



Analysis of ARR and Tariff Proposal of TPWODL Licensee for FY 2022-23 Public hearing

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BY

WORLD INSTITUTE OF SUSTAINABLE ENERGY

(CONSUMER COUNSEL)

PUNE

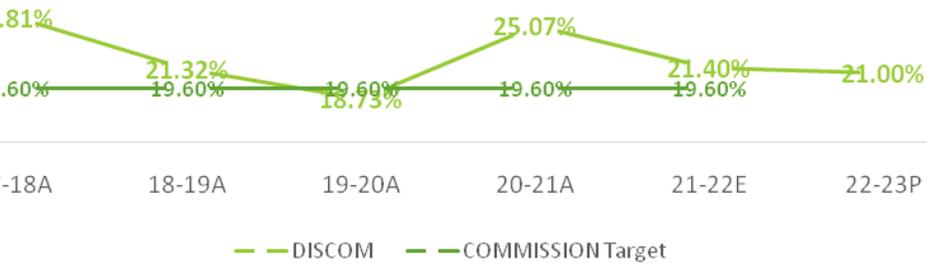
Demand Forecasting

	Sales							Consumers			
	FY 2020-21 (MU)	FY 2021-22 (MU)			FY 2022-23 (MU)			1 April 2020	1 April 2021	1 April 2022	% over April 2020
	Actual	Proposed	Approved	Estimated	Projected	Projected % over approved of FY 2020-21	Projected % over revised of FY 2020-21				
LT	2,635.96	2,635.96	3,414.54	3,260.00	3,510.00	2.80%	7.67%	1,905,984	2,142,927	2,290,062	6.87%
HT	1,777.86	1,800.00	1,953.98	1,800.00	1,850.00	-5.32%	2.78%	534	978	1031	5.42%
EHT	1,299.68	1,360.00	1,545.88	1,700.00	1750	13.20%	2.94%	38	36	38	5.56%
Total	5,713.50	6,495.00	6,914.40	6,760.00	7,110.00	2.83%	5.18%	1,906,556	2,143,941	2,291,131	6.87%
LT sale % of Total	46.14%	40.58%	49.38%	48.22%	49.37%						
Power purchase	7,625.00	8,250.00	8,600.00	8,600.00	9,000.00						

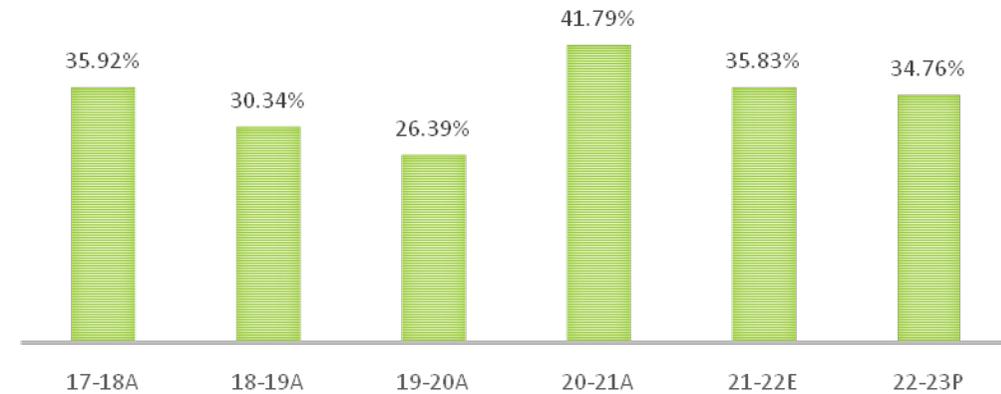
- In FY 2022-23, LT consumer growth is 6.87%, and HT consumer growth is 5.42%.
- HT number of consumers are increasing every year. In last financial year about 52 consumers added but sales projections are slightly increasing from 1800 MU to 1850 MU.
- LT sales need to be rationalized. LT project sales for FY 22-23 are 7.67% higher against FY2021-22 revised.
- Higher LT projections leads to higher need cross subsidy and thereby impacts tariff adversely.

Overall Losses

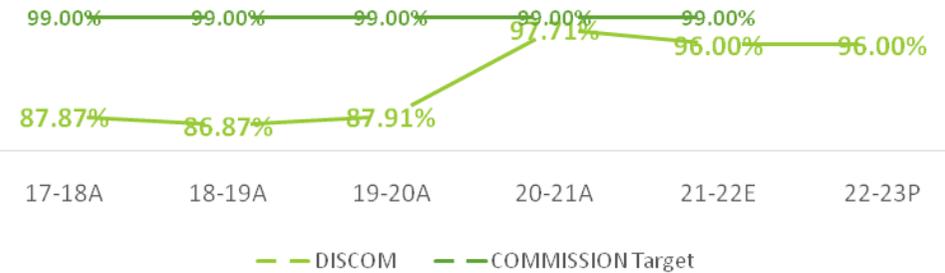
DISTRIBUTION LOSS %



LT DIST. LOSS % (WITH 8% HT AND 0% EHT LOSS)



COLLECTION EFFICIENCY %



AT&C LOSS



AT&C and Distribution loss have decreasing trend though approval is constant. The gap of approve and actual needs to reduce further and lower approval target is needed.

Considering the increasing electronic payment the collection efficiency should improve. The collection efficiency achieved in 20-21 was of 97.42 is considering the Business from 1st Jan 21. 83.80% collection efficiency for current financial years up to

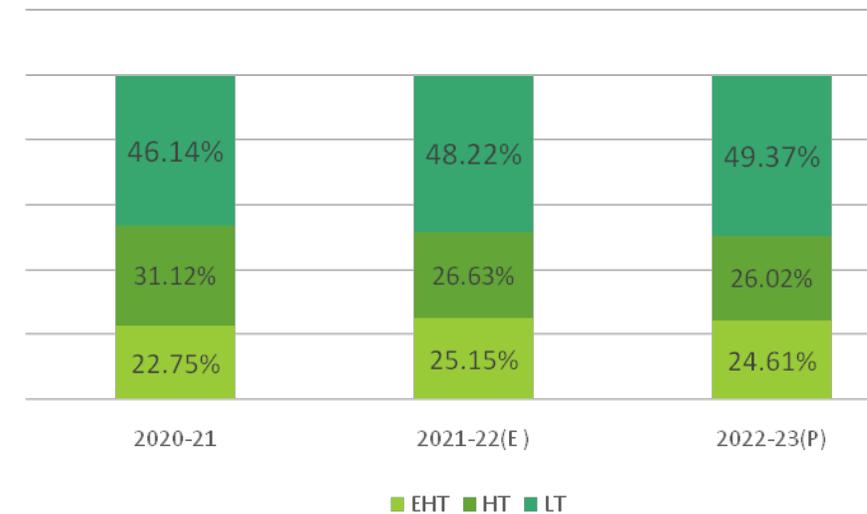
Dec 21). Hence Collection efficiency projections for ensuing year are higher.

- The HT loss of 8% needs to be revised as they are constant for long period .
- LT Distribution losses are about 34.76% if the HT loss of 8% and EHT loss of 0% is considered.

Electricity Consumption Pattern Across DIT Categories

	2020-21	2021-22 (E)	2022-23(P)
LT consumers	1,905,984	2,142,927	2,290,062
LT consumption (MU)	2,635.96	3,260.00	3,510.00
Consumer use per month kWh	115.25	126.77	127.73
HT consumers	534	978	1,031
HT consumption (MU)	1777.86	1800.00	1850.00
Consumer use per month kWh	277443.82	153374.23	149531.20
EHT consumers	38.00	36.00	38.00
EHT consumption (MU)	1299.68	1700.00	1750.00
Consumer use per month kWh	2850175.44	3935185.19	3837719.30
Total consumption	5,713.50	6,760.00	7,110.00

Consumption/Consumer/Month



Following category of consumers have drastic consumption rise

Consumption of Irrigation Pumping and Agriculture, PWWS

Consumption Irrigation pumping agriculture,

Consumption of Heavy Industries Power intensive industries etc.

	FY 20-21 Actual (MU)	FY 21-22 Estimated (MU)	% Increase over FY 20-21	FY 22-23 Projected (MU)	% Increase over FY 21-22
Irrigation Pumping and Agriculture	385.940	500	29.55%	535.210	28.04%
Allied Agricultural Activities (LT)	4.460	6.5	45.74%	7.000	7.69%
Allied Agro-Industrial Activities (LT)	2.630	2.75	4.56%	3.000	8.73%
Public Water Works <100 KW	39.130	60.000	53.34%	63.000	5.00%
Irrigation Pumping and Agriculture	26.040	38.000	45.93%	50.000	31.58%
Allied Agricultural Activities (HT)	3.290	3.800	15.50%	3.900	2.63%
Allied Agro-Industrial Activities (HT)	2.920	3.500	19.86%	3.600	2.86%
Heavy Industry	263.556	408.700	55.07%	417.000	2.03%
Power Intensive Industry	289.950	472.000	62.79%	485.000	2.54%
Mini Steel Plant	4.288	7.000	63.26%	7.000	0.00%

BPL (Kutir Jyoti) Consumers and Consumption Trend

	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)
16	287,211	33.26%	143.21	33.95%	41.55
17	173,966	-39.43%	66	-53.91%	31.62
18	189,853	9.13%	59.8	-9.39%	26.25
19	255,369	34.51%	62.53	4.57%	20.41
20	253,257	-0.83%	69.49	11.13%	22.87
21	211,567	-16.46%	68.18	-1.89%	26.86
22	192,744	-8.90%	70	2.67%	30.26
23	218,161	13.19%	70	0.00%	26.74

	LT Consumers	Kutir Jyoti	% of Consumers in LT	LT MU	Kutir Jyoti MU	% consumption in LT
21	1,905,984	211,567	11.10%	2,635.96	68.18	2.59%
22	2,142,927	192,744	8.99%	3,260.00	70	2.15%
23	2,290,062	218,161	9.53%	3,510.00	70	1.99%

Avg Monthly Consumption of Kutur Jyoti Consumers



average monthly consumption of BPL consumers needs to be kept up to 30 kWh per month.. consumers though were reducing in past few years now proposed to increase in ensuing 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

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

Cost/Income Component	ARR Approved for FY 2021-22	ARR for FY 2022-23	Percentage of total Dist Cost	% Rise over Approved ARR
1 Total Power Purchase Cost	3140.48	3286.44	73.25%	4.31%
2 Employee Cost	409.49	629.06	14.02%	53.43%
3 Repair & Maintenance Cost	109.22	278.52	6.21%	155.11%
4 Administrative & General Expenses	63.66	151.76	3.38%	138.42%
5 Bad & Doubtful Debt including Rebate	27.42	40.38	0.90%	47.34%
6 Depreciation	36.34	49.39	1.10%	35.80%
7 Interest on Loan	34.37	89.82	2.00%	161.01%
8 Return on Equity	48	48	1.07%	0.00%
9 Tax on ROE	0	16.14	0.36%	
10 Special Appropriation Carrying Cost	0	-102.81	-2.29%	
Total Dist Cost	3868.98	4486.70	100.00%	15.47%
11 Less Misc Receipts	237.45	267.69		12.32%
Total ARR Requirement	3631.53	4219.01		16.52%
Total Revenue	3705.75	4038.71		8.47%
GAP at Existing tariff (+/-)	74.22	-180.30		

Employee Expenses

Employee Expenses (Rs.Cr.)			
Year	Proposed	Approved	Actual
15-16	291.31	275.32	199.55
16-17	294.86	228.69	306.45
17-18	399.72	274.19	353.27
18-19	396.99	274.83	410.76
19-20	393.24	358.8	525.21
20-21	432.27	361.02	476.67
21-22	523.86	409.49	504.54
22-23	629.06		

	No. of Employees				Total
	Executive		Non-Executive		
	Technical	Non-Technical	Technical	Non-Technical	
Western ODL					
AS ON 01-4-18	418	80	2027	493	3508
AS ON 01-4-19	410	84	1825	405	2724
AS ON 01-4-20	402	83	1645	380	2410
Recruitment during 20-21	0	0	0	0	
Retirement during 20-21	8	1	180	25	214
AS ON 31-3-21	394	82	1465	355	2296
Recruitment during 21-22	8	1	163	17	189
Retirement during 21-22	4	1	94	11	110
AS ON 31-3-22	382	80	1208	327	2097

The number of employees have reduced from 2510 (from April 20) to 1997 in (April 22). Despite reduction in employees the employee cost is increasing

- The licensee is outsourcing many activities and also introduction of IT enables services and e-payments should reduce employee cost

7th pay commission arrear Rs. 43.65 Cr. may be reviewed based upon government notification

Administrative and General Expenses (Rs. Cr.)

	Proposed	Approved	Actual/Est.
-16	59.39	35.84	51.17
-17	70.1	66.63	19.37
-18	84.66	57.81	48.69
-19	103.04	48.14	50.78
-20	97.94	50.13	50.06
-21	88.75	52.8	143.74
-22	83.38	63.66	103.58 E
-23	151.76		

A&G Expenses approved in FY 2021-22 were 63.66 Cr and Licensee has requested for 151.76Cr as A&G expenses. The proposed Expenses are 238% higher.

As per Regulation A&G expenses were approved as 238% over the existing A&G expenses and some additional expenses are allowed as per allowed.

For current FY Licensee has proposed 103.58 Cr which is much above the 63.66 Cr approved A&G. A&G being controllable expenses such higher expenditure over approval can not be accepted.

Particulars	Previous Year	Actual for 1st six months of C.Year	Current Year	Ensd
	20-21	21-22	21-22	22
Rent	167.10	140.38	302.00	3
Insurance	84.66	120.27	182.00	2
Legal expenses	13.98	7.57	28.00	
Consultancy charges	606.07	371.51	750.00	8
Audit fees and expenses	61.81	55.83	108.00	1
Travelling expenses	181.68	302.08	400.00	5
Printing & Stationery	71.30	45.50	96.00	1
Advertisement	22.54	13.85	39.00	
Watch & Ward	203.82	681.06	710.00	8
Training	0.78	8.00	23.00	
Media Campaign	0.00	0.00	10.00	
Replacement and shifting of meters	0.00	22.00	47.00	1
GIS, SCADA	0.00	5.00	12.00	
Housekeeping	0.00	70.00	136.00	1
Energy Audit & AMR	0.00	21.00	47.00	5

Repair and Maintenance Costs

	Proposed (Cr.)	Approved (Cr.)	Actual / (Audited) (Cr.)	Particulars	Previous Year (20-21)	Actual for 1st six month	Current Year (21-22)	Ensuing Year (22-23)
-16	97.33	61.05	27.7	1 Civil repairs & maintenance	0.48	0.12	2.53	6.00
-17	73.3	70.54	18.61	2 Distribution line repairs & maintenance (Material)	14.28	8.53	13.25	39.64
-18	88.53	68.48	18.40	3 33 KV Network asset AMC	0.00	8.02	32.09	52.95
-19	92.41	64.28	17.36	4 11 KV & below Network assets AMC		23.10	92.38	152.43
-20	99.383	86.33	12.57	5 Substation operations & maintenance		0.09	6.98	8.00
-21	101.86	92.24	20.66	6 Transformer maintenance	5.52	3.85	8.50	14.00
-22	109.53	109.22	160.00	7 Other repairs & maintenance	0.38	1.66	4.27	5.50
-23	278.52			TOTAL	20.67	45.38	160.00	278.52

Drastic hike in R&M expenses proposed by licensee for the ensuing year. However, licensee was contumely underspending the R&M expenses.

Distribution line maintenance has proposed to be increasing from 14.28 Cr in 20-21 to 137.72 Cr in FY 21-22 to Rs 245.02 Cr in FY 22-23. This may be justified by the Licensee.

- The Current years R&M is proposed is higher than the commissions approved R&M for 21-22.
- Increased R&M should reflect increase in reliability and quality power further should reduce the AT&C losses.

Observation of other components

Provision for Bad Debt :

- **Rs. 40.38 Cr proposed for FY 2022-23. Though Licensee has proposed 96% as collection efficiency for AT&C loss calculation they have proposed provision for bad debt as per 99% collection efficiency.**
- “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.27.63 Cr (1% of LT and HT revenue, 1592.30 + 1170.85) may be allowed.**
- **Licensee shall audit and collect the receivables for meeting working capital requirement without putting any tariff burden on consumers.**

Depreciation

- **Licensee has proposed Rs 49.39Cr towards depreciation for FY 2022-23 compared to the Commission approved Rs36.34 Cr.**
- The depreciation should be calculated on the approved asset base as on 1.04.2021 at Pre-92 rate for the assets inherited from WESCO. Commission may undertake prudence check before allowing the costs. As regards assets to be added by TPSODL the depreciation rates will be as per pre 99 rates notified by the GoI as per the vesting Order.
- As per Regulation 7.56 of RST Regulations 2014, depreciation should not be allowed on the assets funded by Consumer contribution and capital subsidies / grants.

Debtors Outstanding (in RS Lakhs as on 33 Sept 21)

Categories of Consumer/Region	0 – 6 m	6 – 12 m	12 – 24 m	Over 24 Months	Total Outstanding	% of Total Outstanding	% of Outstanding more than 24 Months old
Dir Jyoti	868.06	404.24	0.00	6723.22	7995.52	2.37%	2.48%
Domestic	33906.46	4696.69	2723.39	221303.62	262630.16	77.86%	81.64%
General purpose <100 kw	3761.01	0.00	3193.46	16405.27	23359.74	6.93%	6.05%
Irrigation Pumping and Agriculture	3404.70	1270.35	4215.76	14731.99	23622.80	7.00%	5.43%
Unaided Agricultural Activities	13.96	0.00	0.00	27.93	41.89	0.01%	0.01%
Unaided Agro-Industrial Activities	17.60	0.00	0.00	22.61	40.21	0.01%	0.01%
Street lighting	602.98	21.65	991.06	2073.22	3688.91	1.09%	0.76%
Industrial (S) Supply	118.70	0.00	0.00	260.68	379.38	0.11%	0.10%
Industrial (M) Supply	251.05	0.00	0.00	427.44	678.49	0.20%	0.16%
Specified Public Purpose	848.32	0.00	691.54	2926.22	4466.08	1.32%	1.08%
MSWS < 100kw	1899.59	0.00	1133.32	2548.38	5581.29	1.65%	0.94%
MSWS-supply-domestic	0.78	0.08	0.00	1.69	2.55	0.00%	0.00%
MSWS-Irrigation	3.85	4.02	0.94	0.00	8.81	0.00%	0.00%
MSWS-Specified Public Purpose	39.71	21.96	2.94	185.54	250.15	0.07%	0.07%
MSWS-General Purpose	19.74	272.35	8.18	43.97	344.24	0.10%	0.02%
MSWS-Public Water Works>100kw	196.59	76.13	0.00	242.77	515.49	0.15%	0.09%
MSWS-Textile Industry	492.28	3.67	52.93	1270.42	1819.30	0.54%	0.47%
MSWS-Thermal Power Plant	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
MSWS-Railway Traction	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
MSWS-Heavy Industry	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
MSWS-Other Intensive Industry	0.00	0.00	0.00	1872.14	1872.14	0.56%	0.69%
MSWS-Iron Steel Plant	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%
TOTAL	46445.38	6771.14	13013.52	271067.11	337297.15	100.00%	100.00%
	13.77%	2.01%	3.86%	80.36%	100.00%		

Tariff Rationalization Measures

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

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

Commission:

Concessional charges for RE OA are required for increasing penetration of RE power in the state.

are already exempted under Electricity Act for Captive OA Consumption. So at present CSS is being exempted for Third Party Sale of RE (especially Solar Power OA) .

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 total sales in 21-22 is 6760MU. Hence RE OA power has increased to about 19% of licensees total annual sales?

This 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.

Regional ODL in its petition submitted RE OA sourcing as follows:

Region – TPCODL Division	OA Quantum in MU 20-21	OA Quantum in MU 21-22 (5 Months)
Andhra Pradesh	8	12
Chhattisgarh	17	114
Madhya Pradesh	125	926
Uttar Pradesh	18	74
Odisha	168	1126

- Odisha accounts 0.54% of National RE capacity (1,05,854MW)
- Odisha has Solar potential of 25.78 GW of net solar Potential of 750 GW
- State Target to install Solar is 2377MW of 1,00,000MW and on 31.1.22 Installation in state is 431.19 MW Solar. (59.22MW Bio.)
- 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 state is increased.

Tariff Rationalization Measures

Introduction of Green Tariff (ODL- C, W)

Green Tariff: Licensee proposed 25 Paise as special green additional tariff for the consumers opting green power.

Discussion: 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.

A green tariff of 0.25 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.

Increasing rebate from 2 to 3% towards digital payment (ODL – W,N,)

Increasing the digital payment rebate from 2% to 3% for LT Domestic, LT GP single phase and single phase irrigation

Discussion:

Licensee's total sales to LT domestic consumers is about 32% of total sales and which is towards 91% of its consumer base.

Further considering the bad debt of 80% towards Domestic Consumers, the incremental discount towards digital payment may help to improve collection efficiency and hence Hon Commission may consider the proposal.

Tariff Rationalization Measures

Additional 5 Paise rebate to Rural Domestic Consumers

A 5 Paise/unit rebate is offered to rural domestic consumers availing power through correct energy meter. Same is being proposed to be increased to 10 Paise per unit in addition to existing prompt and digital payment rebate.

This is a good proposal to attract and improve the billing efficiency.

About 14% of the rural consumers are being supplied with defective meters. Further, bad debt are more in domestic consumers.

Increased incentive to consumers should help the licensee to recover timely electricity bill payments

Domestic Con. Billing as per actual meter reading			Domestic Con. Supply with Defective Meters						
Urban		Rural		Urban		Rural		Total	
Consumption in MU	No of Consumers	Consumption in MU	No of Consumers	Consumption in MU	No of Consumers	Consumption in MU	No of Consumers	Consumption in MU	No of Consumers
0665	331.29	1184312	536.63	25879	24.7	262045	98.661	1772901	99
7.0%	33.42%	66.8%	54.14%	1.5%	2.49%	14.8%	9.95%		

Tariff Rationalization Measures

Creation of New EHT Consumer Category for Mega Lift Irrigation

There is one EHT consumer of 13.5 MVA Contract demand being served at EHT level and billed under HT category. Licensee proposes separate tariff and charges of Rs 250 per kVA and energy charges under graded slab method.

As the Mega Lift irrigation consumer is being served at EHT level and billed under HT category, this needs separate directives. Preferential treatment in tariff is requested as the lift irrigation is for public purpose.

Differential tariff for Cold Storage units with Govt Subsidy

Cold storages are being supplied through Allied Agro Industrial Activities supply where tariff are higher as compared to the Allied Agricultural activities.

Out of 144 cold storages only 30 are functional. Hence to promote the agro industrial activities the Odisha Cold Storage Association has requested for differential tariff based on the state Govt. Subsidy.

Differential tariff may be awarded to the Allied Agro Industrial Activities based on the state government subsidy support.

Tariff Rationalization Measures

Special tariff to Steel Industry

Commission had extended special tariff for Steel Industry in its tariff order dated 26th March 21. Licensee had requested to extend special tariff for the next year also.

Industries having contract demand above 1MW and drawing power at 33 kV were allowed special rebate of 30 paise per unit for consumption above 60% LF, 40 paise per unit for consumption above 70% LF, 50 paise per unit for consumption above 80% LF. Considering the surplus power availability the special rebate may be continued for next financial year.

Special tariff Proposals

Licensee has proposed special tariffs to different consumers as follows:

Special tariff for industries those who have closed their units and if reopen/restart

Special tariff for existing industries having CGP if assumed 80% LF of existing CD

Special tariff for existing industries who have no CGP for drawl of additional power beyond 10 MVA

Special Tariff for upcoming new industries with guaranteed period of business continuity

Licensee has proposed special tariffs for industry for to improve the utilization of power from surplus availability and to support industries to consume more power.

Instead of having separate tariff rebates for industries for consuming more power, can the off-peak rebate be increased from existing 20%.



Thank You

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