



Analysis of ARR and Tariff Proposal of TPCODL for FY 2023-24 Public Hearing

28 FEBRUARY 2023

BY

WORLD INSTITUTE OF SUSTAINABLE ENERGY

(CONSUMER COUNSEL)

PUNE

Demand Forecasting

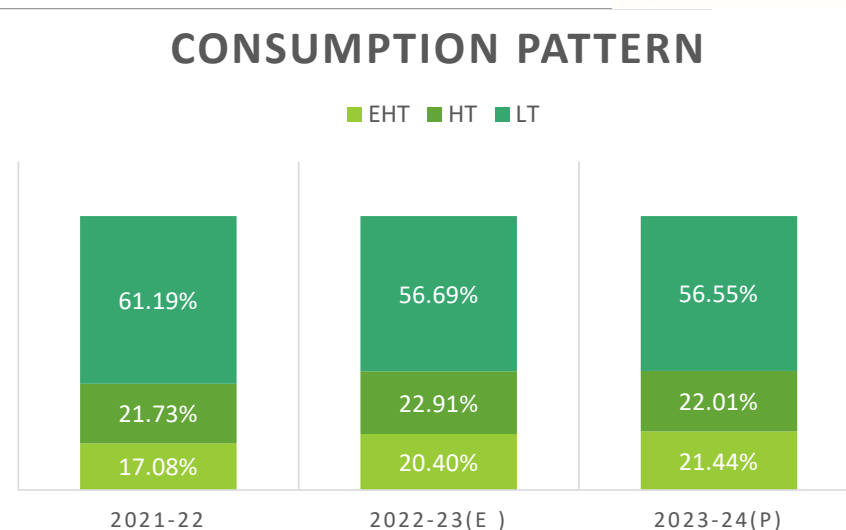


Category	Sales (MU)							Consumers (Nos.)			
	FY 2021-22	FY 2022-23			FY 2023-24			1 April 2021	1 April 2022	1 April 2023	% over 1 April 2022
	Actual	Proposed	Approved	Estimated	Projected	Projected % over approved of FY 22-23	Projected % over estimates of FY 22-23				
LT	4,117	4,796	4,795	4,415	4,902	2%	11%	26,50,439	29,15,854	30,26,531	3.80%
HT	1,462	1,468	1,470	1,784	1,908	30%	7%	8,067	11,575	11,869	2.54%
EHT	1,149	1,096	1,280	1,589	1,858	45%	17%	32	34	35	2.94%
Total	6,728	7,360	7,545	7,788	8,668	15%	11%	26,58,538	29,27,463	30,38,435	3.79%
LT sale % of Total	61.19%	65.16%	63.55%	56.69%	56.55%						
Power Purchase (MU)	8,817	9,550	9,790	10,112	10,999						

- In HT, number of consumers are increasing from 11,575 (FY22-23) to 11,869 (FY22-23) i.e. addition of 294 HT consumers but sales projection is 7% higher i.e., by 124 MU compared to revised estimates of FY 22-23.
- Higher LT projections leads higher need of cross subsidy and thereby impacts tariff adversely
- LT sales projected to increase from 4,415 MU (FY22-23) to 4,902 MU (FY 23-24). i.e. 11% increase.

Electricity Consumption Pattern Across Different Categories

	2021-22	2022-23(E)	2023-24(P)
LT consumers	26,50,439	29,15,854	30,26,531
LT consumption (MU)	4,117	4,415	4,902
Per consumer use per month kWh	129	126	135
HT consumers	8,067	11,575	11,869
HT consumption (MU)	1,462	1,784	1,908
Per consumer use per month kWh	15,103	12,844	13,396
EHT consumers	32	34	35
EHT consumption (MU)	1,149	1,589	1,858
Per consumer use per month kWh	29,92,188	38,94,608	44,23,810
Total consumption	6,728.00	7,788.00	8,668.00



- Share of EHT and HT sales has been estimated on higher side compared to FY21-22. However, with addition of 1-2 new consumers the HT or EHT Sales projections should be done based on Total Demand.

- Considerable high sales projections in consumer categories like irrigation, allied agriculture and agro industrial activities proposed.

- Licensee needs to submit the details of metered and unmetered supplies for these categories

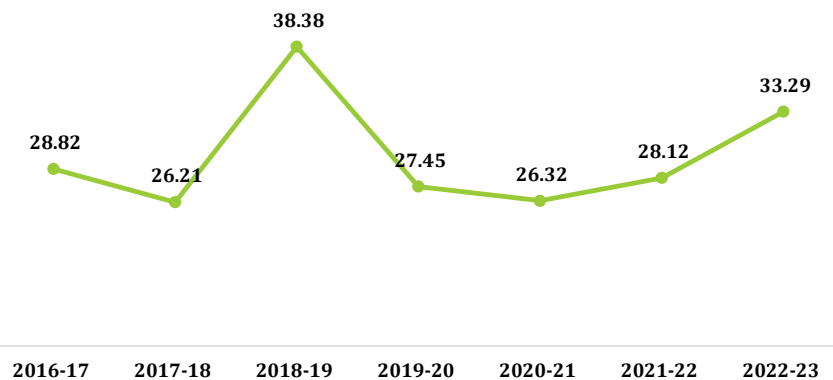
Category	Supply Voltage	FY 21-22 (Actual) (MU)	FY 22-23 Estimated (MU)	% Increase over FY 21-22	FY 23-24 Projected (MU)	% Increase over FY 22-23
Irrigation Pumping and Agriculture	LT	40.780	28.30	-31%	36.787	30%
Allied Agricultural Activities	LT	11.400	16.58	45%	25.704	55%
Allied Agro-Industrial Activities	LT	1.390	2.09	51%	3.243	55%
Public Water Works <100 KW	LT	41.920	43.183	3%	45.422	5%
Irrigation Pumping and Agriculture	HT	7.850	2.768	-65%	3.736	35%
Allied Agricultural Activities	HT	33.070	45.570	38%	66.077	45%
Allied Agro-Industrial Activities	HT	46.910	65.559	40%	81.949	25%
Heavy Industry	EHT	293.250	420.597	43%	425.604	1%
Power Intensive Industry	EHT	22.868	126.690	454%	145.223	15%
Mini Steel Plant	EHT	4.892	3.872	-21%	4.380	13%

Growth of BPL (Kutir Jyoti) Consumers

Year	No of Consumers	% increase in no of consumers from past year	Consumption (MU)	% increase in consumption from past year	Consumption per consumer per month (in Unit)
2017-18	152918	-15.19%	48.09	-22.88%	26.21
2018-19	115978	-24.16%	53.41	11.06%	38.38
2019-20	103782	-10.52%	34.18	-36.00%	27.45
2020-21	80817	-22.13%	25.53	-25.31%	26.32
2021-22	41746	-48.35%	14.09	-44.82%	28.12
2022-23	36045	-13.66%	14.40	2.22%	33.29
2023-24	49655	37.76%	17.28	20.00%	29.00

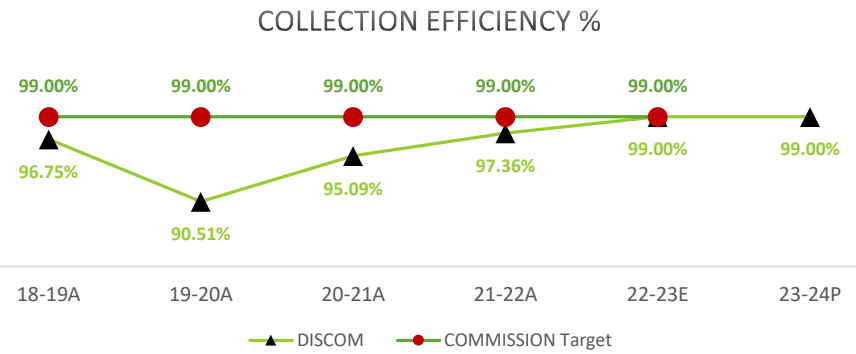
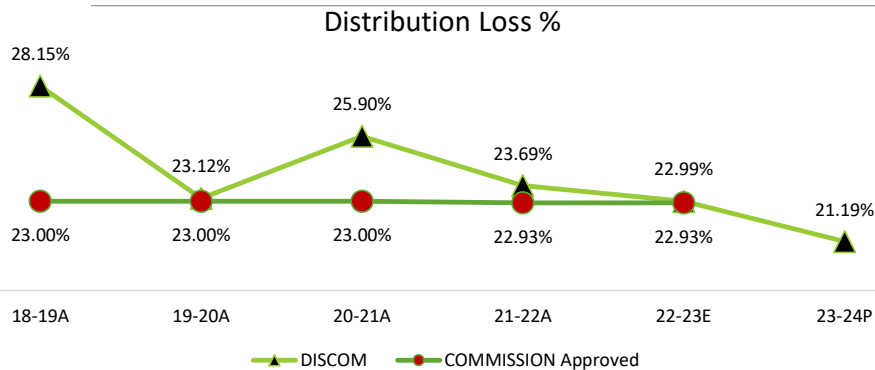
Year	LT Consumers	Kutir Jyoti	% Kutir Jyoti in Total LT	LT Consumption (MU)	Kutir Jyoti Consumption (MU)	% Consumption in Total LT
2021-22	26,50,439	41,746	1.58%	4,117.00	14.09	0.34%
2022-23	29,15,854	36,045	1.24%	4,415.00	14.40	0.33%
2023-24	30,26,531	49,655	1.64%	4,902.00	17.28	0.35%

Avg Monthly Consumption (Units) of Kutir Jyoti Consumers

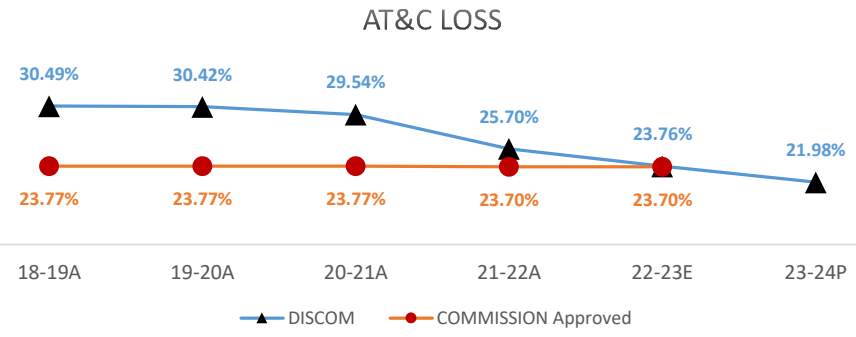
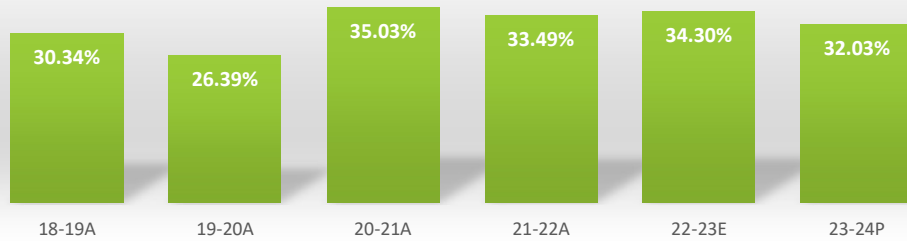


- Large number of BPL consumers are being proposed to be shifted to other Domestic Category. Projections for FY 23-24 need to be reviewed by licensee
- Genuine BPL consumers should not be deprived from BPL category tariff and DISCOM should take prudent check of annual consumption of BPL category consumer before changing its consumer category

Overall Losses



LT Dist. Loss % (with 8% HT and 0% EHT Loss)



- AT&C and Distribution loss have decreasing trend though approval is constant. There is need to reduce further and lower the targets.
- The HT loss of 8% needs to be revised as they have been constant for long period .
- LT Distribution losses are about 32%; If the HT loss of 8% and EHT loss of 0% is considered.
- The collection efficiency achieved in 21-22 was of 97%.

ARR Proposal for FY 2022-23 (Rs. Cr)

Sl No.	Cost/Income Component	Approved ARR for FY 2022-23	Proposed ARR for FY 2023-24	Percentage of total Dist. Cost	% Rise over Approved ARR
1	Total Power Purchase Cost	3,212.87	3,610.31	67.91%	12.37%
2	Employee Cost	751.59	853.52	16.05%	13.56%
3	Repair & Maintenance Cost	239.85	291.29	5.48%	21.45%
4	Administrative & General Expenses	132.72	163.51	3.08%	23.20%
5	Bad & Doubtful Debt including Rebate	34.28	50.87	0.96%	48.40%
6	Depreciation	48.34	81.38	1.53%	68.35%
7	Interest on Security Deposits	30.78	65.56	1.23%	113.00%
8	Interest on Loan	20.00	57.55	1.08%	187.75%
9	Interest on Working Capital	-	46.87	0.88%	-
10	Financing Cost	-	1.00	0.02%	-
11	Less: Interest Capitalised	-	-10.94	-0.21%	-
12	Less: Emp Cost Capitalised	-	-26.29	-0.49%	-
13	Return on Equity incld. Tax on RoE	48.00	131.96	2.48%	174.92%
14	Total Dist Cost	4,518.43	5,316.59	100.00%	17.66%
15	Less Misc Receipts	107.21	109.56		2.19%
16	Repayment of ASL	-	20.45		-
17	Provisional surplus considered in T.O	140.00			
18	Total ARR Requirement	4,271.22	5,227.48		22.39%
19	Total Revenue (at Existing Rate)	4,273.00	5,144.05		20.38%
20	GAP at Existing tariff (+/-)	1.78	-83.43		

Employee Expenses (in Rs. Cr.) TPCODL

FY	Proposed	Approved	Actual
2016-17	433.66	345.43	391.62
2017-18	593.57	349.41	465.96
2018-19	587.91	367.14	650.49
2019-20	677.5	560.83	796.86
2020-21	915.4	606.75	598.41
2021-22	772.65	605.7	754.28
2022-23	831.71	751.59	773.5
2023-24	853.5		

TPCODL	Executive		Non-Executive		Total
	Technical	Non-Technical	Technical	Non-Technical	
31 st March 22	511	96	2922	815	4344
31 ST March 23					

- Increase in employee expenses despite no. of employees are declining and outsourcing many activities.
- For current financial year i.e. 22-23 the actual employee expenses projected is more than Commission's approved employee expenses by Rs. 22 Cr.
- Apart from Rs 853.52 Cr licensee has proposed 26 Cr employee cost capitalisation in the ensuing FY.

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Administrative and General Expenses (Rs. Cr.)

FY (Rs.Cr)	Proposed	Approved	Actual
2016-17	97.67	80.37	114.19
2017-18	99.73	66.51	146.67
2018-19	214.3	63.87	162.2
2019-20	224.52	66.97	179.57
2020-21	283.15	70.82	84.72
2021-22	193.44	82.94	120.83
2022-23	146.84	132.72	132.85
2023-24	163.51		

- Estimates of A&G proposed FY 22-23 are similar to the Commission's approved figures.
- Actual A&G expenses need to further come down compared to approved.
- A&G expenses claimed as follows:

Particulars	Total Estimate for CY FY 22-23	Ensuing Year (FY-23-24)
Rental of land, buildings, plant and equipment, etc	5	7.45
Foods and conveyance	0.46	0.49
Office expenses + Facility Management and House Keeping etc	7.6	8.13
Insurance Premium	4	4.28
Software & IT expenses	1	1.07
Metering and billing expenses Collection, Payment Transaction Charges, Customer Awareness for Digital/Prompt/Regular Payments, Customer Service (Customer Care, Call Center, Meter Services etc.)	80.34	105.33
Other Expenses (Printing, contingency, electricity bill, Telephone, Bank chgs, Travel, legal chgs, Ads etc.)	34.45	36.77

Repair and Maintenance Costs (In Rs. Cr.)

FY	Proposed	Approved	Actual / Estimated
2016-17	99.98	92.43	43.00
2017-18	128.56	110.85	33.52
2018-19	146.02	116.78	31.63
2019-20	134.81	134.63	29.97
2020-21	143.23	139.62	148.80
2021-22	237.27	202.94	203
2022-23	252.35	239.85	239.87
2023-24	291.29		

Particulars*	Previous Year (FY 21-22)	H-1(Apr-Sept) of FY 22-23 (Actuals)	H-2(Oct-Mar) of FY 22-23 (Estimate)	Total Estimate for FY 22-23	Ensuing Year (FY 23-24)
Repairs and maintenance to buildings and civil Works	2.31	0.8	2.24	3.04	
Repairs and maintenance to plant and machinery	187.13	88.23	96.35	184.58	
Repairs and maintenance to furniture, vehicles, etc	13.81	9.86	42.39	52.25	
TOTAL	203.25	98.89	140.98	239.87	291.29

* As per Form F-13(b) submitted by Petitioner

- Discom has computed R&M on Own Asset @4.2% of Opening GFA. However, as per prevalent regulatory provisions it should have been computed @5.4% of Opening GFA.
- **Licensee need to submit the breakup of R&M**

requirement for the ensuing FY 23-24.

- Proposed R&M cost for FY 2023-24 is comparatively higher than that R&M expenses incurred earlier.

Observation of Other Components

○ Provision for Bad Debt :

- **Rs. 50.87 Cr proposed for FY 2023-24 considering collection efficiency of 99%**
- “The Business Plan order of the Commission dated 20.03.2010 approved collection efficiency of 99% for FY 2011-12 and FY 2012-13. The benchmark of collection efficiency would continue to be at the level of 99% during the third control period also. Accordingly the Bad and Doubtful debt during the third control period would also be allowed @ 1% of the total annual revenue billing in HT and LT sales only.”
- **Accordingly, Rs.40.77 Cr (1% of LT and HT revenue, i.e. 2750 Cr + 1326 Cr) may be allowed.**

○ Depreciation

- **Licensee has proposed Rs. 81.38 Cr towards Depreciation for FY 2023-24 compared to the previous year approval of Rs. 48.34 Cr.**
- The depreciation should be calculated on the approved asset base as on 1.04.2022 at Pre-92 rate for the assets inherited from CESU. Commission may undertake prudence check before allowing the costs. As regards the assets to be added by TPCODL the depreciation rates will be as per pre-99 rates notified by the GoI as per the vesting Order.
- As per Regulation 3.6.3 of RST Regulations 2022, depreciation should not be allowed on the assets funded by Consumer contribution and capital subsidies / grants.

Tariff Rationalization Measures

Levy of CSS on RE Power (ODL- W, C, N)

Licensee has proposed to impose CSS on RE OA Consumers and further withdraw concessional wheeling and transmission charges which are at present limited to 20 % of total charges

Submission:

- Concessional charges for RE OA are required for increasing penetration of RE power in the state.
- CSS is already exempted under Electricity Act for Captive OA Consumption. So at present CSS is being exempted for Third Party Sale of RE OA (Especially Solar Power OA) .
- The RE OA drawl by industries in FY 19-20 was 185 MU, in **FY 20-21 was 244** and in FY 21-22 (up to Sept 21) was 1289MU. Licensees projected sales in 21-22 is 6760MU. Hence RE OA power has increased to about 19% of licensees total annual sales?
- Data needs to be checked and licensee may submit details about third party and captive same separately with amount on Rs. Towards wheeling, transmission charges and CSS waiver.
- Central ODL in its petition submitted RE OA sourcing as follows:

DISCOM – TPCODL Submission	OA Quantum in MU 20-21	OA Quantum in MU 21-22 (5 Months)
Central	8	12
Northern	17	114
Western	125	926
Southern	18	74
Total Odisha	168	1126

- **Odisha accounts 0.54% of National RE capacity (1,05,854MW)**
- Odisha has Solar potential of 25.78 GW of national solar Potential of 750 GW
- State Target to install Solar is 2,377MW of 1,00,000MW and on 31.1.22 Installation in solar is **431.19 MW Solar. (59.22MW Bio.i.e total 490.41MW)**
- There is still lot of scope for RE capacity addition in state and hence such preferential treatment should be continued till the RE penetration in the state is increased.

Tariff Rationalization Measures

Introduction of Green Tariff (ODL- C, W)

Special Green Tariff: Licensee proposed 84 Paise as special green additional tariff for the consumers opting green power.

Submission: States like Maharashtra has proposed 0.66 Rs/kWh and Karnataka has proposed 0.50 Rs/kWh add-on tariff for procurement of green power

Add-on tariff of 0.84 Rs/kWh is proposed by licensee for supply of Green power is good initiative.

However, Licensee needs to ensure that quantum of electricity sourced against green electricity tariff supply to be met on annual basis. Further, the provision to opt Green Tariff should completely remain the consumer and consumer should be allowed to shift to the normal tariff on request with minimum time of one / two months.

Tariff Rationalization proposal for Industries

IF the LF of the consumer in FY 21-22 is less than 55% and if the industry improves the same then the licensee has proposed rebate as follows:

If LF is >75% to 80% - then rebate of Rs 0.40 Per unit on entire consumption

If LF is greater than 80% the rebate of Rs 0.50 per unit on entire consumption is being proposed by licensee.

Proposed for categories like: HT Industrial (M), Large Industry, Power Intensive Industry, Mini Steel Plant etc.

This proposed rebate is beneficial for industries and licensee and may be implemented.



Thank You

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