

3.2.2 Category-Wise Analysis

The historical data considered by the Commission for analysis is provided below:

Table 7: Historical data for number of consumers considered by the Commission

Sl. No.	Consumer Category	No. of Consumers					
		FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20
1	Domestic (LT + HT)	183,211	188,375	191,436	212,499	194,558	197,594
2	Non-Domestic (LT+ HT)	22,143	22,661	23,493	25,942	24,603	25,775
3	Large Supply	108	103	99	97	127	98
4	Medium Supply	1,197	1,255	1,288	1,305	1,394	1,270
5	Small Power	1,275	1,269	1,275	1,281	1,418	1,311
6	Agriculture	121	120	119	124	122	122
7	Public Lighting	886	978	1,082	1,168	1,217	1,308
8	Bulk Supply	592	667	732	637	587	560
9	Others Temporary Supply	620	573	437	386	357	413
	Total	210,153	216,001	219,961	243,439	224,383	228,451

Table 8: Historical data for connected load (kW) considered by the Commission

Sl. No.	Consumer Category	Connected Load (kW)					
		FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20
1	Domestic (LT + HT)	794,926	818,172	850,347	909,069	896,687	903,470
2	Non-Domestic (LT+ HT)	383,574	400,437	424,746	446,005	454,578	453,294
3	Large Supply	71,762	71,904	70,044	69,431	69,231	68,639
4	Medium Supply	65,907	70,162	71,457	72,362	76,548	69,572
5	Small Power	19,268	19,364	19,565	19,717	22,321	21,368
6	Agriculture	722	737	748	843	835	834
7	Public Lighting	5,956	6,243	6,660	6,756	4,911	4,583
8	Bulk Supply	41,464	41,916	42,454	42,253	42,053	41,653
9	Others Temporary Supply	3,510	3,250	2,480	2,191	32,529	2,587
	Total	1,387,089	1,432,185	1,488,501	1,568,627	1,599,693	1,566,000

Table 9: Historical data for energy sales (MU) considered by the Commission

Sl. No.	Consumer Category	Energy Sales (MU)					
		FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20
1	Domestic (LT + HT)	655.38	658.50	721.70	731.94	704.67	759.21
2	Non-Domestic (LT+ HT)	460.21	463.34	498.68	494.02	472.98	484.49
3	Large Supply	117.20	131.84	126.74	119.85	125.15	123.76
4	Medium Supply	103.58	110.94	116.08	119.33	116.40	106.38
5	Small Power	20.50	19.01	19.53	19.50	18.87	18.43
6	Agriculture	1.67	1.49	1.30	1.43	1.36	1.41
7	Public Lighting	21.67	22.50	21.83	17.73	15.09	14.78
8	Bulk Supply	83.49	77.19	80.60	80.60	77.31	82.88
9	Others Temporary Supply	7.97	6.52	4.98	4.40	3.93	4.20
	Total	1,471.67	1491.33	1591.44	1588.80	1535.77	1595.55

Based on the analysis of historical data, the historical CAGRs and Year-on-Year (Y-o-Y) growths assessed by the Commission for the number of consumers, connected load and energy sales are as follows:

Table 10: Historical CAGRs and Year-on-Year (Y-o-Y) growths considered by the Commission for Number of Consumers

Sl. No.	Consumer Category	Y-o-Y Growth					CAGR				
		FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	5-yr	4-yr	3-yr	2-yr	1-yr
1	Domestic (LT + HT)	2.82%	1.62%	11.00%	(8.44%)	1.56%	1.52%	1.20%	1.06%	(3.57%)	1.56%

Sl. No.	Consumer Category	Y-o-Y Growth					CAGR				
		FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	5-yr	4-yr	3-yr	2-yr	1-yr
2	Non-Domestic(LT+HT)	2.34%	3.67%	10.42%	(5.16%)	4.76%	3.08%	3.27%	3.14%	(0.32%)	4.76%
3	Large Supply	(4.63%)	(3.88%)	(2.02%)	30.93%	(22.83%)	(1.92%)	(1.24%)	(0.34%)	0.51%	(22.83%)
4	Medium Supply	4.85%	2.63%	1.32%	6.82%	(8.90%)	1.19%	0.30%	(0.47%)	(1.35%)	(8.90%)
5	Small Power	(0.47%)	0.47%	0.47%	10.69%	(7.55%)	0.56%	0.82%	0.93%	1.16%	(7.55%)
6	Agriculture	(0.83%)	(0.83%)	4.20%	(1.61%)	0.00%	0.16%	0.41%	0.83%	(0.81%)	0.00%
7	Public Lighting	10.38%	10.63%	7.95%	4.20%	7.48%	8.10%	7.54%	6.53%	5.82%	7.48%
8	Bulk Supply	12.67%	9.75%	(12.98%)	(7.85%)	(4.60%)	(1.11%)	(4.28%)	(8.54%)	(6.24%)	(4.60%)
9	Others Temporary Supply	(7.58%)	(23.73%)	(11.67%)	(7.51%)	15.69%	(7.80%)	(7.86%)	(1.87%)	3.44%	15.69%

Table 11: Historical CAGRs and Year-on-Year (Y-o-Y) growths considered by the Commission for Connected Load

Sl. No.	Consumer Category	Y-o-Y Growth					CAGR				
		FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	5-yr	4-yr	3-yr	2-yr	1-yr
1	Domestic (LT + HT)	2.92%	3.93%	6.91%	(1.36%)	0.76%	2.59%	2.51%	2.04%	(0.31%)	0.76%
2	Non-Domestic (LT+HT)	4.40%	6.07%	5.01%	1.92%	(0.28%)	3.40%	3.15%	2.19%	0.81%	(0.28%)
3	Large Supply	0.20%	(2.59%)	(0.88%)	(0.29%)	(0.86%)	(0.89%)	(1.16%)	(0.67%)	(0.57%)	(0.86%)
4	Medium Supply	6.46%	1.85%	1.27%	5.78%	(9.11%)	1.09%	(0.21%)	(0.89%)	(1.95%)	(9.11%)
5	Small Power	0.50%	1.04%	0.78%	13.21%	(4.27%)	2.09%	2.49%	2.98%	4.10%	(4.27%)
6	Agriculture	2.08%	1.49%	12.74%	(1.04%)	(0.08%)	2.92%	3.13%	3.69%	(0.56%)	(0.08%)
7	Public Lighting	4.82%	6.68%	1.45%	(27.32%)	(6.67%)	(5.11%)	(7.44%)	(11.71%)	(17.64%)	(6.67%)
8	Bulk Supply	1.09%	1.28%	(0.47%)	(0.47%)	(0.95%)	0.09%	(0.16%)	(0.63%)	(0.71%)	(0.95%)
9	Others Temporary Supply	(7.41%)	(23.69%)	(11.65%)	1384.66%	(92.05%)	(5.92%)	(5.55%)	1.41%	8.66%	(92.05%)

Table 12: Historical CAGRs and Year-on-Year (Y-o-Y) growths considered by the Commission for Energy Sales

Sl. No.	Consumer Category	Y-o-Y Growth					CAGR				
		FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	5-yr	4-yr	3-yr	2-yr	1-yr
1	Domestic (LT + HT)	0.48%	9.60%	1.42%	(3.73%)	7.74%	2.99%	3.62%	1.70%	1.85%	7.74%
2	Non-Domestic (LT+HT)	0.68%	7.63%	(0.93%)	(4.26%)	2.43%	1.03%	1.12%	(0.96%)	(0.97%)	2.43%
3	Large Supply	12.49%	(3.87%)	(5.43%)	4.42%	(1.11%)	1.10%	(1.57%)	(0.79%)	1.62%	(1.11%)
4	Medium Supply	7.11%	4.63%	2.80%	(2.45%)	(8.61%)	0.53%	(1.04%)	(2.87%)	(5.58%)	(8.61%)
5	Small Power	(7.27%)	2.74%	(0.13%)	(3.26%)	(2.31%)	(2.10%)	(0.77%)	(1.91%)	(2.78%)	(2.31%)
6	Agriculture	(10.78%)	(12.75%)	10.03%	(4.60%)	3.64%	(3.27%)	(1.30%)	2.85%	(0.57%)	3.64%
7	Public Lighting	3.83%	(2.98%)	(18.80%)	(14.85%)	(2.10%)	(7.37%)	(9.98%)	(12.20%)	(8.70%)	(2.10%)
8	Bulk Supply	(7.55%)	4.42%	0.00%	(4.08%)	7.20%	(0.15%)	1.79%	0.93%	1.40%	7.20%

Sl. No.	Consumer Category	Y-o-Y Growth					CAGR				
		FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	5-yr	4-yr	3-yr	2-yr	1-yr
9	Others Temporary Supply	(18.19%)	(23.62%)	(11.65%)	(10.76%)	6.96%	(12.03%)	(10.41%)	(5.52%)	(2.30%)	6.96%

Domestic

Petitioner's submission

The Petitioner has considered the sales for FY 2022-23 at the levels of FY 2019-20. Further, the Petitioner has considered the CAGR of 4 years up to FY 2019-20 for projecting the number of consumers, connected load and energy sales.

Commission's analysis

The Commission has considered the CAGR of 4 years up to FY 2019-20 for projecting number of consumers and energy sales, and the CAGR of 3 years up to FY 2019-20 for projecting connected load.

The growth rates approved by the Commission are as below:

Table 13: Growth rates approved by the Commission for Domestic Category

Consumer Category	Growth in number of consumers		Load Growth		Sales Growth	
	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved
Domestic	1.61%	1.20%	3.36%	2.04%	4.86%	3.62%

Non-Domestic

Petitioner's submission

The Petitioner has considered the sales for FY 2022-23 at the levels of FY 2019-20. Further, the Petitioner has considered the CAGR of 4 years up to FY 2019-20 for projecting the number of consumers, connected load and energy sales.

Commission's analysis

Based on the analysis of the historical trends, the Commission has considered the CAGR of 4 years up to FY 2019-20 for projecting energy sales, and the CAGR of 3 years up to FY 2019-20 for projecting number of consumers and connected load.

The growth rates approved by the Commission are as below:

Table 14: Growth rates approved by the Commission for Non-Domestic Category

Consumer Category	Growth in number of consumers		Load Growth		Sales Growth	
	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved
Non-Domestic	4.39%	3.14%	4.22%	2.19%	1.50%	1.12%

Large Supply**Petitioner's submission**

The Petitioner has considered the sales for FY 2022-23 at the levels of FY 2019-20. The Petitioner has considered the CAGR of 5 years up to FY 2019-20 for projecting the energy sales and Nil growth for projecting the number of consumers and connected load.

Commission's analysis

The Commission has considered the CAGR of 5 years up to FY 2019-20 for projecting energy sales and the CAGR of 2 years up to FY 2019-20 for projecting number of consumers. Further, the Commission has considered Nil growth for projecting connected load.

The growth rates approved by the Commission are as below:

Table 15: Growth rates approved by the Commission for Large Supply Category

Consumer Category	Growth in number of consumers		Load Growth		Sales Growth	
	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved
Large Supply	0.00%	0.51%	0.00%	0.00%	1.10%	1.10%

Medium Supply**Petitioner's submission**

The Petitioner has considered the sales for FY 2022-23 at the levels of FY 2019-20 and Nil growth over the figures observed in FY 2022-23. The Petitioner has not considered any growth in the number of consumers and connected load over the respective figures observed in FY 2020-21.

Commission's analysis

The Commission has not considered any growth in the energy sales and Connected load over the respective figures observed in FY 2021-22, and the CAGR of 4 years up to FY 2019-20 for projecting number of consumers.

The growth rates approved by the Commission are as below:

Table 16: Growth rates approved by the Commission for Medium Supply Category

Consumer Category	Growth in number of consumers		Load Growth		Sales Growth	
	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved
Medium Supply	0.00%	0.30%	0.00%	0.00%	0.00%	0.00%

Small Power**Petitioner's submission**

The Petitioner has considered the sales for FY 2022-23 at the levels of FY 2019-20 and Nil growth over the figures observed in FY 2022-23. The Petitioner has considered CAGR of 4 years up to FY 2019-20 for projecting the number of consumers and connected load over the respective figures observed in FY 2020-21.

Commission's analysis

Based on the analysis of the historical trends, the Commission has not considered any growth in the energy sales over the figures observed in FY 2021-22 and the CAGR of 4 years up to FY 2019-20 for projecting number of consumers and connected load.

The growth rates approved by the Commission are as below:

Table 17: Growth rates approved by the Commission for Small Power Category

Consumer Category	Growth in number of consumers		Load Growth		Sales Growth	
	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved
Small Power	1.09%	0.82%	3.34%	2.49%	0.00%	0.00%

Agriculture

Petitioner's submission

The Petitioner has considered the sales for FY 2022-23 at the levels of FY 2019-20. The Petitioner has considered the CAGR of 3 years up to FY 2019-20 for projecting number of consumers, energy sales and connected load.

Commission's analysis

The Commission has considered CAGR of 3 years up to FY 2019-20 over the figures observed in FY 2021-22 for projecting the energy sales and CAGR of 5 years up to FY 2019-20 over the figures observed in FY 2021-22 for projecting the number of consumers and connected load.

The growth rates approved by the Commission are as below:

Table 18: Growth rates approved by the Commission for Agriculture

Consumer Category	Growth in number of consumers		Load Growth		Sales Growth	
	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved
Agriculture	0.83%	0.16%	3.69%	2.92%	2.73%	2.85%

Public Lighting

Petitioner's submission

The Petitioner has considered the sales for FY 2022-23 at the levels of FY 2019-20 and Nil growth over the figures observed in FY 2022-23. The Petitioner has considered the CAGR of 2 years up to FY 2019-20 for projecting the number of consumers and the 2.48% increase in FY 2020-21 over FY 2019-20 values for projecting the connected load.

Commission's analysis

Based on the analysis of the historical trends, the Commission has not considered any growth in the, connected load and energy sales over the respective figures observed in FY 2021-22. The Commission has considered the CAGR of 1 year up to FY 2019-20 over the figures observed in FY 2021-22 for projecting the number of connections.

The growth rates approved by the Commission are as below:

Table 19: Growth rates approved by the Commission for Public Lighting category

Consumer Category	Growth in number of consumers		Load Growth		Sales Growth	
	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved
Public Lighting	5.82%	7.48%	2.48%	0.00%	0.00%	0.00%

Bulk Supply

Petitioner's submission

The Petitioner has considered the sales for FY 2022-23 at the levels of FY 2019-20 and a CAGR of 4 years up to FY 2019-20 for projecting the energy sales. The Petitioner has not considered any growth in the number of consumers over the respective figures observed in FY 2020-21, and the CAGR of 5 years up to FY 2019-20 over the figures observed in FY 2020-21 for projecting connected load.

Commission's analysis

The Commission has not considered any growth in the number of consumers and connected load over the respective figures observed in FY 2021-22. Further, the Commission has considered a CAGR of 2 years up to FY 2019-20 for projecting energy sales over the respective figures observed in FY 2021-22.

The growth rates approved by the Commission are as below:

Table 20: Growth rates approved by the Commission for Bulk Supply

Consumer Category	Growth in number of consumers		Load Growth		Sales Growth	
	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved
Bulk Supply	0.00%	0.00%	0.09%	0.00%	2.40%	1.40%

Others Temporary Supply

Petitioner's submission

The Petitioner has considered the sales for FY 2022-23 at the levels of FY 2019-20 and Nil growth over the figures observed in FY 2022-23.

Commission's analysis

Based on the analysis of the historical trends, the Commission has not considered any growth in the number of consumers, connected load and energy sales over the respective figures observed in FY 2021-22.

The growth rates approved by the Commission are as below:

Table 21: Growth rates approved by the Commission for Others Temporary Supply

Consumer Category	Growth in number of consumers		Load Growth		Sales Growth	
	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved	Growth Rate Submitted	CAGR Approved
Others Temporary Supply	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

3.2.3 Projections of Number of Consumers, Connected Load and Energy Sales approved by the Commission

Accordingly, the projections of number of consumers, connected load and energy sales for the Base Year and the 3rd MYT Control Period based on CAGRs approved by the Commission are as follows:

Table 22: Consumer growth projections approved by the Commission for the 3rd MYT Control Period

Sl. No.	Consumer Category	Consumer growth projections			
		Base Year	Control Period (Approved)		
		FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Domestic (LT + HT)	200,945	203,356	205,797	208,266
2	Non-Domestic (LT+ HT)	26,625	27,461	28,323	29,213
3	Large Supply	110	111	111	112
4	Medium Supply	1,474	1,478	1,483	1,487
5	Small Power	1,502	1,514	1,527	1,539
6	Agriculture	122	122	122	123
7	Public Lighting	1,519	1,633	1,755	1,886
8	Bulk Supply	533	533	533	533
9	Others Temporary Supply	446	446	446	446
	Total	233,276	236,654	240,097	243,604

Table 23: Connected load growth projections approved by the Commission for the 3rd MYT Control Period

Sl. No.	Consumer Category	Connected load growth projections (kW)			
		Base Year	Control Period (Approved)		
		FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Domestic (LT + HT)	922,872	941,699	960,910	980,512
2	Non-Domestic (LT+ HT)	504,304	515,348	526,634	538,167
3	Large Supply	73,244	73,244	73,244	73,244
4	Medium Supply	80,859	80,859	80,859	80,859
5	Small Power	24,431	25,039	25,663	26,302
6	Agriculture	923	950	977	1,006
7	Public Lighting	4,709	4,709	4,709	4,709
8	Bulk Supply	42,648	42,648	42,648	42,648
9	Others Temporary Supply	1,539	1,539	1,539	1,539
	Total	1,655,529	1,686,035	1,717,183	1,748,987

Table 24: Energy sales growth projections approved by the Commission for the 3rd MYT Control Period

Sl. No.	Consumer Category	Energy sales growth projections (MU)			
		Base Year	Control Period (Approved)		
		FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Domestic (LT + HT)	770.27	798.15	827.05	856.99
2	Non-Domestic (LT+ HT)	402.16	406.67	411.22	415.83
3	Large Supply	117.48	118.77	120.08	121.40
4	Medium Supply	98.26	98.26	98.26	98.26
5	Small Power	16.35	16.35	16.35	16.35
6	Agriculture	1.44	1.49	1.53	1.57
7	Public Lighting	14.75	14.75	14.75	14.75
8	Bulk Supply	77.17	78.25	79.34	80.45
9	Others Temporary Supply	3.56	3.56	3.56	3.56
	Total	1,501.44	1,536.24	1,572.14	1,609.16

3.3 Intra-state Transmission & Distribution (T&D) losses

Petitioner's submission

The Petitioner has submitted that it has been working hard to reduce its distribution losses to the targets approved by the Commission in the 2nd MYT Control Period. The Petitioner has reduced some of its distribution loss with the help of NIELIT Chandigarh Centre which has been pioneer in introducing computerization of Electricity & Water Billing in the northern states of Punjab, Haryana, UT Chandigarh.

Also, the infusion of funds for system strengthening and augmentation activities have reduced the losses in the system over time.

The actual distribution losses for FY 2020-21 are 13.81%. EWEDC has considered the distribution loss target for FY 2021-22 as 13.31% after considering 0.50% improvement. The revised estimate is higher than the approved losses as FY 2021-22 was also severely affected by COVID resulting in higher LT consumption.

However, the Petitioner expects things to normalize from FY 2022-23 and therefore the Petitioner has considered reduction of distribution losses by 0.25% every year. The Petitioner has further submitted that considering the sales mix of the Petitioner, which is more dominant by LT consumption, it is very difficult to aggressively reduce the losses. Accordingly, EWEDC has proposed the distribution loss trajectory for the 3rd MYT Control Period as follows:

Table 25: T&D loss (%) trajectory proposed by the Petitioner for the 3rd MYT Control Period

Base Year	Projections		
FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
13.31%	13.06%	12.81%	12.56%

Commission's analysis

The Petitioner has submitted the details of actual T&D losses achieved in the 2nd MYT Control Period for FY 2019-20 and FY 2020-21 and provisional T&D losses achieved in FY 2021-22. The Commission therefore directs the Petitioner to submit the details of actual annual T&D losses for FY 2021-22 along with the next Tariff Petition.

The T&D losses approved by the Commission in the previous Control Period vis-à-vis T&D losses achieved by the Petitioner during the same period is given in the following table:

Table 26: T&D losses approved by the Commission in the 2nd MYT Control Period vis-à-vis T&D losses achieved by the Petitioner

	T&D loss (%)	
	Approved ¹	Actual (A)/ Provisional (P)
FY 2019-20	9.40%	11.91% (A)
FY 2020-21	9.30%	13.81% (A)
FY 2021-22	9.20%	13.31% (P)

Further, the Government of India proposed the privatization of the UT of Chandigarh and as per the Request for Proposal (RfP) floated for privatization of EWEDC, the incumbent private player will be needed to bring down the T&D losses to 7.6% over the next five years from the currently estimated T&D losses of 9.20% in FY 2021-22.

Accordingly, the Commission has set the T&D loss trajectory for the 3rd MYT Control Period keeping in cognizance the T&D targets set in the RfP for privatization for EWEDC.

In view of above, the Commission opines that the Petitioner should be able to further reduce T&D losses by 0.40% annually in the 3rd MYT Control Period. The Commission has considered the T&D losses for FY 2021-22 as 9.20%

¹ Business Plan Order dated 16 November 2018

as approved in previous tariff order dated 30th March 2021. The T&D loss trajectory approved by the Commission is given in the following table:

Table 27: T&D loss trajectory approved by the Commission

	FY 2022-23		FY 2023-24		FY 2024-25	
	Petitioner's submission	Approved by Commission	Petitioner's submission	Approved by Commission	Petitioner's submission	Approved by Commission
T&D loss trajectory (%)	13.06%	8.80%	12.81%	8.40%	12.56%	8.00%

3.4 Power Procurement Plan

3.4.1 Energy Requirement

Petitioner's submission

The Petitioner has submitted the projection of energy requirement at periphery by grossing up the sales projections with distribution loss trajectory as proposed. The summary of the energy requirement as estimated by the Petitioner is provided in the following below:

Table 28: Energy requirement proposed by the Petitioner

Particulars	Projections			
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
ENERGY REQUIREMENT (MU)				
Energy sales within the State/UT	1,440.02	1,595.55	1,643.08	1,692.58
Distribution losses				
%	13.31%	13.06%	12.81%	12.56%
MU	221.15	239.74	241.47	243.19
Energy required at State Periphery	1,730.60	1,911.96	1,963.23	2,016.54

Commission's analysis

Based on the sales projections and T&D losses approved by the Commission above, the energy requirement at State periphery and the total energy input estimated by the Commission for the 3rd MYT Control Period is provided in the following table:

Table 29: Energy requirement at UT periphery and total energy input approved by the Commission

Particulars	Approved Energy Requirement (MU)		
	FY 2022-23	FY 2023-24	FY 2024-25
Energy sales within the State (A)	1,536.24	1,572.14	1,609.16
T&D Loss (%) (B)	8.80%	8.40%	8.00%
Energy required at State Periphery (C = A/(1-B))	1,684.48	1,716.30	1,749.08
Within State Generation (Co-Gen) (D)	-	-	-
Net energy required at State Periphery (E = C - D)	1,684.48	1,716.30	1,749.08

3.4.2 Power Purchase Quantum

Petitioner's submission

The Petitioner has submitted that the power required for control period would be met through following sources:

- i. Central Generating Stations (Hydro, Thermal, Nuclear, Gas)
- ii. Within State Generation (Net Metering/Gross Metering Solar Plants)
- iii. Traders/Open Market/Short Term

The Petitioner has made the following assumptions for projecting the quantum of power purchase for the 3rd MYT Control Period:

- **Allocation to the Petitioner:** Plant-wise share allocation from Central Generating Stations as per the latest NRPC Allocation Order No. 9347-74 Dt. 01.10.2021
- **Power purchase from new stations:** The Petitioner has not envisaged any purchase of new power for the 3rd MYT Control Period. The society 'Chandigarh Renewable Energy and Science & Technology Promotion Society'(CREST) which assists consumers within the state and intends to generate their own electricity and desire to contribute towards environmental protection has shared plans to reach 100 MW capacity by the end of FY 2024-25. Thus, increase within state solar generation is proposed. The Petitioner has further submitted another tie-up of Renewable energy outside the state to meet its RPO obligations during the control period through SECI's Wind power (Tranche VI) of 40 MW capacity which has started supplying power to the State from May 2021 and shall cater towards meeting the rising demand of the state as well as fulfilling the Non-Solar RPO.
- **Plant Load Factor (PLF):** The Petitioner has considered the actual PLF figures of FY 2020-21 for each plant and has considered the same for FY 2021-22 and for the projection of Power Purchase for the Control Period from FY 2022-23 to FY 2024-25.
- **Auxiliary consumption:** The Petitioner has considered the auxiliary consumption parameters as prescribed by the CERC Tariff Regulations 2019-24.
- **Inter-state transmission losses:** The Petitioner has considered inter-state transmission losses as follows:

Table 30: Inter-state transmission losses considered by the Petitioner for FY 2021-22 and the 3rd MYT Control Period

Particulars	Projections			
	Base Year FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Inter-state transmission losses	4.03%	4.03%	4.03%	4.03%

Based on the above inputs and assumptions, the Petitioner has projected the availability of power from tie-up sources as given in the following table:

Table 31: Power purchase plan proposed by the Petitioner for the 3rd MYT Control Period

Sl. No.	Source	Capacity (MW)	Firm allocation to Licensee		Base Year Projections recorded by Licensee (MU)	Projections of Energy recorded by Licensee (MU)			
			%	MW		2021-22	2022-23	2023-24	2024-25
A	Central Sector Power Stations (Hydro)	11,010		243.11	1,374.74	1,374.74	1,374.74	1,374.74	
I	NTPC (Hydro)	808		10.73	50.98	50.98	50.98	50.98	
1	Koldam	800	1.33%	10.64	50.79	50.79	50.79	50.79	
2	Singrauli Hydro	8	1.16%	0.09	0.19	0.19	0.19	0.19	
II	NHPC	4,215		69.97	329.50	329.50	329.50	329.50	
3	Dhulsati	390	0.47%	1.83	40.83	40.83	40.83	40.83	
4	Parbati-III	520	1.76%	9.15	15.20	15.20	15.20	15.20	
5	Uri-II	240	2.27%	5.46	27.95	27.95	27.95	27.95	
6	Sewa-II	120	0.83%	1.00	14.36	14.36	14.36	14.36	
7	Chamera-III	231	1.76%	4.07	23.05	23.05	23.05	23.05	
8	Tanakpur	94	1.28%	1.20	5.57	5.57	5.57	5.57	
9	Dhauliganga Ganga	280	2.12%	5.94	29.74	29.74	29.74	29.74	
10	Chamera-I	540	3.90%	21.06	98.37	98.37	98.37	98.37	
11	Chamera-II	300	0.67%	2.01	31.32	31.32	31.32	31.32	
12	Uri	480	1.78%	8.54	19.70	19.70	19.70	19.70	
13	Salal	690	1.04%	7.18	9.89	9.89	9.89	9.89	
14	Kishan Ganga	330	0.77%	2.54	13.52	13.52	13.52	13.52	
III	THDC	1,400		47.44	178.89	178.89	178.89	178.89	
15	Tehri	1,000	4.60%	46.00	163.07	163.07	163.07	163.07	