
Carnac Bunder, Mumbai 400009.

Enclosure:

1. Copy of Poster indicating Non-Cooperation call issued by Mumbai Electric Sangharsh Samiti
2. Copy of Letters sent to Local Police Stations for deployment of police bandobast

मुंबई इलेक्ट्रिक संघर्ष समिती

बेमुदत असहकार आंदोलन

कामगार, अधिकारी बंधु/भगिनींनो,

रिलायन्स इन्फ्रास्ट्रक्चर कंपनी आस्थापना मधील स्थायी व कंत्राटी कामगारांच्या वेतनवाढ व सोयी सवलतींचे करार १९ एप्रिल २००७, २८ जुन २०१२ व १९ सप्टेंबर २०१६ रोजी युनियन व व्यवस्थापन यांच्यामध्ये झालेले आहेत. करारामधील तरतुदीनुसार व्यवस्थापनाने मान्य केल्याप्रमाणे कामगार भरती, कामगारांना बढत्या, पॉवर लॉस भत्त्याची पुनर्रचना, प्रशासकीय कामगारांना दुसरा व चौथ्या शनिवारी सुट्टी, सांताक्रुझ (पुर्व) येथील कॉर्पोरेट कार्यालयाचे विकासकाम पूर्ण झाल्यानंतर पुन्हा कामगारांच्या नेमणुका सांताक्रुझ (पुर्व) कार्यालयात करणे, कामगारांच्या घरकुल योजनेसाठी दोन लाख पंच्याहत्तर हजार चौ. फुट जागा देणे. कामगारांच्यासाठी हॉलीडे रिसॉर्ट उभारणे, किमान वेतन कायदा १९४८ नुसार बिल वितरक, उपहारगृहातील कामगार, सुरक्षा रक्षक, टेलिफोन निगा व दुरुस्ती करणारे कामगार, बोर्ड वायरिंग करणाऱ्या व इतर कामगारांना किमान वेतन प्रदान करणे, कामगार व अधिकारी पदाच्या रिक्त जागा त्वरित भरण्याचा निर्णय घेणे या व इतर प्रलंबित प्रश्नांच्या सोडवणुकीसाठी २४ जुलै ते ३१ जुलै २०१८ पर्यंत सर्व झोनल कार्यालयासमोर उग्र निदर्शने केली. १३ ऑगस्ट २०१८ रोजी कंपनीच्या सर्व झोनल कार्यालयासमोर ठिय्या व घंटानाद आंदोलन करून व्यवस्थापनाला जागे करण्याचा प्रयत्न केला. परंतु झोपी गेलेल्या व्यवस्थापनाला जाग आली नाही. कोमात गेलेल्या व्यवस्थापनाला "चले जाव" चा नारा दिला. व्यवस्थापनाची शुद्ध हरपलेली आहे.

त्यामुळे २७ ऑगस्ट २०१८ पासून बेमुदत असहकार आंदोलन छेडण्याचा निर्णय तमाम कामगारांनी घेतलेला आहे. लक्षात ठेवा प्रलंबित प्रश्नांची सोडवणूक होत नाही. तोपर्यंत आंदोलन मागे घेतले जाणार नाही. करु किंवा मरु या इर्षने आंदोलनामध्ये सामिल व्हा...!

मुंबई इलेक्ट्रिक संघर्ष समिती झिंदाबाद ! कामगार व अधिकारी एकता झिंदाबाद !!

आनंद कांबळे
अध्यक्ष

॥ आपले विश्वास ॥
मोतीराम गायकर
सरचिटणीस

पंढरीनाथ पोसम
कार्याध्यक्ष

RELIANCE

Reliance Energy
Reliance Infrastructure Limited
369 D, S. V. Road
Kandivali (West)
Mumbai 400 067.

Tel: +91 22 3009 6999
Fax: +91 22 3009 4580
www.relianceenergy.in

CIN: L99999MH1929PLC001630

Date : 24 Aug 2018.

To,
The Sr Inspector of Police,
Kandivali Police Station,
Mumbai, 400067.

RECEIVED
24/08/18
DESPATCH WRITER
KANDIVALI POLICE STATION
MUMBAI-400 067

Subject: Police Protection at Reliance Kandivali Zonal Office wef 27 Aug 18

Sir,

It is to inform you that, 'Mumbai Electric Sangharsh Samiti' has declared Indefinite Strike at Kandivali office on with effect from 27 Aug 2018. Copy of the poster giving out the details is enclosed herewith for your information.

Reliance Energy Establishment is governed under MESMA (Maharashtra Essential Services Maintenance Act 2011). Above event may obstruct the routine operational work leading to unrest situation.

In view of the above, you are requested to provide adequate Police protection on 27 Aug 2018 from 07.30 AM at Reliance Infrastructure Ltd., Kandivali Office, S V Road, Kandivali, (W), Mumbai - 400 067, to maintain the Law and Order situation.

Yours faithfully,

Lt Col Kiran Gurav(Retd)
GM, Security,
Reliance Infrastructure Ltd.
North Zone, Kandivali,
Mumbai, 400067.

RELIANCE

Reliance Energy
Reliance Infrastructure Limited
E-7, MIDC
Marol
Andheri (E)
Mumbai 400 093, India

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www.relianceenergy.in

CIN: L99999MH1929PLC001530

ole

Date 23/08/2018

To,

The Senior Inspector Of Police,
MIDC, Police Station,
Andheri East, Mumbai.

Case 26/2/18
बारनिशी लेखनिक
एम. आय. डी. सी.
पोलीस ठाणे मुंबई-१३.

Sub: Request to provide police bandobast at REL MIDC
Office main gate on 27/08/2018.

Sir,

It is to bring to your kind notice that, on ^{27/8/18} 27/08/2018 at about 0800 hrs the supporters of Mumbai Electrical Workers Union organized "Indefinite Strike" at all Infrastructure office main gate for their various pending demands (Xerox Copy attached herewith).

To avoid any law & order problem during strike you are requested to provide adequate police bandobast out side company main gate by 0800 hours on 27/08/2018 respectively. At Place - Rel Infra opp. MIDC Police Sta., Center Rd. Marol, Andheri East.

Your co operation for maintaining industrial peace will be highly appreciated.

Thanking you.

Yours sincerely
For Reliance Infra. Ltd.

Rajan D Dhoble
Rajan D Dhoble
OSD,
(Security & Vigilance)
South Central Division
Tele no - 30093733
Mobile no. - 9322159006.

copy submitted to - DCP Zone - X } for information please
MIDC, Andheri-
Mumbai

25/8/18
OFFICE OF THE
Dy. Commissioner of Police
Zone-X M.I.D.C.,
Andheri (E), Mumbai-400 093.

Annexure 13: Total Complaints received and resolved between 01.10.18 to 30.11.18:

Sr.	Particulars	No.
A	Perception Based complaint (meter checked on site)	9698
B	Meter Replaced for Lab Testing	2078
i	Meter found within accuracy limits (Replaced on Customer's request)	2043
ii	Meters found beyond accuracy limits	35
C	Slab Benefit Given	580
D	Earth Leakage found on customer side	36
E	Total Complaints Resolved	12392



सत्यमेव जयते

महाराष्ट्र विद्युत नियामक आयोग

Maharashtra Electricity Regulatory Commission



MERC/ Legal / 2018-19/ 1297

7 December, 2018

To,
The Chief Executive Officer,
Adani Electricity Mumbai Limited,
Devidas Lane, Off SVP Road,
Near Devidas Telephone Exchange
Borivali (W), Mumbai – 400 092

Subject : Regarding increased electricity bills of consumers

1. The Commission vide its letter dated 4 December, 2018, sought explanation from Adani Electricity Mumbai Ltd (Distribution Business) (AEML-D) on media reports highlighting surge in recent electricity bills and complaints regarding billing by consumers in Suburban Mumbai.
2. From the reply submitted by the AEML-D, the Commission prima facie feels that billed consumption for October 2018 appears to be unduly high this year. It would need more detailed enquiry to verify the explanation of AEML-D. For example, what has been the impact of weather conditions on the energy consumption profile of other Distribution Licensees in Mumbai especially on the low end residential category consumers and the practices being followed by different Mumbai Distribution Licensees with respect to levy of FAC particularly for claiming past dues etc. and issuing bills on average consumption basis.
3. The Commission needs to safeguard the interest of all the Consumers, particularly those who are affected by sudden increase in electricity bill. In this context, the Commission deems it fit to appoint a Fact Finding Committee to go into, inter alia, the reasons for the sudden upsurge in the consumption / other reasons which might have led to increase in electricity bills in Mumbai and Mumbai Suburbs and recommend corrective steps, if any, to ensure that such incidence of sudden hike in electricity bills do not recur.
4. AEML-D is directed to provide necessary information and documents as required by the Fact Finding Committee.
5. However, in the interim, in addition to the steps taken by AEML-D, the Commission directs AEML-D to take following steps immediately so that desired impact becomes apparent from the next billing cycle beginning 10 December, 2018 :
 - a. AEML-D shall verify metered consumption of the consumers who have been billed significantly more of their average consumption.

Page 1 of 2

१३वा मजला, केंद्र क्र. १, जागतिक व्यापार केंद्र, कफ परेड, कुलाबा, मुंबई - ४०० ००५.

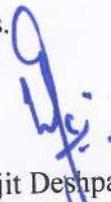
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- b. If any excess billing is found out, the same should be refunded to the consumers along with admissible interest as per Regulations.
 - c. Organize special camps for addressing consumers complaints related to excessive billing. Provide adequate publicity about such camps.
6. AEML-D shall submit compliance of above directives on fortnight basis.


(Abhijit Deshpande)
Secretary, MERC

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai 400005.
Tel. 022 22163964/65/69 Fax 22163976
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Constitution of Fact Finding Committee

Date: 10 December, 2018

1. Taking serious note of media reports highlighting surge in recent electricity bills and complaints regarding billing by consumers of Adani Electricity Mumbai Ltd (Distribution Business) (AEML-D), in Suburban Mumbai, the Commission sought explanation from AEML-D on 4 December, 2018.
2. From the reply submitted by the AEML-D, the Commission prima facie feels that increase in billed consumption for October 2018 appears to be unduly high this year. It would need more detailed enquiry to verify the explanation of AEML-D. For example, what has been the impact of weather conditions on the energy consumption profile of other Distribution Licensees in Mumbai especially on the low end residential category consumers and the practices being followed by different Mumbai Distribution Licensees with respect to levy of FAC particularly for claiming past dues etc. and issuing bills on average consumption basis.
3. The Commission needs to safeguard the interest of all the Consumers, particularly those who are affected by sudden increase in electricity bill. In this context, the Commission deems it fit to appoint a Fact Finding Committee to go into, inter alia, the reasons for the sudden upsurge in the consumption / other reasons which might have led to increase in electricity bills in Mumbai and Mumbai Suburbs and recommend corrective steps, if any, to ensure that such incidence of sudden hike in electricity bills do not recur.
4. Regulation 82 of the MERC (Conduct of Business) Regulations, 2004, empowers the Commission as follows:

“82. The Commission may make such direction or order as it thinks fit for collection of information, inquiry, investigation, entry, search, seizure and, without prejudice to the generality of its powers, including, inter alia, the following :-

(a) The Commission may, at any time, direct the Secretary or any one or more Officers or any other person as the Commission considers appropriate to study, investigate or furnish information with respect to any matter within the jurisdiction of the Commission under the Act.

.....”

5. In view of the above, the Maharashtra Electricity Regulatory Commission hereby constitutes a two member Fact Finding Committee comprising of Shri. Ajit Kumar Jain (Retd. IAS, State Information Commissioner, Maharashtra) and Shri. Vijay L. Sonavane (Ex. Member, MERC), to conduct a fact finding exercise into allegations of excessive bills received by consumers from Distribution Licensees supplying electricity in Mumbai and suburbs of Mumbai.
6. The scope of the fact finding exercise is for the period of FY 2018-19 (April 2018 to December, 2018), FY 2017-18 and any other past period, if found necessary, shall be as follows:
 - i. Fact finding of the reasons for the sudden upsurge in the consumption / other reasons which might have led to increase in electricity bills in Mumbai and Mumbai Suburbs
 - ii. Recommend corrective steps, if any, to ensure that such incidents of sudden hike in electricity bills do not recur.
7. Adani Electricity Mumbai Ltd (Distribution), Tata Power Co. Ltd. (Distribution), Brihanmumbai Electric Supply and Transport Undertaking, MSEDCL (Mulund and Bhandup circles) are directed to provide necessary information and documents as required by the Fact Finding Committee.
8. The Commission authorizes the Fact Finding Committee, if required, to visit the premise(s)/offices of above Distribution Licensees for collection of information, inquiry, investigation, entry, search, seizure, without prejudice to the generality of its powers.
9. Deputy Director (Technical) dealing with Distribution Tariff in Office of the Commission will act as the Secretary to the Committee for convening the meetings at the place and time as decided by the Committee.
10. An honorarium would be paid to Members of the Committee. Administrative order in this regard shall be separately issued by Secretary of the Commission. The Committee shall be provided full secretarial and other support by the Deputy Director Administration.
11. This Fact Finding exercise would be governed by the provisions of Electricity Act, Rules and relevant Regulations while calling any person or recording their depositions.

12. The Committee shall submit the report to the Commission by 31 March, 2019 suggesting corrective steps, if any, to ensure that such incidence sudden hike in electricity bill do not recur.

Sd/-
(Mukesh Khullar)
Member

Sd/-
(I.M. Bohari)
Member

Sd/-
(Anand B. Kulkarni)
Chairperson


(Abhijit Deshpande)
Secretary


MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
॥ आदित्य हृदयम् ॥

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Extension to Fact Finding Committee

Date: 27 March, 2019

1. The Commission vide its notification dated 10 December, 2018 has constituted a two member Fact Finding Committee comprising of Shri. Ajit Kumar Jain (Retd. IAS, State Information Commissioner, Maharashtra) and Shri. Vijay L. Sonavane (Ex. Member, MERC), to conduct a fact finding exercise into allegations of excessive bills received by consumers from Distribution Licensees supplying electricity in Mumbai and suburbs of Mumbai. It is expected that Committee will submit its report by 31 March, 2019.
2. The Fact Finding Committee has already sought details about billing procedures and other related information from the Distribution Licensees in Mumbai. Further, the Committee has also requested the consumers who have filed their written complaints before the Committee to submit additional documents, if any, to substantiate their grievances. The Committee is scrutinizing these submissions. It also intends to seek oral submissions of Distribution Licensees on certain issues and may undertake field visits, if required, for verifying billing procedures of the Distribution Licensees in Mumbai.
3. Meantime, one of the Member, Shri Vijay L. Sonavane, due to his health issues is temporarily not able to attend the meetings of the Committee. Hence, the Committee felt need of one more technical expert to be associated with the Committee. The Committee also requested the Commission to extend the period of the Committee by two months up to 31 May, 2019.
4. In light of the above circumstances, the Commission deems it appropriate to increase the strength of Members on the Fact Finding Committee from two to three and appoint, Shri. Satish Bapat (Ex. Chief Engineer, Maharashtra State Electricity Distribution Co. Ltd.) as Member of the Fact Finding Committee. The Commission also extends the timeframe for completion of the fact finding exercise till 31 May, 2019.
5. The Notification dated 10 December, 2018 stands revised to that extent with no other change.

Sd/-
(Mukesh Khullar)
Member

Sd/-
(I.M. Bohari)
Member

Sd/-
(Anand B. Kulkarni)
Chairperson

Fact Finding Committee

Summary of First Meeting

Date: 27th December, 2018

- 1 The Committee met the Chairman MERC, to discuss the terms of reference of the Committee, and understand the expectations of the Commission from the Fact-Finding Committee.
- 2 The Committee deliberated on the approach for the Fact-Finding exercise. It scrutinized the Reply submitted by the AEML-D. The Committee also looked at the nature of complaints and listed the parameters, on which, the Committee decided to obtain information from the DLs. Committee decided to seek following details from the DLs in Mumbai: -

2.1 Meter Reading:

- a) Method / technology adopted for meter reading.
- b) Whether the meters were read internally by their own staff, or was it outsourced?
- c) The number of meters read per day by a meter reader.
- d) Methodology for crosschecking the correctness of the meter readings.
- e) Process for transferring meter reading data to billing software.
- f) Method of determining average consumption if meter reading is not available.
- g) Information about Billing Cycle.
- h) Complaints regarding meters and period required for replacement of Faulty meters.

2.2 Levying of Fuel Adjustment Charge (FAC):

- a) Analysis and Reasons for FAC charges levied in the months of August 2018/September 2018 /October 2018/November 2018 /December 2018.
- b) Basic reasons for changes in FAC, if any
- c) Is there a delay in submission/approval of FAC charges?
- d) Table of Actual FAC recovered in month & FAC approved by MERC.

2.3 Meter Reading during Workers Agitation (only for AEML-D):

- a) How many consumers were assessed on average consumption basis during 5-day agitation by the Meter Readers?
- b) Efforts of reassessment of Bills, after the agitation:
 - i) Week wise Bills corrected
 - ii) Number of consumers complaints redressed and the amount credited (from 1st Sept till date)
- c) How many consumers used “Read Your Meter” option and accordingly their complaints were redressed and the amount adjusted in the subsequent bills?

2.4 Climatic conditions and Power Consumption:

- a) Data of daily temperature (minimum/maximum) and humidity for September, 2018 to December, 2018.
- b) Was there any correlation, which can be established between the Temperature and Humidity, and the Sale of Electricity in the licensed areas of the DLs?

2.5 Implementation and Effect of MTR Order: 12th September, 2018

- a) The date from which modified tariff was made actually effective. (after Modification in IT).
- b) Process of levying tariff differential (may be credit or excess charges) for those bills, which were issued in September, 2018 with earlier tariff.
- c) Do you feel that after the issue of Tariff Orders, there is a need to compute electricity bills of a few sample consumers (before & after revision), so that consumers get better idea of the impact of tariff revision. This could be published along with notice of tariff revision on the websites of the DLs for better transparency.

2.6 Grievance Redressal of Consumer Bills:

- a) Are the consumers aware of the Grievance Redressal mechanism of IGRC→CGRF→EO, as envisaged in the EA 2003? Has the DL made efforts in this direction, through media campaign or consumer camps etc.?
- b) What happens to a consumer who has been sent a higher bill, based on average consumption, the consumer has not represented. How does he get credit of amount wrongly billed and charged? How many such consumers were detected, and their issues redressed during last 6 months (month wise).

List of Persons present for Fact Finding Committee Meeting held on 28th December, 2018:

Sr. No.	Name of Person	
Fact Finding Committee		
1	Shri. Ajit Kumar Jain , Retd. IAS	Member
2	Shri. Vijay L. Sonavane, Ex-Member, MERC	Member
3	Smt. Rujuta Gadgil, Deputy Director, MERC	Secretary of the Committee
MERC Officers		
1	Shri. Ghanashyam Patil, Director (Tariff)	

Fact Finding Committee

Summary of Second Meeting

Date: 25th February, 2019

- 1 The Secretariat of the Committee informed the Committee that as decided in the first meeting, all DLs in Mumbai have been directed on 28th December, 2018 to submit information to the Committee. Accordingly, all DLs have submitted their details which have been circulated to Members of the Committee.
- 2 The Committee examined the provisions of the EA, 2003 and MYT Regulations, 2015 and discussed the implication of MYT Order and MTR Order on the procurement of power by the DLs and consumer tariff. The Committee particularly analyzed the provisions related to the FAC and its bearing on the unit cost of electricity supplied to the consumers.

List of Persons present for Fact Finding Committee Meeting held on 25th February, 2019

Sr. No.	Name of Person	
Fact Finding Committee		
1	Shri. Ajit Kumar Jain, Retd. IAS	Member
MERC Officers		
1	Shri. Abhijit Deshpande, Secretary, MERC	
2	Shri. Ghanashyam Patil, Director (Tariff)	
3	Shri. Pramod Burle, Regulatory Officer	

Fact Finding Committee

Summary of Third Meeting

Date : 27th February, 2019

- 1 The Committee resumed discussion on the regulatory framework of power sector and interacted with Member, and the Secretary, MERC to understand the view point of the Commission. Secretary, MERC explained in detail about Power Sector reforms and important components of Generation, Transmission and Distribution Business. Concept of FAC was also explained.
- 2 The Committee examined the complaints of electricity consumers, received directly by the Commission, and clarification in that regard furnished by AEML-D. As clarifications on some of the complaints were not received, the Committee asked the Secretariat of the Committee to seek clarification on such complaints from AEML-D.
- 3 The Committee also decided to give opportunity to all the complainants to submit any additional document in support of their complaints, within 15 days.
- 4 The Committee decided to call DLs for interaction and presentation on their respective submissions.

List of Persons present for Fact Finding Committee Meeting held on 27th February 2019

Sr. No.	Name of Person	
Fact Finding Committee		
1	Shri. Ajit Kumar Jain , Retd. IAS	Member
MERC Officers		
1	Shri. Abhijit Deshpande, Secretary, MERC	
2	Shri. Ghanashyam Patil, Director (Tariff)	
3	Shri. Pramod Burle, Regulatory Officer	

Fact Finding Committee

Summary of Fourth Meeting

Date :22nd March, 2019

- 1 The Secretariat of the Committee informed that as directed during last meeting, complainants were requested to submit additional documents, if any, in support of their original complaints. However, no submission was received. The Committee therefore decided to consider the original complaints and verify the redressal reported by the AEML-D.
- 2 The Committee examined, in detail, the response of AEML-D, dated 6th December 2018 which was filed in response to Commission's notice dated 4th December 2018.
- 3 It is observed that AEML-D has stated seasonal variations in temperature, as one of the reasons for high energy bills. The Committee decided to verify this claim of AEML-D, by crosschecking with submissions of other DLs, and MSLDC data. The Committee noticed that the BEST Undertaking had not submitted details in required format; it was therefore decided to seek the details from the BEST Undertaking.
- 4 Following data regarding slab wise consumers submitted by AEML-D, as per the instructions issued by the Commission vide letter dated 7th December 2018 was examined by the Committee: -.

Table 3-1: Number of consumers under Residential Category

Consumer slab	No. of consumers under Residential Category			
	October, 2018	November, 2018	December, 2018	January, 2019
0-100	660696	743714	955918	1116250

Consumer slab	No. of consumers under Residential Category			
	October, 2018	November, 2018	December, 2018	January, 2019
101-300	965707	966611	879292	772495
301-500	235095	191996	107847	80766
500 and above	135572	98545	60010	38544
Total	1997070	200866	2003067	2008055

From the above data the Committee observed that number of consumers in different slabs has undergone change over the period.

- 5 On examining AEML-D's submission, the Committee observed that twenty-five billing cycles of AEML-D start from 16th day of each month and end on 15th day of the following month. The Commission has approved MTR Order in Case No. 200 of 2017 on 12th September 2018 with effect from 1st September 2018. As revision in tariff requires changes in billing software, there could be a possibility that AEML-D could not implement revision in tariff from 12th September 2018 itself and affected the rise in the following month. The Committee therefore decided to seek details (including sample bills) from the AEML-D about recovery of differential tariff.
- 6 The Committee further observed that for the period from 27th August 2018 to 1st September 2018, the AEML-D could not read the meters of consumers who were under billing cycles from 11 to 15, due to workers agitation, and average bills were issued to such consumers. The Committee decided to examine the impact of workers agitation and assessment-based billing on the number of complaints received.
- 7 The Committee also studied the FAC mechanism and the issues highlighted by the AEML-D on the same. It was decided that methodology followed by other DLs will also be studied and discussed with them. The Committee decided to study the submissions of other DLs in the next meeting.

- 8 The Committee considered temporary unavailability of Shri Vijay L. Sonavane, and felt the need of one more technical expert to be associated with the Committee. It was also felt that the Committee may not be in a position to complete its work by 31st March 2019, as stipulated in the Notification of the Commission dated 10th December 2018. It was therefore decided to request the Commission to appoint one more member and also extend the period of the Committee by two months upto 31st May 2019.

List of Persons present for Fact Finding Committee Meeting held on 22nd March, 2019

Sr. No.	Name of Person	
Fact Finding Committee		
1	Shri. Ajit Kumar Jain, Retd. IAS	Member
2	Smt. Rujuta Gadgil, Deputy Director	Secretary
MERC Officers		
1	Shri. Ghanashyam Patil, Director (Tariff)	
2	Shri. Pramod Burle, Regulatory Officer	

Fact Finding Committee

Summary of Fifth Meeting

Date: 29th March, 2019

- 1 The Commission vide its Order dated 27th March, 2019 appointed Shri Satish Bapat, Ex Chief Engineer, MSEDCL as the third Member and also extended the term of the Committee till 31st May, 2019. Accordingly, Shri Satish Bapat attended the meeting.
- 2 The Committee once again referred to the complaints of the consumers, directions issued by the Commission to AEML-D and submissions by AEML-D as a response to Commission's notice dated 4th December, 2018.
- 3 In order to understand the implication of tariff rise vide MTR Order dated 12th September, 2018, it was decided to ask the AEML-D to simulate the electricity bills for 54 complainants, by considering its units consumed in October, 2018 but applying the tariff prevailing during August, and September, 2018.
- 4 Further, to ascertain the impact of increased consumption on migration of consumers from lower slab to higher slab, it was decided to seek analytical data representing movement of consumers in each slab to other slabs.
- 5 On the issue of average / assessed bills, it was decided to seek details from AEML-D about the process adopted while working out assessed consumption and subsequent adjustments on availability of actual meter reading.
- 6 The Committee decided to have presentation on these issues from AEML-D, and finalized the formats in which the information was to be submitted by AEML-D. The Committee directed the Secretariat of the Committee to circulate the formats and schedule next meeting on 5th April, 2019 wherein AEML-D would make presentation on the above issues.

**List of Persons present for Fact Finding Committee Meeting held on 29th March,
2019**

Sr. No.	Name of Person	
Fact Finding Committee		
1	Shri. Ajit Kumar Jain, Retd. IAS	Member
2	Shri Satish Bapat	Member
2	Smt. Rujuta Gadgil, Deputy Director	Secretary
MERC Officers		
1	Shri. Ghanashyam Patil, Director (Tariff)	
2	Shri. Pramod Burle, Regulatory Officer	

Fact Finding Committee

Summary of Sixth Meeting

Date:5th April, 2019

1 The Committee was informed by the Secretary, that the AEML-D has submitted a presentation on the issues discussed in the last meeting, and as advised through the mail dated 1st April, 2019. AEML-D has highlighted following major factors for increase in electricity bills in the month of October, 2018:

- a) Tariff Hike: - Although average tariff increase as per MTR Order is 0.24% for FY 2018-19, individual tariff categories have different percentage of tariff increase. There is 4 % increase in 0-100 units' slab and 1% increase in 101-300-unit slab for residential category consumers, without considering FAC. AEML-D has 70% of residential consumers consuming electricity up to 300 units per month; they were therefore most affected by the MTR revision.
- b) Increase in Temperature: -Average Temperature in October, 2018 had increased as compared to previous year due to deficit in monsoon, causing increase in consumption. The consumers therefore shifted from lower consumption slab to higher slab. As under the telescopic tariff structure applicable to residential tariff category, higher slabs attract higher tariff, shift to higher slabs caused further increase in their electricity bills.
- c) Increase in FAC: -Short Term Power Purchase cost in the month of September, 2018 and October, 2018 is much higher than the approved rate in MTR Order, thereby increasing overall power purchase cost. Also, the Commission has allowed recovering additional amount from the consumers in post facto FAC approval.

These factors have contributed to increase in electricity bills in the month of October, 2018. The officials of the AEML-D have stated that they restricted actual recoverable FAC to Rs. 0.50 per unit from November, 2018 onwards, in order to reduce the impact of higher tariffs on the consumers. This led to under recovery of Rs. 140 crores till March, 2019.

d) Billing on Assessed Consumption: -Due to agitation by unionized employees from 27th August, 2018 to 1st September, 2018, during which period transition from R-Infra to AEML, was also underway, 4.35 lakh consumers from 11 to 15 billing cycles were billed on assessed units. On availability of actual meter readings, these bills were adjusted to reflect actual consumptions and slab benefit was also given, wherever found eligible.

- 2 AEML-D has also presented how the consumers in residential category have moved from one slab to another in the months of September to December, 2018. It is noted that though large number of consumers have shifted from lower slab to higher slab in the month of October, 2018, reversion from higher slab to lower slab has also been observed in subsequent months.
- 3 On the issue of correcting assessed bills, AEML-D has submitted that meters installed at consumer premises have facility of storing data for last six months. Whoever has filed complaints regarding assessed billing, the AEML-D have downloaded the stored data from meters of those consumers, and after verifying actual consumption, gave appropriate credit including slab benefits, in their electricity bills for the following months. From 4.35 lakh bills issued on assessment basis, stored data of around 35% of consumers was downloaded and used for adjusting their electricity bills as per actual consumption. It is also stated that the adjustments / corrections in assessed bills is through billing software and there is no manual intervention involved.

- 4 Committee suggested to the AEML-D to have a communication strategy for effective and transparent communication of sudden environmental changes and other factors which may have impact on the electricity bills, and also efforts being taken by AEML-D to avoid any inconvenience to consumers.
- 5 AEML- D showed the simulated data of the complaints registered with the Committee. The Committee asked AEML-D to submit its action plan if such situation arises again.
- 6 The Committee directed AEML-D to submit the following:
 - (i) The details of action taken on 54 Complaints, received by the Commission.
 - (ii) Action plan to avoid such type of agitation / turbulence in future.

List of Persons present for Fact Finding Committee Meeting held on 5th April, 2019

Sr. No.	Name of Person	
Fact Finding Committee		
1	Shri. Ajit Kumar Jain, Retd. IAS	Member
2	Shri Satish Bapat	Member
2	Smt. Rujuta Gadgil, Deputy Director	Secretary
MERC Officers		
1	Shri. Ghanashyam Patil, Director (Tariff)	

List of Persons representing AEML-D

Sr No	Name of Person	Designation
1	Shri. Kapil Sharma	Chief Operating Officer
2	Shri. Kishor Patil	Sr. Vice President - Regulatory Affairs
3	Shri. Rajiv Nakhare	Sr. Vice President - Head Business
4	Shri. Piyush Mishra	Dy. General Manager - Business

Fact Finding Committee

Summary of Seventh Meeting

Date: 30th April, 2019

- 1 As Shri Vijay Sonavane, Member of the Committee recovered the meeting of the FFC was conducted in his presence on 30th April, 2019. All members were present. In the mean while the Committee visited the MSLDC at Kalwa, district Thane on 26th April, 2019.
- 2 The Committee discussed the submission of AEML-D regarding the rise in average temperature and its effect on the power consumption and the electricity bills. The Committee observed that the information obtained at the MSLDC during the visit of the Committee supports the submissions of AEML-D. It was decided to verify the same phenomenon across utilities, and also examine the process adopted by other utilities for meeting the rise in electricity demand.
- 3 The Committee discussed the issue of need to purchase Short Term Power at higher rate, and the reasons behind the failure of Vidarbha Industries Private Limited (VIPL), one of the Long-Term Power sources of AEML-D, to supply the contracted power. This increased the requirement to procure Short Term Power. The Committee decided to verify the Power Purchase Agreement (PPA) of VIPL with AEML-D including relevant penalty clauses for non-delivery of the contracted power to AEML-D. The Committee also decided to verify whether AEML-D has taken appropriate action against VIPL as per the terms and conditions of PPA for non-delivery of power.
- 4 The Committee also decided to verify month wise projections of demand, and planning of power procurement by AEML-D to meet the demand, and also actual power procured against the same, to understand the actual purchase of Short-

Term Power during the reference period, which directly contributed to increase in FAC.

- 5 The Committee found out variations in methodologies, adopted by DLs in assessing average consumption, as against the provision of three months average provided in the Supply Code Regulations, 2005 of the Commission. The Committee also wanted to understand the system of cross checking of meters, in cases where abnormally high readings are noticed by the utilities. The Committee felt that it may be useful to develop a system of alerting the consumers through electronic short messages, if any abnormal rise in the power consumption is noticed. This will help the consumers in regulating their power consumption and reduce the number of billing related complaints.

- 6 The Committee decided to call utilities for making presentation on such consumer relation issues. Accordingly, the next meeting of the Committee was scheduled on 13th May, 2019. The Committee directed the Secretariat to call representatives of all the utilities for making short presentations on above issues, and for seeking their clarification on any other issue related to ToR of the Fact-Finding Committee.

List of Persons present for Fact Finding Committee Meeting held on 30th April, 2019

Sr. No.	Name of Person	
Fact Finding Committee		
1	Shri. Ajit Kumar Jain, Retd. IAS	Member
2	Shri. Vijay L. Sonavane	Member
3	Shri. Satish Bapat	Member
4	Smt. Rujuta Gadgil, Deputy Director	Secretary
MERC Officers		
1	Shri. Ghanashyam Patil, Director (Tariff)	
2	Shri. Pramod Burle, Regulatory Officer	

Fact Finding Committee

Summary of Eight Meeting

Date: 13th May, 2019

- 1 As per the directives of the Committee, representatives of all DLs namely TPC-D, BEST, MSEDCL and AEML-D appeared before the Committee and made presentations on the issues mentioned in the following paragraphs.

- 2 The DLs mainly covered the following issues in the presentation:
 - a) Highlights of data submitted earlier to Fact-Finding Committee- meter reading process, billing cycles, process of computing assessed consumptions etc.
 - b) Effect of seasonal variation in electricity consumption (statistical details of August to December, 2018 vis-a-vis previous year).
 - c) Month wise information of complaints related to excess bills during August to December, 2018
 - d) Power Procurement planning for meeting peak demand and failure of Long Term contracted sources to supply committed power.
 - e) Reasons for variation in FAC levied in the month of August to December, 2018.

- 3 TPC-D Presentation: -
 - a) TPC-D stated that it has started proactive features and had made aware its consumers by circulating informative letter along with electricity bills at the time of implementation of MTR Order to avoid consumers unrest. TPC-D through its dashboards share information of the tariff with consumers. Proper explanation/ guidance is given to the

consumers at the customer care centre. TPC-D stated that it is usual to receive high bills complaints in the month of April/May and in the month of October/November due to temperature variation.

- b) Electricity bills are generated through SAP system. The software is adjusted in accordance with the date of implementation of MYT/MTR Tariff Order. Arrears on account of rise in tariff, in case of retrospective effect of Tariff Order, are spread over two months so as to reduce its burden on the consumers instantly.
- c) The calculation of adjustment due to new Tariff Order is shown separately on the bills. Also bill calculator facility is provided on TPC-D's website so that consumers can calculate their own bill.
- d) Meter reading of consumers is recorded through Hand Held Units (HHU), where data is stored and inserted into SAP system. System is designed in such a way that any unusual variation in the monthly meter reading (excess/less) is immediately highlighted.
- e) TPC-D suggested to the Committee that Tariff Order should be implemented with prospective effect, as billing software system requires 10-15 days for making necessary changes.

4 The Committee directed TPC-D to submit details of power procurement planning month wise and actual power purchase showing details of sources. The Committee also directed them to submit data of the impact on demand due to increase in temperature.

5 BEST in its presentation highlighted the information on the number of complaints filed with the BEST. The officials representing the BEST stated that it is quite usual to receive high bills complaints in the month of April/May and in the months of October/November due to temperature variation.

- 6 MSEDCL stated that it is following a software based central meter reading system covering consumers all over Maharashtra. The Customer Relationship Management (CRM) software has inbuilt feature of Credit adjustment, where adjustment in the bills is done automatically. Complaints are registered and forwarded to particular subdivision for redressal automatically.
- 7 The MSEDCL was requested to provide a write up on the mobile application used for billing system.
- 8 The Committee required the AEML-D to focus their presentation mainly on following issues:
 - a) Reasons stated by VIPL for lower generation – whether these are verified by the AEML-D.
 - b) Provisions in PPA relating lower generation – action taken by the AEML-D.
 - c) AEML-D's action plan in case VIPL continue to generate at lower level.
- 9 AEML-D Presentation:
 - a) AEML-D explained the basis for projection of future demand at the time of filing MYT/MTR Petitions. AEML-D takes into consideration power available from firm sources, the requirement of Short-Term Power, and the alternative arrangement in case any one of the firm power sources fails to supply contracted power.
 - b) AEML-D presented the data of number of complaints received and addressed by it along with the classification of the same.
 - c) AEML-D informed the Committee that it had issued notices to the VIPL, under contractual obligations and has not released fixed charge

for the quantum of power not supplied. Also, penalty amount to the tune to Rs 400 Cr has been deducted from their bills.

- d) AEML-D suggested to the Committee that Tariff Order should be implemented prospectively or as per financial year as billing software system requires 10-15 days for making suitable changes. AEML-D also suggested to allow liberty to the DL to levy FAC according to the consumption pattern of the consumers.
- e) AEML-D informed that it has executed a contract of banking of power with generators in other states so that cheaper energy will be available to the consumers in Mumbai. Under such arrangement diversity in electricity demand amongst the different States in the Country is effectively utilised. During low demand period of one State it can bank its surplus contracted power to other States who is witnessing high demand. And such State subsequently returns such banked energy to first State during its low demand period which may be high demand season for first State.
- f) AEML-D also shared their plan to install Smart Meters and digital payment schemes to reduce the human interface, and the complaints.

List of Persons present for Fact Finding Committee Meeting held on 13th May, 2019

Sr. No.	Name of Person	
Fact Finding Committee		
1	Shri. Ajit Kumar Jain, Retd. IAS	Member
2	Shri Satish Bapat	Member
2	Smt. Rujuta Gadgil, Deputy Director	Secretary
MERC Officers		
1	Shri. Ghanashyam Patil, Director (Tariff)	
2	Shri. Pramod Burle, RO	

List of Persons representing AEML-D

Sr No	Name of Person	Designation
1	Shri. Kandarp Patel	CEO & MD
2	Shri. Kapil Sharma	Chief Operating Officer
3	Shri. Rajiv Nakhare	Sr. Vice President - Head Business
4	Shri. Ghanshyam Thakkar	Asst. Vice President - Regulatory Affairs

List of Persons representing TPC-D

Sr No	Name of Person	Designation
1	Shri. V. R. Shrikhande	Chief Dist. Supply Manager
2	Smt. Swati Mehendale	Head Regulatory
3	Shri. R. M. Kasarpatil	Head Commercial Management & Billing
4	Smt. Hawwa Inamdar	Manager - Regulatory

List of Persons representing BEST

Sr No	Name of Person	Designation
1	Shri. N. V. Bhandari	Divisional Engineer Customer Care
2	Shri. R. K. Kamble	Superintendent Engineer Power Management
3	Shri. V. U. Kurade	Assistant Engineer Power Management
4	Shri. M. H. Vohra	Sub-Divisional Engineer

List of Persons representing MSEDCL

Sr No	Name of Person	Designation
1	Shri. D. R. Aundhekar	CE Billing
2	Shri. G. K. Samse	SE Billing
3	Shri. S.S.Kulkarni	Manager Power Purchase
4	Shri. H. M. Teje	System Analyst

Fact Finding Committee

Summary of Ninth Meeting

Date: 17th May, 2019

- 1 AEML-D in its submissions had informed the Committee that the complaints of the consumers received during the reference period were redressed, credit including slab benefit if due, was passed on through necessary corrections in the bills as per actual reading, through billing software. The Committee wanted to verify their claims and the grievance redressal process adopted by the AEML-D.
- 2 The Committee obtained the record of all the 12396 complaints filed during the reference period, and randomly selected 100 complaints. The Committee visited the Office of AEML-D at Bandra on 17th May, 2019 and scrutinized the bills of some of the selected consumers to verify the process of correction in the bills as per actual reading, and giving credit and the slab benefit. The Committee also checked physical record of a few sample bills of the consumers to verify the veracity of the submission of the AEML-D. The Committee could find no discrepancy in software record and the physical record of the bills in terms of tariff rates, slab benefit and assessment.

List of Persons present for Fact Finding Committee Meeting held on 17th May, 2019

Sr. No.	Name of Person	
Fact Finding Committee		
1	Shri. Ajit Kumar Jain, Retd. IAS	Member
2	Shri. Satish Bapat	Member
3	Smt. Rujuta Gadgil, Deputy Director	Secretary
MERC Officers		
1	Shri. Ghanashyam Patil, Director (Tariff)	
2	Shri. Pramod Burle Regulatory Officer	

Fact Finding Committee

Summary of Tenth Meeting

Date: 21st May, 2019

The Committee met to examine all the submissions made by the DLs in light of the issues before the Fact-Finding Committee. After prolonged discussion the Committee drafted its preliminary observations and recommendations, which were then finalised in the subsequent meetings, and are mentioned in the relevant chapter, of this report.

List of Persons present for Fact Finding Committee Meeting held on 21st May, 2019

Sr. No.	Name of Person	
Fact Finding Committee		
1	Shri. Ajit Kumar Jain, Retd. IAS	Member
2	Shri. Satish Bapat	Member
3	Smt. Rujuta Gadgil, Deputy Director	Secretary
MERC Officers		
1	Shri. Ghanashyam Patil, Director (Tariff)	
2	Shri. Pramod Burle Regulatory Officer	