



# महाराष्ट्र विद्युत नियामक आयोग

## Maharashtra Electricity Regulatory Commission

Ref. No. MERC/FAC/MSEDCL/ WFH/SBR/2

Date: 22 April, 2020

To,  
**The Managing Director,**  
Maharashtra State Electricity Distribution Company Ltd.,  
5<sup>th</sup> Floor, Prakashgad, Plot No. G-9  
Bandra (East), Mumbai 400 051

**Subject:** Post facto approval of MSEDCL's Fuel Adjustment Charges (FAC) for the period of October, 2018 to December, 2018 and January, 2019 to March, 2019.

**Reference:** MSEDCL's FAC submission vide letter dated 27 May, 2019 and Letter dated 25 July, 2019 for post-facto approval of FAC for the period of October, 2018 to December, 2018 and January, 2019 to March, 2019, respectively.

Sir,

Upon vetting the FAC calculations for the month of October, 2018 to December, 2018 and January, 2019 to March, 2019 as mentioned in the above reference, the Commission has accorded post facto approval to MSEDCL for levying FAC to its consumers as shown in the table below:

ZFAC	Oct, 2018	Nov, 2018	Dec, 2018
FAC allowed (Rs. Crore)	480.09	486.05	(105.12)

ZFAC	Jan, 2019	Feb, 2019	March, 2019
FAC allowed (Rs. Crore)	451.50	643.34	(367.78)

The above approved FAC amounts have been adjusted in the final True up of FY 2018-19 under the MERC (Multi Year Tariff) Regulations, 2015 vide Order dated 30 March, 2020 in Case No. 322 of 2019. Hence, there is no financial impact of the same and no further action is required to be taken by MSEDCL.

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In the MYT order for the 4<sup>th</sup> Control period, Commission has given dispensation with regards to FAC mechanism. The Commission has also issued the detail guidelines/formats vide letter dated 20 April, 2020, for claiming the FAC and the same requires prior approval.

MSEDCL is directed to comply with the guidelines dated 20 April, 2020 for all the future submissions on FAC.

Yours faithfully,

Sd/-  
(Dr. Rajendra G. Ambekar)  
Executive Director, MERC

**Encl:** Annexure A: Detailed Vetting Report for the period of October, 2018 to December, 2018.  
Annexure B: Detailed Vetting Report for the period of January, 2019 to March, 2019.

**POST FACTO APPROVAL FOR FAC FOR THE MONTH OF  
OCTOBER, 2018 TO DECEMBER, 2018**

**Subject:** Post facto approval of MSEDCL's Fuel Adjustment Charges (FAC) for the period of October, 2018 to December, 2018.

**Reference:** MSEDCL's FAC submission vide Letter No. 14602/14603/14604 dated 27 May, 2019 for post facto approval of FAC for the period of October, 2018 to December, 2018.

**1. FAC submission by MSEDCL:**

1.1 MSEDCL has made FAC submissions for the month of October, 2018 to December, 2018 as referred above. Upon vetting the FAC calculations, taking cognizance of all the submissions furnished by MSEDCL, the Commission has accorded post facto approval for the FAC amount to be charged in the billing month of January, 2019 to March, 2019.

**2. Background**

- 2.1 On 3<sup>rd</sup> November, 2016, the Commission has issued Tariff Order for MSEDCL, (Case No.48 of 2016) for approval of True-up of FY 2014-15, provisional True-up for FY 2015-16 and Aggregate Revenue Requirement (ARR) and Tariff for FY 2016-17 and FY 2019-20. Revised Tariff has been made applicable from 1 November, 2016.
- 2.2 On 12 September, 2018, the Commission has issued Tariff Order for MSEDCL (Case No.195 of 2017) for Mid-Term Review, including True-up of FY 2015-16 and FY 2016-17, provisional True-up for FY 2017-18, and revised Aggregate Revenue Requirement and Tariff for FY 2018-19 to FY 2019-20. Revised Tariff has been made applicable from 1 September, 2018
- 2.3 Vide its letter dated 15 November, 2016, the Commission communicated the excel formats for filing of FAC submissions to all Distribution Licensees. The Commission also directed all Distribution Licensees to submit FAC computations, including details pertaining to variation in fuel cost of generators for the approval of the Commission.
- 2.4 Vide FAC vetting Report dated 1 March, 2017, the Commission accorded prior approval of the FAC for the month of November, 2016.
- 2.5 In accordance with MERC (MYT) Regulations, 2015 a Distribution Licensee is required to obtain post facto approval of the Commission on a quarterly basis for FAC charges.

Accordingly, vide its letter dated 27 May, 2019, MSEDCL has filed FAC submissions for the month of October, 2018 to December, 2018 for post facto approval. The Commission has scrutinized the submissions provided by MSEDCL and has also verified the fuel and power purchase bills provided along with its submissions.

### 3. Energy Sales of the Licensee

3.1 The net energy sales within licence area as submitted by MSEDCL in the FAC submission and as approved by the Commission are as shown in the table below.

Consumer Category	Approved by the Commission	Approved for the month	Actual sales (MU)		
			Oct-18	Nov-18	Dec-18
	(I)	(II=I/12)	(III)	(IV)	(V)
<b>1. Metered Sales</b>					
<b>HT Category</b>					
Industry General	28545.71	2378.81	2769.11	2477.09	2673.20
Industry Seasonal	101.93	8.49	3.56	8.31	12.50
Commercial	1840.33	153.36	167.97	150.13	135.26
Railway metro monorail	59.25	4.94	6.25	5.49	5.47
Public water works	1584.10	132.01	165.20	157.09	158.34
Agriculture pumpset	784.76	65.40	127.50	133.79	131.23
Agriculture other	239.25	19.94	20.70	20.17	19.94
Group Housing Society	217.33	18.11	19.77	17.00	17.22
Temp Supply other	4.32	0.36	0.28	0.36	0.48
Public Service Govt	225.19	18.77	22.51	18.77	17.77
Public Service other	767.41	63.95	69.43	56.22	53.06
MSPGCL Aux Consumption	218.25	18.19	11.92	13.11	13.02
Other Adjustment	0.00	0.00	406.62	332.50	381.74
HT credit/Solar offset	0.00	0.00	1.86	2.19	2.17
<b>Sub Total</b>	<b>34587.83</b>	<b>2882.32</b>	<b>3792.68</b>	<b>3392.21</b>	<b>3621.38</b>
<b>LT Category</b>					
BPL	54.35	4.53	4.83	4.65	5.12
Residential	19509.88	1625.82	1770.15	1706.35	1370.50
Non residential	5578.37	464.86	490.64	491.01	435.17
Public water works	746.26	62.19	63.80	64.70	65.18
AG metered pumpset	19054.39	1587.87	1535.30	1535.30	2036.99
AG metered other	136.08	11.34	11.14	10.72	12.92
Industry	6849.84	570.82	733.69	668.55	717.42
Street light	1883.04	156.92	158.94	159.43	153.42
Temporary supply	16.13	1.34	2.02	2.22	2.18
Advertisement and hording	4.65	0.39	0.32	0.39	0.36

Consumer Category	Approved by the Commission	Approved for the month	Actual sales (MU)		
			Oct-18	Nov-18	Dec-18
	(I)	(II=I/12)	(III)	(IV)	(V)
Crematorium and burial ground	1.97	0.16	0.18	0.18	0.25
Public service	453.39	37.78	43.52	39.76	34.73
Prepaid	0.00	0.00	0.76	0.65	0.56
LT credit/Solar offset			4.54	4.50	4.61
<b>Sub Total</b>	<b>54288.35</b>	<b>4524.03</b>	<b>4815.30</b>	<b>4683.90</b>	<b>4834.81</b>
<b>Energy Sales outside the License Area</b>					
Traded units	0.00	0.00	0.00	0.00	0.00
<b>Sub Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Sub Total- Metered Sales</b>	<b>88876.18</b>	<b>7406.35</b>	<b>8607.97</b>	<b>8076.11</b>	<b>8456.19</b>
<b>2. Unmetered Sales</b>					
Unmetered Hrs>1318	2193.48	182.79	903.17	903.17	1495.79
Unmetered Hrs<1318	7968.59	664.05			
<b>Sub Total- Unmetered Sales</b>	<b>10162.07</b>	<b>846.84</b>	<b>903.17</b>	<b>903.17</b>	1495.79
<b>Grand Total (Metered+Unmetered)</b>	<b>99038.25</b>	<b>8253.19</b>	<b>9511.15</b>	<b>8979.29</b>	<b>9951.98</b>

3.2 It was observed that the total sale for October, 2018, November and December, 2018 is 9511.15 MUs, 8979.29 MUs and 9951.98 MUs respectively, which is higher than that of the MTR approved, i.e., 8253.19 MUs. The major variation was observed in HT Industrial General, Public water works, HT Agriculture and LT Residential as shown in Table above.

#### **4. Cost of Power Purchase**

4.1 MSEDCL mainly procures power from following sources;

- a) MSPGCL
- b) Central Generating Station
- c) JSW (Ratnagiri) Energy Ltd.
- d) Adani Power Limited
- e) Mundra UMPP
- f) Rattan India Power Limited
- g) EMCO Power
- h) Bilateral Procurement (Power Exchange, Traders, etc.)
- i) Renewable Energy Sources
- j) Infirm Power (MSPGCL units under commissioning, other infirm sources)

4.2 MSEDCL also buys power from other sources such as Sardar Sarovar and Pench Hydro project, renewable sources including co-generation, Wind power and Solar. In addition to the above sources, in case of any shortfall from approved sources, when demand exceeds

availability or for cost optimization, MSEDCL sources power from exchange/Traders or other sources at the market price through competitive bidding in accordance with the Guidelines of MoP.

4.3 The Commission in line with its previous post facto FAC approval has considered the revised monthly MoD stack values for this present FAC approval. Further, the recovery of differential amount due to re-calculation of FAC as claimed by MSEDCL in its FAC submission has not been considered, as the Commission has already settled the matter in its previous FAC approval.

4.4 The following table shows the variation in average power purchase cost (Rs/kWh) for the month of October, 2018 to December, 2018 as compared to average power purchase cost approved in Tariff Order dated 12 September, 2018:

Source	MTR Approved for Oct, 2018*			Actual for Oct, 2018			Deviation		
	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)
MSPCGL Thermal	3,268.83	1,509.61	4.62	3,568.76	1,457.21	4.08	299.93	(52.40)	(0.53)
MSPCGL Hydro	334.54	17.58	0.53	277.77	59.12	2.13	(56.77)	41.54	1.60
NTPC	2,180.88	684.32	3.14	2,763.20	896.65	3.24	582.32	212.34	0.11
1. CGPL	465.45	115.83	2.49	432.72	128.22	2.96	(32.73)	12.39	0.47
2. Adani	1,794.88	601.56	3.35	2,011.10	930.49	4.63	216.22	328.94	1.28
3. EMCO	116.36	41.74	3.59	118.08	47.68	4.04	1.72	5.94	0.45
4. JSW	174.54	55.68	3.19	205.35	73.32	3.57	30.81	17.64	0.38
5. Rattan India	-	81.92	-	180.38	75.71	4.20	180.38	(6.21)	4.20
<i>IPPs Total</i>	<i>2,551.23</i>	<i>896.72</i>	<i>3.51</i>	<i>2,947.63</i>	<i>1,255.41</i>	<i>4.26</i>	<i>396.40</i>	<i>358.69</i>	<i>0.74</i>
NCE	1,479.59	749.81	5.07	543.37	315.42	5.80	(936.22)	(434.39)	0.74
Other Must Run	923.32	161.67	1.75	686.03	171.81	2.50	(237.29)	10.14	0.75
STTP	-	-	-	1,827.02	1,048.72	5.74	1,827.02	1,048.72	5.74
<b>Total</b>	<b>10,738.39</b>	<b>4,019.71</b>	<b>3.74</b>	<b>12,613.78</b>	<b>5,204.35</b>	<b>4.13</b>	<b>1,875.39</b>	<b>1,184.64</b>	<b>0.38</b>

Source	MTR Approved for Nov, 2018*			Actual for Nov, 2018			Deviation		
	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)
MSPCGL Thermal	3416.54	1550.09	4.54	3953.24	1532.78	3.88	536.70	(17.31)	(0.66)
MSPCGL Hydro	323.75	17.58	0.54	154.16	56.63	3.67	(169.59)	39.04	3.13
NTPC	2,110.53	674.29	3.19	2,423.15	793.14	3.27	312.61	118.85	0.08
1. CGPL	450.43	113.39	2.52	371.90	112.73	3.03	(78.54)	(0.67)	0.51
2. Adani	1,736.98	588.75	3.39	1,934.93	923.50	4.77	197.95	334.75	1.38

Source	MTR Approved for Nov, 2018*			Actual for Nov, 2018			Deviation		
	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)
3. EMCO	112.61	41.05	3.65	130.03	52.23	4.02	17.42	11.18	0.37
4. JSW	168.91	54.37	3.22	160.94	58.17	3.61	(7.98)	3.80	0.40
5. Rattan India	0.00	81.92	0.00	223.87	99.72	4.45	223.87	17.80	4.45
<i>IPPs Total</i>	<i>2,468.93</i>	<i>879.48</i>	<i>3.56</i>	<i>2,821.66</i>	<i>1,246.35</i>	<i>4.42</i>	<i>352.73</i>	<i>366.87</i>	<i>0.85</i>
NCE	1,472.83	746.39	5.07	954.78	559.69	5.86	(518.05)	(186.70)	0.79
Other Must Run	893.54	157.06	1.76	399.78	107.75	2.70	(493.75)	(49.31)	0.94
STTP	0.00	0.00	0.00	637.74	286.22	4.49	637.74	286.22	4.49
<b>Total</b>	<b>10,686.11</b>	<b>4,024.88</b>	<b>3.77</b>	<b>11,344.50</b>	<b>4582.55</b>	<b>4.04</b>	<b>658.39</b>	<b>557.67</b>	<b>0.27</b>

Source	MTR Approved for Dec, 2018*			Actual for Dec, 2018			Deviation		
	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)
MSPCGL Thermal	3,052.24	1,453.96	4.76	4,162.80	1,645.25	3.95	1,110.56	191.30	(0.81)
MSPCGL Hydro	334.54	17.58	0.53	191.57	56.79	2.96	(142.97)	39.21	2.44
NTPC	2,209.97	688.16	3.11	2,099.17	725.73	3.46	(110.80)	37.58	0.34
1. CGPL	465.45	115.83	2.49	433.20	128.82	2.97	(32.25)	12.99	0.49
2. Adani	1,794.88	601.56	3.35	1,997.65	663.63	3.32	202.78	62.08	(0.03)
3. EMCO	116.36	41.74	3.59	103.39	40.79	3.95	(12.97)	(0.94)	0.36
4. JSW	174.54	55.68	3.19	168.44	55.77	3.31	(6.10)	0.09	0.12
5. Rattan India	-	81.92	-	244.01	142.48	5.84	244.01	60.56	5.84
<i>IPPs Total</i>	<i>2,551.23</i>	<i>896.72</i>	<i>3.51</i>	<i>2,946.69</i>	<i>1,031.50</i>	<i>3.50</i>	<i>395.46</i>	<i>134.77</i>	<i>(0.01)</i>
NCE	1,449.08	734.35	5.07	1,381.07	825.50	5.98	(68.01)	91.15	0.91
Other Must Run	923.32	161.67	1.75	341.91	84.01	2.46	(581.41)	(77.66)	0.71
STTP	-	-	-	308.13	134.65	4.37	308.13	134.65	4.37
<b>Total</b>	<b>10,520.39</b>	<b>3,952.44</b>	<b>3.76</b>	<b>11,431.34</b>	<b>4,503.43</b>	<b>3.94</b>	<b>910.96</b>	<b>550.99</b>	<b>0.18</b>

\*Approved values derived as per Revised MoD stack

- 4.5 MSPGCL – The Commission has scrutinised the submissions and observed that MSEDCL has submitted energy purchase bills with respect to MSPGCL Thermal and Gas Generating stations only, however, the invoices related with Hydro stations and other charges were missing for all the three months of Q3 of FY 2018-19. The Commission has sought the above bills/invoices which MSEDCL submitted in its data gap replies.
- 4.6 From the detailed bills submitted it was observed that total energy purchased from MSPGCL's Thermal and Gas Power Generating Stations including MSPGCL - Dhariwal during the month of October, November, and December, 2018 are 3,568.76 MUs, 3953.24

MUs and 4162.80 MUs respectively against the revised month wise MoD stack of 3,268.83 MUs, 3,416.54 MUs and 3,052.24 MUs, respectively. The variable cost from these sources during the aforesaid period is Rs. 935.65 Crore, Rs. 967.20 Crore and Rs. 1005.63 Crore respectively which have been worked out as per the energy charge approved by the Commission in its Tariff Order.

- 4.7 The average power purchase cost from all MSPGCL's Thermal and Gas Power Generating Stations during the months of October, November, and December, 2018 is Rs. 4.08/kWh, 3.88/kWh and Rs. 3.95/kWh which is lower as compared to the monthly average power purchase cost considering revised MoD stack values as Rs.4.62/kWh, Rs.4.54/kWh and Rs.4.76/kWh, respectively. The reduction in average power purchase cost is mainly on account of reduction/disallowance in fixed charge payable as the cumulative availability of most of the MSPGCL plants during the respective period were lower than the MYT approved target availability. Therefore, the monthly fixed cost allowable to be recovered was reduced as per the plant's availability, which has reduced the total power purchase cost. The Commission has verified the detailed working of AFC disallowance from the month wise AFC computation bills raised by MSPGCL and found to be in order.
- 4.8 NTPC – During the scrutiny it was observed that the detailed bills/invoice summary of NTPC bills for the month of October, 2018 were missing. The same was submitted in data gap reply. The total units purchased from NTPC's stations (including NTPC NVVN) during the months of October, November, and December, 2018 are 2763.20 MUs, 2423.15 MUs and 2099.17 MUs respectively against the revised monthly MoD stack units of 2180.88 MUs, 2110.53 MUs and 2209.97 MUs, respectively. It can be seen that the quantum of energy purchase from NTPC stations mainly in October and November is higher as compared to the monthly approved MoD stack units. This is due to the purchase of power from NTPC's new plants like Solapur-2 STPS, Mouda, Lara, Gadarwara and Khargone etc. whose COD were not declared at the time of MTR Order, hence, the energy purchase from these plants were not included in the MTR Order. However, as MSEDCL has a firm share allocation for drawal of power as allocated by MoP, the Commission had approved the variable charge and fixed charges per unit from these plants as per the information received from NTPC. However, during the month of December, the generation and hence purchase from some of NTPC stations such as Mouda 1, Mouda 2 etc. were lower. Due to this the total purchase during the said month is lesser against the revised MoD stack.
- 4.9 The total power purchase cost from NTPC's stations including the fixed charges, RLDC charges, ED & Cess, incentives and other charges during the months of October, November, and December, 2018 are Rs. 896.65 Crore, Rs. 793.14 Crore and Rs. 725.73 Crore, respectively. Accordingly, the average power purchase cost from NTPC Units during the aforesaid period is Rs. 3.24/kWh, Rs. 3.27/kWh and Rs. 3.46/kWh as compared to rate derived considering revised MoD stack value as Rs. 3.14/kWh, Rs. 3.19/kWh and Rs. 3.11/kWh respectively. The variation in the average power purchase cost is mainly on account of variable charge revisions and sharing gain/loss during the aforesaid period. The



Commission has verified the respective amount and quantum purchased from the detailed summary of invoices issued by NTPC submitted by MSEDCL and found to be in order.

- 4.10 IPPs - MSEDCL has purchased power from Mundra CGPL UMPP and IPPs, viz., JSW, EMCO Power, India Bulls Power (RattanIndia) and Adani Power. The total power purchased from these sources are 2947.63 MUs, 2821.66 MUs and 2946.69 MUs respectively against the revised monthly MoD stack of 2551.23 MUs, 2468.93 MUs and 2551.23 MUs respectively during the months of October, November, and December, 2018. The average power purchase cost from these stations is 4.26/kWh, Rs. 4.42/kWh and Rs. 3.50/kWh respectively as compared to monthly approved rate considering revised MoD stack as Rs. 3.51/kWh, Rs. 3.56/kWh and Rs. 3.51/kWh respectively.
- 4.11 Further, during scrutiny it was observed that, while the power purchase quantum (MUs) and capacity charges with respect to IPPs were matching with the bills, there were differences in the energy charges and other charges as considered in FAC computations. The Commission has sought clarification on the same along with reconciliation and additional bills, if any, for all the three months of Q3 of FY 2018-19. MSEDCL clarified that the aforesaid differences are mainly on account of Change in Law claim by IPPs in addition to monthly energy bills during the respective period. MSEDCL has added the respective CIL claim in the energy charges amount while computing FAC, therefore the same is not matching with the energy charges amount as shown in bills.
- 4.12 The Change in Law (CIL) events are related to imposition of GST Compensation Cess, change in royalty and custom duty etc. during the aforesaid period. These Change in Law events have been approved by the respective Commission or CERC, as the case may be, under the provisions of respective PPAs. MSEDCL has submitted the CIL invoices for the concerned period. Further, while scrutinizing the CIL bills it was observed that the amount shown in CIL bills/invoices were not matching against the respective amount considered in FAC computation. In fact, the amounts considered in FAC calculations were observed to be lesser than that of CIL bills/invoices. In response to query sought MSEDCL clarified that the variation is mainly due the difference in consideration of SHR, GCV and the taxes calculations. MSEDCL has calculated the CIL amount as per their own method and accordingly, considered the CIL amount as computed by them as against that of bills raised by the IPPs. MSEDCL has submitted the detailed reconciliation of CIL and energy bills.
- 4.13 Apart from the above, MSEDCL has also considered CIL compensation amount approximately of Rs. 200 Crore in case of Adani power towards shortfall in the domestic coal supply pursuant to the NCDP (National Coal Distribution Policy). As these claims are in addition to the monthly power purchase bills, therefore, the average power purchase cost from these sources are on higher side as compared to approved prices. MSEDCL further stated that the aforesaid compensation claim towards NCDP is in line with the Commission Order in Case No. 189 of 2013, Case No. 163 of 2014, Case No. 38 of 2016 and Case No. 124 of 2018.

- 4.14 Apart from above additional claims towards CIL, the variation in the power purchase cost is also due to change in variable price as the prices are linked to various factors such as variation in monthly exchange rates, CERC index for inland handling of imported fuel and for inland transportation of fuel. Due to the above the average power purchase cost has increased significantly mainly during the month of October and November and hence increased the FAC during the respective months. However, the average power purchase cost during the month of December, 2018 is marginally lower than the approved price as MSEDCL has not included any CIL claim during the said month. Upon clarification sought for not considering the CIL claim during December, 2018, MSEDCL clarified that as it has already considered additional CIL amount of Rs. 200 Crore towards NCDP stated above apart from other CIL claims, therefore, in order to avoid the Tariff shock to the consumers CIL claim pertaining to the month of December were not levied. MSEDCL further stated that it will levy the amount of CIL claim pertaining to December in the next FAC quarter.
- 4.15 Traders – MSEDCL in its initial FAC submission has not provided any bills related to short term purchase. The Commission in its data gap query has sought for short term bills and also asked MSEDCL to confirm if all the short-term power has been procured through competitive bidding. MSEDCL has submitted the required power purchase bills and stated that it has been procuring short term power through competitive bidding.
- 4.16 During the quarter 3 months MSEDCL has purchased short term power from PTC, JSW, TPDDL, Manikaran, APPCPL, etc. The Commission has verified the purchase from aforementioned traders and observed that the total quantum and cost of purchase as per STPP bills submitted were not matching with the respective quantum and cost considered in FAC computation. In response to query sought, MSEDCL stated that it has purchased the remaining quantum of power through power exchange IEX. MSEDCL then submitted the detailed summary of power purchase from IEX showing the energy drawl, energy charges and other fees/charges during the Q3 months. The same has been verified and found to be in order.
- 4.17 Accordingly, MSEDCL has purchased the total STPP power of 1827.02 MUs in the month of October, 637.74 MUs in the month of November, 2018, and 308.13 MUs in the month of December, 2018. Further, during the month of December it was observed that MSEDCL has deducted a quantum of 59.5 MUs and its associated cost of Rs. 21.43 Crore from total STPP purchase, as it was inadvertently considered by MSEDCL during its previous FAC submission, i.e., Q2 of FY 2018-19. However, the Commission has already identified and rectified the said error in its previous approval itself, therefore, the same is not deducted by the Commission in the present FAC approval.
- 4.18 The average power purchase cost from short term sources in the month of October is Rs. 5.74/kWh for the quantum of 1827.02 MUs. For the month of November, the average power purchase cost is Rs. 4.49/kWh for quantum of 637.74 MUs and for the month of December, it is Rs. 4.37/kWh for the quantum of 308.13 MUs. Further, the Commission in its MTR Order has not considered any quantum and amount with regards to short term

power purchase as the entire demand would have been considered to meet through projected sources of power. Hence, the same is not considered in the energy balance for each year of the 3<sup>rd</sup> Control Period by the Commission. However, the Commission has allowed MSEDCL to procure short term power at the market price in case of any shortfall from approved sources or when demand exceeds availability. As the power from traders has been procured by MSEDCL through competitive bidding, the Commission has considered the respective actual quantum and the cost as submitted by MSEDCL.

4.19 Must Run Sources – The sources of Must Run Stations include KAPP, TAPP 1&2, TAPP 3&4, SSP, Pench, Dodson I and Dodson II, Non-Conventional Energy, MSPGCL hydro, etc. MSEDCL has purchased 1229.40 MUs, 1508.72 MUs and 1914.55 MUs respectively during the months of October, November, and December, 2018 as compared to the revised monthly MoD energy purchase of 2402.91 MUs, 2366.36 MUs and 2372.40 MUs respectively. The total cost of power purchase from Must Run sources are Rs. 487.23 Crore, Rs. 724.06 Crore and Rs. 966.30 Crore during the month of October, November, and December, 2018 respectively. The average power purchase cost from these stations during the aforesaid period is Rs. 3.96/kWh, 4.80 /kWh and Rs. 5.05/kWh as compared rate derived on the basis of revised MoD stack as Rs. 3.79/kWh, Rs. 3.82/kWh and Rs. 3.78/kWh respectively.. A detailed comparison of approved MoD stack against actual purchase from Must Run Stations is shown in Table below:

Source	MTR Approved for Oct, 2018			Actual for Oct, 2018			Deviation		
	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)
KAPP	92.99	23.20	2.49	48.80	12.07	2.47	(44.20)	(11.12)	(0.02)
TAPP 1&2	97.14	10.96	1.13	50.19	10.36	2.06	(46.94)	(0.61)	0.93
TAPP 3&4	274.46	84.78	3.09	258.25	79.06	3.06	(16.21)	(5.72)	(0.03)
SSP	102.76	21.07	2.05	26.05	5.34	2.05	(76.71)	(15.72)	(0.00)
Pench	11.59	2.38	2.05	16.56	3.39	2.05	4.96	1.02	(0.00)
Dodson I	4.37	0.62	1.42	8.40	1.30	1.55	4.03	0.68	0.13
Dodson II	5.45	1.08	1.99	-	1.17	-	(5.45)	0.08	(1.99)
Renewable Energy Non-Solar	1,183.67	625.92	5.29	376.80	210.38	5.58	(806.87)	(415.54)	0.30
Renewable Energy Solar	295.92	123.89	4.19	166.57	105.04	6.31	(129.35)	(18.85)	2.12
MSPGCL Hydro	334.54	17.58	0.53	277.77	59.12	2.13	(56.77)	41.54	1.60
<b>Total</b>	<b>2,402.91</b>	<b>911.48</b>	<b>3.79</b>	<b>1,229.40</b>	<b>487.23</b>	<b>3.96</b>	<b>(1,173.51)</b>	<b>(424.25)</b>	<b>0.17</b>

Source	MTR Approved for Nov, 2018			Actual for Nov, 2018			Deviation		
	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)
KAPP	89.99	22.45	2.49	46.67	11.56	2.48	(43.32)	(10.89)	(0.02)
TAPP 1&2	94.00	10.61	1.13	96.73	19.93	2.06	2.73	9.32	0.93

Source	MTR Approved for Nov, 2018			Actual for Nov, 2018			Deviation		
	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)
TAPP 3&4	265.61	82.04	3.09	225.32	68.98	3.06	(40.30)	(13.07)	(0.03)
SSP	99.45	20.39	2.05	24.06	4.93	2.05	(75.38)	(15.45)	(0.00)
Pench	11.22	2.30	2.05	2.21	0.45	2.05	(9.01)	(1.85)	(0.00)
Dodson I	4.23	0.60	1.42	4.79	0.73	1.52	0.55	0.13	0.10
Dodson II	5.28	1.08	2.05	0.00	1.17	0.00	(5.28)	0.08	(2.05)
Renewable Energy Non-Solar	1178.26	623.06	5.29	773.39	455.11	5.88	(404.87)	(167.95)	0.60
Renewable Energy Solar	294.57	123.32	4.19	181.39	104.58	5.77	(113.18)	(18.74)	1.58
MSPGCL Hydro	323.75	17.58	0.54	154.16	56.63	3.67	(169.59)	39.04	3.13
<b>Total</b>	<b>2,366.36</b>	<b>903.44</b>	<b>3.82</b>	<b>1,508.72</b>	<b>724.06</b>	<b>4.80</b>	<b>(857.65)</b>	<b>(179.38)</b>	<b>0.98</b>

Source	MTR Approved for Nov, 2018			Actual for Nov, 2018			Deviation		
	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)
KAPP	92.99	23.20	2.49	50.61	7.72	1.52	(42.38)	(15.48)	(0.97)
TAPP 1&2	97.14	10.96	1.13	112.21	23.11	2.06	15.07	12.15	0.93
TAPP 3&4	274.46	84.78	3.09	148.05	45.33	3.06	(126.42)	(39.45)	(0.03)
SSP	102.76	21.07	2.05	28.89	5.92	2.05	(73.88)	(15.14)	(0.00)
Pench	11.59	2.38	2.05	2.16	0.44	2.05	(9.44)	(1.93)	(0.00)
Dodson I	4.37	0.62	1.42	0.00	0.32	-	(4.37)	(0.30)	-
Dodson II	5.45	1.08	1.99	-	1.17	-	(5.45)	0.08	(1.99)
Renewable Energy Non-Solar	1,159.27	613.02	5.29	1,207.11	726.49	6.02	47.84	113.47	0.73
Renewable Energy Solar	289.82	121.34	4.19	173.96	99.01	5.69	(115.86)	(22.33)	1.50
MSPGCL Hydro	334.54	17.58	0.53	191.57	56.79	2.96	(142.97)	39.21	2.44
<b>Total</b>	<b>2,372.40</b>	<b>896.02</b>	<b>3.78</b>	<b>1,914.55</b>	<b>966.30</b>	<b>5.05</b>	<b>(457.85)</b>	<b>70.28</b>	<b>1.27</b>

4.20 From the above Table it can be seen that the actual purchase from Must Run Sources is less against the MoD stack. This has impacted the average power purchase price for those stations in which fixed cost is payable as per availability, i.e., mainly for Dodson I & II and MSPGCL Hydro. The average power purchase cost from must run sources is higher during the quarter 3 months as compared to corresponding monthly approved rate. The main reason for such a variation in power purchase cost is due to variation in power purchase quantum which can be attributable to Non-solar/Solar renewable source and MSPGCL hydro stations. It is to be noted that in the overall portfolio of must run sources, the approved variable charge from Non-solar/Solar sources is highest whereas for MSPGCL Hydro the variable charges are lowest. Therefore, the quantum of purchase and share of purchase from these sources in total must run portfolio affect the average power

purchase cost. When the quantum of purchase from costlier Non-solar/Solar sources in the total must run portfolio is higher, the average power purchase cost move towards costlier price and vice-versa.

- 4.21 During the month of October MSEDCL has purchased a total 543.37 MUs of Non-solar plus Solar power at an average price of Rs. 5.80/kWh. This purchase is almost 44.19% of the total must run power during the said month whereas the share of MSPGL Hydro was around 22.60%. at a price of Rs. 2.13/kWh. During the month of November, it has purchased 954.78 MUs of total Non-solar plus Solar power at an average price of Rs. 5.86/kWh. This purchase during the said month is almost 63.28% of the total must run power whereas the share of MSPGL Hydro during the same month was around 10.22% at a price of Rs. 3.67/kWh. Further, During the month of December, MSEDCL has purchased 1381.07 MUs of total Non-solar plus Solar power at an average price of Rs. 5.97/kWh. The aforesaid purchase is almost 72.14% of the total must run power whereas the share of MSPGL Hydro was only around 10% during the same period at a price of Rs. 2.96/kWh. As the share of costlier approved Non-solar plus Solar power in the overall portfolio of must run is higher, the APPC has moved towards the same, i.e., cost of purchase from Non-Solar and Solar. Further, the average power purchase cost from must run sources is observed progressively increasing during the quarter 3 months. This is mainly due to the progressive increase in the share of Non-solar plus Solar power in the overall portfolio of must run during the respective period.
- 4.22 Further, with respect to MSPGCL hydro stations the average power purchase is also varying. This is due to the reason that the power purchase cost is based upon the variable cost and fixed cost payment. Although, the approved variable charge for MSPGCL Hydro is lowest i.e., Rs. 0.20/kWh, its average power purchases cost depends upon monthly fixed charge payment as per its net generation. During the quarter 3 months MSEDCL has purchased 277.77 MUs in October, 2018, 154.16 MUs in November, 2018 and 191.57 MUs of power in December, 2018. Even though, the quantity of power purchase from hydro is lower and varying during the aforesaid period, the monthly fixed charges are full payable as the actual PAFM of all hydro stations were observed above target availability. This has also contributed to the increase in APPC, as the spread of lower purchase quantum on higher purchase cost (including fixed cost) has resulted into an increase in total average purchase price.
- 4.23 Further, MSEDCL was sought to confirm if it has purchased any REC during the respective period of quarter 3 of FY 2018-19. MSEDCL stated that it has purchased REC of worth Rs. 9.15 Crore during quarter 3 period however, the same were considered in the FAC computation of quarter 4 of FY 2018-19.
- 4.24 Therefore, on an overall basis the APPC for the month of October, November and December, 2018 is higher mainly due to incorporation of change in law amount in the total power purchase cost in line with the Commission's Order and also due to the variation in power purchase quantum from must run sources as explained in para above. Accordingly, after complete scrutiny of relevant document submitted, the Commission allows the

average power purchase cost of **Rs. 4.13/kWh** for the month of October, 2018, **Rs. 4.04/kWh** for the month of November, 2018 and **Rs. 3.94/kWh** for the month of December, 2018 as shown in the table above.

## 5 FAC on account of fuel and power purchase cost (F)

- 5.1 The Commission has worked out the average power purchase cost for the month as shown in above table. The same has been compared with the average power purchase cost derived considering the revised MoD stack values. It is to be noted that due to the revisions in monthly MoD stack values, the revised monthly APPC has reduced as compared to the rate as approved by the Commission in Tariff Order dated 12 September, 2018.
- 5.2 The following table shows the ZFAC worked out by the Commission on account of difference in fuel and power purchase cost for the month of October to December, 2018.

S. No.	Particulars	Units	Oct, 2018	Nov, 2018	Dec, 2018
1	Average power purchase cost approved by the Commission	Rs./kWh	3.74	3.77	3.76
2	Actual average power purchase cost	Rs./kWh	4.13	4.04	3.94
3	Change in average power purchase cost (=2 -1)	Rs./kWh	0.38	0.27	0.18
4	Net Power Purchase	MU	12613.78	11344.50	11431.34
5	<b>Change in fuel and power purchase cost (=3 x 4/10)</b>	<b>Rs. Crore</b>	<b>482.62</b>	<b>309.69</b>	<b>208.75</b>

- 5.3 The Commission in its previous vetting report had adopted the methodology of bifurcating the over-recovery/under-recovery amounts into Agriculture (AG) and non-Agriculture (non-AG) categories for computation of adjustment factor. Based on the same methodology, the Commission has bifurcated the stand-alone monthly change in power purchase cost as computed above into the Agriculture and non-Agriculture categories. The Commission has considered the ratio of actual AG and non-AG sale for the respective months for which FAC is computed to bifurcate the change in power purchase cost. The power purchase cost variation for AG and non-AG consumers is shown in the Table below.

Particulars	Unit	Oct'18			Nov'18		
		Total	Ag	Non-Ag	Total	Ag	Non-Ag
Category wise sales during the month	MUs	9,469.04	2,438.47	7,030.57	8937.22	2,438.47	7,030.57

Particulars	Unit	Oct'18			Nov'18		
		Total	Ag	Non-Ag	Total	Ag	Non-Ag
Change in Fuel cost and power purchase cost attributable to Sales within the License Area (F)	Rs. Crore	482.62	124.29	358.34	309.69	124.29	358.34

Particulars	Units	Dec'18		
		Total	Ag	Non-Ag
Category wise sales during the month	MUs	9888.57	3532.78	6355.78
Change in Fuel cost and power purchase cost attributable to Sales within the License Area (F)	Rs. Crore	208.75	74.58	134.17

## 6 Adjustment for over recovery/under recovery (B)

6.1 MSEDCL has bifurcated the over-recovery/under-recovery amounts into Agriculture and non-Agriculture categories for computation of adjustment factor. The bifurcation has been done based on the FAC and actual sales of N-2 month. Further, MSEDCL has considered the FAC of N-2 month as per their computation. However, the Commission has recomputed the incremental cost allowed to be recovered based on the approved FAC of previous quarter and bifurcated the same as per actual sales of N-2 month as shown in the Table below. The incremental cost actually recovered has been considered as submitted by MSEDCL and accordingly, the adjustment factors have been computed.

6.2 Accordingly, the adjustment factor for over recovery/under recovery (B) for the period of October to December, 2018 is as below.

S. No.	Particulars	Units	Oct'18		Nov'18		Dec'18	
			Ag	Non-Ag	Ag	Non-Ag	Ag	Non-Ag
1.0	Sales in Month n-4	MUs	2704.19	6665.39	2704.19	6548.75	1907.13	6637.87
	Total Incremental cost allowed to be recovered in Month n-4*	Rs. Crore	422.61		438.04		184.37	
1.1	Incremental cost allowed to be recovered in Month n-4	Rs. Crore	115.37	307.24	106.71	331.33	30.09	154.27
1.2	Incremental cost in Month n-4 actually recovered in month n-2	Rs. Crore	0.13	409.94	0.20	264.39	274.66	217.72
1.3	<b>Adjustment factor for (over-recovery)/under-recovery (=1.1 - 1.2)</b>	<b>Rs. Crore</b>	<b>115.24</b>	<b>(102.70)</b>	<b>106.51</b>	<b>66.95</b>	<b>(244.56)</b>	<b>(63.45)</b>

*\*corrected as per previous approved vetting report.*

## **7 Carrying Cost for over recovery/under recovery (B)**

8.1 Carrying/Holding cost for under/over recovery has been computed at applicable interest rate during the respective period for the eligible amount. The Commission has computed the carrying cost separately on the adjustment factor as computed above for both Agriculture and Non-Agriculture categories.

8.2 The following Table shows the month wise interest rate and amount worked out as Carrying/Holding cost for under/over recovery for the month of October, 2018 to November, 2018.

S. No.	Particulars	Units	Oct' 18		Nov' 18		Dec' 18	
			Ag Category	Non-Ag Category	Ag Category	Non-Ag Category	Ag Category	Non-Ag Category
1	Adjustment factor for over-recovery/under-recovery	Rs. Crore	115.24	(102.70)	106.51	66.95	(244.56)	(63.45)
2	Applicable Interest rate	%	10.05	10.05	10.05	10.05	10.05	10.05
3	<b>Carrying cost for over-recovery/under-recovery</b>	<b>Rs. Crore</b>	<b>1.93</b>	<b>(1.72)</b>	<b>1.78</b>	<b>1.12</b>	<b>(4.10)</b>	<b>(1.06)</b>

## **8 Disallowance due to excess Distribution Loss**

9.1 Regulation 10.8 of MYT Regulations, 2015 provides for FAC amount to be reduced in case the actual distribution loss for the month exceeds the approved distribution loss. The relevant extract is reproduced as follows.

*“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”*



9.2 The following table provides the comparison of approved and actual distribution loss and disallowance due to excess distribution loss if any.

S. No.	Particulars	Units	Approved in Tariff Order	Cumulative Upto		
				Oct'18	Nov'18	Dec'18
1	LT Sales	MU	68,235	42348.00	48070.10	53684.20
2	HT Sales	MU	27,363	16793	19026	21394
3	HT and Renewable Open Access Credit	MU	713	593.87	638.12	703.70
4	Sales to Open Access Consumers (Conventional)	MU	4,547	2492.23	2782.66	3100.99
<b>5</b>	<b>Total Sales to Consumers</b>	MU	<b>100,858</b>	<b>62226.44</b>	<b>70516.09</b>	<b>78883.95</b>
<b>6</b>	<b>Distribution Loss</b>	<b>%</b>	<b>14.76%</b>	<b>14.52%</b>	<b>14.74%</b>	<b>14.89%</b>
7	Distribution loss	MU	17,458	10572.07	12192.59	13795.81
<b>8</b>	<b>Total Energy Available for Sale at 33 KV</b>	MU	<b>118,315</b>	<b>72799</b>	<b>82709</b>	<b>92679</b>
9	Energy injected and drawn at 33KV	MU	488	324.63	367.07	426.31
<b>10</b>	<b>Net Energy Available for sale at 33 KV</b>	MU	<b>117,827</b>	<b>72473.88</b>	<b>82341.51</b>	<b>92252.26</b>
11	Sales at 66KV level	MU	144	80.04	88.60	97.08
12	Sales at 110 KV/132KV level	MU	4,801	3384.64	3887.18	4395.90
13	Sales at 220 KV/400 KV level	MU	3,171	1966.20	2279.75	2633.54
<b>14</b>	<b>Net Energy requirement at T&lt;&gt;D Periphery</b>	MU	<b>125,943</b>	<b>77904.76</b>	<b>88964.11</b>	<b>99805.08</b>
15	Excess Distribution loss = [Actual Distribution loss - Distribution loss approved] x Net Energy Input	MU		-	-	99.29
<b>16</b>	<b>Disallowance of FAC due to excess Distribution Loss</b>	<b>Rs. Crore</b>		<b>NIL</b>	<b>NIL</b>	<b>NIL</b>

9.3 As per month wise FAC submission, the cumulative distribution loss is 14.52% for the month of October, 2018, 14.74% for the month of November, 2018 and 14.89% for the month of December, 2018. The Distribution loss for the month of December, 2018 is higher than approved Distribution Loss of 14.76%. Hence, disallowance on account of excess distribution loss for the said month has been worked out.

## 9 Summary of Allowable ZFAC

10.1 The summary of the FAC amount as approved by the Commission for the month of October, 2018 to December, 2018 is as shown in the Table below.

S. No.	Particulars	Units	Oct'18		Nov'18		Dec'18	
			Ag	Non-Ag	Ag	Non-Ag	Ag	Non-Ag
<b>1.0</b>	<b>Calculation of ZFAC</b>							
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	124.29	358.34	84.50	225.19	74.58	134.17
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	1.93	(1.72)	1.78	1.12	(4.10)	(1.06)
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	115.24	(102.70)	106.51	66.95	(244.56)	(63.45)
	NTPC IT Refund	Rs. Crore	(3.94)	(11.35)				
	<b>ZFAC = F+C+B</b>	<b>Rs. Crore</b>	<b>237.52</b>	<b>242.57</b>	<b>192.79</b>	<b>293.26</b>	<b>(174.08)</b>	<b>69.66</b>
	ZFAC = F+C+B Oct'18 for AG Category	Rs. Crore					237.52	
	ZFAC = F+C+B Nov'18 for AG Category	Rs. Crore					192.79	
	<b>Total ZFAC (Quarterly) for AG Category</b>	Rs. Crore					256.23	
<b>2.0</b>	<b>Calculation of FAC Charge</b>							
2.1	Energy Sales within the License Area	MU	2,438.47	7,030.57	2438.47	6498.74	3,532.78	6,355.78
	Energy Sales within the License Area to AG consumers during last quarter	MU					8,409.73	
2.2	Excess Distribution Loss	MU	Nil	Nil	Nil	Nil	35.47	63.82
2.3	ZFAC per kWh	Rs. /kWh	0.97	0.35	0.79	0.45	0.30	0.11
2.4	Cap at 20% of variable component	Rs. /kWh	NA	NA	NA	NA	NA	NA

S. No.	Particulars	Units	Oct'18		Nov'18		Dec'18	
			Ag	Non-Ag	Ag	Non-Ag	Ag	Non-Ag
	of tariff							
2.5	FAC Charge allowable (Minimum of 2.3 and 2.4)	Rs. /kWh	<b>0.97</b>	<b>0.35</b>	<b>0.79</b>	<b>0.45</b>	<b>0.30</b>	<b>0.11</b>
<b>3.0</b>	<b>Recovery of FAC</b>							
3.1	Allowable FAC [(2.1 x 2.5)/10]	Rs. Crore	237.52	242.57	192.79	293.26	(174.08)	69.66
3.2	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.5)/10]	Rs. Crore	Nil	Nil	Nil	Nil	Nil	0.70
<b>4.0</b>	<b>Total FAC based on category wise and slab wise allowed to be recovered</b>	<b>Rs. Crore</b>	<b>237.52</b>	<b>242.57</b>	<b>192.79</b>	<b>293.26</b>	<b>(174.08)</b>	<b>68.96</b>
5.0	Carried forward FAC for recovery during future period (1.4-3.2-4)	Rs. Crore	-	-	-	-	-	-

10.2 It can be seen from the above Table that standalone FAC for Non-Agriculture category during the months of October, November and December, 2018 is Rs. **242.57** Crore, Rs**293.26**Crore and Rs. **68.96** Crore respectively. As the billing of the Non-Agriculture category has been done on monthly basis, hence, based on total monthly energy sales, FAC per unit for Non-Agriculture category has been work out as Rs **0.35/kWh**, Rs **0.45/kWh** and Rs **0.11/kWh** for the months of October, November and December, 2018 respectively.

10.3 The following Table shows the difference in FAC as claimed by MSEDCL and as approved by the Commission for Non-Ag category:

Month	Units	MSEDCL's claim	Approved by the Commission
		Non-Ag	Non-Ag
October, 2018	Rs. Crore	320.70	242.57
November, 2018	Rs. Crore	171.63	293.26
December, 2018	Rs. Crore	131.49	68.96
<b>Total</b>	<b>Rs. Crore</b>	<b>623.82</b>	<b>604.78</b>

10.4 From the Table above MSEDCL has to recover Rs. **604.78** Crore cumulatively in the Q3 of FY 2018-19, however, it has actually recovered only Rs. **623.82** Crore. Hence, MSEDCL is directed to refund the differential amount Rs. **(19.04)** Crore along with the interest in the next billing cycle.

10.5 The total FAC for Agriculture category during the months of October, November and December, 2018 is Rs. **237.52** Crore, Rs. **192.79** Crore and Rs. **(174.08)** Crore respectively. Based on total monthly energy sales for Agriculture category including unmetered sales, FAC per unit for Agriculture category has been worked out as Rs **0.97/kWh**, Rs **0.79/kWh** and Rs **(0.49)/kWh** for the months of October, November and December, 2018 respectively. Further, as the billing for Agriculture consumers are done on a quarterly basis and the corresponding FAC for all the three months are levied in a last month for each quarter. Therefore, the Commission has considered the cumulative FAC and the cumulative sales during the respective quarter and accordingly computed the FAC per unit for Agriculture category as Rs. **0.30/kWh** for Q3 months.

10.6 The following Table shows the FAC for Agriculture category during the months of October to December, 2018:

Month	Units	MSEDCL's claim	Approved by the Commission
		Ag	Ag
October, 2018	Rs. Crore	106.62	237.52
November, 2018	Rs. Crore	118.46	192.79
December, 2018	Rs. Crore	144.22	(174.08)
<b>Total</b>	<b>Rs. Crore</b>	<b>369.30</b>	<b>256.23</b>

10.7 The above approved FAC amounts have been adjusted in the final True up of FY 2018-19 under the MERC (Multi Year Tariff) Regulations, 2015 vide Order dated 30 March, 2020 in Case No. 322 of 2019. Hence, there is no financial impact of the same and no further action is required to be taken by MSEDCL.

## 10 Recovery from Consumers:

11.1 Regulation 10.9 of MERC MYT Regulations, 2015 provides for methodology of recovery of FAC charge from each category of consumers. The relevant extract is reproduced as below.

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

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

*Where:*

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

$k = \text{Average Billing Rate} / \text{ACOS};$

*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 periods as may be directed by the Commission....”*

11.2 The Commission has worked out FAC per unit for each category of consumer based on the formula provided in the above Regulations. The Commission observed that there is an under recovery of ZFAC in absolute terms on considering category wise per unit FAC worked out and category wise actual sales for the month of October 2018 to December, 2018.

11.3 The following table shows per unit ZFAC to be charged to the consumers of MSEDCL in the billing month i.e., October 2018 to December, 2018.

**Table A- Fuel Adjustment Charges for the Month of October, 2018 to December, 2018 to be levied in January, 2019 to March, 2019 respectively**

Sr. No.	Categories	ZFAC to be levied in billing month of Jan'2019 (Rs./kWh)	ZFAC to be levied in billing month of Feb'2019 (Rs./kWh)	ZFAC to be levied in billing month of Mar'2019 (Rs./kWh)
	<b>LT Category</b>			
<b>1</b>	<b>Domestic (LT-I)</b>			
A	BPL (0-30 Units)	0.1278	0.0734	0.1101
B	Consumption > 30 Units per month			
I	1-100 Units	0.3687	0.2118	0.3177
Ii	101-300 Units	0.6215	0.3569	0.5355
Iii	301-500 Units	0.8034	0.4614	0.6923
Iv	500-1000 Units	0.8374	0.4810	0.7216
V	Above 1000 Units	0.8937	0.5133	0.7700
<b>2</b>	<b>Non Domestic (LT-2)</b>			
A	0-20 KW			
A	0-200 Units	0.6291	0.3613	0.5421
B	Above 200 units	0.8513	0.4890	0.7335
B	>20-50 KW	0.9124	0.5241	0.7862
C	>50 KW	1.1062	0.6353	0.9531
<b>3</b>	<b>Public Water Works (LT-III)</b>			
A	0-20 KW	0.2590	0.1488	0.2232
B	20-40 KW	0.3555	0.2042	0.3063
C	above 40 kw	0.4541	0.2608	0.3913
<b>4</b>	<b>Agriculture (LT-IV)</b>			
A	Unmetered Tariff			
1	AG unmetered Pump set			
	Zone 1			
	A) 0-5 HP	0.0000	0.0000	29.8504
	B) HP -7.5 HP	0.0000	0.0000	31.7786
	C) Above 7.5 HP	0.0000	0.0000	33.5639
2	Zone 2			
	A) 0-5 HP	0.0000	0.0000	13.3566
	B) HP -7.5 HP	0.0000	0.0000	14.4461
	C) Above 7.5 HP	0.0000	0.0000	15.4953
B	Metered Tariff (Pumpsets)	0.0000	0.0000	0.4508
C	Metered Tariff (Other)	0.3882	0.2229	0.3345
<b>5</b>	<b>LT Industries (LT-V)</b>			
A	<b>Power Loom</b>			

Sr. No.	Categories	ZFAC to be levied in billing month of Jan'2019 (Rs./kWh)	ZFAC to be levied in billing month of Feb'2019 (Rs./kWh)	ZFAC to be levied in billing month of Mar'2019 (Rs./kWh)
I	0-20 KW	0.4236	0.2433	0.3650
II	Above 20 KW	0.5201	0.2987	0.4481
<b>B</b>	<b>General</b>			
I	0-20 KW	0.4625	0.2656	0.3985
II	Above 20 KW	0.6298	0.3617	0.5427
<b>6</b>	<b>Street Light (LT-VI)</b>			
A	Grampanchayat A, B & C Class Municipal Council	0.4201	0.2413	0.3620
B	Municipal corporation Area	0.5229	0.3003	0.4505
<b>7</b>	<b>Temporary Connection (LT-VII)</b>			
A	Temporary Connection (Religious)	0.4139	0.2377	0.3566
B	Temporary Connection (Other Purposes)	1.0381	0.5962	0.8945
<b>8</b>	<b>Advertising and Hording (LT-VIII)</b>			
		1.2367	0.7103	1.0656
<b>9</b>	<b>Crematorium &amp; Burial (LT-IX)</b>			
		0.3416	0.1962	0.2944
<b>10</b>	<b>Public Services ( LT X)</b>			
<b>A</b>	<b>Government</b>			
A	0-20 kw			
I	0-200 units	0.4395	0.2525	0.3787
II	> 200 units	0.5229	0.3003	0.4505
B	>20 -50 kw	0.5611	0.3223	0.4834
C	>50 kw	0.6263	0.3597	0.5397
<b>B</b>	<b>Others</b>			
A	0-20 KW			
I	0-200 Units	0.4625	0.2656	0.3985
II	Above 200 units	0.6465	0.3713	0.5570
B	>20-50 KW	0.6770	0.3889	0.5834
C	>50 KW	0.6965	0.4000	0.6001

**Table B- Fuel Adjustment Charges for the Month of Oct, 2018 to December, 2018 to be levied in January , 2019 to March, 2019 respectively**

Sr. No.	Categories	ZFAC to be levied in billing month of Jan' 2019 (Rs./kWh)	ZFAC to be levied in billing month of Feb' 2019 (Rs./kWh)	ZFAC to be levied in billing month of Mar' 2019 (Rs./kWh)
	<b>HT Category</b>			
<b>1</b>	<b>HT Category – EHV (66 kV &amp; Above)</b>			
A	HT I(A): HT - Industry (General)	0.5437	0.3123	0.4685
B	HT I(B): HT - Industry (Seasonal)	0.0000	0.3338	0.0000
C	HT II: HT – Commercial	0.8756	0.5029	0.7545
D	HT III: HT - Railways/Metro/Monorail	0.0000	0.0000	0.0000
E	HT IV: HT - Public Water Works (PWW)	0.4548	0.2612	0.3919
F	HT V(A): HT - Agricultural – Pumpsets	0.2750	0.1579	0.2369
G	HT V(B): Agricultural – Others	0.0000	0.0000	0.0000
H	HT VI: HT - Group Housing Society (Residential)	0.0000	0.0000	0.0000
I	HT VIII (A): HT - Temporary Supply Religious (TSR)	0.0000	0.0000	0.0000
J	HT VIII(B): HT - Temporary Supply Others (TSO)	0.0000	0.0000	0.0000
K	HT IX(A): HT - Public Services-Government	0.0000	0.0000	0.0000
L	HT IX(B): HT - Public Services- Others	0.7027	0.4036	0.6055
<b>2</b>	<b>HT Category –33 kV</b>			
A	HT I(A): HT - Industry (General)	0.5388	0.3095	0.4643
B	HT I(B): HT - Industry (Seasonal)	0.5826	0.3346	0.5020
C	HT II: HT – Commercial	0.8770	0.5037	0.7557
D	HT III: HT - Railways/Metro/Monorail	0.5722	0.3286	0.4930
E	HT IV: HT - Public Water Works (PWW)	0.4757	0.2732	0.4098
F	HT V(A): HT - Agricultural – Pumpsets	0.2791	0.1603	0.2405
G	HT V(B): Agricultural – Others	0.3701	0.2126	0.3189
H	HT VI: HT - Group Housing Society (Residential)	0.4764	0.2736	0.4104
I	HT VIII (A): HT - Temporary Supply Religious (TSR)	0.0000	0.0000	0.0000
J	HT VIII(B): HT - Temporary Supply Others (TSO)	0.9069	0.5209	0.7814



Sr. No.	Categories	ZFAC to be levied in billing month of Jan' 2019 (Rs./kWh)	ZFAC to be levied in billing month of Feb' 2019 (Rs./kWh)	ZFAC to be levied in billing month of Mar' 2019 (Rs./kWh)
K	HT IX(A): HT - Public Services-Government	0.6125	0.3518	0.5277
L	HT IX(B): HT - Public Services-Others	0.7479	0.4295	0.6444
<b>3</b>	<b>HT Category –22 kV</b>			
A	HT I(A): HT - Industry (General)	0.5632	0.3234	0.4852
B	HT I(B): HT - Industry (Seasonal)	0.5833	0.0000	0.5026
C	HT II: HT – Commercial	0.8860	0.5089	0.7635
D	HT III: HT - Railways/Metro/Monorail	0.5673	0.3258	0.4888
E	HT IV: HT - Public Water Works (PWW)	0.5062	0.2907	0.4362
F	HT V(A): HT - Agricultural – Pumpsets	0.2916	0.1675	0.2513
G	HT V(B): Agricultural – Others	0.3889	0.2233	0.3351
H	HT VI: HT - Group Housing Society (Residential)	0.4715	0.2708	0.4063
I	HT VIII (A): HT - Temporary Supply Religious (TSR)	0.0000	0.0000	0.0000
J	HT VIII(B): HT - Temporary Supply Others (TSO)	0.9013	0.5177	0.7766
K	HT IX(A): HT - Public Services-Government	0.6090	0.3498	0.5247
L	HT IX(B): HT - Public Services-Others	0.7451	0.4279	0.6420
<b>4</b>	<b>HT Category – 11 kV</b>			
A	HT I(A): HT - Industry (General)	0.6611	0.3797	0.5696
B	HT I(B): HT - Industry (Seasonal)	0.7374	0.4236	0.6354
C	HT II: HT - Commercial	1.0694	0.6142	0.9214
D	HT III: HT - Railways/Metro/Monorail	0.6840	0.3928	0.5893
E	HT IV: HT - Public Water Works (PWW)	0.5382	0.3091	0.4637
F	HT V(A): HT - Agricultural - Pumpsets	0.3472	0.1994	0.2992
G	HT V(B): Agricultural - Others	0.4236	0.2433	0.3650
H	HT VI: HT - Group Housing Society (Residential)	0.5743	0.3298	0.4948
I	HT VIII (A): HT - Temporary Supply Religious (TSR)	0.0000	0.0000	0.0000
J	HT VIII(B): HT - Temporary Supply Others (TSO)	1.1576	0.6648	0.9974

<b>Sr. No.</b>	<b>Categories</b>	<b>ZFAC to be levied in billing month of Jan' 2019 (Rs./kWh)</b>	<b>ZFAC to be levied in billing month of Feb' 2019 (Rs./kWh)</b>	<b>ZFAC to be levied in billing month of Mar' 2019 (Rs./kWh)</b>
K	HT IX(A): HT - Public Services-Government	0.6958	0.3996	0.5995
L	HT IX(B): HT - Public Services-Others	0.8798	0.5053	0.7581

**POST FACTO APPROVAL FOR FAC FOR THE MONTH OF JANUARY, 2019 TO  
MARCH, 2019**

**Subject:** Post facto approval of MSEDCL's Fuel Adjustment Charges (FAC) for the period of January, 2019 to March, 2019.

**Reference:** MSEDCL's FAC submission vide letter dated 25 July, 2019 for post-facto approval of FAC for the period of January, 2019 to March, 2019, respectively.

**5. FAC submission by MSEDCL:**

5.1 MSEDCL has made FAC submissions for the month January, 2019 to March, 2019 as referred above. Upon vetting the FAC calculations, taking cognizance of all the submissions furnished by MSEDCL, the Commission has accorded post facto approval for the FAC amount to be charged in the billing month of April, 2019 to June, 2019.

**6. Background**

6.1 On 3<sup>rd</sup> November, 2016, the Commission has issued Tariff Order for MSEDCL, (Case No.48 of 2016) for approval of True-up of FY 2014-15, provisional True-up for FY 2015-16 and Aggregate Revenue Requirement (ARR) and Tariff for FY 2016-17 and FY 2019-20. Revised Tariff has been made applicable from 1 November, 2016.

6.2 On 12 September, 2018, the Commission has issued Tariff Order for MSEDCL (Case No.195 of 2017) for Mid-Term Review, including True-up of FY 2015-16 and FY 2016-17, provisional True-up for FY 2017-18, and revised Aggregate Revenue Requirement and Tariff for FY 2018-19 to FY 2019-20. Revised Tariff has been made applicable from 1 September, 2018

6.3 Vide its letter dated 15 November, 2016, the Commission communicated the excel formats for filing of FAC submissions to all Distribution Licensees. The Commission also directed all Distribution Licensees to submit FAC computations, including details pertaining to variation in fuel cost of generators for the approval of the Commission.

6.4 Vide FAC vetting Report dated 1 March, 2017, the Commission accorded prior approval of the FAC for the month of November, 2016.

6.5 In accordance with MERC (MYT) Regulations, 2015 a Distribution Licensee is required to obtain post facto approval of the Commission on a quarterly basis for FAC charges. Accordingly, vide its letter dated 25 July, 2019 MSEDCL has filed FAC

submissions for the month of January, 2019 to March, 2019, respectively, for post facto approval. The Commission has scrutinized the submissions provided by MSEDCL and has also verified the fuel and power purchase bills provided along with its submissions.

## 7. Energy Sales of the Licensee

7.1 The net energy sales within licence area as submitted by MSEDCL in the FAC submission and as approved by the Commission are as shown in the table below:

Consumer Category	Approved	Approved	Actual Sales MUs		
	by	for	Jan'	Feb'	March'
	Commission	Month	2019	2019	2019
	(I)	(II=I/12)	(III)	(IV)	(V)
<b>1. Metered Sales</b>					
<b>HT Category</b>					
Industry General	28545.71	2378.81	2676.82	2503.91	2697.53
Industry Seasonal	101.93	8.49	14.48	13.70	11.70
Commercial	1840.33	153.36	130.26	124.85	150.32
Railway metro monorail	59.25	4.94	4.92	4.73	5.92
Public water works	1584.10	132.01	157.05	143.39	162.86
Agriculture pumpset	784.76	65.40	102.55	69.67	109.56
Agriculture other	239.25	19.94	19.94	20.53	25.43
Group Housing Society	217.33	18.11	18.94	15.99	19.44
Temp Supply other	4.32	0.36	0.14	0.82	0.68
Public Service Govt	225.19	18.77	00.70	17.16	21.42
Public Service other	767.41	63.95	17.57	52.50	65.23
MSPGCL Aux Consumption	218.25	18.19	52.95	14.48	17.02
Other Adjustment	0.00	0.00	354.06	315.74	355.31
HT credit/Solar offset	0.00	0.00	0.00	2.89	3.26
Sub Total	34587.83	2882.32	3550.40	3300.36	3645.87
<b>LT Category</b>					
BPL	54.35	4.53	5.66	5.50	5.91
Residential	19509.88	1625.82	1292.37	1251.32	1335.13
Non residential	5578.37	464.86	425.61	412.13	442.06
Public water works	746.26	62.19	67.26	68.80	63.95
AG metered pumpset	19054.39	1587.87	1702.53	1702.53	2272.38
AG metered other	136.08	11.34	11.27	11.30	14.99
Industry	6849.84	570.82	774.49	751.04	754.01
Street light	1883.04	156.92	157.39	160.58	155.74
Temporary supply	16.13	1.34	2.21	2.27	2.17
Advertisement and hording	4.65	0.39	0.38	0.38	0.34
Crematorium and burial	1.97	0.16	0.21	0.19	0.19

Consumer Category	Approved by Commission	Approved for Month	Actual Sales MUs		
	(I)	(II=I/12)	Jan' 2019	Feb' 2019	March' 2019
	(I)	(II=I/12)	(III)	(IV)	(V)
ground					
Public service	453.39	37.78	34.04	33.84	37.82
Prepaid	0.00	0.00	0.53	0.50	0.66
LT credit/Solar offset			0.00	2.10	6.80
<b>Sub Total</b>	<b>54288.35</b>	<b>4524.03</b>	<b>4473.97</b>	<b>4400.36</b>	<b>5085.35</b>
Energy Sales outside the License Area					
Traded units	0.00	0.00	0.00	0.00	0.00
<b>Sub Total</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Sub Total- Metered Sales</b>	<b>88876.18</b>	<b>7406.35</b>	<b>8024.37</b>	<b>7700.73</b>	<b>8731.22</b>
<b>2. Unmetered Sales</b>					
Unmetered Hrs>1318	2193.48	182.79	1100.71	1100.71	951.69
Unmetered Hrs<1318	7968.59	664.05			
<b>Sub Total- Unmetered Sales</b>	<b>10162.07</b>	<b>846.84</b>	<b>1100.71</b>	<b>1100.71</b>	<b>951.69</b>
<b>Grand Total (Metered+Unmetered)</b>	<b>99038.25</b>	<b>8253.19</b>	<b>9125.08</b>	<b>8801.44</b>	<b>9682.91</b>

## 8. Cost of Power Purchase

8.1 MSEDCL mainly procures power from following sources;

- k) MSPGCL
- l) Central Generating Station
- m) JSW (Ratnagiri) Energy Ltd.
- n) Adani Power Limited
- o) Mundra UMPP
- p) RattanIndia Power Limited
- q) EMCO Power
- r) Bilateral Procurement (Power Exchange, Traders, etc.)
- s) Renewable Energy Sources

8.2 MSEDCL also buys power from other sources such as Sardar Sarovar, Doodson-Lindblom Hydro Power and Pench Hydro project, renewable sources including co-generation, Wind power and Solar. In addition to the above sources, in case of any shortfall from approved sources, when demand exceeds availability or for cost optimization, MSEDCL sources power from Power exchange/Traders or other available sources at the market price through competitive bidding in accordance with the Guidelines of MoP.

8.3 In line with its previous post facto FAC approval MSEDCL has considered the revised monthly MoD stack values for this present FAC approval.

8.4 The following table shows the variation in average power purchase cost (Rs/kWh) for the month of October 2018 to December 2018 and January, 2019 to March, 2019 as compared to average power purchase cost approved in Tariff Order dated 12 September, 2018:

Source	MTR Approved for Jan, 2019			Actual for Jan, 2019			Deviation		
	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)
MSPCGL Thermal	3760.30	1568.30	4.17	4223.35	2053.76	4.86	463.05	485.47	0.69
MSPCGL Hydro	334.54	17.58	0.53	236.14	57.60	2.44	(98.40)	40.01	1.91
NTPC	2209.97	688.16	3.11	2222.85	771.11	3.47	12.88	82.95	0.36
1. Mundra UMPP	465.45	115.83	2.49	445.70	143.81	3.23	(19.74)	27.98	0.74
2. Adani	1,794.88	601.56	3.35	1951.58	975.58	5.00	157.10	374.03	1.65
3. EMCO	116.36	41.74	3.59	114.53	51.95	4.54	(1.83)	10.22	0.95
4. JSW	174.54	55.68	3.19	205.35	73.32	3.57	30.81	17.64	0.38
5. Rattan India	-	81.92	-	180.38	41.85	30.71	41.85	46.60	30.71
IPPs Total	2,551.23	896.72	3.51	2721.54	1366.49	5.02	170.31	469.77	1.51
NCE	1844.07	782.57	4.24	797.78	390.19	4.89	(1046.29)	(392.38)	0.65
Other Must Run	923.32	161.67	1.75	466.01	128.25	2.75	(457.31)	(33.42)	1.00
STTP	-	-	-	12.80	5.63	4.40	12.80	5.63	4.40
<b>Total</b>	<b>11,288.89</b>	<b>4,097.41</b>	<b>3.63</b>	<b>10,444.33</b>	<b>4,715.43</b>	<b>4.51</b>	<b>(8,44.56)</b>	<b>618.02</b>	<b>0.89</b>

Source	MTR Approved for Feb, 2019			Actual for Feb, 2019			Deviation		
	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)
MSPCGL Thermal	3,962.00	1,640.43	4.14	3,683.59	1,825.04	4.95	(278.41)	184.61	0.81
MSPCGL Hydro	302.00	17.58	0.58	237.94	(132.11)	(5.55)	(64.06)	(149.70)	(6.13)
NTPC	2,147.00	696.97	3.25	2,185.94	775.64	3.55	38.94	78.68	0.30
1. Mundra UMPP	420.00	108.44	2.58	439.14	131.62	3.00	19.14	23.17	0.42
2. Adani	1,622.00	563.32	3.47	1,694.27	466.09	2.75	72.27	(97.23)	(0.72)
3. EMCO	105.00	39.66	3.78	124.77	52.12	4.18	19.77	12.46	0.40
4. JSW	158.00	51.84	3.28	142.63	50.39	3.53	(15.37)	(1.45)	0.25
5. Rattan India	-	81.92	-	-	93.71	-	-	11.79	-
IPPs Total	2,305.00	845.18	3.67	2,400.80	793.92	3.31	95.80	(51.26)	(0.36)

Source	MTR Approved for Feb, 2019			Actual for Feb, 2019			Deviation		
	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)
NCE	1,479.00	749.49	5.07	1,742.74	1,056.80	6.06	263.74	307.31	1.00
Other Must Run	532.00	130.26	2.45	438.64	120.39	2.74	(93.36)	(9.87)	0.30
STTP	-	-	-	67.45	28.13	4.17	67.45	28.13	4.17
<b>Total</b>	<b>10,727.00</b>	<b>4,079.91</b>	<b>3.80</b>	<b>10,757.10</b>	<b>4,467.81</b>	<b>4.15</b>	<b>30.10</b>	<b>387.90</b>	<b>0.35</b>

Source	MTR Approved for Mar, 2019			Actual for Mar, 2019			Deviation		
	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./kWh)
MSPCGL Thermal	4,019.53	1,636.40	4.07	3,995.07	1,799.81	4.51	(24.46)	163.41	0.43
MSPCGL Hydro	334.54	17.58	0.53	291.71	59.26	2.03	(42.83)	41.67	1.51
NTPC	2,376.63	731.50	3.08	2,800.22	883.20	3.15	423.60	151.70	0.08
1. Mundra UMPP	465.45	115.83	2.49	517.34	153.43	2.97	51.89	37.59	0.48
2. Adani	1,794.88	601.56	3.35	2,095.86	783.23	3.74	300.98	181.67	0.39
3. EMCO	116.36	41.74	3.59	139.38	67.60	4.85	23.01	25.87	1.26
4. JSW	174.54	55.68	3.19	177.23	66.57	3.76	2.69	10.89	0.57
5. Rattan India	-	81.92	-	124.65	138.34	11.10	124.65	56.43	11.10
IPPs Total	2,551.23	896.72	3.51	3,054.46	1,209.17	3.96	503.24	312.45	0.44
NCE	1,577.52	799.44	5.07	774.46	457.19	5.90	(803.05)	(342.25)	0.84
Other Must Run	588.78	144.09	2.45	482.01	131.09	2.72	(106.77)	(12.99)	0.27
STTP	-	-	-	187.14	77.10	4.12	187.14	77.10	4.12
<b>Total</b>	<b>11,448.23</b>	<b>4,225.72</b>	<b>3.69</b>	<b>11,585.08</b>	<b>4,616.81</b>	<b>3.99</b>	<b>136.85</b>	<b>391.09</b>	<b>0.29</b>

\*Approved values derived as per Revised MoD stack

### MSPGCL:

8.5 The Commission has undertaken detailed scrutiny of the FAC submissions made by MSEDCL and observed that total power purchase cost from MSPGCL's invoices were not matching with the total power purchase cost claimed in FAC submission. Accordingly, the Commission sought clarification on various counts including reconciliation of total power purchase cost against the invoices submitted by MSEDCL. MSEDCL in its response clarified that the above mismatch is mainly on account of other charges claimed during the respective period. It was observed that MSEDCL in its initial FAC submission has not submitted the invoices related to other charges and subsequently submitted the same through data gap reply. The Other charges mentioned above are mainly related to fuel adjustment charges during the respective months.

- 8.6 The total energy purchased by MSEDCL from MSPGCL's Thermal and Gas Power Generating Stations including MSPGCL Dhariwal during the month of January, February and March, 2019 are 4223.35 MUs, 3683.59 MUs, and 3995.07 MUs, respectively against the revised MoD stack of 3760.30 MUs, 3962.00 MUs, and 4019.53 MUs, respectively. The actual average power purchase cost during the months of January, February and March, 2019 is Rs. 4.86/kWh, Rs. 4.95/kWh, and Rs. 4.51/kWh as against the approved average power purchase cost of Rs. 4.17/kWh, Rs. 4.14/kWh, and Rs. 4.07/kWh, respectively, derived based on revised MoD stack values.
- 8.7 The variation in APPC from MSPGCL's station is mainly due to following reasons:
- Variation in actual quantum of power purchase and hence, purchase costs from various MSPGCL's generating stations as against the quantum approved in revised MoD stack
  - Variation in fixed cost payment on account of cumulative availability of various MSPGCL's generating stations during aforesaid period
  - Fuel adjustment charges during the respective period
- 8.8 The Commission in its MTR Order did not approve quantum (MUs) and cost (Rs. Crore) of the few generation stations of MSPGCL such as BHUSAWAL-3, NASHIK-3, 4 & 5, PARAS UNIT-3 & 4, PARLI UNIT- 6 & 7, PARLI- 4 & 5 and Parli Replacement U-8. The energy charges of these stations are higher i.e., in the range of Rs. 2.77/kWh to Rs. 3.43/kWh, as compared to the other stations which were included in MoD stack in MTR Order, having energy charges in the range of Rs. 1.94 /kWh to Rs. 2.62/kWh. However, due to coal shortages, MSEDCL has purchased power from above mentioned units. This has led to increase in power purchase cost during the respective period.
- 8.9 Further, the monthly fixed cost payment to generating station is worked out based on cumulative availability during the respective period as per Regulation 48.3 However, due to coal shortages, MSEDCL has purchased power from above mentioned units.

**NTPC:**

- 8.10 The total units purchased from NTPC's stations (including NTPC NVVN) during the months of January, February, and March, 2019 is 2222.85 MUs, 2185.94 MUs and 2800.22 MUs, respectively against the revised monthly MoD stack units of 2209.97 MUs, 2147.00 MUs and 2376.63 MUs, respectively. The Commission has verified the respective amount and quantum purchased from the detailed summary of invoices issued by NTPC submitted by MSEDCL and found to be in order. Accordingly, the average power purchase cost from NTPC Units during the months of January, February, and March, 2019 is Rs. 3.47/kWh, Rs. 3.55/kWh and Rs. 3.15/kWh, respectively. The APPC of NTPC for aforesaid month is higher in comparison to rate derived from revised MoD stack value as Rs. 3.14/kWh, Rs. 3.19/kWh and Rs. 3.11/kWh, respectively.



8.11 Further, it can be seen that the quantum of energy purchase from NTPC during the months of Q4 of FY 2018-19 is higher as compared to the monthly approved MoD stack units. This is due to the purchase of power from NTPC's new plants like Solapur-2 STPS, Mouda, Lara, Gadarwara and Khargone etc. whose COD were not declared at the time of MTR Order, hence, the energy purchase from these plants were not included in the MTR Order. However, as MSEDCL has a firm share allocation for drawal of power as allocated by MoP, the Commission had approved the variable charge and fixed charges per unit from these plants as per the information received from NTPC. Also, in MTR Order lesser quantum of Energy was considered from NTPC stations based on the Merit Order Despatch principles for FY 2018-19. Although, in actual due to lesser availability of the RE Sources during aforesaid period, MSEDCL had to purchase costlier power of NTPC stations as per the Merit Order Despatch determined by MSLDC. Therefore, there is an increase in Power Purchase and quantum and cost for above period.

### **IPPs**

8.12 During the month of January, February, and March, 2019 MSEDCL has purchased power from IPPs, viz. Mundra CGPL UMPP, JSW, EMCO Power, India Bulls Power (RattanIndia) and Adani Power. The total power purchased from these sources for aforesaid period are 2721.54 MUs, 2400.80 MUs and 3054.46 MUs, respectively against the revised monthly MoD stack of 2551.23 MUs, 2305 MUs and 2551.23 MUs, respectively during the month of January, February and March, 2019. The average power purchase cost from these stations for the month of January, February, and March, 2019 is 5.02/kWh, Rs. 3.31/kWh and Rs. 3.96/kWh respectively as compared to monthly approved rate considering revised MoD stack as Rs. 3.51/kWh, Rs. 3.67/kWh and Rs. 3.51/kWh, respectively.

8.13 It can be observed that there is substantial variation in power purchase cost and quantum from IPPs during Q4 of FY 2018-19. While the variation in power purchase quantum is mainly due to variation in actual power generated from these sources during above period as compared to quantum considered in MoD stack for FY 2018-19 in MTR Order. In addition to that the Commission in MTR Order had not approved any quantum from RattanIndia. However, owing to coal shortage and demand increase, MSEDCL has procured power from RattanIndian during aforesaid period. This has impacted APPC during the respective period.

8.14 The increase in the average power purchase cost during above-mentioned period is mainly on account of impact of Change in Law (CIL) events. MSEDCL has claimed CIL on account of NCDP policy, SHAKTI policy, Cancellation of Lohara Coal Block, Imposition of GST Compensation Cess, Change in Royalty and Custom Duty, etc. during respective period. These Change in Law events have been approved by the respective Commission or CERC, as the case may be, under the provisions of respective PPAs. The CIL bills/invoices sought from MSEDCL are reconciled and found to be in order. As these claims are in addition to the monthly power purchase bills, therefore, the average power purchase cost from these sources are on higher side as compared to approved prices.

8.15 Apart from above CIL claim, the variation in the power purchase cost is also due to change in variable price as the prices are linked to various factors such as variation in monthly exchange rates, CERC index for inland handling of imported fuel and for inland transportation of fuel. Due to the above the average power purchase cost has increased significantly.

**STPP:**

8.16 The average power purchase cost from short term sources in the month of January is Rs. 4.40 /kWh for the quantum of 12.80 MUs. For the month of February, the average power purchase cost is Rs. 4.17 /kWh for quantum of 67.45 MUs and for the month of December, it is Rs. 4.12 /kWh for the quantum of 187.14 MUs. The Commission in its MTR Order has not considered any quantum and amount with regards to short term power purchase as the entire demand would have been considered to be met through projected sources of power. Hence, the same is not considered in the energy balance for each year of the 3<sup>rd</sup> Control Period by the Commission. However, the Commission has allowed MSEDCL to procure short term power at the market price in case of any shortfall from approved sources or when demand exceeds availability.

8.17 Also, the Commission in its Order dated 4th July, 2018 in Case No. 176 of 2018 has allowed MSEDCL to procure additional short-term power at higher cost than the ceiling rate of Rs. 4 per unit as and when required on the e-bidding portal in accordance with the Short-Term Competitive Bidding Guidelines and/or from the Power Exchanges till March, 2019. As the power from traders has been procured by MSEDCL through competitive bidding, it is proposed to consider the respective actual quantum and the cost as submitted by MSEDCL.

**RE and Must Run Sources**

8.18 The sources of Must Run Stations include KAPP, TAPP 1&2, TAPP 3&4, SSP, Pench, Dodson I and Dodson II, Non-Conventional Energy, MSPGCL hydro, etc. MSEDCL has purchased 1263.79 MUs, 2,419.32 MUs and 1,548.18 MUs respectively during the months of January, February and March, 2019 as compared to the revised monthly MoD energy purchase of 2,767.39 MUs, 2,313 MUs and 2500 MUs respectively. The average power purchase cost from these stations during the aforesaid period is Rs. 4.89 /kWh, Rs. 4.10 /kWh and Rs. 4.18 /kWh as compared rate derived on the basis of revised MoD stack as Rs. 3.41 /kWh, Rs. 3.88 /kWh and Rs. 3.84 /kWh respectively.

8.19 The actual quantum of power purchased from various RE and Must Run Sources is low as compared to quantum approved in monthly MoD stack, mainly due to lesser availability of the RE Sources during aforesaid period. The variation in the average power purchase cost from Must-Run (RE) is on account of variation in actual source-wise power generation from various Must Run sources under overall Must Run Portfolio. The increase in APPC can be attributable to variation in following two main sources, i.e., Non-solar/Solar renewable source and MSPGCL hydro stations. It is to be noted that in the overall

portfolio of Must-Run sources, the approved variable charge from Non-solar/Solar sources is highest whereas for MSPGCL Hydro the variable charges are lowest. Therefore, the quantum of purchase and share of purchase from these sources in total Must-Run portfolio affect the average power purchase cost. When the quantum of purchase from costlier Non-solar/Solar sources in the total Must-Run portfolio is higher, the average power purchase cost moves towards costlier price and vice-versa.

8.20 Based on above, the average power purchase cost considering all the above sources for Q4 of FY 2018-19 is as below:

Months	MTR Approved for month			Actual for month			Deviation		
	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)	Quantum (Mus)	PP Cost (Rs. Cr)	Rate (Rs./k Wh)
Jan-19	11,288.89	4,097.41	<b>3.63</b>	10,444.33	4,715.43	<b>4.51</b>	(844.56)	618.02	0.89
Feb-19	10,727.00	4,079.91	<b>3.80</b>	10,757.10	4,467.81	<b>4.15</b>	30.10	387.90	0.35
Mar-19	11,448.23	4,225.72	<b>3.69</b>	11,585.08	4,616.81	<b>3.99</b>	136.85	391.09	0.29

8.21 Accordingly, after complete scrutiny of relevant document submitted, the Commission allows the average power purchase cost (APPC) of Rs. **Rs. 4.51/kWh, Rs. 4.15/kWh and Rs. 3.99/kWh** for the Q4 months of FY 2018-19

8.22 The above power purchase cost and quantum has been adjusted in the final Truing-up of FY 2018-19 by the Commission in its MYT Order dated 30 March, 2020 in Case No. 322 of 2019, hence, it does not hold any further financial impact on the next FAC cycle. The summary of power purchase cost and quantum for FY 2018-19 claimed and approved by the Commission in MYT Order is provided below:

Source	Claimed by MSEDCL			Approved in MYT Order		
	MUs	Cost (Rs. Cr)	Rate (Rs./kWh)	MUs	Cost (Rs. Cr)	Rate (Rs./kWh)
MSPGCL	49,423.80	19,648.42	3.98	49,423.80	19,648.42	3.98
NTPC	29,665.00	9,562.00	3.22	29,665.00	9,562.00	3.22
IPP	33,023.00	13,834.00	4.19	33,023.00	13,834.00	4.19
NCE*	13,558.44	7,900.12	5.83	13,558.44	7,900.12	5.83
Other must run except NCE	4,750.68	1,328.18	2.80	4,750.68	1,328.18	2.80
Short term	6,022.64	2,870.40	4.77	6,022.64	2,870.40	4.77
<b>Total<sup>#</sup></b>	<b>1,36,443.56</b>	<b>55,143.12</b>	<b>4.04</b>	<b>1,36,443.5</b>	<b>55,143.12</b>	<b>4.04</b>

\*inclusive of REC Cost

<sup>#</sup>excluding FBSM and other adjustments

## 11 Allowable ZFAC

6.1 The allowable ZFAC that has been worked out as per formula specified in MYT Regulations, 2015 and previous approach adopted by the Commission as shown in Table below.

S. No.	Particulars	Units	Jan'19		Feb'19		Mar'19	
			Ag	Non-Ag	Ag	Non-Ag	Ag	Non-Ag
<b>1.0</b>	<b>Calculation of ZFAC</b>							
1.1	Change in cost of generation and power purchase attributable to Sales within the License Area (F)	Rs. Crore	255.39	570.17	120.58	255.87	114.10	226.47
1.2	Carrying cost for over-recovery/under-recovery (C)	Rs. Crore	3.94	(0.95)	3.20	1.20	(8.51)	(3.04)
1.3	Adjustment factor for over-recovery/under-recovery (B)	Rs. Crore	236.69	(57.22)	192.83	72.08	(513.35)	(183.45)
	Less: RPO Refund	Rs. Crore	171.25	382.33				
	<b>ZFAC = F+C+B</b>	<b>Rs. Crore</b>	<b>324.77</b>	<b>129.66</b>	<b>316.61</b>	<b>329.14</b>	<b>(407.77)</b>	<b>39.99</b>
	ZFAC = F+C+B Jan'19 for AG Category	Rs. Crore					322.68	
	ZFAC = F+C+B Feb'19 for AG Category	Rs. Crore					315.43	
	<b>Total ZFAC (Quarterly) for AG Category</b>	Rs. Crore					<b>230.34</b>	
<b>2.0</b>	<b>Calculation of FAC Charge</b>							
2.1	Energy Sales within the License Area	MU	2,803.24	6,258.42	2,803.24	5,948.21	3,224.08	6,399.35
	Energy Sales within the License Area to AG consumers during last quarter	MU					8,830.56	
2.2	Excess Distribution Loss	MU	18.06	40.31	10.48	22.25	-	-

S. No.	Particulars	Units	Jan'19		Feb'19		Mar'19	
			Ag	Non-Ag	Ag	Non-Ag	Ag	Non-Ag
2.3	ZFAC per kWh	Rs. /kWh	1.16	0.21	1.13	0.55	0.71	0.06
2.4	Cap at 20% of variable component of tariff	Rs. /kWh	NA	NA	NA	NA	NA	NA
2.5	FAC Charge allowable (Minimum of 2.3 and 2.4)	Rs. /kWh	<b>1.16</b>	<b>0.21</b>	<b>1.13</b>	<b>0.55</b>	<b>0.30</b>	<b>0.11</b>
<b>3.0</b>	<b>Recovery of FAC</b>							
3.1	Allowable FAC [(2.1 x 2.5)/10]	Rs. Crore	<b>324.77</b>	<b>129.66</b>	<b>316.61</b>	<b>329.14</b>	<b>(174.08)</b>	<b>69.66</b>
3.2	FAC disallowed corresponding to excess Distribution Loss [(2.2 x 2.5)/10]	Rs. Crore	2.09	0.84	1.18	1.23	Nil	0.70
<b>4.0</b>	<b>Total FAC based on category wise and slab wise allowed to be recovered</b>	<b>Rs. Crore</b>	<b>322.68</b>	<b>128.83</b>	<b>315.43</b>	<b>327.91</b>	<b>(407.77)</b>	<b>39.99</b>
5.0	Carried forward FAC for recovery during future period (1.4-3.2-4)	Rs. Crore	-	-	-	-	-	-

**Summary of Allowable FAC of FY 2018-19:**

ZFAC	January, 2019	February, 2019	March, 2019
FAC allowed (Rs. Crore) (Ag)	322.68	315.43	(407.77)
FAC allowed (Rs. Crore) (Non Ag)	128.83	327.91	39.99
FAC allowed (Rs. Crore)	<b>451.50</b>	<b>643.34</b>	<b>(367.78)</b>

6.2 The revenue on account of FAC has been adjusted in the final Truing-up of FY 2018-19. Therefore, it does not hold any further financial impact on the next FAC cycle. Therefore, there is no recovery or refund outstanding on account of present FAC approval for future period and no further action is required to be taken by MSEDCL.

**12 Recovery from Consumers:**

7.1 Regulation 10.9 of MERC MYT Regulations, 2015 provides for methodology of recovery of FAC charge from each category of consumers. The relevant extract is reproduced as below.

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

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

Where:

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

$k = \text{Average Billing Rate} / \text{ACOS}$ ;

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....”

7.2 The Commission has worked out FAC per unit for each category of consumer based on the formula provided in the above Regulations.

7.3 The following table shows per unit ZFAC to be charged to the consumers of MSEDCL in the billing month Q4 of FY 2018-19.

**Table C- Fuel Adjustment Charges for the Month of January, 2019 to March, 2019 to be levied in April, 2019 to June, 2019 respectively**

Sr. No.	Categories	ZFAC to be levied in billing month of Apr'2019 (Rs./kWh)	ZFAC to be levied in billing month of May'2019 (Rs./kWh)	ZFAC to be levied in billing month of Jun'2019 (Rs./kWh)
	<b>LT Category</b>			
<b>1</b>	<b>Domestic (LT-I)</b>			
A	BPL (0-30 Units)	0.1219	0.1260	0.1195
B	Consumption > 30 Units per month			
I	1-100 Units	0.3519	0.3636	0.3448

Sr. No.	Categories	ZFAC to be levied in billing month of Apr'2019 (Rs./kWh)	ZFAC to be levied in billing month of May'2019 (Rs./kWh)	ZFAC to be levied in billing month of Jun'2019 (Rs./kWh)
II	101-300 Units	0.5931	0.6128	0.5811
III	301-500 Units	0.7667	0.7922	0.7513
IV	500-1000 Units	0.7992	0.8258	0.7831
V	Above 1000 Units	0.8529	0.8812	0.8357
<b>2</b>	<b>Non Domestic (LT-2)</b>			
A	0-20 KW			
B	0-200 Units	0.6004	0.6203	0.5883
C	Above 200 units	0.8124	0.8395	0.7961
D	>20-50 KW	0.8708	0.8997	0.8532
E	>50 KW	1.0556	1.0907	1.0344
<b>3</b>	<b>Public Water Works (LT-III)</b>			
A	0-20 KW	0.2472	0.2554	0.2422
B	20-40 KW	0.3393	0.3506	0.3325
C	above 40 kw	0.4334	0.4478	0.4247
<b>4</b>	<b>Agriculture (LT-IV)</b>			
A	Unmetered Tariff			
1	AG unmetered Pump set			
	Zone 1			
	A) 0-5 HP	0.0000	0.0000	33.3302
	B) HP -7.5 HP	0.0000	0.0000	35.4831
	C) Above 7.5 HP	0.0000	0.0000	37.4765
2	Zone 2			
	A) 0-5 HP	0.0000	0.0000	14.9136
	B) HP -7.5 HP	0.0000	0.0000	16.1302
	C) Above 7.5 HP	0.0000	0.0000	17.3016
B	Metered Tariff (Pumpsets)	0.0000	0.0000	0.4484
C	Metered Tariff (Other)	0.3704	0.3828	0.3630
<b>5</b>	<b>LT Industries (LT-V)</b>			
<b>A</b>	<b>Power Loom</b>			
I	0-20 KW	0.4042	0.4177	0.3961
II	Above 20 KW	0.4963	0.5128	0.4863
<b>B</b>	<b>General</b>			
I	0-20 KW	0.4413	0.4560	0.4325
II	Above 20 KW	0.6010	0.6210	0.5889
<b>6</b>	<b>Street Light (LT-VI)</b>			
A	Grampanchayat A, B & C Class Municipal Council	0.4009	0.4142	0.3928

Sr. No.	Categories	ZFAC to be levied in billing month of Apr'2019 (Rs./kWh)	ZFAC to be levied in billing month of May'2019 (Rs./kWh)	ZFAC to be levied in billing month of Jun'2019 (Rs./kWh)
B	Municipal corporation Area	0.4990	0.5156	0.4889
<b>7</b>	<b>Temporary Connection (LT-VII)</b>			
A	Temporary Connection (Religious)	0.3950	0.4081	0.3870
B	Temporary Connection (Other Purposes)	0.9907	1.0236	0.9707
<b>8</b>	<b>Advertising and Hording (LT-VIII)</b>	1.1802	1.2195	1.1565
<b>9</b>	<b>Crematorium &amp; Burial (LT-IX)</b>	0.3260	0.3369	0.3195
<b>10</b>	<b>Public Services ( LT X)</b>			
<b>A</b>	<b>Government</b>			
A	0-20 kw			
I	0-200 units	0.4195	0.4334	0.4110
II	> 200 units	0.4990	0.5156	0.4889
B	>20 -50 kw	0.5354	0.5532	0.5247
C	>50 kw	0.5977	0.6176	0.5857
<b>B</b>	<b>Others</b>			
A	0-20 KW			
I	0-200 Units	0.4413	0.4560	0.4325
II	Above 200 units	0.6169	0.6375	0.6045
B	>20-50 KW	0.6461	0.6676	0.6331
C	>50 KW	0.6647	0.6868	0.6513
11	LT XI: LT – Electric Vehicle (EV) Charging Stations	0.0000	0.0000	0.0000

**Table D- Fuel Adjustment Charges for the Month of January, 2019 to March, 2019 to be levied in April, 2019 to June, 2019 respectively**

Sr. No.	Categories	ZFAC to be levied in billing month of Apr'2019 (Rs./kWh)	ZFAC to be levied in billing month of May'2019 (Rs./kWh)	ZFAC to be levied in billing month of Jun'2019 (Rs./kWh)
	<b>HT Category</b>			
<b>1</b>	<b>HT Category – EHV (66 kV &amp; Above)</b>			



Sr. No.	Categories	ZFAC to be levied in billing month of Apr'2019 (Rs./kWh)	ZFAC to be levied in billing month of May'2019 (Rs./kWh)	ZFAC to be levied in billing month of Jun'2019 (Rs./kWh)
A	HT I(A): HT - Industry (General)	0.5189	0.5361	0.5084
B	HT I(B): HT - Industry (Seasonal)	0.5547	0.5731	0.5435
C	HT II: HT – Commercial	0.8356	0.8634	0.8188
D	HT III: HT - Railways/Metro/Monorail	0.0000	0.0000	0.0000
E	HT IV: HT - Public Water Works (PWW)	0.4341	0.4485	0.4253
F	HT V(A): HT - Agricultural – Pumpsets	0.2624	0.2711	0.2571
G	HT V(B): Agricultural – Others	0.0000	0.0000	0.0000
H	HT VI: HT - Group Housing Society (Residential)	0.0000	0.0000	0.0000
I	HT VIII (A): HT - Temporary Supply Religious (TSR)	0.0000	0.0000	0.0000
J	HT VIII(B): HT - Temporary Supply Others (TSO)	0.0000	0.0000	0.0000
K	HT IX(A): HT - Public Services-Government	0.0000	0.0000	0.0000
L	HT IX(B): HT - Public Services- Others	0.6706	0.6929	0.6571
M	HT X: HT – Electric Vehicle (EV) Charging Stations	0.0000	0.0000	0.0000
<b>2</b>	<b>HT Category –33 kV</b>			
A	HT I(A): HT - Industry (General)	0.5142	0.5313	0.5039
B	HT I(B): HT - Industry (Seasonal)	0.5560	0.5745	0.5448
C	HT II: HT – Commercial	0.8370	0.8648	0.8201
D	HT III: HT - Railways/Metro/Monorail	0.5460	0.5642	0.5350
E	HT IV: HT - Public Water Works (PWW)	0.4539	0.4690	0.4448
F	HT V(A): HT - Agricultural – Pumpsets	0.2664	0.2753	0.2610
G	HT V(B): Agricultural – Others	0.3532	0.3650	0.3461
H	HT VI: HT - Group Housing Society (Residential)	0.4546	0.4697	0.4454
I	HT VIII (A): HT - Temporary Supply Religious (TSR)	0.0000	0.0000	0.0000
J	HT VIII(B): HT - Temporary Supply Others (TSO)	0.8654	0.8942	0.8480
K	HT IX(A): HT - Public Services-Government	0.5845	0.6039	0.5727
L	HT IX(B): HT - Public Services- Others	0.7137	0.7374	0.6993

Sr. No.	Categories	ZFAC to be levied in billing month of Apr'2019 (Rs./kWh)	ZFAC to be levied in billing month of May'2019 (Rs./kWh)	ZFAC to be levied in billing month of Jun'2019 (Rs./kWh)
M	HT X: HT – Electric Vehicle (EV) Charging Stations	0.0000	0.0000	0.0000
<b>3</b>	<b>HT Category –22 kV</b>			
A	HT I(A): HT - Industry (General)	0.5374	0.5553	0.5266
B	HT I(B): HT - Industry (Seasonal)	0.0000	0.0000	0.0000
C	HT II: HT – Commercial	0.8456	0.8737	0.8285
D	HT III: HT - Railways/Metro/Monorail	0.5414	0.5594	0.5305
E	HT IV: HT - Public Water Works (PWW)	0.4831	0.4992	0.4734
F	HT V(A): HT - Agricultural – Pumpsets	0.2783	0.2876	0.2727
G	HT V(B): Agricultural – Others	0.3711	0.3834	0.3636
H	HT VI: HT - Group Housing Society (Residential)	0.4500	0.4649	0.4409
I	HT VIII (A): HT - Temporary Supply Religious (TSR)	0.0000	0.0000	0.0000
J	HT VIII(B): HT - Temporary Supply Others (TSO)	0.8601	0.8888	0.8428
K	HT IX(A): HT - Public Services-Government	0.5812	0.6005	0.5695
L	HT IX(B): HT - Public Services-Others	0.7110	0.7347	0.6967
M	HT X: HT – Electric Vehicle (EV) Charging Stations	0.0000	0.0000	0.0000
<b>4</b>	<b>HT Category – 11 kV</b>			
A	HT I(A): HT - Industry (General)	0.6309	0.6518	0.6182
B	HT I(B): HT - Industry (Seasonal)	0.7038	0.7272	0.6896
C	HT II: HT - Commercial	1.0205	1.0545	1.0000
D	HT III: HT - Railways/Metro/Monorail	0.6527	0.6744	0.6396
E	HT IV: HT - Public Water Works (PWW)	0.5136	0.5307	0.5032
F	HT V(A): HT - Agricultural - Pumpsets	0.3313	0.3424	0.3247
G	HT V(B): Agricultural - Others	0.4042	0.4177	0.3961
H	HT VI: HT - Group Housing Society (Residential)	0.5480	0.5663	0.5370
I	HT VIII (A): HT - Temporary Supply Religious (TSR)	0.0000	0.0000	0.0000
J	HT VIII(B): HT - Temporary Supply Others (TSO)	1.1047	1.1414	1.0824

<b>Sr. No.</b>	<b>Categories</b>	<b>ZFAC to be levied in billing month of Apr'2019 (Rs./kWh)</b>	<b>ZFAC to be levied in billing month of May'2019 (Rs./kWh)</b>	<b>ZFAC to be levied in billing month of Jun'2019 (Rs./kWh)</b>
K	HT IX(A): HT - Public Services-Government	0.6640	0.6861	0.6506
L	HT IX(B): HT - Public Services- Others	0.8396	0.8675	0.8227
M	HT X: HT – Electric Vehicle (EV) Charging Stations	0.0000	0.0000	0.0000