



**Before the Odisha Electricity Regulatory Commission  
Pot No-4, Chunokoli, Shailashree Vihar, Bhubaneswar-751021**

**Case No: \_\_\_\_\_ of 2021**

**File No TPCODL/Regulatory /2021/105/12448**

**In the Matter of**

An Application for Aggregate Revenue Requirement (ARR) ,Wheeling Tariff , Retail Supply Tariff and Open Access Charges for the Financial Year 2022-23 under the Electricity Act 2003,OERC (Terms and Conditions for Determination of Wheeling and Retail Supply Tariff ) Regulations 2014 , OERC (Conduct of Business Regulations) 2004 , OERC (Terms and condition of Intra-State Open Access) Regulations 2020, Vesting Order dated 26.05.2020, ,Carved out Balance Sheet as on 01.06.2020 and its Order dated 30.09.2021 and Other Tariff related matter.

**In the Matter of**

**And**

TP Central Odisha Distribution Ltd. (Formerly CESU), Corporate Office, Power House, Unit 8, Bhubaneswar- 751 012 represented by its Chief –Regulatory & Government Affairs.

**...Petitioner**

**And**

**In the Matter of**

All Stake Holders

**...Respondents**

**Affidavit**

I, Puneet Munjal, aged about 58 son of late Shri Jagdish Lal Munjal residing at Bhubaneswar do hereby solemnly affirm and say as follows:

1. I am the Chief-Regulatory & Government Affairs of TP Central Odisha Distribution Ltd., the Petitioner in the above matter and I am duly authorized to swear this affidavit on its behalf.
2. The statements made in the submission -File No- TPCODL/Regulatory/2021/ 105/12448 herein shown to me are based on information provided to me and I believe them to be true.

Bhubaneswar.

Dated: 29.11.2021

Chief-Regulatory & Government Affairs

**In the Matter of**

An Application for Aggregate Revenue Requirement (ARR), Wheeling Tariff, Retail Supply Tariff and Open Access Charges for the Financial Year 2022-23 under the Electricity Act 2003, OERC (Terms and Conditions for Determination of Wheeling and Retail Supply Tariff) Regulations 2014, OERC (Conduct of Business Regulations) 2004, OERC (Terms and condition of Intra-State Open Access) Regulations 2020, Vesting Order dated 26.05.2020, Carved out Balance Sheet as on 01.06.2020 and its Order dated 30.09.2021 and Other Tariff related matter.

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All Stake Holders

**...Respondents**

In line with Regulation 6 of the Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2014 "Tariff Regulations", Section 62 of the Electricity Act 2003 and Regulation 53 of OERC (Conduct of business) Regulations, 2004, TP Central Odisha Distribution Ltd (TPCODL) is filing the application before the Hon'ble Commission for approval of Annual Revenue Requirement and Tariff proposal for the Financial Year 2022-23. The submissions from TPCODL are enclosed. Based on the enclosed submission the following is prayed

**Prayers**

TPCODL prays that the Hon'ble Commission may kindly be pleased to;

1. Approve the Aggregate Revenue Requirement (ARR) for Wheeling business and Retail business of the Utility for the Financial Year 2022-23 as proposed by the TPCODL.
2. Approve the proposal for reduction of Charges applicable to Open Access Consumers sourcing power from Renewable Sources, as given in **Chapter 5 Proposal for removal of Concessional Wheeling Charges and Cross Subsidy Surcharge** of this petition



3. Approve the proposal for “Green Tariff” as proposed **Chapter 6 Green Tariff Proposal for consumers of Odisha** of this petition
4. Consider the Tariff Rationalisation proposed in **Chapter 7 Tariff Rationalization proposal for Industries**
5. Provide for clarifications sought in **Chapter 8 Points for Clarification from the Hon’ble Commission**
6. Permit making additional submission required in this matter
7. Grant any other relief as deemed fit & proper in the facts and circumstances of the case.



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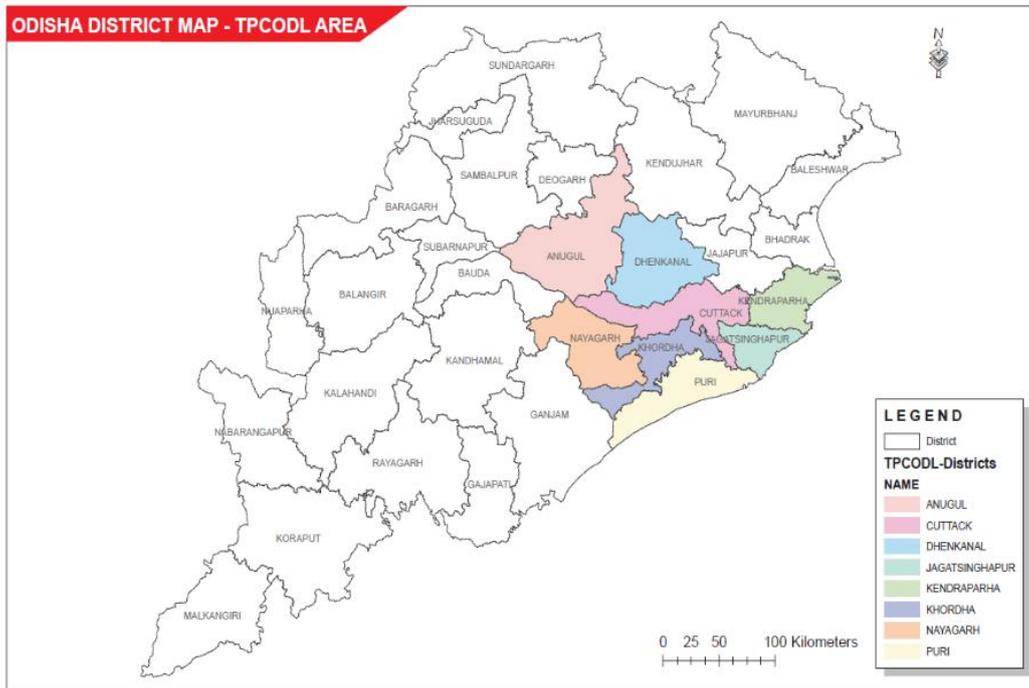
## Chapter 1. Background and overall approach to filing

### 1.1 Introduction of TPCODL

Tata Power Central Odisha Distribution Limited (TPCODL) is a Joint Venture of Tata Power (51%) and Odisha Government (49%) on the Public-Private Partnership (PPP) model. TPCODL took over the license to distribute electricity in the central part of Odisha, which was earlier served by erstwhile Central Electricity Supply Utility (CESU), through a competitive bidding process. TPCODL's utility business shall be governed by the provisions of license issued by Hon'ble OERC for distribution and retail supply of electricity in Central Odisha. The Hon'ble OERC regulates the working of the entire power sector of Odisha state, including determination of tariff chargeable to end consumers and establishing performance norms (mainly related to Loss reduction, Safety, Reliability of power supply and Consumer service delivery).

TPCODL's license area is spread over a geography of 29354 Sq.Km and it serves the registered consumer base of about 2.8 million. TPCODL procures power from GRIDCO which is a state owned company, engaged in the business of purchase of electricity in bulk from various generators located inside Odisha and the state share of power from Central generators for supply to all power distribution utilities, including TPCODL. It (i.e TPCODL) receives electrical power at a sub transmission voltage of 33KV from Odisha Power Transmission Company Limited's (OPTCL) 220/132/33 kV Grid Substations and then distributes the power at 33KV / 11KV / 440V / 230V depending on the demand of the consumers. For effective operations, the license area is divided in 5 circles (covering 8 districts) which is further sub divided in 20 Divisions and 65 Sub-division which manage the commercial and O&M activities to serve its consumer. The area belonging to TPCODL is as shown in Figure below

Figure 1-1: District Presence of TPCODL



The details of the Assets over the various divisions is provided in **Chapter 8 ANNEXURE 1: Statistical Information of TPCODL**

## 1.2 Relevant Filings of TPCODL and Orders of the Hon’ble Commission

### 1.2.1 Vesting Order

A "Vesting order" dated 26<sup>th</sup> May 2020 in matter of Suo Moto proceedings in Case No 11 of 2020 was passed by the Hon'ble Commission vesting the utility of CESU to TPCODL and transferring the Fixed Assets and also other elements of the Balance Sheet at a particular costs to TPCODL along with the accumulated Depreciation in the Fixed Assets. In addition, many of employees of CESU, their terminal liabilities("Employee Liabilities") towards pension, gratuity, leave encashment and provident fund were transferred. Further, security deposits from consumers, deposits from suppliers/contractors and deposits for electrification /service connection was also transferred to TPCODL.

It is further submitted that Section 21 (a) of the Act states that *“the utility shall vest in the purchaser or the intending purchaser, as the case may be, free from any debt, mortgage or similar obligation of the licensee or attaching to the utility”*. The Hon'ble Commission recognizing that certain current assets & liabilities pertaining to employees, consumers, suppliers and statutory payments, etc. which were not indicated in the opening balance



sheet provided in RFP, were also passed on TPCODL since CESU did not have any revenue to fund the liabilities.

### **1.2.2 Carve Out Order or Segregation Order**

The Hon'ble Commission had in the Order dated 30<sup>th</sup> September 2021 ("Carve Out Order" or "Segregation Order") had carved out the Opening Balance Sheet of TPCODL as on 1<sup>st</sup> June 2020. The Balance sheet was carved out from the Balance Sheet of erstwhile CESU as on 31<sup>st</sup> May 2020 and applying the principles of the Vesting Order dated 26<sup>th</sup> May 2020 for TPCODL. The carved out Balance Sheet for TPCODL as on 1<sup>st</sup> June 2021 is as follows:



**Table 1-1: Opening Balance Sheet of TPCODL on 1<sup>st</sup> June 2021 (Liabilities)**

Particulars	CESU	TPCODL	Residual CESU
	As at 31.05.2020	As at 01.06.2020 (Carve out) OERC Order of 30th Sep 2021	As at 01.06.2020 (OERC Order)
	Rupees in Crores	Rupees in Crores	Rupees in Crores
	A	B	C=A-B
<b>I. EQUITY AND LIABILITIES</b>			
Equity Share Capital		300.00	-300.00
<b>1. Capital Funds :</b>			
(a) Capital Funds	72.72		72.72
(b) Reserves and Surplus	-4379.04	0.00	-4379.04
<b>Sub-Total</b>	<b>-4306.32</b>	<b>300.00</b>	<b>-4606.32</b>
<b>2. Non-current liabilities</b>			
(a) Long term borrowings	3423.47	0.00	3423.47
(b) Deferred tax liabilities (Net)	0.00	0.00	0.00
<b>( c ) Other Long Term Liabilities :</b>	<b>3280.87</b>	<b>3218.79</b>	<b>62.07</b>
<i>Security Deposit from Consumers</i>	734.72	734.72	0.00
<i>Deposits from Suppliers/Contractors</i>	73.34	73.34	0.00
<i>Deposit For Electrification, Service Connection</i>	299.80	299.80	0.00
<i>Consumers' Contribution under ESA</i>	1523.97	1523.97	0.00
<i>Grants received/Adjustment (Bal.fig)</i>	649.03	586.96	62.07
<b>(d) Long-term provisions</b>	<b>1699.83</b>	<b>54.38</b>	<b>1591.06</b>
<i>P.F.Trust</i>	54.38	54.38	0.00
<i>Pension Trust</i>	1344.21	0.00	1344.21
<i>Gratuity Trust</i>	112.74	0.00	112.74
<i>Leave Encashment</i>	188.49	0.00	188.49
<b>Sub-Total</b>	<b>8404.17</b>	<b>3273.18</b>	<b>5130.99</b>
<b>3. Current Liabilities</b>			
(a) Short-term borrowings	157.54	157.54	0.00
(b) Trade payables	1790.02	225.16	1564.86
<b>(c) Other Current Liabilities</b>	<b>296.04</b>	<b>105.57</b>	<b>190.47</b>
<i>Sundry Creditors</i>	62.56	62.56	0.00
<i>Other Liabilities</i>	1.85	1.85	0.00
<i>Electricity Duty Payable (Subject to realisation from consumer)</i>	190.47	0.00	190.47
<i>Electricity Duty Payable (Collected)</i>	9.11	9.11	0.00
<i>Electric Public Awareness Media campaign Funds</i>	0.14	0.14	0.00
<i>Interest Payable on Security Deposit</i>	31.91	31.91	0.00
<b>(d) Short-term provisions</b>	<b>317.09</b>	<b>203.07</b>	
<i>Short-term provisions</i>	266.24	152.23	114.01
<i>Payable to Franchisee</i>	50.84	50.84	0.00
<b>Sub-Total</b>	<b>2560.68</b>	<b>691.34</b>	<b>1869.34</b>
<b>Total :</b>	<b>6658.52</b>	<b>4264.51</b>	<b>2394.01</b>



**Table 1-2: Opening Balance Sheet of TPCODL on 1<sup>st</sup> June 2021 (Assets)**

Particulars	CESU	TPCODL	Residual CESU
	As at 31.05.2020 Rupees in Crores	As at 01.06.2020 (Carve Rupees in Crores	As at 01.06.2020 (OERC Rupees in Crores
<b>II. ASSETS</b>			
<b>1.Non-Current Assets</b>			
1.(a) Fixed Assets			
(i) Property, Plant and Equipment	2061.67	2053.97	
(ii) Intangible Assets	0.00	0.00	0.00
(iii) Capital Work-in-Progress	460.67	460.67	0.00
(iv) Intangible assets under development	0.00		0.00
<b>Total Fixed Assets</b>	<b>2522.34</b>	<b>2514.64</b>	<b>7.70</b>
1 (b) Non current Investments			
1 (c) Deferred tax assets (Net)			
1 ( d ) Long term loans and advances			
1 (e) Other non-Current assets	9.32	0.00	9.32
1 ( e ) Receivable from franchisees	350.04	60.24	289.80
<b>Total Non-Current Assets</b>	<b>2909.13</b>	<b>2602.31</b>	<b>306.82</b>
<b>2. Current Assets</b>			
(a) Inventory			0.00
( b)Trade receivables	198.32	198.32	0.00
( c ) Cash and Bank balance	2223.22	135.98	2087.24
(d) Short-term loan and Advance	1315.92	1315.92	0.00
( e ) Other Current assets	4.08	4.08	0.00
<b>Total Current Assets</b>	<b>3749.39</b>	<b>1662.15</b>	<b>2087.24</b>
<b>Total</b>	<b>6658.52</b>	<b>4264.46</b>	<b>2394.06</b>

The Vesting Order under Paragraph 54( e ) (ii) requires TPCODL to file a petition for determination of the Additional Serviceable Liability (ASL). While no petition was filed by TPCODL in this regard, the Hon'ble Commission in the Carve Out Order dated 30th September 2021 has worked out Additional Serviceable Liability (ASL) under Paragraph 37 of the Order. The ASL worked out by the Hon'ble Commission in the Carve Out order is as follows:

37. Additional Serviceable Liabilities of TPCODL as of 01.06.2020 based on audited financial statements of the utility of CESU as of 31.05.2020, Para 54 of the vesting order and liabilities/ assets recognized in the foregoing paragraphs are as follows.

**Additional Serviceable Liabilities  
Table no. 5**

Particulars	Value (Rs. in Crore)	Reference Para No.
<b>Liabilities</b>		
Grants received/Adjustment	491.27	7
Security deposits from Consumers	660.33	8
Deposits from Suppliers/Contractors	0.21	9
Deposits for service connection	0.00	10
Long-term provisions - P.F. Trust	54.38	11
Short-term borrowings	157.54	12
Sundry Creditors	6.82	14
Trade Payables	225.16	13
Other Liabilities	1.85	15
Electricity Duty Payable	9.11	16
Electric Public Awareness Media Campaign Funds	0.00	
Interest Payable on Security Deposit	31.91	17
Short-term provisions	47.56	18
Payable to Franchisees	50.84	19
<b>Total</b>	<b>1,736.98</b>	
<b>Assets</b>		
Other non-Current assets	60.24	22
Receivable from franchisees	27.43	23
Inventory	198.32	24
Trade Receivable	135.98	25
Cash and cheques in Hand	23.97	26
Current Accounts	204.38	26
Fixed Deposit with Bank	1,087.62	26
Short-term loan and Advance	4.08	27
Other Current assets	7.84	28
Provision for Unbilled Revenue	43.74	31
<b>Total:</b>	<b>1,793.61</b>	
<b>Additional Serviceable Liabilities (ASL)</b>	<b>(56.63)</b>	

TPCODL has now filed a petition with the Hon'ble Commission for determination of the ASL ("ASL Petition") after pointing out certain deviations from the principles of Vesting Order (as adopted in the Carve Out Order) and has reworked of the ASL. The petition has been filed on 9<sup>th</sup> November 2021

### 1.2.3 Capex Order for FY 2020-21 and Capex Order for FY 2021-22

The Hon'ble Commission in Case No 32 of 2020 had passed orders approving the Capital Expenditure for FY 2020-21 on 8<sup>th</sup> September 2020 and on 4<sup>th</sup> September 2021. Further, in Case No 05 of 2021, the Hon'ble Commission had approved the Capital Expenditure for FY



2021-22. The schemes are being executed by TPCODL on the basis of the approvals in the two orders (“Capex Orders”)

#### **1.2.4 Opex Order for FY 2020-21**

In line with the requirement of the Vesting Order dated 26<sup>th</sup> May 2020, TPCODL had filed a petition for approval of the O&M expenditure viz a) Employee Expenditure b) Repairs and Maintenance (R&M) and c) Administrative and General (A&G) for the 10 months of FY 2020-21. The Hon’ble Commission in Case No 41 of 2020 has passed an order dated 16<sup>th</sup> November 2020 approving certain additional expenditure (i.e over and above the expenditure approved the tariff order dated 22<sup>nd</sup> April 2020 for erstwhile CESU). TPCODL has proceeded on the basis of this Opex Order and considered the same in this petition.

#### **1.2.5 True up Petition for FY 2020-21 (10 Months of Operation)**

TPCODL has filed a true up petition with the Hon’ble Commission in which it has prayed for truing up of the actual performance of TPCODL for its 10 month of Operation in FY 2020-21 i.e from 1<sup>st</sup> June 2020 to 31<sup>st</sup> March 2021. In the said petition, TPCODL has presented the actual performance in terms of Operations, Achievement of AT &C loss, Adoption of Safety practices and Capital Expenditure incurred and the sales and revenue achieved. Based on the actual performance, the resultant Gap worked out for FY 2020-21 is summarized as follows:



**Table 1-3: (Gap)/Surplus of TPCODL for 10 months of FY 2020-21**

Sr No	Particulars	Rs Cr	
		Approved Costs (Pro-rated for 10 months)	Actual Amount
1	Cost of Power Purchase	1982.73	1982.73
2	Emp Cost	567.84	598.41
3	A&G Cost	96.82	84.72
4	R&M Cost	142.63	142.33
5	Interest Long Term Debt	25.87	1.45
6	Interest on Working Capital	0.00	35.29
7	Depreciation	75.64	14.82
8	Return on Equity	9.70	41.32
9	Income Tax	0	13.90
10	Interest on Security Deposit paid	32.31	22.00
11	Provision for Bad Debts	28.12	28.16
<b>Less</b>			
13	Non Tariff Income	-149.15	-79.24
14	Receipts on account CSS	Embedded in Sr No 13	-20.79
<b>15</b>	<b>Total ARR</b>	<b>2812.50</b>	<b>2865.11</b>
<b>16</b>	<b>Revenue</b>	<b>2791.58</b>	<b>2791.58</b>
<b>17</b>	<b>Gap</b>	<b>-20.93</b>	<b>-73.54</b>

### 1.3 Approach to filing of the present petition

TPCODL has considered the above petitions filed with the Hon'ble Commission and the respective orders passed by the Hon'ble Commission for making the projections of FY 2022-23.

Further TPCODL has also considered the cost of ASL projected in the ASL petition filed with the Hon'ble Commission. The Vesting Order has permitted TPCODL to take suitable loan to fund this ASL. Since the Hon'ble Commission has not specified the manner of recovery of such ASL in the Vesting Order, TPCODL has considered only the interest cost on such ASL in FY 2022-23. However, TPCODL reserves the right to recover the principal amount of the loan in the ARR when the Hon'ble Commission specifies a trajectory.

## Chapter 2. Estimation of Sales and Power Purchase

### 2.1 Basis of Estimation

This chapter covers the estimation of sales for the present year i.e FY 2021-22 and projection of sales for the ensuing year i.e FY 2022-23. It is submitted that while CAGR is reasonably common method for projection, considering the data of the past few years, the CAGR may be very reliable for projections as can be seen **Chapter 10 ANNEXURE 2: Historical Sales** as the CAGRs are not very steady. This is particularly so since the last two years i.e FY 2020-21 and H1 of FY 2021-22 had covid months where the demand is not reflective of the same when the period would have been normal. Hence in our humble submission, growth rates based on this method would not be very appropriate to project the sales for H2 of FY 2021-22 and for FY 2022-23.

The projections have therefore been based on the recent months i.e H1 of FY 2021-22, month on month variations and number of days in the month. Further any spurt in sales in a particular month have been appropriately corrected for making projections. In addition, it has been also assumed that EHT and HT Sales are quite steady and not subjected to weather conditions. Based on the same, the sales projected for H2 FY 2021-22 and FY 2022-23 are as follows:

**Table 2-1 Sales Projections (MUs)- FY 21-22 and FY 2020-21**

Sr No	Category		FY 2021-22			FY 2022-23
			H1	H2	Total	
1	EHT	Mus	505	539	1044	1096
2	HT	Mus	728	679	1406	1468
3	LT	Mus	2394	2078	4471	4796
4	<b>Total</b>	<b>MUs</b>	<b>3626</b>	<b>3295</b>	<b>6922</b>	<b>7360</b>

The category wise breakup of the sales is as provided in Form T1 of the submission. After the estimation of sales which are the projected "Billed Sales", the same have been grossed up by Billing Efficiency to arrive at the estimated Power Purchase.

### 2.2 Estimation of Quantum and Cost of Power Purchase at Actual Loss

The Hon'ble Commission has considered the AT & C loss as provided in Para 44 (b) of the Vesting Order. The observations of the Hon'ble Commission are as under.



(b) Thereafter, taking into consideration that the handover of utility of CESU to the successful bidder may take place in FY 2021, the Commission provided a revised 10-year AT&C loss trajectory for period FY 2021 to FY 2030 for tariff determination. This is shown in table below:

Table 6 : 10-year AT&C Loss Trajectory for Tariff Determination

Financial Year	AT&C Loss
FY 2021	23.70%
FY 2022	23.70%
FY 2023	23.70%
FY 2024	22.00%
FY 2025	20.00%
FY 2026	18.00%
FY 2027	16.00%
FY 2028	15.00%
FY 2029	14.00%
FY 2030	13.50%

It is submitted that the though the Hon'ble Commission had provided the above losses (AT & C) of 23.70% ("Normative Loss") for FY 2021-22 and FY 2022-23, on the basis of the commitment in the bid, losses would be different from these values ("Actual Losses"). In our humble submission therefore, for the purpose of estimation of Power Purchase quantum and determination of ARR for the period, we have grossed up the sales by the estimated Actual loss as the quantum of power purchase would be governed by the Actual Loss rather than the Normative Loss. However, for the purpose of Gap computation for any particular period say for FY 2022-23 or for FY 2021-22, we have considered the normative loss. We have explained the same in **Table 4-39: Gap in Revenue at existing Tariff (in terms of Rs Cr)**.

The Power Purchase cost comprises a) Cost of Power purchased from GRIDCO at BSP b) Transmission Charges paid to OPTCL and c) SLDC charges. The Hon'ble Commission in an order dated 26th March 2021 for Gridco had determined a BSP of Rs 2.83 per Kwh for TPCODL. Further, the transmission charges applicable are Rs 0.28 per Kwh. In addition, the SLDC charges as determined by the Hon'ble Commission for FY 2021-22 have been considered. Accordingly, the power purchase cost for the different periods worked out is as follows:

**Table 2-2 Quantum of Power Purchase**

Power Purchase Cost for ARR - Actual Billing Loss				
Sr No	Particular	Unit	FY-2021-22	FY-2022-23
A	Total Sales (MU)	MU	6922	7360
B	Billing Loss for the year	%	23.42%	22.00%
C= A/(1-B)	Input/Power Purchase Units	MU	9038	9437
D	Power Purchase Cost @ BSP Rate of Rs.2.83/KWH	Rs. Cr	2558	2671
E	Transmission Charges @ Rs.0.28 /KWH	Rs. Cr	253	264
F	SLDC Charges @ (Rs. 13.368 Lakhs per Month)	Rs. Cr	1.6	1.6
G+ D+E+F	<b>Total Power Purchase Cost</b>	Rs. Cr	<b>2813</b>	<b>2936</b>

### 2.3 Cost of Power Purchase at Normative Loss

As mentioned earlier, the AT&C loss levels for Tariff determination are different from the actual AT& C loss levels and the trajectory till FY 2030 has been fixed by the Hon'ble Commission. At the same time, the Hon'ble Commission has been allowing a collection efficiency of 99% (i.e 1 % provision for Doubtful Debts). On the basis of the same, the Billing Loss (or Distribution Loss) for the period FY 2021-22 and FY 2022-23 work out as given in the table below:

**Table 2-3 Normative Billing Loss or Distribution Loss**

Sr No	Particulars	FY 2021-22	FY-2022-23
1	AT&C Loss for Tariff determination (as per Vesting Order)	23.70%	23.70%
2	Collection Efficiency	99%	99%
3	Billing Efficiency =100% -[100%-(1)]/[2]	77.07%	77.07%
4	<b>Distribution Loss for working out Power Purchase Cost = 100%-(3)</b>	<b>22.93%</b>	<b>22.93%</b>

On the basis of the same, the Normative quantum and cost of Power Purchase for working out the Gap/Surplus for any period is as follows:

**Table 2-4 Normative Power Purchase Costs**

Power Purchase Cost for ARR - Normative Loss				
Sr No	Particular	Unit	FY-2021-22	FY-2022-23
A	Total Sales (MU)	MU	6922	7360
B	Normative Billing Loss	%	22.93%	22.93%
C= A/(1-B)	Normative Input/Power Purchase Units	MU	8981	9550
D	Power Purchase Cost @ BSP Rate of Rs.2.83/KWH	Rs. Cr	2542	2703
E	Transmission Charges @ Rs.0.28 /KWH	Rs. Cr	251	267
F	SLDC Charges @ (Rs. 13.368 Lakhs per Month)	Rs. Cr	1.6	1.6
G+ D+E+F	<b>Total Power Purchase Cost</b>	Rs. Cr	<b>2795</b>	<b>2972</b>

This chapter discusses the projections of the Capital Expenditure and the impact it has on the proposed financing of the same. In addition, it also presents the treatment to the ongoing schemes of CESU (i.e Opening CWIP) and also some Government Funded schemes undertaken by erstwhile CESU and TPCODL.

The orders of the Hon'ble Commission dated 8<sup>th</sup> September 2020, 4<sup>th</sup> September 2021 and 18<sup>th</sup> September 2021 passed in the matter of approval of the Capital Expenditure in Case No 32 of 2020, Case No 32 of 2020 (for Capital Expenditure of FY 2020-21) and Case No 5 of 2021 (for Capital Expenditure of FY 2021-22) has been factored in this submission.

In addition, an estimate has been made on the Capital Expenditure Schemes to be undertaken in FY 2022-23. A separate petition for approval of the Capital Expenditure to be initiated in FY 2022-23 will be filed with the Hon'ble Commission in due course.

### **3.1 Capex and Capitalisation**

#### **3.1.1 Schemes Initiated in FY 2020-21**

- **TPCODL Capex**

The Hon'ble Commission had approved the capital expenditure to be incurred in FY 2020-21 for TPCODL in its Order dated 8<sup>th</sup> September 2020. Thereafter, on a petition filed by TPCODL, it approved additional capital expenditure for FY 2020-21, although the order was passed in FY 2021-22 i.e on 4<sup>th</sup> September 2021. The actual capital expenditure in FY 2020-21 has been presented in the True up petition filed separately.

The progress of the Capital Expenditure is given in the table following this paragraph. It is submitted that for making the projections, we have considered that all the schemes proposed and approved under the Order of Hon'ble Commission dated 8<sup>th</sup> September 2020 would be completed in FY 2021-22. Accordingly, the same has been summarized in the table below

**Table 3-1 : Capex and Capitalisation in FY 2020-21 and FY 2021-22 under Case No 32 of 2020 (Rs Cr)**

Sr No	Major Category	Approved for FY-21	Capex in FY-21	Capitalization in FY-21	Capex in FY-22	Capitalization in FY-22
1	Statutory and Safety	68.17	18.84	9.84	49.33	58.33
2	Loss Reduction	39.63	7.17	4.37	32.46	35.26
3	Reliability	72.48	21.42	14.74	51.06	57.74
4	Load Growth	9.00	0.16	0.00	8.84	9.00
5	Technology & Infrastructure	91.35	36.97	37.65	54.38	53.70
	<b>Total</b>	<b>280.63</b>	<b>84.56</b>	<b>66.60</b>	<b>196.07</b>	<b>214.03</b>

- **Schemes from Government Grants and Consumer Contribution and Opening CWIP**

In addition to above, certain capitalization has been achieved out of the Opening CWIP. Further to schemes progressed under Opening CWIP, certain capex and capitalization has been carried out under schemes funded by Government Grants and Consumer Contribution. The Balance capex and capitalization would be achieved in FY 2021-22

**Table 3-2 : Capitalisation in FY 2020-21 from Opening CWIP, Govt Grants and Consumer Contribution (Rs Cr)**

Sr No	Particular	Total Capitalization as booked in Accounts	Capex Funded By
<b>1</b>	<b>Out of Opening CWIP</b>		
	Against R-APDRP Part-A Scheme	129.31	Govt Loan
<b>2</b>	<b>Out of Fresh Capex in June-Mar 2021</b>		
2.1	Against 'SAUBHAGYA' Scheme	13.39	Govt Grant
2.2	Against Consumer Contribution	2.57	Consumer Contribution
<b>3</b>	<b>Total</b>	<b>145.27</b>	

### 3.1.2 Schemes initiated in FY 2021-22

- **TPCODL Capex**

The Hon'ble Commission has approved a capital expenditure of Rs 298.73 Crores in the Order dated 19<sup>th</sup> September 2021 in Case No 5 of 2021. The schemes approved by the Hon'ble commission in the said order are follows:

**Extracts 3-1: Extracts of Order in Case Non 05 of 2021**

**Approved CAPEX Plan FY 2021-22**

Sl. No.	Particulars	Proposed Capex (Rs Cr)	Board Approval (Rs Cr)	Approved Capex (Rs Cr)
<b>A</b>	<b>Statutory, Safety and Security</b>			
1	Equipment enhancing safe work environment	5.50	4.76	4.76
2	Installation / Construction of Plinth fencing or Boundary wall of DSS or GSS	2.50	4.33	4.33
3	Area upliftment/development	4.50		
4	Development of Meter Testing Labs	2.82	2.44	2.44
5	DSS refurbishment	12.01	6.06	6.06
	<b>Sub-Total</b>	<b>27.33</b>	<b>17.59</b>	<b>17.59</b>
<b>B</b>	<b>Loss Reduction</b>			
1	Old electromechanical/ defective meter replacement	113.04	19.05	3.77
2	Smart Metering	54.97	47.60	-
3	Infrastructure for spot billing and spot collection	3.55	3.07	3.07
4	Testing equipment	0.92	0.80	0.80
5	LT O/H bare to LT AB Cable conversion	19.01	12.12	12.12
	<b>Sub-Total</b>	<b>191.49</b>	<b>82.63</b>	<b>19.76</b>
<b>C</b>	<b>Network Reliability</b>			
1	SCADA implementation	31.00	21.64	21.64

Sl. No.	Particulars	Proposed Capex (Rs Cr)	Board Approval (Rs Cr)	Approved Capex (Rs Cr)
2	GSAS implementation	35.11	21.71	21.71
3	33 kV and 11 kV Sick equipment replacement	15.48	13.40	13.40
4	33 kV System improvement schemes	49.74	34.35	34.35
5	11 kV System improvement schemes	21.93	18.99	18.99
6	Distribution Transformer augmentation	7.50	4.33	4.33
	<b>Sub-Total</b>	<b>160.75</b>	<b>114.42</b>	<b>114.42</b>
<b>D</b>	<b>Load Growth</b>			
1	Meter Installation for all new connection	23.47	-	-
2	Network Extension to release New Connection	20.00	17.32	17.32
3	Addition / Augmentation of Power Transformers	15.25	13.20	13.20
	<b>Sub-Total</b>	<b>58.72</b>	<b>30.52</b>	<b>30.52</b>
<b>E</b>	<b>Technology and Civil Infrastructure</b>			
1	Infrastructure for Customer Care, Call Centre, Payment Centre and Section Offices	5.00	4.33	4.33
2	IT & Technology for process efficiency	38.41	21.64	21.64
3	GIS Implementation	26.78	17.32	-
4	Augmentation of Communication Network	10.46	4.73	4.73
5	Transformer Repairing Workshop	7.00	1.73	1.73
6	Central Stores development	5.00	4.33	4.33
7	Civil Infrastructure Upgradation	14.80	12.81	12.81
8	Ready to Use assets for Offices	2.25	1.95	1.95
	<b>Sub-Total</b>	<b>109.69</b>	<b>68.84</b>	<b>51.52</b>
<b>F</b>	<b>Others</b>			
1	Unplanned Capex	20.00	-	-
2	Employee Costs	34.10	-	-
3	Interest During Construction (IDC)	5.40	-	-
	<b>Sub-Total</b>	<b>59.50</b>	<b>-</b>	<b>-</b>
	<b>Total</b>	<b>607.46</b>	<b>314.00</b>	<b>233.81</b>

Requirement of Minimum Capex as per Vesting Order for FY 2020-21	<b>Rs 201.00 Cr</b>
Capex Approved by the Commission for FY 2020-21	<b>Rs 280.63 Cr</b>
Requirement of Minimum Capex as per Vesting Order for FY 2021-22	<b>Rs 393.00 Cr</b>
Capex Approved by the Commission for FY 2021-22 (233.81+17.32+47.6)	<b>Rs 298.73 Cr</b>
Total Minimum Cumulative Capex as per Vesting Order till FY 2021-22	<b>Rs 594.00 Cr</b>
Total Cumulative Capex Approved by the Commission till FY 2021-22	<b>Rs 579.36 Cr</b>



As can be observed from the date of the order, the same was passed on 19<sup>th</sup> September 2021 leaving less than 6 months to complete the planned schemes in FY 2021-22. Based on the preparedness, available material, lead time for procurement and time in hand, the estimated capital expenditure and capitalization envisaged under Case No 05 of 2021 for FY 2021-22 along with same for FY 2022-23 is as follows:

**Table 3-3 : Capex and Capitalisation in FY 2021-22 and FY 2022-23 under Case No 05 of 2021 (Rs Cr)**

Sr No	Major Category	Approved for FY-22	Capex in FY-22	Capitalization in FY-22	Capex in FY-23	Capitalization in FY-23
1	Statutory and Safety	17.59	17.59	16.33	0.00	1.26
2	Loss Reduction	67.36	19.55	18.25	47.81	49.11
3	Reliability	114.42	59.33	37.33	55.09	77.09
4	Load Growth	30.52	8.00	4.20	22.52	26.32
5	Technology & Infrastructure	68.84	47.03	35.17	21.81	33.67
<b>Total</b>		<b>298.73</b>	<b>151.50</b>	<b>111.28</b>	<b>147.23</b>	<b>187.45</b>

- **Schemes from Government Grants and Consumer Contribution**

As regards the Government Schemes, and schemes out Opening CWIP, where TPCODL has not invested any money as such, it is expected that capital expenditure in FY 2021-22 would be Rs **194 Crores** and capitalization for FY 2021-22 is estimated to be **Rs 169 crores**

### 3.1.3 Capex initiated in FY 2022-23

- **TPCODL Capex**

TPCODL has not filed any petition with the Hon'ble Commission for the approval of the Capital Expenditure plan for FY 2022-23. The petition is being prepared and will be filed soon. However, TPCODL is committed to meet the targets for Capital Expenditure in the Vesting Order. On the basis of the same, the proposed capital expenditure for FY 2022-23 works out to **Rs 324.64 Crores**

**Table 3-4 : Capex Target as per the Vesting Order (Rs Cr)**

		Rs Cr
Sr No	Particulars	Capex
1	Cumulative Capex committed till FY 2022-23	904
	Less	
2	Capital Expenditure approved in FY 2020-21	280.63
3	Capital Expenditure approved in FY 2021-22	298.73
4	Total	579.36
<b>5=1-4 Amount for FY 2022-23</b>		<b>324.64</b>

TPCODL has however considered additional Capital Expenditure (i.e over and above the targets in Vesting Order) for improvement of the Operations. It is proposed to execute scheme values of **Rs 590.09 Crores**. Out of the same, it is proposed to execute capital expenditure of **Rs 350 Crores** and capitalize **Rs 280 Crores** out of the same in FY 2022-23.

**Table 3-5 : Proposed Capitalisation for new schemes in FY 2022-23 (Rs Cr)**

Sr No	Major Category	Proposed Capex for FY-23	Capex in FY-23	Capitalization in FY-23	Capex in FY-24	Capitalization in FY-24
1	<b>Statutory and Safety</b>	24.71	15	12	10	13
2	<b>Loss Reduction</b>	103.12	61	49	42	54
3	<b>Reliability</b>	326.60	194	155	133	172
4	<b>Load Growth</b>	45.00	27	21	18	24
5	<b>Technology &amp; Infrastructure</b>	90.66	54	43	37	48
<b>Total</b>		590.09	350	280	240	310

- **Schemes from Government Grants and Consumer Contribution and Opening CWIP**

Under this, we have for FY 2022-23 we have projected a capital expenditure of **Rs 157.07 Crores** and capitalization of **Rs 672.28 Crores** However, such schemes are not considered for allowable Depreciation, Debt and Equity and hence would not have any impact on ARR for FY 2022-23 as such.

### 3.1.4 Interest During Construction

In addition to the quantum presented above for TPCODL capex, we have considered the Interest During Construction (IDC) which would be required to be added to the Capital Expenditure for that year and out of such IDC, part of it would need to be capitalized. The computation of IDC is as given in **Chapter 11 ANNEXURE 3: Working of IDC and Employee Cost Capitalisation**



### 3.1.5 Employee Costs to be capitalised

TPCODL has identified the functions where the employees have been dedicated for designing, monitoring and construction of the Capital Expenditure. Such Departments include Engineering and Quality, Office of Chief Projects, Projects (Civil), Projects (Electrical), SAP implementation, IT- Infrastructure. Further some other functions like Commercial which also include Meter Relay Testing and Customer Monitoring group, a fraction of the manpower is dedicated to capital investment projects. Similarly, for Civil Maintenance, Application –Development and Support a fraction of the manpower cost has been considered for capital investment projects

The costs of such employees have been capitalized. The computation of the Employee Cost included in the Capital Expenditure is as given in **Chapter 11 ANNEXURE 3: Working of IDC and Employee Cost Capitalisation**

### 3.1.6 Additional Capitalisation to compensate the contribution of GRIDCO

The capital expenditure would be required to be financed in the ratio of 70 % (Debt) and 30% (Equity) other than depreciation on existing assets (as mentioned below). Since TPCODL has the shareholding of Tata Power (51%) and GRIDCO (49%), in order to maintain 49% stake in the company, GRIDCO would be required to contribute 49% of such equity. In this matter, relevant extract of the approved Share Holder's Agreement (SHA) is mentioned below.

*2.1 The amount of issued and paid up capital of OPERATING COMPANY may be varied from time to time as may be determined by the Board of Directors or the Shareholders of OPERATING COMPANY, provided that any issue of new shares shall be offered to GRIDCO and TPCL in a manner so as to ensure that GRIDCO and TPCL shall, at all times, hold 49% and 51% respectively of the issued, subscribed and paid up equity share capital of OPERATING COMPANY. The consideration paid by GRIDCO for subscription of equity shall be in cash, kind or any other form, as decided by GRIDCO and should be in compliance with the provisions of the Companies Act, 2013. In case consideration paid by GRIDCO is in any form other than cash, it should be of such nature that it is allowed by the Commission to be included in the fixed asset base for consideration in ARR. Such consideration may include the assets held in the books of the GoO which are being used by CESU utility and which shall continue to be used by the OPERATING COMPANY*

However instead of contributing such equity in cash, GRIDCO may like to contribute such equity in kind. It is further submitted that unless the capital expenditure resources are raised to the full in terms of Debt (but limited to 70%) and in terms of Equity, the capital expenditure would not be financed. Hence to maintain the 51% to 49% shareholding ratio between TPCL and GRIDCO in the TPCODL and also raise adequate finance, GRIDCO's share of equity which will be contributed in kind (Distribution Assets) will be capitalized over and above the amount capitalized by assets in TPCODL. Moreover, such investment should be approved with grossing up of the equity contribution of GRIDCO and the same needs to be added into the capital investment.

The treatment for contribution of GRIDCO is provided in the Vesting Order and the relevant extracts is as given below.

**TREATMENT OF EQUITY INVESTMENT FROM GRIDCO FOR FUTURE CAPITAL INVESTMENT**

*72. Pursuant to GRIDCO's submission as provided in para 28(i) of this order, the Commission orders that the assets transferred to TPCODL in lieu of equity investment by GRIDCO shall be allowed in fixed asset base for determination of tariff, after prudence check, provided that the assets transferred are distribution assets. The Commission, exercising powers conferred to it u/s 86(2) of the Act, advises the State Government to consider providing a one-time approval on transfer of its assets to TPCODL through GRIDCO in lieu of equity investment from GRIDCO as and when such transfer is necessitated.*

To illustrate the grossing up concept, consider the Capital Expenditure of Rs 100 Crore. Based on the same, the Capex/ Capitalisation, Debt and Equity for the purpose of Tariff would be as provided in the table below:

**Table 3-6 Grossing up of GRIDCO Equity**

Sr No	Particulars	Units	Value
a	Capex /Capitalisation of Project	Rs Cr	100
b	Additional Capex/Capitalisation of Asset (in lieu of Equity investment by Gridco)	Rs Cr	17.2
c= a+b	Total Capex/ Capitalisation to be allowed	Rs Cr	117.2
d	Equity contribution by TPC= c x 30% x 51%	Rs Cr	17.9
e	Equity contribution by Gridco= c x30% x 49%	Rs Cr	17.2
f	Equity for Tariff= 30% of c	Rs Cr	35.2
g	Debt for Tariff=70% of c	Rs Cr	82.1

Hence for every Rs One crore of capex/ capitalization incurred/achieved by TPCODL after the Effective date, the Hon'ble Commission is requested to approve Rs 1.172 crores of capex/ capitalization. Out of this, as a contribution of the share towards equity, assets worth Rs 0.172 Crores will be brought into TPCODL by GRIDCO from the assets existing outside TPCODL but which can be used for distribution business.

### 3.1.7 Summary of Capitalisation

The summary of the capitalization based on the above is as given in the table below

**Table 3-7 Summary of Capitalisation (Rs Cr)**

Sr No	Particular	FY 2020-21 (June-Mar)		FY 2021-22		FY 2022-23	
		Actual Capex	Actual Capitalization	Estimated Capex	Estimated Capitalization	Estimated Capex	Estimated Capitalization
1	Opening CWIP as on 01.06.2020	0	129.31	0	131.81	0	357.47
2	TPCODL 's Capex Schemes (Excluding Meters)	84.56	66.60	347.57	325.31	497.23	467.45
3		0.00	0.00	18.65	18.65	0.00	0.00
4	New Capex against Govt/Cons Funded schemes	14.56	13.39	6.90	8.07	0.00	0.00
5		2.64	2.57	168.14	10.47	157.07	314.81
	<b>Total</b>	<b>101.76</b>	<b>211.87</b>	<b>541.26</b>	<b>494.31</b>	<b>654.30</b>	<b>1139.73</b>
6	IDC (on TPCODL's Own Capex excluding Meters)		0.00	1.63	1.43	3.08	2.99
7	Employee Cost (on TPCODL's Own Capex excluding Meters)		0.00	22.34	20.91	23.90	23.82
8	Gridco's Contribution in Kind		0.00	78.45	59.80	90.16	85.01
9	<b>Total (including IDC , Employee Cost &amp; GRIDCO Contribution)</b>		<b>211.87</b>	<b>643.67</b>	<b>576.45</b>	<b>771.45</b>	<b>1251.55</b>

### 3.2 Funding of the Capital Expenditure/Capitalisation

It is submitted that the funding of capital expenditure is being achieved in the following ways

- Government Grants and Consumer Contribution
- Depreciation
- Debt
- Equity

#### 3.2.1 Government Grants

We have presented in **Table 3-8 Funding of Capitalisation (Rs Cr)** the required information. Such schemes have been funded either by Government Funds or through Consumer Contribution. We have not considered any Debt and Equity towards such Capital Expenditure. Further no Depreciation has been considered in the computation of ARR for such schemes

### 3.2.2 Depreciation

As per the Vesting Order, depreciation is allowed to be claimed on existing asset which would be available as fund for the new Capital Investment. The Vesting Order provides the following

#### 47. Depreciation on assets transferred to TPCODL

*(a) As stated in the RFP, all existing assets (being transferred to TPCODL on the Effective Date) would continue to earn depreciation as per existing depreciation rates approved by the Commission. Since, the depreciation relates to existing assets against which no loan has been availed by TPCODL, the depreciation allowed to be recovered from tariff must be utilised in the manner as provided below:*

*i. For the purpose of determination of Aggregate Revenue Requirement, the depreciation on the opening Gross Fixed Assets of TPCODL, as determined by the Commission subject to prudence check, shall be utilized as per the following priority order:*

- a. Funding of Additional Serviceable Liabilities as per para 54 of this order*
- b. Capital Investment*
- c. Working Capital requirement computed as per Tariff Regulations*

*ii. The manner of utilization of such depreciation shall be as per the directions of the Commission. TPCODL shall maintain a separate account for such depreciation.*

*iii. No depreciation shall be allowed to be recovered on assets created out of Government grants irrespective of whether the corresponding grant is transferred to TPCODL or not.*

We have submitted the “Additional Service Liability” (ASL) petition dated 9<sup>th</sup> November 2021 in which we have estimated the ASL that needs to be financed. Such amount has been arrived at after utilizing the Depreciation for the year. Hence such Depreciation is not available for funding capital expenditure as such.

### 3.2.3 Debt or Capital loans



As per the Tariff Regulations, the Debt would constitute 70% of the Capitalization. The extracts of the Tariff Regulations are as given below:

### **Extracts 3-2: Debt as per Tariff Regulations**

**7.43 In case of all new projects, debt-equity ratio shall be 70:30 for determination of tariff. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as the normative loan:**

**Provided that in case of the projects where actual equity employed is less than 30%, the actual debt and equity shall be considered for determination of tariff.**

TPCODL has considered a Debt of 70% of Capitalisation for the new Projects.

For existing projects as on effective date, no loan has been considered as the same has not been financed by TPCODL.

#### **3.2.4 Equity**

On the basis of the Debt Equity Ratio of 70:30, the Equity towards the capitalization of new projects would be considered as 30% of the capitalization in the particular year.

#### **3.2.5 Funding Pattern for FY 2020-21 , FY 2021-22 and FY 2022-23**

The quantum of capitalisation for the three years for Schemes funded by Government and funded under Deposit Schemes are shown separately. The funding of Capitalisation for the three years is as follows:

**Table 3-8 Funding of Capitalisation (Rs Cr)**



Particular	FY 2020-21 (June-Mar 2021)	FY 2021-22	FY 2022-23
Opening CWIP as on 01.06.2020	129.31	131.81	357.47
TPCODL 's Capex Schemes (Excluding Meters)	66.60	325.31	467.45
New Capex against Govt/Cons Funded schemes			
R-APDRP	0.00	18.65	0.00
Saubhagya	13.39	8.07	0.00
Others (Govt Funded + Consumer Funded+ Out of Division wise CWIP)	2.57	10.47	314.81
Gridco's Contribution in Kind	0.00	59.80	85.01
IDC and Employee Cost Capitalization	0.00	22.34	26.80
<b>Total</b>	<b>211.87</b>	<b>576.45</b>	<b>1251.55</b>

Funding of Capitalization	FY 2020-21 (June-Mar 2021)	FY 2021-22	FY 2022-23
<b>Government /Consumer Contribution</b>	145.27	169.00	672.28
<b>Equity</b>	19.98	122.24	173.78
<b>Debt</b>	46.62	285.22	405.48
<b>Total</b>	<b>211.87</b>	<b>576.45</b>	<b>1251.55</b>

## Chapter 4. Distribution Business Costs

This chapter presents the computations of various elements of the ARR . The Wheeling Charges have then been worked out on the basis of such costs for FY 2022-23. Further the Operation and Maintenance Costs for running the business along with the financing costs have been presented.

### 4.1 Depreciation

As per the Regulation 7.56 and 7.57 of the Tariff Regulations, the depreciation would be worked out as follows:

#### Extracts 4-1: Depreciation as per Tariff Regulations

**7.56** Depreciation shall be calculated for each year of the Control Period, on the amount of Original Cost of the Fixed Assets :

Provided that depreciation shall not be allowed on assets funded by consumer contribution (i.e., any receipts from consumers that are not treated as revenue) and capital subsidies/grants:

Provided further that the Licensee shall submit yearwise details of assets retired and disposed of, which shall be removed from the Original Cost of Fixed Assets:

Provided further that assets shall normally be not retired before completion of the useful life and the Licensee shall take prior approval of the Commission in case of retiring any asset before its useful life:

Provided further that the Licensee shall submit yearwise details of the assets which have completed its useful life.

**7.57** Rate of Depreciation for each year of the Control Period shall be allowed on the pre-up-valued assets at pre-1992 rates as notified by the Govt. of India.

**7.58** On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

#### 4.1.1.1 Depreciation on Existing Assets i.e Assets at the time of Effective Date

TPCODL had inherited assets as on 1<sup>st</sup> June 2020 and the same have been presented in the Opening Balance Sheet. Further, Consumer Contribution has been used for funding some of the Assets. For the computation of ARR, the Depreciation after deduction on Consumer Contribution needs to be considered. The contribution of Consumer



Contribution on Depreciation has been factored for projections. The Depreciation on assets existing on effective date has been worked out as following:

**Table 4-1 Depreciation on Existing Assets (Rs Cr)**

		Rs Crs			
Sr No	Particular	As on 01.06.2020	For June-Mar of FY-21	FY-2021-22	As on 31.03.2022 for FY-23
1	Opening GFA	3403.73	3403.73	3403.73	3403.73
2	Depreciation for the Period		72.29	86.75	86.75
3	Accumulated Depreciation	1349.76	1,422.05	1,508.80	1,595.55
4	Less: Depreciation on Consumer Contribution				
5	Quantum of Consumer Contribution	1,974.64	1,974.64	1,974.64	1,974.64
6	Depreciation on Consumer Contribution		59.24	71.09	71.09
7	Depreciation for the year to be considered in ARR		13.05	15.66	15.66

TPCODL has filed the ASL petition dated 9<sup>th</sup> November 2021 in which it considered the gross depreciation for period of 10 months (i.e without deduction of Depreciation for consumer contribution). In case the same i.e the amount of Rs 72.35 is considered, then we request the Hon'ble Commission to consider this amount of Rs 72.35 Crores in the ARR computation i.e prior to factoring the impact of Consumer Contribution on Depreciation . The extracts from the ASL petition is as follows:

**Extracts 4-2: Extracts from ASL petition.**

77. Presently considering the Gross Depreciation of Rs. **72.35** Cr., as allowed in the ARR for Tariff determination for FY 2021-22 , the following is quantum of funding required through Short Term Loans for meeting the Additional Serviceable Liability (ASL)

**Table 19: Funding required to meet the ASL**

Sr No	Particulars	Units	Amount
1	ASL as worked out above	Rs Cr	391.82
2	Less Depreciation for FY 2020-21	Rs Cr	(72.35)
3	<b>Amount of ASL for funding through Loans</b>	<b>Rs Cr</b>	<b>319.47</b>

In other words, the Hon'ble Commission is requested to considered the same amount of Depreciation in computation of ARR as considered for funding the ASL.

**4.1.1.2 Depreciation on Assets created from Capital WIP inherited on Effective Date and out of Government Funded/Consumer Contribution Projects**

As mentioned earlier, the Capital WIP inherited on the effective date would be converted into the GFA. In addition, certain projects are getting executed under Government Funding/ Consumer Funded Schemes which too would contribute to the Depreciation. While we have worked out the Depreciation on these assets and presented them here, we have not considered the same for computation of ARR. For computation of Depreciation on these assets, as these assets have been created after 1<sup>st</sup> June 2021, we have considered the rates as given in Annexure 3 of the Vesting Order. Accordingly, the depreciation for the two years viz FY 2021-22 and FY 2022-23 are as follows:

**Table 4-2 Depreciation on Assets out of Opening CWIP**

		Rs Cr		
<b>Addition on GFA in FY-21</b>		<b>129.31</b>		
<b>Sr No</b>	<b>Particular</b>	<b>For June-Mar of FY-21</b>	<b>FY-2021-22</b>	<b>As on 31.03.2022 for FY-23</b>
1	Depreciation for the Period	0.40	6.83	6.83
2	Accumulated Depreciation	0.40	7.22	14.05
<b>Addition of GFA in FY-22</b>		<b>131.81</b>		
4	Depreciation for the Period		3.48	6.96
5	Accumulated Depreciation		3.48	10.44
<b>Addition of GFA in FY-23</b>		<b>357.47</b>		
4	Depreciation for the Period			9.44
5	Accumulated Depreciation	-	-	9.44
<b>Summary</b>		<b>FY 2020-21 (10 Months)</b>	<b>FY 2021-22 (Projected)</b>	<b>FY 2022-23 (Projected)</b>
Addition to GFA		129.31	131.81	357.47
Depreciation for the Period		0.40	10.31	23.22
Accumulated Depreciation		0.40	10.70	33.93

**Table 4-3 Depreciation on Assets out of Government Funds/Consumer Contribution**

		Rs Cr		
<b>Addition on GFA in FY-21</b>		<b>15.96</b>		
<b>Sr No</b>	<b>Particular</b>	<b>For June-Mar of FY-21</b>	<b>FY-2021-22</b>	<b>As on 31.03.2022 for FY-23</b>
1	Depreciation for the Period	0.12	0.84	0.84
2	Accumulated Depreciation	0.12	0.96	1.80
<b>Addition of GFA in FY-22</b>		<b>37.19</b>		
4	Depreciation for the Period		0.98	1.96
5	Accumulated Depreciation		0.98	2.95
<b>Addition of GFA in FY-23</b>		<b>314.81</b>		
4	Depreciation for the Period			8.31
5	Accumulated Depreciation	-	-	8.31
<b>Summary</b>		<b>FY 2020-21 (10 Months)</b>	<b>FY 2021-22 (Projected)</b>	<b>FY 2022-23 (Projected)</b>
Addition to GFA		15.96	37.19	314.81
Depreciation for the Period		0.12	1.82	11.12
Accumulated Depreciation		0.12	1.94	13.06

#### 4.1.1.3 Depreciation on Assets created from TPCODL capex

The vesting order under Para 42 (f) permits depreciation at the rates as applicable in the Annexure 3 of the Vesting Order. The extracts of the Vesting Order is as follows

*(f) The capital investments made by TPCODL shall be allowed recovery of depreciation in line with the rates prescribed in Annexure –3 till the time applicable regulation is notified by the Commission. The depreciation rates specified in regulations shall prevail over the rates specified in Annexure – 3 as and when applicable regulation is notified by the Commission.*

A perusal of Annexure 3 of the Vesting Order and the Capex schemes undertaken would indicate that a large majority of the schemes when capitalized would be entitled for a depreciation of 5.28 %. Hence we have considered this rate for the projections in the ARR. Further, we have considered 50% of the Depreciation on assets for the year of capitalization. The Depreciation for such assets hence works out to as follows:

**Table 4-4 Depreciation on Capex (“TPCODL Capex”)**

				Rs Cr
<b>Addition on GFA in FY-21</b>		<b>66.60</b>		
Sr No	Particular	For June-Mar of FY-21	FY-2021-22	As on 31.03.2022 for FY-23
1	Depreciation for the Period	2.73	3.52	3.52
2	Accumulated Depreciation	2.73	6.25	9.77
<b>Addition of GFA in FY-22</b>		<b>407.45</b>		
4	Depreciation for the Period		10.76	21.51
5	Accumulated Depreciation		10.76	32.27
<b>Addition of GFA in FY-23</b>		<b>579.26</b>		
4	Depreciation for the Period			15.29
5	Accumulated Depreciation	-	-	15.29
<b>Summary</b>		<b>FY 2020-21 (10 Months)</b>	<b>FY 2021-22 (Projected)</b>	<b>FY 2022-23 (Projected)</b>
	Addition to GFA	66.60	407.45	579.26
	Depreciation for the Period	2.73	14.27	40.32
	Accumulated Depreciation	2.73	17.01	57.33

#### 4.1.1.4 Summary of Depreciation

Based on the above analysis and presentation, the depreciation for the various periods work out to as follows:



Table 4-5 Summary of Depreciation (Rs Cr)

Particulars	FY 2020-21 (10 Months)	FY-2021-22 (Projected)	FY 2022-23 (Projected)
On Opening Asset	13.05	15.66	15.66
Assets Created from a) Opening CWIP and b) New Capex from Govt Fund/ Consumer Contribution*	0.00	0.00	0.00
TPCODL's Own Capex	2.73	14.27	40.32
<b>Total</b>	<b>15.79</b>	<b>29.94</b>	<b>55.99</b>

Note: No Depreciation has been considered for computation of ARR

## 4.2 Interest on Capital Loans

As per the Tariff Regulations, the interest rate would be applicable on the actual loan portfolio at the beginning of each Financial year. The extracts from the Tariff Regulations is as under

### Extracts 4-3: Interest applicable as per Tariff Regulations

**7.48 The rate of interest on capital loans shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each Financial Year :**

**Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:**

**Provided further that if the distribution licensee does not have actual loan, then the rate of interest shall be determined by the Commission from time to time.**

For the purpose of financing the Capital Expenditure, TPCODL has availed of loans from State Bank of India (SBI) . The broad terms of loans for cost are extracted from the Term Sheet and provided below

Extracts 4-4: Basic terms of SBI Sanctioned Loan

Particulars	Proposed Terms
<b>Borrower</b>	TP Central Odisha Distribution Limited
<b>Promoter</b>	The Tata Power Co Ltd (TPCL)
<b>Capex Cost</b>	Rs.353 crores
<b>Term Debt Facility (Amount)</b>	Rs.247 crores
<b>Purpose</b>	For funding of approved capital expenditure.
<b>Promoters contribution</b>	For capex: the promoters' contribution will be 30% of the Capex requirement.
<b>Upfront Fee</b>	1.10% of the Term Loan Facility Amount plus applicable taxes payable upfront at the time of sanction.
<b>Tenor of loan</b>	Door to Door tenor of 15 years with Average Maturity of 7.87 years.  Repayment Schedule starting from June 2021 till September 2036 is given below this table  Repayments will be made as 4 equal quarterly payments at the end of each quarter.
<b>External Credit Rating</b>	External Credit Rating from any rating agencies approved by RBI to be obtained.  Company will be permitted timeline upto 3 months for obtention of External Credit Rating from the date of first disbursement of credit facilities advised letter no. CAG/AMT-4/2020-21/690 dated 07.10.2020 and accepted by the company.
<b>Rate of Interest</b>	Applicable Rate of Interest shall be equivalent to SBI 6 month MCLR (Applicable Benchmark) prevailing at the time of first disbursement under the RTL + Spread. The proposed spreads for different levels of initial credit rating of the Facility are given below:  if AA bucket MCLR + 0.75% i.e., 7.70% pa.  if A bucket MCLR + 0.90% i.e., 7.85% pa.  Applicable Benchmark rate as on date is 6.95%  Applicable Benchmark will be reset at end of 6 months from first disbursement under the Facility and thereafter on 6 months intervals. Applicable Spread for SBI shall remain constant throughout the tenor of the Facility.  Till the time, ECR is obtained by the company, interest rate as applicable for A+/A/A- would be applicable for the facility.  All disbursements till next reset of Applicable Benchmark shall be linked to same Applicable

As can be seen, the loan has a varying interest rate and the present applicable interest rate is 7.70% p.a. In addition, it has an upfront fees and other fees like Bank's annual

processing cost, one time acceptance fees, annual charges that are applicable. If such costs are considered, then, then the effective interest rate works out 7.98% (i.e an additional 0.28% p.a to accommodate such onetime costs). We have considered such interest rate for working out the interest on Capital loans for the relevant period. The computations are as given below

**Table 4-6 Interest on Capital Loans (Rs Cr)**

Sr No	Particular	Unit	FY-21	FY-22	FY-23
1	Opening Balance	Rs Cr	0	43.88	314.83
2	Addition	Rs Cr	46.6	285.22	405.48
3	Repayment = Depreciation on TPCODL's Capex	Rs Cr	2.73	14.27	40.32
4*					
5=1+2-3-4	Closing Balance	Rs Cr	43.88	314.83	679.99
6=Average(1,5)	Average Balance	Rs Cr	21.94	179.36	497.41
7	Period	Years	0.83	1	1
8	Interest Rate	%	7.98%	7.98%	7.98%
9= 6 X 7 X8	<b>Interest Amount</b>	<b>Rs Cr</b>	<b>1.46</b>	<b>14.31</b>	<b>39.69</b>

\* Kept intentionally blank

### 4.3 Interest on Working Capital

As per the Tariff Regulations, the computation of Working Capital and also the interest on the same is as given in the table below:

#### Extracts 4-5: Working Capital and Interest on the same as per Tariff Regulations

7.49 Interest on Working Capital: Working capital shall include—

- (a) Operation and maintenance expenses for one month;
- (b) Receivables for one month;
- (c) Maintenance spares @ 40% of R&M expenses for one month.

7.50 The rate of interest for working capital shall be equal to the SBI Base Rate plus 300 basis points as on 1st January of the preceding year for which tariff is determined: \_\_\_\_\_

Provided that the Commission while determining the working capital requirement, shall take into account the outstanding receivables with the consumers as per the annual audited accounts of the licensees, and may direct the licensee to fund the requirement of working capital by collection from the outstanding receivables.

We have considered that above regulations to work out the Interest on Working Capital and the interest rates as given by SBI on their Website <https://www.sbi.co.in/web/interest-rates/interest-rates/base-rate-historical-data>. The Interest on Working Capital workings for the two periods is as follows:

**Table 4-7 Interest on Working Capital Computations (Rs Cr)**

Interest on Working Capital (Normative)		FY 2020-21 (10 Months)	FY 2021-22	FY 2022-23
O&M Expenses for One Month	Rs Cr	82.55	83.51	102.58
Receivable for One Month	Rs Cr	281.65	331.09	350.15
Maintenance Spare at 40% of R&M expenses for one Month	Rs Cr	5.71	6.77	8.41
<b>Total Working Capital</b>	<b>Rs Cr</b>	<b>369.90</b>	<b>421.37</b>	<b>461.13</b>
*Applicable Interest Rate	%	11.5%	10.3%	10.45%
<b>Interest On Working Capital</b>	<b>Rs Cr</b>	<b>35.29</b>	<b>43.40</b>	<b>48.19</b>

\* Norm: SBI Base rate as on 1st Jan of Preceeding year + 300 bps

#### 4.4 Return on Equity

As per the Vesting Order, the Return on Equity would be available as follows:

##### 56. Return on equity:

*As per the terms of RFP, the Commission shall allow return on equity, as per the Tariff Regulations, to TPCODL on the equity capital of Rs. 300 crore (Indian Rupees Three hundred crore only) which was the reserve price of the utility of CESU specified in the RFP.*



## RELAXATION OF CONDITIONS RELATED TO RETURN ON EQUITY

68. As provided in para 56 of this order, the Commission shall allow to TPCODL return on equity, as per the regulations, on the equity capital of Rs. 300 crore (Indian Rupee Three hundred crore only) which was the reserve price of the utility of CESU specified in the RFP.

69. The above provision of the RFP is not in conformity with clause 7.51 of the Tariff Regulations

70. In the RFP, a return on equity on the reserve price of Rs. 300 crores (Indian Rupee Three hundred crore only) is assured in order to encourage investor participation by providing certainty on returns.

In addition, the Tariff Regulations provide for equity capital invested in the Capitalisation. The Return on Equity as per the Tariff Regulations is as follows:

### Extracts 4-6 : Return on Equity as per Tariff Regulations

#### Return on Equity :

7.51 Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulations 7.33 to 7.48.

7.52 The Distribution Licensee shall be allowed a return on equity capital at the rate of 16 per cent per annum (post tax), in Indian Rupee terms, on the amount of equity capital determined in accordance with Regulations 7.33 to 7.48.

7.53 In case of foreign currency brought as capital, the Commission may consider a separate rate of return if foreign exchange variation is allowed as a pass through.

7.54 The tax only to the extent of the tax on return is provided as pass through.

On the basis of the above, TPCODL has worked out the Return on Equity (RoE) for the capitalization arising out of the Capex undertaken by TPCODL after Effective Date. As considered for Depreciation and Interest on Capital Loan, we have considered that the capitalization is at the centre of the period. The RoE workings are as follows:

**Table 4-8 Return on Equity Calculations (Rs Cr)**

Sr No	Equity Addition & RoE	FY-21	FY-22	FY-23
a1	Capitalization excluding meters from TPCODL's own capex(including IDC & Emp Cost)	66.6	347.65	494.25
a		0	347.65	494.25
b= 17.2% of a	Additional Capitalization (in lieu of Equity Investment by GRIDCO)	0.0	59.8	85.0
c=a+b	Total Capitalization for computation of Equity	66.60	407.45	579.26
d	Equity Contribution by TPC = c X 30%X 51%	10.19	62.34	88.63
e	Equity Contribution by GRIDCO= c X 30%X 49%	9.79	59.90	85.15
<b>f</b>	<b>Total Equity = 30% of C</b>	<b>19.98</b>	<b>122.24</b>	<b>173.78</b>
<b>RoE</b>		<b>Rs Cr</b>	<b>Rs Cr</b>	<b>Rs Cr</b>
1	Opening Equity	300	319.98	442.21
2	Addition	19.98	122.24	173.78
3=1+2	Closing Equity	319.98	442.21	615.99
4	<b>RoE = Average (1,3) X 16%</b>	<b>41.33</b>	<b>60.98</b>	<b>84.66</b>

## 4.5 O&M Expenditure

The O&M Expenditure has been categorized under three major heads viz a) Salaries and Wages b) Repairs and Maintenance (R&M) and c) Administration and General (A & G) .

TPCODL had filed a petition (Case No 41 of 2020) for approval of Annual Business Plan for FY 2020-21 in pursuant to the direction of the Hon'ble Commission in Case No.11/2020 (Vesting Order) dated 26<sup>th</sup> May 2020. The Business Plan for FY 2020-21 comprised the Capex proposed and plan for Operation and Maintenance (O&M) expenditure. As regards the O&M Expenditure, the Hon'ble Commission vide its order dated 16<sup>th</sup> November 2020 ("ABP Order") had approved O&M Expenditure for 10 months of operation in FY 2020-21. Such expenditure approved was over and above the expenditure which was approved for erstwhile CESU for the FY 2020-21 in the Tariff Order dated 26<sup>th</sup> March 2020.

TPCODL has gained an experience of about 18 months and has been able to further understand the need for such expenditure over various heads. It has for projection considered the approved amounts or manpower as approved in the ABP order and also the norms allowed by the Tariff Regulations. It is submitted that the requirement of expenditure in some areas is above the norms stipulated by the Hon'ble Commission in their Tariff Order. The Projections under the various heads are as follows

### 4.5.1 Salaries and Wages

#### 4.5.1.1 Expenses of erstwhile CESU employees (now TPCODL employees)

It is submitted that the Hon'ble Commission has been approving the Salaries and Wages for existing employees on the date of takeover on the basis of the revisions made by the Government of Odisha from time to time. Such revisions were incorporated by the Hon'ble

Commission in the tariff order passed in April 2020 and also in the Tariff Order passed in March 2021 on the basis of the estimates then made.

- **Employee Expenditure for FY 2021-22**

The Hon'ble Commission had in the Tariff Order of March 2021 approved the expenditure considering the projected number of employees, estimated Dearness Allowance and projections of Other allowances and Terminal Benefits. No amount was considered in the Tariff Order towards payment of Arrears of the 7<sup>th</sup> Pay Commission

However, the quantum of expenditure projected for the FY 2021-22 is likely to be different from that allowed in the Tariff Order. We have for the purpose of projections, considered the actual expenditure for H1 FY 2021-22 and for H2 FY 2021-22, we have considered the trend in the H1. We have considered the impact of revised DA (i.e from 17% to 28%) announced by the Government of Odisha effective from 1<sup>st</sup> July 2021. Further, we too have not considered any payment towards the 7<sup>th</sup> pay commission arrears in FY 2021-22

- **Employee Expenditure for FY 2022-23**

The amounts for FY 2022-23 have been projected on the following basis:

- 3% escalation considered on Basic Salary over FY 2021-22
- DA is considered at 37% <sup>1</sup>on the Basic Salary.
- Housing Rent allowance considered at 20% of Basic Salary
- Reimbursement of Medical expenses are considered at 5% of the basic Salary.
- Nominal escalation of 10% considered for other expenditures including that for Outsourced Employees.
- Recovery of Arrears of 7th Pay Commission** : The arrears under the 7<sup>th</sup> Pay Commission had been estimated to be Rs 135 Crores for both regular and retired employees. A quantum of about Rs 60 Crores has been paid in FY 2020-21. Further, since no amount has been considered in FY 2021-22 , the balance amount of Rs 75 Crores has been proposed to be paid in FY 2022-23.
- New Health Insurance Scheme:**

DA Projection		
1	DA Approved by GoO as on 01.07.2021	28%
2	Rate based on movement of CPI as on 01.07.2021	31%
3	Estimated Increase in Rate upto 1st July 2022	6%
1	4=2+3	37%



TPCODL is following Orissa Medical Attendant Rules for the erstwhile CESU employees which is in line with OPTCL Medical Rules for reimbursement of medical expenses of its regular employees. The main features of the Policy are as under:

- i. **Coverage** - It covers all regular employees of OPTCL
- ii. **Coverage Type** - Family Floater.
- iii. **Annual Coverage Amount:**
  - a) **Rs.5.00 lakh** for all non-executives and executives upto E-7 (DGM Rank) Grade
  - b) **Rs.7.00 lakh** for all Executives of E-8 (GM rank) Grade and above.

The Unions & Associations functioning under TPCODL have demanded implementation of Group Health Insurance Scheme in line with OPTCL. At present, 4965 Nos of erstwhile CESU employees are on roll of TPCODL. If we consider the premium paid by OPTCL for calculation purpose, the total annual premium amount will be approximately Rs.10920/- x 4965 = Rs.5.42 Crores for all the erstwhile CESU employees of TPCODL. We understand that OPTCL has now implemented the Group Health Insurance Scheme for all the employees of OPTCL and their dependent family members (limited to six) vide their Circular No.AW/E&M-MED-518/2013/ 8755 dated 21.05.2021.

- h. **Outsourced Employees:** In addition, TPCODL is required to outsource manpower for Operations of Substations (about 1805 ), for Security (about 350) and towards Office Administration (about 182). In all about 2337 personnel would be required. An amount of Rs 54.68 Crores was approved by the Hon'ble Commission for FY 2021-22. Considering an escalation of 10%, the an expenditure of Rs **60.15** Crores would be required for FY 2022-23 and same is considered for projections.

Based on the above, the estimated expenditure for the two years i.e FY 2021-22 and FY 2022-23 is as follows:

**Table 4-9 Projections of erstwhile CESU employees (Rs Cr)**

Sr No	Particulars	FY 2020-21 (Actuals)	FY 2021-22 (Estimated)	FY 2022-23 (Estimated)
1	Basic + Grade Pay	192.24	207.92	210.03
2	Dearness Allowance	51.65	55.45	77.71
3	House Rent Allowance	25.83	31.35	42.01
4	Medical Allowance/Reimbursement of Medical Expenses	7.68	8.00	10.50
5	Terminal Benefit (Pension, Gratuity, Leave Encashment/Compensated absences, Employer Contribution to CPS / CPF) as per Actual/Estimated Cash Flow	216.01	235.15	232.13
6	Staff Welfare and Other Employee Benefit Expenses	1.28	3.11	3.43
7	Other Allowances (Bonus, Ex-gratia & others)	7.28	9.99	10.98
8	7th Pay Arrear			75.00
9	Ousourced & Contractual Employees	50.81	54.68	60.15
10	Health Insurance Scheme (New)			5.42
	<b>Total</b>	<b>552.78</b>	<b>605.66</b>	<b>727.37</b>

It is submitted that the Government of Odisha on 6<sup>th</sup> November 2021 issued a circular in which it has revised upwards the consolidated remuneration by about 25% for Contractual and Outsourced employees under its various departments. Various unions are demanding that such rise be made applicable to them too. In the present petition, we have not considered any impact of the same as applicability of this circular to TPCODL is being studied. In case the same is required to be implemented, there will be additional burden on the ARR.

#### 4.5.1.2 Additional Employees after effective date

The Hon'ble Commission in the ABP Order had permitted the following:

*27. TPCODL have inherited on its rolls 4917 number of regular employees and 435 number of contractual employees as on 31.05.2020. TPCODL has proposed total manpower strength of 6219 number of regular employees and 435 numbers of contractual employees. TPCODL has stated that the existing manpower available with TPCODL has 618 Nos. of Executives and 1302 additional employees in the executive cadre need to be inducted under 14 departments. As per the petition the inductions will be made under the level as Head, HOD, HOG, Team Leader and Lead Engineer/Lead Associate. The maximum number of Executives will be positioned in the Lead Engineer/Lead Associate level totaling to 989 numbers. They have further proposed to position 620 Nos. of Team leader, 115 Nos. of HOG, 111 Nos. of HOD and 45 Nos. of Chief/Head. Out of these numbers, after bringing in the existing staff of TPCODL balance numbers will be inducted*



32. The Commission however, observes that the induction of 1367 new employees in executive cadre in one year will have a huge impact on the employees cost and consequently on tariff. The Commission is also aware that in the DISCOMs no new significant recruitments have been made during last 10 years and DISCOMs have appreciable shortage of required manpower. The ratio of the employees vrs consumers has also widened over the years and bringing in new employees will bridge this gap for efficient functioning of the DISCOMs. The Commission is not averse to allowing employee cost which is just and as per the present norms of the relevant industry. At the same time, the Commission is not inclined to fill all the required personnel/ vacancies in one year. Such a large scale recruitment in a short period is bound to choke the career growth over the years besides causing tariff shock. Instead, it should be spread over a longer period.

33. The Commission now allows 8% of the total proposed manpower in the current year and stipulates that the new recruitments be made as per the operational requirements. The proposed expense on HR operation may also be accordingly adjusted.

The Employee Expenditure under this category has been projected for FY 2021-22 by applying the Opening Level of Employees (611), the proposed addition ( 231) and the expected attrition (26). Based on the same, the quantum of Expenditure under this category for FY 2021-22 works out to **Rs 95.0 Crores**.

- **Employee Cost Projection for FY 2022-23- Executive Cadre**

TP Central Odisha Distribution Limited (TPCODL) started its Operation as a joint venture of Tata Power and Odisha Govt. in the erstwhile CESU distribution area from 1st June 2020 with an ambitious plan to improve Reliability of Power Supply, enhance Customer Services and implement cutting edge technology to meet the business requirements for safe operations and reduction in Aggregate Technical & Commercial losses. Based on this plan, respective departments of erstwhile CESU were reengineered functionally & structurally. At the time of take over, the most significant challenge at TPCODL relating to Human Resource were as follows:

- a. **An aging workforce:**

TPCODL has inherited the entire existing manpower of CESU in line with provision of the RFP and Vesting Order. There were 633 executives and 4380 non-executives with average age of 44 years. Further, there was no induction of any new manpower during last one decade



which had increased the average age. In executive cadre, more than 10.5% employees are in age range of 54-60 years while for non-executives it is at 25% (approx.). Almost 20% of employees are going to be separated within next five years. These employees are working in areas of O&M, Commercial, Finance, Administration and other Various Departments.

**b. Lack of required skill set:**

In absence of structured Training and Development program, employees have limited option to enhance their competency level in this fast-changing business environment. Competency enhancement in terms of internal job rotation either horizontal or vertical movement is also not visible. Fresh competency also did not enter into workforce during last one decade and this has destabilized the workforce demography at erstwhile CESU including technical competency. For example, in technical cadre (Non-Executive), more than 30% employees are less than 10th qualified. There are around 500 ITI technical employees (Non-Executives) but only few (approx. 40-50 may have supervisory licence). More so, in order to enhance network reliability, network safety, fast resolution of operational and commercial complaints, many new functions like Power System Control Centre (PSCC), Quality, Engineering, Consumer services, safety, security, CSR, Training & Development etc. need to be started. In addition to this, many new technologies are to be adopted for better control and faster resolution of issues like SAP, SCADA, Mobile Apps, and GIS etc. for which appropriate competencies are required. Hence, it is essential to upgrade competency level of existing employees to work in new functions and on new technology platforms.

**c. Shortage of Competent Manpower**

On manpower front, acute shortage of manpower is very much visible. At Sub- Division level mostly, one single officer is working as SDO and SDM. In Grid operation also, five or six persons are available against approved / designed number of nine. CESU was not allowed to induct fresh manpower during last ten years. The total approved manpower in CESU is 9700 while presently there are 5500 (and. includes contractual manpower). This establishes the massive shortage of manpower at CESU and a challenge for seamless operation.

The ratio of the employee's to consumers has also widened over the years and bringing in new employees will bridge this gap for efficient functioning of the DISCOMs. TPCODL has stated that the existing manpower available with TPCODL has 618 Nos. of Executives and 1367 additional employees in the executive cadre needed to be inducted under 14 Departments. The details of Manpower requirement submitted to the Hon'ble Commission after take over are as given in the following table .:

**Table 4-10 Gap Requirement on the date of the commencement of Operations**

Function / Designation	Core O&M	Operation Support Services	PSCC	Commercial*	Projects	IT*	Finance	HR & Admn	Trust Management & MIS	Procurement & Store	Legal	Security	Corp. Affairs & Communication	Secretarial	Total
Chief / Head	14	11	1	4	3		4	4		3	1				45
HoD	44	29	0	5	10		9	2		6	1	3	1	1	111
HoG	8	23	7	45	9	3	23	14		15	5	2			154
Team Leader	197	118	4	187	0	55	37	14		3	2		2	1	620
Lead Engineer / Lead Associate	442	69	54	278	71		20	8	4	33		10			989
Add: 15% (Shift Reliever, Leave, Weekly Off in O&M)	66	0	0	0	0	0	0	0	0	0	0	0	0	0	66
<b>Total</b>	<b>771</b>	<b>250</b>	<b>66</b>	<b>519</b>	<b>93</b>	<b>58</b>	<b>93</b>	<b>42</b>	<b>4</b>	<b>60</b>	<b>9</b>	<b>15</b>	<b>3</b>	<b>2</b>	<b>1985</b>
Existing erstwhile CESU Executives as on 31st May 2020	415	14	17	63	4	3	75	14	4	7	0	0	1	1	618
Gap in Resources identified as on 31st May 2020	356	236	49	456	89	55	18	28	0	53	9	15	2	1	1367

As can be seen from the above table, a gap of 1367 Employees was identified as on the date of commencement of operations. Thereafter, recruitment as given in the following table was made in FY 2020-21

**Table 4-11: Recruitment during FY 2020-21**

Area-->	Operations and Civil	Enforcement	Commercial	OT (PSCC+SCADA+GIS)	HR and Admin	Finance	Projects	IT	Procurement and Stores	Corporate Communication, GR, Legal , CEO Cell	Security and Vigilance	Total
Number of Persons recruited	170	13	126	30	26	10	45	40	23	8	6	497

In addition to these 497 employees, 50 trainees and 71 Nos. of JE Commerce were recruited against superannuated employees i.e a total of 618 Employees were recruited. The Gap as on 1<sup>st</sup> April 2021 was reduced to 756 Employees after considering an attrition of about 7 employees. In FY 2021-22, a total of about 231 Employees have been recruited by TPCODL and the expected attrition would be about 20 in this FY 2021-22. With this, the Gap in resource would be about 551 employees in this cadre.

Further, Gap in future would be created due to retirement of about 76 employees in the Executive Cadre till FY 2029-30 and 211 employees in the Non Executive Cadre in the same period

At the same time, since inception TPCODL has implemented many digitalization initiatives to reduce human interventions and to provide world class services to all stakeholders. Few initiatives which have been implemented in the last financial year and their implications are listed below:

- Centralized Payroll System:** In erstwhile CESU, Payroll was processed from Divisions and in tally system. TPCODL has introduced Centralized payroll system through SAP. Accordingly, the payroll system is processed centrally from Head office with less no. of manpower.



- **BIRD Cell:** Bill Inward Reception Desk (BIRD) has implemented at TPCODL where all Bills of TPCODL are received and the bills are processed centrally which reduces the Bill payment works at Circles & Divisions.
- **Automation & SCADA:** Various Processes are automated and many technical interventions are reduced.
- **SAP – HCM/TM Module:** SAP Human Capital Management & Time Management modules rolled out at TPCODL. Accordingly, employee details & their leave details are maintained digitally through SAP.
- **SAP – FICO Modules:** SAP FICO module reduced the paper works in Finance & accounts department leading to error free work with involvement of lower No. of Manpower.
- **Meter Reading & Bill Collection App Development:** Meter reading & Bill collections were done manually which was leading to multiple site visits. This Mobile app helped to timely meter reading and collection at a single visit.

Based on above digitalization initiatives many areas of work which involved large manpower requirement has been reduced. Keeping in mind the above facts, the organization structure of TPCODL was reviewed and reengineered. Accordingly, in the FY 2022-23, the recruitment of about 120 Employees is proposed to meet the Gap identified. The various areas of proposed recruitment are as follows:

**Table 4-12 Recruitment during FY 2022-23**

Function	Operation Services	Commercial Services	PSCC & Automation	Finance	HR & Admin	Procurement & Stores	IT	Legal & Corp. Comm.	Others (Strategy, Regulatory, Quality, Business Excellence)	Total
Manpower Requirement (Executive)	17	30	29	4	3	9	5	2	21	120

### **Rationale for additional Manpower**

#### **i. Operation Services**

TPCODL Operations functions has brought several improvements through introduction of new initiatives like Preventive Maintenance, Distribution support services, Condition based monitoring or Network planning etc. These new initiatives have resulted various operational parameters for better consumer services. TPCODL has implemented structured maintenance program for 11KV and downstream network. Annual maintenance contracts have been established with various service providers for maintenance and upkeep of 11KV and downstream network. Each asset is being



inspected and maintained as per defined procedures. There has been a significant reduction in 11 KV interruptions across TPCODL in comparison to FY20.

The Comparison of 11 KV interruption data is given below:

**Table 4-13: Comparison of Interruption over the period**

Type of Interruption	Jun-20	Jun-21	Jul-20	Jul-21	Aug-20	Aug-21	Sep-20	Sep-21	Oct-20	Oct-21	Total FY (Jun-Oct)	Total in 20 FY (Jun-Oct)	in 21 FY (Jun-Oct)	% Reduction
11 KV Feeder Fault Interruptions	22113	12124	21728	14229	25635	13128	18994	12838	19958	11093	108428	63412	63412	41.52
11/0.4 KV DT Interruptions	3927	1432	8559	1248	4691	1399	3339	1543	3238	1202	23754	6824	6824	71.27

TPCODL is analysing each interruption closely and corrective actions are implemented to reduce/eliminate the undue tripping's through preventive, condition based maintenance program, and investments. In this regard, annual maintenance plan has been devised to ensure maintenance of 100% assets. ERP based maintenance programs has been implemented by TPCODL in recent time.

TPCODL has also implemented Condition Based Maintenance of feeders and substations with the introduction of infrared cameras and Ultrasonic detector etc.in the distribution system. These technologies shall help in assessing the health condition of the costlier assets and maintenance programs can be adjusted to improve the condition of distribution assets as per the outcome of their condition.

- **Distribution Transformers**

Due to lack of preventive and condition based maintenance during erstwhile CESU time, condition of distribution transformers is bad at many locations. Oil leakage is observed in many transformers, power connections are bad, and condition of earth connections are found bad. Insulation resistance values of windings and dielectric strength of oil is also found bad in many distribution transformers. TPCODL has made maintenance program to improve the condition of distribution transformer substation gradually. Accordingly, materials for maintenance and upkeep of distribution transformers including insulating oil is planned to be procured. Besides, condition of distribution substations will be improved through repair/replacement of defective equipment and accessories which includes, DO fuses, GO switches, lightning arresters, and LTDB etc.

- **Overhead Feeders**



TPCODL network comprises of nearly 38000 KMs of 11KV network, and 54000KMs of LT network. Due to lack of preventive maintenance during erstwhile CESU time, the condition of network got deteriorated. TPCODL has taken up structured maintenance of feeders which includes replacement of defective accessories such as poles, cross arms, insulators, undersize conductor, and stay wires. Strengthening of feeders shall be done by installation of intermediate poles, lightning arresters, earth electrodes, anti-bird perching devices, and insulation sleeves. These initiatives would continue in FY2022-23.

A number of AB switches, auto reclosures, sectionalizers, and Ring Main Units are installed in distribution network. This equipment is being maintained at regular interval and parts are replaced when required. TPCODL is planning to keep sufficient spares for maintenance and upkeep of these equipment along with service contracts with original equipment manufacturers so as to avail the services during exigencies.

Part of TPCODL network is underground especially in cities and towns. 11KV and LT cables develops fault due to ageing, harsh weather conditions, and damage caused by external agencies. TPCODL has made arrangements for identification and repair of cable faults in least possible time through service contracts and procurement of cable terminations, accessories and straight through joints.

- **Sub-Transmission Services (STS)**

TPCODL 33KV network comprises of nearly 4000KMs of 33KV feeders, and 343 numbers of operational 33/11KV primary substations. Many of the feeders and substations are old and have completed their useful life. Besides, the network is affected due to harsh weather conditions in our operational area very often. These feeders and substations therefore require frequent inspection and maintenance so as to ensure safe and reliable power supply to distribution networks and 33KV customers.

Since inception, Tata Power Central Odisha Distribution Limited (TPCODL) has taken numerous measures to improve the safety and reliability of power supply in its license area. As most of the high and low voltage network are overhead, they are always prone to fault. These initiatives have resulted in significant reduction in interruptions. Based on outage and failure analysis and in order to turnaround this performance, TPCODL has implemented the following initiatives;

- Deployment of annual maintenance contracts for upkeep of 33KV network
- Procurement of equipment and materials for maintenance and upkeep of 33KV network
- Maintenance contracts with original equipment manufacturers



- ERP based systematic network maintenance management
- Training of workforce on best maintenance practices
- Implementation of structured maintenance programme,
- Implementation of condition monitoring system
- Vegetation Management Programme,
- Setting up centralized power system control for monitoring of network performance,
- Study based investment plan to strengthen the network,
- Outage and failure analysis, and
- Automation of network

Besides TPCODL also deployed project teams not only for permanent repair of the network damaged during super cyclone FANI but also envisaged new projects such as replacement of aged and sick equipment, refurbishment of feeders and substations, provision of circuit breakers to improve protection of distribution transformer substations, construction of boundary walls / fencing of existing substations. These initiatives helped in improvement of safety and reliability of power supply.

Taking these improvements to the next higher level, various new initiatives have been planned across the organization as explained below.

TPCODL has already automated 35 substations, which expected go up to 100 by March 2022. Further, more than 150 substations have been scheduled to be automated during FY 2022-23. Additionally, more than 30 substations (TPCODL -15 & OPTCL – 15) is also scheduled to be handed over to TPCODL during FY23. Automation of such large number of substation would require additional competent manpower for regular operation and trouble shooting.

Large number of automation and unmanning plan for substation would require adequate measures in terms of equipment protection and testing. Existing central P&T testing would be reinforced through addition of P&T professional across Circle Offices.

Proper monitoring and management of network becoming crucial for seamless operation, improvement in reliability, feasibility study, load growth etc. Network study in term of new substation addition would also be essential. Hence, a new group in Network Engineering Group (NEG) shall be started and required to be manned appropriately.



Keeping in mind increased consumer expectation and plan for various new initiatives as mentioned above, 17 more manpower in operation functions are proposed to be inducted. The proposed expenditures would bring the following benefits:

- Reduction of tripping and tripping duration
- Reduction in technical loss
- Reduction in number of safety incidents
- Reduction in failure of the equipment
- Quality supply to the consumer with better voltage regulation

## ii. Power System Control Centre:

### *Statutory Requirement:*

As per Orissa Grid Code (OGC) Regulations 2015, Clause 2.5 outlines the role of Distribution License, as per the code one of the functions of the Distribution License is to establish Distribution System Operation & Control Centre. The relevant clause is reproduced below:

*“Establish Distribution System Operation & Control Centre (DSOCC) at a strategic location near the geographical center and load center of the Distribution Licensees’ Area of Supply, having adequate communication facilities. The DSOCC shall be manned round the clock with the required staff during emergency periods. It shall take appropriate action in response to grid warnings as decided by the Distribution Licensee and convey suitable instructions to the operating staff. It shall take timely action in response to grid warnings as per standard instructions laid down by the Distribution Licensee in this regard and if necessary, issue appropriate instructions in addition, if a particular situation warrants. The SLDC / ALDC shall intimate the Distribution Licensee through DSOCC, regarding significant deviations of final schedules of State generators and CGS on overall merit order. The DSOCC shall undertake suitable load management and curtailment.”*

### *Centralized Operations*

Remote Monitoring & Controlling of the Network Operations of the License area will be effected centrally through SCADA for improvement in restoration times and improving the availability. With the introduction of PSCC, all the Permit To Work (PTW) will be issued centrally and uniformly across the licensed area. Centralized outage management & planning would be carried out from PSCC, Real Time Power Management and day ahead scheduling will also form a part of the operations. The overall functions of PSCC are depicted below:

- (a) Real Monitoring & Control of 11 kV Network & 33KV monitoring also started
- (b) Day Ahead Scheduling, Real Time Monitoring & Control of Power
- (c) Planning & Outage Management
- (d) Reliability Analysis & Reporting
- (e) Voltage Control
- (f) Institutionalization of Safety Procedures at HT level
- (g) Coordination with State Load Dispatch Centre
- (h) Contingency Planning
- (i) Demand Estimation

In compliance to this statutory requirement and to ensure better consumer services, Power System Control Centre has been established at TP Central Odisha Distribution Ltd. for Bhubaneswar and Cuttack City area. However, in order to operate the entire TPCODL (all Five Circles), additional manpower has to be reinforced with existing team. Since all the functions envisaged above have been initiated and are intended to be ramped up for full control, the Gap of 29 nos. of Lead Engineers needs to be bridged in FY 23.

### **iii. Commercial Services:**

Consumers always prefer to physically interact at nearby offices for various services in areas of new connection application, bill correction if any, name change, load change or bill payment. Moreover, recovery of current dues and old dues also needs to be closely monitored and follow up with consumers. Hence, it is essential to reinforce each section offices to cater such consumer needs. Accordingly, Junior Manager – Commerce have been placed in most of the section offices. Balance 30 section offices are still operating without JM- Commerce. Hence, it is proposed to recruit another 30 JM-Commerce and strengthen balance section offices.

### **iv. Information Technology**

In an endeavour to improve operational excellence, TPCODL has adopted Digitalization strategy to automate various processes and providing various online platform to consumers for commercial effectiveness. Digitization Index at TPCODL has reached up to 40% in the organization while we target for achieving more than 80%. Some of the key initiatives already started and few are planned to be started listed below.

- Entire commercial process is based on SAP modules
- The enterprise processes (HR, IT, Finance, Admn , Logistics, Store, Procurement etc) is through globally proven SAP ERP



- Journey of digitization of Operation process like Substation automation, tripping monitoring, maintenance of the network is on.
- Mapping of entire network in the field along with its equipment is being digitized on GIS
- Automated call center along with digitized form of inversed electricity bill delivery to consumers. We are in process of making of entire electric bill delivery to consumers through digital media like WhatsApp, e-mail etc that too through interactive bills.
- Provision of self-meter reading and billing by consumers through TPCODL Digital platform “TPCODL MITRA”.
- BA Cell Management, Attendance Management System, permit to leave are few planned for FY23.

Hence, to complete these IT initiatives, existing IT team needs to strengthened through induction of five more IT professionals.

#### **v. Finance & Accounts**

TPCODL Finance has consolidated entire activities and reorganized for better control and monitoring through centralized online system. Various initiatives are already put in place while few more initiatives have been identified as critical business requirements to ensure better governance of entire financial transactions. Some of those ongoing initiatives are :

- For robust and efficient Finance & Accounts (including Regulatory) structure is to ensure uniformity and consistency, transparency, effective control and agility in operations.
- Digitization & online (SAP) entries of all the invoices under TPCODL for maintaining the transparency and documentations
- Centralization of Finance is to provide efficient, streamlined and well-coordinated services across multiple locations from a single site.
- Now quarterly audit is being exercised within one month from end of quarter as against annual audit within 9 months from end of year.
- Vendor Payments are being centralized and maintaining of the accounts have been centralized with implementation of SAP module along with the salary payment is being processed through SAP.
- Companies Act 2013, Schedule III is applicable instead of revised schedule VI which is continuously evolving due to IFRS requirements.
- Latest ERP package SAP is implemented which requires latest updated knowledge about SAP.
- Fixed Asset Register and Accounting in SAP has been implemented which requires skilled and technical knowledge.



- Annual budgeting exercise has started which was not there earlier with quarterly guidance reporting to Tata Power as Tata Power is listed Company which was not there earlier.
- Various new regulatory requirements have to be complied with due to Vesting Order which were not there earlier.
- Quarterly internal audit has started as against annual internal audit.
- IMS process system has started wherein IMS processes have to be developed for all processes in F&A.
- CSR compliances as per Companies Act' 2013 have been started because the Company has started reporting profits.
- FAR has been implemented in SAP along with capitalization through SAP
- Regular review of Internal Audit report and Statutory Audit Report and the compliance of the respective divisions.
- In compliance to ICFAR observation, TPCODL also required to start pre-audit of employee salary payment. Hence, a new team has to be formed to drive this.

In addition to above, various areas have been strengthened / established such as MIS and Budgeting, Regulatory Accounting, Internal Audit, Risk Assurance & Compliance, Expenditure Control & Accounts Payable & Finance Concurrence. Hence, it has been found that existing manpower needs to be strengthened with four new competent finance professionals.

#### **vi. Human Resources**

Human Resources Development are strategic function of TPCODL aspire to bring organizational transformation. Introduction of HR & Administration function has brought several changes in terms of Employee services, Engagement, Capability development, Industrial relation or Digitalization. Some of the key achievement by HR Function so far are tabled below.

- Introduction of SAP HCM Module – Employee payroll has been converted to centralized and digitalized. This has improved employee's services at lot.
- Employee Engagement – Several employees connect, R&R Initiatives, celebration have been started towards fostering culture of high engagement
- Competency Enhancement – TPCODL has started Gyankosh – a digital learning platform for all employees apart from various classroom training in areas of Safety, OT, MBC, Team Building, SAP etc.
- Career growth – TPCODL has restructured its organization to achieve its strategic objectives. Also, large number of employees have been promoted as per promotion



policy and aligned with new structure. This has paved the way for career growth of large employees and this has been highly appreciated by all section of employees

- Industrial Relation – TPCODL has started structured interaction with major employee groups and time bound resolution has helped in building a conducive working environment.
- BA Cell – TPCODL has started functioning of BA Cell to monitor statutory compliances for workmen engaged through agencies and ensuring workers welfare also.

TPCODL has planned various new HR initiatives in FY2022-23 towards making TPCODL a better place to work. It has been planned to extend health insurance coverage to all employees, competency study and reskilling of many non-executive cadre employees, starting online compliance monitoring system, fulfil gap in terms of employee basic needs like seating space, washroom etc. In order to fulfil increased employee expectation and to implement new initiatives, existing team is being proposed to be strengthened with three new HR & Admn professional.

#### **vii. Procurement & Stores**

Procurement plan and policies are the backbone of TPCODL towards ensuring highly transparent, competitive, fair, and reasonable procedure with ensuring quality. Since inception TPCODL is exploring and adopting best practices & policies. TPCODL has implemented Centralized procurement of high value services and items and local procurement for low value and emergency works. More focus is on annual rate contracts for supply items and three years contract for services. TPCODL has ensured focus on optimizing costs, building strong suppliers performance management frame work, digitization of vendor life cycle management, bringing better safety culture and enhancing capability and competency.

TPCODL has further planned to start Material Resource Planning (MRP) for better optimization of material and resources. This will require planned activities of procurement and store. Hence, a new team of MRP shall be formed. TPCODL also planned to start few new stores in areas of Banarpal, Bhubaneswar, Jagatpur for fast delivery of material. Hence, to start these new initiatives and stores, existing team to be added with 9 Procurement and store professional.

#### **viii. Legal:**

TPCODL has inherited large number of legacy legal cases from erstwhile CESU. These are very old cases and having huge financial impact. Additionally, legal team are required to

perform various new activities to assist senior management in taking fast decision of legal issues.

- Providing legal support and advice to senior management on relevant legal issues
- Ensuring compliance with the internal controls, statutory regulations and other formalities
- Calculate and handle risks in business process and decision making
- Draft legal documents such as contracts, statements, agreements etc.
- Execute procedures for protecting patents, trademarks, and industrial designs
- Handle litigation & keeping up with current changes on all relevant areas of laws and contributing to the enhancement of the knowledge base of the company's legal function
- In erstwhile CESU there are many legal cases are pending since long time. Also there are many disciplinary actions which are being investigated on daily basis which needs to be addressed on priority basis. Also major issues with govt. organizations like RPFC are pending.

To tackle with these legal issues strengthening of legal team is the key requirement. Accordingly, two more members are required to be inducted to the existing legal team.

After this recruitment, Employee position of TPCODL would be as follows:

**Table 4-14 Employee Position for Executive Cadre**

Sr No	Particulars	Value
1	Gap identified at the time of takeover	1367
<b>2</b>	<b>Less Recruitment in FY 2020-21</b>	
1	Executives	497
b	Trainees	50
c	JE Commerce	71
d	Attrition	-7
e	Total Net Recruitment	611
3=1-2e	Gap as on 1st April 2021	756
<b>4</b>	<b>Less Recruitment in FY 2021-22</b>	
a	Recruitment	231
b	Less Expected Attrition	-26
c	Net Recruitment in FY 2021-22	205
5=3-4c	Gap as on 1st April 2022	551
<b>6</b>	<b>Less Recruitment in FY 2022-23</b>	
a	Recruitment	120
b	Attrition	-26
c	Net Recruitment in FY 2022-23	94
<b>7- 5-6c</b>	<b>Gap as on 1st April 2023</b>	<b>457</b>

- **Employee Cost Projection for FY 2022-23- Non Executive Cadre**

At TPCODL, there are a total of 1018 Fuse call Centres. Out of these 1018 Fuse Call Centres, 869 are in Rural area & 149 are in Urban area. The distribution of the fuse Call Centres in TPCODL area is as given in the following table

**Table 4-15 Fuse Call centres in TPCODL**

	Divisions	Sub-Divisions	Sections	Fuse Call Center	
				Urban	Rural
<b>Divisions (Urban)</b>	5	15	62	59	28
<b>Divisions (Rural)</b>	15	50	185	90	841
<b>Total</b>	<b>20</b>	<b>65</b>	<b>247</b>	<b>149</b>	<b>869</b>

As per the utility maintenance practices, there must be 2 No of Shift Operations in Rural Areas & 3 No of shift Operations in Urban areas for attending to day-to-day No current complaints (“Fuse calls”). In addition to this, the existing Linemen A, B & C are engaged in carrying out maintenance of 11KV & 33KV network as well as Meter Management Group (MMG) related activities. Considering the organizational requirement in line with Utility practices there is a requirement for recruiting Linemen for delivery of the services effectively.

Considering the above facts, the total Lineman requirement through TPCODL is as given in the table below

**Table 4-16 Staffing Requirement for Lineman in TPCODL**

Sr. No.	Activity	No. of Lineman	Remarks
1	New Connection	247	1 Lineman per section (Total 247 Sections)
2	Urban Fuse Call Center	504	1 Line man in three shifts per FCC. 3.5 Lineman considering reliever (144 Urban FCC)
3	Rural Fuse Call Center	2173	1 Line man in two shifts per FCC. 2.5 Lineman considering reliever (869 Rural FCC)
4	STS	170	One Lineman each at Division level for Sub-transmission maintenance Crew and Sub-transmission line maintenance & 2 at Sub-Division level in Hub maintenance crew
<b>Total</b>		<b>3094</b>	

**Enhanced Business over the Years:**

TPCODL is witnessing enhanced customer base & network leading to requirement of better Operation & maintenance and customer services. Since 1st June 2020 there is an increase in



Consumer Base of TPCODL, proactive consumer service, timely grievance resolution along with the New Connections. Accordingly, the count of consumer base of 37,33,000 is forecasted for coming five years. Further, the number of 33 KV/11KV feeders, Power Transformers and Distribution Transformers have been rising and expected to rise in the near future. As regards the required qualifications on such equipment for Supervisor Certificate of Competency(SCC) as laid in Electrical Licensing Board regulations, 2014, the same is as follows:

- MV SCC allows a person to supervise under 650V Electrical installation works,
- HT SCC allows a person to monitor under 33kV Electrical installation works
- EHT SCC allows a person to monitor more than 33kV Electrical installation works.

Considering the statutory norms, there is requirement of at least one HT license holder at each Fuse Call Centre to ensure reliability of power supply and safety standards. Scarcity of competent manpower across TPCODL Fuse call centres has resulted in numerous accidents due to lack of proper supervision and adherence to minimum safety practices. Further due to unavailability of HT & MV license holders there were as many as 245 fatal accidents and 188 Non-fatal incidents and death of 89 animals during last 5 years. The position of the License Holders is as follows:

**Table 4-17 Availability of HT and MV License Holders**

	<b>Total</b>	<b>HT License (Out of the Total)</b>	<b>MV License (Out of the Total)</b>
<b>Sr. Charge Man</b>	16	16	0
<b>Line Man-A</b>	119	113	5
<b>Line Man-B</b>	495	471	16
<b>Line Man-C</b>	1139	443	639
<b>Helper</b>	686	56	104
<b>Junior Artesian</b>	435	116	292
<b>Draftsman /Driver</b>	10	0	0
<b>CDD 2 (* Break up not available)</b>	151	29	67
<b>TOTAL</b>	3051	1244	1123

In addition, based on the superannuation of non-executive (Technical) employees in each year, approximately 900+ Lineman, Helper & Junior Artisans will be superannuating in coming 10 years. The details of superannuation as given in the table below:

**Table 4-18 Trend of Superannuating employees**

Year	Helper	Junior Artisan - A	Lineman - A	Lineman - B	Lineman - C	Senior Charge man	Operator	Total
FY 2022	19	3	5	12	11	1	0	<b>51</b>
FY 2023	45	2	15	29	50	3	1	<b>145</b>
FY 2024	36	8	13	19	31	3	0	<b>110</b>
FY 2025	47	4	13	24	18	1	1	<b>108</b>
FY 2026	46	1	7	14	30	2	0	<b>100</b>
FY 2027	41	3	15	14	23	2	0	<b>98</b>
FY 2028	44	0	12	9	31	1	1	<b>98</b>
FY 2029	47	1	6	12	18	4	1	<b>89</b>
FY 2030	25	2	4	12	23	0	0	<b>66</b>
FY 2031	28	2	3	11	23	0	0	<b>67</b>
<b>Total</b>	<b>378</b>	<b>26</b>	<b>93</b>	<b>156</b>	<b>258</b>	<b>17</b>	<b>4</b>	<b>932</b>

Further, about 500 Employees are scheduled to retire in the next 5 years the current age group of existing Non Executive (Technical) employees is shown in the table below.

**Table 4-19 Age Profile of Non Executive Employees**

Age Group as on 1 <sup>st</sup> October 2021	No. of Employees
58-60	153
55-58	336
50-55	429
45-50	351
40-45	534
35-40	726
30-35	495
25-30	94
<b>Total</b>	<b>3118</b>

On the basis of the above, based on average Salary of about Rs 2.20 Lakhs per Annum the quantum of expenditure required to budgeted for the Non Executive Personnel for FY 2022-23 is worked out as given below:

**Table 4-20 Cost of Non Executive Manpower**

Sr No	Particulars	Units	Value
1	No of Non Executive to be recruited	No	1227
2	No of Years over which to be recruited	Years	5
3	No of Linement to be recruited per annum	No	245.4
4	No of Non Executive proposed to be Recruited in FY 2022-23	No	180
5	Average Cost	Rs Lakhs per Annum	2.20
6	Total Cost of Non Executive Manpower in FY 2022-23	Rs Crores	3.96

#### 4.5.1.3 Summary of Employee Expenses- New TPCODL

On the basis of the above projections, the summary of the employee expenses for the two periods is as follows:

**Table 4-21: Employee expenses for FY 2022-23**

Sl No.	Particulars	Remarks	Numbers	Avg. Salary PA (lacs)	Total Cost in FY 22-23 (Rs Cr)
1	Existing Employees Carry Forward		821		97.39
2	Diploma (2-4 yrs Exp)		60	6	3.60
3	Graduate (2-4 yrs exp.)		35	7	2.45
4	Ext. Recruitment		25	15	3.75
5	Consultants (Security)		39	6.82	2.66
6	Training & Development				2.00
7	Insurance (Medical + GPA+GTLI)				2.35
8	HR Operation Cost (Engagement, Payroll , Transfer)				4.68
9	Company Leased Accomodation	450 Employees @ Rs. 10000 pm			5.40
10	Non Executive		180	2.2	3.96
<b>Total - Additional TPCODL</b>					<b>128.24</b>

#### 4.5.1.4 Summary of Total Employee Expenses

Based on the above, the summary of the total employee expenditure for the various years is as follows:

**Table 4-22: Total Employee expenses for FY 2021-22 and FY 2022-23**

Sr No	Particular	FY 2021-22 (Estimated)	FY 2022-23 (Estimated)
1	Salaries of existing CESU Employees without 7th Pay Arrears	605.66	652.37
2	Add: 7th Pay Arrears		75.00
3	Total Salaries & Wages of Existing Employees (including Outsourced Employees)	605.66	727.37
4	Salaries & Wages of TPCODL-Additional Employees	95.0	128.2
5	Less: Employee Cost Capitalized	22	24
	<b>Total</b>	<b>678.30</b>	<b>831.71</b>

#### 4.5.2 R&M Expenditure

The Tariff Regulations permit recovery of the R&M Expenditure on the following basis

#### Extracts 4-7: Repairs and Maintenance as per Tariff Regulations

##### Determination of Repairs and Maintenance (R&M) Expenses :

- 7.29 Repair and Maintenance expenses would be allowed at the rate of 5.4% of Gross Fixed Assets (GFA) only on assets owned by the distribution company for each year of the Control Period.
- 7.30 The licensee shall prepare a plan and budget for periodic preventive maintenance of distribution network including emergency repairs and restoration works under each division,
- 7.31 The Commission may provisionally allow an amount for maintenance of assets added under RGGVY, BGJY programme, etc. The licensee is required to submit to the Commission along with ARR the details of assets taken into service under these programmes.
- 7.32 The Commission may also allow special R&M, actually incurred during the previous year, in order to enable DISCOMs to undertake critical activities such as loss reduction, energy audit, Consumer Indexing, Pole scheduling, etc. Provided the Commission will undertake a prudence check before allowing such expenditure.

Considering the present condition of the network and the fact that required maintenance has not been carried out over past many years, it is essential that adequate expenditure is allowed by the Hon'ble Commission to enable TPCODL maintain all its assets in healthy condition which is essential for providing reliable power supply to its consumer and also to ensure longevity of the electrical equipment. Further based on the Tariff Regulations, the Hon'ble Commission has approved R&M expenditure of Rs. 202.94 Cr for FY 2021-22 for TPCODL in its tariff order dated 26.03.2021. This approved amount of Rs.202.94 Cr includes Rs. 5 Cr towards Special R&M for addition of RGGVY/DDUGJY and BJGY assets.

The Tariff Regulations allows normative R&M at 5.4% on the GFA. As per the Opening Balance Sheet of TPCODL as on 1<sup>st</sup> June 2020 approved by the Hon'ble Commission in its order dated 30<sup>th</sup> September 2021, the opening GFA was Rs.3403.73 Cr. Thereafter, there has been considerable addition to GFA either through capital expenditure approved by the Hon'ble Commission in various Capex Orders or through addition through capital expenditure executed under various Government Funded or Consumer Funded schemes. In addition, considerable capitalization of Meters has been carried out whose capital costs is required to be recovered through the Meter Rent and not through the Tariff.

It is further submitted that there are a lot of assets arising out of many Government funded schemes which though not implemented by TPCODL (or erstwhile CESU) are being handed over to TPCODL for Repairs and Maintenance. Some of the Schemes in the past have been RGGVY, DDUGJY and BGJY where the assets have been handed over by OPTCL to TPCODL. The assets that have been handed over/being handed over and those in the pipeline are as follows:

**Table 4-23: Addition of Assets for computation of R&M through hand over from OPTCL**

Sr No	Assets under Schemes being Maintained by TPCODL	Asset value (Rs. Cr)
1	ODSSP	619.6
2	IPDS	162.67
3	SCRIP	507.39
4	RGGVY	1338.94
5	BGJY	54.80
6	<b>Total</b>	<b>2683.4</b>
7	Less: GRIDCO's Contribution in Kind in FY-21 and FY-22	<b>59.8</b>
8	Total after Transfer of Assets in lieu of GRIDCO's Contribution	<b>2624</b>

It is also submitted that for computation of GFA, in this petition, we have considered the contribution of Gridco in kind through the transfer of assets to TPCODL and to avoid double counting, we have deducted the same from the computations in the above table. It is submitted that as can be seen from the above table, assets of about **Rs 2624 crores** are being maintained/would be maintained in the near future. It is therefore necessary that TPCODL is appropriately reimbursed for such expenditure. In the present filing, we have considered an expenditure of Rs 20.00 Crores towards such large asset base. We request the Hon'ble Commission to kindly true up such expenditure. Accordingly, the normative R&M for TPCODL for FY-2022-23 is as provided in table below.

**Table 4-24: Normative R&M for FY 2022-23**

*All Amount in Rs. Cr*

Sr No	Particulars	FY 2020-21 (Actual 10 Months)	FY 2021-22	FY 2022-23
1	Opening GFA ( As per Approved Opening Balance sheet as on 01.06.2020)	3403.73	3,637.05	4,302.85
2	Addition	233.32	665.80	
3	Retirement			
4 =1+2-3	Closing	3,637.05	4,302.85	
<b>5</b>	<b>R&amp;M at 5.4% of the Opening GFA</b>			<b>232.35</b>
6	Special R&M for maintaining Assets not in the books of TPCODL (Govt Funded Assets)			20.00
<b>7 = 5 +6</b>	<b>Total R&amp;M</b>	<b>142</b>	<b>203</b>	<b>252.35</b>

It is submitted that expenditure related to Call Centre and Customer Centre Operations and cost of activities which are towards customer acquisition such as new connection field verification and activities such as Meter Testing are proposed to be covered under above amount of R&M expenditure. Further Repairs and Maintenance for IT Systems and Infrastructure and related to their services have been budgeted under the above expenditure.

#### 4.5.3 A&G expenditure

In the ABP Order the Hon'ble Commission had approved the following:

*46. The Commission in the last ARR for FY 2020-21 has approved total A&G of Rs.70.82 crore. In the present petition the petitioner has submitted that the provisional expenditure for previous year i.e FY 2019-20 under A&G head is about Rs.159.38 crore which includes payment of 111.73 crore towards Distribution Franchisee Sharing BOT. This year no expenditure is planned in the Distribution Franchisee Sharing BOT as no franchisee has been engaged and therefore no expenditure is proposed in the current petition under this head. As analysed from the petition another major expenditure is on the Insurance which is about Rs.10 crore.*

*47. In light of the above submissions the Commission observes that the expenditure in the A&G is a controllable expense and as per the OERC Tariff Determination Regulation additional expenses are allowed in this head for specific measures towards reduction of AT&C losses and improving collection efficiency. We find that the proposals mainly relate*

to the improving metering management and services and customer services which are vital elements in reducing AT&C losses. The TPCODL is a new operating company and we believe that they have planned out their activities diligently for improving the overall distribution business. At this stage we agree to the proposal of the petitioner and allow the additional A&G expenses of about sixty percent of the proposed Rs.63.09 crore for FY 2020-21. However, the petitioner is directed to produce the required justifications of such additional expenses under the head A&G expenses incurred in the truing up petition for FY 2020-21. The expenses under this head will accordingly be allowed after prudence check

Further, the Tariff Regulations permit the following for recovery of the A&G expenditure

#### Extracts 4-8: A&G Expenditure as per Tariff Regulations

##### Determination of Administrative and General (A&G) Expenses:

- 7.27 The A&G Expenses for each subsequent year will be determined by escalating the A&G expenses for the previous year, at the escalation factor of 7 % to arrive at permissible A&G expenses for each year of the Control Period.
- 7.28 The Commission may, in addition to the normal A&G expenses may allow additional expenses, actually incurred during the previous year, under this head for special measures to be undertaken by the distribution licensees towards reduction of AT&C losses and improving collection efficiency. Provided the Commission will undertake a prudence check before allowing such expenditure.

On the basis of the above two, the normative A&G expenditure for FY 2022-23 is to computed as given in the table below

**Table 4-25 A&G Expenditure projections on basis of norms**

Sr No	Particulars	Rs Cr
1	Normal A&G Cost approved in FY 2020-21 CESU Tariff Order	58.8
2	Additional A&G Cost Approved for 10 Months in Opex Order of 16th Nov 2020 = 60% of Rs. 63 Cr	37.8
3= ( 2 x 1.2 + 1) X 1.07	Normal A&G Cost for FY 2021-22 considering 7% escalation as per Tariff Regulations	111.5
4= 3 x 1.07	Normal A&G Cost for FY 2022-23 considering 7% escalation over FY 2021-22 as per Tariff Regulations	119.3
5	Special/Additional A&G Expenditure approved for FY 2021-22	20
<b>6=(4+5)</b>	<b>Total Normative A&amp;G Cost for FY 2022-23</b>	<b>139.3</b>
7	Special /Additional Expenditure for meeting Enhanced Activities in the areas of Billing and Collection for FY 2022-23	10
<b>8-6+7</b>	<b>Total Approval Sought towards A&amp;G Expenditure</b>	<b>149.3</b>

As mentioned in the above TPCODL had sought the approval of additional amount of Rs 10 Crores to meet the enhanced activities in the area of Billing and Collection with the view to reduce the AT & C losses:



It is submitted that based on the “Zero based Budgeting” exercise where the individual activities have been costed, the estimates worked out are higher than allowed through norms. As can be seen from the explanation provided in the following paragraphs, the nature of expenses is largely towards either customer related activities, or statutory expenditure or towards required for IT systems. The details of the expenditure are as follows:

#### 4.5.3.1 Customer Related Activities

##### Customer Services

At the time of take over by TPCODL (then CESU), there were only 2 Customer Care Centre in Bhubaneswar and Cuttack with very limited facilities. There are 20 divisions and in most of the divisions all the customer queries and complaints were attended by the JE of concerned section. People working in customer care centre did not have any specific training for effective handling of customer queries and grievances.

To overcome the issues mentioned, TPCODL after its takeover, took many initiatives for enhancing the customer experience and to provide a gamut of customer service offerings in the area of New Connection Applications, Bill Payments, Addressing to Customers’ Queries and Complaints.

The concept of dedicated Master Customer Care Centre at Division level and appointment of cashier cum customer care Associate at Section level were introduced for providing a bunch of services and single interaction touch point for all customers of concerned Division.

Master Customer Care Centre at Division is fully equipped with following Advanced services for providing better customer experience:

- **Queue Management System:** To manage the customer footfall efficiently at the centre.
- **Self Help Kiosk:** For providing New Connection related information/duplicate bill/Customer Connection Details from the E-kiosk itself.
- **Feedback Tab:** To capture customer’s feedback on the services rendered at the centre.
- **Television:** Informing customers about Online Payment Options, Safety & other schemes.



- IT Infrastructure: Laptops/Desktops, Internet, Scanner/Printer were made available to the customer care staff which indicate the Management priority towards effective customer service delivery along with automated process for effective monitoring of consumer complaints and footfall.
- Standee/Banner/Posters: Indicating the various platforms for complaints/query registration, call centre contact number, online payment offers, website details etc.

On the journey of providing best services to consumers of TPCODL till Oct'21, total 11 Master customer care centre were established in 11 divisions. Customer Care Centre are managed by team of officials who are trained to handle a gamut of customer services under the guidance of customer care executive (CCE).

### **Meter Related A&G**

Meters play an extremely important role in reduction of AT&C loss and also bring in discipline in the consumption and payment by consumers. Further, TPCODL is modernizing the Metering infrastructure along with the associated equipments and IT support. Such equipment and infrastructure requires adequate maintenance and cost is also required to be incurred to carry out trouble shooting, Repairs, Downloading of data and payment of charges in terms of SIM card rentals to the service provider. The breakup of the expenditure under this head is as follows:

- **Meter Testing at Site:** As per the regulation we have projected to conduct periodical inspection/testing of the meters at site.
- **SIM Rental (SMART Meter)**– TPCODL is proposing to install around 1 lakh Smart meters for all Govt. Consumers, 3-phase consumers and DT meters. The meter data will be transmitted via 4G SIM cards of various telecom service provider. Monthly rental of these SIM cards to be considered as OPEX cost.
- **Re-programming of Meter** - As per the Tariff order of March 2021, the TOD timing has been changed. For updating of TOD timing meters, need to be re-programmed at site. The TOD file shared by meter OEM needs to be uploaded in CMRI and are updated in meter at site. This is a supervised job and required trained manpower along with vehicle. Additional OPEX is required for re-programming.
- **Modem Accessories** – For trouble shooting of AMR system various consumable items like cords, antennas, wires and fuses are required. These consumable cost needs to be considered in OPEX.
- **SIM Rental (Modem Meter)** – Around 35000 modems (2G) are installed for 3-phase consumers, Feeders and DT meters. Monthly rental of these SIM cards to be considered as OPEX cost

- **Modem Trouble Shooting** – AMR modems are installed under RAPDRP and IPDS scheme for monitoring of Billing and DT meters across TPCODL. The data from AMR is used for Billing as well as analysis. These modems are connected to the meters and the power supply to modems is tapped from meter terminal. In case of non-communication due to various reasons, troubleshooting is done at site. This is a supervised job and skilled manpower is required. The team comprises TPCODL Engineer and Vendor technician along with vehicle. As the consumer sites are scattered the output is only 3 to 4 rectification per day.
- **Meter Data Downloading** - Meter dump data is required for various reasons like Billing complaints, Load analysis etc. For downloading of meter data special instrument CMRI (Common Meter Reading Instrument) is required along with Trained manpower and vehicle.
- **AMC of MDAS/MDM** - RAPDRP & IPDS AMR system (MDAS & MDM) the IT setup (Software & Hardware) were done by OEM's. The entire AMR billing and analysis is fully dependent on these system. For smooth functioning and maintenance of these AMR systems, AMC is required.

The summary of the expenditure on account of the above is as given in the table below

**Table 4-26 : Meter Related Costs**

Sr No	Particulars	Units	No	Rate (excluding GST) (Rs)	Amt (Rs Cr)	Remarks
1	Statutory Meter Testing (3 Phase and Single Phase)	No of Meters	35900	488	1.753	
2	SIM Card Rentals	No of Meters	100000	17	1.204	
3						
4	Modem Accessories	No of Meters	10000	250	0.295	RJ cable, Fuse, Wires, Antena etc.
5	SIM Rentals for Modem Meters	No of Meters	35000	25	1.24	
6	Modem Trouble Shooting Costs	No of Meters	10000	600	0.708	
7	Meter Downloading Costs	No of Meters	12000	250	0.354	
8	AMC of MDAS and MDM system	Number	2	5000000	1.18	
	<b>Total</b>				<b>6.73</b>	

### **Billing and Collection**

Actual Meter reading and 100% collection from all consumers will only help the organization to improve the billing and collection efficiency so that the AT&C loss target fixed by Hon'ble Commission is achieved. Hence, it is very critical to achieve 100% consumer coverage target in both meter reading & collection.



It is submitted that Meter reading, Billing & Collection activities are carried out through the agencies deployed across Division /Sub Division. These agencies were selected through the established procurement policy of TPCODL and Performance Based Contract is awarded to the successful agencies for ensuring timely meter reading ,Billing & Collection. In this process, meter readers and Bill collectors visit consumer premises based on the reading route sequence allotted to them. After punching the reading in spot billing application, they deliver the spot bill to the consumer during the same visit. In some divisions, meter reading in certain rural areas are done by the Self Help Group as a part of Govt. of Odisha initiative.

There are two type of models adopted by the agencies in field which are executed after detailed discussion with engineer in-charge/executive engineer of division. In the first model, meter readers & Bill Collectors are different. In this model, after the Meter Reader completes the reading in a particular route, the bill collectors carry out the collection in the same route after a gap of one-two days. In the second model, the Meter Reader & Bill Collector is same i.e. one person carries out both meter reading and collection. After serving the spot bill to a consumer, same agency/SHG person collects energy bill amount and provides the acknowledgement slip to the consumer on the spot.

The Urban customers are encouraged to make payment either through online mechanism or at the counter. TPCODL plans to introduce various schemes/initiatives in FY 2022-23 for motivating customer to make the payment at the counter office and gradually reduce the burden of door to door collection. As per section 56(1) of the Supply Code 2019, if any consumer defaults on his/her current energy bill then DISCOM can issue disconnection notices to the defaulting consumer and give 15 days of time for payment in writing. After expiry of disconnection notice, DISCOM can issue disconnection order to disconnect supply of that consumer. In compliance to this regulation, TPCODL is doing disconnection activity by engaging disconnection squad across its license area.

As a part of various initiatives that TPCODL plans to introduce with a view to enhance consumer experience & billing efficiency, (a) Bills on Whatsapp and (b) Optical Character Read technology (OCR) to read meter reading directly from meter display to plug suppress reading and improve accuracy in reading are going to be implemented.

In order to carry out the above activities for a consumer base of 28 Lakhs on monthly basis, expenditure of **Rs 69.00 Cr** is estimated (combined – reading & collection activity) and **Rs. 9.00 Cr** is estimated for Self Help Group. In addition, Other cost include thermal paper roll used at counter/SHG/TPCODL staff visit for collection, Disconnection Squad used for disconnecting supply of defaulters, Bill printing cost for Non Spot consumers (>5KW 3-phase consumers), Disconnection Notice Printing, Bill on Whats app initiative and Optical Character

Read(OCR) for reading & Mobile SIM card rental. In all, the total projected expenditure for FY 2022-23 for customer related activities are projected to be as follows:

**Table 4-27 : Estimated Expenditure towards Customer Related Activities for FY 2022-23**

Activity	Sub Activity	FY-23 Estimate	Remark
		Rs Cr	
Meter reading and Collection Services	Reading cum Spot Billing- Approx. 25 Lakh Customer base with consumer growth of 6250 Consumer per month . Door to Door Collection - Approx. 18 Lakh Customer considered for Collection	69.00	Minimum wages increment @5% annually resulting in increase in Contract Value.
	WSHG cost for approx. 4.5 Lakh Customer (2 Lakhs both Reading and Collection, 2.5 lakhs only collection)	9.00	WSHG rate has increased by 64 % as per Govt of Odisha order (From Rs. 11 to Rs. 18 Per Consumer)
Meter reading and Collection Services: Other Items	Payment Transaction Charges	1.25	New payment Avenues are considered for FY21-22 leading to enhancement in expenditure for FY22-23.
	Customer Awareness for Digital/Prompt/Regular Payments.	0.88	Gaon Chalo initiative will be continued for FY21-22 and FY-23. Pay Win Schemes for Digital and other avenues will be initiated
	Bill Printing / Distribution for Non SBM Bills	0.32	
	Thermal Paper Roll	0.35	Paper Roll required for reading & collection by SHG, Ex-Serviceman, Counter, TPCODL staff as per consumption of 25,000 roll per month @ rate of Rs.9.8 per roll
	SIM rental	2.44	Our staff doing collection @250 P.MData Plan * 1000 SIM Card
	Scan for Meter reading results through OCR Technology	0.67	
	Sending Bills through WhatsApp	0.12	Sending Bills on whatsapp @32 Paise per Bill for 3 Lakhs Consumers
	Special Site Verification	0.65	Special Site visit is considered for Disconnected Cases, Customer Complaint cases, Special Meter Reading etc.
Customer Services	Customer Satisfaction Survey	0.16	External Customer Satisfaction Survey is planned in FY22-23.
Meter Services	AMR/ Modem trouble shooting /Maintenance of Servers/Other Costs	2.54	Smart meter installation for approximately 1 Lakh consumer so additional cost for AMR communication & its rectification.
<b>Total- Customer Related A&amp;G</b>		<b>87.37</b>	

The major reasons for increase in A&G expenditure towards Customer Related Activities in FY 2022-23 as compared to previous FY 2021-22 are as follows:

- Considering 5% salary hike of field staff
- Increase in count of Bike & disconnection squad as compare to LFY. TPCODL plans to engage bike squad & disconnection squad at section level to enhance revenue collection including past arrear collection.
- WSHG cost has been revised from Rs.11 to Rs.18 per read as per Government Notification
- Special Site verification to identify extra connection, due transfer & suppress reading.
- Introducing New initiative of Bill on WhatsApp to enrich consumer experience.

#### 4.5.3.2 Statutory and Compulsory Finance Related Charges

It is submitted that there are certain kinds of expenditure such as OERC license Fee, Insurance Premium, Bank Charges, Auditors fees etc that are compulsory or mandatory in

nature. Such charges are either required to be paid either to meet the requirement under a statute or is required to be incurred to meet the lending or other important stipulation. In addition, TPCODL is also engaging the services of legal firms/lawyers to defend its cases. It is further added that TPCODL is in the business where adverse or favourable impact of any legal case outcome is ultimately borne by the consumer at large. Hence in a way TPCODL is fighting the cases on behalf of the consumers.

In our humble submission therefore there is no scope as such to reduce expenditure under this head as such. The breakup of the expenditure is as follows:

**Table 4-28 :Statutory and Compulsory Charges**

Sr No	Particulars	Amount (Rs Cr)
1	Auditors Remuneration	1.71
2	Bank Charge	3.01
3	Consultant Fees	0.84
4	Insurance	8.51
5	Legal and Professional Charges	3.54
6	OERC License Fees	2.24
7	Other Fin A&G	2.83
<b>8</b>	<b>Total</b>	<b>22.68</b>

#### 4.5.3.1 Administrative Expenses

TPCODL has commenced its journey about 18 months ago on 1<sup>st</sup> June 2020 and had taken over the business on as is where is basis. In order to meet its objectives , TPCODL was required to create and maintain an Administrative set up in the form of new offices and Guest Houses to enable create agile, efficient and optimum work environment. In this regard, it is required to incur expenditure under various heads and break up of the expenditure for FY 2022-23 is as follows:

**Table 4-29 :Administrative Expenditure**

Sr No	Particulars	FY 2022-23 (Rs Cr)
1	Communication Exp	0.10
2	Electricity Consumption Expenses	1.50
3	Facility Management and Housekeeping	7.80
4	Office & Other Expenses	0.20
5	Other Operating Expenses	0.10
6	Print and Stationery	2.00
7	Rentals of Offices & Guest Houses	7.79
8	Travelling Expenses	5.40
<b>9</b>	<b>Total</b>	<b>24.90</b>

#### 4.5.3.1 Information Technology (IT) related Expenses

In the present business environment where the customers are provided satisfactory services in terms of correct billing, all the suppliers are paid time and data is protected from Cyber crimes, it is imperative that the IT systems are robust and modern and their upkeep is essential. In this regard, expenditure is required to be incurred for maintaining the proper communication links, to pay the required license fee, maintain the data base and data centre and provide appropriate firewall to protect the data. Accordingly, TPCODL has projected the following expenditure towards achieving the above objectives

**Table 4-30 :IT related expenditure**

Sr No	Activity	Sub Activity	Amount in GST (Rs. Cr.)
1	Internet & Communication Charges	Communication MPLS	1.75
2	Software Expenses	SAP licenses AMC Charges	3.07
	<b>Total</b>		<b>4.82</b>

#### 4.5.3.1 Other A&G expenses

In addition to above, some of the expenditure needs to be incurred for dissemination of information through media and advertisement for propagating messages on safety, inviting tenders, invite objections and comments on ARR and other public filings. An amount of **Rs 2.00 Crores** has been projected for the same.

In addition, TPCODL has implemented Bill Inward Receiving Desk (BIRD) process in its system through which bills and invoices of suppliers and service providers would enable a single window submission and processing. This has been done so with the view of timely payment to the suppliers/service providers and also enable them to monitor and follow up



efficiently. It will also minimize/stop the bills from getting misplaced and also avoid double payment. However, this will require TPCODL to incur charges for courier for the same and it has projected certain expenditure for such charges. An amount of **Rs 0.50 Crores** has been projected towards the same.

In addition, with a view to improve the current processes and also introduce new contemporary processes, the personnel of TPCODL need to be trained . An amount of **Rs 1.00 Crores** has been projected towards the same

Further in addition to the above, a budget for Food and conveyance to the extent of **Rs 2.57 Crores** and Miscellaneous expenditure of **Rs 1.00 Crore** has been considered for projections.

#### 4.5.3.2 Summary of A&G Expenditure

Based on the above heads, the summary of the A&G expenditure for FY 2021-22 and FY 2022-23 is as follows:

**Table 4-31 :Total A & G Expenses**

Sr No	Particulars	Rs Cr	
		FY 2021-22	FY 2022-23
1	Customer Related Expenditure	72.68	87.37
2	Adminstration Expenses	21.85	24.90
3	Statutory/Mandatory Finance Expenditure	22.30	22.68
4	IT Related Expenses	0.50	4.82
5	Other Expenses	3.50	7.07
	<b>Total</b>	<b>120.83</b>	<b>146.84</b>

We have therefore for the Gap computation considered the above expenditure for FY 2022-23.

#### 4.6 Provision for Doubtful Debts

The Tariff Regulations allow the distribution licensee like TPCODL to claim Provision for Doubtful Debts as an expense in working out the ARR. The Tariff Regulations stipulate the following for Provision for Doubtful Debts

**Provision for bad debts :**

- 7.55 The Commission shall allow a provision for bad debts as a prudent commercial practice in the revenue requirement of the licensee. This provision for bad debts will be established as a percentage of sales revenue as determined by the Commission from time to time. Before establishing a provision for bad debts, the Commission may direct the licensee to audit the receivables so that there will be no financial burden on genuine consumers due to inappropriate provision.

The Hon'ble Commission has been allowing the provision (of 1%) on the HT and LT Revenue and not considering the EHT revenue for working out the allowable provision. The extracts from the Tariff Order dated 26<sup>th</sup> March 2021 for TPCODL are as follows:

460 Therefore, according to the above provisions of the Regulation the Commission is required to establish a percentage of the sales as Bad debt. The Commission in the previous RST orders have approved Bad and Doubtful debts according to its Order dated 20.3.2013 on MYT principles which set out principle for allowing bad and doubtful debt in the following manner:

*"17. 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."*

461. The Commission in line with the above Order on MYT principles allowed Bad and Doubtful debt of 1% of the total annual revenue billing in HT and LT sales only on normative basis. Hence the amount of Bad and doubtful debt as proposed by the DISCOMs and approved by the Commission for FY 2021-22 is summarized below. Commission directs that the procedure for classification of an amount under bad and doubtful debt have to be in place prior to implementation.

It is submitted that while working out the sales under Table 33 of the Tariff order, the Hon'ble Commission has considered a billing efficiency of 77.07% . This is confirmed from Table 31 of the same tariff order which provides that the approved Distribution Loss is 22.93 % (i.e Billing Efficiency is 77.07 %). While working out such Billing Efficiency the Hon'ble Commission has considered AT&C loss of 23.70% and the collection efficiency of 99%. In short, the Collection efficiency of 99% is applicable to the entire power purchase and not on just on HT and LT Sales and hence the provision needs to be considered on the entire revenue and should not be restricted only to HT and LT Sales.

Accordingly, the provision has been worked out on the quantum of revenue estimates (provided later in this submissions) at existing tariff and on the basis of the Billed

revenue and has been considered at 1% of the Revenue Billed. The quantum of the provision to be made is as given in the following table:

**Table 4-32 Provision for doubtful debts**

Sr No	Particulars	Units	FY 2021-22	FY 2022-23
1	Revenue from Power Supply-EHT	Rs Cr	671.5	709.7
2	Revenue from Power Supply-HT	Rs Cr	981.3	1012.1
3	Revenue from Power Supply-LT	Rs Cr	2275.8	2432.6
4	Total	Rs Cr	3928.5	4154.5
5	<b>Provision for Doubtful Debts at 1%</b>	<b>Rs Cr</b>	<b>39.29</b>	<b>41.54</b>

#### 4.7 Interest on Consumer Security Deposits

As per the Odisha Electricity Regulatory Commission Distribution (Conditions of Supply) Code, 2019 the consumer is entitled to an interest on the Security Deposit that he keeps as per the Regulation 57 of the code. As per the code, the interest on the deposit is payable at the SBI Base Rate as on 1<sup>st</sup> April. The extracts of the Supply code is as given

##### ***Interest on Security Deposit payable by the Licensee/supplier***

*57. (i) The Licensee/supplier shall pay interest on security deposit to the consumer, at the bank rate. (SBI Base Rate as on 1st April of the relevant year) provided that*

*(ii) The Commission in its tariff order for the respective financial year may direct the licensee/supplier to pay a higher rate of interest.*

*(iii) The interest accruing to the credit of the consumer shall be adjusted annually in the amounts outstanding from the consumer to the licensee/supplier as on 1st May of every year and the amounts becoming due from the consumer to the licensee/supplier immediately thereafter.*

*(iv) The licensee/supplier shall duly show the amounts becoming due to consumer towards interest on the security deposit in the bills raised on the consumer.*

*(v) The Licensee/supplier shall pay interest at twice the rate specified under sub-Regulation (i) above for the delay in making the adjustments for interest on security deposit*

The Tariff Regulations under Regulation 7.2 (g) permits recovery of the Security Deposit to be recovered in the ARR. Accordingly, the interest on Security Deposit is estimated on the basis of the average quantum of deposit that may be available with the distribution

licensee. For estimating the deposit for FY 2022-23, TPCODL has considered the average deposit ("per capita deposit") for FY 2021-22. Based on this "per capita deposit" of **Rs 2489 per consumer**, the estimated quantum of deposit for FY 2022-23 has been worked out.

As regards the applicable Interest Rate, although the Supply Code has allowed SBI Base Rate, the Hon'ble Commission has been allowing interest on the basis of the RBI rate as prevailing on 1<sup>st</sup> February of relevant year. For the purpose of projections of FY 2022-23, we have considered a rate of 4.25% p.a, a rate which has been applied by the Hon'ble Commission in the Tariff Order for FY 2021-22. The Interest on Security Deposit for the two years period i.e FY 2021-22 and FY 2022-23 is as follows:

**Table 4-33 Interest on Security Deposits**

Sr No	Particular	Units	FY 2021-22	FY 2022-23
1	No of Consumer Opening Balance	No	2792773	2909843
2	Opening Quantum of Security Deposit	Rs. Cr	695.12	724.257
3	Average per consumer Deposit	Rs/Consumer	2489	2489
4	Interest Rate Applicable	%	4.25%	4.25%
<b>5</b>	<b>Interest on Security Deposit</b>	<b>Rs. Cr</b>	<b>29.54</b>	<b>30.78</b>

#### 4.8 Income Tax or Tax on Income

The Tariff Regulations permit the quantum of Income Tax to be recovered in the ARR. As per the Tariff Regulations, the following is permitted

##### Extracts 4-9: Tax on Income

###### Tax on Income :

- 7.63 Income tax of the Distribution Licensee shall be recovered from the beneficiaries. This will exclude income tax on other income streams (non-distribution business).
- 7.64 The actual assessment of income tax should take into account benefits of tax holiday, and the credit for carry forward losses applicable as per the provisions of the Income Tax Act, 1961 shall be passed on to the consumers.

The Income Tax projections have been made on the basis of the RoE and Grossing up of the same. Accordingly, the Income Tax for the two years is as follows:

**Table 4-34 Projections of Tax on Income <sup>2</sup>**

<sup>2</sup> Applicable Tax Rate:

Sr No	Particulars	Units	FY-22	FY-23
1	ROE	Rs Cr	60.98	84.66
2	Applicable Tax Rate	%	25.17%	25.17%
3	<b>Income Tax</b>	<b>Rs Cr</b>	<b>20.51</b>	<b>28.47</b>

#### 4.9 Non-Tariff Income

As per the Tariff Regulations, the Non-Tariff Income shall comprise as provided in the extracts below

#### Extracts 4-10: Elements of Non Tariff Income

7.60 The Distribution Licensee shall submit full details of its forecast of Non-Tariff Income to the Commission along with his application for determination of tariff. The indicative list of various heads to be considered for Non-Tariff Income shall be as under —

- (a) Income from rent of land or buildings;
- (b) Income from sale of scrap;
- (c) Income from statutory investments;
- (d) Interest on advances to suppliers/contractors;
- (e) Rental from staff quarters;
- (f) Income from hire charges from contactors and others;
- (g) Income from advertisements, etc.;
- (h) Meter/metering equipment/service line rentals;
- (i) Service charges;
- (j) Revenue from late payment surcharge;
- (k) Recovery for theft and pilferage of energy;
- (l) Miscellaneous receipts;
- (m) Prior period income

The Non-Tariff Income is quite difficult to project as the same is not based dependent on any business activity. TPCODL has therefore relied on the quantum of actual Non Tariff

Basic Tax u/s 115 BAA	22.0%
Surcharge	10.0%
Health & Education Cess	4.0%
<b>Effective Tax Rate</b>	<b>25.17%</b>

Income for FY 2020-21 for projecting the future. Further, estimates have been made separately for few heads like, Income on Term Deposits and Income from Sale of Scraps. Based on the Trend and also separate estimates for some of the heads, the projections of the Non Tariff Income are as given in the Table below:

**Table 4-35 Non Tariff Income**

Sr No	Head of Income	Considered for Truing up FY 2020-21(Rs. Cr) (10 Months)	Rs Cr	
			FY 2021-22 (12 Months)	FY 2022-23 (12 Months)
1	Meter Rent from Meters installed prior to 1st June 2020	28.67	27.53	20.64
2	Income from Open Access	20.79	24.95	24.95
3	Interest on Term Deposit with Banks	26.69	29.73	27.62
4	Sale of Scrap	5.38	10.00	10.00
5	Others	18.49	22.19	24.00
<b>6</b>	<b>Total</b>	<b>100.03</b>	<b>114.40</b>	<b>107.21</b>

#### 4.10 Demand Side Management

TPCODL and M/s Energy Efficiency Services Ltd (EESL) have signed on 14<sup>th</sup> January 2021 in which TPCODL had agreed to promote the use of Energy Efficient Appliances in coordination with EESL under its DSM program. EESL has identified three programmes viz (a) Super Energy Efficient Fan (b) Super Energy Efficient and (c) Premium Efficiency Electric Motors.

At this point of time, in order to promote such DSM programme it is proposed to give publicity to such programmes by providing the available space at the Customer Care Centres and other places for the consumers to notice the features of the three programmes and the schemes available.

While TPCODL would approach the Hon'ble Commission with a separate petition for explaining its participation , in the meantime we request the Hon'ble Commission to allow an adhoc expenditure of **Rs 1.0 Crore** for FY 2022-23 for carrying out the role envisaged for TPCODL for promoting the DSM programme. Such expenditure would be trued up after the end of the period.

#### 4.11 Additional Serviceable Liability



The Hon'ble Commission the Vesting Order dated 26<sup>th</sup> May 2020 had permitted TPCODL to finance the Additional Serviceable Liability determined under Paragraph 54 (e) of the order. The relevant extracts from the Order are as follows:

*54 (e) The Commission further states that the shortfall, if any, in meeting the current liabilities after using the proceeds of the current assets (the "Additional Serviceable Liabilities"), transferred to TPCODL, shall be dealt within the following manner, so that TPCODL is not adversely impacted:*

*i. The final amount of Additional Serviceable Liabilities shall be determined when the audited financial statements as on 31.05.2020 are made available on or before 30.11.2020.*

*ii. Within 1 month from date mentioned in point i above, TPCODL shall file a petition claiming the Additional Serviceable Liabilities based on such financial statements required to be serviced.*

*iii. From the Effective Date, TPCODL shall be responsible to receive / pay amounts pertaining to assets and liabilities transferred to TPCODL as Additional Serviceable Liabilities.*

*iv. To fund the Additional Serviceable Liabilities, TPCODL shall be allowed to avail of a separate appropriate financial instrument including but not limited to short-term loan / overdraft facility.*

...

...

*viii. Principal repayments of such financial instruments shall be allowed by Commission to be made from the following amounts in the same order:*

*a. Excess recovery net of payments to be made to GRIDCO/ Transmission Charges/SLDC Charges in first month of operation*

*b. Recovery of past arrears by TPCODL after deducting incentives as specified in para 46 of this order*

*c. Annual Depreciation on assets as on 31.03.2020 (existing assets recognized in Tariff Order) allowed in Aggregate Revenue Requirement.*

*ix. In case above amounts falls short to fund principal repayments of appropriate financial instrument, the shortfall shall be considered by the Commission in Aggregate Revenue Requirement in the same year or over a period as the Commission may decide, subject to prudence check*

[ Emphasis has been added]

In this regard it is submitted that as mentioned earlier in this submission, “ASL Petition” has been submitted by TPCODL to the Hon’ble Commission for approval of Additional Serviceable Liability (ASL) of Rs 391.82 Crores. The summary of workings is as given in the table below

#### Extracts 4-11: Working of Additional Serviceable Liability (ASL) from ASL petition

**Table 17: Reworking of Additional Serviceable Liability (Rs Cr)**

Particulars	Amt considered in Order dated 30th September 2021	Amt to be considered for working out the ASL
<b>Liabilities</b>		
Grants received/Adjustment	491.27	582.14
Security deposits from Consumers	660.33	660.33
Deposits from Suppliers/Contractors	0.21	0.21
Deposits for service connection	0	0
Long-term provisions - P.F. Trust	54.38	54.38
Short term borrowings	157.54	157.54
Sundry Creditors	6.82	6.82
Trade Payables	225.16	225.16
Other Liabilities	1.85	3.52
Electricity Duty Payable	9.11	10.30
Electric Public Awareness Media Campaign Funds	0	0
Interest Payable on Security Deposit	31.91	32.82
Short-term provisions	47.56	47.56
Payable to Franchisees	50.84	50.84
Shorfall in Revenues of June 2020 over expenditure as allowed	0	70.35
<b>Total</b>	<b>1,736.98</b>	<b>1,901.97</b>
<b>Assets</b>		
Other non-Current assets	60.24	56.70
Receivable from franchisees	27.43	0
Inventory	198.32	0.00
Trade Receivable	135.98	111.97
Cash and cheques in Hand	23.97	23.97
Current Accounts	204.38	204.38
Fixed Deposit with Bank	1,087.62	1087.62
Short-term loan and Advance	4.08	2.80
Other Current assets	7.84	1.88
Provision for Unbilled Revenue	43.74	43.74
Negative Arrears	0	-22.91
<b>Total:</b>	<b>1,793.60</b>	<b>1,510.15</b>
<b>Additional Serviceable Liabilities (ASL)</b>	<b>-56.62</b>	<b>391.82</b>



After considering the available finances as provided under Para 54 (e ) (viii) of the Vesting Order, the quantum of financing required has been proposed. The relevant extracts from the ASL petition are as follows:

#### Extracts 4-12: Funding of ASL – ASL petition

77. Presently considering the Gross Depreciation of Rs. **72.35** Cr., as allowed in the ARR for Tariff determination for FY 2021-22 , the following is quantum of funding required through Short Term Loans for meeting the Additional Serviceable Liability (ASL)

**Table 19: Funding required to meet the ASL**

Sr No	Particulars	Units	Amount
1	ASL as worked out above	Rs Cr	391.82
2	Less Depreciation for FY 2020-21	Rs Cr	(72.35)
3	<b>Amount of ASL for funding through Loans</b>	<b>Rs Cr</b>	<b>319.47</b>

78. Alternately, in the event the Hon'ble Commission allows Depreciation in True-Up for FY'20-21 with adjustment for financing through Consumer Deposit, the Depreciation Amount of **Rs. 13.11 Crores** would be available for discharge of Liabilities and the financing requirement would be accordingly higher to that extent.

It is therefore submitted that as provided in the Vesting Order, the quantum of ASL amount is required to be funded and this amount would be allowed in the ARR of TPCODL. It is further submitted that if the entire amount of Rs 319.47 Crores is considered in the ARR, the impact on Tariff would be quite considerable. Hence for the purpose of ARR of FY 2021-22 and FY 2022-23, TPCODL has considered the interest on such ASL. As regards the repayment, while TPCODL is entitled for same, no repayment has been proposed in this petition. TPCODL requests the Hon'ble Commission to allow a certain repayment schedule and the same will be considered for interest computation.

We have considered a borrowing of Rs 200 Crores for four months in FY 2021-22 Considering the interest rate of 8% p.a, the interest for FY 2021-22 works out to **Rs 5.12 Crores** and for FY 2022-23 the same works out to **Rs 14.12 Crores** as shown in the table below:

**Table 4-36 Projection of Interest on ASL**

Particular		FY 2021-22	FY 2022-23
Opening Balance	Rs Cr	200	184.34
Repayment (Depreciation from Assets existing on Effective Date)	Rs Cr	15.66	15.66
Closing Balance	Rs Cr	184.34	168.7
Average Balance	Rs Cr	192.17	176.5
Interest on ASL	Rs Cr	5.12	14.12

#### 4.12 Aggregate Revenue Required (ARR)

TPCODL is an entity formed with effect from 1<sup>st</sup> June 2020 and has inherited the systems as existing at the time of Effective date from CESU. As per the Tariff Regulations, the ARR needs to be worked out for Wheeling and Retail Supply business separately. However, such segregation requires tracking of expenses Capital in nature separately for Wires and Retail Supply business. In addition, the O&M expenditure also needs to be segregated separately. At this point of time, TPCODL has not segregated the same. Further, even the Hon'ble Commission has approved the expenditure under various heads for both the businesses together and has achieved the segregation under pre-defined ratio.

In view of the same, TPCODL would like to present the ARR for the combined business i.e Wheeling and Retail Supply as such for the two periods on the basis of the projections so far. However, in this submission, for the purpose of working out the Wheeling Charges, we have segregated the expenditure on the basis of the ratios used by the Hon'ble Commission in the various tariff orders.

As per the tariff regulations, the ARR of the retail supply business would comprise the following

#### Extracts 4-13 : Components of ARR

7.2 The Aggregate Revenue Requirement for the Retail Supply Business of the Distribution Licensee shall contain the following items :--

- (a) Power Purchase Expenses (including Bulk Supply price, intra-state transmission and SLDC charges and Wheeling Charges);
- (b) Operation and Maintenance expenses;
- (c) Interest and Finance Charges;
- (d) Depreciation;
- (e) Return on Equity;
- (f) Income Tax;
- (g) Interest on Consumer Security Deposit;
- (h) Provision for bad debts;
- (i) Other allocation of expenses considered appropriate by the Commission such as rebate etc;
- (j) Less: Non-Tariff Income;
- (k) Less: Income from Other Business; and
- (l) Less: Receipts on account of cross subsidy surcharge from open access customers.

The ARR for the FY 2020-21 (10 Months) and FY 2021-22 is computed and presented as given below:

**Table 4-37: ARR for FY 2021-22 and FY 2022-23**

Sr No	Particulars	True Up FY 2020-21 (Jun-Mar)	FY 2021-22	FY 2022-23
1	Cost of Power Purchase(Net of Rebate of 1 %)	1982.73	2784.43	2907.00
2	Emp Cost	598.41	678.30	831.71
3	A&G Cost	84.72	120.83	146.84
4	R&M Cost	142.33	203.00	252.35
5	Interest Long Term Debt	1.45	14.31	39.69
6	Interest on Working Capital	35.29	43.40	48.19
7	Depreciation	14.82	29.94	55.99
8	Return on Equity	41.32	60.98	84.66
9	Income Tax	13.90	20.51	28.47
10	Interest on Security Deposit	22.00	29.54	30.78
11	Provision for Bad Debts	28.16	39.29	41.54
12	Interest on ASL		5.12	14.12
13				
14	Expenditure on DSM			1.0
	<b>Less</b>			
15	Non Tariff Income	-79.24	-89.45	-82.26
16	Receipts on account CSS	-20.79	-24.95	-24.95
<b>17</b>	<b>Total ARR</b>	<b>2865.11</b>	<b>3915.25</b>	<b>4375.13</b>

## Revenues from Existing Tariff and Gap Calculations

This section presents the estimated revenues from Existing Tariffs and resultant gaps. Further for the purpose of working out the Gap, the Power Purchase expenses have been reworked for arriving at the value with a normative loss. Based on the same, the resultant gap is considered for enhancing the Tariff

### 4.13 Revenues at Existing Tariff

The Tariffs have been revised by the Hon'ble Commission from 4<sup>th</sup> April 2021 .TPCODL has worked out the estimated revenues from such tariffs for FY 2021-22 and FY 2022-23. The estimated revenues have been presented in Form T7 both for current year and ensuing year. The summary of revenue (billed) is as follows for the two years.

**Table 4-38: Estimated Revenues for FY 2021-22 and FY 2022-23**

Sr No	Particulars		FY22 (Estimated)				FY 23 (Projected)			
			LT	HT	EHT	Total	LT	HT	EHT	Total
1	Sales	Mus	4471.5	1406.4	1043.7	6921.6	4796.4	1468.1	1095.9	7360.5
2	Revenue from Demand Charge	Rs Cr	1.2	172.3	92.6	266.1	1.3	178.7	99.1	279.2
3	Revenue from Monthly Fixed Charges	Rs Cr	122.2			122.2	136.8			136.8
4	Revenue from Customer Service Charges	Rs Cr	0.0	2.4	0.0	2.4	0.0	2.5	0.1	2.6
5	Revenue from Energy Charge	Rs Cr	2179.2	817.5	585.7	3582.4	2323.0	842.4	617.7	3783.2
6	<b>Total</b>	<b>Rs Cr</b>	<b>2302.6</b>	<b>992.3</b>	<b>678.3</b>	<b>3973.1</b>	<b>2461.2</b>	<b>1023.7</b>	<b>716.9</b>	<b>4201.8</b>
7	Rebate	Rs Cr	-26.8	-11.0	-6.8	-44.6	-28.6	-11.6	-7.2	-47.3
8	Net Revenue	Rs Cr	2275.8	981.3	671.5	3928.5	2432.6	1012.1	709.7	4154.5

### 4.14 Gap in Revenue with respect to ARR

As mentioned in Section 2.2 of this submission, the power purchase cost for computation of Gap needs to be worked out with the losses considered by the Hon'ble Commission for tariff workings. Such "Normative Power Purchase Costs" have been worked out in Section 2.3 of this petition. Accordingly, with the above ARR and estimated revenues, the gap for the two periods is as follows:

**Table 4-39: Gap in Revenue at existing Tariff (in terms of Rs Cr)**

Sr No	Particulars	Units	FY 2021-22	FY 2022-23
1	ARR with Actual Distribution Loss	Rs Cr	3915	4375
2	Less Power Purchase Costs	Rs Cr	2784	2907
3=1-2	ARR without Power Purchase Costs	Rs Cr	1131	1468
4	Add Normative Power Purchase Costs	Rs Cr	2767	2942
5=3+4	ARR with Normative Distribution Loss	Rs Cr	3898	4410
6	Revenue at Existing Tariff	Rs Cr	3928.51	4154.46
7	(Gap) /Surplus	Rs Cr	31.0	-255.7

The Hon'ble Commission may consider the above Gap while fixing the tariff for the ensuing year after allowing a Carrying Cost.

#### 4.15 Cumulative Gap along with Carrying Costs

Based on the True up performance of FY 2020-21, estimated performance of FY 2021-22 and projected performance of FY 2022-23, TPCODL has worked out the cumulative Gap for the consideration of the Hon'ble Commission along with the carrying cost. In this regard, the Tariff Regulations stipulate the following:

#### Extracts 4-14 : Treatment of Regulatory Assets

**8.3 The Commission may create regulatory assets in case of the Distribution Licensee incurring losses on account of uncontrollable factors:**

**Provided that the amortization schedule corresponding to the regulatory asset shall be prepared and put in effect along with creation of the regulatory asset:**

**Provided that the carrying cost of the regulatory asset shall be determined by Commission from time to time taking into account the State Bank Base Rate prevailing as on 1st January of the preceding year, for the period for which regulatory asset is proposed to be amortized.**

Based on the submissions in this petition, the Gap has been worked out considering the above interest rates

**Table 4-40: Cumulative Gap Workings**

Sr No	Particular		FY 2020-21	FY 2021-22	FY 2022-23
1	Opening Gap with interest	Rs Cr	0.00	76.64	50.14
2	Addition	Rs Cr	73.54	-30.97	255.70
3	Closing Gap	Rs Cr	73.54	45.67	305.84
4	Interest Rate	%	8.45%	7.30%	7.45%
5	Interest	Rs Cr	3.11	4.46	13.26
6	Closing Gap with Interest	Rs Cr			319.10

## Chapter 5. Proposal for removal of Concessional Wheeling Charges and Cross Subsidy Surcharge

### 5.1 Case No 81 of 2021

Presently for procurement of Renewable Power on Open Access, concessional Wheeling Charges and concessional Transmission charges for Renewable Power are applicable, both at 20% of the rate as for Non Renewable on Open Access. Similarly, the Cross Subsidy Surcharge applicable to procurement of Renewable Power through on Open Access is Nil.

TPCODL had filed a petition on this subject on 30<sup>th</sup> September 2021. However, the Hon'ble Commission in the hearing dated 23<sup>rd</sup> November 2021 directed TPCODL make the submissions in the matter along with the ARR petition. TPCODL is therefore making the submissions as follows:

### 5.2 Background Situation

The Hon'ble Commission has been determining from time to time the charges (i.e Cross Subsidy Surcharge, Additional Surcharge, Wheeling and Transmission Charges, and Wheeling and Transmission losses) applicable on power purchased on Open Access. From the FY 2012-13, for the Renewable Energy the Hon'ble Commission has exempted the applicability of Cross Subsidy Surcharge (CSS) on power procured through Renewable Sources. Further, where the power is procured from Renewable Sources, concessional transmission and Wheeling Charges (20% ) is applicable to the transaction.

In our humble submission, the above concessions were provided to encourage the growth of renewable energy sources when the renewable sector was at the initial stage of development. However, at present, substantial growth of Renewable Sources is taking place in the country and moreover, the cost of renewable sources particularly Solar and Wind has come down substantially. In light of the same, it is also necessary to revisit the concessions provided to the Renewable Sources and balance the interest of Discoms and the Consumers who source power on Open Access.

The present filing is filed with a request to the Hon'ble Commission to withdraw/reduce certain concessions provided to Renewable Power sourced on Open Access in order to ensure balancing of all stakeholders' interests, including that of Discoms and their consumers.

### 5.3 Present applicable charges for Renewable Power sourced on Open Access

The Hon'ble Commission has in the Tariff Order for FY 2021-22 determined the Cross Subsidy Surcharge(CSS) and other charges for Open Access transactions entered by the consumers under Section 42 of the Electricity Act 2003. The extracts from the FY 21-22 Tariff Order, Annexure C for the discoms provide the following charges

#### Extracts 5-1 : Charges applicable for Open Access Transaction as per Tariff Order for FY 21-22

#### ANNEXURE-C

- The Open Access Charges i.e. Cross Subsidy Surcharge, Wheeling and Transmission Charge for Open Access consumer of 1MW and above for FY 2021-22 effective from 04.04.2021 as determined by the Commission are given in the table below:

#### Surcharge, Wheeling Charge & Transmission Charge for Open access consumer 1MW & above

Name of the licensee	Cross Subsidy Surcharge (P/U)		Wheeling Charge P/U applicable to HT consumers only	Transmission Charges for Open Access Customer (applicable for HT & EHT consumers)
	EHT	HT		
TPCODL	164.35	102.54	78.06	The Open Access customer availing Open Access shall pay Rs.6720/MW-day (Rs.280/MWh) as transmission charges.
NESCO Utility	141.04	66.97	94.30	
TPWODL	130.33	76.83	60.17	
TPSODL	212.23	141.43	98.94	

- The normative transmission loss at EHT (3.0%) and normative wheeling loss for HT level (8%) are applicable for the year 2021-22.
- Additional Surcharge: No additional surcharge over and above the Cross-Subsidy Surcharge needs to be given to the embedded licensee.
- No Cross-subsidy surcharge are payable by the consumers availing Renewable power.
- 20% Transmission & Wheeling charge is payable by the consumer drawing power from Renewable source excluding Co-generation & Bio mass power plant.
- These charges as notified for the FY 2021-22 will remain in force until further order.

The concession on CSS is applicable from the FY 2012-13 and the concessional Transmission and Wheeling Charges has been applicable from FY 2015-16. The present concession for renewable projects is allowing consumers an arbitrage of around Rs. 2.41 / Kwh (when the cost of power for both the Sources is considered at Rs. 3/kwh for Comparison purpose vis-à-

vis conventional projects, primarily due to exemption on CTU Charges and losses, Concessional Transmission Charges and concessional wheeling charges which incentivizes the consumers in the State to source power from Renewable sources through Open Access at the expense of the embedded subsidized consumers of the Discoms. The computations are as given in the table below.

**Table 5-1: Components Contributing to Arbitrage between Conventional and Renewable Source**

Sr No	Particulars	Unit	Value	HT Consumer - HT Consumer -		Difference
				Sourcing Conventional Power	Sourcing Renewable Power	
				A	B	C=A-B
A	Rate of Source of Power	Rs/Kwh		3.00	3.00	
1	All India Loss	%	3.4%	0.102		0.102
2	Central Transmission Charges (Odisha)	Rs/Kwh		0.434	0.00	0.434
3	Transmission Charge- Odisha	Rs/Kwh		0.28	0.056	0.22
4	Wheeling Charge	Rs/Kwh		0.78	0.156	0.62
5	Cross Subsidy Surcharge	Rs/Kwh		1.03		1.03
<b>6</b>	<b>Total</b>	<b>Rs/Kwh</b>				<b>2.41</b>

The Hon'ble Commission shall appreciate that any such loss arising due to concessional tariffs would need to be compensated, eventually by increasing tariffs of subsidized, low end consumers. In our humble submission, the above needs to be addressed by reduction of concessions available to Renewable Power.

#### 5.4 Present trend of sourcing Renewable Power in Odisha on Open Access

Based on the data collected from the four Discoms, the quantum of energy sourced by consumers on Open Access for the FY 2020-21 and FY 2021-22 (5 Months) is as follows:

**Table 5-2: Quantum of Power Sourced on RE Open Access**

Name of Discom	FY 2020-21	FY 2021-22 (5 Months)
	(Mus)	(Mus)
TPCODL	8	12
TPNODL	17	114
TPWODL	125	926
TPSODL	18	74
<b>Total Odisha</b>	<b>168</b>	<b>1126</b>

As can be seen from the above table, the quantum of OA through Renewables has increased substantially within a short period of few months. This has adverse impact on the tariff to consumers with revenue loss arising to Discoms to the extent of concessional Transmission &

wheeling charges and exempted Cross Subsidy Charges on Renewable procurement. The impact is worked out as given in the table below:

**Table 5-3: Impact on Average Tariff due to concessions**

Sr No	Particulars	Units	TPCODL	TPNODL	TPWODL	TPSODL	Total
1	OA Sales of Renewables -5 Months of FY 2021-22	Mus	12.4	113.9	926	74	1126
2	CSS (EHT)	Rs/Kwh	1.64	1.41	1.3	2.12	
3	Applicable CSS to Renewable	Rs/Kwh	0	0	0	0	
4	HT Wheeling Charge (for EHT)	Rs/Kwh	0	0	0	0	
5	Transmission Charges	Rs/Kwh	0.28	0.28	0.28	0.28	
6	Applicable Transmission Charges	Rs/Kwh	0.056	0.056	0.056	0.056	
7	Revenue lost due to Non Applicability of Charges or concessional charges	Rs Cr	2.31	18.6	141.0	17.4	179.4
8	Total Sale in Odisha (Estimated for 5 Months)	MUs					9146
<b>9</b>	<b>Avge Tariff Impact</b>	<b>Rs/Kwh</b>					<b>0.20</b>

Note : Total Estimated Sale for Apr-August'21 computed as pro-rata of Estimated Sale for FY 21-22 as per Tariff Order

## 5.5 Reasons for re-visiting the concessions applicable to Renewable Power

Since the time concessions have been made available, several developments have taken place in favour of the Renewable energy thereby necessitating the need for reassessing the need for continuing of the concessions available hitherto. The following are some of the developments and the reasons for reconsideration

### 5.5.1 Adequate Renewable Capacity

In pursuit of meeting the target of installing Renewable Project to the extent of 175 GW in the past and to promote renewable energy, many states including Odisha started offering concessions/waivers to RE based open access and captive projects as well. However, the Renewable capacity in the country has grown manifold in the last few years. As per the data available with us, the capacity in the month of December 2016 was about 50000 MW, which has now (i.e August 2021) grown to above one lakh MW. The breakup of the capacity of various sources in August 2021 is as given in the table below

**Table 5-4: Present Capacity of the RE Sources**

<b>Programme/Scheme wise Physical Progress in 2020-21 &amp; Cumulative upto Aug, 2021</b>			
<b>Sector</b>	<b>FY- 2021-22</b>		
	<b>Cumulative</b>	<b>Achievements</b>	<b>Cumulative</b>
	<b>Achievements</b>	<b>(Apr-Aug 2021)</b>	<b>Achievements</b>
	<b>(as on 31.03.2021)</b>		<b>(as on 31.08.2021)</b>
<b>I. Installed RE Capacity (CAPACITIES IN MW)</b>			
Wind Power	39247	444.1	39691.15
Solar Power - Ground Mounted	35646	3168.86	38814.49
Solar Power - Roof Top	4440	1046.54	5486.28
SPV Systems (Off-grid)	1151	160.46	1311.14
Small Hydro Power	4787	21	4807.81
Biomass (Bagasse) Cogeneration)	9374	25	9398.56
Biomass (non-bagasse) Cogeneration)/Captive Power	772	0	772.05
Waste to Power	169	0	168.64
Waste to Energy (off-grid)	219	14.24	233.2
<b>Total</b>	<b>95803.4</b>	<b>4880.2</b>	<b>100683.32</b>

Source: MNRE Website

Further, the Capacity proposed to be added in future is as follows:

**Extracts 5-2 : Extracts from Standing Committee of Parliament Report**

<b>Sector</b>	<b>Target by 2022</b>	<b>Installed capacity</b>	<b>Under Implementation</b>	<b>Tendered</b>	<b>(in GW)</b>
					<b>Total Installed/ Pipeline</b>
Solar Power	100	38.79	36.03	23.87	98.69
Wind Power	60	38.68	8.68	1.20	48.56
Bio Energy	10	10.31	0.00	0.00	10.31
Small Hydro	5	4.76	0.44	0.00	5.20
Wind Solar Hybrid	0	0	2.55	0.00	2.55
Round the Clock (RTC)/ assured Peak Power supply	0	0	1.60	2.50	4.10
<b>Total</b>	<b>175</b>	<b>92.54</b>	<b>49.30</b>	<b>27.57</b>	<b>169.41</b>

Source: Standing Committee Report of the Parliament- Action Plan for achieving the target of 175 GW Renewable



The share of renewables in the total capacity now stands at about 23%. In our humble submission therefore, the concessions offered to Renewable Energy for sourcing power on Open Access needs to be reconsidered as the objective of providing concessions has been achieved

### **5.5.2 Substantial reduction in cost of generation of Solar and Wind**

The cost of generation from Solar Energy and also Wind Energy has come down substantially over the period of time. The rate of Solar Energy which was above Rs 12 per Unit in 2012 has now fallen to about Rs 2.50 per Kwh. Similarly, the Wind Tariffs which were earlier around Rs 5 per Kwh have now come down to Rs 2.75 per Kwh. Hence with such low cost of generation for solar and Wind, even if the power is sourced on open access with no concessions available , the landed cost of power would be economical. This is presented later in this petition

### **5.5.3 Provisions under National Tariff Policy**

The National Tariff Policy 2016 too does not envisage providing any concession in terms of reduction of CSS or concessional Wheeling and Transmission charges. It merely considers extending concession in terms of waiver of Inter State Transmission Charges and losses. Hence the NTP itself restricts its concessions and does not extend it to a) Reduced CSS and b) Making it applicable to Intra State -Transmission Network or Distribution Network. The extracts from the National Tariff Policy is as under:

#### **Extracts 5-3 : Extracts from National Tariff Policy**

*6) In order to further encourage renewable sources of energy, no inter-State transmission charges and losses may be levied till such period as may be notified by the Central Government on transmission of the electricity generated from solar and wind sources of energy through the inter-state transmission system for sale.*

Hence in line with Tariff policy, it may not be necessary to extend the concessional CSS and Wheeling/Transmission Charges.

### **5.5.4 Reasonable CSS determined for OA with conventional power**



The CSS as determined by the Hon'ble Commission is reasonable as the same is in line with the Tariff Policy which stipulates that it should not be more than 20% of the Applicable Tariff category. Hence the actual compensation required by Discoms (which is when the limit of 20% is not applicable) is itself higher than that derived at the CSS determined which is an advantage to the consumer. Accordingly, further concession for the Renewable Sector may not be necessary

#### **5.5.5 Increased adverse impact for Discoms**

Due to higher penetration of renewables as explained earlier, the loss to Discom with concessional charges would be higher and such adverse impact would have to be borne by other consumers of the Discoms. Hence this needs to be contained.

#### **5.5.6 Several States have discontinued the concessions**

Several States in the country have either withdrawn the concession made available to renewable power or have reduced the same substantially. In particular, Maharashtra which is a front runner for renewable power had stopped providing any concession i.e No concessional charges are applicable either for Transmission/Wheeling Charges or for CSS. Further, Gujarat in recently announced Solar Policy had not provided any concessional CSS to Solar Plant. The State of AP has removed the CSS through its Solar Policy 2018 and also stopped the concessional Transmission and Wheeling Charge from 2019 onwards. Some other states like Tamil Nadu have reduced the concession and have a CSS of 60% (as against 100%) for Wind Power and 70% for Solar Power.

In summary, almost all the states have either removed the concession available to Renewables or have considerably reduced the same. In our humble submission, the Hon'ble Commission may consider doing the same in the State of Odisha. Such step will balance the interest of the Discoms and its embedded consumers as well as also the consumers who are sourcing power on Open Access on Renewables. As per the data available with us, the status of the concessions provided by various states for Renewable Power Procurement under Open Access is as given in **Chapter 12 ANNEXURE 4: Concessions to Renewable Energy in Various States**

#### **5.5.7 Draft OA Rules for Green Energy too contemplate levy of Cross Subsidy Surcharge**

As per the Draft Electricity (Promoting renewable energy through Green Energy Open Access) Rules, 2021 dated 16th August 2021 issued by the Government of India, levy of



CSS is envisaged. In-fact, it also envisages a situation for subsequent increase in CSS. The relevant extract of the Draft Rules in this regard are reproduced below:

*Cross Subsidy Surcharge shall be levied on consumers who are permitted open access as per the provisions of Tariff policy notified by the Central Government under the Electricity Act 2003:*

*Provided that the surcharge for green open access consumer purchasing green energy, from a generating plant using renewable energy sources, shall not be increased, during twelve years from the date of commissioning of the generating plant using renewable energy sources, by more than fifty percent of the surcharge fixed for the year in which open access is granted.*

*Provided further that Additional surcharge shall not be applicable for green open access consumers;*

*Provided further that Cross Subsidy Surcharge and Additional Surcharge shall not be applicable in case power produced from a Waste-to-Energy plant is supplied to the open access consumer*

## **5.6 Landed Tariff after withdrawal/reduction of Concessions for Renewable Energy**

In this section, we have worked out the impact of withdrawal of concessions available to Renewable power sourced on Open Access. It is submitted that for working out the landed tariff, we have considered a cost of Rs 2.50 per Kwh at the renewable source end. Further, the MoP in line with the National Tariff Policy has waived the Transmission Charges and Losses for power plants commissioned till 30<sup>th</sup> June 2023. The waiver has now been restricted to Transmission Charges but the date of commissioning has been extended to 30<sup>th</sup> June 2025 (through the order dated 21<sup>st</sup> June 2021). We have in our computations, considered waiver of only the Inter State Transmission Charges and not the losses. The extracts of the relevant notification of August 2020 is as presented below:

**Extracts 5-4 : Extracts from MOP order of August 2020**

- 3.0 In supersession of Ministry of Power's earlier order No 23/12/2016-R&R dated 13.2.2018 and Order No. 23/12/2016-R&R dated 6<sup>th</sup> November, 2019 it has been decided that no inter-state transmission charges and losses will be levied on transmission of the electricity generated from following power plants for a period of 25 years from the date of commissioning of the power plants which meet the following criteria:
- a) Power plants using solar and wind sources of energy, including solar-wind hybrid power plants with or without storage commissioned till 30<sup>th</sup> June, 2023 for sale to entities having a Renewable Purchase Obligation (RPO), irrespective of whether this power is within RPO or not, provided that in case of distribution licensees, the power has been procured competitively under the guidelines issued by the Central Government.

The following table computes the landed tariff with the withdrawal/reduction of concessions available for Renewable Energy:

**Table 5-5: Landed Cost of Power with Withdrawal/Reduction of concessions (Sample Calculation for a HT Consumer in TPCODL Area)**

Sr No	Particulars	Unit	Value	HT Consumer with Concession	HT Consumer with 50% Concession	HT Consumer with NO Concession
				A	B	C
1	Rate of Source of Power	Rs/kWh		3.00	3.00	3.00
2	All India Loss	%	3.4%	0.10	0.10	0.10
3	OPTCL Loss	%	3.0%	0.09	0.09	0.09
4	Wheeling Loss	%	8.0%	0.24	0.24	0.24
5	Central Transmission Charges (Odisha)	Rs/kWh		0.00	0.00	0.00
6	Transmission Charge- Odisha	Rs/kWh		0.056	0.14	0.28
7	Wheeling Charge	Rs/kWh		0.156	0.390	0.78
8	Cross Subsidy Surcharge	Rs/kWh			0.52	1.03
9	<b>Total Landed Cost of Power</b>	Rs/kWh		<b>3.64</b>	<b>4.48</b>	<b>5.52</b>
<b>*Retail Supply Tariff</b>						
	<b>Tariff (&lt;60% LF)</b>	Rs/kWh		<b>6.38</b>	<b>6.38</b>	<b>6.38</b>
	<b>Tariff (&gt;60%LF)</b>	Rs/kWh		<b>5.25</b>	<b>5.25</b>	<b>5.25</b>

\* Calculated at 97 % Power Factor, Demand Charge at 100% LF

As can be seen even after removal of all the concessions in the state, the landed tariff is lower than the tariff payable as a consumer. Further, the Discom too is able to collect its legitimate charges of CSS and the Wheeling Charges and pass on the benefit of the same to other consumers thereby creating a "Win-Win" situation.

It is submitted that in order to balance the interest of Open Access consumers, promote Renewable capacity addition also mitigate adverse impact of loss of Revenue due to concessions for Renewable Power procurement through Open Access, it is proposed that Cross Subsidy Surcharge for such purchase of Renewable Power be fixed at at least 50%.



TPCODL therefore requests the following to the Hon'ble Commission

- a) The Cross Subsidy Surcharge (CSS) on power sourced through Open Access from Renewable Sources, which is currently exempted, to be levied at 100% i.e there should not be any concessional Cross Subsidy Surcharge.
- b) The concessional Wheeling and Transmission Charges (20%) may be also be removed i.e the Wheeling and Transmission Charges in full.

## 6.1 Background

TPCODL had filed a petition in Case No 89 of 2021 with the Hon'ble Commission proposing a optional tariff called "Green Tariff" for consumers. Under this proposal, a consumer can purchase energy in the form of Renewable Power from the respective Discoms by paying a premium over and above their present Tariff.

The Hon'ble Commission during the hearing on 23<sup>rd</sup> November 2021 directed TPCODL to come up with their submission during the proceedings of their ARR petition. TPCODL is therefore in this petition making the same as follows

## 6.2 Propensity to purchase Green Power

Globally, there is a growing demand from consumers for a rapid transition to a zero-carbon economy. Over 175 of the world's most influential companies have already made this commitment through the global corporate leadership initiative, RE100. This is driving up demand for renewable electricity and creating a shift in demand patterns away from fossil fuels across the global power system. Google & Autodesk are just a few of the companies that have already achieved their goal and are now powered by 100% RE.

In our country, Government of India is also promoting RE in a big way and has kept an aggressive target of 175 GW of RE by 2022. Indian corporates are also playing key role in achieving this aggressive target of the Government as corporate citizens and for other resulting advantage of being zero carbon companies.

In this context, some of the corporate consumers of TPCODL are also stressing to become zero carbon company and eyeing for becoming a part of the elite club of those companies having zero carbon emission like Google. While many other consumers may wish to buy Renewable Energy (RE), they may not wish to go through this process of sourcing RE themselves because either they are not eligible to avail open access under the current Regulatory framework or they do not have the resources, expertise and the bandwidth required for carrying out this activity. In line with the same, one consumer viz Tata Consultancy Services (TCS) has approached TPCODL intending to source its requirement through green energy from TPCODL. The letter from TCS evincing interest in purchase of Renewable Energy is attached as **ANNEXURE 5: Letter from TCS evincing interest in purchasing Renewable Power**

Section 61(h) of the EA, 2003 has specified the promotion of generation of RE. Further, Section 86(e) of the EA, 2003 specifies the function of State Commission, which includes promotion of generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person.

### 6.3 Benefit of Green Tariff to consumers

Green Tariff will have the following advantages:

- a. Green Tariff being totally voluntary in nature will give the choice to the Consumers to opt for Green Energy.
- b. The extra charges for procurement of RE being charged from the specific consumers would not increase the cost to be borne by other consumers.
- c. This will reduce the hesitation of the Distribution Licensees in going for high cost of power purchase from RE sources as it will not impact the general tariff, leading to growth in power generation from RE sources.
- d. The additional revenue on account of Green Power Tariff shall be accounted as other income of the Discom, which in turn will reduce the overall ARR.
- e. It will help in meeting the objectives under the draft Rules on Electricity (Promoting renewable energy through Green Energy Open Access) Rules, 2021 of the Ministry of Power published recently on 16<sup>th</sup> August 2021. As per the draft rules, the following is stipulated

*(2) Any entity-whether obligated or not - may elect to purchase and consume Renewable Energy as per their Requirements by one or more of the following methods.*

*(A) Own Generation from renewable energy sources: -*

....

....

*(B) By procuring Renewable Energy through Open Access from any Developer with which the entity enters into an agreement.*

***(C) By requisition from distribution licensee:-***

***(a) Any entity may elect to purchase green energy only upto a certain percentage of the consumption or its entire consumption and they may place a requisition for this with their Distribution Licensee, which shall procure such quantity of green energy and supply it.***

...

....

If such Green Tariff is implemented, it will pave the way for meeting the purchases as stipulated in draft under 2( c ) above.

#### **6.4 Determination of Green Tariff for Odisha**

It is submitted that consumers who wish to purchase Green Energy should bear the cost of such Green Energy procured by the Discom. Further for such procurement of Green Energy, the transmission and Distribution Network of the respective licensees are used. Hence to provide the power at the doorstep of the consumer, the necessary losses of the Discoms and Transmission Licensees need to be factored.

It is submitted that at present, the power purchase for the entire state is carried out by Gridco. In the Power Purchase cost, the consumer already pays for Mix of Thermal (Conventional), Hydro and Renewable Energy. Such Power Purchase cost is one of the inputs considered by the Hon'ble Commission in determination of the Retail Supply Tariff (RST) of the consumers. Hence if now one has to compute the additional tariff to be levied for Renewable Energy, the differential cost on account of the rate of the (a) Power Costs of Renewable Energy and (b) Conventional Energy needs to be considered. This differential costs need to be Grossed up for Billing Efficiency of the state to determine the impact on the consumer thereby working out the Green Tariff. The total tariff paid by the consumer would be this Green Tariff applicable plus the existing Energy Charges. In addition, the consumer would continue to pay the other charges like Demand Charge.

For the purpose of the workings, we have relied upon the Tariff Order of the Hon'ble Commission for the FY 2021-22 for Gridco and for Discoms in Odisha. The computation of the same are as follows

**Table 6-1: Power Purchase by Gridco for the Discoms in FY 2021-22**

Sr No	Source of Power	Purchase (Mus)	% of Mix	Rate Rs/Kwh	Total Rs Cr
1	State Hydro	5881.74		0.91	537.7
2	Central Hydro	1226.94		2.67	327.2
<b>3</b>	<b>Total Hydro</b>	<b>7108.68</b>	<b>25%</b>	<b>1.22</b>	<b>864.9</b>
4	State Thermal	11782.04		2.85	3355.6
5	Central Thermal	7198.89		2.95	2121.9
<b>6</b>	<b>Total Thermal</b>	<b>18980.93</b>	<b>66%</b>	<b>2.89</b>	<b>5477.5</b>
7	Renewables	2702.35	9%	3.78	1022.5
<b>8</b>	<b>Total Power Purchase</b>	<b>28791.96</b>	<b>100%</b>	<b>2.56</b>	<b>7364.8</b>

It is further submitted we have not considered other costs like Transmission Charges and other Charges of Gridco as the same are payable even when the Thermal Energy in their basket of purchase is substituted by Renewable Energy for determination of Green Tariff, as worked out in the following paragraph.

The Green Tariff for state of Odisha is worked out in the table below:

**Table 6-2: Working out the Green Tariff<sup>3</sup>**

Sr No	Particulars	Units	Rate
1	Rate of Thermal Purchase	Rs/Kwh	2.89
2	Rate of Renewable Purchase	Rs/Kwh	3.78
3=2-1	Difference	Rs/Kwh	0.90
4	Fraction of Thermal Purchase	Rs/Kwh	66%
5= 3 x4	Impact on Power Purchase Costs if Thermal Power is substituted by Renewable Power	Rs/Kwh	0.59
6	Transmission Loss	%	3%
7	Billing Loss as worked out from Table 33 of Discom Tariff Order for Odisha State	%	27.0%
<b>8= 5/(100%-6)/(100%-7)</b>	<b>Impact on Tariff</b>	<b>Rs/Kwh</b>	<b>0.84</b>

As can be seen from the table above, Hydro Power Cost has not been taken for the workings as Hydro Power is not contributing towards the carbon emissions. At the same time, Hydro Power in the Power Purchase of Gridco is from large Hydro Unit which do not qualify as Renewable Power.

<sup>3</sup> Billing Loss for Odisha (Table 33 of the Tariff Order dated 26<sup>th</sup> March 2021)

Sr No	Particulars	Units	Value
1	Power Purchase by Discoms	Mus	27870
2	Power Sale by Discoms	Mus	21950
3	Billing Loss	%	27.0%



The Green Tariff for Odisha State works out to Rs 0.84 per Kwh as computed in the table above. Hence consider a General Purpose consumer under EHT who has an Energy Charge of Rs 7 per Kwh . In case he opts for purchase of Renewable Energy from the Discom, the tariff applicable would be Rs 7.84 per Kwh for quantum of Renewable Energy purchased

## **6.5 Green Tariffs in Other States**

In our humble submission, the Hon'ble Commissions of two states viz Karnataka and Maharashtra have determined the Green Tariff applicable to their states. The Hon'ble KERC has determined the Green Tariff of Rs 0.50 per Kwh (Under Para 6.10 (i) of the Tariff order dated 9th June 2021) and Hon'ble MERC has determined the Green Tariff of Rs 0.66 per Kwh (Order dated 22nd March 2021 in Case No 134 of 2020).

## **6.6 Other Points for consideration**

### **6.6.1 Applicable for those consumer who consume 100% power from Renewable Energy**

It is submitted that for the initial period of one year or there about i.e till end of FY 2022-23, the Green Tariff may be made applicable only to those consumers who have chosen to purchase Renewable Power to the extent of 100% of their requirement. This will facilitate easier billing and also easier monitoring of consumer ranking on inclination towards the renewable purchase

It is also submitted that while the consumer has the choice to take the Renewable Power from the Discom, the commitment from consumer should be for a minimum of 3 months from the time he exercises the choice. Such commitment will help in better power purchase planning by Gridco in Short Term market if required.

There are a large number of Captive Power Plants set up by Industries in the state generating power through fossil fuel. These Captive consumers in the state are availing of power on Open Access or purchasing Renewable Energy Certificate (REC) to meet their RPO. The mechanism proposed in this submission will assist such industries in meeting their objective.

### **6.6.2 Applicable to all consumers**

In our humble submission since the entire nation is committed towards the objective of increasing the renewable energy in the country, all the consumers (i.e whether EHT, HT or

LT ) should be given an opportunity to participate in this. Hence all the consumers may purchase Renewable power by paying the Green Tariff

### 6.6.3 Certificate by Discoms for appreciation

The Hon'ble Commission may permit the Discoms to issue certificate to consumers who purchase electricity from Renewable Sources under this arrangement

### 6.6.4 Period of Applicability

Since the concept is new in the state as well in the country, such arrangement may be made applicable for an initial period of one year i.e till end of FY 2022-23. Based on the lessons learnt in this time period, the same may be extended thereafter.

### 6.6.5 Allowing this purchase by consumers as RPO of Gridco in case the consumers do not want to use its Green Attributes

At present, Gridco has tied up renewable power on long term basis. Some of the consumers may like to consume such power to "go green" while some others (say with Captive Power Plant) may consume the power to meet their RPO. The Hon'ble Commission may permit such purchase by consumers towards meeting their RPO. In case such power is not towards meeting the RPO of the consumer, then such power may be permitted to be consider as RPO of Gridco

### 6.6.6 Permit Gridco to purchase power on Short Term to meet the short fall in their RPO due to purchase by consumers from Discom to meet their RPO

In case such renewable power is purchased by consumers under this arrangement for meeting the RPO, the corresponding power available to Gridco would be reduce and there would be a short fall in meeting the RPO of Gridco. In this background, Gridco may be permitted to procure renewable power in Short Term at an average tariff lower than **Rs 3.78 per Kwh** , a value which has been considered above for working out the Green Tariff.

TPCODL requests the following to the Hon'ble Commission

- a. Approve an additional Tariff of **Rs 0.84 per Kwh** as Green Tariff to be made applicable for purchase of Renewable Energy by consumers from Distribution Companies of Odisha



- b. Permit Gridco to purchase power in Short Term to meet the shortfall in Renewable Purchase Obligation (RPO) due this arrangement.

### **7.1 Background**

TPCODL and the entire state of Odisha is sensitive to the situation that several industries are not consuming energy from the Discoms to the fullest extent. They are either sourcing power on Open Access to reduce the cost of their input or they have set up Captive Power Plants to meet their need.

One of the reasons for such behavior is that the tariffs are not economical enough for industries. A reduction in tariff is sought by them in different fora and representations have been made in this regard to the Hon'ble Commission as well as the Government of Odisha. The Hon'ble Commission has been addressing this issue by offering special tariffs in the form of incentives to a class or category of consumers. Recently the Hon'ble Commission in the Tariff Order for FY 2021-22 had provided certain rebates in Tariff to Steel Plants for LF beyond 60% .

However, in a cost plus approach model for a Distribution Licensee where if such tariffs are reduced for a category of consumers, the tariffs to other categories rise. It is therefore necessary to balance the interest of all the consumers. TPCODL in this filing has made a “win win” proposal which would balance the interest of all the categories of consumers. Further it is also in line with the concept of Special Agreement proposed by TPWODL recently in Case No 68 of 2021.

Based on the above, the proposal is as given below

### **7.2 Purpose of proposal**

To incentivize the Industries to take power from a) Odisha Discoms b) Desist consumers from going on Open Access and c) Increase Industrial Consumption

### **7.3 Applicability of Proposal**

To Industries i.e Tariff Category HT Industrial (M)(Sr No 20), Large Industry (Sr No 23 and 30), Power Intensive Industry (Sr No 24 and Sr No 33), Mini Steel Plant (Sr No 25, Sr No 34) of the Tariff Schedule

## 7.4 Proposal

In case the Load Factor (LF) is greater than 75% (upto 80%), then Tariff Reduction (i.e Energy Charges) of Rs 0.40 per Kwh for entire consumption. In case the LF is greater than 80% then Tariff Reduction of Rs 0.50 per Kwh for entire consumption. However, no concession is available if the LF is less than 75%

## 7.5 Conditions for availing the proposal

The LF of the consumer in FY 2021-22 should be less than 55%

## 7.6 Applicable from:

1<sup>st</sup> April 2022

## 7.7 Rationale for choosing a threshold LF of 55%

As LF rises, the Discom gets more contribution from such sale. However, when it crosses 75%, the entire sales is given a discount of Rs 0.40 per Kwh and when it crosses 80%, a rebate of Rs 0.50 per Kwh. Such concessions would imply that as the LF rises above 75%, the margin reduces. Hence based on existing tariff structure, it has been established that for a “Win Win” situation, a threshold LF of 55% is required. The benefits worked out at 1KVA Contract Demand (CD) at various Load Factors is as given in the table below

**Table 7-1: Benefit to Discom (i.e to Other consumers) at different CUF**

Benefits to Discom at Various Load Factors								
Load Factor	%	10%	50%	55%	60%	76%	81%	85%
Energy Consumed	KVAH	72	360	396	432	547	583	612
Energy Charges for 1st 60 % LF	Rs	421	2106	2317	2527	2354	2311	2311
Energy Charge for the Balance	Rs	0	0	0	0	501	643	765
Less Tariff Order Rebate	Rs	0	0	0	0	0	0	0
Total Energy Charges	Rs	421	2106	2317	2527	2856	2954	3076
Less Power Purchase Costs	Rs	243	1217	1339	1460	1850	1971	2069
<b>Benefit to Discom</b>	<b>Rs</b>	<b>178</b>	<b>889</b>	<b>978</b>	<b>1067</b>	<b>1006</b>	<b>982</b>	<b>1007</b>

The benefit for a sample LF of **85%** is a given below:

**Table 7-2: Computation of Benefits at 85% Load Factor (LF)**

<b>A Original Tariff</b>				
Upto 60% LF	Rs/kVAH			5.85
Above 60 LF	Rs/kVAH			4.75
<b>B Consumption Data</b>				
Maximum Demand (MD)	KVA			1
Load Factor	%			85%
Energy Consumed in a month of 720 Hrs	KVAH			612
Energy upto 60% LF	KVAH			432
Energy beyond 60 % and= < 70%	KVAH			72
Energy beyond 70 % and =< 80%	KVAH			72
Energy beyond 80%	KVAH			36
Losses for Power Purchase	%	8.0%		
Power Factor for Conversion		1.00		
<b>C Incentivised Tariff</b>				
Applicable Tariff		<b>Original Tariff</b>	<b>Discount</b>	<b>Net Tariff</b>
Energy upto 60% LF	Rs/kVAH	5.85	-0.50	5.35
Energy beyond 60% LF	Rs/kVAH	4.75	-0.50	4.25
<b>D Computation of Benefits to Discom (passed on to Other consumers)</b>				
Load Factor	%			85%
Energy Consumed	KVAH			612
Energy Charges for 1st 60 % LF	Rs			2311
Energy Charge for the Balance	Rs			765
Less Tariff Order Rebate	Rs			0
Total Energy Charges	Rs			3076
Less Power Purchase Costs @ Rs 3.11 per Kwh	Rs	(Grossed up for Loss)		2069
<b>Benefit to Discom</b>	<b>Rs</b>			<b>1007</b>

Since the commencement of operation of 1<sup>st</sup> June 2020, TPCODL has come across situations where some of the clauses of the Regulations and Order are not clear and such clauses do not envisage all the situations entailing certain clarifications from the Hon'ble Commission. We are in this Chapter presenting some of the points for the consideration of the Hon'ble Commission

### **8.1 Discount on Power Purchase Bill of Gridco/OPTCL and SLDC**

The agreements/Tariff Orders provide for certain discounts on early payment. The Discount provided is 1 % for payment on Due date (i.e 30 days). There have been situations when the Due Date has fallen on a holiday in which case, it needs to be clarified whether discount is applicable if the payment is made on the immediate next working day.

In our humble opinion, the applicable Discount should continue to apply in such situations i.e if the payment is made on the next working day, discount should be applicable. This is justified as in case of rebate of 2 % , the holidays under N.I. Act 1881 are excluded. The Relevant extracts from the Tariff Order

*371. For payment of bills through letter of credit/NEFT/RTGS or by cash within two working days (excluding holidays under N.I. Act, 1881) of presentation of bills, a rebate of 2% shall be allowed on current dues. If the payments are made after two working days but within a period of 30 days by the Distribution Utilities, a rebate of 1% shall be allowed. However, payment by DISCOM Utilities within the specified period shall be first adjusted towards current months dues raised in the bill. If the current dues are fully met within the specified time period, GRIDCO shall allow rebate. Payments over and above the current dues shall be adjusted towards the arrears after rebate.*

### **8.2 Graded Rebate for prompt payment prior to Due Date**

Presently, as is evident from above, the Petitioner is entitled to a Rebate on Power Purchase/ Transmission Cost Payment @ 2% for payment within 3 days of receipt of the Bill and @1% for payment made on the Due Date, i.e. 30 Days from Receipt of the Bill.

It is submitted that the Hon'ble Commission may consider allowing a graded Rebate %age allowance for power purchase/ transmission payments made for each day prior to the Due Date (i.e. 30 Days from the Bill Receipt Date), which can ensure faster payment of Bills to GRIDCO / OPTCL by the Discoms subject to their being incentivised for the same. It is

submitted that the Hon'ble Commission may consider an additional Rebate of 0.037% for each Day of payment prior to the 30th Day, on which 1% Rebate is available. This would imply additional 0.037% Rebate per day from Day 29 to Day 3 (i.e.  $0.037\% \times 27 \text{ Days} = 1\%$ ). This would ensure 1% Rebate for payment on 30th Day with 1.037% Rebate for payment on 29th Day, 1.074% Rebate for payment on 28th Day and so on with 2% Rebate for payment on the 3rd Day.

The Hon'ble Commission may also consider allowing an additional Rebate of 0.075% per day for any payment made on provisional basis prior to receipt of the Bill but not before 1<sup>st</sup> of the relevant month.

### **8.3 Recovery of Meter installation cost to be charged from the consumers who are providing their own meters :**

There are cases in which consumers are requesting for installation of meter purchased by them from the market. In these cases, as the rent is not charged, the cost of the meter installation is not recovered from the consumer. It is proposed that onetime cost of Rs 500 per Single Phase meter may be allowed to be recovered from consumers along with testing cost of meters.

### **8.4 Tariff Related Matters**

#### **i. Agriculture Supply**

**Tariff for high load for supply used for agriculture connection:** There are cases where Single connection is applied for group of consumer and supply is being used for irrigation purpose. As there is a load limit ( 15 HP) for IPA tariff class, GPS is being provided for such consumers which is a considerably high tariff for the this class of consumers. Accordingly, a separate tariff may be incorporated for such class of consumer having load greater than 15 HP for Agriculture Category. Similarly, a separate tariff class is required for Mega Lift Irrigation projects.

#### **ii. Tariff applicability for Non Profit Organisations**

It is proposed that a special tariff to be introduced for Non-profit organization like education institutions. The same may be removed from General Purpose Service (GPS) and can be put into an appropriate category with a relatively lower tariff

#### **iii. Cash Discount to Rural Consumers**



It is submitted that the discount to Domestic Rural customer should be changed from billing to collection. Thus, discount on payment at counter/digital payment may be enhanced for rural customer instead of providing the rebate at billing.

## Chapter 9. ANNEXURE 1: Statistical Information of TPCODL

TPCODL operational area is spread across 29354 Square kM covering 9 Revenue Districts of Odisha State, namely: Cuttack, Puri, Dhenkanal, Angul, Khurda, Kendrapara, Nayagarh, Jagatsinghpur and part of Jajpur. For effective operations; the entire license area is split into 5 circles which is further divided into 20 Divisions, 65 Sub divisions and 251 Sections. Most of the commercial and O&M activities are managed by sub-divisions and Sections which are interface points for customers. The Overall snapshot is as given in the table below

**Table: Statistics of TPCODL Area (as on 31<sup>st</sup> March 2021)**

	Units	BBSR 1	BBSR 2	Cuttack	Paradeep	Dhenkanal	Total
Area	Sq Km	2183	9422	2754	4430	10565	29354
Input Energy	Mus	2077	1568	1864	911	1952	8370
AT&C Loss	%	17.65%	34.52%	37.41%	31.36%	30.19%	29.54%
No of Consumers	No	548935	685969	545611	527021	485237	2792773
No of 33/11 KV Substations	No	62	74	66	55	62	319
<b>33/11 KV Transformer</b>							
No	No	147	170	148	116	136	717
Capacity	MVA	1147	933	926	580	681	4267
<b>33/415 V Transformer</b>							
No	No	105	76	71	51	43	346
Capacity	MVA	54	11	9	6	9	89
<b>11/415 V Transformer</b>							
No	No	11418	13667	9631	9490	10393	54599
Capacity	MVA	1519	942	986	584	614	4645
<b>11/230 V Transformer</b>							
No	No	2486	1846	3091	3690	4106	15219
Capacity	MVA	37	28	55	62	51	232
<b>33 KV Lines</b>							
33 KV Line (OH-Ckt Km)	Ckt-Km	569	790	569	570	801	3300
33 Kv Line (U/G Ckt Km)	Ckt-Km	141	116	70	3	8	339
<b>11KV Lines</b>							
11 KV Line (O/H - Ckt Km)	Ckt-Km	4920	9310	5642	7856	9468	37195
11 Kv Line (U/G- Ckt Km)	Ckt-Km	236	217	81	12	15	562
<b>LT Lines</b>							
LT Line (Bare - Ckt Km)	Ckt-Km	2059	2883	3149	5014	3886	16991
LT Line (ABC- Ckt Km)	Ckt-Km	4381	8071	6266	5684	6641	31043

## Chapter 10. ANNEXURE 2: Historical Sales

### Table 10-1 Historical Sales of TPCODL and CAGR

Years	FY14	FY15	FY16	FY17	FY18	FY 19	FY 20	FY 21	CAGR- 6 Year	CAGR - 5 Year	CAGR- 4 Year	CAGR- 3 Year	CAGR- 2 Years
<b>A LT Category</b>													
<b>1 Domestic</b>													
a Kutir Jyoti (<=30KWH)	53.19	62.14	60.81	62.36	48.09	53.41	34.18	25.53	-13.8%	-15.9%	-20.0%	-19.0%	-30.9%
b Others	1810.30	2024.11	2256.32	2335.00	2434.47	2613.81	2790.97	3019.82	6.9%	6.0%	6.6%	7.4%	7.5%
<b>Total Domestic</b>	<b>1863.50</b>	<b>2086.25</b>	<b>2317.13</b>	<b>2397.36</b>	<b>2482.56</b>	<b>2667.22</b>	<b>2825.15</b>	<b>3045.35</b>	<b>6.5%</b>	<b>5.6%</b>	<b>6.2%</b>	<b>7.0%</b>	<b>6.9%</b>
<b>2 Total General Purpose (&lt;100 KW)</b>													
3 Irrigation, Pumping & Agriculture	31.65	36.59	35.52	44.80	50.01	50.84	39.56	46.93	4.2%	5.7%	1.2%	-2.1%	-3.9%
4 Allied Agricultural Activities	2.29	2.70	3.40	5.08	4.57	5.61	5.54	5.02	10.9%	8.1%	-0.3%	3.2%	-5.4%
5 Allied Agro-industrial Activities	1.21	1.11	1.15	1.14	1.26	1.30	1.04	3.63	22.0%	25.9%	33.7%	42.3%	67.4%
6 Public Lighting	34.73	35.59	35.91	37.57	38.96	44.16	48.26	50.79	6.1%	7.2%	7.8%	9.2%	7.2%
7 LT Industrial (S) Supply < 22KVA	47.37	46.75	44.83	44.97	41.69	41.39	39.47	43.42	-1.2%	-0.6%	-0.9%	1.4%	2.4%
8 LT Industrial (M) Supply >= 22KVA	27.10	28.88	30.64	29.47	30.59	31.57	30.65	33.42	2.5%	1.8%	3.2%	3.0%	2.9%
9 Specified Public Purpose	29.31	30.15	33.69	33.77	34.41	34.20	38.01	23.58	-4.0%	-6.9%	-8.6%	-11.8%	-17.0%
10 Public Water Works <100KW	63.39	66.45	71.42	73.29	78.15	89.84	96.11	102.44	7.5%	7.5%	8.7%	9.4%	6.8%
11 Public Water Works >=100KW	3.46	3.09	3.03	3.97	2.53	2.51	2.42	2.41	-4.1%	-4.5%	-11.7%	-1.6%	-2.0%
12 General Purpose ( >= 110 KVA )	3.34	3.65	3.96	4.18	4.17	2.70	2.82	2.81	-4.2%	-6.6%	-9.4%	-12.3%	2.1%
13 Large Industry	0.77	0.93	1.99	2.26	2.49	2.51	2.16	1.80	11.6%	-2.0%	-5.5%	-10.3%	-15.3%
<b>LT Total ----&gt;</b>	<b>2594.02</b>	<b>2877.39</b>	<b>3169.59</b>	<b>3293.52</b>	<b>3449.19</b>	<b>3670.30</b>	<b>3813.00</b>	<b>4000.05</b>	<b>5.6%</b>	<b>4.8%</b>	<b>5.0%</b>	<b>5.1%</b>	<b>4.4%</b>
<b>B HT Category</b>													
14 Bulk Supply - Domestic	40.34	43.00	46.94	50.11	51.92	54.60	58.55	56.52	4.7%	3.8%	3.1%	2.9%	1.7%
15 Irrigation	4.53	4.91	11.13	13.48	13.14	16.49	12.45	12.06	16.1%	1.6%	-2.8%	-2.8%	-14.5%
16 Allied Agricultural Activities	7.39	12.11	11.64	14.45	19.57	25.89	26.83	28.84	15.6%	19.9%	18.9%	13.8%	5.6%
17 Allied Agro-industrial Activities	23.86	30.63	37.36	39.40	43.80	42.75	44.51	42.06	5.4%	2.4%	1.6%	-1.3%	-0.8%
18 Specified Public Purpose	92.02	106.10	126.29	135.91	152.70	137.11	126.92	86.76	-3.3%	-7.2%	-10.6%	-17.2%	-20.5%
19 General Purpose > 70 KVA <110 KVA )	32.67	34.49	38.62	39.63	41.12	47.94	46.05	38.71	1.9%	0.0%	-0.6%	-2.0%	-10.1%
20 General Purpose >= 110 KVA	294.10	317.00	345.86	353.33	376.03	411.45	444.99	363.50	2.3%	1.0%	0.7%	-1.1%	-6.0%
21 H.T Industrial (M) Supply	45.38	48.29	53.17	58.41	68.34	73.53	67.30	68.48	6.0%	5.2%	4.1%	0.1%	-3.5%
22 Public Water Works	41.58	41.55	43.73	45.58	48.19	48.84	51.85	62.09	6.9%	7.3%	8.0%	8.8%	12.8%
23 Large Industry	326.50	317.59	380.29	421.29	466.33	481.89	481.73	444.00	5.7%	3.1%	1.3%	-1.6%	-4.0%
24 Power Intensive Industry	69.42	55.47	71.91	48.14	48.01	54.39	58.75	51.10	-1.4%	-6.6%	1.5%	2.1%	-3.1%
25 Mini Steel Plant	22.31	13.72	4.39	0.06	0.00	0.00	0.00	0.00					
26 Railway Traction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
27 Emerg. Supply to CPP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
28 Colony Consumption	0.05	0.02	0.02	0.02	0.02	0.04	0.04	0.02	-3.7%	-2.4%	-1.8%	-1.9%	-33.5%
<b>HT Total----&gt;</b>	<b>1000.14</b>	<b>1024.89</b>	<b>1171.35</b>	<b>1219.80</b>	<b>1329.16</b>	<b>1394.92</b>	<b>1419.96</b>	<b>1254.12</b>	<b>6.0%</b>	<b>1.4%</b>	<b>0.7%</b>	<b>-1.9%</b>	<b>-5.2%</b>
<b>C EHT Category</b>													
29 General Purpose	72.87	77.48	78.28	75.47	82.10	84.53	87.04	94.55	3.4%	3.8%	5.8%	4.8%	5.8%
30 Large Industry	155.06	185.82	198.14	98.38	64.96	85.83	87.02	86.31	-12.0%	-15.3%	-3.2%	9.9%	0.3%
31 Railway Traction	279.69	300.52	319.00	323.00	340.09	347.90	391.60	355.69	2.8%	2.2%	2.4%	1.5%	1.1%
32 Heavy Industry	858.22	855.54	384.41	292.10	355.27	559.30	341.44	321.20	-15.1%	-3.5%	2.4%	-3.3%	-24.2%
33 Power Intensive Industry	208.72	133.73	209.37	154.54	134.70	135.29	107.66	37.84	-19.0%	-29.0%	-29.7%	-34.5%	-47.1%
34 Mini Steel Plant	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
35 Emerg. Supply to CPP	37.08	4.71	13.26	9.06	5.46	6.40	5.12	42.67	44.4%	26.3%	47.3%	98.5%	158.2%
36 Colony Consumption	6.65	24.25	27.36	22.72	20.71	26.45	20.35	9.89	-13.9%	-18.4%	-18.8%	-21.8%	-38.9%
<b>EHT Total ----&gt;</b>	<b>1618.28</b>	<b>1582.04</b>	<b>1229.82</b>	<b>975.27</b>	<b>1003.28</b>	<b>1245.70</b>	<b>1040.23</b>	<b>948.15</b>	<b>-7.1%</b>	<b>-5.1%</b>	<b>-0.7%</b>	<b>-1.9%</b>	<b>-12.8%</b>
<b>Total</b>	<b>5212.44</b>	<b>5484.33</b>	<b>5570.76</b>	<b>5488.59</b>	<b>5781.64</b>	<b>6310.92</b>	<b>6273.19</b>	<b>6202.33</b>	<b>3.1%</b>	<b>2.2%</b>	<b>3.1%</b>	<b>2.4%</b>	<b>-0.9%</b>

**11.1 Estimation of Interest During Construction**
**Table 11-1: Computation of IDC for schemes initiated in FY 2020-21**

For FY-21 Approved Capex				
Sr No	Particulars	Year		
		FY 2020-21	FY 2021-22	FY 2022-23
1	Opening CWIP	0.00	17.96	
2	Capex	84.56	196.07	
3	Capitalisation	66.60	214.03	
4	Closing CWIP	17.96	0.00	
5	Average CWIP	8.98	8.98	
<b>Loan Movement</b>				
6	Opening Balance	0.00	12.57	
7= 70% of (2)	Addition= 70 % of (2)	59.19	137.25	
8= 70 % of (3)	Capitalisation= 70% of (3)	46.62	149.82	
9	Closing Balance	12.57	0.00	
<b>IDC Working movement ( on Loan OB and Addition)</b>				
10	Opening Balance	0.00	0.11	
11	IDC for the Year= Rol x ( OB+Net Addition/2)	0.50	0.50	
12= (10 +11)x(8/(6+7))	IDC Capitalised	0.40	0.61	
13	Closing Balance	0.11	0.00	

Net Addition = Capex for the year - Capitalisation for the year

**Table 11-2: Computation of IDC for schemes initiated in FY 2021-22  
For FY-22 Approved Capex**

Sr No	Particulars	Year		
		FY 2021-22	FY 2022-23	FY 2023-24
1	Opening CWIP	0.00	40.22	
2	Capex	151.50	147.23	
3	Capitalisation	111.28	187.45	
4	Closing CWIP	40.22	0.00	
5	Average CWIP	20.11	20.11	
<b>Loan Movement</b>				
6	Opening Balance	0.00	28.15	
7= 70% of (2)	Addition	106.05	103.06	
8= 70 % of (3)	Capitalisation	77.90	131.22	
9	Closing Balance	28.15	0.00	
<b>IDC Working movement ( on Loan OB and Addition)</b>				
10	Opening Balance	0.00	0.30	
11	IDC for the Year= Rol x ( OB+Net Addition/2)	1.12	1.12	
12= (10 +11)x(8/(6+7))	IDC Capitalised	0.83	1.42	
13	Closing Balance	0.30	0.00	

**Table 11-3: Computation of IDC for schemes initiated in FY 2022-23  
For FY-23 Capex**

Sr No	Particulars	Year	
		FY 2022-23	FY 2023-24
1	Opening CWIP	0.00	70.00
2	Capex	350.00	240.09
3	Capitalisation	280.00	310.09
4	Closing CWIP	70.00	0.00
5	Average CWIP	35.00	35.00
<b>Loan Movement</b>			
6	Opening Balance	0.00	49.00
8= 70 % of (3)	Addition	245.00	168.06
9	Capitalisation	196.00	217.06
9	Closing Balance	49.00	0.00
<b>IDC Working movement ( on Loan OB and Addition)</b>			
10	Opening Balance	0.00	0.39
11	IDC for the Year= Rol x ( OB+Net Addition/2)	1.96	1.96
12= (10 +11)x(8/(6+7))	IDC Capitalised	1.56	2.35
13	Closing Balance	0.39	0.00

## 11.2 Employee Costs Capitalisation

The computation of Employee Costs to be included in the Capital Expenditure and also the quantum to be capitalized is as given in table below:

**Table 11-4: Employee Costs Capitalisation**

Particulars		FY 2021-22	FY 2022-23
Opening Employee Cost	Rs Cr	0	1.4
Employee Cost Addition for Capex	Rs Cr	22.34	23.90
<b>Employee Cost Capitalization</b>	<b>Rs Cr</b>	<b>20.9</b>	<b>23.82</b>
Closing Employee Cost	Rs Cr	1.43	1.52



## Chapter 12. ANNEXURE 4: Concessions to Renewable Energy in Various States

**Table 12-1: Concessions in Various States for Renewable Energy**

Charges/Customer Type	Madhya Pradesh	Maharashtra	Gujarat	Andhra Pradesh	Assam	Bihar	Chhattisgarh	Karnataka	Odisha	Tamil Nadu	Telangana	Uttrakhand	Rajasthan
State Transmission losses	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver
Wheeling losses	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver	No waiver
State transmission charges	No waiver	No waiver	No waiver	No waiver	100% waiver	100% waiver	100% waiver	50% waiver	80% waiver	50% waiver	No waiver	No waiver	No waiver
Wheeling charges	No waiver	No waiver	No waiver	No waiver	100% waiver	100% waiver	100% waiver	50% waiver	80% waiver	50% waiver	No waiver	No waiver	No waiver
Additional Surcharge	No waiver	No waiver	Sale outside state - 100% waiver Sale in state - 50% waiver	100% waiver	100% waiver	100% waiver	100% waiver	50% waiver	100% waiver	100% waiver	No waiver	No waiver	No waiver
Cross Subsidy	No waiver	No waiver	Sale outside state - 100% waiver Sale in state - 50% waiver	No waiver	100% waiver	No waiver	100% waiver for Solar, 50% waiver for others	50% waiver	100% waiver	30% waiver	No waiver	No waiver	No waiver

## Chapter 13. ANNEXURE 5: Letter from TCS evincing interest in purchasing Renewable Power

TCSL/BBSR/ADMIN/ELE/21-22/01

Dated: 27<sup>th</sup> August 2021

**Chief General Manager (Commercial) (I/C)**  
TP Central Odisha Distribution Limited  
2<sup>nd</sup> Floor, IDCO Towers, Janpath,  
Bhubaneswar-751022, Odisha

**Subject: Application to purchase Green (Renewable energy) units from Power Distribution Company**

Dear Sir/Madam,

TATA Consultancy Services Limited ('TCS') has been on the sustainable journey and found ways to make it more efficient and greener through green infrastructure, efficient operations, green IT and renewable energy. Sourcing energy units from renewable sources has been one of our focus areas along with on-site energy generation opportunities.

In the Integrated Annual report 2020-21 published by TCS, we have set a new carbon reduction target and aspire to achieve net-zero emissions by 2030.

With the objective of sustainability and environment conservation, we hereby voluntarily express our interest to purchase energy units supplied by your company as Green or Renewable energy units under a pre-agreed and defined 'Green tariff'. Kindly note that we are not an obligated entity under 'Renewable purchase obligation (RPO)' mechanism, and the above request is purely voluntary. We intend to source the Green energy units at the locations attached as annexure 1.

Recently, the state of Maharashtra has provided the option of 'Green tariff' vide Maharashtra Electricity Regulatory Commission (MERC) order dated 22<sup>nd</sup> March 2021 (*Case no. 134 of 2020*) [*Petition filed by Tata Power Company Limited (Distribution) seeking approval for levying "Green Power Tariff" to supply Renewable Energy to consumers opting for 100% green energy for meeting their entire demand*]. We look forward to receiving similar option from you and your support to maximize Green energy off-take at our buildings.

We request for your positive response in the above matter.

Thanking you.

Yours Sincerely,  
For **TATA CONSULTANCY SERVICES LTD.**

*Sarita Mishra*  
Sarita Mishra  
Delivery Centre Head

