

## MESCOM

### Preliminary observations on Application for Approval of APR for the FY17 and ARR for the FY19

#### I. Annual Performance Review for the FY-17:

##### A. Sales-Other than IP sets

The Commission in its Tariff Order 2016 dated 31.03.2016 had approved total sales to various consumer categories excluding the sales to MSEZ and KPCL at 4601.16 MU as against the MESCOM's proposal of 4654.19 MU, the actual sales of the MESCOM as per the current APR filing [D-2 FORMAT] is 4689.01 MU indicating an increase in sales to the extent of 87.85 MU when compared to the approved sales. There is increase of 359.66 MU in sales in LT-categories and reduction of 271.81 MU in HT-categories. It is noted that, as against approved sales [excluding sale to KPCL and supply to SEZ] of 3368.88 MU to categories other than BJ/KJ and IP sets, the actual sales achieved by the MESCOM is 3047.02 MU, resulting in reduction in sales to these categories by 321.86 MU. Further, the MESCOM has sold 1641.99 MU to BJ/KJ and IP sets category against approved sales of 1232.28 MU resulting in increased sales to these categories by 409.71 MU.

The category wise sales approved by Commission and the actuals for the FY 17 are indicated in the table below:

Figures in Million Units			
Category	Approved	Actuals**	Difference
LT-2a*	1384.46	1319.24	-64.98
LT-2b	12.94	13.82	0.88
LT-3	341.71	342.31	0.60
LT-4b	0.89	1.21	0.32
LT-4c	4.81	8.35	3.54
LT-5	135.89	136.78	0.89
LT-6	118.39	120.53	2.14
LT-6	63.10	69.38	6.28
LT-7	19.12	19.40	0.28
HT-1	87.38	86.42	-0.96
HT-2a	805.52	548.29	-257.23
HT-2b	168.53	186.06	17.53
HT-2c	180.37	154.85	-25.52
HT-3a & b	23.22	16.03	-7.19
HT-4	15.56	18.82	3.26
HT-5	7.20	5.50	-1.70
<b>Sub total</b>	<b>3368.88</b>	<b>3047.02</b>	<b>-321.86</b>
BJ/KJ	14.59	13.93	-0.66
IP	1217.69	1628.06	410.37
<b>Sub total</b>	<b>1232.28</b>	<b>1641.99</b>	<b>409.71</b>
<b>Grand total**</b>	<b>4601.16</b>	<b>4689.01</b>	<b>-87.85</b>

\*Including BJ/KJ installations consuming more than 18 units/month

\*\*Excludes sale to KPCL and SEZ.

From the above table it is noted that the major category contributing to the reduction in sales with respect to the estimates are HT-2a Industries (257.23 MU) and LT2a (64.98 MU).

the MESCOM while analyzing the reasons for reduction in HT -2a sales, has stated that in the FY17 also, the trend of reduction in sales has continued due to open access impact and has furnished the data of OA/wheeled energy for the FY15 to the FY17. The Commission notes that there is considerable increase in OA/wheeled energy from about 63 MU in the FY 15 to 241 MU in the FY17 [i.e. four times in two years].

Regarding LT-2a, the MESCOM has stated that though the sales to this category is less than the approved sales, the growth over the FY16 is positive. The Commission notes that the number of installations is less by 7079 with respect to the approved numbers, contributing to marginal reduction in sales. Further, the specific consumption for this category has reduced respect to approved values, there by contributing 55 MU reduction.

While the Commission notes the analysis carried out by the MESCOM regarding reduction in sales, the MESCOM has not furnished breakup of OA sales among HT categories. Therefore, to further validate the sales, the MESCOM shall furnish the following information:

- i) In order to analyze reduction in HT sales, the MESCOM shall furnish the data of sales to HT2(a), HT2(b) and 2(c) categories along with the consumption from open access / wheeling for the years 2015-16 to 2016-17 in the following format:

HT2A

Year	Sales by the MESCOM	Energy procured by HT Consumers under open access / wheeling	Total of the MESCOM Sales & OA/Wheeling consumption	% share of OA energy to Total energy
2015-16				
2016-17				

HT2B

Year	Sales by the MESCOM	Energy procured by HT Consumers under open access / wheeling	Total of the MESCOM Sales & OA/Wheeling consumption	% share of OA energy to Total energy
2015-16				
2016-17				

HT2C

Year	Sales by the MESCOM	Energy procured by HT Consumers under open access / wheeling	Total of the MESCOM Sales & OA/Wheeling consumption	% share of OA energy to Total energy
2015-16				
2016-17				

- ii) As per Tariff Order -2016, the approved sales to MSEZ is 79.04 MU and the power purchase quantum approved is 80.49 MU. However, the MESCOM has indicated the same as 83.38 MU in the table at page-13 and in D-2 format, instead of 80.94 MU. the MESCOM shall correct this data at page -13 of the petition as well as in D2 format. Further, the MESCOM has indicated the actual sales to MSEZ as 18.31 MU in the FY17, whereas MSEZ in their filing has indicated the same as 18.54 MU. the MESCOM shall reconcile the above data.
  
- iii) The Commission in its Tariff Order had approved sales to KPCL at 10.68 MU for the FY17. the MESCOM in its filing at page-13, has indicated the sales to KPCL for the FY-17 as 5.89 MU. The Commission notes that there is reduction in sales to KPCL when compared to approved for the FY17 and also with respect to the FY16 actuals.

**B. Sales to IP sets:**

The Commission notes that, the overall sales have increased by 410.37 MU (**34%**) totaling to 1,628.06 MU as against the approved sales of 1217.69 MU as per Tariff Order dated 30<sup>th</sup> March, 2016 for the FY17. **Also, the overall IP sales in the FY 17 with respect to actual sales in the FY 16 have increased by whopping 36%.** The the MESCOM has not furnished any reasons/explanations as to why only this year, the consumption has increased by 34% with respect to approved sales and 36% with respect to actual sales over the previous year figures. the MESCOM needs to explain for the huge deviation in sales in the FY17.

Further, the Commission had approved a specific consumption of IP Sets as 4,280 units / installation / annum for the FY17. As per the consumption reported in the filing, the specific consumption works out to 5,720 units / installation/annum, for

the FY17. This indicates a huge increase of 1,440 units / installation/annum **(34%)** in specific consumption. Sales growth of 34% towards IP sales when compared to the very low growth of other categories in particular year, is totally abnormal which needs to be examined. Also, with the increase in specific consumption, sales to IP category has increased by 410.37 MU than the approved figures whereas the number of installations has decreased by 1,731 than the approved number of installations of 2,92,860. **The MESCOM should explain and justify with valid reasons as to why the sales have increased by huge quantum despite the number of installations have reduced by 1,731 in the FY17.**

**Monthly IP set submitted to the Commission for the FY17**

Month	No. of pilot meters at DTC's	No. of IP sets connected to pilot meters	Consumption by monitored IP sets in kwh	Average consumption of monitored IP sets(kwh/IP set/month)	No. of IP sets as per DCB	Net Consumption(-7% loss as per Teri's study) in MU
Apr-16	898	10111	5642683	647	279320	180.62
May-16	896	10195	6134048	669	280480	187.73
June-16	896	10195	4838433	462	281456	130.04
July-16	896	10195	1988566	182	282325	51.47
Aug-16	896	10195	2053165	208	282976	58.82
Sep-16	896	10195	2594747	300	283535	85.02
Oct-16	901	10258	3731056	326	283945	92.53
Nov-16	901	10261	4256175	445	284736	126.68
Dec-16	902	10260	4749671	504	285818	144.08
Jan-17	902	10260	4941796	554	287079	159.06
Feb-17	902	10260	5309207	727	288494	209.84
Mar-17	904	10278	10996099	694	291129	202.03
TOTAL						1627.92

From the above monthly data of IP sets for the FY17 furnished to the Commission, it is observed that the consumption is very high during the months of April 16, May 16, January 17, February 17 and March 17. However, as observed from the monthly IP set data of previous years furnished to the Commission, the monthly consumption has never exceeded 200 MU. Hence, the total sales of 1,628.06 MU reported by the MESCOM is not normal.

Further, during the KPTCL and ESCOMS Review meeting held on 25.10.2017, the MESCOM has submitted that out of 1,52,999 number of IP sets for which GPS survey was completed, 4,819 numbers have been declared as not-in-use/dried up installations. Almost the same number of IP sets were declared as not-in-use/dried up installations during the previous year also. That means 4,819 number of installations shall have to be deducted from the number of installations it has shown in the format D2 statement for the FY17 from April 2016 to March 2017.

**Accordingly, month-wise & total IP consumption and number of installations have to be revised for the FY17 taking into account GPS survey data.**

Further, the Commission in its Tariff Order dated 30th March, 2016 had directed the MESCOM to furnish IP set consumption every month based on all the energy meters' reading data of IP sets instead of assessing the consumption on the basis of readings of the meters provided to DTCs feeding predominantly IP sets. The MESCOM had also agreed to submit IP set consumption based on energy meter readings of individual IP sets instead of assessing the consumption on the basis of readings of the meters provided to DTCs feeding predominantly IP sets. In spite of agreeing to furnish total consumption considering energy meter readings of individual IP sets, the MESCOM has not furnished the same but chose to submit the total IP consumption based on meters provided to DTCs feeding predominantly IP set loads. the MESCOM is required to furnish the reasons for the same.

**Therefore, the MESCOM is required to justify and furnish necessary data in support of its claims of IP set consumption made for the FY17 including the month-wise pilot meter consumption of around 900 DTCs indicating initial, final reading and multiplying constants.**

### **C. Distribution Losses:**

1. The actual average distribution loss reported by the MESCOM for the FY17 is 11.40% as against 11.15% approved by the Commission, in its Order dated 30<sup>th</sup> March, 2016, which is higher than the approved loss by 0.25%. As discussed in the observations on sales to IP Sets, the Commission notes that, while there is increase in IP Set consumption, there is a decrease in metered

sales. Since the IP Set sales is not backed up by the consumption figures on the basis of readings of the meters fixed to the IP installations, the Commission is unable to accept the distribution loss figures claimed by the MESCOM. Hence, Division-wise and month-wise data of number and consumption of IP sets, on the basis of meter readings, shall be furnished along with the connected load.

2. The Commission, in its Order dated 30th March, 2016, has fixed the distribution loss at 11.05% and 10.95% for the FY18 and the FY19. The MESCOM in the present filing has projected the revised distribution loss of 11.25% and 11.15% for the FY18 and the FY19 respectively. The MESCOM, having reported the distribution loss of 11.40% for the FY17, shall furnish its status of distribution loss achieved in the FY18 as at the end of November, 2017.

Considering the substantial capital investment incurred in the recent past and proposed higher Capex for the FY18 and the FY19, and the distribution loss levels achieved in the FY16 and the FY17, the MESCOM is required to reassess the distribution loss for the FY19 besides furnishing the reasons for projecting higher losses for the FY18 and the FY19. Further, the MESCOM shall furnish the data of Energy Audit for Town and Cities in the following format considering the annual energy sale and input energy at the feeder levels:

Name of the Town/City	the FY17			the FY18 ( Cumulative as at the end of Nov, 2017)		
	Energy Input in MU	Energy Sold in MU	% Distribution Losses	Energy Input in MU	Energy Sold in MU	% Distribution Losses
<b>TOTAL</b>						

**D. Power Purchase:**

1. The D1 format for the FY 17 shall be submitted as per Commission's approved format along with the breakup of fixed and the variable charges, in respect of all the sources having two-part tariff.
2. the MESCOM has considered energy as 233.14MU and Rs 89.22 crores as inter-ESCOMs energy charges as indicated in D1 Format. The reconciled energy balancing statement signed by all the ESCOMs shall be furnished.
3. the MESCOM has indicated an amount of Rs.4.07 Crores in D1 Format towards non-recurring bills. The MESCOM needs to furnish the detailed explanation for this amount.
4. In respect of BTPS Unit-2 & RTPS unit-8 TPS, the tariff indicated in the D1 format is higher than the Commission approved tariff. Also, in respect of BTPS Unit -1, Kadra Power House, Kodasalli Power House and Gerusoppa Power House, the tariff of Rs.4.77 per Unit, Rs 1.87per Unit, Rs1.39 per Unit and Rs 1.93 per unit respectively, indicated in D1 format is on higher side compared to the per unit cost payment made by the BESCO (Rs 4.42 per Unit, Rs 0.82 per unit, Rs 0.64 per Unit, Rs 0.85 per unit respectively). The MESCOM shall furnish the reasons thereof.

#### **E. Capital Expenditure for the FY17**

The Commission had approved a capex of Rs.288.90 Crores, for the MESCOM during the MYT proceedings, for the FY17, against which the MESCOM has incurred Rs.288.38 Crores. the MESCOM has shown a capital expenditure of Rs.332.02 Crores and the assets-categorized are shown as Rs.248.17 Crores (Format D17 & D15). The gross assets categorized for Plant & machinery and Lines, cables and Networks is shown as Rs.1318.50 Crores. **The details of the category-wise capex expenditure furnished by the MESCOM is not in the format approved by the Commission. the MESCOM needs to furnish the data in the format shown below:**

#### **Capital expenditure for the FY17**

Amount In Rs. Crores

Sl No	Particulars	Approved capex the FY-17	Actual expenditure

1	Extension & Improvement (Addl. DTCs, Link-Lines, HT/LT Reconductoring, providing intermediate poles, HVDS, etc.)	100	
2	DTC Metering	0.25	
3	Replacement of MNR / DC & Electromagnetic meters by Static meters and providing SMC meter protection box wherever required.	5	
4	Nirantara Jyothi Yojana	-	
5	R-APDRP Programme	-	
6	Replacement of faulty DTCs	3.5	
7	Service Connections	40	
8	Rural Electrification (General)		
a.	RGGVY (DDG) Programme	-	
b.	Electrification of Hamlets	2	
c.	Energization of IP sets (including providing infrastructure of UA IP sets)	75	
d.	Kutir Jyothi	0.25	
9	Tribal Sub Plan		
a.	Electrification of Tribal Colonies	1.5	
b.	Energization of IP Sets	0.75	
c.	Kutir Jyothi	0.05	
10	Special Component Plan		
a.	Electrification of S.C. Colonies	1	
b.	Energization of IP sets	1	
c.	Kutir Jyothi	0.1	
11	Tools & Plants and Computers	5	
12	Civil Engineering Works	16	
13	33 kV Sub stations & Line works	37.5	
	<b>GRAND TOTAL:</b>	<b>288.9</b>	

The overall capex achievement of the MESCOM is found to be within the approved level. However, in some of the category of works, the MESCOM has deviated from the approved level of capex as follows:

- i) In respect of **DTC metering**, the MESCOM has achieved a capex of Rs.19.42 Crores as against the Commission approved capex of Rs.0.25 Crores. the MESCOM needs to explain the reasons for the huge difference in capex and also should indicate whether, it is conducting energy audit in all the DTCs and taking remedial action for any abnormal losses in any specific DTC.
- ii) In the case of **Extension & Improvement (Addl. DTCs, Link-Lines, HT/LT Reconductoring, providing intermediate poles, HVDS, etc.)**, the MESCOM has achieved less than 30% of the capex approved i.e. Rs.29.09 Crores as against the Commission approved capex of Rs.100 Crores. This shows that, the MESCOM is not planning its capex as per the Capital Expenditure Guidelines to tackle the lengthy and high loss making feeders by taking up E&I works.



- iii) In the case of **Civil Engineering works**, the MESCOM has exceeded the Commission approved capex of Rs.16 Crores and has incurred Rs.25.20 Crores. the MESCOM shall to furnish the details of the works and the breakup of cost involved with due justification for exceeding the approved capex.
- iv) In the case of **Installation of Additional transformers**, the MESCOM has achieved a capex of Rs.24.23 Crores for which, the MESCOM had not proposed any capex during the MYT filing.

MESCOM shall furnish the detailed reasons for the above deviations.

## **II. ARR Proposals for Financial Year 2019:**

### **A. Sales to installations other than IP Sets**

the MESCOM in its filing has stated that they had made the estimates based on mixed CAGR during the MYT filing and also considering the actuals of the immediately preceding year. the MESCOM has adopted the following Growth rates for estimation:

#### **1. Number of installations:**

- a. For all LT categories except for BJ/KJ, LT-5 and LT-7, CAGR for the period the FY13 to the FY17 is considered. For LT5, the FY17 growth rate over the FY16 is considered and for LT-7, the number is retained at the FY17 level, as there is negative growth in the FY17.
- b. For all HT categories except for BJ/KJ, LT-5 and LT-7, CAGR for the period the FY13 to the FY17 is considered. For LT5, the FY17 growth rate over the FY16 is considered and for LT-7, the number is retained at the FY17 level, as there is negative growth in the FY17.

#### **2. Energy Sales:**

- a. For all LT categories either CAGR for the period the FY15 to the FY17 or the CAGR for the period the FY13 to the FY17 is considered, except for LT-3 [the FY17 growth over the FY16 is considered]. Where the growth rate is negative or data is inconsistent, the sales are retained at the FY17 level.
- b. For all HT category either CAGR for the period the FY15 to the FY17 or the growth rate of the FY17 over the FY16 is considered. Where the growth rate is negative or data is inconsistent, the sales is retained at the FY17 level.
- c. In the above context, the observations of the Commission on sales forecast for the FY19 are as follows:
- i) LT (1) – BJ/KJ category:
- The MESCOM has not indicated the data pertaining to installations consuming more than 40 Units/month under this category. Therefore, the MESCOM shall furnish the above details, if any.
- ii) The table indicating the growth rates for the number of installations is furnished below:

Category	Percentage Growth Rates			
	2011-12 to 2016-17 CAGR	2013-14 to 2016-17 CAGR	the FY17 growth over the FY16	Growth rate proposed by the MESCOM for the FY19
LT-2a	4	3	3	3
LT-2b	4	4	4	4
LT-3	4	4	4	4
LT-5	6	6	3	4
LT-6 WS	6	6	8	7
LT-6 SL	8	8	14	7
HT-1	9	12	13	12
HT-2 (a)	7	8	8	7
HT-2 (b)	3	6	8	6
HT-2 (c)	-	9	6	0
HT-3(a)& (b)	19	18	8	0
HT-4	-3	4	13	9

It is noted that:

- a. The growth rate considered for LT-SL & LT-5 is lower when compared to CAGR. the MESCOM may consider revising the same.
- b. the MESCOM has not proposed any growth in the number of installations for HT-2c category, stating that the FY-17 consumption growth rate is negative & for HT-3 category, due to inconsistent growth rate, even though the CAGR is positive. the MESCOM may consider revising the same.

The table indicating the growth rates for the energy sales is furnished below:

Category	Percentage Growth Rates			
	2011-12 to 2016-17 CAGR	2013-14 to 2016-17 CAGR	the FY17 growth over the FY16	Growth rate proposed by the MESCOM
LT-2a	6	5	2	4
LT-2b	9	9	1	10
LT-3	6	7	4	4
LT-5	0	2	1	2
LT-6 WS	6	6	8	5
LT-6 SL	5	7	8	5
HT-1	2	3	2	2
HT-2 (a)	-1	-7	-7	0
HT-2 (b)	-2	4	3	3
HT-2(c)	-	13	0	0
HT-3(a)& (b)	4	-13	86	0
HT-4	-1	10	11	8

- c. The growth rate considered for LT-3, LT-6 WS & SL, HT-2c and HT-4 appears to be lower considering the CAGR and the growth rate considered for LT-2b appears to be higher, considering the past trends. The MESCOM may consider revising the same.
- d. Since the growth rate for the number of installations for HT-2a has been considered positive, the sales to this category should also have been increased duly considering the new additions to the installations. the

MESCOM shall explain the reasons for not considering the same. Further, for HT2(a) category, the sales estimate based on the analysis of open access impact should be considered. The MESCOM should have computed the growth rates considering the total energy sold to this category including OA/wheeling and should have estimated the sales considering the ratio of energy sold by the MESCOM in the FY17 to the total sales of the FY17 including OA/wheeling sales. the MESCOM may compute HT-2a sales on the above method and furnish the data.

iii) To validate the sales, category-wise information in the following format shall be furnished:

**1.No. of Installations:**

Category	2015-16 Actuals		2016-17 Actuals		2017-18	
	As on 30 <sup>th</sup> Nov 2015	As on 31 <sup>st</sup> March 2016	As on 30 <sup>th</sup> Nov 2016	As on 31 <sup>st</sup> March 2017	As on 30 <sup>th</sup> Nov 2017	As on 31 <sup>st</sup> March 2018 (Estimate)
LT-2a						
LT-2b						
LT-3						
LT-4 (b)						
LT-4 (c)						
LT-5						
LT-6						
LT-6						
LT-7						
HT-1						
HT-2 (a)						
HT-2 (b)						
HT2C						
HT-3(a)& (b)						
HT-4						
HT-5						
<b>Sub Total (Other than BJ/KJ and IP )</b>						
BJ/KJ						
IP						

Sub Total ( BJ/KJ and IP )						
<b>Grand Total</b>						

## 2. Energy Sales

Category	2015-16 Actuals		2016-17 Actuals		2017-18	
	1 <sup>st</sup> April 2015 to 30 <sup>th</sup> Nov 2015 (cumulative)	1 <sup>st</sup> Dec 2015 to 31 <sup>st</sup> March 2016 (cumulative)	1 <sup>st</sup> April 2016 to 30 <sup>th</sup> Nov 2016 (cumulative)	1 <sup>st</sup> Dec 2016 to 31 <sup>st</sup> March 2017 (cumulative)	1 <sup>st</sup> April 2017 to 30 <sup>th</sup> Nov 2017 (cumulative actuals)	1 <sup>st</sup> Dec 2017 to 31 <sup>st</sup> March 2018 (cumulative Estimate)
LT-2a						
LT-2b						
LT-3						
LT-4 (b)						
LT-4 (c)						
LT-5						
LT-6						
LT-6						
LT-7						
HT-1						
HT-2 (a)						
HT-2 (b)						
HT2C						
HT-3(a)& (b)						
HT-4						
HT-5						
<b>Sub Total (Other than BJ/KJ and IP )</b>						
BJ/KJ						
IP						
Sub Total ( BJ/KJ and IP )						
<b>Grand Total</b>						

**B. Sales to IP Sets for 2019:**

- a. The MESCOM has projected a specific consumption of IP sets for the FY19 as 5,720 units/installation /annum which is the same as the FY17 but the specific consumption approved by the Commission for the FY19 was 4,280 units/installation/annum. This indicates a huge increase of 1,440 units/installation/annum from the approved specific consumption. The specific consumption of 5,720 is arrived at considering a higher than normal consumption of 1,628.06 MU for the FY17 which is an aberration and hence should not be considered.
- b. Further, the IP set sales and percentage growth for previous years are as given below.

<b>Year</b>	<b>Sales in MU</b>	<b>Percentage growth of sales</b>	<b>Specific consumption in units/installation/annum</b>
the FY13	1060.21	-	4597
the FY14	1122.69	<b>5.9</b>	4597
the FY15	1086.18	<b>-3.3</b>	4597
the FY16	1197.43	<b>10.2</b>	4597
the FY17	1628.06	<b>34</b>	4447

- c. From the above, it is seen that the IP consumption in previous years is nowhere near the consumption claimed for the FY17, and hence considering the consumption of the FY17, the projection made by the MESCOM for the FY19, is incorrect.
- d. In view of the above, the MESCOM is required to furnish rationale for projecting IP set consumption based on the specific consumption of 5,720 Units/installation/annum for the FY19.
- e. Further, during the KPTCL and ESCOM's Review meeting held on 25.10.2017, the MESCOM has submitted that out of 1,52,999 number of IP

sets for which GPS survey was completed, 4,819 numbers have been declared as not-in-use/dried up installations. That means 4,819 or the latest number of identified dried up installations shall have to be deducted from the total number of installations projected for the FY19.

- f. Accordingly, specific consumption and total IP consumption shall have to be revised. The MESCOM shall submit the revised consumption based on the estimated number of installations to be considered for the FY19, taking into account GPS survey data. **In the absence of submission of GPS based survey report of actual number of live IP sets, the Commission will not consider the revised IP consumption for the FY19 as proposed by the MESCOM.**

**C. Sales to MSEZ:**

the MESCOM has retained sales to MSEZ for the FY19 at 18.31 MU, whereas MSEZ in their filing have indicated the same as 53.00 MU. The MESCOM shall reconcile the above data.

**D. Sales to KPCL:**

the MESCOM has indicated total sales to KPCL & wheeling as 87.10 MU for the FY18 & the FY19. The MESCOM shall furnish the breakup between 'KPCL' and 'wheeling' for both the years.

**E. Power Purchase:**

1. the MESCOM has to submit the detailed basis for estimating the power purchase estimates for the FY19, in support of the proposal for purchase of Energy from different sources viz., KPCL Hydel, KPCL Thermal, Central Generating Stations, IPPs, NCE projects and other purchases.
2. The actual quantum and cost of solar energy for the FY18 shall be furnished by the MESCOM for the period from April, 2017 to November, 2017 and balance shall be projected. The following data shall be furnished:

Type of Solar Plant	Capacity in MWp	Estimated Energy and cost for the FY17		Estimated Energy and cost for the FY18		Whether Approved by the Commission
		Qty (MU)	Cost (RS Cr)	Qty(MU)	Cost (RS Cr)	Yes/No

1-3 MW Projects allotted to Farmers by KREDL.						
1150 MW Projects Taluk wise issued by KREDL.						
970MW Projects entered PSA with SECI						
Solar Park						
Others MW projects through competitive biddings						
SRTPV projects i. 500kW & above ii. more than 500kW						

3. In the case of Renewable Energy (Non- Solar), the MESCOM is required to consider the latest actual available data of the FY18 (till the end of November, 2017), duly considering the projects which are likely to be commissioned up to 31.03.2019, for projecting the power purchase for the FY19.
4. the MESCOM shall furnish an abstract of month-wise, source-wise energy requirement projected for the FY19, duly tallying the figures with the D1-Format.
5. the MESCOM shall furnish the basis for Tariff considered in respect of BTPS unit -III

**F. RPO Compliance:**

1. the MESCOM has furnished the details of RPO compliance of solar and non-solar RPO for 2016-17. the MESCOM shall confirm whether the RPO compliance filed is in accordance with the Government Order No. EN 43 PSR 2017 dated 26.09.2017 and if not, shall give reasons for deviating from the GO.
2. Further, it is noted that the total solar power purchased is indicated as 86 MU, whereas it should be 84.19 MU[86.04MU-1.85MU]. Similarly, the total non-solar power purchased is indicated as 565.59 MU, whereas it should be 552 MU[565.59MU-13.59MU]. The MESCOM shall rectify the same.



3. The MESCOM shall furnish the estimates for complying with solar and non-solar RPO for 2018-19, including cost implication for purchasing RECs, if any. In this regard the MESCOM shall furnish the following details pertaining to the MESCOM duly tallying with the renewable energy purchase estimates made for the FY19:

Source	Capacity under PPA in MW as on 30.11.2017	Anticipated MW capacity addition under PPA during the remaining period of the FY18	Anticipated capacity addition under PPA during the FY19
Wind			
Mini-hydel			
Co-generation			
Biomass			
Waste to Energy			
Solar			

**G. Wheeling Charges for the FY19:**

the MESCOM has proposed wheeling charges of 32 paise/unit and 73 paise/unit for HT network and LT network respectively. Further it is stated that technical losses of 4.40% at HT level and 6.70% at LT level are applicable.

At present, for RE-sources there is concessional wheeling charge, **the MESCOM shall clarify whether the existing concessional wheeling charges is to be continued for RE sources. If not the MESCOM's proposal in the matter may be submitted.**

**H. Cross-subsidy surcharge (CSS):**

- g. For the FY19 the MESCOM has proposed the following CSS stating that the same is computed based on Tariff Policy, 2016:

Voltage level	HT-1	HT-2a	HT-2b	HT-2C	HT-4	HT-5
66kV & above	0.04	1.31	3.40	2.59	0.81	8.84
HT-33 kV	-	1.26	3.35	2.54	0.76	8.79
HT-11kV	-	1.02	3.11	2.30	0.52	8.55

- h. The Commission notes that as per Tariff Policy, 2016, the CSS shall have to be limited to 20% of the tariff applicable to the category of consumer, which is not proposed by the MESCOM. Therefore, the MESCOM shall revise the CSS accordingly.
- i. Further, the MESCOM has stated that the Cross Subsidy Surcharge calculated by the Commission, and recovered from Open Access consumers is often insufficient to recover the entire loss of cross subsidy. That added to this, no cross subsidy surcharge is applicable to open access/wheeling transactions from solar energy to encourage renewable energy. That Solar generation has increased significantly since last year, the MESCOM has prayed the Commission to levy CSS on wheeling transactions to solar energy also.
- j. The issue of introduction CSS for solar, would be dealt in the solar tariff orders being issued separately by the Commission.

#### I. Capital Expenditure for the FY19:

the MESCOM has proposed a capex of Rs.803.50 Crores for the FY19 against Rs.289.9 Crores approved in the MYT order dated 30<sup>th</sup> March, 2016, which is nearly three times the capex approved in MYT Order. The proposed capex is shown in the table below:

#### Capital expenditure proposed for the FY19

Amount in Rs. Crores

SI No.	Particulars	the FY-19
1	E&I Works (Addl. Transformers, Link-Lines, HT/LT Re-conductoring, HVDS )	150
2	DTC metering,	0.25
3	Replacement of MNR/DC & Electromagnetic meters by Static meters and providing SMC meter protection box wherever required.	5
4	Replacement of faulty Distribution Transformers	45
5	Service Connection including promoter vanished layout Works	45
6	Rural Electrification (General)	
a	Electrification of Hamlets	2
b	Energization of IP sets Including providing Infrastructure to regularized UIP	75

c	Kutir Jyothi	0.25
	<b>Sub- Total of Sl.No.6</b>	77.25
7	Tribal Sub-Plan	
a	Electrification of Tribal Colonies	1.5
b	Energisation of IP sets	0.75
c	Kutir Jyothi	0.05
	<b>Sub- Total of Sl.No.7</b>	2.3
8	Special Component Plan	
a	Electrification of S.C Colonies	1
b	Energisation of IP sets	1
c	Kutir Jyothi	0.1
	<b>Sub- Total of Sl.No.8</b>	2.1
9	Tools & Plants & Computers	5
10	Civil Engineering Works	16
11	33 KV Station and Line Works	37.5
12	<b>Total (Sl.No.1 to 11)</b>	385.4
13	<b>KERC Approved CAPEX</b>	
14	New Schemes proposed for 2016-17	
a)	Deen Dayal Upadyaya Grama Jyoti Yojana (DDUGJY)	170
b)	R - Accelerated Power Development and Reform Programme (IPDS: System improvement & Strengthening works in R-APDRP/statutory towns)	63.00
c)	Energization of IP sets Including providing Infrastructure to regularized UIP	185.00
d)	Improvement works for Model Electricity Village	0.10
	<b>Sub Total</b>	418.10
15	<b>Grand Total</b>	803.50

Some of the observations on the proposed capex are:

- i. From the above table, it is noted that, the MESCOM has increased the capex of **E&I Works (Addl. Transformers, Link-Lines, HT/LT Re-conductoring, HVDS)** from the approved capex of Rs.100 Crores to Rs.150 Crores. the MESCOM needs to explain as to why it has enhanced the capex, even though it has not exceeded the capex beyond Rs.100 Crores in any previous year.
- ii. In the case of **Service Connections**, the MESCOM has increased its capex requirement from Rs.40 Crores to Rs.45 Crores. The reasons for increased capex shall be submitted.
- iii. In the case of **Replacement of faulty Distribution Transformers**, the MESCOM has indicated a capex of Rs.45 Crores. In the previous year, the MESCOM had accepted that, there was a problem in accounting the repairs to faulty transformers and the amount spent on the replacement of failed (burnt/damaged) distribution transformers would not be costing to

the tune of Rs.45 Crores. Based on the actual cost incurred for new transformers used for replacing failed (burnt/damaged) transformers, the Commission had approved Rs.5 Crores as capex to be incurred for new transformers procured for replacing the faulty (burnt/damaged) transformers. the MESCOM shall explain the reasons for indicating a huge capex of Rs.45 under this head.

- iv. the MESCOM has indicated Rs.75 Crores for **Energization of IP sets Including providing Infrastructure to regularized UIP** (sets) in item No. 6 b and further, in the new schemes heading, the MESCOM has indicated a capex of Rs.185 Crores. the MESCOM shall revise the capex list by clearly mentioning the amount required for this category. Further, the MESCOM has been claiming capex under this head, but has not stated as to how many more IP Sets are to be provided with the infrastructure and when the completion of entire work is going to be achieved.
- v. Though the MESCOM has indicated higher amounts of capex for DDUGJY and RAPDRP works and Model electricity village, the details of the works taken up, tendered, nearing completion and like to be completed within how many years are not indicated. the MESCOM shall clearly indicate, the status of such works.

Further, it is noted that, the MESCOM had proposed Model Subdivisions and had requested an additional capex of Rs.267 Crores for the FY18 and stated that, the remaining amount required during the FY19 would be added in the capex proposal for the FY19. But, there is no mention of the capex requirement for Model subdivision in the FY19. the MESCOM shall revise its capex proposals keeping in view of the above points.

#### **J. Observations on Expenses & Revenue:**

The MESCOM in its filing has projected the number of employees sanctioned and working strength for the FY16 to the FY19. Though there is an increase in the sanctioned number of employees, the working strength of employee's has

remained the same for the FY18 and the FY19. The MESCOM has not considered the new employee's recruitment and retirement while projecting the number of employees. the MESCOM shall submit the revised Format D6(a) for the FY18 and the FY19.

3. The MESCOM has indicated an increase in the total number of sanctioned employees in Format D6(a) during the FY17 over the FY16, the MESCOM shall furnish the cadre-wise addition of employers and its cost for the FY7.
4. The MESCOM shall furnish the details in respect of following amount of expenditure incurred / projected for the FY17 to the FY19.

Sl.No.	Particulars	the FY17	the FY18	the FY19
1	Professional charges	Rs.30.40 Crores	Rs. 50.73 Crores	Rs.45.68 Crores
2	Conveyance and Hiring charges	Rs.8.61 Crores	Rs.9.25 Crores	Rs.10.27 Crores

5. The MESCOM while projecting the "Other Income" under format D3, has not recognized the miscellaneous recoveries for the FY19, though the actual miscellaneous recoveries as per the audited accounts for the FY15, the FY16 and the FY17 was Rs.50.75 Crores, Rs. 21.87 Crores and Rs.44.94 Crores respectively. the MESCOM shall furnish the reasons for not recognizing this item of income under D3 format and recast the Other Income for the FY19.
6. The MESCOM in its filing under format D15 - Gross Fixed Assets, has indicated the value of gross fixed assets without recognizing the cost of assets created out of consumer's contribution/grant for the FY17 to the FY19, though the same was included in the audited account for the FY17. The MESCOM shall submit the revised Format D15 by considering the value of gross assets indicating the cost of asset created out of consumer's contributions/grants and depreciation there on for the FY17 to the FY19.

7. The MESCOM shall furnish the revised format D9, duly bifurcating the long term and short term loan details. the MESCOM shall also furnish the details of loan amount sanctioned, loan availed and repayment, interest rate, amount of interest, purpose of loan with OB and CB for the FY17 to the FY19.
8. The MESCOM has projected the uniform amount of Rs.2.39 Crores as interest and finance charges for the FY17 to the FY19. Considering the actual capital loan availed during the FY17 and the projected capital loan for the Capex and the interest thereon, the projected capitalized portion of interest and finance charges is very meager. The MESCOM shall reconsider the same.
9. The MESCOM has not submitted the half yearly accounts for the FY18. The same shall be submitted.
10. The MESCOM has considered Rs.1.45 Crores as Bad debts written off and provided for the FY17. The MESCOM shall furnish the details of bad debts written off and the provision for bad & doubtful debts amount included in this amount separately for the FY17.
11. The MESCOM in its filing has recognized Rs.267.03 Cores as prior period charges on account of withdrawal of interest accrual on the inter ESCOMS energy balancing cost during previous years. the MESCOM shall justify the withdrawal of interest income during the FY17 and recognized as prior period charges for the FY17.
12. The MESCOM in its filing for APR for the FY17 has proposed Rs.80.76 Crores as Return on Equity calculated at 15.5%, grossed up with MAT at 21.342%. the MESCOM shall furnish the provision under which the MAT on the RoE is claimed for the FY 17.
13. The MESCOM shall furnish the amount of subsidy claimed and received from GoK with sales figures for the FY17.

The MESCOM shall furnish the amount of equity received from GoK along with number and date of the Government Order and the actual date of receipt during the FY17 and up to November, 2017 during the FY18

14. Regulatory Assets:

The MESCOM in its application filed for the approval of ARR for the FY19, has proposed the unmet revenue gap of Rs.283.90 Crores as Regulatory Assets without mentioning about its recovery (page 64). As required under the KERC (Tariff Regulations)2000. The MESCOM shall furnish the provisions under which such an amount of Regulator assets has been proposed, without proposing any action for recovery.

15. Simplification of Tariff:

The MESCOM in its applications has informed that the detailed report of the Simplification of Tariff Committee has been submitted to the Energy Department. The MESCOM shall furnish the copy of the Report along with its proposals to implement the recommendations.

16. The BESCO in its application has proposed the following new proposals. The MESCOM shall submit its comments with justification on each of the proposal.

- i. Separate Tariff for 1 MW and above consumers:
- ii. Additional charges for maximum demand exceeding the C.D:
- iii. Increase in Re-connection charges:
- iv. Billing Cycle for Temporary installations:
- v. Separate Tariff for battery charging facility for motor vehicles:

**K. Directives**

The MESCOM		
Sl. No	Directives issued by the Commission	Observations made

1	<b>Consumer interaction meeting at Subdivision level.</b>	It was directed to conduct consumer interaction meetings at Subdivision level once in a quarter to redress the consumer complaints. However, out of 58 subdivisions, the MESCOM has conducted consumer interaction meetings in only 36 and 38 subdivisions in 1st & 2nd quarters of 2017 respectively. The MESCOM is directed to furnish the reasons for not conducting consumer interaction meetings in the balance (22 in 1 <sup>st</sup> quarter & 20 in 2 <sup>nd</sup> quarter) subdivisions.
2	<b>Directive on preparation of energy bills on monthly basis by considering 15 minute's time block period</b>	The MESCOM shall furnish the month-wise details of number of open access consumers sourcing power from power exchange, open access units scheduled/consumed in MU and illegally banked energy if any.
3	<b>Directive on Energy Conservation</b>	<p>The MESCOM was directed to service all the new installations only after ensuring that the BEE ***** (Bureau of Energy Efficiency five-star rating) rated Air Conditioners, Fans, Refrigerators, etc., are being installed in the applicant consumers' premises and to service all streetlight installations with LED/energy efficient lamps.</p> <p>The MESCOM has not submitted compliance regularly on the above directive.</p> <p>Further, the MESCOM has not submitted the compliance regarding the program undertaken by it to educate all the existing domestic, commercial and industrial consumers, through media/distribution of pamphlets along with monthly bills, regarding the benefits of using five star rated equipment in reduction of their monthly electricity bills and conservation of energy. The MESCOM shall submit the compliance thereon.</p>
4	<b>Directive on implementation of Standards of Performance (SoP)</b>	The MESCOM has not submitted the details of the number of O&M subdivisions and O&M Sections where SoP parameters have been displayed clearly and the balance, if any, with definite time line to complete the same. The MESCOM shall submit the compliance on the above.



5	<b>Directive on use of safety gear by linemen:</b>	<p>The MESCOM has not submitted the quarterly compliance report to the Commission regularly.</p> <p><b>The MESCOM shall submit the details indicating the many number of linemen already provided with complete set of safety gear and the definite timeline by which all the remaining linemen will be provided with the complete set of safety gear including the additional tools proposed to be given.</b></p>
6	<b>Directive on providing Timer Switches to Street lights by ESCOMs</b>	<p>The MESCOM has not submitted the quarterly compliance report to the Commission on providing timer switches to streetlights. The MESCOM shall furnish the progress in the no. of timer switches already installed in its jurisdiction and the timeline by which the proposed timer switches to around 18000 installations would be completed.</p>
7	<b>Directive on Load shedding</b>	<p>The MESCOMs is not submitting to the Commission, its projections of availability and demand for power and any unavoidable load shedding for every succeeding month in the last week of the preceding month for approval, of the Commission, regularly. The MESCOM shall submit compliance on the same.</p> <p>The MESCOM has not submitted the details of a mechanism/system it has been developing since two years, for informing the consumers/public through SMS in case of load shedding due to any reasons. the MESCOM shall submit compliance in this regard.</p>
8	<b>Directive on establishing a 24X7 fully equipped centralized consumer service centers</b>	<p>The MESCOM has not furnished the details of number of service stations it has established by providing infrastructural requirements at the subdivisions/sections and the balance service stations required to be established in the Subdivisions/Sections for effective monitoring of complaints and the likely time to be taken for establishing such service stations. The MESCOM shall furnish compliance in this regard.</p>
		<p><b><u>Energy Audit of cities / towns</u></b></p> <p>The MESCOM has furnished the abstract of energy audit details up to August, 2017 only along with the</p>

9	<b>ENERGY AUDIT</b>	<p>comparative statement of losses for the FY17, <b>but, the monthly reports are not being furnished to the Commission regularly.</b> The MESCOM shall furnish the same upto November, 2017 along with the details of measures it has initiated to further reduce loss levels wherever the same are at higher level.</p> <p><b><u>DTCs Energy Audit:</u></b></p> <p>The MESCOM has not furnished the details of energy audit conducted in respect of 38,597 DTCs for which meters have already been fixed &amp; remedial measures initiated to reduce losses in those DTCs and the timeline by which all the balance DTCs will be metered.</p> <p>The MESCOM is directed to comply with the directives of the Commission issued in Tariff Order dated 30<sup>th</sup> March, 2016 in respect of energy audit of DTCs.</p>
10	<b>Implementation of NJY</b>	<p>The MESCOM shall furnish the details of the project, such as objectives set as per DPR, expected benefits and the likely time required to complete the project.</p>
11	<b>DSM in Agriculture</b>	<p>The status is the same as that of last year. The MESCOM shall furnish the reasons for delay in implementation of DSM measures and also furnish definite time period by which it would complete the program.</p>
12	<b>Electrification of un-electrified Households</b>	<p>The MESCOM shall furnish the details such as the total number of households identified which are not electrified in its jurisdiction, number of households taken up for electrification under various Schemes and the present status and the realistic timeline for completion of electrification of such households.</p>
13	<b>Subdivision as Strategic Business Units (SBU)</b>	<p>The MESCOM was directed to implement Financial Management Framework in its O&amp;M divisions and report compliance on quarterly basis to the Commission. The MESCOM has not reported anything in this regard. The MESCOM shall furnish the latest progress achieved in implementation of Financial Management Framework in its O&amp;M divisions.</p>

14	<b>Prevention of Electrical Accidents</b>	<p>The MESCOM has not submitted the Division-wise action plan to minimize accidents. It has also not submitted the details of number of hazardous installations identified, rectified and the details of improvements carried out on the distribution system during the FY 2017 and the FY 2018 (up to November, 17).</p> <p>The MESCOM shall furnish the details on the above.</p>
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