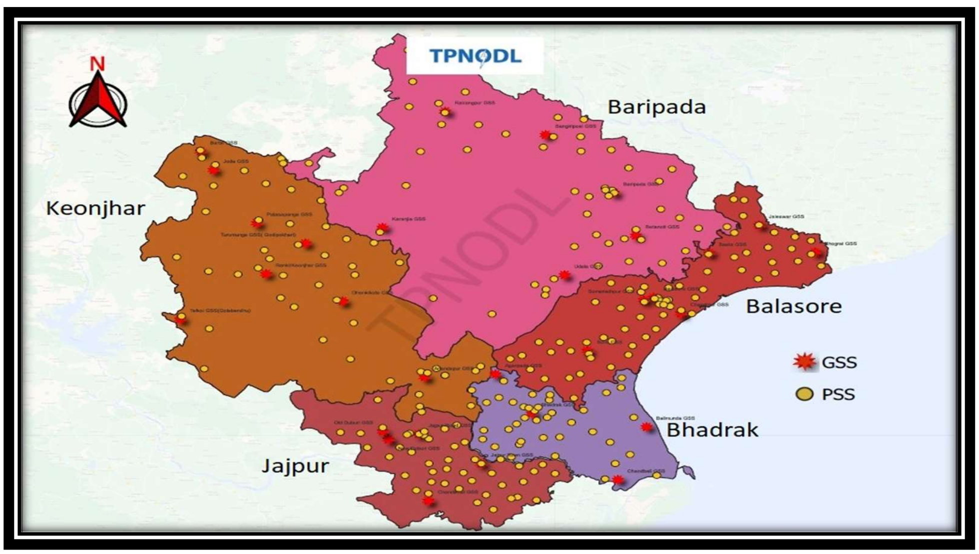
Revised Aggregate Revenue Requirement & Tariff Application

For the

Financial Year 2023-24



(Volume-I)

7th January 2023

TP NORTHERN ODISHA DISTRIBUTION LIMITED

(A Tata Power & Odisha Government Joint Venture)

Corporate Office : Januganj, Balasore, Odisha-756019

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BEFORE THE ODISHA ELECTRICITY REGULATORY COMMISSION
PLOT NO.4, CHUNUKOLI, SAILASHREE VIHAR,
CHANDRASEKHARPUR, BHUBANESWAR

IN THE MATTER OF Application for approval of Revised Aggregate Revenue Requirement and Retail Supply Tariff for the financial year 2023-24, under Section 62 and other applicable provisions of the Electricity Act 2003 and in conformity with the provisions of OERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022 , OERC (Conduct of Business) Regulation 2004 and Vesting order dated 25.3.2021

And

IN THE MATTER OF TP Northern Odisha Distribution Limited.
Registered & Corporate Office: Januganj, Balasore, Odisha-756019
Represented by its Chief Executive Officer ---------**Applicant**

And

IN THE MATTER OF All Stake Holders

The Humble applicant, above named, most respectfully showeth:

The present application is being filed by TP Northern Odisha Distribution Limited (TPNODL) before the Hon'ble Commission for approval of revised Aggregate Revenue Requirement and Tariff proposal for the Financial Year 2023-24 under Section 62 and other applicable provisions of the Electricity Act 2003 and in compliance to notification No. DIR(T)/405/2023-24/1379 dated 30.11.2022 of Hon'ble Commission, in conformity with the provisions of OERC (Terms and Conditions for determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022. The submissions of TPNODL are enclosed herewith.

(BHASKAR SARKAR)
CHIEF EXECUTIVE OFFICER
TP Northern Odisha Distribution Ltd

BEFORE THE ODISHA ELECTRICITY REGULATORY COMMISSION
PLOT NO.4, CHUNUKOLI, SAILASHREE VIHAR,
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Registered & Corporate Office: Januganj, Balasore, Odisha-756019
Represented by its Chief Executive Officer **---------Applicant**

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IN THE MATTER OF All Stake Holders

Affidavit verifying the application of the licensee for the revised Aggregate Revenue Requirement and Tariff Application for the FY 2023-24

I, Bhaskar Sarkar, aged about 55 years, son of Late Arup Kumar Sarkar, residing at Balasore, do hereby solemnly affirm and state as follows:-

I am the Chief Executive Officer of TP Northern Odisha Distribution Limited-the applicant in the above matter and duly authorised to swear this affidavit on its behalf.

The statements made in the application along with the annexures annexed to this application are based on information provided to me and I believe them to be true.

Date : 7.1.2023

Place: Balasore **DEPONENT**

1. Executive Summary

TP Northern Odisha Distribution Limited (TPNODL) has been incorporated as a joint venture of the Tata Power Company Limited (51%) and Odisha Government (49%) on the Public-Private Partnership (PPP) model. TPNODL took over the license to distribute electricity in the five districts Balasore, Mayurbhanj, Bhadrak, Keonjhar and Jajpur districts of northern Odisha, which was earlier served by erstwhile NESCO Utility, through a competitive bidding process. The business of TPNODL shall be governed by the provisions of license issued by Hon'ble Odisha Electricity Regulatory Commission (OERC) vide Order No-OERC/Engg/06/2021/718 dated 29.06.2021 for distribution and retail supply of electricity in North Odisha.

This revised submission is made by TPNODL before the Hon'ble Commission in conformity with the OERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022 for the determination of Aggregate Annual Revenue Requirement and Retail Supply Tariff for the Financial Year 2023-24.

1.1 Background

Hon'ble OERC vide its order dated 31.03.1999 passed in Case No.24/98 under the provisions of the Orissa Electricity Reform Act, 1995, had issued Licence to North Eastern Electricity Supply Company of Orissa Ltd (the "**NESCO**"), Januganj, Balasore- 756019, Orissa to carry out the business of Distribution & Retail Supply in the areas of supply as mentioned in their licence No 3/99. Under the said Licence, NESCO carried out the Distribution and Retail Supply business as the Licensed Activities in its Area of Supply.

The Electricity Act, 2003 (the "**Act**") came into force from 10th June 2003. Under Section 14 of the Act, any person engaged in the business of supply of electricity under the provisions of repealed laws or any Act specified in the Schedule on or before the appointed date shall be deemed to be a licensee under the Act. By virtue of this provision, NESCO became a Deemed Distribution Licensee for carrying out the Licensed Activity in its Area of Supply.

Thereafter, Hon'ble OERC prepared another draft Licence conditions for NESCO and decided to finalise the same through a consultative public hearing. For this purpose, Hon'ble Commission initiated a suo-moto proceeding and a case was registered as Case No.21/2006. Hon'ble

Commission, vide Order dated 27.10.2006, finalized the Licence conditions for NESCO which became applicable with effect from 01.11.2006.

Under Section 19 of the Electricity Act, 2003 (the "Act"), Hon'ble Commission revoked license of NESCO with effect from Mar 2015 and appointed CMD, GRIDCO as the administrator under Section 20(d) of Act and vested the management and control of NESCO Utility along with their assets, interests and rights with the CMD, GRIDCO Limited. The order on revocation of licenses by the Commission was upheld by the Hon'ble APTEL in Appeal No. 64 of 2015 and has also been confirmed by the Hon'ble Apex Court vide their Order dated 24.11.2017 in Civil Appeal No.18500 of 2017.

In terms of Section 20 of Act, Hon'ble Commission initiated a transparent and competitive bidding process for selection of an investor for sale of utility of NESCO ("NESCO Utility") and had issued the updated Request for Proposal (the **"RFP"**) on 31.07.2020. In response to the said RFP, one bid was received by the bid due date. After detailed evaluation by independent bid evaluation committee setup by Hon'ble OERC, The Tata Power Company Limited (the **"TPCL"**) was recommended as the successful bidder and Hon'ble OERC accepted the same under Section 20(1)(a) of the Act.

Hon'ble OERC issued a Letter of Intent (the **"LoI"**) to TPCL vide Letter No. OERC/RA/SALE of NESCO-26/2019(II)/160 dated 29.01.2021. TPCL communicated the acceptance of the LoI vide Letter No. T&D /BD/ DOM/ FY21/ OERC/ NESCO/PPP/100 dated 05.02.2021.

As per the terms of the RFP, upon completion of sale, NESCO Utility shall vest in a special purpose vehicle (the **"Project SPV"** or **"Operating Company"**) in which TPCL shall hold 51% (fifty one percent) equity shares and Government of Odisha ("GoO") shall hold 49% (forty nine percent) equity shares through GRIDCO Limited (the "**GRIDCO**").

Hon'ble OERC vide letter no. OERC/RA/SALE OF NESCO-26/2019(Vol.II)/162 dated 29.01.2021 then directed GRIDCO to incorporate the said SPV to which the utility of NESCO shall be vested and License of NESCO Utility shall be transferred. TPNODL shall be the SPV in which TPCL and GRIDCO shall hold 51% and 49% equity shares respectively after the completion of sale.

Hon'ble OERC initiated a suo-motu proceeding in Case No. 9/2021 to issue suitable directions with respect to sale of utility of NESCO under Section 20 of the Act and for vesting of utility of

NESCO to the intending purchaser under Section 21 of the Act. Hon'ble OERC decided to dispose of the petition through a hearing of the concerned parties namely NESCO Utility, TPCL, GRIDCO, OPTCL and the Government of Odisha. After hearing the parties including public interveners, Hon'ble OERC issued an Order (the "**Vesting Order"**) on 25.03.2021 to the best interest of all the stakeholders.

The Vesting Order specified that the date of vesting of utility of NESCO to TPNODL would be 01.04.2021 (the **"Effective Date"**). In the said order, Hon'ble OERC directed the parties to undertake the transaction in such a manner that all the activities proposed for execution of this transaction in their submissions filed in response to suo-moto petition must be completed on or before 01.04.2021. The sale process would then be considered to be complete.

The Vesting Order also stated that upon completion of sale, the rights, powers, authorities, duties and obligations of the NESCO Utility under its licence shall stand transferred to TPNODL as per Section 21(b) of the Act. Upon delivery of utility of NESCO to TPNODL with effect from 01.04.2021, TPNODL shall be deemed to be the Licensee. Hon'ble OERC shall then issue an order amending Licence Conditions within 90 (ninety) days of the Effective Date. Till the time amended Licence is granted, the provisions of the Vesting Order and the rights, powers, authorities, duties and obligations specified in the Licence issued to NESCO vide order dated 27.10.2006 and subsequently transferred to NESCO Utility shall apply to TPNODL.

TP Northern Odisha Distribution Limited ("**TPNODL**") was incorporated on 20.03.2021 as wholly owned subsidiary of GRIDCO with an authorized share capital of ₹ 1000 crores (Indian Rupee One Thousand Crores only) and paid-up capital of ₹ 5 lakhs (Indian Rupee Five lakhs only). As per the directions contained in the Vesting Order and in fulfillment of requirement under Section 20(3) of the Act, the Administrator of NESCO Utility has delivered the utility to TPNODL with effect from 01.04.2021 after completing all the modalities of the transaction.

With the delivery of utility of NESCO to TPNODL, the Licence of NESCO Utility stood transferred to TPNODL with effect from 01.04.2021 as per the Vesting Order.

In exercise of powers conferred under the OERC (Conduct of Business Regulations), 2004 and the Vesting Order, Hon'ble OERC issued Licence Conditions vide order no.OERC/Engg./06/2021/718 dated 29.06.2021 to TPNODL.

1.2 Basis of Preparation of ARR

TPNODL in accordance with the licence conditions, have calculated the total expected revenue from sale of electricity for the third year of operation FY 2023-24 and hereby submitting in the foregoing paragraphs as per the following structure.

a. A statement with full details of its expected annual revenue and costs for the ensuing year FY 2023-24 for its Licensed Business along with technical, commercial, performance and financial parameters in the formats prescribed by the Hon'ble Commission.

b. Statement of allocation of wheeling and retail supply cost as per provisions of OERC (Terms and Conditions for determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022.

c. Truing-up for the FY 2021-22

d. Initiatives Taken by the licensee

g. Proposal for tariff rationalisation measures.

That, TPNODL has made certain assumptions while projecting its operations for the FY 2023-24. These projections are based upon the best estimates of the operations and prospective plans of the DISCOM at the time of the ARR filing. The actual ARR and the revenue figures may be different from the above estimates due to several external factors such as power purchase cost and change in consumer mix/ consumption etc.

2. Revenue Requirement for FY 2023-24

TPNODL licensed area is spread over a geography of 27857 Sq.Km and serves the registered consumer base of 2.08 million with a peak load of around 1150 MW. It receives electrical power at a sub transmission voltage of 33KV from 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 into 5 circles which is further sub divided into 16 Divisions, 50 Sub-divisions & 159 Sections which manage the commercial and O&M activities in order to serve its consumers.

This section outlines the assumptions for estimation of revenue requirement for FY 2023-24.

2.1 Sales Projection

For projecting the consumption of different categories, TPNODL has analyzed and relied on the past trend of consumption pattern for the last ten years i.e. FY 2012-2013 to FY 2021-22 (with due correction towards abnormal trends during Covid 19 period) and actual sales data for the first six months of FY 2022-23, the impact of electrification of household constructed under PMAY Scheme (Prime Minister Abas Yajona) in ensuing year under BGJY (Biju Gram Jyoti Yajona), left out household not electrified till date under various schemes, actual addition/reduction of loads and other factors such as post Covid-19 pandemic era, decreasing trend of drawl of power through open access along with additional drawl on account of special tariff for industries having CGP with CD up to 20MW, revival of closed units under HT/EHT Category (Balasore Alloys, Nilachal Ispat Nigam Limited etc) and also growth in Industrial consumption in recent months and going forward (mainly from Tata Steel, other steel and Ferroalloys manufacturer, Textile park etc). The category-wise consumption projected for FY 2023-24 has been depicted in following sections:

LT Category

The growth in the domestic category has been estimated at 8 % for the current year FY 2022-23 and 11 % for the ensuring year FY 2023-24. We would like to submit that for the current year, normal growth in domestic sector is considered. Further the impact of various initiatives for customer convenience such as opening of number of avenues of customer contact services and support like Customer care centers for urban areas, ANUBHAV KENDRAs (Consumer Experience Center in Gram Panchayats), Project Nistha (Correction of Erroneous Bills), Project Sudhar (Sanitization of Government Consumers), Improvement in Billing Coverage (by Separating Billing and Collection Contracts) etc along with elaborate enforcement initiatives to curb theft which promotes consumers to take new connections and get legitimate, better and comfortable services have been considered.

For projections of ensuing year FY 2023-24, the impact of electrification of household (41000 Nos. approx.) constructed under PMAY (Prime Minister Abas Yajona) along-with left out household (46996 Nos) not electrified till date under various schemes have been accounted for in addition to normal growth . Further, the normal growth for ensuring year has been projected on higher side due to the continued impact of various initiatives for customer convenience started by DISCOM such as Customer care centers , ANUBHAV KENDRAs Project Sudhar (Sanitization of Government Consumers), Improvement in Billing Coverage (by Separating Billing and Collection Contracts) , enforcement initiatives etc to curb theft which promotes consumers to take new connections and get legitimate, better and comfortable services.

The growth in the sales of other than domestic category in the LT sector has been estimated around 16 % during FY 2022-23 and 13 % for FY 2023-24.

Due to implementation of project **KRISHI SUDHAR** for sanitization of Irrigation consumers including reduction in theft, a growth of 18% has been projected for both current year 2022-23 as well as ensuing year 2023-24. Considering prawn cultivation in a large scale in the coastal areas, in both Allied agriculture & Allied Agro industrial activity categories, a growth of 12% for current year and 13% for ensuing year has been projected. Considering re-opening of educational and religious institutions post COVID, a growth of 50% for current year and 13% for ensuing year growth is projected in Specified Public Purpose category.

The summary of sales projections for LT category are given below:

Table-1: LT Sales (in MUs)

Category	FY 2021-22 (in MUs)	FY 2022-23 (in MUs)	FY 2023-24 (in MUs)
Domestic	1540.146	1615.546	1786.192
General Purpose<100 kw	324.483	374.093	422.252
Specified public purpose	24.578	36.83	41.576
Irrigation	120.291	141.843	166.788
Allied Agro Activities	31.852	35.174	39.621
Allied Agro Industrial	0.617	1.136	1.323
LT Industrial	57.058	62.814	68.206
Public water works	50.19	52.123	56.167
Public Lighting	18.493	22.883	25.634
Total	**2167.708**	**2342.442**	**2607.759**

DISCOM has estimated 8% growth in current year and 11% growth in ensuing year in LT Category.

HT Category

While projecting the sales in HT Category, the DISCOM has analyzed the consumption pattern of each HT consumer having contract demand of more than 1 MVA. The average sales under HT category has been estimated for the ensuing year based on the trend of FY 2021-22 and actual drawl for the 1st six month of current year upto Sept'22. **Post Covid-19 and after reallocation of mining, the consumption under this category peaked due to which the sales in this category has shown a considerable improvement. It is also expected that the same pattern will continue**

in the ensuing year as well. The consumption of only power intensive industry in this category M/s IDCOL Ferrochrome had reduced drastically due to raw material problem, due to which the said consumer had reduced its contract demand from 10700 KVA to 555 KVA and is drawing notional power. The power was being consumed for its auxiliary load only and occasionally availing some load as and when raw material is available, which had pulled down the total HT sales projection. However, it is expected that consumption in this category in the ensuing year will revive to some extent since now the plant has been taken over by M/s OMC. Considering that the worst of pandemic period is over and taking into account the massive cultivation of prawn in the coastal area leading to growth of its processing industries as also considering upcoming HT consumers, HT sales for 2022-23 have been estimated at 632.810 MUs and projected at 685.584 MUs for 2023-24 vis-à-vis 503.265 MUs in 2021-22. However going forward for FY 23-24, these consumers are expected to demonstrate a steady state growth.

The summary of sales projections for HT category is given below:

Table-2: HT Sales (in MUs)

Category	FY 2021-22 (in MUs)	FY 2022-23 (in MUs)	FY 2023-24 (in MUs)
Large Industry	335.297	456.734	475.68
Power intensive	37.416	13.877	21.439
Others	130.552	162.199	188.465
Total	**503.265**	**632.810**	**685.584**

DISCOM has estimated 26% growth in current year and 8% growth in ensuing year in HT Category.

EHT Category:

The pandemic Covid-19 had adversely impacted the EHT sales of our DISCOM. On account of Covid-19, EHT sales have decreased by 50 % in 2020-21 and the same trend continued till end of 1st half of 2021-22. During Pandemic clubbed with raw material crisis, agreement with industries like M/s Balasore Alloys Ltd (who was contributing 25% of total EHT sales of TPNODL), M/s Maithan Ispat, M/s MESCO Steel and M/s Jabamayee Ferro Alloys Ltd and M/s Neelachal Ispat Nigam Ltd and M/s Stork Ferro Ltd had got terminated. However, after worst of the pandemic is over, consumption in this category has come back on track and has hence, seen a considerable improvement. Closed units of consumer like M/s Balasore Alloys Ltd, M/s Jabamayee Ferro Alloys Ltd and M/s Neelachal Ispat Nigam Ltd and M/s Stork Ferro Ltd have been revived & restarted their operations.

A lot of efforts has been undertaken by the Licensee for EHT consumer revival and resolution of long pending undisputed arrears of M/s. Balasore Alloys, M/s Jindal Steel and M/s NINL with due formation of committee including GRIDCO and representatives of Govt. of Odisha wherein several rounds of meeting were conducted for mitigation of arrears.

Adding further, introduction of special tariff for the industries having CGP with CD up to 20MW has contributed a lot for increasing sales in EHT category. Consumer like JSL, JSPL, Visa steel and FACOR Ltd have already availed this benefit. Anticipating continuance of the said special tariff in the ensuing year 2023-24, it is expected that EHT sales will increase by 478.906 MUs in the current year 2022-23 and by 641.129 MUs in the ensuing year 2023-24 resulting into generation of additional revenue to the tune of ₹ 223.19 Crs. in 2022-23 and ₹ 299.45 Crs. in 2023-24 on account of special tariff.

Table-3: Summary of Additional Sales and Additional revenue on Account of Special Tariff

Addition Billing (MU) / Revenue (In ₹ Crs) due to Special Tariff						
Name of Consumer (EHT)	Category	Normal Billing MU (As per Trend)	Additional Billing MU (Due to Special Tariff)		Additional Revenue (In ₹ Crs.)	
			Current Year	Ensuing Year	Current Year	Ensuing Year
Jindal Stainless Ltd	Large	80.819	143.826	191.658	67.46	88.96
Visa Steel Ltd	Large	110.925	113.978	134.769	49.29	58.58
Jindal Steel & Power Ltd	Heavy	25.713	124.295	185.142	61.17	91.18
Facor Ltd	POI	40.731	96.807	129.56	45.27	60.73
Total		**258.188**	**478.906**	**641.129**	**223.19**	**299.45**

TPNODL has projected sales in EHT category in the ensuing year analyzing the consumption pattern of each and every EHT consumer. From FY 2010-11 onwards, most of the industries are moving towards their own CPP which is reducing the drawal from DISCOM. Presently, there are 40 Nos. EHT consumers including 8 nos. railway traction connections. Out of balance 32 nos., 8 nos. of industries are having their own CPP and 2 nos. of consumers are availing power supply under emergency supply tariff category where there is no applicability of demand charges. The drawal under EHT category is mainly towards consumption of Railways, Rohit FerroTech Ltd., two nos. connection of M/s Brahmani River pellets, Tata Steel Ltd., Essar Steel, BC Mohanty & Sons, DPCL and M/s Mishrilal Mines Ltd. Others are drawing very less quantum as compared to their Contract Demand. Most of the energy intensive industrial units viz. M/s Tata Steel Ltd., M/s TISCO Bamnipal, M/s FAP Joda, M/s JSL, Duburi, M/s JSPL, Joda, M/s Essar Steel, M/s M.S.P Sponge Iron Ltd, and M/s Joda East Iron Mines, including others like M/s Emami Cement Ltd, M/s Emami Paper Mills Ltd, M/s SJSPL, M/s Arya Iron Steel Co, M/s Dhamara Port Trust Co Ltd, M/s JSW Cement Ltd and M/s RAMCO Cement Ltd are availing power through Open Access mechanism. However, due to increasing energy price in the open market clubbed with increased fuel (coal) price, a down trend in open access power has been evident in the current financial year. In the 1st half of 2022-23, average monthly drawl through open access is 91 MUs in comparison to average monthly drawl through open access of 141 MU in 1st half of previous year 2021-22. Considering growth in few industries, energization of some upcoming industries and revival of M/s Balasore Alloys Ltd, the EHT sales for 2022-23 has been estimated at 2497.221 MUs and projected 2953.300 MU for ensuing year 2023-24 in comparison to 1676.025 in 2021-22.

DISCOM has estimated 49% growth in current year and 18% growth in ensuing year in EHT Category.

The summary of the Voltage-wise sales in MUs is given below.

Table-4: Voltage Wise Sales (in MUs)

Voltage Wise Sales	FY 2021-22 (in MUs)	FY 2022-23 (in MUs)	FY 2023-24 (in MUs)
LT	2167.708	2342.442	2607.759
HT	503.265	632.810	685.584
EHT	1676.025	2497.221	2953.300
Total	**4346.998**	**5472.473**	**6246.643**

In addition to above, it is pertinent to mention that sales under Railway traction has been estimated as 495.339 MUs for the ensuing year 2023-24. OPTCL has also filed an application with OERC vide case no.55 of 2016 regarding grant of deemed distribution license in favour of M/s East Coast Railway which was disposed off vide order dated 25.02.2020 of Hon'ble Commission. However, M/s East Coast Railway has filed an appeal against the order dated 25.02.2020 of Hon'ble Commission in case no 55 of 2016 before ATE vide DFR No-197/2020 and IA No 636/2020 which is yet to be disposed off. However, the licensee has projected estimated sales considering Railways as a normal consumer of the licensee.

2.2 Estimation of Power Purchase

Hon'ble Commission has fixed 10 years AT&C loss trajectory to be adopted for determination of tariff for the period FY 2021-22 to FY 2030-31 as given under section 41(a) of the Vesting order which is reproduced in the following table

Table-5: AT&C Loss Trajectory for Tariff Determination

AT&C Loss Trajectory for Tariff Determination (%)									
FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31
19.17	19.17	17.09	15.00	13.83	12.76	11.77	10.85	10.00	9.50

It is submitted that though the Hon'ble Commission has fixed the AT&C loss 17.09% (Normative loss), for the FY2023-24, the actual losses would be different from the normative losses.

TPNODL has estimated the power purchase requirement by considering the estimated sales requirement for the current financial year and projection for the ensuing year, by taking the normative loss level fixed by Hon'ble Commission.

While filing the ARR for the FY 2023-24, the Distribution loss and AT&C loss considered in the following manner

Table No.-6: Distribution and AT & C Loss FY 2021-22 to Projection upto FY 2023-24

Particulars	FY 2021-22	FY 2023_H1	FY 2022-23_Total (Estimated)	FY 2023-24 (Estimated)
Input (MU)	**5327.043**	**3342.863**	**6702.356**	**7458.903**
Sales (MU)				
EHT	1676.025	1136.295	2497.223	2953.301
HT	503.265	319.906	632.81	685.584
LT	2167.708	1269.085	2342.442	2607.759
Total	**4346.998**	**2725.286**	**5472.473**	**6246.643**
T&D Loss	**18.40%**	**18.47%**	**18.35%**	**16.25%**
Collection Efficiency	94.20%	98.87%	99.00%	99.00%
AT & C Loss	**23.13%**	**19.40%**	**19.17%**	**17.09%**

The power purchase as estimated for the current year will be **6702.356** MU whereas, in the ensuing FY , the requirement will be **7458.903** MU.

2.3 Cost of Power Purchase

The power purchase expenses have been derived from the sales estimates and the distribution loss level. For the year FY 2022-23, energy input of **6702.356** MU has been estimated based on the estimated sale of **5472.473** MU and T&D Loss of 18.35%. Power purchase of **7458.903MU** has been projected based on the estimated sale of **6246.643 MU** and T&D Loss of **16.25%** for the ensuing year corresponding to the AT&C loss - 17.09% fixed by Hon'ble Commission for the FY 2023-24 in the Vesting order.

Power purchase cost for the current year is ₹ 2340.20 Crs and for the ensuing year FY 2023-24 power purchase cost has been estimated at ₹ 2604.24 Crs with BSP @ 321.00 paise p.u. and transmission charges @ 28 paise p.u. SLDC charges @ ₹ 1.079 Crs per annum.

Accordingly, the power purchase cost for the current year as well as the ensuing year have been worked out as follows:

Table No.-7: Power Purchase Cost **(In ₹ Crs)**

Sl. No	Particulars	Unit	Rate	April to Sept 2022	Oct to March'23	Estimation for the FY 2022-23	Projection for FY 2023-24
1	Power Purchase	MU		3342.863	3359.495	6702.356	7458.903
2	BSP	₹/kwh	3.21	1073.06	1078.4	2151.46	2394.31
3	Transmission Charges	₹/kwh	0.28	93.6	76.69	187.67	208.85
4	SLDC Charges	₹ Crs /annum	1.079	0.5395	0.5395	1.079	1.079
5	**Total Power purchase Cost**	**₹ Crs**		**1167.2**	**1155.63**	**2340.20**	**2604.24**

2.4 SMD Projection

Considering the past record and additional load growth in each category and additional load towards upcoming EHT consumers, the licensee proposes **1500 MVA** as SMD for FY 2023-24. This is further to bring out that, the SMD of the DISCOM as recorded by GRIDCO is without deducting demand component of open access drawal by industries.

The SMD (MVA) projection for the ensuing year has been done based on load mix, consumption patterns and other economic policies.

2.5 Employees Expenses

TPNODL has inherited all existing manpower of erstwhile NESCO in line with vesting order. 407 executives and 1752 non-executives as on 1st April 2021 who were on regular rolls of erstwhile NESCO, become part of TPNODL. There was no induction of Manpower since about last ten year in the erstwhile DISCOM .

The massive shortage of manpower posed real challenge for seamless operation. Further, as per manpower analysis, need was felt for creating missing bandwidths in Project Monitoring, Civil Engineering, Network Engineering & Planning, Sub-Transmission System, N/W Protection, Preventive Maintenance, Consumer care, Enforcement, Meter Management. Accordingly plans for induction of manpower were prepared. Further, the commercial organization had to be redefined upto the section level to bring in more focus on commercial activities. The Section Level which is the foundation for all Commercial and Technical activities, is being strengthened. IT&OT – Competencies had to be enhanced to take care of advent of new technologies like SCADA, GIS, ADMS, Data Center, IT applications, ERP, Infrastructure Management & control.

TPNODL carried out detailed study of the existing manpower gaps across various Departments and geographies of TPNODL and worked out requirement of new expert manpower to fill up various resource gap areas like Network Planning & Engineering, Sub Transmission System management, Enforcement, Energy Audit, Safety, Projects, Civil, IT & OT and formulated a comprehensive recruitment plan.

Hon'ble Commission had allowed 8% of the total proposed manpower of 3460 numbering to 277 for recruitment in the FY 21-22 in the ABP order.

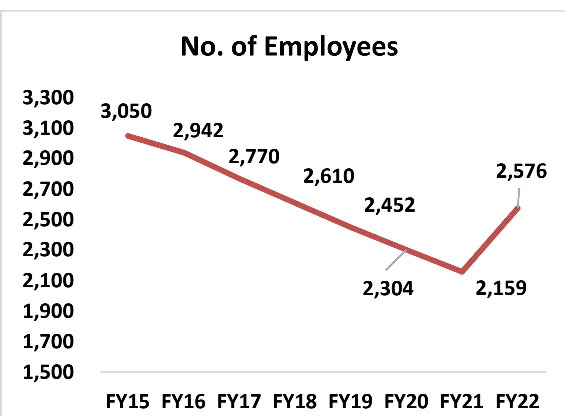
However, the approved number was not sufficient to bridge the gap of the huge manpower deficit created due to retirement/attrition as well as non recruitment over a period of more than a decade and meet the performance standards.

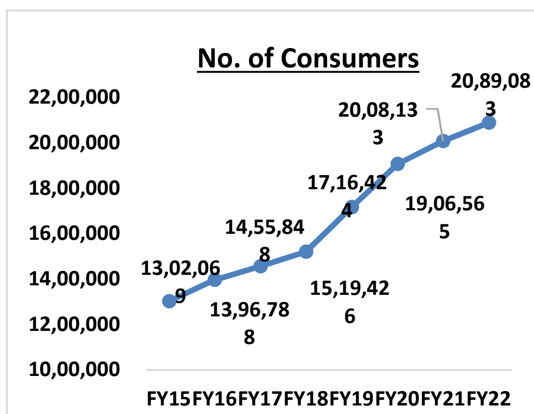
On request by the DISCOMs to revisit the number of recruitments allowed, Hon'ble Commission permitted recruitments for FY 22-23 up to employee / consumer ratio of 1.4/ 1000 Consumers, vide its letter no OERC/RA/TPWODL-38/2021/18 dt. 17.01.2022. The relevant extract of the Order is reproduced below:

"The Commission has now allowed filling up of retirement in view of a low percentage of employees per one thousand consumers. ***The Commission further observes that the recruitment for the ensuing year (FY 22-23) maybe undertaken to the extent so that the number of employees per one thousand consumers including replenishment of retiring vacancies of TPWODL, TPNODL and TPSODL****……… The Commission observes that the number of employees per thousand employees of TPCODL is already high relative to other Discoms and it shall be rationalised over the years to bring it to the level mentioned above.* ***The Commission further directs the DISCOMS to file their separate manpower requirement and Action Plan for FY 22-23 keeping in view the number of employees per thousand consumers as indicated by the Commission above. It shall be kept within 1.40.****"* Emphasis and Insertion Supplied for better clarity.

In view of the above, the licensee has formulated its recruitment plan for FY 22-23 and submitted before the Hon'ble Commission.

In FY 2021-22, with the approval of Hon'ble Commission, TPNODL has recruited 474 employees and taken 50 nos. of expert manpower in the required domains on transfer basis . A comparative analysis of the no. of employees and the no. of consumers since FY 2015 is presented hereunder:





It is pertinent to mention here that, on 1.4.1999, the no. of employees was 4557 and the total consumer base was 2.5 lacs. In FY 2021, the consumer base has increased 8 times to 20 Lacs , and the number of employees is 2159, which has reduced by 52%. Only after recruitments in FY 22, the employee position has started improving.

Further, TPNODL planned to recruit 551 employees in FY 22-23 and 294 nos. of employees in FY 23-24; The proposed recruitments are in line with the employee strength benchmark of 1.4 employees per 1000 Consumers as directed by Hon'ble Commission .

Details of the existing manpower position alongwith the recruitments done in FY 21-22, estimated for FY 22-23 and planned for FY 23-24 in line with the employee strength benchmark of 1.4 employees per 1000 Consumers as directed by Hon'ble Commission, are furnished in the following table.

Table No.-8: Employee Details **(In Nos)**

Sl. No	Employees Details	Executive		Non-Executive		Total	New CTC Employee
		Technical (Nos)	Non-Technical (Nos)	Technical (Nos)	Non-Technical (Nos)		
1	**Erstwhile employees(existing) as 01-04-2021 (A)**	**318**	**89**	**1444**	**308**	**2159**	
2	Tata power Transferred employees in FY2021-22 (B)	32	18			50	
3	Newly recruited employees in FY2021-22 (C)	208	104			312	362
4	Newly recruited trainees (D)	108	54			162	162
5	New employees resigned during FY2021-22 (E)	7				7	
6	Retired during FY2021-22 (F)	3	12	12	73	100	
7	**Total As on 01-04-2022(G= (A+B+C+D-E-F))**	**656**	**253**	**1432**	**235**	**2576**	**524**
8	**Actual with estimation for the remaining 5 months for the FY2022-23**						
9	Tata power Transferred employees in Fy2022-23 (H)	7	4			11	
10	Recruitment in FY2022-23 (I)	153	77			230	241

11	Recruitment of trainees during 2022-23 (J)	214	107			321	321
12	New employees resigned during FY2022-23 (K)	14	6			20	
13	Retirement during FY 2022-23(L)	5	1	83	11	100	
14	**Total as on1-04-2023(M=(G+H+I+J-K-L))**	**1011**	**434**	**1349**	**224**	**3018**	**562**
15	**Projection for FY2023-24**						
16	Tata power Transferred employees in Fy2023-24 (N)	7	3			10	
17	Recruitment in FY2023-24 (O)	100	64			164	174
18	Recruitment of trainees during 2023-24(P)	80	40			120	120
19	New employees resigned during FY2023-24(Q)	20	10			30	
20	Retirement during Fy2023-24 (R)	3	2	38	9	52	
21	**Total as on 1-04-2024(S=(M+N+O+P-Q-R))**	**1175**	**529**	**1311**	**215**	**3230**	**294**

To keep the manpower cost optimized, TPNODL has recruited majorly trainees – Graduate Engineer Trainees, Diploma Engineer Trainees, Commercial Trainees (general Graduates). Same philosophy has been extended to the ensuing year 2023-24 also. Accordingly, TPNODL has projected Employee Cost of ₹ 501.48 Crs in FY 2023-24 considering the following :

a. 3% escalation considered on Basic Salary over FY 2022-23

b. Housing Rent allowance considered at 20% of Basic Salary

c. Reimbursement of Medical expenses are considered at 5% of the basic Salary.

d. Nominal escalation of 10% considered for other employee allowances.

e. Arrear of 7th pay commission- ₹ 11.76 Crs

Table No.-10: Employee Cost **(In ₹ Crs)**

Particulars	FY 2022-23	FY 2023-24
Employee Cost	443.56	501.48
Less: Cost Capitalized	15.51	16.58
Net Employee Cost	428.05	484.90

Expenses Terminal Benefit Liability

TPNODL has estimated terminal benefits for the current year and ensuing year as follows-

Table No.-11: Terminal Benefit ***(In ₹ Crs)***

Particulars	2022-23	2023-24
Provident Fund	12.91	14.50
Pension	155.96	157.74
Gratuity	24.41	23.49
Rehabilitation	0.64	0.64
Leave Salary	20.44	19.52
Total	**214.37**	**215.91**

Efforts to optimize the Employee Cost

1. To optimize the employee cost, the licensee has inducted mostly trainees. A comparative analysis of the no. of recruitments done /planned in the first three years of operation and the percentage of trainees inducted year wise depicted in the following table

Table No-12: Recruitment Details ***(In Nos.)***

FY	Total no. of recruitment done/planned	No. of Trainees out of (b)	Percentage of trainee to total no. of recruitments
(a)	**(b)**	**(c)**	**(d)**
2021-22	474	162	34%
2022-23	551	321	58%
2023-24	284	120	42%

2. The average salary of new joinees in executive cadre is around seventy eight thousand. The average salary of trainees is around twenty three thousand . The licensee has tried to optimize the no. of employees vis-à-vis employee cost by inducting more number of Trainees.

An estimation of cost optimization is depicted in the following table.

Table No.13: Employee Cost Optimization

Particulars	Avg. Salary In ₹ Lakhs	Nos. Inducted upto 2022-23	Total Cost
New Joinee	0.78	542	424.56
Trainees	0.23	483	112.70
Total Cost in ₹ Lakhs		1025	537.26
Total cost with all executive	0.78	1025	802.90
Cost optimisation in ₹ Lakhs			265.65
Cost optimisation (%)			49%

3. In addition to the above, the licensee has planned recruitment in a staggered manner for every financial year for optimization of employee cost

It is further to bring out that , the CEA benchmarking study reflects the average no. of employees/ 1000 consumers as 1.69 for Private Discoms and 2.41 for State Discoms. Therefore, Hon'ble Commission is requested to consider the CEA benchmark study for addressing manpower requirement of the licensee.

In view of the above, it is humbly submitted before Hon'ble Commission to approve the proposed employee cost of ₹ 501.48 Crs for the ensuing financial year.

2.6 Administrative and General Expenses

The A&G expenses for FY 2022-23 is estimated at Rs.150.84 Crs based on actual expenses till Sep, 2022. Estimation of higher A&G expenses during the current year as well as in the ensuing year has been envisaged on account of meter reading , billing and collection, IT Automation, AMR related running expenses, Insurance expenses, Professional Charges, Enforcement activities, Customer Care and compensation towards electrical accidents etc in the remaining period for the current Financial year 2022-23 and for the full ensuing year FY2023-24. All of these activities would contribute significantly towards reduction of AT&C losses and provide consumer convenience.

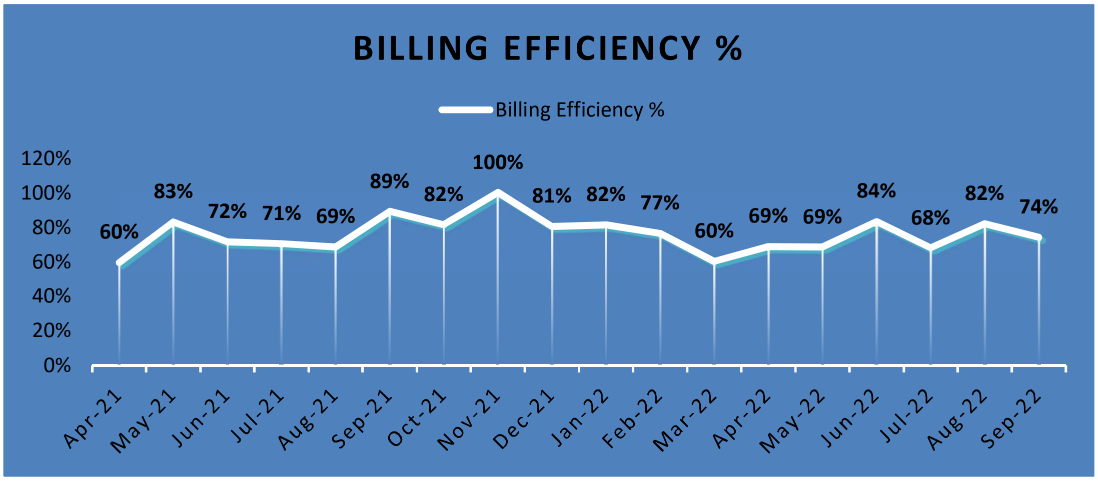
TPNODL has engaged various new experienced agencies through transparent open bidding mechanism from Sep 2021 for undertaking the meter reading, spot billing and collection activities in every pocket of the distribution area including involvement of WSHGs. Similarly, TPNODL has engaged various collection mechanisms to collect the monthly revenue. To cater the above activities TPNODL is incurring expenses in form of charges and incentives to boost the revenue collection activities. The cost to that effect is included in the A & G Expenses in order to maintain the activities as TPNODL has to pay the agencies in time each month.

In addition to normal hike in A&G expenses of Rs. 98.21Crs, considering the critical need to drastically reduce the AT&C Losses, special emphasis was required to improve the billing and collection efficiencies. The licensee has put in place new MBC contract, through reengineering of contract and modality of separated meter reading-billing and collection Contracts to increase the consumer coverage. It is pertinent to mention here that, by revising the MBC contracts, there has been an increase of around ₹ 200 Crs in LT collection in H1 of the current FY in comparison to that in H1 of previous financial year. Similarly, billing coverage has increased from 69% to 90% and collection coverage from 35% to 62%. Percentage of provisional bills have been brought down from 34% to 12%. Improvement in various parameters are detailed in the following sections

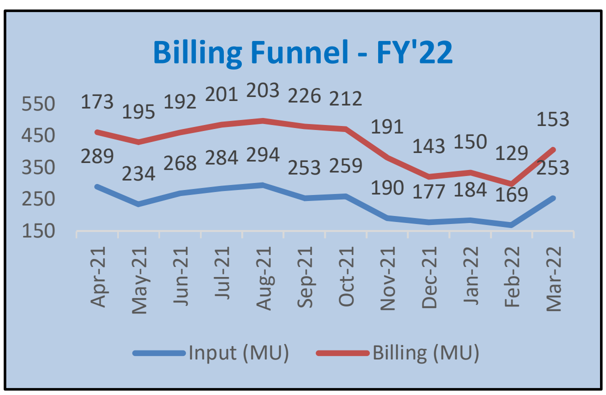
Billing Efficiency Improvement:

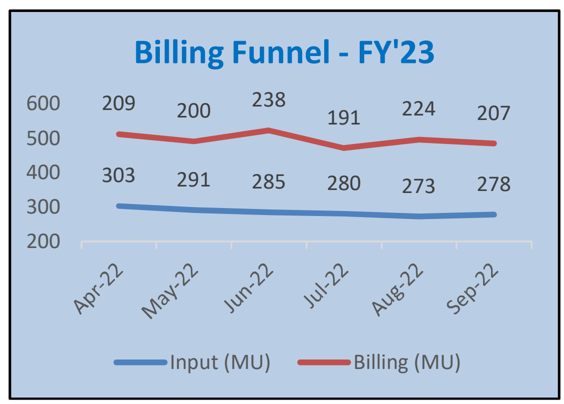
Billing Efficiency reached to 74% at the end of the H1 FY’23 from 60% at the starting of FY’22. MBC Contract separation - Single Phase Billing & Collection/Recovery activity has been separated with deployment of different dedicated Outsourced agencies to carry out Billing & Collection/Recovery,

MRU wise Billing for Slab adherence & better Customer Service. Each of the Binder area split in small blocks with pre-defined reading date range to maintain efficiency & regularity.



OCR Based Meter Reading being introduced for error free meter reading. Integrated Mobile application will enable auto reading fetching through scanning of meter display leaving little scope of any wrong reading. Analyse the consumption data of each low Consumption cases to identify anomalies in consumption pattern. This helps in identification of faulty meters & Theft probability.

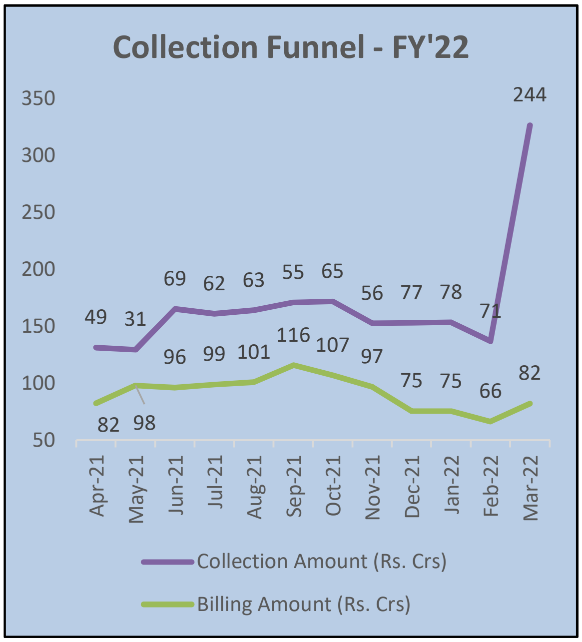


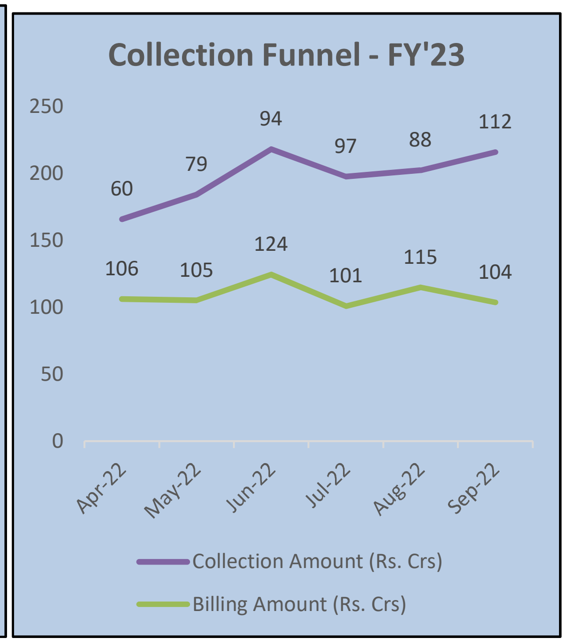


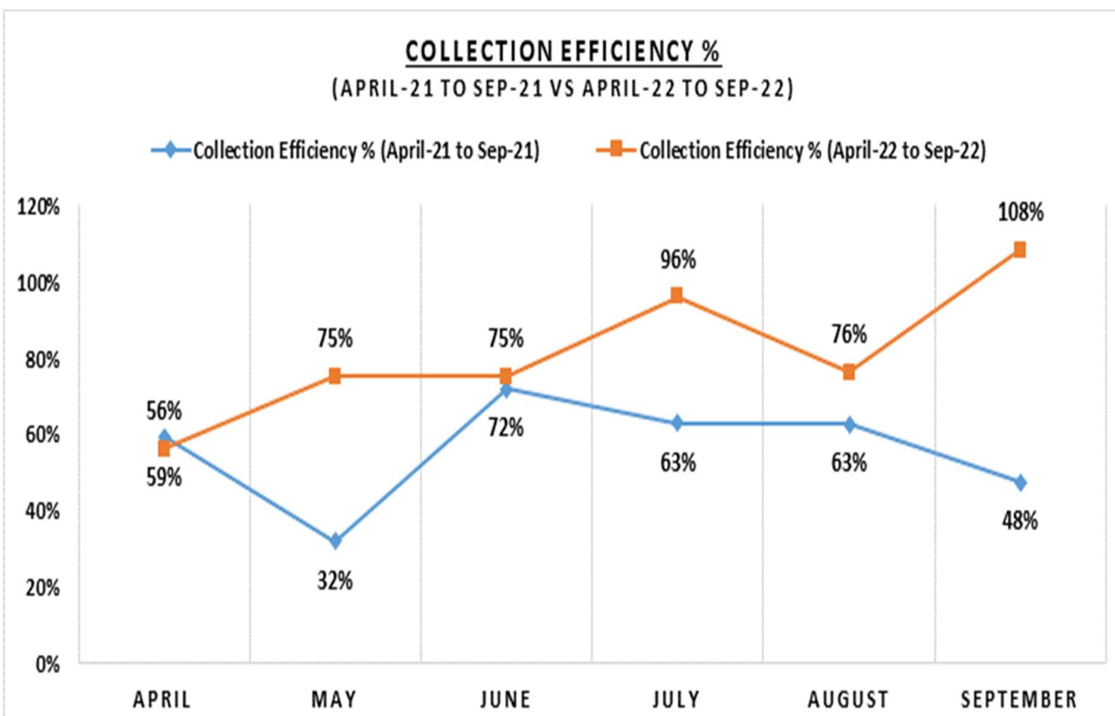
Collection Efficiency Improvement:

Collection Efficiency reached more than 75% in every month basis during the H1 FY’23 from 59% at the starting of FY’22.

Various initiatives such as increasing Payment avenues, Digital payment platform, My TATA Power app and dedicated services for revenue collection has been launched to connect with consumers. Specific drives Like LT Udaan for Bill collection and past arrear mitigation drives has been conducted to address the consumer needs.

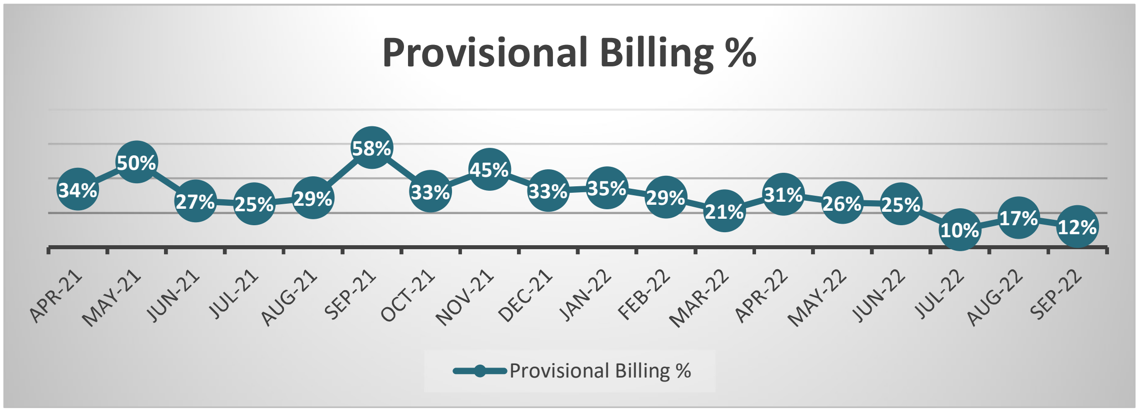






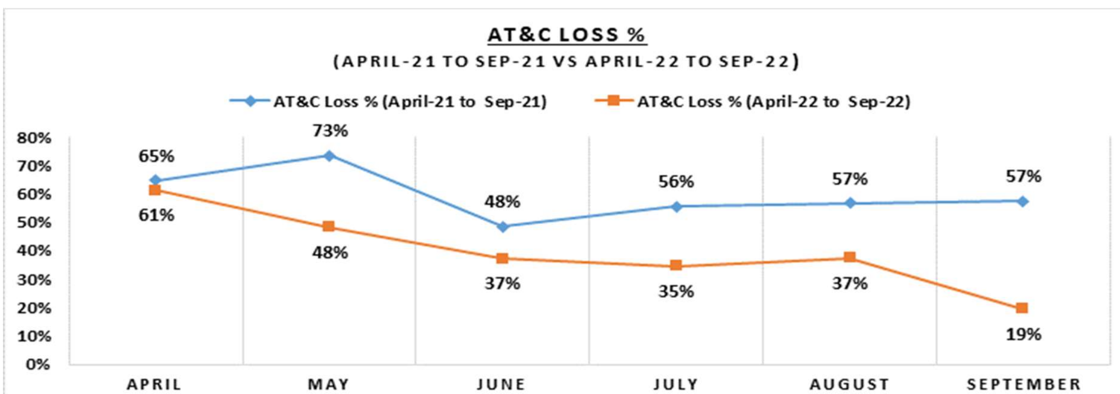
Reduction in Provisional Billing:

Provisional Billing has been down to 12% at the end of the H1 FY’23 from 40% at the Q1 of FY’22 by continuous improvement in Billing Coverage.



Improvement in AT&C Loss Reduction:

Reduction trend in AT&C Loss is visible from 65% to 19% at the end of the H1 FY’23.



TPNODL has adopted multi-pronged approach for reduction of AT&C loss. For recovery of arrears and addressing past litigation of HT & EHT consumers a specific team under the leadership of CEO has been formed. One the other hand respective field teams at Circle, Division, Sub-Division and Sections are empowered to resolve billing issues of consumers. To supplement the above two specific revenue collection drives are conducted along with public communications with consumers. This multi fold approaches has been fruitful in bringing down the AT&C loss.

All the above initiatives have contributed towards drastic reduction in AT&C losses. Further, advanced Technology adoption and analytics have been the prime focus of the licensee to provide quality customer services, manage revenue cycle processes for reduction of AT&C losses and efficiently manage to deliver reliable and quality supply in safe manner to its consumer by meeting various standards of operation.

The above improvement in AT&C loss reduction has been possible only through the special A&G cost of separate minimum wages based performance incentive and penalty driven metering-billing and collection contracts awarded through transparent open bidding and reverse auction process. Hence TPNODL proposes additional special A&G cost of Rs.101.01Crs to be incurred to address the critical issue of reduction of AT&C loss which will contribute significantly towards optimizing the consumer tariff going forward.

The details of A&G expenses estimated for the FY 2022-23 and projected for the FY 2023-24 are furnished in the following table.

Table-16: Administrative & General Expenses (In ₹ Crs)

Category	Sl. No.	Particulars	Previous Year	Current Year	Current Year	Ensuing Year
			2021-22	Actual for first six months of current year	2022-23	2023-24
Normal	1	Rent, Rates, Insurances	6.22	2.79	5.89	7.19
	2	Communication	0.9	0.73	0.2	0.24
	3	Professional Charges	7.94	4.7	6.99	8.64
	4	Conveyance &Travelling	11.19	5.91	13.68	16.13
	5	Training	0.36	0.29	0.74	3.93
	6	Expenditure on IT - Automation	0	0.69	6.39	12.4
	7	Others	32.17	18.24	32.75	49.68
		Total	58.78	33.35	66.64	98.21
Special	8	Metering, billing & collection	46.47	35.96	84.21	101.01
Grand Total			**105.24**	**69.32**	**150.84**	**199.22**

The licensee has estimated A&G expenses of ₹ 150.84 Crs in the current FY 2022-23 and ₹ 199.22 Crs in the ensuing FY 2023-24 on the basis of contracts/ actual orders awarded to the vendors, which may please be approved.

2.7 Repair & Maintenance Expenses

Basing on the actual R&M expenses incurred in the first six months of the current FY and the contracts /orders issued for network maintenance, the estimated expenditure for the current year has been worked out as ₹ 245.40Crs and for the ensuing FY 2023-24 , ₹ 257.19 Crs. The details are furnished in the following table.

Table No. 17: R&M Expenses **(In ₹ Crs)**

Particulars	Previous Year FY 2021-22	Actual for first six months of current year	Estimated for Current Year FY 2022-23	Ensuing Year FY 2023-24
Civil repairs & maintenance	0.24	-	1.05	1.92
Distribution line repairs & maintenance	96.85	100.07	226.21	237.13
Transformer Repair	20.31	8.88	17.89	17.89
Other repairs & maintenance	0.25	0.21	0.25	0.25
TOTAL	**117.66**	**109.16**	**245.40**	**257.19**

It is submitted that against a proposed R&M Cost of ₹ 240.01 Cr. for FY'23, the Hon'ble Commission had approved an amount of only ₹ 141.43 Cr., thereby slashing the requirement by over 41%. Basing on the actual expenditure in the first six months of the current year, the estimated R&M expenditure for FY 2022-23 is ₹.245.40Crs

The relevant extract of the Tariff Order FY 23, pursuant to which the R&M cost has been allowed by the Hon'ble Commission is reproduced below:

130. The R&M for FY 2022-23 is calculated as the 5.4% of the GFA as on 1.04.2022 in terms of the OERC Tariff Determination Regulation 2014. The Commission in order to ensure maintenance of the assets under RGGVY, DDUGVY & Biju Gram Jyoti Scheme, which continue to be with the Govt. of Odisha, also allows additional amount to each DISCOM subject to detailed scrutiny in next tariff proceedings.

The Hon'ble Commission had, on an adhoc basis, allowed R&M Cost of ₹ 32 Cr. for R&M of Govt. funded Assets which, when considered along-with the R&M on GFA as per Books, is grossly inadequate as is practically there is no differentiation between R&M practices and expenses incurred on TPNODL owned assets and Govt assets.

It is also worthwhile to point out that the R&M expenditure allowed for FY 23 by Hon'ble Commission was ₹ 141.43crs vis-à-vis ₹147.49 crores for FY 22 which is ₹ 6.06 Crores less than the previous year, which itself reflects the gross inadequacy of the allowance for FY 2023.

It shall be appreciated that such a significant reduction in allowance of R&M Costs is totally untenable and shall very severely impact, amongst others, the various reliability, preventive maintenance, safety, etc. related initiatives that are planned to be carried out during the year.

It is pertinent to mention that, the entire network right from 33KV feeders to LT consumers were previously owned and maintained only by the Junior Manager (O&M) along with his team comprising of limited number of Lineman A/B/C, Helper, and Jr. Technician posted in respective sections. E&MR section was extending support to section staff for maintenance of 33/11KV primary substations. As sufficient manpower was not available, only limited corrective maintenance and restoration of power supply was in place.

To address the above issues and for proper maintenance of network , separate AMC has been introduced post takeover of TPNODL for 33KV and 11KV maintenance to create a culture of preventive maintenance.

Annual maintenance contracts for 33 kV network have been established with expert market agencies for all 5 circles. This involves 1927 nos of manpower and 44 nos of vehicles. Similarly, AMC is given to 10 different agencies for the 16 divisions across TPNODL for 11KV & LT Network. This involves 5337 nos of manpower and 209 nos of vehicles. The network is being inspected regularly through manual patrolling as well as drone inspection in forest and inaccessible areas. Thermoscanning is done for the entire network using high power thermo scanning cameras and to identify the defects, hotspots and attend breakdowns in quick time and perform preventive maintenance activities to enhance system reliability by rectifying the probable faults even before they occur.

The Performance Based Maintenance Contract also includes 24X7 Breakdowns Crews for restoration of 33KV & 11KV feeders and substation equipment. Besides, preventive maintenance activities are being performed as per the maintenance plan and schedule prepared by TPNODL using the SAP PM system.

The Annual Maintenance Contracts for maintenance of LT, 11 KV and 33 KV infrastructure, covers both the infrastructure in the GFA /Books of TPNODL as well as the Govt. Funded Infrastructure; the Hon'ble Commission shall appreciate that both, the Company owned Assets as well as those financed by the Government and transferred to the DISCOM to use and maintain, form part of the same Distribution Network and consequently require similar maintenance.

It is worthwhile to clarify that the Maintenance Contracts placed by the Company are for maintaining all Assets in the Network, which includes both Co. owned (reflected as Company's GFA) as well as the Govt. funded Assets. Since these are largely labour-intensive contracts for maintenance of the entire network, the cost of such maintenance cannot be different for own and govt. funded assets.

Various steps taken by the licensee towards maintenance of the network and to improve the quality and reliability of Power Supply are outlined in the following paragraphs.

Project PTR Care

The licensee is having 239nos. of PSS, 538nos. of PTR and 3007Ckt Km of 33KV line. Under Project PTR Care, till H1 of the current Financial Year, out of 538 PTRs , Silica gel replaced in 514 nos., oil filtration/top-up carried out in 128 PTRs, PTR overhauling done in 51 PTRs, Repaired PTR installation -21nos and capacity of 17nos PTRs augmented . Below is a brief of the activities carried out.

PTR Care	
Description	**Nos**
Silica Gel Replacement	514
Oil Top up/Filtration	128
Breather Replacement	142
PTR Overhauling	51
Repaired PTR Installation	21
New PTR Augmentation	17

To maintain the PSS hygiene, 144 new neutral earthing pits done, 128nos. existing earthing pits reconditioned, 108 AB Switch/Isolator repaired, 179 CB overhauled, 126 new Circuit Breakers installed.

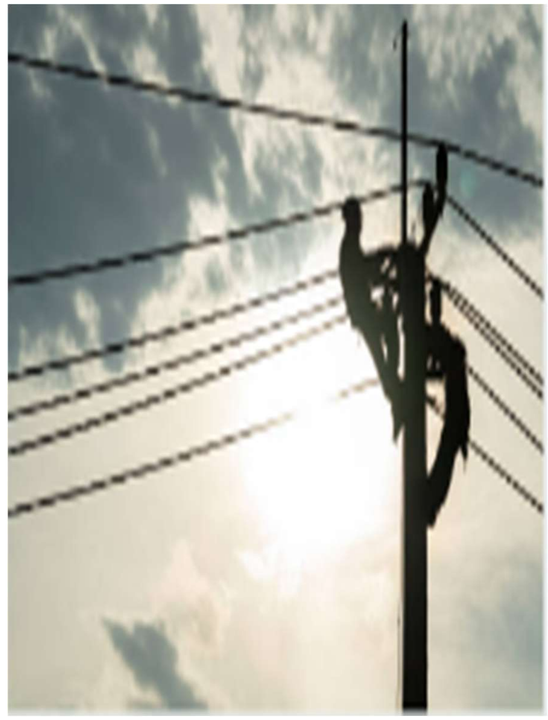
To ensure proper protection system of the PSS, New Relay installation, new battery bank and charger, New CR Panel installation and LA installation and upkeep carried out . A report on the same is provided below.

PSS Hygiene Upkeep		PSS Protection System	
Description	Nos	Description	Nos
New Neutral Earthing Pits	144	LA in PSS- New installation & upkeep	193
Reconditioning of existing earth pits	128	New Battery Bank & Charger	181
AB SWITCH/ISOLATOR MAINTENANCE /Repair	108	New Relay Installation	145
CB Overhauling/Maint	179	New CR Panel Installation	71
New Circuit Breaker Installation	126		

33KV Line Upkeep

Towards the 33KV line upkeep, 1787 nos. of Tilted poles straightened, 2657 conductor rejumpering carried out , 5925nos. of PIN insulators replaced, 1858 nos. of tilted-Cross arm straightened.

33KV Line-upkeep	
Description	**Nos.**
Tilted Poles Straightened	1787 (70 %)
Conductor Re-Jumpering	2657 (95 %)
Replacement of Pin Insulators	5925 (91%)
Tilted V-Cross arm Straightened	1858 (55 %)
Post Monsson Tree Trimming (spans)	8386 (96%)
Intermediate Pole Erection. (Critical)	209
New Link Lines 33 kV (CKM)	12



Project Raksha

Further, our 11KV system network comprises of 73584DTRs and 38,339Ckt Km of 11KV line. Steps taken for the upkeep of 11KV system network outlined hereunder. Under project Raksha, oil filtration/top up, HT/LT Bushing replacement, Oil leakage checking, Breather/Silica Gel replacement, repairing /new DTR Body earthing, replacement of burnt socket , augmentation of DTs have been carried out. Brief of the activities upto H1 furnished in the following table.

Description	Nos
Oil Top up/ Filtration	1,726
HT/LT Bushing Replacement	1,683
Oil Leakage / Breather/Silica Gel repl.	1,814
DTR Body Earthing Repaired/Installed	426
Burnt Socket Replaced	2,926
Augmentation of Dist. Trf	41
Conversion of LT Bare to AB Cable (CkM)	18.88

11KV Network Upkeep

Steps taken for DSS maintenance, 11KV line maintenance and to maintain the network hygiene are briefed in the following table

DSS Maintenance		Network Hygiene		11KV Line Maintenance	
Tree Trimming / Vegetation Removal(Span)	13,591	Pin Insulator Replaced	4154	Tree Trimming / Vegetation Removal (Span)	42,946
Earthing Resistances Checked	156	HG/DD Fuse Unit	2557	Conductor Restringing(Mtrs.)	336.97
DTR Oil BDV Test Done	242	Load Balancing Done	441	Replacement of Sick Conductor(Mtrs.)	21.16
Installation of AB Sw	535	LTDB & MCCB Installed	326	Insulated Jumpers Instl./Replaced	10727
Refurbishment of Dist . Sub station	2546	LA Earthing Repaired	158	Straightening/replacement of Cross Arms	973
		New DTR AB Switches Installed	535	Installation of Interposing Poles	753
		Installation of LT Protection on Dist Trf:	1303	New Link Lines 11 kV (CKM)	18.21
		LA Installation	158	Refurbishment Lines 11kV (CKM)	21.159

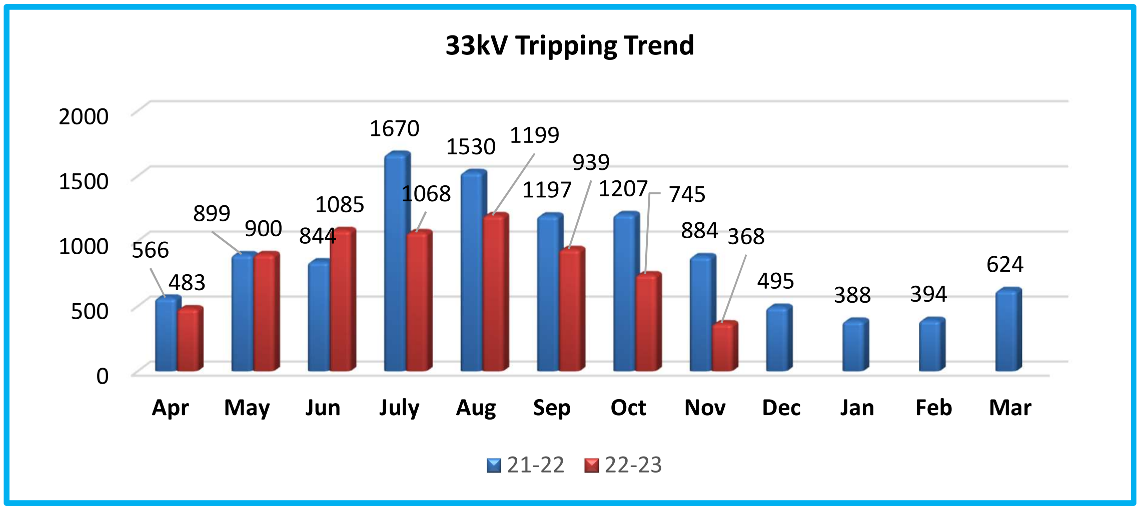
LV Side Protection of DTRs

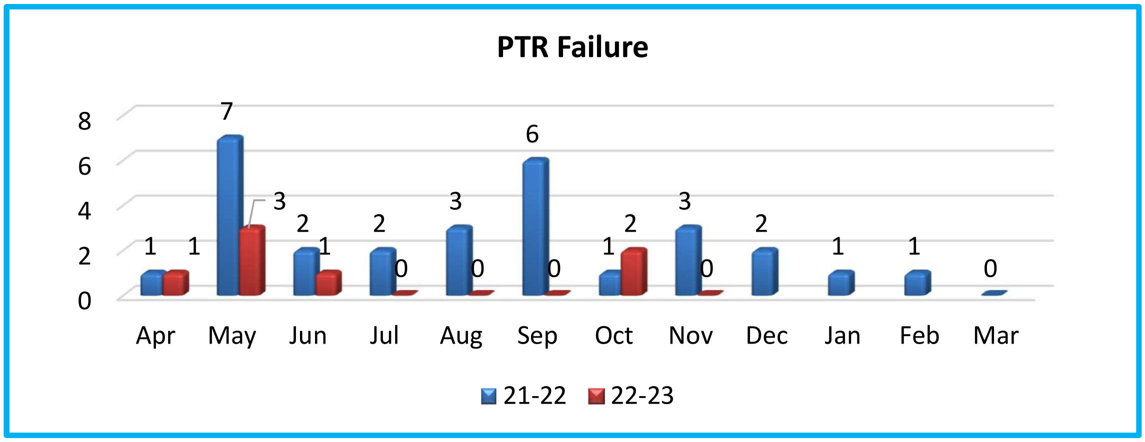
Beside the above, 2546 nos. of distribution substations have been refurbished and power cable replaced in 234 nos of DSS.

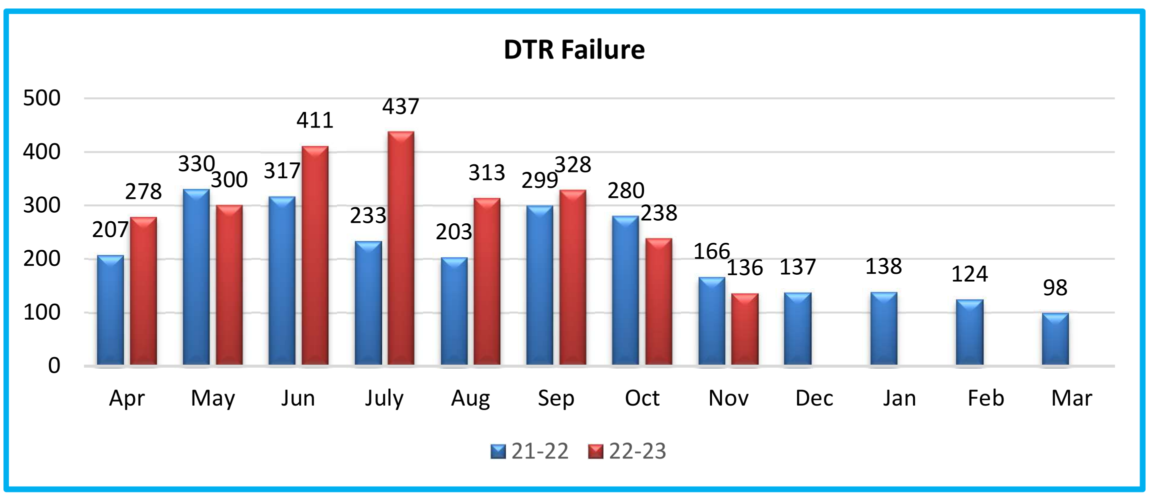
For the LT side protection of DTR, the steps taken are briefed in the following table:

Circle	LT Air Circuit Breaker (400KVA Trx.)	MCCB 400A (>160KVA Transformer)	MCCB 160A (Upto 160 KVA Transf.)	Kit-kat Fuse
Balasore	70	48	98	1303
Bhadrak	30	34	98	518
Baripada	66	31	89	483
Jajpur	46	56	115	634
Keonjhar	22	29	46	274

The achievements in 33KV trippings, DT and PT failure reduction are shown in the following graphs







Due to the acute shortage of available manpower such works and improvements could not be possible during the erstwhile NESCO period. However, post takeover the licensee has carried out a detailed analysis of estimated expenditure for FY 2022-23 and for the ensuing FY 2023-24, taking into account the LT/ 11 kV / 33 kV AMCs FY 22-23 along-with estimated material consumption, manpower requirement, vehicle, testing equipment, safety equipment and other R&M Expenses and the actual expenditure incurred in the first six months of the current FY. Accordingly, the structured 33KV and 11KV AMC has been put in place which has enabled the licensee to achieve the significant improvement in reliability as mentioned above through advanced maintenance practices implemented by competent business associates. Based on a detailed zero based budgeting exercise, the expenditure actually incurred through contracts finalized through transparent open bidding project has been projected as per the contractual escalation or using market proven escalation matrices. TPNODL thus proposes an expenditure of ₹ 245.40 Crs and for the ensuing FY 2023-24 ₹ 257.19 Crs is estimated towards R&M Expenditure.

TPNODL also placed the matter before Hon'ble Commission vide letter no-TPNODL/Regulatory/2022/2762, dated 20th June' 202. Hon'ble Commission is requested to consider allowing the actual R&M expenses for FY 2022-23 on actual basis, subject to prudence check.

Further, keeping in view the steps taken by the licensee for maintaining the network with the ultimate target of providing uninterrupted and reliable power supply to the consumers, Hon'ble Commission is requested to kindly approve the estimated expenditure of ₹ 257.19 Crs for the FY 2023-24 under R&M expenses.

Table-18 (a) : Asset Details -Govt. Assets not in the Books of TPNODL (In ₹ Crs)

Sl. No	Name of Scheme	As on 31.3.2022	Addition during FY22-23 (Estimated)	Assets as on 31.3.2023
1	ODSSP	687.50	102.80	790.30
2	SCRIPS	0		0
3	DDUGJY	446.49		446.49
4	IPDS	293.66		293.66
5	SOUBHAGYA	124.27		124.27
6	Nabakalebar	0		0
7	RGGVY	3.51		3.51
8	ODAFFP	13.10	39.80	52.9

9	BGJY (OPTCL DTR)	34.89		34.89
10	IPDS-IT (Phase-II)	54.20		54.20
11	Total (A)	1,657.62	142.60	1800.21
12	Less Soubhagya	124.27	0	124.27
	Total	**1,533.35**	**142.60**	**1675.94**

Table-18 (b) : Asset Details **(In ₹ Crs)**

Sl. No.	Particulars	As on 31.03.2022	Addition During FY 2022-23	As on 31.03.2023
1	GFA as per books of TPNODL	2380.00	756.15	3136.15
2	GFA of Govt. Asset created by OPTCL not in the books of TPNODL (As above)	1533.35	142.60	1675.95
	Total	**3913.35**	**898.75**	**4812.10**

The GFA of the licensee as on March '2023 is Rs.3136.15 Crs and the assets added under Govt. schemes as on March'2023 is Rs. 1675.95Cr.

Under regulation 3.9.19 and 3.9.22 of the OERC (Terms and Conditions for Determination of Wheeling and Retail Supply Tariff) Regulation,2022-the R&M cost on the opening GFA is coming to Rs.186Crs .

The details of which are given in the following table.

In ₹ Crs)

Particulars	DISCOM	GOVT. ASSET (OPTCL)	Total R&M
DISCOM's Gross fixed assets(GFA) as on 01.04.2023	2778.83		
Rate of R & M on GFA	4.50%		
R&M on GFA	125.05		
Govt. (Funded/Grant) Assets as on 01.04.2023	357.31	1675.95	
Rate of R & M on Govt. (Funded/Grant) Assets	3%	3%	

R&M on Govt. funded Assets	10.72	50.28	
Total R & M	135.77	50.28	186.05

However, the licensee has estimated Rs.257.19Crs in FY 2023-24 based on the contracts already issued for maintenance of network and the critical activities planned to be carried out for improving the quality and reliability of power supply for the consumers.

Regulation 3.9.23 of the OERC (Terms and Conditions for Determination of Wheeling and Retail Supply Tariff) Regulation, 2022 provides the following :

Quote:

3.1.1. The Commission may also allow special R&M, in order to enable the Distribution Licensee to undertake critical activities which are not covered under Capital Investment plan approved by the Commission.

Provided the Commission shall undertake a prudence check before allowing such expenditure.

Therefore, considering the critical need of taking actions through engagement of 33KV and 11KV AMCs to ensure expeditious improvement of the reliability performance of the dilapidated network, Hon'ble Commission is most humbly requested to kindly consider the steps taken by the licensee and allow the balance amount under regulation 3.9.23 for meeting the critical activities planned for up-keepment of system network and to maintain and improve the quality and reliability of power supply.

Hon'ble Commission is most humbly requested to approve the R&M expenses Rs. 257.19Crs for the FY 2023-24.

2.8 Provision for Bad and Doubtful Debts

The Petitioner has considered the non-collectable amount based on the collection efficiency (99%) as bad and doubtful debts while estimating the ARR for FY 2023-24. Considering the proposed collection inefficiency of 1% for FY 2023-24, provisions for bad and doubtful debts at 1% on total sales ₹ 35.03 Crs has been considered as part of ARR for FY 2023-24.

The Petitioner humbly requests the Hon'ble Commission to consider the same to enable the Petitioner to recover its entire costs after duly considering the performance levels.

2.9 Depreciation

The capital investments to be made by TPNODL has been allowed recovery of depreciation as per para 39(g) of the Vesting order, provisions of which reproduced hereunder

"39(g) The capital investments made by TPNODL 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."

OERC (Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022 (herein after called "Tariff Regulation'2022") has been notified on 20th December,2022 and published in the Gazette of Odisha No-3538 dated 23rd December, 2022.

The provision for calculation of depreciation as envisaged in the Tariff Regulation'2022 is reproduced hereunder:

3.8.4. *For the assets of erstwhile DISCOMs transferred to the new Distribution Licensees through the Vesting Orders, the depreciation shall be calculated on the pre-up valued cost of assets at pre-1992 rate on the asset base approved by the Commission.*

3.8.5. *For assets achieving date of commercial operation (COD)in this control period, depreciation shall be computed in the following manner:*

a. *The approved original cost of the project/fixed assets shall be the base value for calculation of depreciation;*
b. *Depreciation shall be computed annually based on the straight-line method at the rates specified in the **Annexure II** to these Regulations:*

The depreciation calculated as per the above, for the FY 2022-23 and FY 2023-24 are furnished in the following table. Details have been submitted under 'Capitalization Summary' in the attached data sheets.

Table No.-19: Depreciation (In ₹ Crs)

Sl. No	Particulars	Depreciation Rate Pre-92	Depreciation Rate- Vesting Order	Depreciation Rate- Under Tariff Regln'22	FY 2022-23	FY 2023-24
1	Civil & Buildings	1.80%	3.34%	3.34%	1.17	2.58

2	F&F	4.55%	6.33%	6.33%	0.27	0.40
3	Vehicle	12.86%	9.50%	9.50%	0.11	0.18
4	IT Equipment	0%	15.00%	15.00%	11.39	22.31
5	Other Equipment	9.00%	6.33%	6.33%	0.84	1.31
6	Network Assets & Overhead lines	3.80%	5.28%	4.67%	102.79	124.37
7	**Gross Depreciation**				116.58	151.15
9	Less : Amortization on assets created out of consumer cont'bn and grant ***(*) Amortization on Grants on Opening Grant has not been reduced since been carved out***				74.43	84.27
10	**Net effect to ARR**				**42.15**	**66.88**

2.10 Interest Expenses

TPNODL would like to submit that the following interest expenses on loans will be incurred for smooth operation of the licensee.

2.10.1 Interest on Security Deposit

Section 47(4) of the Electricity Act 2003 states that "The distribution Utility shall pay interest equivalent to the bank rate or more, as may be specified by the concerned State Commission, on the security referred to in sub-section (1) and refund such security on the request of the person who gave such security."

The OERC Distribution (Conditions of Supply) Code 2019, Regulation (57) also mandates the payment of interest on consumer security deposit, the manner in which it is to be administered and penal provisions for delay in making such payments.

Relevant extracts of Supply Code,2019 is reproduced hereunder:

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.

TPNODL has calculated the interest on security deposit @ 4.25% on the closing balance of security deposit amount for FY 2023-24 based on the existing approval of Hon'ble Commission for the FY 2022-23. The interest on security deposit considered in ARR for FY 2023-24 works out to ₹ 36.03 Crs.

2.10.2 Interest on Capex loan

As per the Tariff Regulations, the provision for interest on capital loan is reproduced hereunder:

3.7 Interest and finance charges on Loan Capital

3.7.1 The loans arrived at in the manner indicated in these Regulations on the assets put to use, shall be considered as gross normative loan for calculation of interest on loan:

Provided that interest and finance charges on capital works in progress shall be excluded:

3.7.2 The normative loan outstanding as on 1st April shall be worked out by deducting the cumulative normative repayment as admitted by the Commission up to 31st March of the previous year.

Provided that the assets of erstwhile DISCOMs as on effective date in terms of the provisions of Vesting Orders shall not be eligible for calculation of interest on loan.

3.7.3 The normative repayment for the year during the Control Period shall be deemed to beequal to the depreciation allowed for that year.

3.7.4 Notwithstanding any moratorium period availed by the Distribution Licensee the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

3.7.5 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the Distribution Licensee:

Provided that at the time of truing up, the weighted average rate of interest calculated on the basis of the actual loan portfolio during the year applicable to the Distribution Licensee shall be considered as the rate of interest:

Provided that in case where the Distribution Licensee avails new loans, i.e., on or after

April 1, 2023, the rate of interest on loan in any case shall not exceed approved base rate of return on equity or any capping on rate of interest on such a new loan as specified by the Commission considering the market conditions. The Distribution Licensee(s) shall follow transparent mechanism to avail Loans and, to the extent possible, shall endeavour to invite open tender for availing Loans. However, they shall be required to submit due justification to the Commission for the terms and conditions of the loans raised by them including the loan sanction letter from the banks/ lending institutions, indicating the applicable rate of interest. They shall also justify the reasons for higher interest rate, if availed for the new loan.

Provided further 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 for the actual loan shall be considered:

Provided also that if the Distribution Licensee does not have actual loan, then the weighted average rate of interest of the other business of the Distribution Licensee regulated by the Commission shall be considered:

Provided also that if the Distribution Licensee does not have actual loan, and the otherbusiness of the Distribution Licensee regulated by the Commission also does not have actual loan, then the weighted average rate of interest of the Distribution Licensee as a whole shall be considered:

Provided also that if the Distribution Licensee as a whole does not have actual loan, then the Base Rate plus 150 basis points at the beginning of the respective year shall be considered as the rate of interest for the purpose of allowing the interest on the normative loan.

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

Table No. -20: Interest on Capex Loan **(In ₹ Crs)**

Particulars	FY 2022-23	FY 2023-24
Opening Balance	43.60	409.07
Capitalisation considered	553.17	386.19
Loan	387.22	270.33
Repayment (considered equivalent of depreciation)	21.75	50.67
Closing balance-Loan	409.07	628.74
Average loan balance	226.34	518.90
Interest	20.37	49.30
Interest rate applicable(Current UBI 6M MCLR 8.5% Plus estimate of 0.5%)	9.00%	9.50%

2.10.3 Interest on Working Capital Loan

As per the OERC (Terms and conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022, Interest on working capital shall be allowed as follows.

" 3.10. Interest on Working Capital

3.10.1. The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Wheeling and Retail supply business for the Financial Year. The working capital for the purpose of ARR calculation shall be computed as follows:

a. *Operation and maintenance expenses for one month; plus*
b. *Maintenance spares @ twenty (20) % of average R&M expense for one month;plus*
c. *Power Purchase Cost for one (1) month*

Working Capital requirement of the Distribution Licensees may be met through depreciation allowed by the Commission on the assets of erstwhile DISCOMs ina manner mentioned in the Vesting Orders and as approved by the Commission. Shortfall in meeting the working capital requirement as mentioned above shall beallowed. The interest on the working capital shall be at a rate equal to the SBI Base Rate or any replacement thereof by SBI from time to time (being in effect applicable for 1 year period) as applicable as on 1st April of the Financial Year (for which Truing Up shall be done) plus 300 basis points or actual weighted average rate of interest towards loan for meeting working capital requirement availed by the Distribution Licensee(s), whichever is lower:

Provided that at the time of truing up for any year, the working capital requirement shall be re-calculated on the basis of the components of working capital approved by the Commission.

Provided that, the variation between the normative interest on working capital recomputed at the time of Truing-up and the actual interest on working capital incurred by the Distribution Licensee, substantiated by documentary evidence, shall be considered as an efficiency gain or efficiency loss, as the case may be, on account of controllable factors."

Accordingly TPNODL has derived the working capital requirement and interest there on as given below.

Table-21 :Interest on Working Capital ***(In ₹ Crs)***

Sl.No	Particulars	Current year	Ensuing year
1	O&M for 1month	69.98	79.82
2	Spares 20% of R&M of 1 month	4.09	4.29
3	1 month power purchase cost	194.93	216.93
4	Total	269.00	301.04
5	Rate of Interest	10.5500%	11.7000%
6	Interest on working capital	28.38	35.22

2.10.4 Total Interest for Financial Year FY 2022-23 & FY 23-24

The total interest expenses estimated for FY 2022-23 and FY 2023-24 is given in following Table:

Table-22: Summary of Interest Expenses **(In ₹ Crs)**

Interest Computation	FY 2022-23	FY 2023-24
Int on SD	32.63	36.03
Int on WC	28.38	35.22
Int. on Capex Loan	20.37	49.3
Less : Int. Capitalised	6.16	9.86
Int. on Capex Loan (Net)	14.21	39.44
Total	**75.22**	**110.69**

The total interest chargeable to revenue proposed by TPNODL for the year FY 2023-24 is ₹ 110.69 Crs.

2.11 Return on Equity

As per para 54 (a) of the Vesting Order, the Return on Equity would be available as follows:

54. Return on equity:

(a) As per the terms of the RFP, the Commission shall allow return on equity, as per the Tariff Regulations, to TPNODL on the equity capital of ₹ 250 crores (Indian Rupee Two hundred and fifty crores) only which was the reserve price of the utility of NESCO.

Further, the Tariff Regulation, 2022 provides the following

" 3.2. Return on Equity

3.1.2. Return on equity on approved reserve price (INR 300 Crore for TPCODL, INR 300 Crore for TPWODL, INR 250 Crore for TPNODL and INR 200 Crore for TPSODL) for the utilities (TPCODL, TPWODL, TPNODL & TPSODL) of the erstwhile Distribution utilities as on effective date in terms of the provisions of Vesting Orders:

Return on equity shall be allowed on the approved reserve price of the utility from the effective date of operation at the rate of 16% per annum (post tax), in Indian Rupee terms on pro-rata basis as per Vesting Order.

3.1.3. Return on equity on the assets put to use after Effective Date up to date of applicability of these Regulations:

Return on equity on assets put to use after Effective Date up to date of applicability of these Regulations shall be eligible to get return as per Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2014 and its amendments thereof.

3.1.4. Return on equity on the assets put to use under instant Regulations:

Return on equity on assets put to use under these Regulations shall be computed on the paid-up equity capital determined in accordance with these Regulations and shall be allowed at the rate of 16% per annum (post tax), in Indian Rupee terms:

Provided further that for the purpose of truing up for the Distribution Licensee, return on equity shall be allowed from the date of commercial operation on pro-rata basis based on documentary evidence provided for the assets put to use during the year in absence of which the assets shall be considered to be added in the mid of the year.

Provided further that asset funded by consumer contributions, capital subsidies/ Government grants shall not form part of the capital base for the purpose of calculation of Return on Equity.

a. *The premium if any, raised by the Distribution Licensee while issuing share capital and investment of internal resources created out of free reserve, if any, shall also be reckoned as paid-up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting capital expenditure, and are within the ceiling of 30% of capital cost approved by the Commission.*
b. *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.*

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

On the basis of the above, TPNODL has worked out the Return on Equity (RoE) for the capitalization arising out of the Capex undertaken by TPNODL 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 -23: Return on Equity Calculations **(In ₹ Crs)**

Particulars	FY 2022-23	FY 2023-24
Opening equity	294.97	441.52
Capitalization considered	488.50	365.86
Equity addition	146.55	109.76
Closing equity	441.52	551.28
RoE (opening)	47.20	70.64
RoE (addition)**	11.72	8.78
Total RoE	58.92	79.42
**** 6 months considered for FY 2022-23 and 6 months for FY 2023-24**		
Tax	**19.82**	**26.72**
RoE with Tax	**78.74**	**106.14**

2.12 Carrying Cost

TPNODL has arrived at the (-ve) gap of ₹ 140.74 Crs. for the FY 2022-23 against which carrying cost has been claimed @ 7.45 % for the half year amounting to ₹ 9.09 Crs, thus the effective gap for the FY 2022-23 goes up to ₹ 149.84 Crs.

For the ensuing year FY 2023-24, the (-ve) gap arrived at ₹ 182.72 Crs. and accordingly carrying cost @ 7.45 % for the average gap for the half year arrived at ₹ 21.48 Crs. and the effective gap arrived at ₹ 204.20 Crs.

3. Revenue and Current Year GAP

3.1 Non-Tariff Income

The licensee has relied on the quantum of actual Non-Tariff Income for the first six months of FY 2022-23 for projecting the NTI for the ensuing year. Based on the trend, the projections of the Non-Tariff Income are as given in the following Table:

Table No-24: Non –Tariff Income **(In ₹ Crs)**

Sl. No.	Particulars	YTD Sep-2022	FY 2022-23	FY 2023-24
1	Recovery of meter rent	11.73	23.46	23.46
2	Overdrwal penalty	3.98	7.96	7.96
3	Reliability	0.00	0.01	0.01
4	OA - cross subsidy	22.65	45.31	45.31
5	Supervision-application fees	0.53	1.06	1.06
6	Inspection fees	3.58	7.17	7.17
7	Pole rentals	0.08	0.16	0.16
8	Meter testing fee	0.07	0.15	0.15
9	DC,RC & Dismantle fee	0.23	0.46	0.46
10	Meter box charges	0.52	1.05	1.05
11	Service connection fees	0.16	0.33	0.33
12	Recovery-power theft	0.25	0.51	0.51
13	Interest on FD	23.55	47.10	47.10
14	Delayed payment surcharge	7.22	7.22	7.22
15	Meter testing fees	0.00	0.01	0.01
16	Sale of tender forms	0.15	0.30	0.30
17	Other misc receipts	0.07	0.14	0.14
18	Sale proceeds-scrap	5.01	10.02	10.02
19	Rebate on BSP prompt pymnt	11.77	23.39122	26.03
20	**Grand Total**	**91.59**	**175.81**	**178.45**

TPNODL has proposed **₹ 178.45 Crs.** as Non-Tariff Income for the ensuing year FY 2023-24.

3.2 Aggregate Revenue Requirement (ARR)

As per the Tariff Regulations, the ARR needs to be worked out for Wheeling and Retail Supply business separately. However, such segregation requires expenses separately for Wires and Retail Supply business. In addition, the O&M expenditure also needs to be segregated separately. At this point of time, TPNODL 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 approved the segregation under pre-defined ratio.

In view of the same, the licensee is placing before the Hon'ble Commission 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.

The ARR for the current year FY 2022-23 and ensuing year FY 2023-24 is computed and presented as given below:

Table No-25: Expenditure Details (In ₹ Crs)

Expenditure	FY 22-23	FY 23-24
Power Purchase Cost (A)		
Cost of Power	2,151.46	2,394.31
Transmission Charges	187.67	208.85
SLDC Charges	1.08	1.08
Total Power Purchase Cost	2,340.20	2,604.24
Distribution Cost (B)	-	-
Employees cost	428.05	484.90
Repair & Maintenance Cost	245.40	257.19
Administrative & General Expenses	150.84	199.22
Bad & Doubtful Debt including rebate	30.82	35.03
Depreciation	42.15	66.89
Interest on loans	49.56	74.66
Interest on Security Deposits	32.63	36.03
Return on Equity	58.92	79.42
Tax on Return on Equity	19.82	26.72
Total Distribution Cost	1,058.19	1,260.07

Special Appropriation (C)	-	-
Carrying Cost @ 7.45%	9.10	21.49
True Up	-	-
Other, if any - contingency and prior period	-	-
Prior Period Item	-	-
Total Special Appropriation	9.10	21.49
Total cost (A+B+C)	3,407.49	3,885.79
Less: Miscellaneous Receipt	175.81	178.45
Total Revenue Requirement	3,231.68	3,707.34

3.3 Revenue at Existing Tariffs

The licensee has estimated the revenue from sale of power considering the sales projected for FY 2023-24 and by applying the various components of existing tariffs. As detailed out in previous sections, the licensee has adopted the approach considered by the Commission and estimated the revenue from sale of power on accrual basis. The total revenue based on the existing tariffs applicable for the projected sales is estimated at **₹ 3503.14 Crore**.

The details of estimated revenue from different categories of consumers at existing tariffs are provided in Form T-7.

3.4 Summary of Annual Revenue Requirement and Revenue Gap

The summary of Annual Revenue Requirement, Revenue at Existing Tariffs and Revenue Gap for the ensuing year 2023-24 is provided below.

Table -26: Revenue Gap for FY 2023-24 (In ₹ Crs)

Expenditure	FY 2023-24
Power Purchase Cost (A)	
Cost of Power	2,394.31
Transmission Charges	208.85
SLDC Charges	1.08
Total Power Purchase Cost	2,604.24
Distribution Cost (B)	-
Employees cost	484.90
Repair & Maintenance Cost	257.19
Administrative & General Expenses	199.22
Bad & Doubtful Debt including rebate	35.03
Depreciation	66.89
Interest on loans	74.66

Interest on Security Deposits	36.03
Return on Equity	79.42
Tax on Return on Equity	26.72
Total Distribution Cost	1,260.07
Special Appropriation (C)	-
Carrying Cost @ 7.45%	21.49
True Up	-
Other, if any - contingency and prior period	-
Prior Period Item	-
Total Special Appropriation	21.49
Total cost (A+B+C)	3,885.79
Less: Miscellaneous Receipt	178.45
Total Revenue Requirement	3,707.34
Revenue from Tariffs (at Existing Rate)	3,503.14
(Deficit)/ Surplus at Existing Rate	(204.20)
Revenue from Tariffs (at Proposed Rate)	-
(Deficit)/ Surplus at Proposed Rate	(204.20)

The revenue gap for the year 2023-24, considering the BSP at the rate applicable for FY 2022-23, is arrived at ₹ **204.20 Crs.**

4. Pre-Take over period payment

In compliance to provisions under clause 52 of the vesting order of Hon'ble Commission, to ensure continuity of operation of the utility as a going concern, TPNODL is meeting liabilities pertaining to employees, consumers, suppliers and statutory payments, etc. which has been transferred to TPNODL. Further, as per clause 52(e) (iii) of the Vesting order of Hon'ble Commission dated 25.03.2021, from 1.4.2021 TPNODL is responsible to receive /pay amounts pertaining to assets and liabilities transferred to TPNODL as additional serviceable liabilities.

It is to submit that, to sustain the continuity of the normal business operation and to avoid discontentment amongst the consumers, employees as well as suppliers and also for timely restoration of power supply to the consumers, TPNODL had to make certain payments against the bills for the services or supplies received by the utility on or before 31.03.2021 in the FY 2021-22. In this regard, the licensee has taken approval of Hon'ble Commission for payment of such unpaid bills. Hon'ble Commission has accorded approval for such payments vide letter No. OERC/RA/TPNODL-37/2021/1438 dated 11.11.2021 and OERC /RA/TPNODL-37/2021(Vol-1)/1705 dated 30.12.2021.

Further, as per clause 42 of the vesting order, TPNODL has made the payment of BSP bill for the month of March, 2021.

The details of payments made by the licensee towards past period BST bill, collection received against the same along with the payments made for the bills for services or supplies received before take over are furnished in the following table.

Table No-27:Pre-Take over Period Payments **(In ₹ Crs)**

Particulars	Amount
BSP Bill-NESCO Period	0.19
Pre-vesting vendor bills	8.38
Pre-vesting BSP bill	167.96
Pre-vesting Collections received	-136.59
Net Pre-take over period payments	**39.94**

Relevant extracts of vesting order in this regard is reproduced hereunder

52 *(f) At any point of time if any additional liability pertaining to the period prior tothe Effective Date accrues to TPNODL irrespective of whether it is reflected in the audited financial statements available on or before 30.09.2021, the same shall also be dealt with in the manner provided herein subject to prudence check by the Commission.*

Further clause 43(g) of Vesting order provides for meeting such pre takeover period liabilities as under :

43 *(g)The Past Arrears recovered from consumers, after deducting the incentive of TPNODL, shall be dealt with in manner specified in para 52 of this Order. In case the Additional Serviceable Liabilities stated in para 52 of this Order are extinguished, then the Past Arrears recovered after deducting the incentive shall be paid to GRIDCO. After the past liabilities of GRIDCO are extinguished, the Past Arrears recovered after deducting the incentive shall be paid to OPTCL for outstanding transmission and SLDC charges of NESCO Utility.*

Hon'ble Commission's order on segregation of NESCO Balance sheet as on 31.3.21 and TPNODL balance sheet as on 1.4.21 under clause 24 also provides that the past arrear recovery amount , after deducting the incentive, shall be dealt with as per provisions under para 43(g) of Vesting Order. Extracts of the provision reproduced hereunder

24. TPNODL shall maintain separate records for arrear collections from consumers pertaining to the period prior to 31.03.2021. The past arrear recovery amount, after deducting the incentive, shall be dealt with as per provisions of para 43(g) of the Vesting Order. The amount shall be paid to GRIDCO on monthly basis towards settlement of old BSP dues. These amounts shall be adjusted against the sundry creditors/ trade payables of residual NESCO payable to GRIDCO. Suitable MIS report shall also be submitted by TPNODL to GRIDCO showing detailed month wise revenue collections and past arrear collections. The same shall be audited by an independent auditor on a half yearly basis and audit report shall be submitted to the Commission and to GRIDCO within 90 days from the end of the half year.

Hon'ble Commission is most humbly requested to allow the licensee to deduct the above amount of ₹ 39.94 Crs from the past arrear collection payable to GRIDCO.

5. Truing –up for the FY 2021-22

In compliance with the directions of Hon'ble Commission in the Vesting order, the licensee has started operation with effect from 1.4.2021. The truing up petition for the first year of operation that is FY 2021-22, has been submitted separately before Hon'ble Commission for kind approval. The approvals accorded by Hon'ble Commission for the FY 2021-22, the audited actual figures and truing up considering the normative T&D loss of 18.35% is furnished in the following table.

Table No-28: Truing-up for the FY 2021-22 **(In ₹ Crs)**

Expenditure	Approved by OERC (26.3.21)	Further Cost allowed by OERC (3.11.21)	Total approval by OERC for FY 21-22	Actual (Audited) Parameters	Reference from Audited Annual Accounts	True up Considering Normative T&D loss 18.35%
INPUT(MU)	5880.00		5880.00	5327.04		5378.01
Cost of power purchase	1,881.60		1881.60	1,705.44		1720.96
Transmission Cost	164.64		164.64	149.04		150.58
SLDC Cost	1.01		1.01	1.02		1.02

Less : Rebate				-18.74		-18.72
Total Power purchase Cost(A)	**2,047.25**		**2,047.25**	**1,836.76**	Note-28	**1,853.85**
Employee Cost	357.24		357.24	436.79	Note-29	486.55
Repair &Maintenance Cost (Net off Govt. Grant Amortization)	114.23	33.26	147.49	117.66	Note-31	117.66
Administrative & General Expenses	49.20	29.52	78.72	105.24	Note-31	105.24
Provision for bad & doubtful debts	14.84		14.84	25.56	Note-31	25.56
Depreciation(Net off Govt. Grant - Cons. Contbn Amortisation)	32.86		32.86	23.62	Note-4&6	23.58
Interest on loan including interest on SD	26.78		26.78	45.23	Note-30	58.92
Interest on Term Loan (normative)						3.56
Total Operation &Maintenance and Other Cost	**595.15**		**657.93**	**754.10**		**821.06**
			-			-
Return on equity	40.00		40.00	-		43.60
Income Tax				24.86	Note-32	24.86
Total Distribution Cost	**635.15**		**697.93**	**778.96**		**889.52**
Less Miscellaneous Receipts	137.42		137.42	161.09	Note-26.4.2&27	140.43
Net Distribution Cost(B)	**497.73**		**560.51**	**617.87**		**749.09**
Total Revenue Requirement	2,544.98		2,607.76	2,454.63		2,602.94
Actual Revenue	2,545.61		2,545.61	2,555.72	Note-26.4.2	2,555.72
SURPLUS/(GAP)	**0.63**		**-62.15**	**101.09**		**-47.22**

6. Capital Expenditure Plan

6.1 Capital Expenditure

Section 39 of the Vesting order of the licensee envisages for a comprehensive Capital expenditure plan for first five years of licensed operation. The extract of the provision is reproduced hereunder

39. Capital investment plan

(a) The RFP required the bidders to provide a capital expenditure plan for first 5 (five) years of licensed operations as part of their bid.

(b) In its Bid submitted in response to the RFP, TPCL committed capital expenditure of ₹ 1,270 crores (Indian Rupee One thousand two hundred and seventy crores) only for period FY 2021-22 to FY 2025-26 as follows:

Table 1: Capital Expenditure Commitment by TPCL

Capex Commitment (INR Cr)					
FY22	***FY23***	***FY24***	***FY25***	***FY26***	***Total***
246	*376*	*259*	*247*	*141*	*1,270*

(c) To allow flexibility in the capital expenditure planning, the Commission stipulates that, in the capital expenditure plan to be submitted by TPNODL asper the license conditions, the capital expenditure commitment for each year of the period FY 2021-22 to FY 2025-26 must be such that capital expenditure proposed up to a year shall be at least equal to the cumulative capital expenditure committed up to that year in the Bid submitted by TPCL. For avoidance of doubt, the minimum cumulative capital expenditure to be proposed by TPNODL for the period FY 2021-22 to FY 2025-26 must be as provided in the table below:

Table 2: TPCL Cumulative Capital Expenditure for 5 years

Cumulative Capex Expenditure (INR Cr)				
Upto 31-Mar-2022	**Upto 31-Mar-2023**	**Upto 31-Mar-2024**	**Upto 31-Mar-2025**	**Upto 31-Mar-2026**
246	622	882	1,129	1,270

In compliance to section 39 of the Vesting order, TPNODL has proposed Capital Expenditure plan for the FY 21-22 and FY 22-23 and submitted before the Hon'ble Commission. The proposal submitted by TPNODL and the Capital expenditure approved by Hon'ble Commission for the first two years of operation are furnished in the following tables:

Table-29:-Capital Expenditure Approved for FY 2021-22 & FY 2022-23

FY	Proposed DPR Cost (₹ Crore)	OERC Approved Cost (₹ Crore)
FY 2021-22	275.4	258.78
FY 2022-23	442.97	326.54

In order to improve the reliability and reduce the losses, major interventions like Network reinforcement, Technology adoption is proposed in the plan so that equipment failure / tripping can be reduced and reliability, billing & collection efficiency can be improved. The network demands urgent refurbishment like re-conductoring of feeders, optimization of feeder length, dedicated feeders for industrial/ commercial customers, replacement of damaged / tilted poles, provision of intermediate poles, replacement of joints, enhancing system protection, replacement of sick equipment and network augmentation to improve the reliability of power supply.

Introduction of advanced technologies and analytics have been prime focus area for improving the accuracy of the meter reading, curtail tampering of the meters and providing better and effective customer services. Further Business process re-engineering required to improve the customer services. Technology adoption also planned to provide quality customer services, manage revenue cycle processes for reduction of AT&C losses and efficiently manage to deliver reliable and quality supply in safe manner to its consumer by meeting various standards of operation.

The capital investments have been proposed under the following broad cost centers that shall be aligned with multiple initiatives and schemes so as to reduce AT&C losses, improve system reliability and augment the network to support continuous load growth. Further, a need is also felt to improve the existing facilities and infrastructure to provide a better consumer experience.

With this objective of ensuring reliable power supply and ensuring best customer services to the end consumers, TPNODL formulated the capital investment plan for the FY 2023-24 under the major heads:

1) Statutory Compliance/Safety
2) Loss Reduction
3) Reliability
4) Network Optimization & Load Growth
5) Technology & Civil Infrastructure
6) Reducing Carbon Footprint

TPNODL proposed Capital Expenditure of ₹ 599.11 Crs for FY 23-24 to carry out various activities under the above major categories which is being submitted separately before Hon’ble Commission for approval.

Table No-30: Capital Investment Plan for FY 2023-24 (In ₹ Crs)

Sl. No	Category	Investment Proposed
1	Statutory Compliance/Safety	49.41
2	Loss Reduction	63.41
3	Reliability	168.69
4	Network Optimization & Load Growth	183.81
5	Technology & Civil Infrastructure	167.64
6	Reducing carbon Footprint	4.98
Total		**637.94**

The Capital Expenditure, IDC, transfer to fixed asset and the closing WIP for the current financial year and projected for the ensuing FY 2023-24 are furnished in the following tables.

Table No-31: Capitalization Plan for FY 2022-23 (In ₹ Crs)

CURRENT YEAR (2022-23)							
Sl. No	Description of the Project/Scheme	Closing bal. of WIP as on 31.03.2022	Expenditure during the year	Interest during construction	Overheads capitalized /Adjustments	Transfer to fixed assets	Closing bal. of WIP as on 31.03.2023
1	Land	0.00	0.00	0.00	0.00	0.00	0.00
2	Civil & Buildings	10.85	61.18	0.00	2.19	63.32	10.90
3	F&F	0.33	4.19	0.00	0.00	4.31	0.21
4	Vehicle	0.00	0.27	0.00	0.00	0.27	0.00
5	IT Equipment & Software	20.56	96.81	0.00	0.00	102.29	15.08
6	Other Equipment-other than computer	1.38	9.82	0.00	0.00	6.92	4.27
7	Network Assets-other than Own Capex	82.63	278.95	0.00	0.00	242.59	118.99
8	Network Assets - Own Capex	52.87	431.81	6.16	13.32	336.45	167.70
9	**Total**	**168.60**	**883.04**	**6.16**	**15.51**	**756.15**	**317.15**

Table No-32: Capitalization Plan for FY 2023-24 (In ₹ Crs)

		ENSUING YEAR (2023-24)					
Sl. No.	**Description of the Project/Scheme**	**Closing bal. of WIP as on 31.03.2023**	**Expenditure During the Year**	**Interest During Construction**	**Overheads capitalized /Adjustments**	**Transfer to fixed Assets**	**Closing bal. of WIP as on 31.03.2024**
1	Land	0.00	0.00	0.00	0.00	0.00	0.00
2	Civil & Buildings	10.90	41.64	0.00	2.08	30.43	24.19
3	F&F	0.21	0.00	0.00	0.00	0.17	0.04
4	Vehicle	0.00	2.80	0.00	0.00	1.43	1.37
5	IT Equipment & Software	15.08	94.47	0.00	0.00	59.48	50.07
6	Other Equipment- other than computer	4.27	12.22	0.00	0.00	9.59	6.90
7	Network Assets- other than Own Capex	118.99	293.83	0.00	0.00	314.43	98.40
8	Network Assets - Own Capex	167.70	290.05	9.86	14.50	308.76	173.36
9	**Total**	**317.15**	**735.02**	**9.86**	**16.58**	**724.28**	**354.33**

The details of capital expenditures made, IDC, transfer to asset and the work in progress for the previous year, current year actuals as well as estimation for the entire year and projection for the ensuing year have been detailed in Format F-2

6.2 Government Schemes & Consumer Contribution

There are several Government Schemes that are under way, many of which have been completed and shall continue further. In addition to the above, the consumer-funded assets has also been considered. The summary of the government schemes and the consumer funded that are being tracked by TPNODL are as follows:

Table No- 33: Status of Government Schemes/Consumer Funded for the FY 2021-22 and FY 2022-23 (In ₹ Crores)

			CURRENT YEAR (2022-23)					ENSUING YEAR (2023-24)				
Sl No.	Description of the Project/Scheme	Opening of WIP as on 1.4.22	Expn. during the year	Interest during construction	Overheads capitalized ustments	Transfer to fixed assets	Closing bal. of WIP as on 31.03.23	Expn. during the year	Interest during construction	Overheads capitalised/Adjustments	Transfer to fixed assets	Closing bal. of WIP as on 31.03.24
1	2	8	9	10	11	12	13	14	15	16	17	18
1	School Anganwadi-Grant	1.22	2.88	0.00	0.00	3.66	0.44	7.84	0.00	0.00	6.71	1.57
2	Strengthening of Elephant Corridor-Grant	4.29	69.32	0.00	0.00	47.79	25.82	57.63	0.00	0.00	71.92	11.53
3	CAPEX PLAN-GoO	2.86	0.17	0.00	0.00	2.50	0.54	0.00	0.00	0.00	0.00	0.54
4	SYSTEM IMPROVEMENT	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00
5	RGGJY	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00
6	OPTCL-BGJY	0.60	10.22	0.00	0.00	8.50	2.32	13.96	0.00	0.00	13.49	2.79
7	SAUBHAGYA-Grant	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	OPTCL-ODSSP	0.00	0.23	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.23	0.00
9	FANI	0.00	1.73	0.00	0.00	1.47	0.26	1.28	0.00	0.00	1.28	0.26
10	AMPHAN-Grant	0.00	5.92	0.00	0.00	5.03	0.89	4.38	0.00	0.00	4.39	0.88
11	NEW DESI	0.77	0.23	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00
12	OTHERS (Deposit Works) Viz. Mega lift, Rathadanda, NHAI, GGY, Inlandwater Ways-Grant	5.88	0.00	0.00	0.00	0.00	5.88	0.00	0.00	0.00	5.88	0.00
13	Disaster Fund-Flood	0.00	2.96	0.00	0.00	2.09	0.86	0.00	0.00	0.00	0.86	0.00
14	Disaster Fund-YAAS	24.80	33.00	0.00	0.00	19.55	38.25	22.76	0.00	0.00	21.66	39.35
15	Other Miscellaneous Schemes	19.75	0.00	0.00	0.00	0.00	19.75	0.00	0.00	0.00	0.00	19.75
16	Advance for Capital Goods	3.94	0.00	0.00	0.00	0.00	3.94	0.00	0.00	0.00	0.00	3.94
17	**TOTAL**	64.19	126.76	0.10	0.11	90.70	100.33	107.97	0.15	0.16	127.60	80.78

The asset under the above scheme has been considered in the filling for the purpose of claiming Repair & Maintenance whereas the depreciation on the above class of asset addition has not been considered in our filling.

6.3 Additional Capitalization 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 TPNODL 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.

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 fullin 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 TPNODL 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 TPNODL. 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 under para 71 of the Vesting Order and the relevant extracts is as given below.

TREATMENT OF EQUITY INVESTMENT FROM GRIDCO FOR FUTURE CAPITAL INVESTMENT

71. Pursuant to Clause 3.6 of the Shareholder's Agreement, the Commission orders that in the event that assets are transferred to TPNODL in lieu of equity investment by GRIDCO, the same 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 TPNODL 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 ₹ 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:

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

6.4 Summary of Capitalization

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

Table No.-34: Summary of Capitalization **(In ₹ Crs)**

Particulars	FY 2022-23	FY 2023-24
Schemes for FY 2021-22 & FY 2022-23	491.00	
Schemes for FY 2022-23 & FY 2023-24		365.86
Government Projects	88.09	127.43
Consumer Funded	154.50	187.00
Meter & Cables	22.57	44.00
Total Capitalisation	**756.15**	**724.28**

6.5 Funding of the Capital Expenditure

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

a) Government Grants

b) Consumer Contribution

c) Depreciation

d) Debt

e) Equity

6.6 Government Grants

For the purpose of this submission, we have considered the Government Grants that are available for the capex initiated after the Effective Date (" New Capex") i.e. for

Capex of FY 2021-22 and FY 2022-23 for the purpose of claiming Repair & Maintenance. For the initial CWIP that has been inherited on 1st April 2021, we have considered the Government funding only to the extent utilized.

6.7 Consumer Contribution

The Contribution from new Consumers including the Govt. Consumers and the asset upgradation/modification contributed are provided for extension of power supply to them. Such consumers either pay for the connection towards the material, labour and services from the Distribution Licensee or in case the consumer prefers to procure the material and labour on his own, then supervision charges are made applicable for providing such connection. Such contribution is termed as Consumer Contribution.

6.8 Debt or Capital loans

As per the Tariff Regulations, the Debt would constitute 70% of the Capitalization.However in case the loan is higher than 70% (i.e. Equity less than 30%), then such higher loan would be considered for the purpose working out the ARR

We have considered a Debt of 70% of Capitalization for the new Projects. For existing projects as on effective date, no loan has been considered as the same has not been financed by TPNODL.

6.9 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.

6.10 Funding Pattern for FY 2021-22 and FY 2022-23

Based on the above the estimated funding is as follows:

Table No. - 35: Funding Pattern –FY 2021-22 & FY 2022-23 (In ₹ Crs)

Particulars	FY 2022-23	FY 2023-24
Capitalisation	**756.15**	**724.28**
Met Through		
Consumer Contribution	154.50	187.00
Government Grants	88.09	127.43
Debt	366.27	300.10
Equity	147.30	109.76

7. Performance of TPNODL in First Year of Operation- Initiatives undertaken

In compliance to the vesting order of Hon'ble Commission, TPNODL started operation with effect from 1.4.2021. The overview of the network position as on 1.4.2021 and as on 1.4.2022 are depicted in the following table:

Table No.-36: Overview of the Network Position

Particulars	As on 31.03.2021	As on 31.03.2022
Area of Operation (Sq. Km.)	28,000	**28,000**
No. of Consumers :		
EHT	36	**37**
HT	557	**614**
LT	20,07,540	**20,88,432**
TOTAL	**20,08,133**	**20,89,083**
No. of Power Transformers	488	**524**
No. of Distribution Transformers	70,429	**72,323**
No. of 33/11kV Sub-station	217	**236**
33KV Line (CKT Km.)	2,868	**2,895**
11KV Line (CKT Km.)	37,069	**37,591**
LT Line (CKT Km.)	66,300	**66,672**
Number of Circles	5	**5**
Number of Divisions	16	**16**
Number of Sub-Divisions	50	**50**
Number of Sections	159	**159**
Number of Employees	2,159	**2585**

The performance parameters of the licensee in the first year of operation given in the following table

Table No.-37: Performance Parameters

KEY BUSINESS PARAMETERS (OVERALL)	FY.2020-21	FY.2021-22	Increase / Decrease	OERC Approved for FY.-2021-22
	(Apr-Mar)	(Apr-Mar)		
INPUT (MU)	4941.19	5327.043	385.853	5880
SALES (MU)				
EHT	1424.984	1676.025	251.041	1696.49
HT	388.865	503.265	114.4	415.6
LT	2107.784	2167.708	59.924	2688.93
Total	3921.633	4346.998	425.365	4801.02
DISRIBUTION LOSS %	20.63%	18.40%	-2.24%	18.35%
COLLECTION EFFICIENCY %	94.28%	94.20%	-0.08%	99.00%
AT & C LOSS %	25.17%	23.13%	-2.04%	19.17%

Both T&D Loss and AT&C Loss reduced by 2.24% and 2.04% respectively in FY 2021-22. Development of distribution infrastructure for improving reliability of supply needs proper planning, designing& engineering and smooth operation and condition based maintenance.

After take over, TPNODL did a comprehensive study of the entire network . Entire HT network of TPNODL (33 & 11KV) is now 100% documented in terms of single line diagram (SLD). These SLD were prepared through a focused drive for more than 6 months where in network data was captured through the closed coordination with JE/SDOs/ Lineman.

The captured data in terms of network topology, conductor size, DT ratings, PTR ratings, was subsequently modelled in the load flow software.

The status of planning as tabulated below

Circle	Agency for planning	Status as on Date	Remark
Balasore	PRDC	Completed	1) 33 KV and 11 kV Network modeling completed on the SLD basis.
Jajpur	TPDDL	completed	1) 33 KV and 11kV Network modeling and Analysis completed 100% on Geo reference basis.
Bhadrak	In-house by NEG team	Completed	1) 33 KV and 11 kV network modeling 100 % completed on the SLD basis.
Baripada	In-house by NEG team	Completed	1) 33 KV and 11 kV network modeling 100 % completed on the SLD basis.
Keonjhar	In-house by NEG team	WIP	1) 33 kV Modelling completed and Analysis 100% on SLD basis.

The licensee is planning the capital investment prioritizing the network development requirements. Currently most of 33 KV network is operating on the radial mode. As of today only 5% PSS have the double source. However TPNODL envisages to increase this feature of operation in phased manner as indicated in table below:

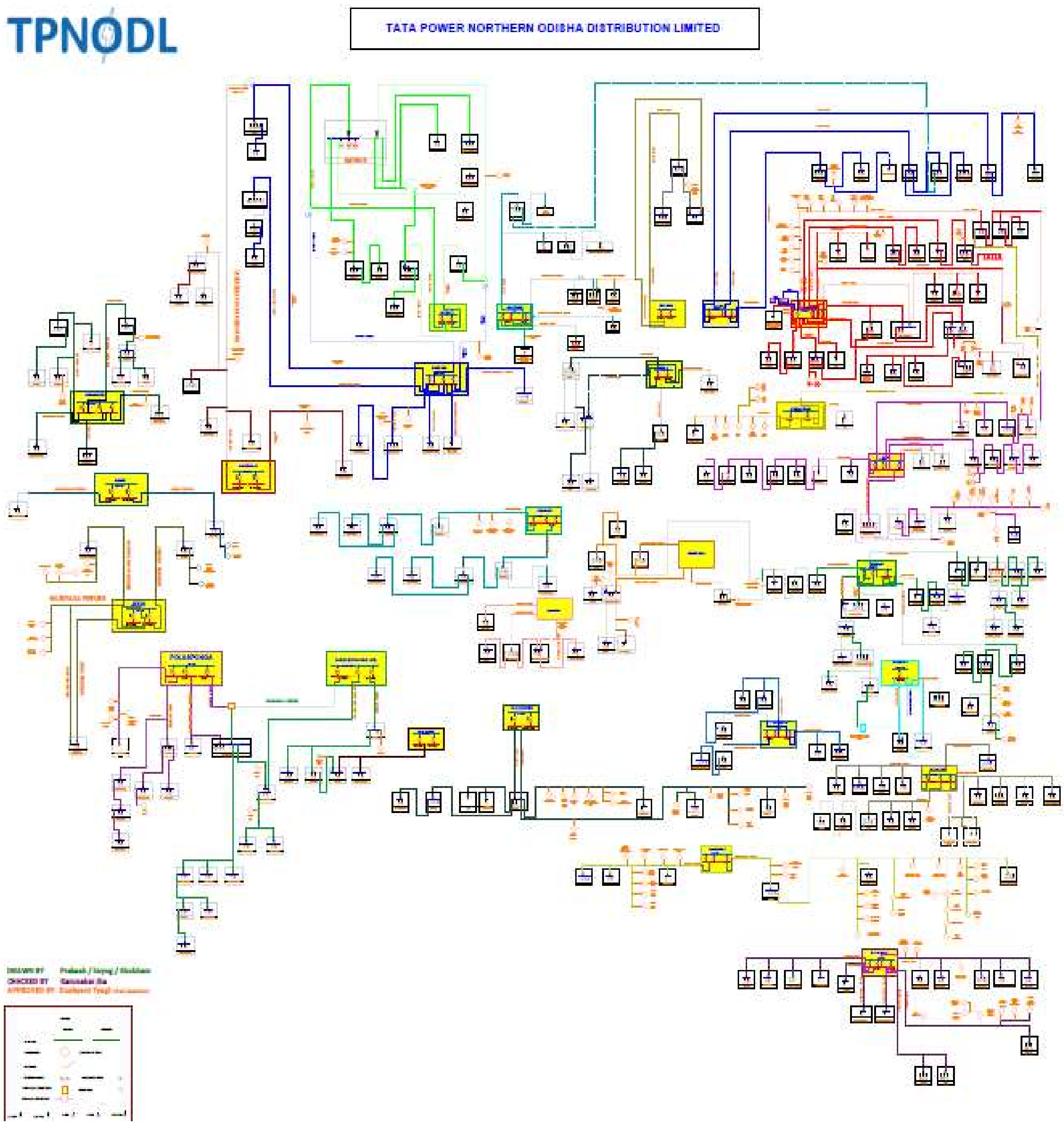
TPNODL Plan for N-1 Reliability at 33 KV level					
Financial year		FY22	FY23	FY24	FY25
Nos of PSS with N-1 Source reliability	In Nos	11	30	48	56
	In %	4.74%	12.93%	20.69%	24.14%

As underground network is the most reliable as compare to O/H lines, conversion from overhead to underground lines are proposed to provide the reliable power to the important/ critical load during the cyclone period as well as normal days. The recommendations from report of "Task force on Cyclone Resilient robust T&D infrastructure in coastal area" are considered while keeping provision for conversion to underground cables of critical 33 and 11 KV O/H lines feeding District Headquarters. Accordingly, detailed studies are undertaken for Balasore and Bhadrak city, within 20 Km from sea coast.

Initiatives undertaken by the licensee are furnished hereunder:

7.1 GIS Mapping

100% of 33KV, 11KV network and all PSS and GSS locations have been mapped on GIS. 33KV and 11KV Network modelling completed on SLD basis.



7.2. HT Loss Assessment

Circle –wise HT losses quantified as depicted in the following table

Table No.-38: Circle wise HT Loss

Circle	33 kV Network		11 kV Network	
	Length (Km)	Annual Loss (%)	Length (Km)	Annual Loss (%)
Balasore	739	3.58	7394	6.26
Jajpur	323	4.00	3125	3.95
Bhadrak	368	4.24	4533	4.66
Baripada	624	3.63	10508	5.16
Keonjhar	573	3.17	6500	3.8
TPNODL	**2653**	**3.79**	**32060**	**4.7**

7.3 Energy Accounting Key Achievements

- 100% Meter installation and rectification completed at TPNODL Energy Exchange points at GSS, resulting to reduction in energy accounting Gap from 8 MU (0.460%) to 1 MU (0.16%).
- 100% AMR installation completed for the 33 kV Feeders at TPNODL Energy Exchange points.
- 100% PSS asset audit carried out to validate the metering status , PSS wise energy flow to initiate feeder metering rectification drive.
- Consumer Mapping completed for the 11 kV Feeder by visiting each section in order to ascertain 11 kV feeder wise T&D.
- T&D loss computed for 93 No of Project Light House Feeders for the energy accounting.

The present status of the energy audit activities in the licensee is as follows

Table No.-39: Energy Audit Status

Voltage Level	Nos.	Metered	Audit Activity
TPNODL 33 kV Feeder installed at GSS (Energy Exchange Points)	98	98	98
PSS 33 kV Feeders	234	153	52
11 kV Feeder	817	682	210
Total DT Count 33/0.4 kV and 11/0.4 kV	72958	2269	209

The energy meters installed at the exchange points, i.e. all 33 kV feeders emanating from the O.P.T.C.L. G.S.S., are metered and accounted. A particular drive was carried out to check and rectification of the metering discrepancies. All these meters were checked in terms of wiring correction, meter connections, and old meter replacement. With these initiatives, the energy accounting gap at the exchange level is reduced to an acceptable level and ensured accurate energy accounting at the energy exchange points of utility so that there is no delay in payment of the bulk power purchase bills on account of any discrepancies or disputes.

7.3.1 33 kV and 11 kV Feeder Metering.

TPNODL has put a lot of focus and effort into the revival of the 33 kV and 11 kV feeder metering at the P.S.S. level to measure the energy consumption at various levels for the energy audit purpose. In order to revive the feeder metering, the C.T.s and P.T.s have been installed in place of the burnt and faulty metering units so as to have a robust and sustainable infrastructure for the metering. With these efforts, the 11-kV feeder metring was revived from 33% to 83%, and the 33-kV P.S.S. feeder metring was revived from 12% to 65%. Jajpur and Bhadrak circle has been completed with 100% metering on the 11 kV Feeders.

The Circle wise status of metering is as follows

a) 11 kV Feeder Metering

Table No.-40: 11 kV Feeder Metering

Circle	11 kV Feeders	Total Readable Feeder Meters	% Metering for Feeders	Balance Non-Readable Feeders
Balasore	**218**	**165**	**76%**	**53**
Baripada	**190**	**151**	**79%**	**39**
Bhadrak	**126**	**118**	**94%**	**8**
Jajpur	**124**	**124**	**100%**	**0**
Keonjhar	**159**	**124**	**78%**	**35**
Total	**817**	**682**	**83%**	**135**

b) 33 kV Feeder metering status

Table No.-41: 33 kV Feeder Metering

Circle	33 kV PSS (I/C)	Metering Status (Oct'22)	% of Feeder Metering	Balance Non-Readable Feeders
Balasore	**64**	**49**	**77%**	**15**
Baripada	**52**	**32**	**62%**	**20**
Bhadrak	**35**	**33**	**94%**	**2**
Jajpur	**39**	**34**	**87%**	**5**
Keonjhar	**44**	**33**	**75%**	**11**
Total	**234**	**181**	**77%**	**53**

To achieve above milestones following key actions have been taken

a) PSS wise survey for all 33 kV and 11 kV feeders to identify the current status of the metering

b) 228 Nos. of 11 kV PT installed to revive the 11-kV feeder metering

c) 78 Nos. of 33 kV PT installed to revive the 33 kV Feeder metering.

d) 445 No. of Energy Meters have been installed against no meter, burnt and faulty feeder meters

e) 39 Metering units' connections revived

f) 2.9 Control cables replaced for the metering connections

7.3.2 AMR Installation

In order to capture the feeder meters remotely we have started the initiative for the AMR installation for the 11 kV and 33 kV Feeders. Currently 11 kV feeders are given as the priority. Following is the status for the AMR installation. In order to capture the feeder energy data in the specified time frame and with accuracy, the utility has initiated the installation of the modems at the 11 kV and 33 kV feeder for communicating the energy consumption data with the AMR. The AMR/modem installation drive is in progress for all the 33 kV and 11 kV Feeder meters and is planned to complete by Mar'2023.

Table No.-42: 33 kV Feeder Metering

Sl. No.	Circle	11 kV Feeder Count	Modems Installed
1	Balasore	218	35
2	Baripada	190	26
3	Bhadrak	126	20
4	Jajpur	124	28
5	Keonjhar	159	34
Total		817	143

7.3.3 Feeder wise Consumer Mapping

Apart from the feeder meter revival, the efforts are put in by the utility for the feeder-wise consumer mapping to audit the losses of the feeders. In this initiative, 33 kV and 11 kV feeder-wise consumer mapping was completed for `20 lac consumers (including HT & LT consumers) and are updated in coordination with the respective circle & divisional manager. Subsequently, the consumer mapping is correlated with their metering and billing data to drive the T&D and AT&C losses.

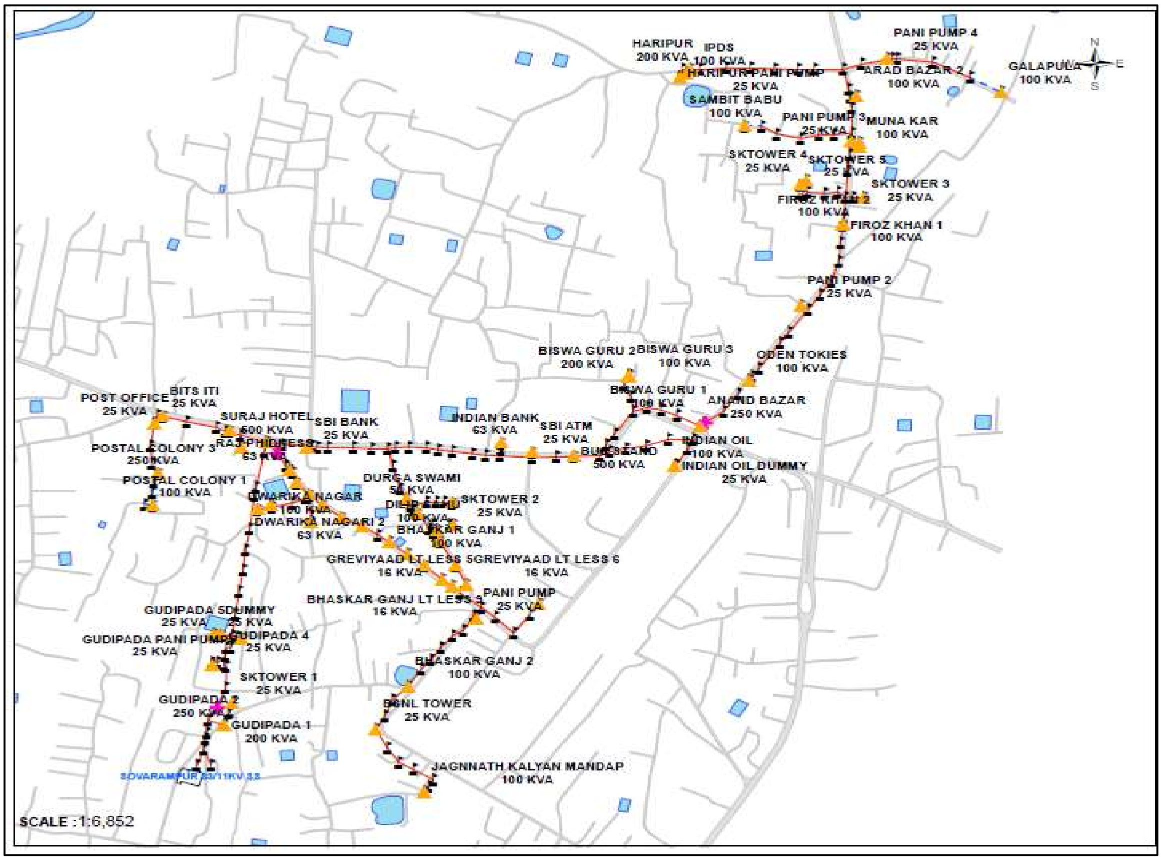
7.3.4 Enforcement Activities Integrated with Energy Audit Data

The energy consumption recorded at the 11 kV feeders at the substations is compared to the billed units of the 1-Ph, 3 Ph, and 11 kV large consumer which are mapped against the 33 kV and 11 kV feeders for calculation of the system losses. Further, the 11-kV high loss-making feeders' details are shared with the enforcement team to check them on a priority basis for detection of any possible electricity theft so as to mitigate the energy pilferage. Similarly, 11kv meters, P.T. and C.T. connections of the meters are checked by the energy audit team in coordination with MRT for validating exact multiplying factors. All these initiatives have established the framework for the systematic energy audit.

7.3.5 Energy Audit Based on the GIS Mapped Feeder

The GIS network mapping is utilized for the energy audit purpose. The project for the feeder and consumer mapping in the GIS has been started for the Balasore Circle. Wherever feeder and pole wise consumer has been mapped the data is extracted by the energy audit team. The team has started installation of smart meters on those Distribution transformers so that DT wise energy audit can be carried out. In line with this one 11 kV feeder "Sahedevkuntha" is completely mapped GIS and the data is used for the systematic energy audit purpose. The feeder has 58 Nos. of 3 Phase DT and 14 No of Single-phase DTs. All the 3 Phase DTs are metered and out of which 29 Nos. are smart meters. We have started auditing the DTs.so as to calculate the DT wise losses. In future it is planned to carry out such audits for the Balasore Circle wherever 11 kV feeder under GIS survey.

11KV “Sahedevkuntha” Feeder from “Sahedevkuntha PSS, Balasore”



7.4 Mission 100: Project Raksha 2.0 - DTR Maintenance

Distribution Transformer (DTR) is one of the most vital power delivery assets & any failure of the same results into loss of revenue on account of unserved energy, impacting the reliability as well as customer satisfaction and further adding towards Operational Expenditure on account of repair/replacement.

The record of last 3 to 4 months indicates alarming trend of DT failure. The increased failure rate of DTRs results in large burden on our Transformer Repair management cycle involving in-house as well as external BA workshops. The analysis of failed DTRs also indicate requirement of urgent attention on few vital aspects of DTR maintenance such as Oil level, Breather, LA s, Earthing and LT Protection.

While the DTR maintenance activities are picking up from month of October 22, we need to have a focused approach on completing the Maintenance as well as installation of LT Protection devices of high capacity DTRs mainly 100 kVA and above in Urban and Industrial areas.With this specific requirement in view, we are launching **“MISSION 100: PROJECT RAKSHA 2.0”** with an objective to complete maintenance activities of 20 NOS. of DTRs in each Section every month till March 2023. This would result in completing 100 Nos DTRs by each section in balance 5 months of the financial year. The Overall scope and coverage of DTRs under MISSION 100: PROJECT RAKSHA 2.0 is given in table 1 below:

Table No.-45: Scope of Activities under MISSION 100: PROJECT RAKSHA 2.0

Sr. No.	DT Rating	Scope of Activities		LT Protection
		Maintenance Activities	Installation of LT Protection Devices	
1	63 kVA	100%	(Urban & Industrial)	KitKat Fuse
2	More than 63 kV up to & less than 250 kVA	100%	(Urban & Industrial)	MCCB & KitKat Fuse
3	250 kVA & Above up to 1 MVA	100%	100 %	ACBs

The above said project will be planned thru SAP and shall be executed by AMC teams under supervision of TPNODL Lineman /AMC Supervisors ensuring 100% safety compliance.

While COS and MPG teams will be helping in planning and coordinating activities, section teams are expected to ensure necessary reservations of materials through SAP. Details of activities to be undertaken in the Project Raksha 2.0 are enclosed in Annexure 1.

Annexure-1: Description of Activities to be carried out During DTR Maintenance

Sl. No.	Activity	Work Description for (DTs > 100KVA & 63 KVA)
1	Installation of LT Protection Devices	Providing LT Protection devices such as Kit Kat Fuses, MCCBs or ACBs based on the rating of DTR as per Table 1
2	DTR Oil Top – Up	Topping up of Oil in all the DTs (as per SOP attached)
3	Breather Replacement	Silica Gel &Breather Replacement / New Installation.
4	Socket Replacement	Judiciously cut off old sockets & crimp newer sockets with proper rating. (Only Crimping Tools to be used)
5	HT Fuse Maintenance	Installation of Proper Rating of HT Fuses & Usage of emery sheet to abrade the Horn Gaps & remove the metallic residue.
6	Tree Trimming	Tree trimming / vegetation removal drive for all Substations
7	Zero Oil Leakage	Arresting of Oil Leakages – washer / Studs / gasket replacement, Tightness check of all the parts – Drain valve, Inspection Window, Bushing, etc.
8	A/B Switch maintenance/ repair	Any repair related to maintenance / repairing of DTR A/B switch to be carried out
9	Earthing Installation	Earthing of DSS to be initiated or repairing of older earthing

7.5. Mega Block Initiatives

Long 8 hours outage involving 11KV & 33KV team, Project, AMC for effective maintenance in a single outage with a Prior announcement to all the affected areas & Information to DC, Local MLA, Industries etc. A holistic approach of Maintenance including all type of repair/replacement of vulnerable network elements, installation of LT protection to reduce hand trips along with Installation of "Bird spikes" at various locations prone to bird faults like DP structure etc.

7.6 Drone Driven Feeder Maintenance

This drone driven feeder maintenance initiatives were taken up in 2 respect. First the aerial survey of Lines & network to capture vulnerable locations in feeders in terms of damaged/broken insulators, cross arms, jumpers, sagging, tree infringement etc. & the same methodology is particularly very useful for the network where the feeder is running through deep forest, inaccessible rural areas like paddy filed, water logged areas etc. Based on the aerial survey maintenance works are initiated. Secondly, the usage of drone fitted with thermal sensing camera to capture the hotspot in the network & taking corrective actions there off. As on date, TPNODL has completed Aerial Survey / Thermography of 26 nos. 11kV Feeders & covered approx. 1429 kms. Plan to complete 100 Nos. of Priority feeders by March-23.

7.7 PTR Health Indexing

163 No's PTR health card index is being prepared as per the testing conducted by STS Team. 163 Nos health card already made & rest 183Nos. health card will be completed by Dec'22. This project was initiated for Phasing out Sick PTR on the basis of THI (Transformer Health Indexing) formed & repair policy where more than 25years old PTR with more than 2times repaired would be diminished.

7.8 Project PTR Bonchao

PTR Overhauling on Site for the first time. Same was already completed for 45 No's of PTR & Target to complete another 30 No's by March-23. This has helped us enormously in reducing the PTR failure rate across the entire organization. We have achieved "Zero" PTR failure in Q-2 of FY 2022-23.

7.9 11KV Voltage Regulator

11KV voltage regulators are explored to improve the Voltage Level particularly for the feeders where very low voltage issues are reported. 2 Nos. of these Voltage Regulators were procured at initial phase for pilot installation, out of which 1 No. was successfully installed at 11KV Dosinga Overhead feeder of Dhamara PSS at Bali Sahi location. One more is planned for installation in another feeder. Based on successful performance & result, we will proceed for further procurement of these Voltage Regulators.

7.10 Satellite PSCC

In addition to main PSCC at Kalimata Mandir, we have taken initiative to set up satellite PSCC at each divisions (Total 16 Nos.) to ensure safety of 11kV hand-trips taken for LT work as well as in view of faster response & communication between PSCC & filed crew to cater vast areas across TPNODL. Same was already set up at 12 divisions & others in progress.

7.11 Power Cable Fault Locator

TPNODL purchased the latest version of mobile Underground Power Cable Fault Locator system, deployed for cable testing, fault location, cable route tracing & identification activities of underground network for all critical & inaccessible underground cable sections across TPNODL Earlier there was no such Cable Fault Locator System resulting to very high down time for any cable fault and many cables sections are lying unattended/idle/faulty since more than 5+ years. This Fault locator system has enabled us to locate the cable fault with minimum possible timeline which in turn will help in faster restoration & reliability improvement. We have already attended around 40+ faulty cable sections of erstwhile NESCO period & all cable failures from here on will be attended immediately “As & when” faulty basis. Further, we have placed a rate contract with M/s Raychem who is providing us Cable Jointing kits/Accessories along with repair services of all types right from excavation to joint preparation.

7.12 Project SPARSH

A Project SPARSH is also being launched for touching every 3 phase and 1 phase consumer for resolution of their billing issues and ensuring collection of arrear amount along with current demand.

Table No.-46: Scope of Activities under Project SPARSH

Sr. No.	Consumer Segment	No's	Total Arrears (in Cr.)	Responsibility Centre
1	HT consumers with load > 70 kVA	211	5.81	KCG Client Manager
2	LT consumers with load > 70 kW	26	1.01	
3	HT consumers with load 20 to 70 kW	1010	9.48	Project Sparsh : Division
4	LT consumers with load 20 to 70 kW	925	7.22	
5	HT consumers with load 5 to 20 kW	559	1.26	
6	HT consumers with load <=5 kW	127	0.22	
7	LT consumers with load 5 to 20 kW	10978	31	
8	LT consumers with load <=5 kW	2896	3	
9	LT 1 Phase consumers with arrear > 25k	154454	984.82	Project Sparsh : Section
10	Govt (1 Phase only)	7696	68.87	
11	Govt (All except 1 Ph)	9991	14.25	Project Sudhaar
	Grand Total	**188873**	**1127.83**	

Project SPARSH is also being launched for touching every 3 phase and 1 phase consumer for resolution of their billing issues and ensuring collection of arrear amount along with current demand. This Project Sparsh will have two sub initiatives: Sparsh for LT 3 Phase & Sparsh for 1 Phase. The will be headed by Executive Engineers of all the Divisions and will be supported by Divisional Champions

7.13 Project NISTHA

AT&C loss reduction is the key focus area for the TPNODL. In continuation to our efforts for building up the efficiencies and for reduction to AT&C loss, it is quite essential to identify and implement the initiatives which can have a significant impact for tapping the losses across the system.

Among various loss reduction initiatives, the focus on improving the "Billing & Collection Efficiency" are key areas that can significantly contribute to AT&C loss reduction. In line with this objective, it is observed that LT revenue constitute almost 45% of the total turnover of TPNODL but LT AT&C Losses are around 50% on an average across the Company. Also huge arrears have accumulated against LT consumers due to very poor customer reach (around 35%) for collection. Also in the past, due to lack of proper field governance, there has been numerous scenarios of provisional billing much of it is disputed due to issues of lack of proper metering and Billing. Consumers have rampantly started hooking, tampering and theft of energy. On analysis, the following scenarios emerge:

Customer	Meter	Billing	Collection	Reasons
Yes	No	No	No	• Unmetered • Defective meter • Theft of energy/ tampering
Yes	Yes	No	No	• Saubhagya meter not updated in system • System generated Provisional Billing not reaching customers • Poor Billing reach by meter readers
Yes	Yes	Yes	No	• Low collection reach • Disputed Provisional Billing, past disputes
No	No	Yes	No	• Ghost customers • Duplicate metering connections

All of these scenarios are causing severe leakages to the revenue of TPNODL and contributing to high AT&C losses. Therefore, in order to enhance the billing & collection efficiencies drastically the **Project NISTHA** is being launched as a **ONE STOP SOLUTION.**

Under this program, comprehensive outreach village wise Camps would be organised at every Sub Division where the following services will be provided to the consumers.

- Spot resolution of disputed bills.
- Spot registration of new connection.
- Spot replacement of defective meters
- Spot reading based bills and duplicate bill generation.
- Spot collection of arrear payments
- On spot Installments.
- Spot correction of consumer Data.

7.14 Project SUDHAAR

In order to ensure that all the Government buildings and establishments are properly metered and energy being accounted for, a mass drive **"Project Sudhaar"** is to be initiated across TPNODL in this month for checking all the government buildings and establishments. The drive is aimed to ascertain the metering and supply status of government connections and take corrective action accordingly to bring them into the billing net to improve billing efficiency as also to address the billing disputes, incorrect provisional billing to arrive at correct recoverable amount. Apart from this, it is also required to verify their connected load w.r.t to their sanctioned load.

7.15 Revamped Drive for "PROJECT KHOJ"

Since inception, Team-TPNODL is adopting focused approach in providing better services to its consumers. Various imitative like Model Gram Panchayat, separate agencies for Billing and Collection, Enhanced Customer Care are some testimony of our commitment towards enhanced service delivery.

With enhanced service, it is expected that revenue collection would also improve and billing database would be sanitized. It has been observed that there are still around 4 Lac consumers who are billed on provisional basis and still not paying the bill since long. This is adversely impacting our AT & C losses.

To overcome this enormous challenge, it has been decided to launch a special drive which will extend the activities of "Project Khoj" in the month of August so that such consumers can be brought under billing net and revenue can collected for this set of consumers. Following activities are envisaged during the special drive:

- Individual SC No. premise to be visited for determining whether such actually exists or not at site.

- Consumers actually found on site to be attempted for collection of pending energy dues (Min ₹ 500 from each SC Number). Collection to be done only through TPNODL collection app.
- In case consumer has not received the correct bill same to be got rectified and recovery to be pursued accordingly.

  A dedicated War-Room will be operational to support and monitor the progress of project. Following will be the responsibilities of the war room

- Resolving issues related to functioning of Billing & Collection App.
- Billing to be tracked by War Room along with Division Leads after receipt of the photometer reading on WhatsApp.
- Instant Bill Generation by War Room along with Division Leads, wherever required.
- Providing centralized response related to New Connection, Billing, Collection, MMG & Bill Revision
- Circle/ Division/ Sub-division/ Section wise Data Collection & MIS.

7.16 4000+ Airtel Payments Bank Outlets for Payment of Electricity Bills

TPNODL has joined hands with Bharti Airtel (Airtel), India's premier communications solutions provider, to offer integrated bill payment solutions to its registered customer base of over 20 lakhs in a vast distribution area covering 27920 sq. km. in Northern Odisha serving a populace of approx. 97 lakhs.

With this pioneering partnership between power sector and telecom sector, TPNODL's customers can now pay their electricity bills conveniently at over 4000 banking points of Airtel Payments Banks, in North Odisha and avail 5% discount (3% for digital payment & 2% for payment within due date).

Inauguration Meeting during launching of Airtel Payment Bank

While the front end solutions will be managed through Airtel Payments Bank, the back end connectivity will be powered by integration of TPNODL IT systems with Airtel IQ, which is world's first network integrated Communication Platform as a Service (CPaaS) ecosystem that allows enterprise to embed voice, messaging (Text and WhatsApp), video in mobile/ web application. Through this integration, SMS & IVR communication would be sent to consumers on bill generation, before rebate date and before disconnection providing all bill details along with a link of locator for nearest Airtel Payments Bank outlets and a link for online payment.

This is yet another innovative initiative by TPNODL to provide consumers with a multitude of payment options closer to their homes. Earlier TPNODL has enabled electricity bill payment through various physical avenues like Mo Seva Kendra, CSC, Bharat Money Stores, along with digital payment options through BBPS, TPNODL Website, and My TATAPOWER App.

7.17 8000 Spice Money Outlets for Payment of Electricity Bills

TPNODL has joined hands with Spice Money, India's leading Rural Fintech, to offer integrated bill payment solutions to its registered consumer base of over 20 lakhs in a vast distribution area covering 27920 sq. km. in Northern Odisha serving a population of approx. 97 Lakhs.

With this pioneering partnership between power sector and Micro Financing sector, TPNODL's consumers can now pay their electricity bills conveniently at over 8000 outlets of Spice Money, in the North Odisha and avail up to 5% discount (3% for digital payment within due date).

As India increasingly embracing digital ecosystem to empower consumers, this partnership will play an active role in furthering digital payments for electricity services as also to create a robust digital ecosystem. TPNODL continues to build on its host of services to consumers and this newly added payments avenue will further enhance customer experience.

Inauguration Meeting during launching of Spice Money Outlets

While the front end solution will be managed through Spice Money Outlets, the back end connectivity will be powered by integration of TPNODL IT system with Spice Money Back end system, through for a real time and safe payment avenue, one which will be well past regular banking hours and also available seven days a week. Availability, the payment cycle shall get shortened with this arrangement.

This is yet another initiative by TPNODL to provide consumers with a multitude of the payment options closer to their homes. Earlier TPNODL has enabled electricity bill payment through various physical avenues like Mo seva, CSC, Bharat Money Store, Airtel Payment Bank stores along with digital payment options through BBPS, TPNODL Website, and MY TATAPOWER App.

7.18 Online New Connection Processing for HT/EHT And 3 Phase Consumers (>5KW)

Team TPNODL has been rolling out various initiatives to provide better service delivery for the consumers. Release of new connection is an important milestone to onboard new consumers in TPNODL and provide the opportunity to delight him/her with our first time right service delivery. It is also noteworthy to mention that performance standards of OERC also needed to be strictly enforced for the release of new connection.

Over the last few months, various improvement initiatives has been rolled out including FG module on new connection for improving experience of new consumers. With this background, 'NO' new 3 phase (>5KW) connections of consumers will be released manually from any Section/Sub-Division/Division/Circle office. 100% new connection and load change cases to be processed through ONLINE NSC module of FG (for both 100% deposit scheme & 6% supervision scheme). All Attribute change cases, are to be processed by consumers through TPNODL web-site under "Consumer Login" section. MRT to release all new connection cases against Reference no. only through FG-NSC module.

In order to expedite the new connection process all documents pertaining to new service connection has to be scanned at the first receipt point and uploaded against the application in FG NSC module. Manual file movement and approvals to be stopped completely. During approvals the scanned images of documents are to be referred in the system only.

7.19 Launch of WhatsApp Interactive Service- Available On WhatsApp Number 7777004759

This step of TPNODL is towards keeping the customer at the center of all we do and aligned with our First Mission Statement of "Improve upon Customer Centricity". This will also help us in our journey towards Digitization.

The main feature of this service is:

- **Mobile No. / Email-id update**
- **No Power Supply Complaint Registration**
- **Complaint Status**
- **Billing Information**
- **Duplicate Bill PDF**
- **Reach out to us**

Consumers can simply send a "Hi / Hello" on WhatsApp number 7777004759 and can start the chat / Interactive online session from the comfort of their home /office or even while travelling without having to contact the call centre or the customer care centres or the TPNODL offices.

In a fast-paced, technology driven world, our objective of provide this service to our customers with the best-in-class experience, at their fingertips and hassle-free. We are confident that it will prove to be a great addition in enhancing our customers' experience.

7.20 Integration of the Commercial Complaint Management Process with Fluent-Grid System

The integration of "No Power Supply Complaints Management Process" is already done in FG system and the same was deployed with effect from 7th February 2022. This complaint management process is successfully operational and widely used by operation team for proper monitoring and resolution of the complaints.

In continuation to above, we are happy to announce about the Complete Integration of the Commercial Complaints Management Process in the Fluent Grid system. Now, all type of Metering, Billing and other Commercial Complaints can be lodged in FG system and can be processed systematically through this system.

The main benefits of this integrated Commercial Complaint handling process are:

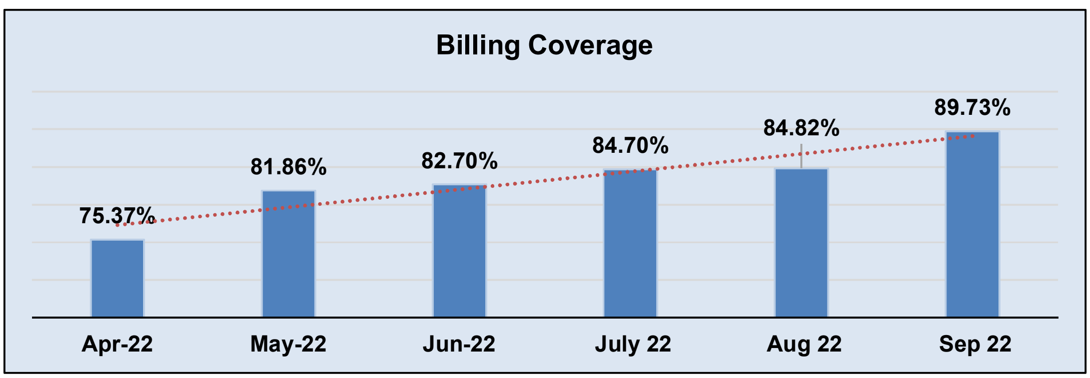
- Intimation to the consumer about registration and resolution of complaints through system-generated SMS alerts.
- Automatic and SLA based complaint assignment to respective departments.
- System-based automatic escalation notifications to concerned authorities in case of non-resolution of complaints within prescribed timelines.
- Re-opening of resolved complaints in case the consumer is not satisfied with the resolution.
- Automated report availability for monitoring and review.

The Customer Service Team, FG team and Commercial Team have already conducted Knowledge Sharing Sessions of this Integrated process and more than 100 employees have already been trained. Similar sessions will also be arranged for left out team members.

All team members are advised to register all types of Commercial Complaints through FG System only and no Manual Complaints / requests should be processed. The complaints can be registered at all Customer Care Centers, Call Center, Section Offices and by other officers who have the suitable rights of FG Grid. We expect wholehearted support and involvement of all the respective stake holders to make this successful. Suitable roles / rights have already been assigned to the team members of respective groups. This initiative is aligned with our Company's First Mission Statement "Improve upon Customer Centricity".

7.21 Meter Reading & Billing Group (MRB)- 1 Phase

- MBC Contract separation - Single Phase Billing & Collection/Recovery activity has been separated with deployment of different dedicated Outsourced agencies to carry out Billing & Collection/Recovery.
- OCR Based Meter Reading being introduced for error free meter reading. Integrated Mobile application will enable auto reading fetching through scanning of meter display leaving little scope of any wrong reading.
- Analyze the consumption data of each low Consumption cases to identify anomalies in consumption pattern. This helps in identification of faulty meters & Theft probability.
- MRU wise Billing for Slab adherence & better Customer Service. Each of the Binder area split in small blocks with pre-defined reading date range to maintain efficiency & regularity.



7.22 Aerial Meter Reading for Lift Irrigation (LI) Consumers by using drone and BLE (Bluetooth Low Energy) meters.

TPNODL serves around 35K Lift irrigation (LI) consumers under Agriculture tariff category. Most of the consumers under this category are located deep inside the paddy fields. Locations are inaccessible, far away from roads and walking through the land is not possible. Installation of cellular modems to take remote reading for these consumers are neither feasible (due to low cellular network presence in rural agricultural land) nor economical (because of low tariff rate).

TPNDOL has already launched a program to take meter readings for the PLI connection using drones. As part of this project, 1500 Bluetooth enabled meters have already been installed for the PLI connections in TPNODL Area. The entire project is expected to be completed by 31st Mar 2023. The drone will automatically capture the meter readings and send the information to the backend system for generation of the energy bill. These connections will not require manual readings. As a result of geographical challenges associated with LI meters, this project will be a technological breakthrough in the timely capture of meter readings for LI connections. As a result, we will be able to provide timely and accurate bills to our consumers.

7.23 Initiative to build Safety Culture at TPNODL FY 2022-23

Safety is the core value of TPNODL. Senior leaders at TPNODL provide a strong and visible leadership to promote safety culture necessary for the systematic management of job safety at site. TPNODL has put in place the Health & Safety Policy, Our Value-SCALE, Safety Principles and the Safety Code of Conduct, which are followed by all employees always.

(i) Apex Leadership Team (ALT) meets every quarter on safety related issues and concerns and identify improvement areas.

(ii) The Safety Apex Committee, chaired by the CEO reviews major safety initiatives and programs. CEO reviews the progress of the safety management system of circles. There is structured approach in form of circle safety committee to drive and implement safety across organisation.

(iii) The senior leadership team communicates on safety in town hall meetings and by active participation in safety activities, safety trainings, workshops and through various R&R schemes. The SLT sets personal examples in day-to-day work by putting safety matters high on the agendaof meetings, conducting safety sessions during their visits to the operations/projects sites.

(iv) All employees and business associates undergo safety induction trainings (including audio-visual), on first entry into the TPNODL to ensure that they are informed adequately about safety processes and instructions, as appropriate.

(v) Tata Power Skill Development Institute (TPSDI) conducts safety training program to meet the safety Capability of Business Associates employees.

(vi) TPNODL has devised various Safety Reward & Recognition (R&R) mechanisms in order to encourage positive safety behaviors across various levels.

(vii) 100% personal protective equipment provided to all business associate employees and TPNODL employees.

(viii) Consequence Management Policy is in place to guide employees to prevent unsafe act and violation, which may lead to untoward incidents. Appropriate actions are taken for the safety violations done by employees.

(ix) Regular safety communication is done to all in every meeting in TPNODL commences with a Safety Instruction.

(x) Safety themes are decided every month and communicated to create safety campaign across organization.

(xi) Mass awareness on fire and safety for employees and stakeholders is done during the celebration of National Electrical Safety Week and Fire Week across the organization. Employees and their families are involved in various activities during the week.

(xii) As per the safety policy, all employees are empowered to stop any unsafe work. These employees are also rewarded from time to time.

(xiii) A system generated Daily Incident Report and reaches the mail box of senior leaders and departmental heads. This gives details of the incidents across the organization occurring during the day.

(xiv) All incidents are investigated using standard analyses checklists to establish the root causes. For high potential/high severity incidents and near misses, a CFT is formed to investigate causes and identify suitable corrective and preventive actions to avoidrecurrence. All incidents are reported and investigated to find out the root cause and corrective action and preventive action made to prevent reoccurrence.

(xv) All incident learnings sharing with all employees and BA employees.

(xvi) We established practice yard with class room porta cabin at division level to develop skill of BA employees.

(xvii) Public safety awareness created through mobile vehicle demonstration, display of hoarding at Gram panchayat level, posting videos and messages through social media.

(xviii) Behavioural based safety training for TPNODL employees and BA employees conducted. SURAKSHA PARIVAR unique safety drive conducted for employees and their family members to build up safety culture all across the TPNODL.

7.24 IT & OT Technology Adoption

In the “Existing Challenges” section and “Outdated Technology” sub section OT technologies (SCADA and GIS) and IT system with Disaster Recovery Centre will gear up for technology adoption with security and back-up in phased manner for enhancing the efficiencies and effectiveness for improved services to the consumers. Various initiatives have been taken to establish IT and OT Technologies to drive the benefits as mentioned below:

Information Technology (IT) Landscape

Under IPDS scheme, M/s Fluent Grid has implemented CIS (Customer Information System) including meter reading and billing system and CRM system including New Connection Module, Meter management module, Fraud Management, Disconnection & Dismantling modules etc. Under IPDS, it was planned for selected consumers but to provide uniform services to all our consumers, we have enhanced the services for 100% consumers having advanced and efficient system to generate, deliver and collect the bill to the consumers. We have also implemented ERP Solution under SAP platform to make the enterprise level processes effective and efficient so that overall all the function could work through digital way using advanced technologies.

In addition to this, we have also introduced various other initiatives to provide the services on consumer's fingertip using various mobility solution and few key services are mentioned below:

a) Mobile app (My Tata Power App) to provide one app solution from applying to new connection, billing & payment update and history, complaint registration etc.

b) Interactive solution through whatapp

c) SMS based intimation on various services

d) Mobile app for collection

e) Mobile app for Fuse Call Complaint Handling

f) OCR Based bill generation etc.

Apart from this, TPNODL has started rolling out Smart Metering, HES and MDM system along with various mobility landscape. This is being scaled up and initiation prepaid solution for consumers linked with Mobile app & SMS to provide various updates for prepaid balance.

7.24.1 Key considerations for IT Landscape Transformation

a) Development of On-premises data center for hosting various applications and creation of DR center for handling any eventualities.

b) Bespoke Applications for digitalization of business processes.

c) Mobile Applications for consumers and employees to stay connected all the time for faster action and response.

d) Cyber security practices to protect the systems from any penetration and vulnerabilities.

Customer Service digital Platform for TPNODL, which is envisaged for consumers are mentioned below:

a) **Payment Gateway** – A centralized proprietary payment gateway is planned to be established which would seamlessly integrate with all collection touch points like website, mobile app, counters, partner agencies, mobile wallets into a single repository where verification and validation of payments would be done and would be posted to the billing system.

b) **TPNODL Website** – A new revamped website design for taking consumer Energy & Non energy Payments and provide all information of company new development and practices through this site. Consumer can apply new connections as well as any change in ownership. Encourage green initiatives wherein consumers can apply for Roof top solar connection through our website.

c) **E-Collection App** - It is the main platforms for collection of Energy & non-energy Payments and get integrated with all types of payments like cash, Credit/Debit card, internet banking, Wallets and UPI etc. Real-time Syncing with our Billing platform so that payment can accept on real time and deliver message to consumer through SMS.

d) **Mobile App - MY TATA POWER** – In the current digital world, people uses smart phone and to provide services on their mobile phone, consumer app has been developed and now will keep on adding various new features, integrating with various business system. This is the convenient and beneficial to consumer in the way of Check their Bill history, process their self-meter reading, payment history & raise their complaints.

e) **MMG 2.0 –** Various field activities are carried out by our field team like installation of meter installation be it New Connection, meter replacement, the detail of capturing all information on the filed itself to provide real time update, tracking of workforce and faster services to consumers by updating the record system for correct billing.

f)OCR enabled SBM Application – To achieve the accurate reading and thereby billing, we introduce OCR (Optical Character Recognition) linked with our SBM applications to capture the reading through this tool to avoid any kind of manual error and provide satisfaction to consumer with proper bills.

g) **Mobile App for three phase meter reading** – It is very essential that capturing of any reading or data shall be attempted on first instant in the system and to obtain, we introduce the app for capturing reading in app itself from site which is further integrated with billing system to create the bill with proper reading.

h) **New Connections through MO BIDYUT** - New consumer up to 5KW can apply, track & raise complain in this portal. Real time shrinking available with our Billing application for smooth processing of new application.

i) **FCC App (Fuse Call complaint APP) –** Providing reliable electricity is the goal and to capture electricity failure complaints and assigning to our lineman, we introduce mobile app which will register complaints, assign complaints and close the complaints from field through app and intimation to consumer on electricity restoration etc.

j) **SURAKSHA KAVACH 2.0** – A modernized application designed for TPNODL employees for authorizing PTWs at 33kv and 11Kv feeder level has been launched.

k) **Reports & MIS on SAP HANA:** Reports and tracking the performance of various KPI, it is very important to capture the details of various business system and develop the performance score card of various activities, It is required to have a robust platform which can provide facilities to do so. So, SAP HANA is the platform which facilitates to run huge data with different practices of creating reports. In addition to this, it is also essential provide facilities for our employees to create interactives reports and e-KPI using Power BI and Azuure platform.

l) **Integrated Call center:** Call center is meant to provide solution to all queries/complaints/request from consumers which may include through call, mail and social media sites. Collating all channel to get the details from consumers and provide solution. We introduce integrated call center solution which will provide all services to consumers and auto work flow for resolution of complaints.

m) **E-Office Application:** All movements of incoming and outgoing communications to internal as well as external stakeholders are planned to be digitized for proper recording and management to have governance electronically.

n) **BIRD (Invoice Management)** – Bill Inward Recipient Desk is an application which will provide great convenience to our business associates while submission, approval and processing of vendors invoices online, check status of the invoice and track the same. This shall also help to engage out BA staff effectively as their facilities will be timely provided.

o) **SANGAM –** This is an portal for all the employees of TPNODL, where different information can be accessed along with all the repository of applications.

p) **Knowledge Management Portal:** This is the platform to capture and retrieving knowledge documents for enhancing the skill of the TPNODL team.

q) **BAMS Portal –** Services from business associates are being availed and to serve with all the guidelines and convenience to our Business Associates team, it is essential to have platform which will capture all the details of persons associated with us.

r)BA PASS - TPNODL Business associates can apply through this application for getting the permit to work to enhance the safety.

s) SAMADHAN Calculator – This application assist internal user for faster calculation in case of Bill Revision cases.

t)Smart Metering: It is essential to have a connect with customer on real time basis so that information to the consumer can be send timely. So, Smart metering is implemented which will create AMI to have postpaid and prepaid connection with multiple features which will further integrate with CIS/Mobile app to provide up to date information about electricity.

7.24.2 IT Assets and Services to TPNODL Employee

a) **EMAIL ID** - E-mail Ids has been created for pan TPNODL employees. All employees are having email system for faster and effective communication.

b) **Laptop & Desktop** – Laptop and desktop are being provided to the employees to carry out the work faster and engage with various business application to bring digitalization in organization and faster response to the consumers. **Printer & Scanner**– Printer is being provided in each office and concerned employees. Scanner will be used to digitize the received document and make a repository of the same. This digital movement of the paper will help for faster action and resolution.

7.24.3 Cyber Security

At today's condition Cyber Security is the major concern for every organization. To protect TPNODL data and secure each and every TPNODL IT asset and data center devices we have taken multiple steps. We have procured Anti virus for End User system and Servers in data center for protection against malicious virus attack. We are in process of implementing Web Application Firewall and Next generation firewall for protect and filtering cyber threats and virus attack. We are also planning for establishing SEIM and SOAR in our data Center.

7.24.4 Communication and Network Infra

a) To make the application cyber secured and redundant connectivity we are connecting offices with IP/MPLS Connectivity.

b) Nearby offices and major offices we are connecting with our own underground Optical Fiber better reliability and optimize the monthly cost of individual office internet.

c) Switches & Routers: Network is being laid in office to get the system connected through Internet/ Intranet. Intranet is being created in offices to further connect with secured network and access to unwanted site is blocked to mitigate the cyber security risk.

d) For better and ease connectivity, we install WiFi deices enabled with security at all major office connected with Central Controller.

e) For redundancy of applications in case of any eventuality and business continuity, it is very essential to have DR center of each applications. It is proposed to implement DR center at other seismic zone in Odisha.

7.24.5 Operation Technology

GIS Implementation and Consumer Indexing

GIS is foundational Technology for electric utility whose assets are spread geographically which covers approx. 27,500 sq. km area for TPNODL. It will help us to have a full control on the assets and further to run various applications on the GIS data which in turn, enable utility to effectively maintain and restore the electricity supply. GIS plays a key role in achieving the committed targets and moreover bring business excellence and consumer delight. We have implemented GIS software and Application for pan TPNODL area. We are at the verge of completing our one Pilot division i.e., BED Division of Balasore Circle which cover 70,000 consumers spread over 110 sq km area

- Through Consumer Indexing GIS will provide vital inputs towards carrying out Energy audit, and it will significantly help to contribute in TPNODL target for reduction of AT&C loss.
- GIS started developing its integration process with SCADA .
- Integration with NEG team initiated for technical analysis on base of connectivity due to Consumer Indexing door-to-door visit GIS will also help in identifying suspected Consumers which will later in co-ordination with Enforcement team will help to book load.
- In FY 22-23, we have processed for covering 2 Circle for Assets, Network and consumer indexing and in FY23-24, it is proposed to carry out the activities for balance 3 circles for data creation to have a full fledge GIS which will be integrated with Network planning, commercial activities, SCADA/ADMS etc.

7.24.6 SCADA & ADMS Implementation:

a) OpCenEx has been set up with the best of operation technology-SCADA to monitor and control the 33KV/11KV network operations through PSS and GSS.

b) In FY 23-24, we plan to initiate for implementation of Advanced Distribution Management System (ADMS), which will be monitoring up to consumers outages through its integration with GIS and CRM and connected with SCADA which is in implementation stage.

c) ADMS will initiate the remedial action to restore the supply and trigger to network planner to strengthen the areas to improve reliability and quality of power.

7.25 HR Initiatives

In order to successfully manage the workforce of around 2800 employees on rolls and about 4000 business associates' employees, appropriate technology must be implemented to manage recruitment, payroll administration, statutory compliances, trust management, reward & recognition etc. SAP HR Module apart from few other online platforms like Legatrix (to monitor compliances) and employee portal for internal communication, performance management system has been implemented and few other application are under process for deployment.

Customer care service center, OpCenEx (Operational Centre of Excellence), CmCenEX (Commercial Centre of Excellence), PSC Team have been established to bring the desired excellence in network operation and customer service. The latest addition is the Centre for Maintenance and Engineering at Udyog Bhawan which will further contribute to provide better services.

Continuous up-gradation of competency is the key success factor in this continuously changing business environment and technological revolution. Same is also applicable to TPNODL considering changes in business philosophy, new technology adoption and changing organizational structure.

Competency mapping shall be conducted across all positions and training program has been designed and delivered through in-house development of training centre. The Executives are being made to visit Tata Power (Delhi or Mumbai) under our Training Program to learn about the best practices which can be implemented at TPNODL. Use of online e-learning training module is being encouraged across all category of employees to develop additional skill sets through self-learning modules. Online e-learning module initially covers mostly Behavioural training, Safety, Ethics etc while technical training are being imparted through training centres.

Considering diverse employee demography, capability development strategy at TPNODL has been customized keeping in mind changing business demands. Various types of training is being finalized based on leadership discussions.

During last one year, TPNODL has continuously taken steps not only to improve the knowledge of employees but also to update them with the latest technologies by imparting training which is highly appreciated by them. The training programmes conducted during this period are given below:

(i) Training provided to senior officers for Team building intervention to develop common vision, alignment, collaboration & bonhomie as a cohesive team.

(ii) Induction and on-boarding programme conducted for new joinees for driving pride and belongingness and acquainting them new culture of Tata Group and its policies.

(iii) Positivity and motivation programme conducted to inculcate positivity, team building, bonhomie, motivation among employees.

(iv) A workshop on customer service excellence and customer first attitude was conducted for all employees in customer facing roles.

(v) Success stories,/ best practices sharing sessions at Division/Circle level conducted for the employees working in Operations/Commercial functions.

(vi) To establish a blended approach towards employees learning & development, e-learning platform i.e. Gyankosh launched to acquire knowledge on technical modules in distribution, commercial, finance, IT and other business requirements at any time at anywhere.

(vii) CEO-Townhalls-Leadership Connect Session, Jan-Sampark Abhyaan-HR Connect Sessions are conducted from time to time to establish a procedure to interact with all employees on scheduled intervals in order to improve inter personal communication and redressal of their personal and work related issues.

To build competent leaders for the organization TPNODL has conducted training programmes for the middle level officers by sending them Tata Power in Delhi and Mumbai and making them familiar with the best practices, culture, values and ethics to meet future requirements.

Further, to inculcate positivity, team building a “Workshop on building resilience” is conducted for all middle management employees.

Safety Capability

Each employee / associate at TPNODL is being compulsory imparted basic safety induction training at the time of joining. E-learning module for safety induction shall be rolled out subsequently to cover 100% employees.

In addition to this for long term training strategy, safety related training needs has been identified for all employees based on job profile and in coordination with Safety department. Based on Training needs identification (TNI), annual training calendar is being prepared for both employees and associates. Endeavour is to cover maximum safety training through online while specific trainings can be conducted through training centre. Ownership of 100% compliance is be with divisional safety function while HR team is providing adequate support in conducting these training.

Technical Competency Development

Technical competencies are backbone for TPNODL operation since entire value proposition is linked with safe power distribution across 28,000 sq. km of the distribution area. Hence, training needs for technical operation shall be finalized during finalization of annual goal setting process for all employees. At least one such need on safety must be identified for each employee. Based on TNI, annual training plan shall be made, and faculties would be identified internally within TPNODL or from T&D cluster in Tata Power (Mumbai & Delhi). External faculties also can be invited based on critical requirement.

Behavioural Competency development

TPNODL being consumer driven business, behavioural competencies are also equally important for TPNODL employees. Depending on job profile and goal for the year, one or two behavioural training needs shall be identified for each employee during annual goal setting process. Tata Power competency framework could be used as a reference to assess behavioural competency gaps among executives, basis which training needs could be finalised.

Divisional HR Team shall ensure completion of maximum behavioural training by assigning courses to executives on e-learning platform. The online training platform will have complete flexibility for the learner to learn at his convenience irrespective of time and location. Only in case of specific behavioural training and/or OD interventions, services of external trainer of repute may be utilised.

Organizational Training Needs & Focus Group Training (FGT)

TPNODL being part of Tata Group, is also responsible to uphold Tata values and implement various Tata management philosophies towards making it a consumer driven and performance-oriented organization apart from maintaining governance standard of Tata Group. In this context, various organizational capabilities are required to be developed for its managers and employees in areas like TCOC / POSH / SAP / IMS / Risk Management System / TBEM etc. Apart from this, various groups and departments in TPNODL may require certain training specific to their group/ department for which focus group training would be imparted for the group depending on group's need.

Leadership Competency Development

Leadership in pipeline is always critical agenda keeping in mind growth aspect of TPNODL and to take care of superannuation & separation of experienced employees and also creation of various new functions. Hence, keeping in mind broad manpower plan, opportunity for junior employees and to ensure manpower cost within desired limit, TPNODL must strategize in developing successors for critical positions to meet future requirements. Succession Planning Process would comprise of identification of critical positions and prospective successors at the beginning of each year, identifying gaps in competencies and intervention for effective training program.

Keeping in mind continuous learning and acquiring of niche skills, TPNODL shall implement training & development policy for continuous competency enhancement of existing workforce. Use of online e-learning module shall be encouraged to ensure maximum participation of its employees.

High Performance & Talent Management

Building a culture of high performance is a need of survival in this competitive business world. Financial model of TPNODL has further necessitated higher productivity level and increasing bar of performance. Hence, performance management at TPNODL shall be conducted through online and annual increment / promotion of employees shall affected through annual assessment of Key result areas and Key Behaviour Attributes. Regular monitoring of performance shall be conducted for feedback to help improved performance. High performers shall be recognized during annual increment or career progression.

Identification and nurturing of high potential employees is key to leadership development in TPNODL Potential of every employee shall be assessed, and training needs shall be identified through gap analysis. Training plan shall be prepared and executed during the year. Effort shall also be made to nurture talent of such identified potential employees. Employees shall be exposed to different job profile through internal job rotation policy.

Business Excellence

Tata Power always believe in excellence in its every operation. TPNODL shall adopt Tata Business Excellence Model (TBEM) at an appropriate time once the business processes are established and stabilised. TPNODL will review all its processes and execute towards ensuring a higher level of consumer delight and achieving other business results

Volunteering

Care for community is one of the core values of Tata Power and TPNODL also wish to initiate various community service-related initiatives in areas of education, health, livelihood, women empowerment etc. These initiatives will give opportunity to employees to contribute to society.

Employee Engagement

Creating an enabling workplace environment and facilitating full utilization of employee potential are key strategic advantage of Tata Power. Hence, TPNODL is committed to create such working environment so that employees / associates' engagement level reach to benchmark level. TPNODL wish to implement an engagement model and drive various engagement initiatives. with a view to ensure all its employees work at highest level of engagement.

8. Allocation of Wheeling and Retail Supply Cost

As per OERC (Determination of Wheeling and Retail Supply Tariff) Regulation,2022, the distribution licensee shall segregate the accounts of the Licensed business into Wheeling business and Retail Supply Business within one year of notification of the regulation and till the time the Distribution licensee submits audited and certified separate accounts for Wheeling Business and Retail Supply Business , the allocation matrix provided under regulation 2.5.2 shall be applicable.

In line with the Regulation 2.5.1 and 2.5.2 of the Tariff Regulation, the DISCOM has prepared an allocation statement apportioning cost and revenues to Wheeling and Retail supply business and submits it for kind approval of Hon'ble Commission.

Table No.-47: Statement of Allocation of Wheeling and Retail Supply Cost

Sl No.	Cost/Income Component	ARR for FY 2022-23	Assumption Ratio for consideration in Wheeling Business	Assumption Ratio for consideration in Retail Supply Business	Wheeling cost for FY 23-24	Retail supply Cost for FY 23-24
1	Cost of Power	239430.79	0%	100%	11534.34	227896.44
2	Transmission Charges	20884.93	0%	100%	1009.26	19875.67
3	SLDC Charges	107.92	0%	100%		107.92
	Total power purchase cost *	**260423.63**			**12543.60**	**247880.03**
	O&M					
4	Employee Cost	48489.93	60%	40%	29093.96	19395.97
5	Repair & Maintenance Cost	25719.00	90%	10%	23147.10	2571.90
6	Administrative & General Expenses	19922.46	40%	60%	7968.99	11953.48
7	Bad & Doubtful Debt including Rebate	3503.14	0%	100%	0.00	3503.14
8	Depreciation	6688.79	90%	10%	6019.91	668.88
	Interest on Loans					
9	for Capital loan	3944.02	90%	10%	3549.62	394.40
10	for Working capital	3522.18	10%	90%	352.22	3169.96
11	Interest on Security Deposits	3603.22	0%	100%	0.00	3603.22
12	Return on Equity	7942.43	90%	10%	7148.18	794.24

13	Tax on RoE	2671.53	90%	10%	2404.38	267.15
	Special Appropriation					
14	Carrying Cost	2148.76	25%	75%	537.19	1611.57
15	True Up of Current year GAP 1/3rd	0.00	25%	75%	0.00	0.00
16	Other, if any-Contigency Reserve	0.00	90%	10%	0.00	0.00
	Grand Total	**388579.10**			**92765.14**	**295813.95**
	Miscellaneous Receipt					
19	**Total Misc. Receipts**	**17844.70**	**10%**	**90%**	**1784.47**	**16060.23**
20	**Total Revenue Requirement**	**370734.40**			**90980.67**	**279753.72**
*** Allocation of power purchase cost towards wheeling has been made considering 8 % loss on input after effecting EHT Sales**						

9. Facilitating Agricultural Pump Solarisation under KUSUM-C

Facilitating Agricultural Pump Solarisation under KUSUM-C –Pass through of Interest cost in ARR

DISCOM	Individual Grid connected Agricultural Pump Solarisation (Nos)			No. of Feeder level solarisation Pumps		
	Earlier allocation	subsequent allocation	Total	Earlier allocation	subsequent allocation	Total
TPCODL	1246	4754	**6000**	197	1303	**1500**
TPSODL	1413	5387	**6800**	223	1477	**1700**
TPWODL	4155	15845	**20000**	655	4345	**5000**
TPNODL	1496	5704	**7200**	236	1564	**1800**
Total	**8310**	**31690**	**40000**	**1311**	**8689**	**10000**

Ministry of New and Renewable Energy (MNRE), Government of India has launched PM KUSUM scheme for farmers through office memorandum No. 32/645/2017-(SPV Division) on dated 08th March 2019 towards installation of solar pumps, grid connected solar system and renewable power plants in the country. The scheme was further scaled up with certain additional features and expansion vide order dated 04th November 2020.Under the scheme, MRNE has fixed a target of 7200 individual GRID connected agricultural pump solarisation and 1800 nos. of feeder level pump solarisation vide their letter no 8686 dated 12th September 2022 An abstract is appended below:

Most of the irrigation connections are connected with load of 3 KW, hence a 5KW SPV System has been proposed to cater their (farmer) annual energy demand and excess energy shall be sold to the DISCOM with approved tariff of Hon'ble Commission.

MNRE approved Cost structure for Individual Pump Solarisation under PM-KUSUM C

Prevailing Market Rate of 5KW system (Total Project Cost) Vs MNRE Bench Mark cost				
Estimated Project cost as on date as per prevailing market rate for 5 KW Solar System (in RS) including GST @ Rs.55 per Wp			**275000.00**	
MNRE benchmark Price for the category Above 3 kW up to 6 KW including GST @ Rs.47.1 Wp			**235500.00**	
Stake holders Contribution on Total Project Cost @ Rs.55000 per Kw				
Stake holder Contribution	**Stake holder**	**Contribution per Wp in Rs.**	**Actual contribution towards the landed cost in percentage %**	**Value Contribution (Rs.)**
30%	State Govt-Odisha	14.13	26%	**70650**
30%	Central Govt-MNRE	14.13	26%	**70650**
40%	Farmer Share *	26.74	49%	**133700**
100%	**Total**	55.0	100%	**275000**

Financing the required share will be difficult for a farmer, for which the DISCOM as the implementing agency will facilitate the farmer in availing the loan.
There will be a saving in terms of the power purchase cost and the licensee has prayed before the Hon'ble Commission to consider for making the interest cost to the farmer under the scheme, pass through in ARR, in the petition filed jointly by the four DISCOMs.

Cost structure & Generation particulars

Project cost for 5 KW Solar System @ Rs. 55,000 per KW			275000	
MNRE benchmark Price is Rs. 47,100 per KW				
Stakeholder Contribution	**Stake holder**	**47.1**	**Contribution Required for the landed cost**	**Amount of Contribution (Rs.)**
30%	State Govt-Odisha	14.13	26%	70650
30%	Central Govt-MNRE	14.13	26%	70650
40%	Farmer Share	26.74	49%	133700
100%	Total Cost	55		275000

	Total Generation from Solar Plant		Total Consumption by farmer	
	Capacity KWp	5	Capacity HP	3
	Units/Day/KWp (As per PV SYST report)	3.9	Load Factor	30%
	Nos of Days Generation (Estimated)	300	Nos of Days Consumption (Estd)	265
	Total Gen KwH (Annual)	**5850**	**Total Consumption KWH (Annual)**	**4270**

As per the proposal, DISCOM will purchase power from farmer at the approved cost of OERC and would be treated as power purchase under KUSUM-C. The unit to be consumed by the farmer shall be billed at RST rate for the self consumption by the farmer, balance amount shall be transferred to farmers account / will be available for payment of principal and AMC.

Sl. No	Particulars	Units	Value
A	Billing by DISCOM for self consumption		
1	Energy consumed by farmer with 3HP pump @30% load factor for 265days in a year	Kwh	4270
2	Tariff	Rs/Kwh	1.5
3	Total Bill of farmer	Rs	6405
B	Availability of fund for payment of principal &AMC		
4	Energy Generated from solar capacity	KWh	5850
5	Cost of power generated(@3.12/Kwh)	Rs	18283
6	Less DISCOM share of billing	Rs	6405
7	Balance available for payment of Principal &AMC	Rs	11848

As the money earned by the farmer is lower than the amount required to pay the loan and interest as well as AMC , the farmer will not be interested for the scheme. Therefore, the DISCOMs have requested Hon'ble Commission for considering the interest amount as a pass through in ARR.

Saving to DISCOM :

(a) In terms of avoided power purchase cost

Sl. No	Particulars		Value
1	Gross generation per annum (a)	KWh	5850
2	Power purchase cost (b)	Kwh	3.12

3	Total Power purchase cost (c=axb)		18252
4	LT Loss (d)		24.09%
	BSP+Transmission charge (e)	Kwh	3.49
5	Power Purchase grossed up with LT Loss (f)	Kwh	7706
6	Power Purchase cost (g)	Rs.	26896
7	Saving in power purchase cost per annum (h)	Rs.	8644

(b) The licensee will get 100% energy accounting towards consumption of the farmer and 100% collection

Sl. No	Power to be consumed by Farmer	Unit	4270
1	Tariff Chargeable	Rs.	1.5
2	Billing Value (i)	Rs.	6405
3	Present Level of Collection only 30%(ii)	Rs.	1922
4	Increase of Collection (iii=i-ii)	Rs.	4484
5	Balance Surplus Power	Unit	605
6	Can be Sold with Minimum LT ABR	Rs.	4.78
7	Additional Revenue	Rs.	2891

The balance units injected can be accounted for at the rate of LT ABR

Therefore, Hon'ble Commission is requested to approve allowance of the interest cost for facilitating KUSUM-C as a pass through in ARR.

10. Tariff Rationalisation Measures

1. Demand charges to HT Medium category of consumers

Medium categories of consumers who are availing power supply under HT category are being facilitated with comfort of demand charges @ Rs.150 per KVA p.m. However, General purpose category with load of >70 KVA & <110 KVA and Specified Public Purpose category are paying demand charges @ Rs.250 per KVA p.m. This is discrimination among consumers availing power supply under HT category and also providing scope to become Medium industry to avail such benefit. With such wide GAP between Demand charges, consumers under HT medium category just below 110KVA are always trying to avail demand benefit even though their actual connected load is more than 110KVA and above. To curb such type of disparity in demand charges the licensee submit before Hon'ble Commission to fix demand charges for HT Medium category of consumers @ Rs.250 per KVA p.m. Previously Hon'ble Commission has also fixed demand charges @ Rs.250 per KVA p.m. for HT category of consumers equivalent with large industry during FY 2012-13. Necessary suitable direction may kindly be given in this regard.

2 MMFC for LT category of consumers

Presently LT category of consumers except Large, PWWS>110KVA & Specified Public Purposes>110KVA and above are paying Monthly minimum fixed charges on the basis of their connected load. The mechanism of MMFC is one rate for 1st KW or part thereof and a separate rate for additional KW or part thereof. In case of Domestic, General purpose, Specified Public Purpose & PWWS the rate is same as for 1st KW as well as additional KW. However, in case of other category the rate for additional KW and part thereof is very much lower for which the revenue of the utility is highly affected as well as creating discrimination among LT category of consumers. For example a Small industry with 10 KW load is paying Rs.80 for 1st KW and for balance 9KW is paying @ Rs. 35 per KW (Rs.35X9 KW=Rs.315). So total MMFC is Rs.395/- instead of Rs.800/- (i.e Rs.80 X 10KW), similarly in case of LT medium industry it is Rs.100/- for

1st KW or part thereof and for additional KW it is only Rs.80/- per KW. The minimum load for LT medium category is >= 22 KVA and in case of Small it is <22 KVA.

In view of the above it is humbly submitted that the MMFC for all the LT category of consumers may kindly be rationalized with single rate for 1st KW or part thereof as well as additional KW or part thereof.

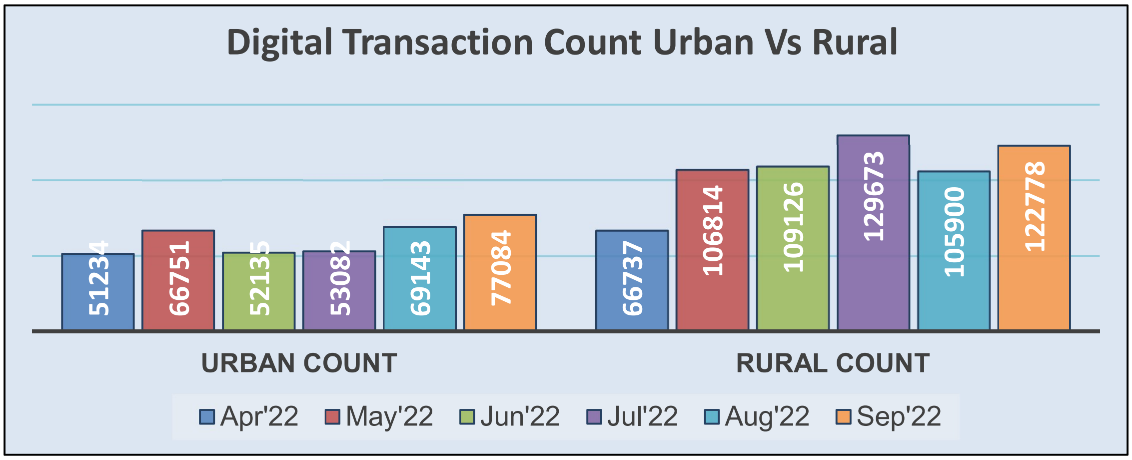
3 Incremental digital rebate from 3% to 4% for LT Domestic, LT GP single phase & Single phase irrigation consumers.

Hon'ble Commission has pleased to extend additional rebate of 3% towards digital payment for LT single phase Domestic & GP category of consumers since FY 2022-23. This is yielding very good result. The cost of collection is decreasing significantly from doing collection through door to door mode. So, it is proposed that the digital rebate be further increased to 4% which would further motivate shift in culture from door to door collection to digital collection mode thereby saving the A&G cost of collection significantly.

Present market position is very dynamic and prone to digitalization, all are habituated with mobile based applications. Almost all the services are being availed through finger tips. People are searching each of their daily needs through mobile without help of any other person and becoming more and more attractive to those who are offering lucrative benefits. Now, door to door collection is becoming more costly and to change the behavior of the electrical customer towards digital mode there is a further need of increase in digital rebate. Therefore, the licensee is in support of increase the digital rebate from 3% to 4% which may kindly be approved. It is also submitted that the rebate offered towards digital rebate may kindly be factored/pass through in the ARR of the DISCOM.

4. Incremental digital rebate to rural consumers

Further, it has been observed that due to the introduction of multiple initiatives of digital collection like My Tata Power App, Airtel Payment Bank tieup, Spice Money tie up, tie up with SBI, BBPS & other UPI facilities, there has been a significant boost in rural digital payments as shown in graph below:



Considering the above, it is proposed to extend additional 2% rebate for rural LT domestic consumers also for digital payment.

5. Considering Actual average LF for the category during assessment of unauthorized drawal

As per regulation 161 of OERC Distribution (Condition of Supply) Code,2019, after establishing the duration or period of unauthorized use, the Assessing Officer shall prepare provisional assessment order. The assessing officer shall assess the energy consumption as per the assessment formula given below:

Units assessed=LXHXF

L=Connected load found in the consumer premises during the course of inspection in Kw :

H=No. of hours of the period of assessment

F=Load factor as has been prescribed for collection of SD in Regulation 52

The load factor prescribed by the OERC for various categories is found to be very less which does not reflect the actual probable usage of the various equipment which results in negative assessment thereby not providing the penal environment to discourage unauthorized drawals In many instances the actual hours of consumption is much more than that calculated on the basis of regulation 52.

For instance, if one consumer having 2KW load including one AC . If we consider AC is running for 6hrs per day then his minimum consumption will be 1.5KW X6Hrsx 30days=270unit

However, if the consumer has tampered the meter and his bill is coming 220unit, and on assessment, as per regulation the units assessed will be=1.5Kwx 2.4x2x30=216units which is less than his billed units.

Therefore, Hon'ble Commission is requested to allow considering load factor for assessment as average actual load factor for Domestic category or may consider approving 20%LF for domestic, 25% for commercial and industrial and 50% for continuous process industries over a 24 hour period.

6. Levy of CSS on RE power

After a prolonged time, Hon'ble Commission has introduced levy of Cross Subsidy Surcharge on RE power for the FY 22-23. Accordingly, the consumers availing renewable power through open access shall have to pay the transmission charge, wheeling charge and cross subsidy surcharge as applicable to consumers availing conventional power.

This additional CSS amount collected has helped the DISCOM to accede the BST increase and ultimately aided towards non increase in RST. Therefore, the licensee submits before Hon'ble Commission for continuation of levy of CSS and wheeling charges on RE power for FY 23-24.

7. Continuity of Special tariff for Existing industries having CGP if assured 80% LF of existing CD

To promote industrialization and development of state economy, Hon'ble Commission has launched a very good scheme for FY 22-23 for the industries having CGP. The intention of such scheme was to sale the surplus power of the state to the industries inside the state. As a result, industries can get cheaper/competitive power and may opt to close their CGP or may avoid open access power. The scheme in a nutshell was as under:

"(vii) Any industry having CGP with CD up to 20MW willing to avail power from DISCOMs upto double the CD shall be allowed to draw power without payment of overdrawal penalty. For this purpose, the industry has to operate at minimum CD of 80% for the entire month. The applicable charges for incremental energy drawl (kVAh) beyond CD shall be Rs.4.30 paise per kVAh. However, the DISCOMs shall not exceed their approved SMD during that period. The DISCOM must ensure that for such overdrawal the distribution system is not overloaded and no-load shedding is imposed during that period."

It is the humble Submission of the license that the above scheme may kindly be allowed to continue in the ensuing year also. In addition to this an industry availing this benefit shall not be permitted to avail benefit of another scheme.

8. Continuity of Special tariff for Existing industries having CGP with CD >20 MW with minimum offtake 80% of existing CD

A special mechanism for sale of surplus power of GRIDCO through tripartite agreement has been approved by Hon'ble Commission as per para 370 of BST order FY 22-23 & clause (viii) Annexure-B of RST order. However, in absence of firm power GRIDCO and DISCOMs filed a separate petition (case no 25 of 2022) for approval of price till firm power is available with GRIDCO. Hon'ble Commission vide order dt.18th May 22 has approved a special price of Rs.4.75 per kvah. Gridco has to billed @ Rs.4.26 per kwh for the power consumed beyond 80% of CD, OPTCL is entitled for 28 paise as transmission charges. Balance amount is DISCOM share. To avail this, benefit the intending CGP industry has to entered into a TPA with GRIDCO and DISCOM. The intention of such scheme was to sale the surplus power of the state to the industries inside the state. As a result, industries can get cheaper/competitive power and may opt to close their CGP or may avoid open access power. The scheme in a nutshell was as under:

Clause (viii) Annexure B of RST order FY 22-23

"Any industry having CGP willing to avail power from DISCOMs and operating at load factor more than 80% shall be allowed to draw power at the rate not less than Rs.4.30/kVAh for all incremental energy drawal above 80% load factor. No overdrawal penalty shall be levied on them. Any industry having CGP without CD availing emergency power only can also get this benefit for incremental energy (kVAh) above emergency drawal. For this purpose, the industry shall enter into a tripartite agreement with DISCOMs and GRIDCO."

It is the humble Submission of the license that the above scheme may kindly be allowed to continue in the ensuing year also with bucket filling method. In addition to this an industry availing this benefit shall not be permitted to avail benefit of another scheme.

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

Upon announcement of above scheme few of the other industries those who have no CGP has started approaching similar type of scheme for them so that they can utilize their existing installed capacity in full, beyond CD or may add capacity in the existing premises beyond CD if permitted. In line with special tariff for industry having CGP, a special tariff for non CGP industries connected in 33 KV level or above may kindly be considered. The scheme may be as follows:

a) The agreement shall be between the industry & concerned DISCOM.

b) Under 33 KV level the permissible limit of drawl is 15000 KVA, but licensee has the discretion to allow beyond the limit of 15 MVA on special ground considering the adequacy of system availability. If system does not permit then the opting industry has to augment the system of supply to higher level to avail this benefit.

c) Industry interested for this scheme has to ensure minimum offtake of 85% L.F. of existing CD

d) Load reduction shall not be allowed during the financial year or those who have reduced their load has to restore before availing the scheme.

e) The power so consumed under this agreement may be treated as surplus power of GRIDCO and this quantum shall be over above the approved quantum in ARR including SMD.

f) Interested industry has to pay a flat rate for the additional energy so consumed beyond 85% of CD.

g) Consumption upto 85% LF shall be billed as per existing RST

h) No demand charges for the additional quantum beyond existing CD.

i) Open access shall not be permitted during this special arrangement.

j) As this is a special agreement adequate Payment security mechanism shall be in place before power transaction as well as there will not be any rebate on additional power. However, DPS shall be applicable if payment is not made within due date.

k) Industry availing this benefit shall not be permitted to avail benefit of another scheme.

10. Special tariff for Industries for temporary business requirement

As per existing regulation temporary supply is permitted to meet temporary needs on special occasions including marriage or other ceremonial functions, fairs, festivals, religious functions or seasonal business or for construction of residential houses, complexes, commercial complexes, industrial premises provided that such power supply does not exceed a period of six months. For these purposes the **Energy Charges shall be 10% higher as compared to the regular connection**.

Under TPNODL area there are around 21 industries having their own CGP. Some of them has single unit of generation and some are having multiple units with different capacity. To maintain the generating unit's annual maintenance is inevitable. Similarly, some of the other industries are in need of power intermittently to meet seasonal requirements. For such temporary outages of their CGP and short-term business need they are approaches DISCOM power for couple of months, sometimes even for less than 15 days. They are also not willing to increase their load for such short-term need as reduction of load has certain restriction.

In view of the above TPNODL submits before Hon'ble Commission to approve/permit such temporary additional load beyond CD for short period of maximum 3 months. In that event the industry has to **bear 10% higher charges on both normal Demand and energy component**. Such additional consumption will contribute towards revenue enhancement and will definitely help to protect risk of tariff enhancement. The above temporary arrangement shall be accommodated by the licensee well within its approved/permitted SMD, without additional burden to GRIDCO.

To appropriate decision the industries having their own CGP IN TPNODL is appended below

Sl. No	Name and address of the CPP	Unitwise capacity (MW)	Total Capacity in MW	DISCOM
1	Birla Tyres, Chandpur, Balasore	2 x 6.25	12.5	TPNODL
2	Deepak Steel & Power Ltd, Tapadihi, Keonjhar	1 x 10 1 x 20	30	TPNODL
3	Deepak Steel Ltd, Uliburu, Keonjhar	1 x 8	8	TPNODL
4	Emami Paper Mills Ltd, Balasore	1 x 5 1 x 15 1 x 10.5	30.5	TPNODL
5	Facor Power Ltd, Bhadrak	1 x 45 1 x 55	100	TPNODL
6	Jindal Stainless Ltd, KNIC, Jajpur	1 x 13 2 x 125	263	TPNODL
7	Jindal Steel & Power, Barbil, Keonjhar	1 x 8	8	TPNODL
8	Kalinga Iron Works, Barbil, Keonjhar	4 x 4	16	TPNODL
9	Kamaljeet Singh Ahluwalia Steel& Power Div., Keonjhar (Formerly H	1 x 8 1 x 20	28	TPNODL
10	Maithan Ispat Ltd, KNIC, Jajpur	1 x 30	30	TPNODL
11	Mid East Integrated Steel Ltd, KNIC, Danagadi, Jajpur	2 x 4.5	9	TPNODL
12	NINL, Duburi, Jajpur	2 x 19.25 1 x 24	62.5	TPNODL
13	Orissa Sponge Iron Ltd, Palspanga, Keonjhar	1 x 12 1 x 24	36	TPNODL
14	Pattnaik Mineral Pvt. Ltd, (Steel Divn.), Keonjhar	1 x 2	2	TPNODL
15	Pattnaik Steel & Alloys Ltd. Purunapani, Keonjhar	1 x 15	15	TPNODL
16	Shree Mtaliks Ltd, Barbil, Keonjhar	1 x 8 1 x 20	28	TPNODL
17	Shree Jagannath Metaliks Industries Ltd., Khaparakhai, Keonjhar	1 x 10	10	TPNODL
18	Tata Sponge Iron Ltd, Bileipada, Keonjhar	1 x 7.5 1 x 18.5	26	TPNODL
19	Tata Steel Ltd, KNIC, Jajpur Road	2 x 67.5	135	TPNODL
20	Visa Steel Ltd., KNIC, Dansagadi, Jajpur	3 x 25	75	TPNODL
21	Yazdani Steel & Power Ltd., KNIC, Jajpur (Formerly Dinabandhu Ste	1 x 10	10	TPNODL
	Total		**934.5**	

Total CGP in all the four DISCOMs around 74 nos (excluding NALCO and IMFA) and their installed capacity is (5808 MW+2609 MW+166.38 MW+934.5 MW) 9517.88 MW. Therefore, requirement of power during annual maintenance of their units may be needed from DISCOM. If some type of arrangement in tariff is created it will be a win win situation for all the stake holders. The licensee is submitting herewith before Hon'ble Commission to consider the above proposal in the ensuing year ARR.

11. Special tariff for drawl of RE power with premium rate

Hon'ble Commission 1st time has launched premium rate for RE power. As per RST order the following provision has been created.

> *Annexure-B clause (xxix) "The consumers of any category can get a Green Consumer Certification by DISCOMs, if 100% of their power requirement is met from renewable sources by DISCOMs. The consumer has to pay additional 50 paise per unit as premium over and above the normal rate of energy charges. This facility shall be in force for one year from the effective date of this order. The consumer has to apply the concerned DISCOM in advance for this purpose.* ***This facility shall not be available to the consumers having Captive Generating Plants (CGPs)****."*

Similarly, in the RST order one more para has been provided where in provision has been created for CGP industries vide para 77

> *"……………………………………………….*
> *However,* ***any industry having CGP wants to meet 100% of its requirement from renewable sources*** *they can apply to DISCOM for Green Certification and for them the DISCOM shall levy a premium of 50 paise per unit over and above the normal rate of energy charges as stated above."*

Even though provision for CGP industries has been created by Hon'ble Commission fulfillment of 100% of its requirement from renewable sources is the hurdle. 1st of all DISCOM power is costlier than their own generation in addition to levy of premium rate of another 50 paise on it. Further, certification by DISCOM is another concern. GRIDCO is the obligated entity on behalf of DISCOM for fulfillment RE requirement, unless GRIDCO passes on/allocates to DISCOM, it is not thinkable at licensee end.

Therefore, right from the beginning of the tariff period unless Hon'ble Commission provides it in the RST/BST order the basic moto of Hon'ble Commission shall not be fulfilled.

Keeping the above aspect, a workable solution has been outlined by the licensee in the following manner.

Drawal from Renewable Energy Sources during FY 2022-23

Sl. No.	RE Sources	Renewable Energy approved for drawal during FY 2022-23 (MU)	Percentage w.r.t. the total estimated drawl of DISCOMs (%)	RPO fixed in the Regulation for FY 2022-23 (%)
A.	**Non-Solar**			
(i)	Mini / Small Hydro Electric Projects (SHEPs)	456.35	2.03	
(ii)	Bio-mass Energy	80.00	0.36	
(iii)	Wind Energy	975.87	4.34	
	Sub-Total (Non-Solar)	**1512.22**	**6.73**	**6.50**
B.	**Solar**	**1800.00**	**8.01**	**8.00**
C.	**Total (Solar & Non-Solar)**	**3312.22**	**14.74**	**14.50**

Figures in MU

	Particulars	TPWODL	TPCODL	TPNODL	TPSODL	Total
A	Approved Input FY 22-23)	9300	9790	6020	4390	29500
B	Approved Sale (HT &EHT with 8% HT loss)	4549	3431	2527	1244	11751
C=A-B	Balance for LT	4751	6359	3493	3146	17749
D	Allocation of large Hydro to DISCOM towards LT*	1896	2538	1394	1256	7084
E=C-D	Balance Input for LT to be met from Thermal and others	2855	3821	2099	1890	10665
F=B+E	Approved quantum on which RPO is required	7404	7252	4626	3134	22416
G	Allocation of RE availability to DISCOM	1094	1071	683	463	3312

***Large Hydro is excluded for calculation of RPO**

If Hon’ble Commission will allocate RE availability to all the licensees in the above mechanism, then DISCOM can provide certificate to the consumer willing to pay premium tariff for “Green Energy” without recurring consent/approval from GRIDCO. No doubt a reconciliation can be made at the year-end on the basis of actual availability. Out of the Green tariff so collected can be shared to GRIDCO at the end of the year.

Further, very recently GRIDCO has tied up with SECI and others for sourcing of renewable power to the tune of 2608 MW. The details are below:-

Sr. No.	Case No.	Quantum (MW)	Date of Order
1	42 / 2020	300	15.12.2020
2	43 / 2020	200	05.01.2021
3	46 / 2020	100 +50*	08.01.2021
4	66 / 2020	100 +50*	12.01.2021
5	15 / 2021	8	20.07.2021
6	20 / 2021	500	22.06.2021
7	24 / 2021	70	22.06.2021
8	36 / 2021	270	29.10.2021
9	42 / 2021	40	16.09.2021
10	70 / 2021	500	18.10.2021
11	01/2022	200	30.03.2022
12	30/2022	10	26.07.2022
13	37/2022	200	13.09.2022
14	43/2022	10*	15.10.2022

Total Quantum: 2608 MW *Wind power

So, for the coming year the RE quantum would increase to substantial quantum.
From the history of open access drawl, it is observed that, industries are procuring RE power to fulfil the RE obligation. The quantum of drawl as compared to past year has increased to many fold.

Therefore, if RE power can be assigned (through certification) for industries opting to draw with premium special rate then it will be a win-win situation for the industries as well as for other stake holders. The premium price shall be added to the bill. The industry has to opt in advance for booking of quantum. TPNODL proposes a premium charge of 25 paise per unit over and above normal charges may be considered, as with 50 paise per unit consumers are not willing as of now.

12. Revision of Meter Rent if not permitted under CAPEX

Hon'ble Commission has notified the OERC Distribution (Conditions of Supply) Code, 2019 in August 2019. Under regulation 97 (iv) (3), the licensee/supplier is permitted to move on gradually towards installation/replacement of prepaid/smart/pre-paid smart meters preferably within three years. Ministry of Power, Govt. of India have issued timelines for replacement of existing meters with smart meters for all consumers as per above mentioned notification dated 17th Aug-21.

The Hon'ble Commission permitted the recovery of Smart meter cost through monthly meter rent.
At present, in terms of the extant Regulations, TPNODL recovers an amount of Rs. 1500/- (Meter Cost - Rs. 1271 + Rs. 229 GST) under Mo Bidyut towards installation of Single-Phase meter while providing new connection.
Further, Regulation113 (v) of OERC Distributions (Conditions of Supply) Code, 2019, provides as follows:
"*In case the licensee/supplier replaces the meter due to technological up-gradation, the cost of the old correct meter already recovered through meter rent shall be deducted from the cost of new meter and the balanced amount may be recovered through meter rent on pro-rata basis* "

Accordingly, the licensee can recover only the differential cost through meter rent on prorate basis on replacement of existing Static Meter with Smart meter. In view of the above, TPWODL have started installation of Smart Meter phase wise, beginning with 3 Ph category from July, 2022. All the new connection applications under 3 Ph category are being provided with Smart Meter only and it has been planned to start installation of Single-Phase Smart Meter from November, 2022 onwards.

The cost of Single-Phase Smart Meter would be around Rs. 4200/- (with GST) including installation needs to be recovered from the consumer. However, as per existing RST order for single phase Smart meter, monthly meter rent is only Rs.60 and licensee are permitted to recover maximum up to 60 months. With such stipulation entire cost of smart meters including cost of installation is not fully recoverable and may need be continued for another one year, without factoring inflation and cost variation. Hon'ble Commission is, therefore, requested to make suitable revision in the rate of meter rent in upcoming RST order to enable full cost recovery well within 60 months or such period as the Hon'ble Commission may determine appropriate for full cost recovery.

The revision of meter rent in single phase smart meter as follows which may please be approved.

Amount in Rs.

Sl. No.	MONTHLY RECOVERY OF METER COST	Existing	Proposed
1	Single phase electro-magnetic KWH meter	20	20
2	3 Phase electro-magnetic KWH meter	40	40

3	3 Phase electro-magnetic Tri-vector Meter	1000	1000
4	Tri-vector Meter for Railway Traction	1000	1000
5	Single phase Static KWH meter	40	40
6	3 Phase Static KWH meter	150	150
7	3 Phase Static Tri-vector Meter	1000	1000
8	3 Phase Static bivector meter	1000	1000
9	LT Single Phase AMR/AMI Compliant Smart meter	60	80
10	LT Three phase AMR/AMI compliant smart meter	150	150

In addition to above, if the recovery period from 60 months to 90 months would be permitted then the cost can be fully recovered, instead of increase it substantially.

It is also submitted that, the entire new connection as well as replacement of defective meter may be permitted through Smart Meters only.

13. Billing with Defective Meter

As per existing regulation the licensee is permitted to raise provisional bill for maximum upto three months and during this time the defective meter has to be replaced with new meter. Thereafter, the provisional bill so raised shall be revised considering actual meter reading for consecutive six billing cycle. The extant regulation of OERC Distribution (Conditions of Supply) Code, 2019 is appended below:

> *155. For the period the meter remained defective or was lost, the billing shall be done on the basis of average meter reading of the past three billing cycles immediately preceding the meter being found/reported defective. These provisional charges shall be leviable for a maximum period of three months during which time the licensee/supplier/consumer is expected to have replaced the defective meter. The provisional bill shall be revised as per the average of six consecutive billing after a new meter is installed. In no case the previous bill can be revised for more than two (2) years prior to the installation of new meter.*

With the above mechanism the licensee is facing the following difficulties in implementing the provision

a) Consumers are not paying even the actual bill after replacement of defective meter unless the bill is revised. The licensee is helpless even collecting the actual bill from the consumer & has to wait for six consecutive billing cycle.

b) In many cases consumers are desiring to revise the bill considering past actual consumption in corresponding period, but DISCOM can not violate the provision of law.

c) Some are insisting for bill revision considering actual metering after one month's consumption.

d) Most of the consumers are trying to control the consumption and tempted to use through other means with an intention to reduce the billing even though they have actually used during meter defective period.

With the above ground reality, the DISCOM is not able to improve the collection efficiency and has to wait for six months till bill is rectified. Even after lapse of six-month consumers are pleading, they can not pay such huge amount, which is also true.

The DISCOM is well aware that is as per prevailing regulation, however, Hon'ble Commission has the power to issue practice direction for proper billing and collection thereof till the supply code, 2019 is being amended.

Therefore, the licensee humbly submits that, a practice direction may kindly be given in the RST order FY 23-24 for revision of the provisional bill in case of defective meter, considering past assessment based on the first full month's consumption after the replacement of the meter. The consumption of subsequent months till 6th month will be used for making any correction/ adjustments to the assessment amount which was based on first full month's consumption. The differential amount can be billed to the consumer at the end of 6 months post meter replacement.

14. Revision of Reconnection Charges with penalty clause

It is submitted that the reconnection charges w.e.f. 01.04.2022 is continuing since last 10 years even though BST and RST of DISCOMs have increased no of times.

Category of Consumers & Applicable Rates

Category	Prior to 1st April 2012	Continuing since 1st April 2012	Proposed Reconnection charges
LT Single Phase Domestic Consumer	Rs.75/-	Rs.150/-	Rs.300/-
LT Single Phase other consumer	Rs.200/-	Rs.400/-	Rs.800/-

LT 3 Phase consumers	Rs.300/-	Rs.600/-	Rs.1200/-
All HT & EHT consumers	Rs.1500/-	Rs.3000/-	Rs.6000/-

15. Creation of disaster resilient Corpus Fund

It is fact that, more often Odisha is facing lot of natural calamities like, cyclone, flood, thunderstorm, wind storm etc. In such case restoration of power supply in quick time is not possible to be made and also requires sudden resources like man and material etc. To face such unforeseen events DISCOMs have also not available adequate resource to meet such cost. Therefore, it is the right time to create certain fund for such distress requirement. In view of the above it is the humble submission of DISCOM a separate charge of Rs.2 per month may kindly be allowed to be recovered from all the consumers through energy charges.

11. Formats

The following filled in formats will form a part of the revised ARR and Tariff Application for FY 2022-23 as annexures.

11.1 Commercial/Technical Formats T1-T9

11.2 Financial Formats F1-F27 (modified F-formats)

11.3 Details Performance Formats (P1-P17) in Volume- II already submitted under original submission

12. Prayer

In the aforesaid facts and circumstances, the applicant most humbly prays before the Hon'ble Commission to kindly:

(1) Take the revised ARR application and Tariff Petition for the FY 2023-24 on record.

(2) Approve the Aggregate Revenue Requirement for FY 2023-24.

(3) Bridge the Revenue Gap for the FY 2023-24 through increase in Retail Supply Tariff or reduction in Bulk Supply Tariff (BST) wherever possible

(4) Allow the Tariff rationalisation measures as proposed

(5) Any other relief, order or direction which the Hon'ble Commission deems fit

Dated: Balasore

Place: 7.1.23

(BHASKAR SARKAR)

CHIEF EXECUTIVE OFFICER

TP Northern Odisha Distribution Limited