

**5.4 Category wise Installations and Sales , Actual for FY-22, Revised, for FY-23 & projections for FY-24:**

**Table-73**

Tariff Category	Actuals	Actuals Mid Year	Revised	Projected Mid year	Projected	5 year CAGR % Growth
	31/03/2022	30/09/2022	31/03/2023	30/09/2023	31/03/2024	
<b>LT 1</b>	597675	597675	597675	597675	597675	0.02%
<b>LT 2 (a)</b>	1952970	1990764	2021949	2056599	2091248	4.81%
<b>LT 2 (b)</b>	5621	5755	5893	6032	6172	6.26%
<b>LT 3</b>	313306	320238	326698	333494	340290	5.23%
<b>LT 4 (a)</b>	417988	423552	428706	434091	439477	4.24%
<b>LT 4 (b)</b>	2305	2305	2314	2319	2324	3.44%
<b>LT 4 (c)</b>	589	606	622	640	659	9.05%
<b>LT 5</b>	71533	72583	73698	74820	75943	3.73%
<b>LT 6(a)</b>	27907	28361	28845	29364	29882	10.53%
<b>LT 6(b)</b>	16788	17398	17700	18180	18661	5.43%
<b>LT 7</b>	46910	51247	55283	59516	63750	17.85%
<b>LT</b>	<b>3453592</b>	<b>3510484</b>	<b>3559382</b>	<b>3612732</b>	<b>3666081</b>	<b>3.99%</b>
<b>HT 1</b>	179	185	191	197	203	6.44%
<b>HT 2 a</b>	1823	1843	1863	1884	1905	5.47%
<b>HT 2 b</b>	454	476	500	524	548	5.64%
<b>HT 2 c</b>	288	309	328	349	370	17.42%
<b>HT 3 a</b>	451	456	462	468	474	8.00%
<b>HT 4</b>	53	54	55	57	59	12.05%
<b>HT 5</b>	64	66	69	71	74	19.74%
<b>HT</b>	<b>3312</b>	<b>3389</b>	<b>3467</b>	<b>3550</b>	<b>3633</b>	<b>6.97%</b>
<b>TOTAL</b>	<b>3456904</b>	<b>3513873</b>	<b>3562850</b>	<b>3616282</b>	<b>3669714</b>	<b>3.99%</b>

**Details of projected Consumer growth for FY-23 revised & projected for FY-24:**

The Consumer Projections is been made using Compounded Annual Growth Rate Methodology (CAGR)

The formula used  $(E/B)^{(1/N)} - 1$  Ie., (End year value/ Beginning year value) raise to 1/No. of years – 1

Five year data is used ie., form FY-17 to FY-22 ie 5 Completed Years of Previous year actuals.

**The category wise consumer projection as detailed below:**

For installation projection after applying CAGR Growth the growth seems to be abnormal from FY-17 to FY-22, this is due to the flood in FY-19, COVID-19 during FY-20 & FY-21,

For considering reasonable growth the No. of installations deducted from CAGR Growth the revised for FY-23 and Projected for FY-24 is indicated as follows:

**Table-74**

**For FY-23 the Revised No., of installations**

Sl. No.	Tariff Category	CAGR Growth % For FY-16-22	No. of installation considering 5 Year CAGR Growth %	No. of installations Added/deducted to arrive reasonable growth	No. of installations after deducting for arriving reasonable growth
1	LT 1	0.02%	597675	0	597675
2	LT 2 (a)	4.81%	2046949	25000	2021949
3	LT 2 (b)	6.26%	5973	80	5893
4	LT 3	5.23%	329698	3000	326698
5	LT 4 (a)	4.24%	435706	7000	428706
6	LT 4 (b)	3.44%	2384	70	2314
7	LT 4 (c)	9.05%	642	20	622
8	LT 5	3.73%	74198	500	73698
9	LT 6(a)	10.53%	30845	2000	28845
10	LT 6(b)	5.43%	17700	0	17700
11	LT 7	17.85%	55283	0	55283
<b>12</b>	<b>LT</b>	<b>3.99%</b>	<b>3597052</b>	<b>37670</b>	<b>3559382</b>
13	HT 1	6.44%	191	0	191
14	HT 2 a	5.47%	1923	60	1863
15	HT 2 b	5.64%	480	20	500
16	HT 2 c	17.42%	338	10	328
17	HT 3 a & b	8.00%	487	25	462
18	HT 4	12.05%	59	4	55
19	HT 5	19.74%	77	8	69
<b>20</b>	<b>HT</b>	<b>6.97%</b>	<b>3554</b>	<b>127</b>	<b>3467</b>
<b>21</b>	<b>TOTAL</b>	<b>3.99%</b>	<b>3600607</b>	<b>37797</b>	<b>3562850</b>

**Table-75**

**For FY-24 the Projected No., of installations**

Sl. No.	Tariff Category	CAGR Growth % For FY-16-22	No. of installation considering 5 Year CAGR Growth %	No. of installations Added/deducted to arrive reasonable growth	No. of installations after deducting for arriving reasonable growth
1	LT 1	0.02%	597675	0	597675
2	LT 2 (a)	4.81%	2119248	28000	2091248
3	LT 2 (b)	6.26%	6262	90	6172
4	LT 3	5.23%	343790	3500	340290
5	LT 4 (a)	4.24%	446877	7400	439477
6	LT 4 (b)	3.44%	2394	70	2324
7	LT 4 (c)	9.05%	679	20	659
8	LT 5	3.73%	76443	500	75943
9	LT 6(a)	10.53%	31882	2000	29882
10	LT 6(b)	5.43%	18661	0	18661
11	LT 7	17.85%	65150	1400	63750
<b>12</b>	<b>LT</b>	<b>3.99%</b>	<b>3709061</b>	<b>42980</b>	<b>3666081</b>
13	HT 1	6.44%	203	0	203
14	HT 2 a	5.47%	1965	60	1905
15	HT 2 b	5.64%	528	20	548
16	HT 2 c	17.42%	385	15	370
17	HT 3 a & b	8.00%	499	25	474
18	HT 4	12.05%	62	3	59
19	HT 5	19.74%	82	8	74
<b>20</b>	<b>HT</b>	<b>6.97%</b>	<b>3724</b>	<b>131</b>	<b>3633</b>
<b>21</b>	<b>TOTAL</b>	<b>3.99%</b>	<b>3712785</b>	<b>43111</b>	<b>3669714</b>

Brief explanation for Consumer Projections:

### LT Category

- In LT 1 Category there is no new service of installation is been taking up so growth is taken as Zero for Revised FY-23, and Projected for FY-24.
- For LT -2 (a) Category the growth in past year ie., FY-17 to FY-22, is in the range of 60014 to 67422 per year, and there is huge addition of installation during FY-20 ie 148406, the incremental installation growth for FY-23 is taken up to 68979 For FY-23 & For FY-24 is 69229 no of installations which seems to be normal growth.

- For LT -2 (b) Category the growth in past year ie., FY-17 to FY-22, is in the range 388 to 283 per year, and there is 50% addition of installation is less during FY-21 ie., only 147 installations were added in FY-21 the incremental installation growth for FY-23 is taken up to 272 & For FY-24 is 279.
- For LT -3 Category the growth in past year ie., FY-17 to FY-22, is in the range 13467 to 14503 per year The installations added up in the year FY-19 is 17097 due to this the projected CAGR is seems be abnormal, so the incremental installation revised by seeing growth of 1<sup>st</sup> half of FY-23 is 13392, and incremental Projection For FY-24, 13592 Installations.
- For LT -4 (a) Category the growth in past year ie., FY-17 to FY-22, is in the range 11988 to 10469 per year. In year FY-19, 29470 installations added up and subsequently for the year FY-20, 18530, due to the high variation in the year FY-19 & FY-20 this is because of regularization of installations and further declined trend during FY-21, the growth is at the higher end when CAGR is applied, so the incremental installation revised, by seeing growth of 1<sup>st</sup> half of FY as for FY-23 is 10718 & incremental Projection For FY-24 is projected at 10772 IP Installations. These installation is projected by keeping in view of installation may come up in Gangakalyana around 6000-7000 range & UNIP is around 1000-1500 & in general installations 3000-3500 range.
- For LT -4 (b) Category the growth in past year ie., FY-17 to FY-22, is in the range 9 to 229 per year. In year FY-18, 105 installations added up and for subsequent year around 7 to 9 installations were added up. Due to abnormal growth in the these year so the incremental installation revised by seeing growth of 1<sup>st</sup> half of FY-23 the installation growth in this category as for FY-23 is Revised at 9 & and incremental Projected for FY-24 is 10 installations.
- For LT -4 (C) Category the growth in past year ie., FY-17 to FY-22, is in the range 17 to 111 per year. On an average of 41 installation are been added up year on year except in FY-22 ie., 111 installations added up,due to abnormal growth in the these year so the incremental installation revised by seeing growth of 1<sup>st</sup> half of FY-23 as for FY-23 is 17 installation are being added up to sept-2021 & and incremental Projection For FY-23 is revised at 33, and projected for FY-24 36 installations
- For LT -5 Category the growth in past year ie., FY-17 to FY-22, is in the range 2259 to 3515 per year. In year FY-17 3515, installations added up and subsequently for the year FY-21 2242, installation are been added up. Due to abnormal growth in the these year so

the incremental installation revised by seeing growth of 1<sup>st</sup> half of FY-23 is 2165, and incremental Projection FY-24 is at 2245.

- For LT -6 (a) Category the growth in past year ie., FY-17 to FY-22 , is in the range 996 to 3386 per year. In year FY-22 there is negative growth of 164 installations seen and for the year FY-18 3386 installation were added there is huge variation seen in no. of installation were regularized, for FY-18 & 19 due to abnormal growth in the these year so the incremental installation revised by seeing growth of 1<sup>st</sup> half of FY-23 as for FY-23 is 938 ie., and incremental Projection For FY-24 is at 1037 installations.
- For LT -6 (b) Category the growth in past year ie., FY-17 to FY-22, is in the range 411 to 2910 per year. In year FY-18 there is negative growth of 1108 installations seen due to abnormal growth in the these year so the incremental installation revised by seeing growth of 1<sup>st</sup> half of FY-23 and revised for FY-23 is 912 to be added and for FY-24 incremental Projection made at 961 installations
- For LT -7 Category the growth in past year ie., FY-17 to FY-22, is in the range 2379 to 7563 per year. due to abnormal growth in the these year so the incremental installation revised by seeing growth of 1<sup>st</sup> half of FY-23 and revised for FY-23 is 8373, to be added and for FY-24 incremental Projection made at 8467 installations

### **HT Category**

- For HT -1 Category the growth in past year ie., FY-17 to FY-22, is in the range 5 to 11 per year.  
So the incremental projection is taken up for FY-23 & FY-24 is 12 No. of installations respective years.
- For HT -2 (a) Category the growth in past year ie., FY-17 to FY-22, is in the range 77 to 143 per year. due to abnormal growth in the these year so the incremental installation revised by seeing growth of 1<sup>st</sup> half of FY-23 and revised for FY-23 is at 40 installations to be added and for FY-24 incremental Projection made at 42 installations.
- For HT -2 (b) Category the growth in past year ie., FY-17 to FY-22, is in the range 15 to 30 per year. Incremental installation revised by seeing growth of 1<sup>st</sup> half of FY-23 and revised for FY-23 is at 46 installations to be added and for FY-24 incremental Projection made at 48 installations.

- For HT -2 (c) Category the growth in past year ie., FY-17 to FY-22, is in the range 15 to 60 per year. incremental installation revised by seeing growth of 1<sup>st</sup> half of FY-23 and revised for FY-23 is at 40 installations to be added and for FY-24 incremental Projection made at 42 installations.
- For HT -3 Category the growth in past year ie., FY-17 to FY-22, is in the range 9 to 58 per year. incremental installation revised by seeing growth of 1<sup>st</sup> half of FY-23 and revised for FY-23 is at 11 installations to be added and for FY-24 incremental Projection made at 12 installations.
- For HT -4 Category the growth in past year ie., FY-17 to FY-22, is in the range 0 to 9 per year. incremental installation revised by seeing growth of 1<sup>st</sup> half of FY-23 and revised for FY-23 is at 2 installations to be added and for FY-24 incremental Projection made at 4 installations.
- For HT -5 Category the growth in past year ie., FY-16 to FY-21, is in the range 4 to 12 per year. incremental installation revised by seeing growth of 1<sup>st</sup> half of FY-23 and revised for FY-23 is at 5 installations to be added and for FY-24 incremental Projection made at 6 installations.

The Sales projection for each year is as follows:

**Table-76**

**Sales Projection for FY-24:**

	<b>Revised</b>	<b>CAGR Growth %</b>	<b>Projected</b>	<b>CAGR Growth</b>
<b>Tariff Category</b>	<b>3/31/2023</b>	<b>3/31/2023</b>	<b>3/31/2024</b>	<b>3/31/2024</b>
LT 1	273.99	1.00%	276.73	1.00%
LT 2 (a)	1363.74	4.59%	1426.35	4.59%
LT 2 (b)	12.66	3.25%	13.07	3.25%
LT 3	383.70	5.49%	404.78	5.49%
LT 4 (a)	3577.81	2.29%	3659.87	2.29%
LT 4 (b)	3.73	11.77%	4.17	11.77%
LT 4 (c)	4.32	23.43%	5.33	23.43%
LT 5	184.61	2.01%	188.32	2.01%
LT 6(a)	422.72	13.15%	478.33	13.15%
LT 6(b)	219.89	0.47%	220.93	0.47%
<b>LT 7</b>	27.09	8.18%	29.30	8.18%
<b>LT</b>	<b>6474.28</b>	<b>3.92%</b>	<b>6707.18</b>	<b>3.92%</b>
HT 1	134.75	6.41%	143.39	6.41%

HT 2 a	1280.68	5.94%	1356.76	5.94%
HT 2 b	66.48	1.00%	67.14	1.00%
HT 2 c	41.70	14.96%	47.93	14.96%
HT 3 a	112.31	3.87%	116.65	3.87%
HT 4	15.32	2.69%	15.73	2.69%
HT 5	13.90	10.03%	15.29	10.03%
<b>HT</b>	<b>1665.13</b>	<b>5.60%</b>	<b>1762.90</b>	<b>5.60%</b>
<b>TOTAL</b>	<b>8139.40</b>	<b>4.24%</b>	<b>8470.08</b>	<b>4.24%</b>

Brief Explanation for Sales Growth:

The Sales Projections is been made using Compounded Annual Growth Rate Methodology (CAGR)

The formula used  $(E/B)^{(1/N)} - 1$  Ie., (End year value/ Beginning year value) raise to 1/No. of years – 1

Five year data is used ie., form FY-17 to FY-22 ie 5 Completed Years of Previous year actuals.

- Except BJ/KJ percentage is taken as 1 % growth in sales & HT-2 B the growth is negative and for projecting propose the growth of nominal 1 % is taken.
- For IP Set the normal growth can be seen in the year FY-19 is at 3514.94 because this is normal year and FY-20 FY-21 the consumption was due to Covid-19 pandemic and keeping in view of this year sales the projected CAGR Growth seems to be normal and projected accordingly.

Installation Growth						
Tariff Category	Actuals	Actuals Mid Year	Revised	Projected Mid year	Projected	5 year CAGR % Growth
	31/03/2022	30/09/2022	31/03/2023	30/09/2023	31/03/2024	
LT 1	597675	597675	597675	597675	597675	0.02%
LT 2 (a)	1952970	1990764	2021949	2056599	2091248	4.81%
LT 2 (b)	5621	5755	5893	6032	6172	6.26%
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LT 6(a)	27907	28361	28845	29364	29882	10.53%
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<b>LT</b>	<b>3453592</b>	<b>3510484</b>	<b>3559382</b>	<b>3612732</b>	<b>3666081</b>	3.99%
HT 1	179	185	191	197	203	6.44%
HT 2 a	1823	1843	1863	1884	1905	5.47%
HT 2 b	454	476	500	524	548	5.64%
HT 2 c	288	309	328	349	370	17.42%
HT 3 a	451	456	462	468	474	8.00%
HT 4	53	54	55	57	59	12.05%
HT 5	64	66	69	71	74	19.74%
<b>HT</b>	<b>3312</b>	<b>3389</b>	<b>3467</b>	3550	<b>3633</b>	6.97%
<b>TOTAL</b>	<b>3456904</b>	<b>3513873</b>	<b>3562850</b>	<b>3616282</b>	<b>3669714</b>	3.99%



**Sales Growth**

Tariff Category	Actuals	Actuals	Revised	Projected	5 Year CAGR Growth % for FY-23
	3/31/2021	3/31/2022	3/31/2023	3/31/2024	
LT 1	256.61	271.28	273.99	276.73	1.00%
LT 2 (a)	1305.88	1303.88	1363.74	1426.35	4.59%
LT 2 (b)	9.56	12.26	12.66	13.07	3.25%
LT 3	329.91	363.73	383.70	404.78	5.49%
LT 4 (a)	3041.47	3497.60	3577.81	3659.87	2.29%
LT 4 (b)	3.29	3.34	3.73	4.17	11.77%
LT 4 (c)	1.43	3.50	4.32	5.33	23.43%
LT 5	176.66	180.98	184.61	188.32	2.01%
LT 6(a)	399.04	373.58	422.72	478.33	13.15%
LT 6(b)	206.48	218.86	219.89	220.93	0.47%
LT 7	20.87	25.04	27.09	29.30	8.18%
<b>LT</b>	<b>5751.20</b>	<b>6254.05</b>	<b>6474.28</b>	<b>6707.18</b>	<b>3.92%</b>
HT 1	122.38	126.63	134.75	143.39	6.41%
HT 2 a	911.29	1208.86	1280.68	1356.76	5.94%
HT 2 b	57.75	65.82	66.48	67.14	1.00%
HT 2 c	23.85	36.27	41.70	47.93	14.96%
HT 3 a	105.06	108.13	112.31	116.65	3.87%
HT 4	15.21	14.92	15.32	15.73	2.69%
HT 5	15.51	12.63	13.90	15.29	10.03%
<b>HT</b>	<b>1251.05</b>	<b>1573.26</b>	<b>1665.13</b>	<b>1762.90</b>	<b>5.60%</b>
<b>TOTAL</b>	<b>7002.25</b>	<b>7827.31</b>	<b>8139.40</b>	<b>8470.08</b>	<b>4.24%</b>