

CHAPTER-5

ENERGY SALES PROJECTIONS FOR FY-18

In the MYT filing for the control period from FY-17 to FY-19, MESCOM has projected the category-wise installations and sales based on mixed CAGR method. As the factors affecting the actual consumption are numerous and often beyond the control of the licensee, it needs to reconcile the projections considering the actuals in immediately preceding year. Accordingly, the projections in respect of installations and energy sales are revised for FY-18.

The inputs considered for projection of sales has been detailed in the foregoing paragraphs.

5.1 ENERGY SALES PROJECTIONS:

The criteria applied for projection of number of installations and energy sales for each of the tariff categories are detailed in the foregoing paras.

5.1.1 LT-1: Bhagyajyothi & Kutirajyothi

In the Tariff Order 2016, Hon'ble Commission has approved the number of installations under LT-1 category as 1,55,065, 1,62,446 & 1,70,178 for FY-17, FY-18 and FY-19, respectively. However, these numbers are excluding of those installations which are consuming more than 18 units per month. The Hon'ble Commission has included these installations in the category LT-2a. However, for the sake of identification, MESCOM is reflecting these installations under LT-1 category only but billing is done by applying LT-2a tariff category whenever the consumption exceeds 18 units. Accordingly, MESCOM is proceeded project the number of installations and energy sales for FY-18 as indicated below;

For projection of number of installations for FY-18 MESCOM has considered 3 year CAGR from FY-14 to FY-16 and for estimation of energy sales for FY-18 actual average consumption per installation in FY-16 is considered. Computation details are enumerated below;

No. of installations (LT-1: Consumption 18 units & below per month) :

Year	Number of Installations
FY-14 (Actual)	131011
FY-15 (Actual)	141293
FY-16 (as appd. In TO 2015)	134126
FY-16 (Actual)	139044
CAGR:	3.02%
FY-17 (as appd. In TO 2016)	155065
FY-17 (Revised Projection)	143243
FY-18 (as appd. In TO 2016)	162446
FY-18 (Revised Projection)	147569

ENERGY SALES (LT-1: Consumption 18 units & below per month) :

Year	MU
FY-16 (as appd. In TO 2015)	12.63
FY-16 (Actual)	13.78
Avg. per installation / month	8.26 units
FY-17 (as appd. In TO 2016)	14.59
FY-17 (Revised Projection)	14.20
FY-18 (as appd. In TO 2016)	15.28
FY-18 (Revised Projection)	14.63

No. of installations (LT-1: Consumption above 18 units/month) :

Year	Number of Installations
FY-14 (Actual)	52027
FY-15 (Actual)	54050
FY-16 (as appd. In TO 2015)	67412
FY-16 (Actual)	56589
CAGR:	4.29%
FY-17 (as appd. In TO 2016)	57375
FY-17 (Revised Projection)	59017
FY-18 (as appd. In TO 2016)	59113
FY-18 (Revised Projection)	61549

ENERGY SALES (LT-1: Consumption above 18 units/month) :

Year	MU
FY-16 (as appd. In TO 2015)	37.78
FY-16 (Actual)	27.86
Avg. per installation / month	41.23 units
FY-17 (as appd. In TO 2016)	30.79
FY-17 (Revised Projection)	29.06
FY-18 (as appd. In TO 2016)	31.72
FY-18 (Revised Projection)	30.30

5.1.2 LT-2a: Lighting/combined lighting, heating & motive power of residential houses.

For projection of number of installations and energy sales for FY-18 MESCOM has considered 3 year CAGR from FY-14 to FY-16. However, CAGR in number of installations under LT-2a(ii)[Rural] category is observed to be negative and hence, number of installations as at the end of 31-03-2016 is maintained for FY-18. Computation details are enumerated below;

LT-2a(i): Urban :

Year	Number of Installations	MU
FY-14 (Actual)	511774	600.94
FY-15 (Actual)	580828	637.82
FY-16 (as appd. In TO 2015)	558378	688.28
FY-16 (Actual)	599891	687.25
CAGR:	8.27%	6.94%
FY-17 (as appd. In TO 2016)	669125	729.51
FY-17 (Revised Projection)	649502	734.95
FY-18 (as appd. In TO 2016)	790397	780.04
FY-18 (Revised Projection)	703216	785.96

LT-2a(ii): Rural :

Year	Number of Installations	MU
FY-14 (Actual)	807836	528.04
FY-15 (Actual)	780907	555.08
FY-16 (as appd. In TO 2015)	868052	615.90
FY-16 (Actual)	806084	577.45
CAGR:	(-)0.11%	4.57%
FY-17 (as appd. In TO 2016)	847844	623.95
FY-17 (Revised Projection)	806084	603.84
FY-18 (as appd. In TO 2016)	784460	661.65
FY-18 (Revised Projection)	806084	631.44

5.1.3 LT-2b: Private professional and other private educational institutions.

For projection of number of installations and energy sales for FY-18 MESCOM has considered 3 year CAGR from FY-14 to FY-16. Computation details are enumerated below;

LT-2b(i): Urban :

Year	Number of Installations	MU
FY-14 (Actual)	1503	7.08
FY-15 (Actual)	1539	7.41
FY-16 (as appd. In TO 2015)	1601	8.47
FY-16 (Actual)	1569	8.80
CAGR:	2.17%	11.49%
FY-17 (as appd. In TO 2016)	1651	8.42
FY-17 (Revised Projection)	1603	9.81
FY-18 (as appd. In TO 2016)	1708	9.22
FY-18 (Revised Projection)	1638	10.94

LT-2b(ii): Rural :

Year	Number of Installations	MU
FY-14 (Actual)	1507	3.64
FY-15 (Actual)	1583	4.06
FY-16 (as appd. In TO 2015)	1652	4.27
FY-16 (Actual)	1641	4.88
CAGR:	4.35%	15.79%
FY-17 (as appd. In TO 2016)	1708	4.52
FY-17 (Revised Projection)	1712	5.65
FY-18 (as appd. In TO 2016)	1774	4.90
FY-18 (Revised Projection)	1786	6.54

5.1.4 LT-3: Commercial Lighting, Heating & Motive Power.

For projection of number of installations and energy sales for FY-18 MESCOM has considered 4 year CAGR from FY-13 to FY-16. Computation details are enumerated below;

LT-3(i): Urban :

Year	Number of Installations	MU
FY-13 (Actual)	98526	183.85
FY-14 (Actual)	102713	188.06
FY-15 (Actual)	106545	205.99
FY-16 (as appd. In TO 2015)	110774	212.78
FY-16 (Actual)	112027	223.23
CAGR:	4.37%	6.68%
FY-17 (as appd. In TO 2016)	115341	230.56
FY-17 (Revised Projection)	116923	238.14
FY-18 (as appd. In TO 2016)	120017	242.92
FY-18 (Revised Projection)	122033	254.05

LT-3(ii): Rural :

Year	Number of Installations	MU
FY-13 (Actual)	68613	87.59
FY-14 (Actual)	71682	92.85
FY-15 (Actual)	75739	98.70
FY-16 (as appd. In TO 2015)	78189	111.70
FY-16 (Actual)	78077	106.64
CAGR:	4.40%	6.78%
FY-17 (as appd. In TO 2016)	83608	111.15
FY-17 (Revised Projection)	81512	113.87
FY-18 (as appd. In TO 2016)	87849	117.46
FY-18 (Revised Projection)	85099	121.59

5.1.5 LT-4a: IP Sets upto & inclusive of 10 HP.

For projection of number of installations for FY-18 MESCOM has considered 3 year CAGR from FY-14 to FY-16. In the year FY-16 actual IP set consumption is 1197.43 MU for 2,78,008 numbers of installations. This works out to a specific consumption of 4448 units per annum per IP. Hence, for projection of energy sales under this category MESCOM has considered specific consumption of 4448 units per installation. Computation details are enumerated below;

No. of installations (LT-4a: IP sets upto & inclusive of 10 HP) :

Year	Number of Installations
FY-14 (Actual)	247139
FY-15 (Actual)	260399
FY-16 (as appd. In TO 2015)	263139
FY-16 (Actual)	278171
CAGR:	6.09%
FY-17 (as appd. In TO 2016)	292860
FY-17 (Revised Projection)	295112
FY-18 (as appd. In TO 2016)	310578
FY-18 (Revised Projection)	313084

ENERGY SALES (LT-4a: IP sets upto & inclusive of 10 HP) :

Year	Midyear number of installations	MU
FY-16 (as appd. In TO 2015)		1191.26
Sp. Consumption FY-16 (as appd. In TO 2015)	4597 units	-
FY-16 (Actual)	269204	1197.43
Actual Sp. Consumption FY-16	4447 units	-
FY-17 (as appd. In TO 2016)	-	1217.69
Sp. Consumption FY-17 & FY-18 (as appd. In TO 2016)	4280 units	
FY-17 (Revised Projection)	286641	1274.69
FY-18 (as appd. In TO 2016)	-	1291.36
FY-18 (Revised Projection)	304098	1352.32

5.1.6 LT-4b: IP Sets above 10 HP.

Under this category growth in number of installations and energy sales is observed to be negative and hence, the number of installations existing as at the end of March-2016 & energy sales in the year FY-16 has been maintained for FY-18. Comparative position in different years from FY-13 to FY-16 is indicated below;

Year	Number of Installations	MU
FY-13 (Actual)	176	1.08
FY-14 (Actual)	183	1.12
FY-15 (Actual)	181	1.21
FY-16 (as appd. In TO 2015)	176	0.98
FY-16 (Actual)	179	0.92
FY-17 (as appd. In TO 2016)	186	0.89
FY-17 (Revised Projection)	179	0.92
FY-18 (as appd. In TO 2016)	191	0.86
FY-18 (Revised Projection)	179	0.92

5.1.7 LT-4c(i): Private Horticultural Nurseries, Coffee and Tea plantations of sanctioned load of 10 HP & below.

Under this category year-on-year growth in energy sales is observed to be inconsistent and hence, the number of installations existing as at the end of March-2016 & energy sales in the year FY-16 has been maintained for FY-18. Comparative position in different years from FY-13 to FY-16 is indicated below;

Year	Number of Installations	MU
FY-13 (Actual)	1994	3.09
FY-14 (Actual)	2016	2.75
FY-15 (Actual)	2276	2.37
FY-16 (as appd. In TO 2015)	2312	2.71
FY-16 (Actual)	2576	3.09
FY-17 (as appd. In TO 2016)	2654	1.92
FY-17 (Revised Projection)	2576	3.09
FY-18 (as appd. In TO 2016)	2923	1.92
FY-18 (Revised Projection)	2576	3.09

5.1.8 LT-4c(ii): Private Horticultural Nurseries, Coffee and Tea plantations of sanctioned load of above 10 HP.

Under this category year-on-year growth in energy sales is observed to be inconsistent and hence, the number of installations existing as at the end of March-2016 & energy sales in the year FY-16 has been maintained for FY-18. Comparative position in different years from FY-13 to FY-16 is indicated below;

Year	Number of Installations	MU
FY-13 (Actual)	657	3.40
FY-14 (Actual)	631	3.79
FY-15 (Actual)	687	3.60
FY-16 (as appd. In TO 2015)	701	4.46
FY-16 (Actual)	720	3.31
FY-17 (as appd. In TO 2016)	808	2.89
FY-17 (Revised Projection)	720	3.31
FY-18 (as appd. In TO 2016)	894	2.95
FY-18 (Revised Projection)	720	3.31

5.1.9 LT-5: Heating & Motive Power (including lighting) of Industrial Units.

For projection of number of installations and energy sales for FY-18 MESCOM has considered 4 year CAGR from FY-13 to FY-16. However, CAGR in respect of the installations having load of 67 HP & above, there is negative growth trend both in number of installations and energy sales in which case MESCOM has maintained the number of installations as at the end of 31-03-2016 and energy sales in FY-16 for FY-18. Computation details are enumerated below;

Year	Number of installations (LT-5)				Total
	With SL =<5 HP	With SL >5 HP & < 40 HP	With SL =>40 HP & < 67 HP	With SL =>67 HP	
FY-13 (Actual)	10252	10847	1518	181	22798
FY-14 (Actual)	10547	11795	1623	234	24199
FY-15 (Actual)	11423	12637	1677	157	25894
FY-16 (as appd. In TO 2015)	12265	12937	1867	266	27335
FY-16 (Actual)	12496	13427	1786	150	27859
CAGR:	6.82%	7.37%	5.57%	(-).6.07%	
FY-17 (as appd. In TO 2016)	13385	14092	1881	157	29215
FY-17 (Revised Projection)	13348	14417	1885	150	29800
FY-18 (as appd. In TO 2016)	14275	15029	2006	168	31478
FY-18 (Revised Projection)	14258	15480	1990	150	31878

Year	Energy Sales in MU (LT-5)				Total
	With SL =<5 HP	With SL >5 HP & < 40 HP	With SL =>40 HP & < 67 HP	With SL =>67 HP	
FY-13 (Actual)	11.22	44.30	56.69	18.78	130.99
FY-14 (Actual)	10.96	46.56	55.20	16.10	128.82
FY-15 (Actual)	11.02	48.41	56.49	15.51	131.43
FY-16 (as appd. In TO 2015)	11.29	48.97	56.01	15.14	131.41
FY-16 (Actual)	12.15	48.66	61.34	13.32	135.47
CAGR:	2.69%	3.18%	2.66%	(-)10.82%	
FY-17 (as appd. In TO 2016)	11.66	50.64	57.92	15.66	135.88
FY-17 (Revised Projection)	12.48	50.21	62.97	13.32	138.98
FY-18 (as appd. In TO 2016)	11.79	51.12	58.47	15.80	137.18
FY-18 (Revised Projection)	12.82	51.81	64.65	13.32	142.60

5.1.10 LT-6(a): Water Supply & Sewerage pumping installations.

For projection of number of installations and energy sales for FY-18 MESCOM has considered 4 year CAGR from FY-13 to FY-16. Computation details are enumerated below;

Year	Number of Installations	MU
FY-13 (Actual)	10622	97.46
FY-14 (Actual)	11395	100.38
FY-15 (Actual)	12182	107.63
FY-16 (as appd. In TO 2015)	12473	115.05
FY-16 (Actual)	12630	111.93
CAGR:	5.94%	4.72%
FY-17 (as appd. In TO 2016)	13550	118.39
FY-17 (Revised Projection)	13380	117.21
FY-18 (as appd. In TO 2016)	14467	126.63
FY-18 (Revised Projection)	14175	122.74

5.1.11 LT-6(b): Public Street Lights.

For projection of number of installations and energy sales for FY-18 MESCOM has considered 4 year CAGR from FY-13 to FY-16. Computation details are enumerated below;

Year	Number of Installations	MU
FY-13 (Actual)	14808	57.48
FY-14 (Actual)	15632	57.25
FY-15 (Actual)	16135	58.19
FY-16 (as appd. In TO 2015)	17690	64.06
FY-16 (Actual)	17263	63.97
CAGR:	5.25%	3.63%
FY-17 (as appd. In TO 2016)	17728	63.10
FY-17 (Revised Projection)	18169	66.29
FY-18 (as appd. In TO 2016)	18957	64.86
FY-18 (Revised Projection)	19123	68.70

5.1.12 LT-7: Temporary Power Supply of all categories including Hoarding & Advertisement boards.

Though the growth in the number of installations in the category was a CAGR of 16.15% over a period FY-13 to FY-16, the energy sales under the category is having a negative CAGR of (-) 10.32%. Hence, the number of installations that exists as at the end of March-2016 and consumption in the year FY-16 is maintained for FY-18. Comparative position in different years from FY-13 to FY-16 is indicated below;

Year	Number of Installations	MU
FY-13 (Actual)	10534	27.22
FY-14 (Actual)	11988	18.05
FY-15 (Actual)	12802	19.12
FY-16 (as appd. In TO 2015)	11078	19.02
FY-16 (Actual)	16506	19.63
CAGR:	16.15%	(-)10.32%
FY-17 (as appd. In TO 2016)	12802	19.12
FY-17 (Revised Projection)	16506	19.63
FY-18 (as appd. In TO 2016)	12802	19.12
FY-18 (Revised Projection)	16506	19.63

5.1.13 HT-1: Water Supply, Drainage / Sewerage water treatment plant and Sewerage pumping installations.

For projection of number of installations and energy sales for FY-18 MESCOM has considered 5 year CAGR from FY-12 to FY-16. Computation details are enumerated below;

Year	Number of Installations	MU
FY-12 (Actual)	57	77.64
FY-13 (Actual)	55	77.74
FY-14 (Actual)	62	78.20
FY-15 (Actual)	70	83.35
FY-16 (as appd. In TO 2015)	71	87.99
FY-16 (Actual)	78	85.01
CAGR:	8.16%	2.29%
FY-17 (as appd. In TO 2016)	80	87.38
FY-17 (Revised Projection)	84	86.96
FY-18 (as appd. In TO 2016)	85	89.63
FY-18 (Revised Projection)	91	88.95

5.1.14 HT-2a: Industries.

For projection of number of installations for FY-18 MESCOM has considered 5 year CAGR from FY-12 to FY-16. However, in respect of energy sales there is a drastic reduction in the industrial consumption in FY-16 compared to FY-15. On analysis, it is observed in respect of 12 EHT installations consumption has reduced by 125.67 MU. Hence, for projection of energy sales under this category MESCOM has considered the growth in FY-16 with reference to the energy sales in FY-15, excluding the consumption of above stated 12 installation and in respect of this 12 installations consumption of FY-16 is maintained for FY-18. Computation details are enumerated below;

Year	Number of Installations
FY-12 (Actual)	554
FY-13 (Actual)	588
FY-14 (Actual)	623
FY-15 (Actual)	661
FY-16 (as appd. In TO 2015)	747
FY-16 (Actual)	725
CAGR:	6.96%
FY-17 (as appd. In TO 2016)	771
FY-17 (Revised Projection)	775
FY-18 (as appd. In TO 2016)	818
FY-18 (Revised Projection)	829

Energy Sales	In respect of 12 industrial EHT installations MU	Other HT industrial installations MU	Total MU
FY-15 (Actual)	277.99	426.87	704.86
FY-16 (Actual)	152.32	434.09	586.41
Growth	(-)45.21%	1.69%	(-)16.80%
FY-16 (as appd. in TO 2015)	-	-	782.85
FY-17 (as appd. in TO 2016)	-	-	805.52
FY-17 (Revised Projection)	152.32	441.43	593.75
FY-18 (as appd. in TO 2016)	-	-	861.12
FY-18 (Revised Projection)	152.32	448.89	601.21

5.1.15 HT-2b: Commercial.

For projection of number of installations and energy sales for FY-18 MESCOM has considered 3 year CAGR from FY-14 to FY-16. Computation details are enumerated below;

Year	Number of Installations	MU
FY-14 (Actual)	521	152.46
FY-15 (Actual)	539	153.86
FY-16 (as appd. In TO 2015)	553	152.12
FY-16 (Actual)	577	180.07
CAGR:	5.24%	8.68%
FY-17 (as appd. In TO 2016)	577	168.53
FY-17 (Revised Projection)	607	195.70
FY-18 (as appd. In TO 2016)	581	176.38
FY-18 (Revised Projection)	639	212.69

5.1.16 HT-2c: Hospitals, Educational Institutions and Hostels.

For projection of number of installations and energy sales for FY-18 MESCOM has considered 3 year CAGR from FY-14 to FY-16. Computation details are enumerated below;

Year	Number of Installations	MU
FY-14 (Actual)	202	117.65
FY-15 (Actual)	227	146.65
FY-16 (as appd. In TO 2015)	208	126.97
FY-16 (Actual)	250	155.05
CAGR:	11.25%	14.80%
FY-17 (as appd. In TO 2016)	277	180.37
FY-17 (Revised Projection)	278	178.00
FY-18 (as appd. In TO 2016)	302	197.23
FY-18 (Revised Projection)	309	204.34

5.1.17 HT-3a: Lift Irrigation Schemes / Lift Irrigation Societies.

The growth in the number of installations and energy consumption under this category is inconsistent. Hence, the number of installations existing as at the end of March-2016 and the energy consumption in FY-16 is maintained for FY-18, which is as below;

Year	Number of Installations	MU
FY-15 (Actual)	21	22.97
FY-16 (as appd. In TO 2015)	12	24.66
FY-16 (Actual)	21	8.32
FY-17 (as appd. In TO 2016)	21	22.91
FY-17 (Revised Projection)	21	8.32
FY-18 (as appd. In TO 2016)	21	22.91
FY-18 (Revised Projection)	21	8.32

5.1.18 HT-3b: Irrigation / Agricultural / Horticultural forms.

The growth in the number of installations and energy consumption under this category is inconsistent. Hence, the number of installations existing as at the end of March-2016 and the energy consumption in FY-16 is maintained for FY-18, which is as below;

Year	Number of Installations	MU
FY-15 (Actual)	3	0.25
FY-16 (as appd. In TO 2015)	4	0.32
FY-16 (Actual)	3	0.29
FY-17 (as appd. In TO 2016)	3	0.32
FY-17 (Revised Projection)	3	0.29
FY-18 (as appd. In TO 2016)	3	0.31
FY-18 (Revised Projection)	3	0.29

5.1.19 HT-4: Residential Apartments & Colonies.

For projection of number of installations and energy sales for FY-18 MESCOM has considered 3 year CAGR from FY-14 to FY-16. Computation details are enumerated below;

Year	Number of Installations	MU
FY-14 (Actual)	46	14.27
FY-15 (Actual)	44	14.40
FY-16 (as appd. In TO 2015)	46	13.78
FY-16 (Actual)	46	16.90
CAGR:	0.00%	8.83%
FY-17 (as appd. In TO 2016)	47	15.56
FY-17 (Revised Projection)	46	18.39
FY-18 (as appd. In TO 2016)	49	16.18
FY-18 (Revised Projection)	46	20.01

5.1.20 HT-5: Temporary Supply.

The growth in the number of installations and energy consumption under this category is inconsistent. Hence, the number of installations existing as at the end of March-2016 and the energy consumption in FY-16 is maintained for FY-18, which is as below;

Year	Number of Installations	MU
FY-14 (Actual)	20	21.86
FY-15 (Actual)	20	7.20
FY-16 (as appd. In TO 2015)	20	21.86
FY-16 (Actual)	20	8.99
FY-17 (as appd. In TO 2016)	20	7.20
FY-17 (Revised Projection)	20	8.99
FY-18 (as appd. In TO 2016)	20	7.20
FY-18 (Revised Projection)	20	8.99

5.1.21 Supply to MSEZ:

In the Tariff Order 2016, Hon'ble Commission has approved 84.03 MU of sales in respect of MSEZ installations for FY-16. However, the actual consumption is only 13.86 MU. In FY-15 also the consumption was only 8.64 MU. The growth in consumption from FY-15 to FY-16 is 5.22 MU only. Hence, MESCOM has considered a growth of 5.22 MU for FY-18 in respect of MSEZ installations as below;

Year	MU
FY-15 (Actual)	8.64
FY-16 (as appd. In TO 2015)	84.03
FY-16 (Actual)	13.86
FY-17 (as appd. In TO 2016)	80.84
FY-17 (Revised Projection)	19.08
FY-18 (as appd. In TO 2016)	92.45
FY-18 (Revised Projection)	19.08

5.1.22 KPCL and Wheeling Consumption:

In the year FY-16, KPCL consumption is 9.59 MU and wheeling energy is 59.04 MU. The same quantum has been maintained for FY-18 also.

5.1.23 Abstract of projected number of installations for different years.

(Number of installations)

Tariff Category	FY-16		FY-17		FY-18	
	Apprd. In T.O. 2015	Actuals	Apprd. In T.O. 2016	Revised Proj.	Apprd. In T.O. 2016	Revised Proj.
1	2	3	4	5	6	7
LT-1:>18	134126	139044	155065	143243	162446	147569
LT-1:=<18 Units		56589		59017		61549
LT-1 Sub Total:		195633		202260		209118
LT-2a(i) Urban	1493842	599891	1516897	649502	1574344	703216
LT-2a(ii) Rural		806084		806084		806084
LT-2a Sub Total:		1405975		1455586		1509300
LT-2b(i) Urban	3253	1569	3359	1603	3484	1638
LT-2b(ii) Rural		1641		1712		1786
LT-2b Sub Total:		3210		3315		3424
LT-3(i) Urban	188963	112027	198949	116923	207866	122033
LT-3(ii) Rural		78077		81512		85099
LT-3 Sub Total:		190104		198435		207132
LT-4a	263139	278171	292860	295112	310578	313084
LT-4b	176	179	186	179	191	179
LT-4c(i)	3013	2576	3462	2576	3817	2576
LT-4c(ii)		720		720		720
LT-5b: =< 5 HP	27335	12496	29515	13348	31478	14258
LT-5b: >5 HP & <40 HP		13427		14417		15480
LT-5b: =>40 HP & < 67 HP		1786		1885		1990
LT-5b: =>67 HP		150		150		150
LT-5 Sub Total:		27859		29800		31878
LT-6a	12473	12630	13550	13380	14467	14175
LT-6b	17690	17263	17728	18169	18957	19123
LT-7	11078	16506	12802	16506	12802	16506
TOTAL- LT	2155088	2150826	2244373	2236038	2340430	2327215
HT-1	71	78	80	84	85	91
HT-2a	747	725	771	775	818	829
HT-2b	553	577	577	607	581	639
HT-2c	208	250	277	278	302	309
HT-3a	16	21	24	21	24	21
HT-3b		3		3		3
HT-4	46	46	47	46	49	46
HT-5	20	20	20	20	20	20
TOTAL- HT	1661	1720	1796	1834	1879	1958
TOTAL- LT + HT	2156749	2152546	2246171	2237872	2342309	2329173

5.1.24 Abstract of projected energy sales for different years.

(Energy Sales in MU)

Tariff Category	FY-16		FY-17		FY-18	
	Apprd. In T.O. 2015	Actuals	Apprd. In T.O. 2016	Revised Proj.	Apprd. In T.O. 2016	Revised Proj.
1	2	3	4	5	6	7
LT-1:>18	12.63	13.78	14.59	14.20	15.28	14.63
LT-1:=<18 Units	37.78	27.86	30.79	29.06	31.72	30.30
LT-1 Sub Total:	50.41	41.64	45.38	43.26	47.00	44.93
LT-2a(i) Urban	688.28	687.25	729.51	734.95	780.04	785.96
LT-2a(ii) Rural	615.90	577.45	623.95	603.84	661.65	631.44
LT-2a Sub Total:	1304.18	1264.7	1353.46	1338.79	1441.69	1417.40
LT-2b(i) Urban	8.47	8.80	8.60	9.81	9.22	10.94
LT-2b(ii) Rural	4.27	4.88	4.34	5.65	4.90	6.54
LT-2b Sub Total:	12.74	13.68	12.94	15.46	14.12	17.48
LT-3(i) Urban	212.78	223.23	230.65	238.14	242.92	254.05
LT-3(ii) Rural	111.70	106.64	111.06	113.87	117.46	121.59
LT-3 Sub Total:	324.48	329.87	341.71	352.01	360.38	375.64
LT-4a	1191.26	1197.43	1217.69	1274.69	1291.36	1352.32
LT-4b	0.98	0.92	0.89	0.92	0.86	0.92
LT-4c(i)	2.71	3.09	1.92	3.09	1.92	3.09
LT-4c(ii)	4.46	3.31	2.89	3.31	2.95	3.31
LT-5b: =< 5 HP		12.15		12.48		12.82
LT-5b: >5 HP & <40 HP	131.41	48.66	135.88	50.21	137.18	51.81
LT-5b: =>40 HP & < 67 HP		61.34		62.97		64.65
LT-5b: =>67 HP		13.32		13.32		13.32
LT-5 Sub Total:		135.47		138.98		142.60
LT-6a	115.05	111.93	118.39	117.21	126.63	122.74
LT-6b	64.06	63.97	63.10	66.29	64.86	68.70
LT-7	19.02	19.63	19.12	19.63	19.12	19.63
TOTAL- LT	3220.76	3185.64	3313.37	3373.64	3508.07	3568.76
HT-1	87.99	85.01	87.38	86.96	89.63	88.95
HT-2a	782.85	586.41	805.52	593.75	861.12	601.21
HT-2b	152.12	180.07	168.53	195.70	176.38	212.69
HT-2c	126.97	155.05	180.37	178.00	197.23	204.34
HT-3a	24.66	8.32	22.91	8.32	22.91	8.32
HT-3b	0.32	0.29	0.32	0.29	0.31	0.29
HT-4	13.78	16.90	15.56	18.39	16.18	20.01
HT-5	21.86	8.99	7.20	8.99	7.20	8.99
TOTAL- HT	1210.55	1041.04	1287.78	1090.40	1370.96	1144.80
MSEZ Supply	84.03	13.86	80.44	19.08	92.45	19.08
KPCL Consumption	11.33	9.59	10.68	9.59	10.68	9.59
Wheeling Energy	-	59.04	-	59.04	-	59.04
TOTAL- LT + HT	4526.68	4309.17	4777.94	4551.75	4982.16	4801.27

5.2 ENERGY AT INTERFACE POINT AND GENERATION POINT:

The energy requirement at interface point is arrived at based on approved distribution loss. It is assumed that the distribution loss will be reduced from a level of 11.50% in the year 2015-16 to 11.05% at the end of 2017-18.

The energy requirement at generation point is computed based on projected transmission loss approved by the Hon'ble Commission in Tariff Order 2016. The projected energy requirement at interface point and generation point is tabulated below.

Year	Energy Sales (MU)	Dist. Loss (%)	Energy at IF point (MU)	MSEZ Supply (MU)	Trans. Loss (%)	Energy at Gen. point (MU)
Fy-16 (Apprd. In TO 2015)	4442.66	11.25%	5005.81	80.84	3.80%	5287.58
Fy-16 (Actuals)	4309.17	11.50%	4869.12	-	3.15%	5027.72
Fy-17 (Apprd. In TO 2016)	4611.84	11.15%	5190.59	83.38	3.47%	5460.56
Fy-17 (Revised Projection)	4551.75	11.15%	5122.96	-	3.47%	5307.12
Fy-18 (Apprd. In TO 2016)	4889.71	11.05%	5497.14	92.45	3.37%	5781.31
Fy-18 (Revised Projection)	4801.27	11.05%	5397.72	-	3.37%	5585.97

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