



Aggregate Revenue Requirement & Tariff Application For the Financial Year 2024-25



(Volume-I)

30th November 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 Aggregate Revenue Requirement and Retail Supply Tariff for the financial year 2024-25, 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 Aggregate Revenue Requirement and Tariff proposal for the Financial Year 2024-25 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. 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,
CHANDRASEKHARPUR, BHUBANESWAR**

IN THE MATTER OF Application for approval of Aggregate Revenue Requirement and Retail Supply Tariff for the financial year 2024-25, 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

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Registered & Corporate Office: Januganj, Balasore, Odisha-756019
Represented by its Chief Executive Officer -----**Applicant**

And

IN THE MATTER OF All Stake Holders

Affidavit verifying the application of the licensee for the Aggregate Revenue Requirement and Tariff Application for the FY 2024-25

I, Bhaskar Sarkar, aged about 58 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.

Place: Balasore

Date: 30.11.2023

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 2024-25.

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.

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 Rs. 1000 crores (Indian Rupee One Thousand Crores only) and paid-up capital of Rs. 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 OERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022 has calculated the total expected revenue from sale of electricity as well as the total revenue requirement for the fourth year of operation FY 2024-25 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 2024-25 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 2022-23
- 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 2024-25. 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 2024-25

TPNODL licensed area is spread over a geography of 27857 Sq.Km and serves the registered consumer base of 2million with a peak load of around 1190 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.

The following sections outlines the estimation of revenue requirement for FY 2024-25.

2.1 Sales Projection

For projecting the consumption of different categories, TPNODL has analyzed and relied on the past trend of consumption pattern for last ten years i.e. from FY 2013-2014 to FY 2022-23 & actual sales data for the first six months of FY 2023-24. Actual addition reduction of load, present trend of drawl of power through open access, additional drawl on account of special tariff for industries having CGP with CD up to 20MW, revival of closure unit under HT/EHT Category and other factors such as post Covid-19 pandemic era has also been considered for projection of sales for current and ensuring year. The category-wise consumption projected for FY 2024-25 has been depicted in following sections.

LT Category

The growth in the domestic category has been estimated at 15 % for the current year FY 2023-24 and 3 % for the ensuing year FY 2024-25. The licensee would like to submit that for current year, the growth of domestic consumers is estimated to be high because of new connections and electrification of un-electrified consumers under BGJY scheme and customer facilitation like opening of numbers of customer care centres, Anubhav Kendras , online support through call centre for easy and hassle free new connection . A normal growth of 3% for the ensuing year has been considered as the major portion of prospective consumers will be energized due to above facilitation in the current year.

The growth in the sales of other than domestic category in the LT sector has been estimated 19 % during FY.2023-24 and 18 % for FY.2024-25.

Due to implementation of project **KRISHI SUDHAR** for sanitization and arrest of theft in irrigation sector and installation of meter, a growth of 55% has been projected for ensuing year 2024-25. Considering prawn cultivation in a large scale in the coastal area, in Allied agriculture category and Allied Agro Activity category, a growth of 57% for current year and 35% for ensuing year is projected.

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

Table-1: LT Sales (in MUs)

Category	FY 2022-23	FY 2023-24	FY 2024-25
Domestic	1447.359	1665.777	1715.517
General Purpose<100 kw	385.149	465.078	515.887
Specified public purpose	41.929	49.101	58.495
Irrigation	84.523	86.043	133.525
Allied Agro Activities	38.569	60.428	81.51
Allied Agro Industrial	0.97	1.734	2.066
LT Industrial	57.464	64.898	68.746
Public water works	52.777	60.904	66.402
Public Lighting	23.964	29.614	36.634
Total	2132.704	2483.577	2678.782

DISCOM has estimated cumulative 16% growth in current year and 8% 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 with contract demand of more than 1 MVA. The average sale under HT category consumers has been estimated for the ensuing year based on the trend of the FY 2022-23 and actual drawl for the 1st six month of current year ending Sept'23. **Post Corona and after reallocation of mining, the consumption under this category excelled due to which the sales in this category has shown an improvement. Due to installation of some giant Industries, ancillary unit of the giant Industries also grow. It is expected that, consumption under this category will grow at a higher rate in the ensuing year also.** The consumption of only power intensive industry in this category M/s IDCOL Ferrochrome will revive in the current year and the consumer will avail the power with full load of 10700 KVA (At present availing nominal power with contract demand of 555 KVA). At present, the consumer is consuming power for its auxiliary load only and occasionally availing some load as and when raw material is available, which pull down the total HT sales of 23-24. Considering the worst of pandemic is over, upcoming rural water supply scheme of the Govt., Mega irrigation project of the Govt., massive cultivation of prawn in coastal area and growing of its processing industries and considering upcoming HT consumers, HT sales for 2023-24 has been estimated at 665.568 MU and projected at 773.046 MU for 2024-25.

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

Table-2: HT Sales (in MUs)

Sales (MU)	FY 2022-23	FY 2023-24	FY 2024-25
Large Industry	470.032	482.034	538.785
Power intensive	10.632	6.664	25.32
Others	144.753	176.87	208.941
Total	625.417	665.568	773.046

EHT Category:

The pandemic Covid-19 affected the EHT sales of the DISCOM most. On account of Covid-19, EHT sales decreased by 50 % in 2020-21 and continue till the end of 1st half of 2021-22. During Pandemic and due to 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 Nelachal Ispat Ltd and M/s Stork ferro Ltd has been terminated. However, after worst of the pandemic, raw material crisis and Coal crisis is over, consumption in this category back into the track and see a considerable improvement. Consumer like M/s

Jabamayee Ferro Alloys Ltd and M/s Nelachal Ispat Ltd, M/s Stork ferro Ltd and Balasore Alloys Ltd restarted their operation in the year 2022-23 and excelled their operation up to the full capacity in the FY 2023-24. Further, introduction of special tariff for the industries having CGP with CD up to 20MW contributed a lot for increasing sales in this category. Consumers like, JSL, JSPL, Visa steels and FACOR Ltd have availed this benefit in FY 22-23. However, except M/s. JSPL and M/S FERRO ALLOYS PLANT, BALASORE (taken over by TATA STEEL LIMITED), all other industries have subsequently forgone the scheme due to substantial rise of special tariff from 430 paisa to 500 paisa per unit in the RST for FY 2023-24 thereby reducing the estimated EHT sale due to Special Tariff to 165.18MU from the previously estimated 641.29MU in the current year 2023-24 . We anticipate the estimated EHT sale due to special tariff to remain around 168.788 MU in the ensuing year 2024-25 also unless Hon’ble Commission decides to rationalize the special tariff appropriately. Provision of Special Tariff resulted into generation of lower additional revenue to the tune of Rs.85.15 Cr in 2023-24 against forecast of Rs. 299.45 Cr and is expected to be around Rs.86.91 Cr in 2024-25. Summary of additional sales and additional revenue on account special tariff is given below.

Table-3: Impact of Special Tariff

Addition Consumption / Revenue due to Special Tariff								
Name of Consumer (EHT)	Current_Year_FY.2023-24 (MU)			Ensuing_Year_FY.2024-25 (MU)			Additional Revenue (Rs.Crs.)	
	Normal (As per Trend)	Additional (Due to Special Tariff)	Total	Normal (As per Trend)	Additional (Due to Special Tariff)	Total	Current Year	Ensuing Year
Jindal Steel & Power Ltd	26.251	122.666	148.917	26.251	124.734	150.985	64.36	65.39
Ferro Alloys Plant, Balasore	68.327	42.514	110.841	68.327	44.053	112.381	20.80	21.52
Total	94.578	165.18	259.758	94.578	168.787	263.366	85.16	86.91

However, it is expected that some of Industries will enhance their demand , like M/s JSL by 28 MVA, M/s NINL by 15 MVA, Joda East Iron Plant by 30 MVA, M/s Mishrilal Mines by 16 MVA and M/s Brahmani River Pellete by 2 MVA in the current year 2023-24. M/s Balasore Alloys Ltd will enhance its load by 24 MVA in the ensuing year 2024-25. In addition to above two new plants mainly M/s Anand Export Ltd with 19 MVA and M/s Rungta Metals Pvt. Ltd with 18 MVA will avail power supply in the ensuing year 2024-25. Consumption pattern of each EHT consumer is analyzed before projecting sales in EHT category in the ensuing year 2024-25. 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 42 EHT consumers including 9 nos of Railway Traction connections. Out of the balance 33 nos, 8 no 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. Most of the highly consuming industrial units, such as M/s Tata Steel, M/s TISCO Bamnipal, M/s FAP Joda, M/s JSL, Duburi, M/s JSPL, Joda including others like M/s Emami Cement Ltd, M/s SJSPL, M/s FACOR, JSW Cement, M/s Dhamara Port Trust Co, Tata Steel, Balasore and M/s Rungta Mines Ltd are availing power through Open Access. Average drawal of power through open access is 100 MU per month, which restrict the growth in EHT category. Considering growth of some of existing industries and energization of some upcoming industries like M/s. Birla Tyres , the EHT sales has been estimated at 3314.566 MUs for 2023-24 and projected 3555.280 MUs for ensuing year 2024-25 in comparison to 2651.934 in 2022-23. The significant growth of EHT consumers of 25% in the current FY is majorly contributed by Special Tariff consumption of M/s. JSPL and upgradation of M/s. JSL from Large to Heavy Industry due to enhancement of Contract Demand . Further normal growth of 7% has been considered in FY 2024-25.

Table-4: EHT Sales (in MUs)

Sales (MU)	FY 2022-23	FY 2023-24	FY 2024-25
Large Industry	1758.417	2246.227	2417.232
Railway Traction	463.174	470.776	477.314
Heavy Industry	139.803	374.166	434.551
Power Intensive	203.445	131.207	133.029
Other	87.092	92.19	93.154
Total	2651.931	3314.566	3555.28

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

Table-5: Voltage Wise Sales (in MUs)

Voltage Wise Sales	FY 2022-23	FY 2023-24	FY 2024-25
LT	2132.704	2483.577	2678.782
HT	625.417	665.568	773.046
EHT	2651.931	3314.566	3555.28
Total	5410.052	6463.711	7007.108

In addition to above it is to submit that sale under Railway traction has been estimated as 477.314 MU for the ensuing year. 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 utility has projected estimated sales considering Railway as 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-6: 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 15% (Normative loss), for the FY2024-25, 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 2024-25, the Distribution loss and AT&C loss considered in the following manner

Table-7: Performance Parameters

Particulars	FY 2024_H1 (Actual)	FY 2023-24 (Normative)	FY 2024-25 (Normative)
Input (MU)	3842.823	7717.864	8161.085
Sales (MU)			
EHT	1604.901	3314.566	3555.28
HT	333.513	665.568	773.046
LT	1333.789	2483.577	2678.782

Total	3272.203	6463.711	7007.108
T&D Loss	14.85%	16.25%	14.14%
Collection Efficiency	99.03%	99.00%	99.00%
AT & C Loss	15.68%	17.09%	15.00%

The power purchase as estimated for the current year will be 7717.864 MU whereas, in the ensuing FY , the requirement will be 8161.085 MU.

2.3 Cost of Power Purchase

The power purchase expenses have been derived from the estimated input basing on the sales estimate and the targeted distribution loss (normative) . For the year FY 2023-24, energy input of **7717.864** MU has been estimated based on the estimated sale of **6463.771MU** and T&D Loss of 16.25%. Power purchase of **8161.085MU** has been projected based on the estimated sale of **7007.108 MU** and T&D Loss of **14.14%** for the ensuing year corresponding to the AT&C loss - 15.00% fixed by Hon’ble Commission for the FY 2024-25 in the Vesting order.

Power purchase cost for the current year is Rs. 2771.87s Crs and for the ensuing year FY 2024-25 power purchase cost has been estimated at Rs. 2930.99 Crs with BSP @ 335.00 paise p.u. and transmission charges @ 24 paise p.u. SLDC charges @ Rs. 1.16 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 -8: Power Purchase Cost

(In Rs. Crs)

Sl. No	Particulars	Unit	Rate	April to Sept 2023	Estimation for the FY 2023-24	Projection for FY 2024-25
1	Power Purchase	MU		3842.823	7717.864	8161.085
2	BSP	Rs./kwh	3.35	1287.35	2585.48	2733.96
3	Transmission Charges	Rs./kwh	0.24	92.23	185.23	195.87
4	SLDC Charges	Rs. Crs /annum	1.16	1.16	1.16	1.16
5	Total Power purchase Cost	Rs. Crs		1380.73	2771.87	2930.99

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 **1400 MVA** as SMD for FY 2024-25. 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

2.5.1 Manpower position

TPNODL inherited 2159 nos. of regular employees and 13 nos. of contractual employees from erstwhile NESCO utility as on 31.3.2021. Subsequently, it has added resources on transfer from Tata Power leading to 2194 nos. of employees as on 1.4.2021.

The 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, needed to be 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.

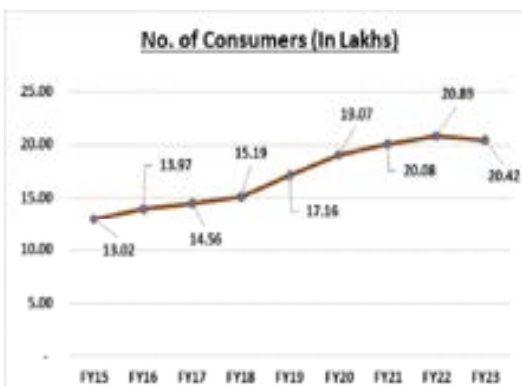
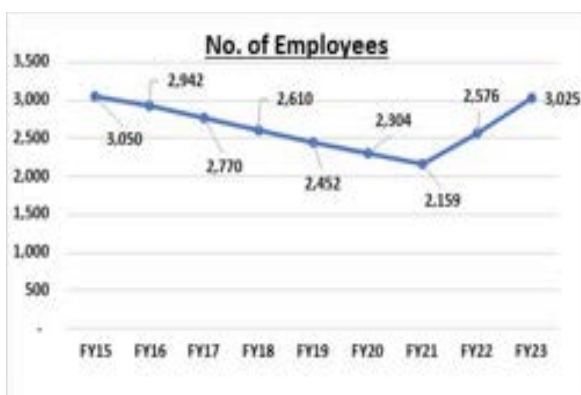
TPNODL carried out detailed study of the existing manpower gaps across various Departments and geographies of TPNODL and worked out requirement of new expert manpower to fill up various resource gap areas like Network Planning & Engineering, Sub Transmission System management, Enforcement, Energy Audit,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

Hon'ble Commission has 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 rationalized 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.”

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 around 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.

A comparative analysis of the no. of employees and the no. of consumers since FY 2015 is presented hereunder:



In line with the direction of Hon’ble Commission to keep the number of employees per thousand consumers within the ratio of 1.40, the licensee had proposed 551 nos. of recruitments for FY 2022-23 with the projected consumer base as of 21,75,590 on 31st March 2023. However, 1,26,702 nos. of non-existing consumers have been removed from the active directory of billing system in FY 23, and the number of consumers as on 31st March 2023 became 20,41,588 . Hon’ble Commission has been kind enough to consider the grounds placed by the licensee and allow 551nos. of new

recruitments for the FY 23. The actual recruitment done in FY 22-23 was 518 nos. This was done to ensure restructured commercial set up upto the section level and to fill up various critical resource gaps planned.

The details of recruitments planned for FY 23-24 and FY 24-25 are furnished in the following table alongwith the existing manpower position starting from take over.

Table-9: 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)	204	99			303	303
11	Recruitment of trainees during 2022-23 (J)	71	144			215	215
12	New employees resigned during FY2022-23 (K)	20	19			39	
13	Retirement during FY 2022-23(L)	6	2	85	12	105	
14	Total as on1-04-2023(M=(G+H+I+J-K-L))	912	479	1347	223	2961	518
15	Projection for FY2023-24						
16	Tata power Transferred employees in FY2023-24 (N)	8	6			14	

17	Recruitment in FY2023-24 (O)	28	27			55	55
18	Recruitment of trainees during 2023-24(P)	44	49			93	93
19	New employees resigned during FY2023-24(Q)	46	34			80	
20	Retirement during FY2023-24 (R)	6	3	44	9	62	
21	Total as on 1-04-2024(S=(M+N+O+P-Q-R))	940	524	1303	214	2981	148
15	Projection for FY2024-25						
16	Tata power Transferred employees in FY2024-25 (N)	8	6			14	
17	Recruitment in FY2024-25 (O)	6	2			8	8
18	Recruitment of trainees during 2024-25(P)	10	6	0	92	108	116
19	New employees resigned during FY2024-25(Q)	35	25			60	
20	Retirement during FY2024-25 (R)	3	1	30	4	38	
21	Total as on 1-04-2025(S=(M+N+O+P-Q-R))	926	512	1273	302	3013	124

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 2024-25 also.

2.5.2 Expenses Terminal Benefit Liability

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

Table-10: Terminal Benefit

(In Rs. Crs)

Particulars	2022-23	2023-24	2024-25
Provident Fund	13.58	14.87	16.56
Pension	119.67	125.95	132.55
Gratuity	8.20	8.39	8.78
Rehabilitation	2.10	0.79	0.79
Leave Salary	13.59	13.63	15.75
Total	157.14	163.63	174.44

2.5.3 Interest Cost on Electric Vehicle Advance Policy

OPTCL, vide its Circular No.AW/E&M-EV-1/2023(PT)/3358 dated 03rd March 2023 announced its Electric Vehicle Advance Policy (EVAP) for its employees which is in line with the guideline issued by the Finance Department, Government of Odisha (GoO) vide Memorandum No. 8524/F dated 05th April 2022. Advance will be interest free and will be granted based on eligibility and subject to availability of budget. All Executives will be eligible to purchase electric motor car/ two-wheeler and non-executives will be eligible for electric two-wheelers only. Advance amount will be 75% of cost of vehicle or repaying capacity and maximum advance limit for electric motor car is Rs. 15 lakhs and for electric two-wheeler is Rs. 2 lakh. This scheme will be in vogue till December 31, 2025 unless extended otherwise in line with the guidelines issued by the State Government vide O.M. No. 8524 dated April 05, 2022

Further, the employees' wellbeing related policies and procedures, as and when framed/adopted by GRIDCO/ Odisha Power Transmission Corporation Limited (OPTCL) for their employees, were subsequently adopted by erstwhile NESCO utility.

TPNODL also being committed to decarbonisation and promotion of National and State mandate for promoting Electric Vehicles, has adopted EV Advance Policy in line with the OPTCL and Government of Odisha Memorandum.

To facilitate eligible and interested employees to purchase EV by providing interest free recoverable advance, these vehicle loans to employees shall be interest free and the cost for the same shall need to be borne by the TPNODL. It is estimated that 15 % of Executives and 20 % of Total Employee of erstwhile utility may avail the scheme. In FY 2024-25, the licensee has estimated Rs.3.94Crs towards the interest cost .

The DISCOMs have placed before Hon'ble Commission for considering pass through of the interest cost in ARR vide letter no-TPCODL/Regulatory/2023/242/6433 dated 25.10.2023 for pass through of such interest cost on interest free advances under the policy. Hon'ble Commission vide letter no.Secy/09-Corr-TPCODL/2023/1609 dated 03.11.2023 had advised to submit the matter in the ARR.

The licensee has considered Rs. 3.94 Crs. towards interest cost on such advances to be extended to eligible employees in the FY 24-25 included under Staff Welfare and prays before Hon'ble Commission to kindly approve the same.

2.5.4 Steps taken for optimization of Employee Cost:

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

Table-11: 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	524	162	31%
2022-23	518	377	73%

2. The average salary of new joinees in executive cadre is around sixty-eight thousand. The average salary of trainees is around thirty-eight 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-12: Employee Cost Optimization (Rs. In Lakhs)

Particulars	Avg. Salary (CTC) - per month	Nos. Inducted up to 2022-23	Total Cost (Per Month)
New Joinee	0.68	477	324.36
Trainees	0.38	623	236.74
Total Cost in Rs. Lakhs			562.10
Total cost with all executive	0.68	1100	748.00
Cost optimization in Rs. Lakhs			185.90
Cost optimization (%)			33%

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

2.5.5 Proposed Employee Cost:

Accordingly, TPNODL has projected Employee Cost of Rs. 532.71 Crs in FY 2024-25 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. Interest cost for providing interest free advance to eligible employee for EV under Staff welfare

Table-13: Employee Cost (In Rs. Crs)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Employee Cost	453.16	503.12	549.71
Less: Cost Capitalized	12.85	14.78	16.99
Net Employee Cost	440.32	488.35	532.72

In view of the above, it is humbly submitted before Hon’ble Commission to approve the proposed employee cost of Rs. 532.72 Crs for the ensuing financial year.

2.6 Administrative and General Expenses

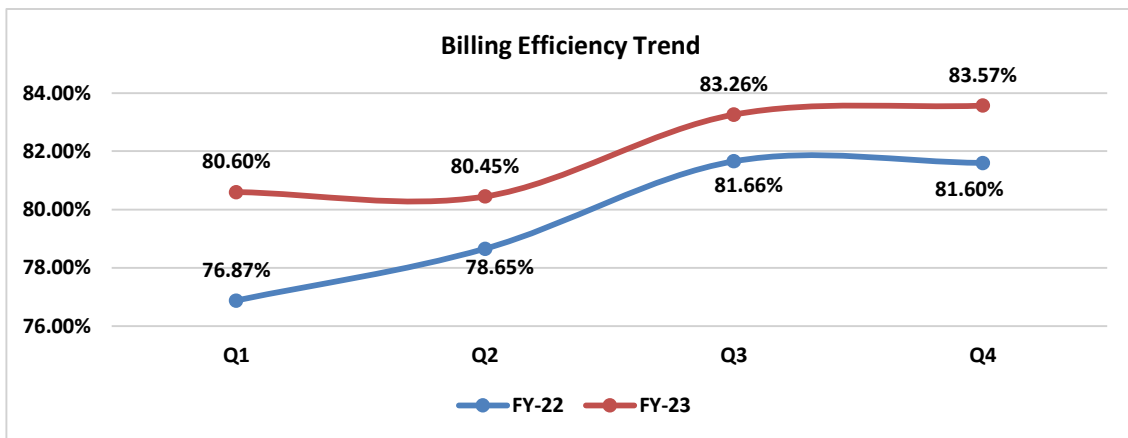
The A&G expenses for FY 2023-24 is estimated at Rs.123.13 Crs based on actual expenses till Sep, 2023. Estimation of A&G expenses during the current year as well as in the ensuing year has been envisaged on account of meter reading , billing and collection, IT Automation, AMR related running expenses, Insurance expenses, Professional Charges, Enforcement activities, Customer Care and compensation towards electrical accidents etc in the remaining period for the current Financial year 2023-24 and for the full ensuing year FY2024-25. All of these activities would contribute significantly towards reduction of AT&C losses and provide consumer convenience.

TPNODL has engaged various new agencies from September, 2021 for undertaking meter reading, spot billing and collection activities in every pocket of distribution area. Various collection mechanisms have also been engaged to collect the monthly revenue. To cater the above activities, the licensee 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. The detailed justification for the A&G incurred is furnished in the following paragraphs:

Keeping in view 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 for separated meter reading-billing and collection to increase the consumer coverage. It is pertinent to mention here that, by revising the MBC contracts, there has been an increase of around Rs. 100 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 97% at the end of H1 FY24 and collection coverage from 35% to 71%. Percentage of provisional bills have been brought down from 30% to 2.92%. Improvement in various parameters are detailed in the following sections

2.6.1. Billing Efficiency Improvement:



Billing Efficiency increased from 76.87% at the starting of FY 22 to 83.57% at the end of FY 23.

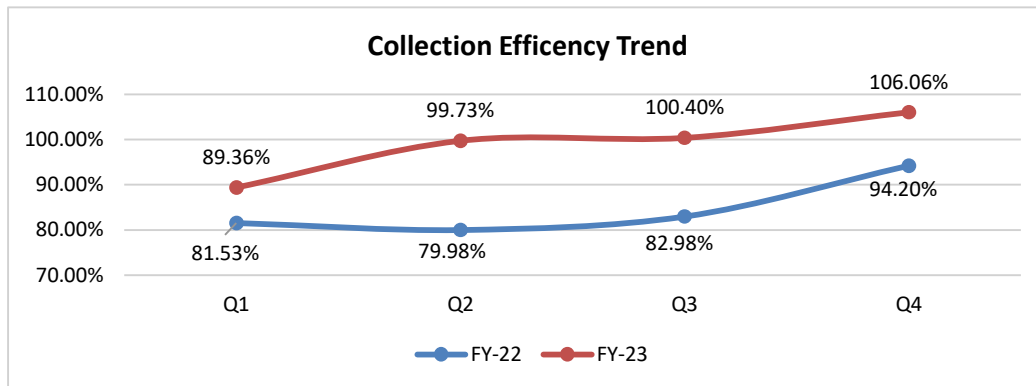
Billing efficiency has been further improved to 85.15% by Sep'2023.

After successfully MBC Contract separation in FY23, dedicated Billing team working at the field for Single Phase Billing for better billing coverage. Billing coverage reached up-to 95.32% at the end of FY23. 100% MRU wise Billing for Slab adherence & better Customer Service deployed. Each of the Binder area split in small blocks with pre-defined reading date range to maintain efficiency & regularity.

OCR Based Meter Reading has been 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.

2.6.2 Collection Efficiency Improvement:

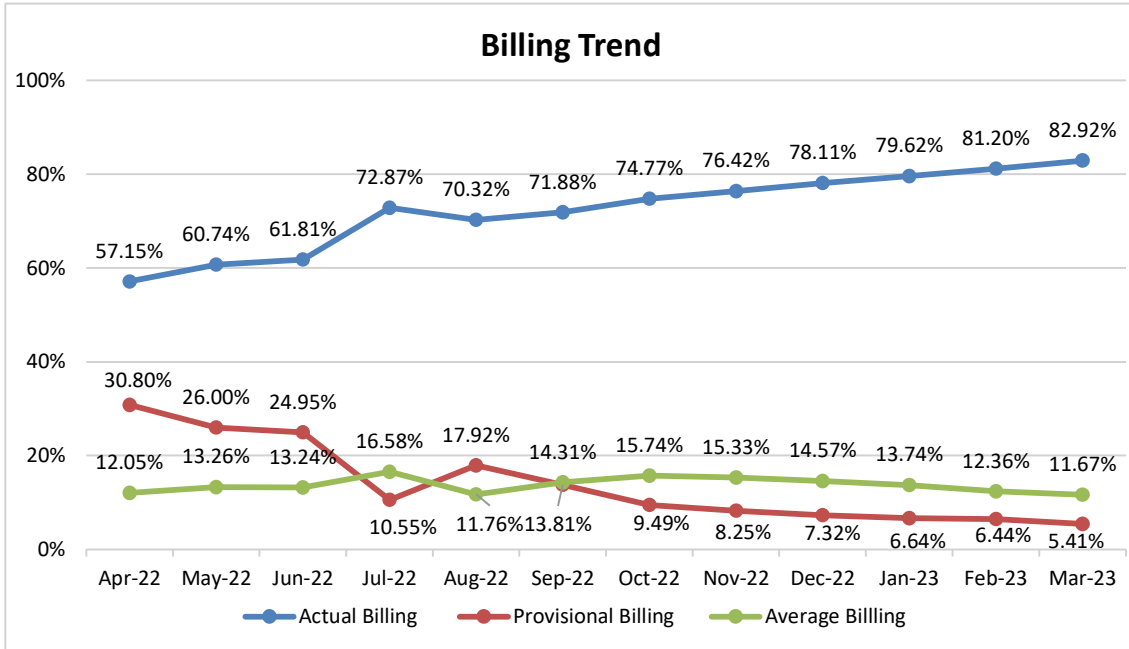


Collection Efficiency achieved more than 89 % in every quarter basis during the FY 23 & reached 106 % at the end of Q4 FY-23 from 81 % in Q1 of FY 22.

Disconnection drives using DO app has been strengthened for timely disconnection of defaulting consumers. Specific drives Like “Project Swachh” for arrear collection and bill revision have been conducted to address the consumer needs. 173 MW unauthorized load have been booked & more than Rs. 55 Crs. theft assessment recovered with special drives. Site of 4.4 Lacs consumers not paying since 1 to 3 years verified, around 1.2 Lakh non-existing consumers taken out from the active directory of billing system basing on the site verification.

2.6.3. Improvement in Actual Reading Based Billing:

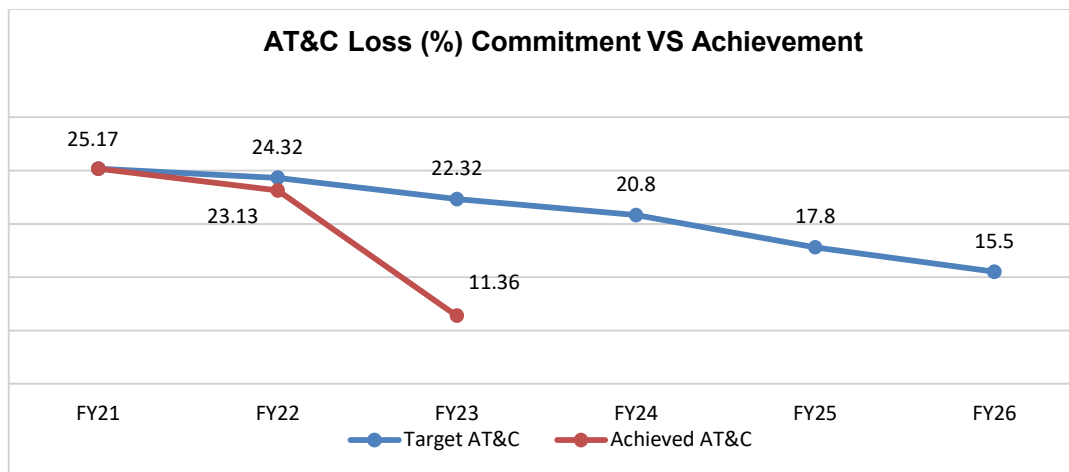
Provisional billing has been reduced to 5.41% at the end of FY’23 from 30.80 % at the starting of FY’23 by continuous improvement in Billing Coverage. This has been further reduced to 2.92% by H1 of FY 24. Actual billing coverage increased from 57.15% at the starting of FY23 to 82.92% at the end of FY23. The following graph depicts the improvement in Actual billing and reduction in Provisional billing and Average billing.



2.6.4 Improvement in AT&C Loss Reduction:

TPNODL has adopted multi-pronged approach for reduction of AT&C loss. For recovery of arrears and for surveillance of defaulter consumers. Division wise Revenue Recovery Teams have been deployed with proper system-based execution & monitoring application. On 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 initiatives are conducted along with public communications with consumers. TPNODL has also promoted various digital avenues along with attractive Rebate offer for consumers for paying Digitally. In the billing part, TPNODL deployed more than 90% OCR based billing for Single Phase consumers which lead our actual billing to reach 92%. This multi fold approaches has been fruitful in bringing down the AT&C loss.

All the above initiatives have contributed towards reduction in AT&C loss from 25.17% at the beginning of FY 22 to 11.36% at the end of FY 23.



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.

2.6.5 Expenditure for Energy Police Station

The Discoms in Odisha are undertaking collection activity of Electricity Bills and in a big way and they have taken several measures to improve the collection of the same. Some of them being regular visits to consumers for recovery, correction of bills where necessary, increasing payment avenues and payment outlets and resorting to disconnection. However, we note that that despite the same, the collection in various areas is a challenge.

There is also a stiff resistance faced by employees at the time of meter replacement and collection of dues and at times they are manhandled. It is therefore imperative that the support from police is available to Discoms. We are of the view that Energy Police Stations should

commence operations in TPNODL area. who would be dedicated to the Discom and would be working closely with the Discom to enforce law and order and offer protection to the Discom Staff. We are confident that the presence of such police force in field will improve the collection and also boost the morale of employees of Discoms. To start with, it may be prudent to start operations with 3 No Energy Police Station in TPNODL area. We are in this petition requesting the Hon'ble Commission to kindly consider reimbursing the expenditure towards 3 No Energy Police Station for FY 2024-25. Based on the success of such Energy Police Stations, more can be planned. The estimated expenditure per Police Station is about Rs 1.42 Crore as shown in the table below

Table-14 : Estimated Cost per Police Station

SrNo	Grade in Police	No	Salary per Annum (Rs Lakh)	Total (Rs Lakhs per Annum)
1	Inspector	1	10	10
2	Sub Inspector	2	7.5	15
3	ASI	2	6	12
4	Havildar	1	4	4
5	Constable	12	4	48
6	Driver	1	3	3
7	Follower Orderly	1	3	3
8	Total	20		95
9	Overhead (50%)			47.5
10	Budget per Police Station			142.5

We are concurrently taking up with the Government of Odisha for implementation of such police stations. In this regard, we had in the past written to DGP Odisha for implementation of 3 Energy Police Stations.

Alternatively, the Hon'ble Commission may consider approving the cost of additional Police Personnel earmarked and deployed for working exclusively with Discom. The estimated cost per location would be however Rs 142 Lakhs. We have at present not factored the cost of such Energy Police Stations in the A&G costs. Based on the in principle approval of Hon'ble Commission, the same may be allowed to be incurred and taken up at the time of truing up for FY 2024-25.

2.6.6 Proposed A&G Cost

The details of A&G expenses estimated for the FY 2023-24 and projected for the FY 2024-25 are furnished in the following table.

Table-15: Administrative & General Expenses

(In Rs. Crs)

Sl. No.	Particulars	YTD Sep-2023	FY 2023-24	FY 2024-25
1	Rent, Rates, Insurances	4.29	9.07	11.02
2	Communication	0.73	3.28	3.35
3	Professional Charges	4.70	10.69	11.60
4	Conveyance & Travelling	4.41	15.00	16.08
5	Training	0.29	0.83	1.00
7	Others	54.89	84.26	91.35
8	Total	69.32	123.13	134.40

The licensee has estimated A&G expenses of Rs. 123.13 Crs in the current FY 2023-24 and Rs. 134.40 Crs for the ensuing FY 2024-25 on the basis of actual commitments and various activities planned for FY 25 for reducing the AT&C loss and improve the performance standards, 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 Rs. 257.11 and for the ensuing FY 2024-25 , Rs. 321.44 Crs. The details are furnished in the following table.

Table-16: R&M Expenses (In Rs. Crs)

Particulars	Actual for first six months of current year	Estimated for Current Year FY 2023-24	Ensuing Year FY 2024-25
Civil repairs & maintenance	0.22	0.42	0.53
Distribution line repairs & maintenance	12.75	24.40	30.50
Transformer Repair	34.34	65.73	82.17
Other repairs & maintenance	87.03	166.57	208.24
TOTAL	134.34	257.11	321.45

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 244 nos. of PSS, 550 nos. of PTR and 3024ckt Km of 33KV line. Under Project PTR Care, in last Financial Year, Silica gel replaced in 514 nos., oil filtration/top-up carried out in 128 PTRs, PTR overhauling done in 14 PTRs, Repaired PTR installation -21nos and capacity of 27 nos. PTRs augmented. Below is a brief of the activities carried out.

Table-17: Status of PTR Maintenance up to H2-FY24

PTR Care	
Description	Nos
PTR Maintenance	488
Silica Gel Replacement	195
Oil Top up/Filtration	37
Breather Replacement	32
PTR Overhauling	14
Repaired PTR Installation	5
New PTR Augmentation	2



Table-18: Major Maintenance Activity done in H1-FY24

Sl. No.	List of Activity	Scheme	Total
1	Operation "BHOOMI"/Neutral Earthing Maintenance	PTR BACHAO	83
2	PTR Health Index	PTR BACHAO	287
3	Leakage Arrest of Oil from PTR	PTR BACHAO	78
4	PTR Oil DGA test	PARIKSHAN	276
5	PTR Preventive Maintenance	PM	515
6	CB LIMB/POLE REPLACEMENT 33KV	CB	21
7	CB LIMB/POLE REPLACEMENT 11KV	CB	37
8	CB MECHANISM /LUBRICATION/ Maintenance	CB	217
9	CB Repair- (In House)	CB	43
10	AB SWITCH/ISOLATOR MAINTENANCE/Repair	SWITCHYARD	98
11	LA INSTALLATION/Maintenance	SWITCHYARD	1050
12	PSS Preventive Maintenance	PM	235
13	PSS/Line Thermal Scanning (No's of Hot Spot Found/Rectified)	PM	198
14	Repair/Maintenance of BATTERY CHARGER	PM	11
15	Repair/Maintenance of BATTERY BANK	PM	6
16	CT Replacement	CAPEX	33
17	PT Replacement	CAPEX	15
18	Switchyard/Control Room Cleaning	MO PSS NIRMALPSS	243

SAP Based Plant Maintenance:

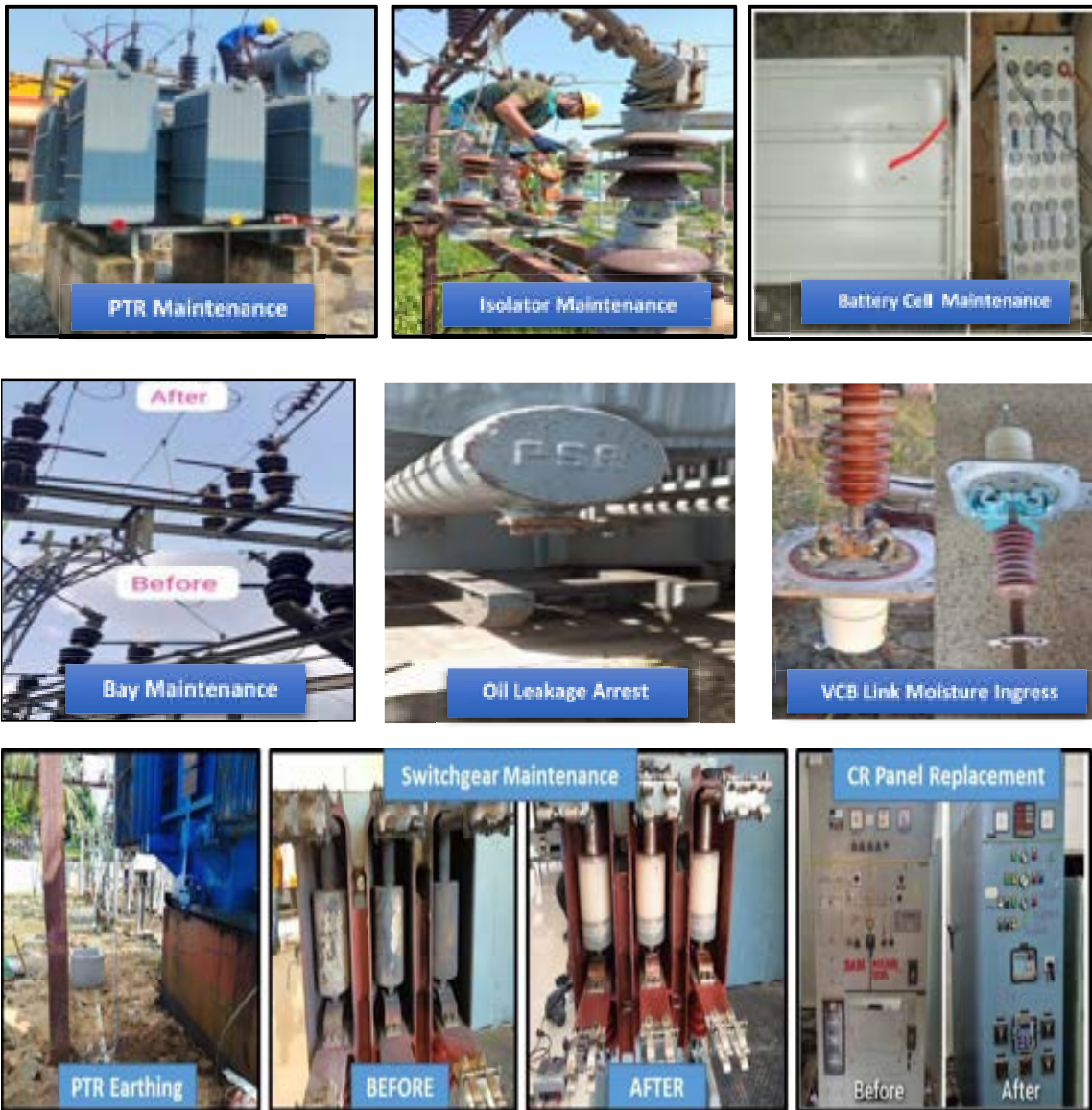
Table-19: Status of SAP Based Plant Maintenance (33kV & 11kV)

Date	Circle	No of Notification Raised	Type of Notification Raised			No of Notification Closed	Type of Notification Closed			No of Notification Pending
			M1	M2	PM03		M1	M2	PM03	
Details for both 11kV & 33kV			M1	M2	PM03		M1	M2	PM03	
As on date	Balasore	12686	5294	2677	4715	7617	5039	2216	362	5069
	Bhadrak	5627	2331	1046	2250	3339	2263	829	247	2288
	Baripada	9804	3328	3065	3411	6473	3155	2381	937	3331
	Jajpur	7547	2320	2739	2488	5016	2240	2509	267	2531
	Keonjhar	10164	5790	2216	2158	6067	4513	1350	204	4097
	TOTAL	45828	19063	11743	15022	28515	11743	9285	2017	17316

Date	SAP PM Notification	M1-(Corrective)			M2-Breakdown			M3-Preventive			Grand Total		
	Circle	CLOSED	OPEN	Total	CLOSED	OPEN	Total	CLOSED	OPEN	Total	CLOSED	OPEN	Total
01-Apr-2023 to 30-Sep-23 (33kV only)	BALASORE	20	5	25	2	5	7	102	35	137	124	45	169
	BARIPADA	45	3	48	6	3	9	414	13	427	465	19	484
	BHADRAK	180	10	190	4	1	5	77	3	80	261	14	275
	JAJPUR	187	1	188	27	6	33	86	4	90	300	11	311
	KEONJHAR	41	19	60	2	7	9	38	36	74	81	62	143
	Grand Total		473	38	511	41	22	63	717	91	808	1231	151

Description of maintenance activities in 33KV PSS are depicted below:





MO PSS- Nirmal PSS’ - “ଂମା ପିଏସଏସ - ନିମାଞ୍ଚଳ ପିଏସଏସ” Competition Amongst PSS Owners (First Step towards 5S)

Primary Sub Station (PSS) is the backbone of Distribution Network and its upkeep is very vital from Safety as well as Operational efficiency point of view. While we are steadily improving the Remote operations of PSS, the basic cleanliness at each PSS cannot be ignored.

Keeping this objective in view, and to put the focus on giving each PSS a clean and organised facelift, TPNODL launched a competition "MO PSS NIRMAL PSS", “ଂମା ପିଏସଏସ ନିମାଞ୍ଚଳ ପିଏସଏସ”. The competition shall cover all the existing functional PSS within TPNODL area.



First Step Towards 5S "MO PSS NIRMAL PSS" TPNODL Audit Status					
CIRCLE	DIVISION	NO OF PSS	OUTSTANDING	MEETS EXPECTATION	NEEDS IMPROVEMENT
BALASORE	BED	9	3	2	4
BALASORE	BTED	9	6	2	1
BALASORE	CED	16	6	5	5
BALASORE	JED	12	6	3	3
BALASORE	SED	20	6	3	11
BARIPADA	BPED	24	14	5	5
BARIPADA	RED	17	6	5	6
BARIPADA	UED	11	3	4	4
BHADRAK	BNED	17	9	3	5
BHADRAK	BSED	17	6	1	10
JAJPUR	JRED	17	8	6	3
JAJPUR	JTED	10	7	1	2
JAJPUR	KUED	14	3	4	7
KEONJHAR	AED	17	5	2	10
KEONJHAR	JOED	11	6	2	3
KEONJHAR	KED	18	6	3	9
	Grand Total	239	100	51	88

Photographs of Some of the PSS:



33KV Network Protection:

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.

Table-20(a): 33kv Network Protection Plan & Status

Sr. No.	Description	YTD FY23 Achieved	YTD till 30 th Sep-23
1	Relay Installation Capex	201	10
2	PTR Augmentation Capex	27	2
3	NEW CB Installation-CB 11KV	119	16
4	NEW CB Installation-CB 33KV	79	8
5	Battery Bank	119	5
6	Battery Charger	88	4
7	PTR Earthing Capex	98	12
8	RTU Installation	26	6
9	CR Panel Installation	82	11

33KV Line Upkeep

Towards the 33KV line upkeep, 2660 nos. of Tilted poles straightened, 2867 conductor re-Jumpering carried out, 20212 nos. of PIN insulators replaced, 2660 nos. of Tilted-Cross arm straightened.

Successful completion of 03 Numbers Huge River Crossing across TPNODL with the help of PC Type interposing towers at both sides of the river. River crossing project has helped in providing a reliable power supply to our esteemed Consumers of 33/11kV Rajghat PSS, GaoAmarda PSS, Manitri PSS, Odangi PSS & Chhanua PSS.

Table-20(b): Maintenance Status of 33 kV Line

33KV Line-upkeep	
Description	Nos.
Tilted Poles Straightened	2660
Conductor Re-Jumpering	3541
Replacement of Pin Insulators	20212
Tilted V-Cross arm Straightened	2660
Tree Trimming (spans)	29179
Intermediate Pole Erection. (Critical)	273
New Link Lines 33 kV (CKM)	60



Project Raksha

Further, our 11KV system network comprises of 76366 DTRs and 40,188Ckt 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 has been carried out. Brief of the activities up to H1 furnished in the following table.

Table-21: Maintenance Status of DTR

Description	Nos
Oil Top up/ Filtration	4326
HT/LT Bushing Replacement	4021
Oil Leakage / Breather/Silica Gel repl.	2734
DTR Body Earthing Repaired/Installed	3206
Burnt Socket Replaced	23680
Augmentation of Dist. Transformer	78
Conversion of LT Bare to AB Cable (CKM)	280.45



11KV Network Maintenance

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

Table-22: 11KV Network Upkeep

DSS Maintenance		Network Hygiene		11KV Line Maintenance	
Tree Trimming / Vegetation Removal(Span)	47,924	Pin Insulator Replaced	31051	Tree Trimming / Vegetation Removal (Span)	245715
Earthing Resistances Checked	606	HG/DD Fuse Unit	1829	Conductor Restranging (KMtrs.)	1632.87
DTR Oil BDV Test Done	781	Load Balancing Done	3056	Replacement of Sick Conductor (KMtrs.)	102.64
Repair / Installation of New AB Switches	7169	LTDB & MCCB Installed	1231	Insulated Jumpers Instl. /Replaced	22684
Refurbishment of Dist . Sub station	8943	LA Earthing Repaired	1195	Straightening/replacement of Cross Arms	5928
Installation of LT Protection on Dist Trf:	4326	New DTR AB Switches Installed	677	Installation of Interposing Poles	5485
LA Installation	4514	New Link Lines 11 kV (CKM)	28.21	Stay Set Installed	2119
		Refurbishment Lines 11kV (CKM)	151.159	Line A/B Switch repaired	2086

LV Side Protection of DTRs:

Beside the above, 8943 nos. of distribution substations have been refurbished and power cable replaced in 234 nos. of DSS.

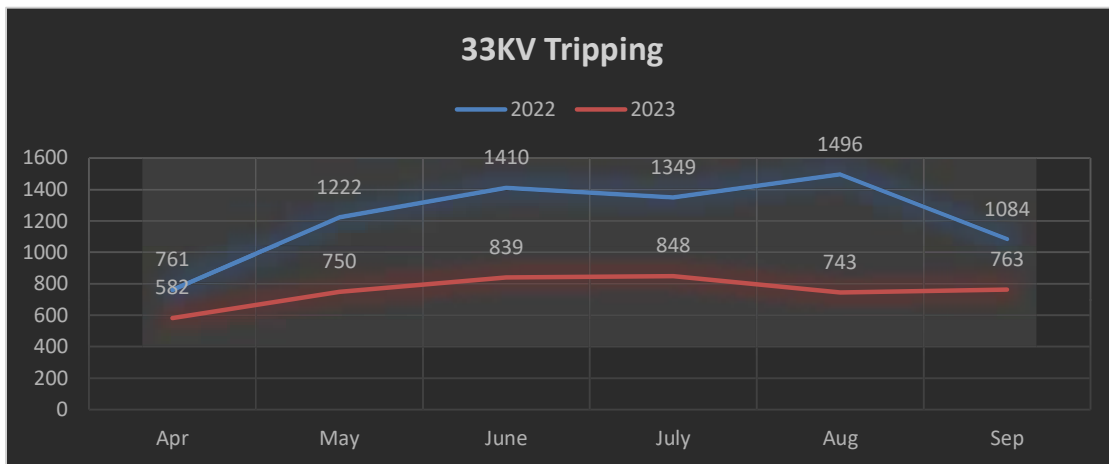
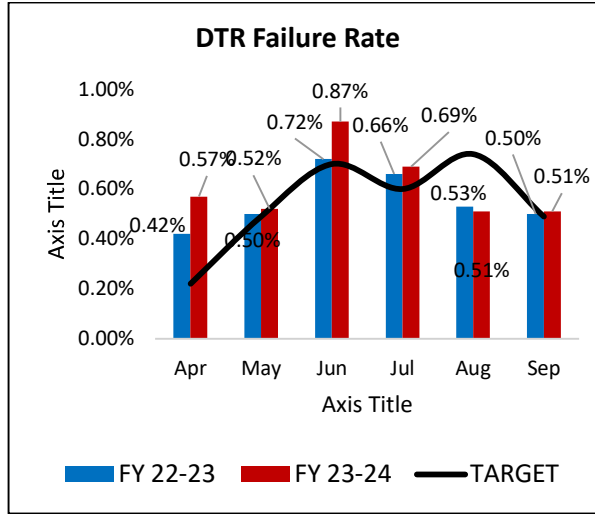
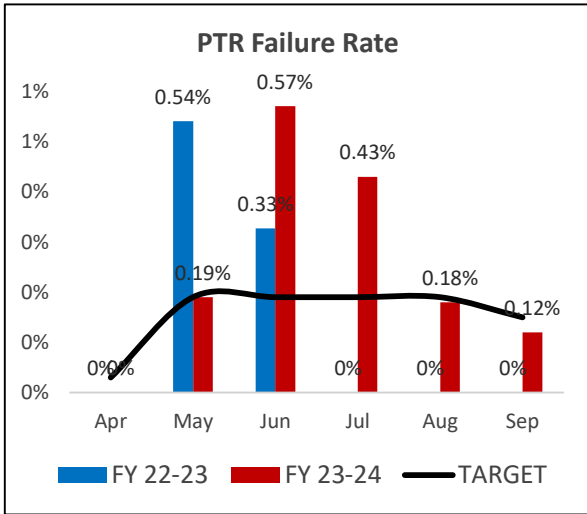
For the LT side protection of DTR, the steps taken are briefed in the following table:

Table-23: Maintenance Status of LT Side of DTR

Circle	LT Air Circuit Breaker (400KVA Trx.)	MCCB 400A (>160KVA Transformer)	MCCB 160A (Upto 160 KVA Transf.)	Kit-kat Fuse
Balasore	70	48	198	1303
Bhadrak	30	34	148	518
Baripada	66	31	189	483
Jajpur	46	56	215	634
Keonjhar	22	29	186	274



The achievements in 33KV & 11kV trippings, DT and PTR failure reduction are shown in the following graphs



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 entire base network of TPNODL covering 100% 33KV network, 11KV network, PSS and Distribution transformers has been modelled in Cyme Dist. Software. Load flow analysis of the entire network is done and the abnormalities such as under-voltage, overload portions identified. All the required under-voltage and overload feeder mitigation schemes prepared basing on the load flow analysis. This is then validated with the field teams-prioritizing the works and taken up in CAPEX. The status of network planning is tabulated below:

Table-24: Status of Network Planning

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:

Table-25: TPNODL Plan for N-1 Reliability

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.

N-1 PSS & Network (Existing & Planned Scenario)												
Circle	Existing before Apr'21				Status as on 31 March 2023				Status after considering the proposal up to capex 23-24 & ODSSP phase IV			
	Nos of feeder	Inter-connected feeders	Nos of PSS	No of PSS having redundant	Nos of feeder	Inter-connected feeders	Nos of PSS	No of PSS having redundant	Nos of feeder	Inter-connected feeders	Nos of PSS	No of PSS having redundant
				33KV source				33KV source				33KV source
Balasure	25	4	63	5	27	9	66	11	39	26	70	34
Keonjhar	21	3	43	2	24	11	46	15	30	15	52	15
Bhadrak	10	0	34	0	11	2	38	2	13	9	41	13
Baripada	21	0	51	0	21	0	51	0	28	15	58	14
Jajpur	12	0	38	0	12	0	41	0	13	9	45	22
Total	89	7	229	7	95	22	242	28	123	74	266	98

2.7.1 Normative R&M

Details of Government assets not in the books of TPNODL are furnished in the following table

Table-26 (a) : Asset Details -Govt. Assets not in the Books of TPNODL (In Rs. Crs)

Details Assets Created by OPTCL							
SI No	Name of the Scheme	As on 31.3.2023			As on 31.3.2024		
		Assets Value		Total	Assets Value		Total
		Completed	WIP		completed	WIP	
1	DDUGJY	368.36	0	368.36	368.36	0	368.36
				0			0
2	IPDS	280.71	0	280.71	280.71	0	280.71
				0			0
3	ODSSP	463.36	291.65	755.01	755.01	0	755.01
4	Total	1112.43	291.65	1404.08	1404.08	0	1404.08
Details of Assets Created by Agency (NTPC & PGCIL)							
	By NTPC	Completed	WIP	Total	Completed	WIP	Total
1	DDUGJY 11TH PLAN	123.39	0	123.39	123.39	0	123.39
2	DDUGJY 12TH PLAN	326.83	0	326.83	326.83	0	326.83
	Total	450.22	0	450.22	450.22	0	450.22
	By PGCIL	Completed	WIP	Total	Completed	WIP	Total
1	DDUGJY 11TH PLAN	650.5	0	650.5	650.5	0	650.5
2	DDUGJY 12TH PLAN	620.05	0	620.05	620.05	0	620.05
	Total	1270.55	0	1270.55	1270.55	0	1270.55
	Grand Total	2833.2	291.65	3124.85	3124.85	0	3124.85
	Less Assets already transferred to TPNODL from ODSSP towards equity by Govt						73.00
Net GOVT Assets to be considered for Repair and Maintenance Expenses							3051.85

GFA as per the books of TPNODL and GFA of Govt. assets , which are not in the books of TPNODL are detailed in the following table

Table-26 (b) : Asset Details (In Rs. Crs)

Sl. No.	Particulars	As on 31.03.2023	Addition/Deletion During FY 2023-24	As on 31.03.2024
1	GFA as per books of TPNODL	2988.82	1254.42	4243.24
2(a)	GFA of Govt. Asset created by OPTCL not in the books of TPNODL (As above)	2833.2	291.65	3124.85
2(b)	Less Assets already transferred to TPNODL from ODSSP towards equity by Govt		73	73
2 (c)	Net Govt. Assets	2833.2	218.65	3051.85
3	Grand Total(1+2 (c))	5822.02	1473.07	7295.09

The GFA of the licensee as on March '2024 is Rs.4243.24 Crs and the assets added under Govt. schemes as on March'2024 is Rs. 3051.85Cr.

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.272.78Crs** ,the details of which are given in the following table.

Table-27 : Normative R&M (In Rs. Crs)

R&M for FY 2024-25	DISCOM	Govt. Assets (OPTCL)	Total R&M
DISCOM's Gross fixed assets(GFA) as on 01.04.2024	3595.02		
Rate of R & M on GFA	4.50%	3.00%	
R&M on GFA	161.78	0	
Govt. (Funded/Grant) Assets as on 01.04.2024	648.22	3051.85	
Rate of R & M on Govt. (Funded/Grant) Assets	3.00%	3.00%	
R&M on Govt. funded Assets	19.45	91.56	
Total R & M	181.22	91.56	272.78

2.7.2. Facilitating 2nd Shift Operation in Rural areas

Further, during the performance review for the FY 22-23 by Hon'ble Commission and discussion in the 34th SAC meeting held on 24.7.23, the DISCOMs have been advised to ensure manning of all the rural sections in two shift operation and urban section in three shift. This is to bring out that, TPNODL has been manning rural fuse call centres for no current complaints, deploying maintenance gang for preventive maintenance of DT and 11KV network, breakdown gang for attending 11KV and LT breakdown in two shifts in rural areas right from the beginning.

The licensee has meticulously planned manpower deployment, so that restoration of power supply could be done within the shortest possible time and proper service could be provided to the customers.

Considering the cost towards 2nd shift operation in rural areas of around Rs.43.46Cr alongwith the normative R&M, the total is coming to Rs. **316.24Cr**.

2.7.3 O&M Cost of Standalone Micro Grids

Under BGJY off Grid House Hold electrification scheme, the un electrified tribal House Holds are being electrified through Micro Grid solar in Keonjhar & Mayurbhanj districts. A total no of 2500 nos. of un-electrified house holds are to be electrified through 18 nos. Micro Grid solar having total grid capacity of 200 KW and having 101 Km of LT network. Out of 18 nos. Solar Micro Grid 14 nos. Micro Grid having 10 KW each and rest 04 nos. having 15 KW each.

All the Villages are situated in highly remote area under Similipal reserve forest. The project is going to complete in Dec, 2023. After completion, all solar Micro Grids would need regular de-dusting, panel cleaning, maintenance to ensure desired up-keep and performance. This would require deployment of trained manpower as well as maintenance spares. Hon'ble Commission has also stressed upon maintenance of those standalone Micro Grids during meeting dated 30.10.23 on implementation of Solar Micro Grid. TPNODL has tied up with local colleges in Mayurbhanj district to provide structured training to identified local youth. Further, a local store of associated spare parts is also planned to be developed to facilitate availability of maintenance spares.

Energy Department Govt. of Odisha has also proposed that the Standalone PV cells which were earlier installed by OREDA and now in defunct conditions will also be made operational and handed over to DISCOMs for maintenance. Further, TPNODL has planned to install roof top solar units on

all its office buildings as per CAPEX approved by Hon'ble Commission for FY23-24 which also need deployment of trained manpower and spares, consumable for regular maintenance.

The licensee most humbly prays that, the actual expenses incurred towards the maintenance of Solar installations may kindly be allowed in the truing up exercise on actual basis, and may be considered over and above the R&M cost approved for the corresponding financial year.

2.7.4. Proposed R&M expenses for FY 24-25

The licensee has estimated R&M Cost of **Rs. 321.44Crs** in FY 2024-25 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.321.44 Crs for the FY 2024-25.

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 2024-25. Considering the proposed collection inefficiency of 1% for FY 2024-25, provisions for bad and doubtful debts at 1% on total sales Rs. 40.48Cr has been considered as part of ARR for FY 2024-25.

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:

1.8.4. *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.*

1.8.5. *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 2023-24 and FY 2024-25 are furnished in the following table. Details have been submitted under 'Capitalization Summary' in the attached data sheets.

Table No.-28: Depreciation (In Crs)

Particulars	Depreciation Rate Pre-92	Depreciation Rate- Vesting Order	Depreciation Rate- Under Tariff Regln'22	2023-24	2024-25
Land				-	0
Buildings	1.80%	3.34%	3.34%	3.10	4.77
Network Assets & Overhead lines	3.80%	5.28%	4.67%	130.81	172.70
Furniture & Fixture	4.55%	6.33%	6.33%	0.62	0.79
Vehicles	12.86%	9.50%	9.50%	0.27	0.41
IT Equipment		15.00%	15.00%	12.94	24.23
Other Equipment- Office Equip etc.	9.00%	6.33%	6.33%	1.03	1.51
Software		16.67%	30.00%	17.07	17.07
Meter-Own CapEx		20.00%	20.00%	21.52	44.26
Gross Dep'n				187.37	265.75
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				96.77	124.19
Less: Dep'n Meter-Own CapEx				21.52	44.26
Net effect to ARR				69.08	97.29

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 @ 6.75% on the closing balance of security deposit amount for FY 2023-24 based on the existing approval of Hon’ble Commission for the FY 2023-24. The interest on security deposit considered in ARR for FY 2024-25 works out to Rs. 63.16 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 be equal 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 other business 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.

The broad terms of loans for cost are extracted from the Term Sheet and provided below.

Table No. -29: Interest on capex loan		
(In Rs. Crs)		
Particulars	FY 2023-24	FY 2024-25
Capitalisation of FA (year-wise)	595.59	297.81
Term Loan @ 70%	416.92	208.47
Equity @ 30%	178.68	89.34
Op. Loan	313.30	671.53
Additions	416.92	208.47
Repayment (=Dep)	58.69	86.90
Closing Balance	671.53	793.10
Avg Balance	492.42	732.32
Interest Rate	8.5%	8.5%
Gross Interest	41.86	62.25
Less:-Interest capitalized	0.20	0.30
Net Interest on TL	41.66	61.95

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 in a manner mentioned in the Vesting Orders and as approved by the Commission. Shortfall in meeting the working capital requirement as mentioned above shall be allowed. 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-30 :Interest on Working Capital (In Rs. Crs)

Particulars	FY 2023-24	FY 2024-25
O&M for 1month	73.61	83.80
Spares 20% of R&M of 1 month	4.29	5.36
1 month power purchase cost	309.54	337.41
Total	387.44	426.56
Less:Dep on Legacy asset	10.40	10.40
Net W.cap requirement	377.04	416.17
Interest rate estimated	11.5%	11.5%
Interest on working capital	43.36	47.86
Add: Financing Cost/LC issue charges	4.00	4.00
Gross Int. on Wcap	47.36	51.86

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

The total interest r expenses estimated for FY 2023-24 and FY 2024-25 is given in following Table:

Table-31: Summary of Interest Expenses (In Rs. Crs)

Interest Computation	2023-24	2024-25
Int on SD	57.77	63.17
Int on WC	47.36	51.86
Int. on Capex Loan	41.86	62.25
Less : Int. Capitalised	0.20	0.30
Int. on Capex Loan (Net)	41.66	61.95
Total	146.78	176.98

The total interest chargeable to revenue proposed by TPNODL for the year FY 2024-25 is Rs. 176.98 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 Rs. 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 -32: Return on Equity Calculations (In Rs. Crs)

Particulars	FY 2023-24	FY 2024-25
Op.Balance	417.49	596.17
Additions	178.68	89.34
Closing Balance	596.17	685.52
Average Balance	506.83	640.84
RoE rate	16%	16%
Return on Equity (post-tax)	81.09	102.54
Total RoE	81.09	102.54
Return on Equity (pre-tax)	108.37	137.02
Income Tax	27.28	34.49

2.12 Carrying Cost

TPNODL has arrived at the (-ve) gap of Rs. 79.23 Crs. for the FY 2023-24 against which carrying cost has been claimed @ 7.45 % for the half year amounting to Rs. 1.86Crs, thus the effective gap for the FY 2023-24 goes up to Rs. 81.09 Crs.

For the ensuing year FY 2024-25, the (-ve) gap arrived at Rs. 115.07Crs. and accordingly carrying cost @ 7.45 % for the average gap for the half year arrived at Rs. 9.24 Crs. and the effective gap arrived at Rs. 124.31Crs.

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 2023-24 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-33: Non –Tariff Income

(In Rs. Crs)

Particulars	Estimated for Ensuing Year
Recovery of meter rent	0.69
Overdrwal penalty	9.44
Reliability	0.00
OA - cross subsidy	26.30
Supervision-application fees	0.89
inspection fees	16.92
Other	18.46
Pole rentals	0.00
Meter testing fee	0.28
DC,RC & Dismantle fee	0.37
Meter box charges	0.00
Service connection fees	0.15
Recovery-power theft	17.74
Other misc operating income	0.09
Total	72.70
	0.00
Interest on FD	79.26
Interest on Income Tax Refund	0.00
Ins.Claim-Recevd.	0.10
Delayed payment surcharge	15.84
Meter testing fees	0.00
PLM charges	0.00
Rent-staff quarters	0.00
Water rates-Staff qtr	0.00
Sale of tender forms	0.18
Other misc receipts	0.32
Sale proceeds-scrap	9.64
Total	105.33
Grand Total	178.03
Rebate on BSP prompt payment	29.31
Total	207.34

TPNODL has proposed Rs. 207.34 Crs. as Non-Tariff Income for the ensuing year FY 2024-25.

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 ensuing year FY 2024-25 is computed and presented in the following table :

Table No-34: Expenditure Details (In Rs. Crs)

Sl. No.	Particulars	Projection for FY 24-25 (In Rs.Crs)
1	Power Purchase Cost (A)	
2	Cost of Power	2733.96
3	Transmission Charges	195.87
4	SLDC Charges	1.16
5	Total Power Purchase Cost	2930.99
6	Distribution Cost (B)	0.00
7	Employees cost	532.72
8	Repair & Maintenance Cost	321.45
9	Administrative & General Expenses	134.40
10	Bad & Doubtful Debt including rebate	40.49
11	Depreciation	97.29
12	Interest on loans	113.81
13	Interest on Security Deposits	63.17
14	Return on Equity	102.54
15	Tax on Return on Equity	34.49
16	Total Distribution Cost	1440.34
17	Special Appropriation (C)	0.00
18	Carrying Cost @ 7.45%	9.24
19	Total Special Appropriation	9.24
20	Total cost (A+B+C)	4380.57
21	Less: Miscellaneous Receipt	207.34
22	Total Revenue Requirement	4173.23
23	Revenue from Tariffs (at Existing Rate)	4048.92
24	(Deficit)/ Surplus at Existing Rate	(124.32)

3.3 Revenue at Existing Tariffs

3.3.1 Revenue Projection at Existing Tariffs

The licensee has estimated the revenue from sale of power considering the sales projected for FY 2024-25 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 **Rs. 4048.92 Crore**.

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

3.3.2. Virtual Net Metering

The licensee is considering implementation of solar virtual net metering projects to cater to the requirement of critical Government establishments like schools, colleges, Hospitals, RWSS points, etc. During preliminary discussions held in this regard, Department of Energy, Govt. of Odisha has agreed to support such initiatives with necessary land and capital funding. TPNODL has carried out detailed analysis and observed that there would be a loss of cross subsidy in case the above SPP/Govt. installations switch over to Virtual Net Metering. We have also placed the above facts before the Hon'ble Commission during meeting held on implementation of Smart Meter, Energy Efficiency Programmes and Solar Micro-Grid on dated 30.10.23, where the Hon'ble Commission had advised TPNODL to embark on such programmes to promote renewable energy in the State . **Hon'ble Commission is requested to consider any such loss in cross subsidy in the ARR appropriately.**

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 2024-25 is provided below.

Table -35: Revenue Gap for FY 2024-25

(In Rs. Crs)

Sl. No.	Particulars	Projection for FY 24-25 (In Rs.Crs)
1	Power Purchase cost	2930.99
2	Total Distribution Cost	1440.34
3	Less: Miscellaneous Receipt	207.34
4	Net Distribution Cost	1233.00
5	Total Special Appropriation	9.24
6	Total Revenue Requirement	4173.23
7	Revenue from Tariffs (at Existing Rate)	4048.92
8	(Deficit)/ Surplus at Existing Rate	(124.32)

The revenue gap for the year 2024-25 is arrived at **Rs. 124.32 Crs.** considering the power purchase cost at the rate applicable for FY 2023-24 and expected revenue at the approved tariff for FY 23-24,

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. Hon'ble Commission's order on segregation dated 25.11.2021 under clause 10 also provides that, If any liability arises subsequently, TPNODL shall be responsible to settle the said liability and the same shall be allowed in the year in which it is discharged subject to prudence check by the Commission.

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 for timely restoration of power supply to the consumers, TPNODL had to make payments against the bills for the services or supplies received by the utility on or before 31.03.2021.

In this regard, it is most humbly prayed before Hon'ble Commission that, payment made towards ASL during FY 23-24 may be considered by Hon'ble Commission on actual basis in the truing up exercise for the corresponding financial year .

5. Truing –up for the FY 2022-23

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 second year of operation that is FY 2022-23, has been submitted separately before Hon'ble Commission for kind approval. The approvals accorded by Hon'ble Commission for the FY 2022-23, the audited actual figures and truing up considering the normative T&D loss of 16.25% is furnished in the following table.

Table No-36: Truing-up for the FY 2022-23

(In Rs. Crs)

Expenditure	Approval by OERC for FY 22-23	Actual (Audited Accounts)	Reference from Audited Annual Accounts	True up Considering Normative T&D loss 18.35%
INPUT(MU)	6020.00	6476.00		6632.12
Cost of power purchase	1932.42	2079.75		2129.94
Transmission Cost	168.56	181.29		181.29
SLDC Cost	1.08	1.08		1.08
Less : Rebate		-21.90		-21.90
Total Power purchase Cost(A)	2,102.06	2,240.22	Note-28	2,290.41
Employee Cost	393.86	390.46	Note-29	440.32
Repair & Maintenance Cost (Net off Govt. Grant Amortisation)	141.43	237.53	Note-31	237.53
Administrative & General Expenses	84.23	162.42	Note-31	112.55
Provision for bad & doubtful debts	16.02	64.98	Note-31	31.65
Depreciation (Net off Govt. Grant - Cons. Contbn Amortisation)	44.66	30.62	Note-4&6	27.39
Interest on loan including interest on SD	31.98	60.39	Note-30	62.94
Interest on Term Loan (normative)		7.86	Note-30	12.58
Total Operation & Maintenance and Other Cost	712.18	954.26		924.95
Return on equity	40.00	-		56.99
Income Tax		34.99	Note-32	34.99
Total Distribution Cost	752.18	989.25		1,016.94
Less Miscellaneous Receipts	154.15	202.84	Note-26.4.2 & 27	157.43
Net Distribution Cost(B)	598.03	786.41		859.50
Repayment of ASL				0.27
Total Revenue Requirement	2,700.09	3,026.63		3,150.19
Actual Revenue	2,701.03	3,164.53	Note-26.4.1	3,164.53
SURPLUS/(GAP)	0.95	137.90		14.34
Expenses disallowed in last truing -up order FY 21-22				
Disallowed A&G Cost				(26.52)
Disallowed Interest on Term Loan				(1.54)
SURPLUS/(GAP)				(13.72)

13.1 Disallowance in A&G expenses for the FY 21-22

Hon'ble Commission has allowed Rs.49.20Crores for the FY 21-22 while approving the Tariff order basing the application filed by NESCO Utility. After taking over, TPNODL filed the Annual Business Plan for FY 21-22 before Hon'ble Commission proposing A&G expenditure of Rs.139.83Crores. Considering the submission made by the licensee in the ABP application for FY 21-22, Hon'ble Commission had allowed additional 60% of the previous approval of Rs.49.20 Crores, making the total approval under A&G expenses for the FY 21-22 Rs.78.72 Crores.

Hon'ble Commission had directed the licensee to produce sufficient justification for such additional expenses in the truing-up petition for the FY 22 and to consider allowing such expenses subject to prudence check. The relevant extract from the ABP order in Case no 40 of 2021 dated 3.11.21 under para 122 is reproduced hereunder:

“ 122. On the above submissions the Commission observes that the expenditure in the A&G is a controllable expense and as per the OERC Tariff Determination Regulation additional expenses are allowed in this head for specific measures towards reduction of AT&C losses and improving collection efficiency. We find that the proposals mainly relates to the improving metering management and services and customer services which are vital elements in reducing AT&C losses. The TPNODL is a new operating company and we believe that they have planned out their activities diligently for improving the overall distribution business. At this stage we allow the additional A&G expenses of about sixty percent of the approved amount in the ARR of Rs.49.20 crore for FY 2021-22 which is Rs. 29.52 crore. However, the petitioner is directed to produce the required justifications for such additional expenses under the head A&G expenses incurred in the truing up petition for FY 2021-22. The expenses under this head will accordingly be allowed after prudence check.”

The actual expenses incurred under A&G as per audited accounts is Rs.105.24Cr for the FY 22. Detailed justification for the A&G expenses have been submitted under section 5.

However, Hon'ble Commission has allowed Rs. 78.72Crores towards A&G expenses in truing –up for FY 21-22 as per the ABP order, which was mainly based on the expenses incurred by the erstwhile utility. This is to place here that, TPNODL has been issued the distribution licence with certain performance targets and specific timeline for achievement. The licensee had placed the

matter before Hon’ble Commission vide letter no-TPNODL/Regulatory/1001 dated 6.4.2023 , after receiving the Truing –up order for FY 21-22 .

Therefore, it is most humbly requested before Hon’ble Commission to allow the differential Rs. 26.52 Crores towards the A&G expenditure for the FY 21-22.

13.2 Non-consideration of normative Term Loan

The licensee had placed before Hon’ble Commission for approval normative interest on Term Loan amounting to Rs.3.56Cr, in the truing up application for the FY 2021-22.However the same has not been considered in the truing up approval for the FY 21-22 which was pronounced in the combined RST Order for the FY 23-24, as no actual loan was taken for funding the capital expenditure and the same has been funded entirely through internal resources.

Table-37: Interest Cost for FY 2021-22 (Rs. Crs)

Sl. No.	Particulars	FY 2021-22
1	Opening Balance	-
2	Loan Taken during the year	46.48
3	Repayments during the Year (Equal to Depreciation)	2.84
4	Closing Balance	43.64
5	Average Balance	21.82
6	Rate of Interest	7.05%
7	Interest	1.54

70% of such internal funds which is in excess of 30% equity, needs to be treated as normative loan under the provisions of Tariff Regulation 2014. In a similar matter, aggrieved by the disallowance of normative IDC, M/s. Powerlinks Transmission Limited had filed Appeal No. 231 of 2017 before the APTEL with the prayer to allow the Normative IDC on the Normative Loan considered for funding the additional capitalization for the 2014-19 period. The APTEL vide judgment dated 3.10.2019 held that there is always a cost of funding and, hence, additional capitalization through normative loan is entitled to be compensated in terms of normative IDC. The relevant extract of the judgment dated 3.10.2019 is as follows:

“8 (ix) The Central Commission should have taken into consideration the aspect that whatever be the types of funds, it is never free of cost. There is always a cost of funding. The argument that no actual loan for additional capital expenditure was taken and therefore it is not admissible for any normative IDC is wrong. It is the commercial decision of the Appellant whether to borrow the money from the market for the purpose of additional capitalisation or use its internal accruals. In either case, the capitalisation deserves to be given the Interest During Construction. For the simple reasons that if the internal accruals were not to be used as additional capital than it would have been invested in the market in any interest earning instrument. Additional capitalisation is therefore entitled to be compensated in terms of normative IDC. The Central Commission should have considered this aspect that no funds are free funds.”

In view of the above, the licensee most humbly submits before Hon’ble Commission to kindly allow normative interest on Term Loan amounting to Rs.1.54 Crs. which was disallowed for the FY 21-22.

The licensee has represented before Hon’ble Commission for consideration of the disallowances made in the Truing –up order after notification of the combined Retail Supply Tariff order for the FY 23-24, vide letter no-TPNODL/Regulatory/1001 dated 6.4.23 and subsequent letter no- TPNODL/Regulatory/3525 dated 28.6.23. Hon’ble Commission has been kind enough to consider the submission made by the licensee and directed that, the TPSODL,TPCODL and TPNODL may make their submissions with regard to any reconsideration of the approved expenses , allowed in the ARR FY 23-24 , alongwith the submissions for ARR of FY 24-25. The relevant extract from Hon’ble Commission’s letter no. Secy/11-Corr-TPSODL/2023/963 dated 12.07.2023 are reproduced hereunder for ready reference-

“ The Commission therefore opines that TPSODL,TPCODL and TPNODL may make their submissions with regard to any reconsideration of the approved expenses , allowed in the ARR FY 23-24 , alongwith the submissions for ARR of FY 24-25. The Commission may accordingly take a suitable view for any reconsideration of the approved amounts, under these heads for FY 2023-24, while pronouncing the order for FY 2024-25.”

In view of the above direction of Hon’ble Commission, the licensee most humbly prays before Hon’ble Commission to consider the above disallowance in the RST order for the FY 23-24 and pass suitable orders

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 Rs. 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 as per 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, FY 22-23, FY 2025 & FY 2026 and submitted before the Hon’ble Commission. The proposal submitted by TPNODL and the Capital expenditure approved by Hon’ble Commission for the first three years of operation are furnished in the following tables:

Table-38:-Capital Expenditure Approved for FY 2021-22, FY 2022-23 & FY 2023-24

FY	Proposed DPR Cost (Rs. Crore)	OERC Approved Cost (Rs. Crore)
FY 2021-22	275.4	258.78
FY 2022-23	442.97	326.54
FY 2023-24	452.80	433.10

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 2024-25 under the major heads:

- 1) Statutory Compliance/Safety
- 2) Loss Reduction
- 3) Reliability
- 4) Network Optimization & Load Growth
- 5) Technology & IT
- 6) Civil & Administration

Table-39: Capex Plan for FY 2024-25

S. No.	Major Category	Activity	FY 24-25 (In Rs. Cr.)
1	Statutory & Safety	Safety HOTT & LOTO deployment	9.60
		Fencing of Distribution Substations	13.10
		Boundary wall work at Primary Substations	12.59
		Fire wall for PTR between the PTRs "6Mtr*8Mtr"	1.14
		Defective service cable replacement	8.00
		Graval Filling and S-Yard Development in PSS	2.65
Total (1)			47.08
2	Loss Reduction	Conversion of LT Bare conductor to AB Cable	39.91
		Meters and metering equipment for energy audit	13.78
		Equipment for Meter testing, Meter Reading, HT/LT Accucheck etc.	1.58
Total (2)			55.27
3	Reliability	Addition/ Upgradation of network component in 33/11kV Primary Substation	21.95
		33 KV Conductor upgradation	30.51
		11 KV Conductor upgradation	28.56
		Refurbishment of 11KV/0.415 KV Distribution Substation (DSS)	13.03
		Installation of Auto reclosure /Sectionalizers, RMUs	11.71
		Installation of FPIs for O/H Lines	4.87
		Installation of Line AB Switch/Isolator	5.92
		Installation of Station Transformers in PSS	0.60
Total (3)			117.15
4	Network Optimisation & Load Growth	Augmentation of Power Transformer	9.90
		Augmentation of Distribution Transformer	23.32
		Conversion of 1Ph DTR to 3Ph DTR along with lines	32.35
		Addition of LT for New connection & mitigation of over load LT feeders.	12.04

		Addition of 11 kV Lines (O/H and U/G) along with Bay arrangement in PSS	31.44
		Addition of 33 kV Lines(O/H and U/G) along with Bay arrangement in PSS	29.70
		Addition New DTRs along with Associated HT/LT lines	22.89
Total (4)			161.65
5	Technology	Automation of conventional PSS	12.23
		Disaster Recovery Centre-Hardware and Software	3.40
		Data Center - Hardware and Software	9.58
		End user IT Infrastructure	2.77
		Strengthen Network Connectivity	6.14
		Balance GIS mapping of 2 Circle (Baripada & Keonjhar)	2.45
Total (5)			36.57
6	Civil Infrastructure and Administration	Civil Infrastructure (Office Buildings, New GRF and Customer care BED, Approach Roads, Cafeteria Canteen, STS office, and others)	18.50
		Office Administration	2.60
		Security cameras, heavy-duty Racking system / Storage solutions for Balasore, Jajpur & Betnoti Store	8.48
Total (5)			29.58
Grand Total = (1+2+3+4+5+6)			447.29

The Capital Expenditure, IDC, transfer to fixed asset and the closing WIP for the current financial year and projected for the ensuing FY 2024-25 are furnished in the following tables.

Table 40: Capitalization Plan for FY 2023-24

(In Rs. Crs)

Sl. No.	Description of the Project/Scheme	Closing bal. of WIP as on 31.03.2023	Expenditure during the year	Interest during construction	Overheads capitalised/ 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	2.78	60.79	0.00	2.54	50.82	15.29
3	F&F	0.14	5.27	0.00	0.00	4.22	1.19
4	Vehicle	0.00	1.27	0.00	0.00	1.27	0.00
5	IT Equipment & Software	5.87	110.92	0.00	0.00	91.39	25.40
6	Other Equipment- other than computer	1.52	11.30	0.00	0.00	11.14	1.67
7	Network Assets- other	214.80	589.05	0.00	0.00	658.83	145.02

	than Own Capex						
8	Network Assets - Own Capex	190.56	467.02	0.20	4.78	570.04	92.52
9	Total	415.66	1245.62	0.20	7.32	1387.70	281.09

:

Table-41: Capitalization Plan for FY 2024-25

(In Rs. Crs)

Sl. No.	Description of the Project/Scheme	Closing bal. of WIP as on 31.03.2024	Expenditure during the year	Interest during construction	Overheads capitalised/ Adjustments	Transfer to fixed assets	Closing bal. of WIP as on 31.03.2025
1	Land	0.00	0.00	0.00	0.00	0.00	0.00
2	Civil & Buildings	15.29	39.82	0.00	2.46	49.11	8.46
3	F&F	1.19	0.00	0.00	0.00	1.19	0.00
4	Vehicle	0.00	2.00	0.00	0.00	1.60	0.40
5	IT Equipments & Software	25.40	42.19	0.00	0.00	59.15	8.44
6	Other Equipment- other than computer	1.67	3.00	0.00	0.00	4.07	0.60
7	Network Assets- other than Own Capex	145.02	268.77	0.00	0.00	379.99	33.81
8	Network Assets - Own Capex	92.52	354.90	0.30	13.84	276.79	184.77
9	Total	281.09	710.69	0.30	16.30	771.90	236.47

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 Format-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-42: Status of Government Schemes/Consumer Funded for the FY 2023-24 and FY 2024-25 (In

Rs. Crores)

SI No.	Description of the Project/Scheme	Closing bal. of WIP as on 31.03.2023	CURRENT YEAR (2023-24)					ENSUING YEAR (2024-25)				
			Expn. during the year	Interest during construction	Overheads capitalised/Adjusted	Transfer to fixed assets	Closing bal. of WIP as on 31.03.2024	Expn. during the year	Interest during construction	Overheads capitalised/Adjustments	Transfer to fixed assets	Closing bal. of WIP as on 31.03.2025
1	School Anganwadi-Grant	5.14	10.91	0.00	0.00	9.69	6.37	0.00	0.00	0.00	6.37	0.00
2	Strengthening of Elephant Corridor-Grant	56.22	91.33	0.00	0.00	104.68	42.87	0.00	0.00	0.00	42.87	0.00
3	CAPEX Plan-GoO	0.82	-0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	RGGJY- Grant	0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	BGJY- Grant	1.73	101.60	0.00	0.00	61.99	41.33	0.00	0.00	0.00	41.33	0.00
6	SAUBHAGYA-Grant	0.68	-0.42	0.00	0.00	0.16	0.11	0.00	0.00	0.00	0.11	0.00
7	OPTCL-ODSSP- Grant	5.56	7.01	0.00	0.00	7.54	5.03	0.00	0.00	0.00	5.03	0.00
8	Disaster Fund-FANI- Grant	3.72	0.78	0.00	0.00	4.51	0.00	0.00	0.00	0.00	0.00	0.00
9	Disaster Fund-AMPHAN-Grant	26.70	1.77	0.00	0.00	28.48	0.00	0.00	0.00	0.00	0.00	0.00
10	NEW DESI-Grant	0.94	0.16	0.00	0.00	0.78	0.31	0.00	0.00	0.00	0.31	0.00
11	Disaster Fund-Flood- Grant	2.94	0.39	0.00	0.00	3.32	0.00	0.00	0.00	0.00	0.00	0.00
12	Disaster Fund-YAAS- Grant	81.55	-1.22	0.00	0.00	80.33	0.00	0.00	0.00	0.00	0.00	0.00
13	System Improvement-Grant	0.11	-0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	SDMF-CYCLONE STRUCTURE-Grant	0.00	10.92	0.00	0.00	6.83	4.10	6.15	0.00	0.00	6.15	4.10
15	SDMF-FLOOD MITIGATION-Grant	0.00	7.87	0.00	0.00	4.92	2.95	4.43	0.00	0.00	4.43	2.95
16	ODSSP PHASE-V-Grant	0.00	71.36	0.00	0.00	44.60	26.76	40.14	0.00	0.00	40.14	26.76
17	Other Miscellaneous Schemes	0.02	2.40	0.00	0.00	1.45	0.97	0.00	0.00	0.00	0.97	0.00
18	Deposit Work-Consumers	28.66	285.11	0.00	0.00	299.54	14.23	218.06	0.00	0.00	232.29	0.00
	TOTAL	214.80	589.05	0.00	0.00	658.83	145.02	268.77	0.00	0.00	379.99	33.81

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 full in terms of Debt (but limited to 70%) and in terms of Equity, the capital expenditure would not be financed. Hence to maintain the 51% to 49% shareholding ratio between TPCL and GRIDCO in the 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 Rs. 100 Crore. Based on the same, the Capex/ Capitalization, Debt and Equity for the purpose of Tariff would be as provided in the table below:

Table-43: Grossing up of GRIDCO Equity

Sr. No.	Particulars	Units	Value
a	Capex/Capitalisation of Project	Rs Cr	100.00
b	Additional Capex/Capitalisation of Asset (in lieu of Equity investment by GRIDCO)	Rs Cr	17.20
c=a + b	Total Capex/Capitalisation to be allowed	Rs Cr	117.20
d	Equity contribution by TPC=c X 30% X 51%	Rs Cr	17.90
e	Equity contribution by GRIDCO=c X 30% X 49%	Rs Cr	17.20
f	Equity for Tariff= 30% of c	Rs Cr	35.20
g	Debt for Tariff=70% of c	Rs Cr	82.10

Hence for every Rs. One crore of capex/ capitalization incurred/achieved by TPNODL after the Effective date, the Hon'ble Commission is requested to approve Rs. 1.172 crores of capex/ capitalization. Out of this, as a contribution of the share towards equity, assets worth Rs. 0.172 Crores will be brought into 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-44: Summary of Capitalization

(In Rs. Crs)

Particulars	FY 2023-24	FY 2024-25
Schemes for FY 2021-22, FY 2022-23 & FY 2023-24	595.59	
Schemes for FY 2023-24 & FY 2024-25		297.81
Government Projects	359.28	147.69
Consumer Funded	299.54	232.29
Meter & Cables	133.28	94.10
Total Capitalization	1387.69	771.89

6.5 Funding of the Capital Expenditure

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

- Government Grants
- Consumer Contribution
- Depreciation
- Debt
- 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 2022-23 and FY 2023-24 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 2023-24 and FY 2024-25

Based on the above the estimated funding is as follows:

Table-45: Funding Pattern –FY 2023-24 & FY 2024-25

(In Rs. Crs)


Particulars	FY 2023-24	FY 2024-25
Capitalization	1387.69	771.89
Met Through		
Meter & Cables-Debt	133.28	94.10
Consumer Contribution	299.54	232.29
Government Grants	359.28	147.69
Debt	416.92	208.47
Equity	178.68	89.34

6.11 Improvement through CAPEX:


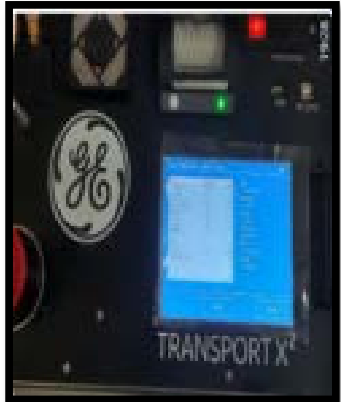

6.11.1 Statutory & Safety

Initiatives	Outcome
Fencing of Distribution - substations - Target 2945 Boundary wall of Primary substation - Target 121	-DSS Fencing: 1870 nos. completed -PSS Boundary wall: 53 (13081 running meter)
Development of Training infrastructure for Safety (Practice Yard) in each division	Safety Practice Yard: Developed for all 16 Div. -Safety Training: 19,746 own/ BA employees -Competency assessment: 2,650 BA employees
Establishing in-house Meter Testing Lab	Meter Testing Lab. commissioned: 2nos. of 1ph & 1no. of 3ph test benches -No. of Meter tested: 20,428 -In process of NABL accreditation (Consultant hired)
Life enhancement of network and maintaining safe horizontal / vertical clearances	Interposing Pole: 1365/2940 nos.






<p>Critical Safety & Testing equipment's for providing safe environment to workforce</p>	<p>Discharge Rod: 600 nos. Neon Tester: 525 nos. Ladder: 185 nos. Fire Extinguisher: 1870 nos.</p>	
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6.11.2 Loss Reduction:

Initiatives	Outcome	
<p><u>Pilferage proofing of LT line</u> -Conversion of LT Bare -Conductor to LTAB cable: -Target – 683.25 km</p>	<p>-LT Bare to LTAB cable: 404.65 km -Reduction in hooking, voltage improvement, avoidance of conductor snapping</p>	
<p><u>Infrastructure for Energy Audit</u> -100% metering at 33kV exchange level -100% metering for 825 11kV feeder -100% AMR – Target: 1057 -Smart Meter install on DT – Target: 9063</p>	<p>-AMR Meter Installed: 1,057 nos. - DT Smart Meter: 5,225 nos., Modem: 1254 nos. -Accurate Energy Accounting & AT&C loss assessment upto Section & DTR level -Identification of High Loss pockets</p>	
<p><u>Meter testing equipment</u> -To check consumer meter on site -To resolve meter related complaints -To avoid human error in meter reading</p>	<p>-Clamp-on Meter: 130 Nos. -Accuracy Check Meter: 108 Nos. -CT/PT testing kit: 06 Nos. -Meter Reading Instruments: 160 Nos.</p>	
<p><u>Health Checkup of Substations</u> Primary Sub-station diagnosis tool kits</p>	<p>-DG analyzer: 03 nos. -Partial Discharge Camera: 08 nos. -Tan-Delta Test Kit: 03 nos. -CT/PT analyzer: 05 nos. PQ analyzer: 02 nos.</p>	



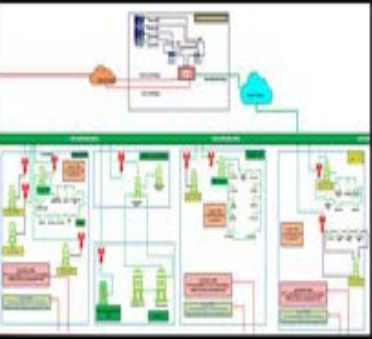
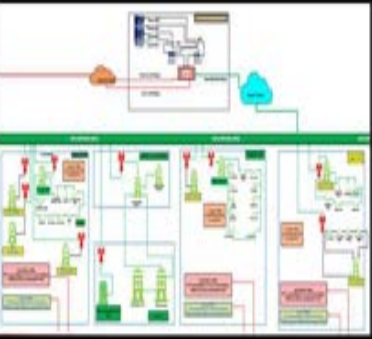
6.11.3 Reliability:



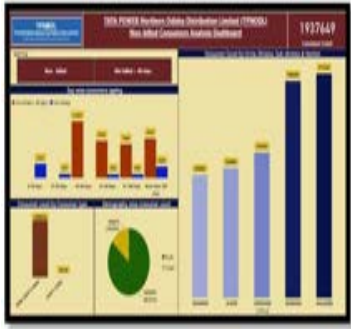
Initiatives	Outcome	
<p><u>Network Protection</u></p> <p>A) Mitigation of non-functional/without VCBs - Zero transformer without breaker protection</p> <p>B) Primary S/Stn elements Reduction of Power Transformer outages</p> <p>C) Dist. transformer protection arrangement - Reduction of unwanted 11kV outages due to LV faults & transformer burning</p> <p>D) Line Protection -Installation of Autoreclosure, Ring Main Unit, Fault Passage Indicator, Lightning Arrestor, Faster restoration/ isolation of faulty feeders, Town/city islanding. Disaster prone network.</p>	<p>A) 33kV Breaker: 87 Nos. - 11kV Breaker: 134 Nos. - PTR with at least one side protected by VCBs</p> <p>B) Installation of Relay-201,RTU-26,CR Panel-82 -Battery Bank – 75 & Battery Charger – 55</p> <p>C) LT Air Circuit Breaker for >250kVA: 702 (62%) -MCCB for >63kVA upto 200 kVA: 743 (18%) -Kit-kat fuse upto 63 kVA: 4772 (10%) -AB Switch: 1459 (31%); Lightning Arrestor: 245(28%)</p> <p>D) Autoreclosure/ RMUs: 83/166 nos. target - Fault Passage Indicator : 1545/2505 nos. target - Lightning Arrestor: 1350/1800 nos. target</p>	
<p><u>Network Refurbishment</u></p> <p>A) 33kV & 11kV line conductor upgradation</p> <p>B) Distribution Substation refurbishment/ revamp HT/LT protection, Fencing, LA. - Mobile Transformer Trolley</p>	<p>A) 33kV refurbishment: 263km 11kV refurbishment: 325km</p> <p>B) DSS Refurbished: 170/406 nos. target Mobile DTR: 09/09 nos. target</p>	
<p><u>N-1 redundancy</u></p> <p>A) N-1 redundancy at PSS level -Only 7 PSS having N-1 redundancy</p> <p>B) N-1 redundancy at PTR level -17 PSS having single PTR- non compliance to N-1 criteria.</p>	<p>A) N-1 redundancy available: 28/98 PSS target -Provision for backup restoration in fault/ disaster condition</p> <p>B) Additional 15 New 5MVA PTR installed to ensure N-1 redundancy</p>	

6.11.4 Load Growth:

Initiatives	Outcome	
<p><u>Reduction of Transformer Overloading</u></p> <p>No PTR above 80% of loading - 39 nos of PTRs were loaded beyond 80%</p>	<p>15 New 8MVA PTRs installed to augment 5MVA, cascaded to augment 3.15MVA, cascaded to augment 1.6MVA - Loading of 34 PTR reduced below 80%</p>	
<p><u>Length Reduction of long feeders</u></p> <p>-33kV lines > 50 km length: 10 identified -11kV lines > 100 km length: 61 identified</p>	<p>-33 kV line: Completed-6, WIP-4. -11 kV lines: Completed-10, WIP-7</p>	
<p><u>Network capacity enhancement</u></p> <p>-DTR augmentation: Target - 689 nos. -New DTR installation: Target - 245 nos.</p>	<p>-DTR augmentation: 245 Nos. -DTR installation: 151 Nos. -Mitigate over loading of DTs -Creation of margin for future -- load growth -Reduced burning of DT -Improve voltage</p>	
<p>Installation of New/Linking Lines of 33kV: Target - 121km & 11kV: Target – 136km</p>	<p>-33kV new lines: 40km -11kV new lines: 96km -Creation of margin for future load growth -Balancing of load between new & old PSS</p>	

6.11.5 Technology & IT

Initiatives	Outcome	
<p>Remote operation & monitoring of PSS through SCADA system</p>	<p>-Established PSCC at Kalimata - Mandir, Balasore: 01 No. -PSS integrated with SCADA: 115 Nos. -Unmanned: 09 Nos -Remote Operation: 49 Nos. Pre-handover test: 57 Nos.</p>	
<p>GIS Implementation and Consumer Indexing for -Better Asset Management -Understanding the network topology -DT wise, Feeder wise accurate Energy Audit -Consumer location & it connectivity</p>	<p>-GIS mapping: Completed-6 Divisions, WIP-9 -28765 sq km Basemap -25567 km Network -7.02 lacs Consumer indexing</p>	
<p>Establishment of Data Center for Enterprise & Customer application and Data Recovery Infra.</p>	<p>-All IT Infrastructure like Servers, Leaf & Spine Switch along with Storage established at OPTCL Data Centre, Bhubaneswar for smooth access of Enterprise and Customer application along with GIS, AMI and MDM.</p>	
<p>MPLS communication system for Offices & PSS</p>	<p>-No. of offices covered: Corporate office, Major Office (6) Circle Office (5), Division Office (16) , Sub Division (35) & Section (27) -For OT communication MPLS connectivity has been established in 110 PSS.</p>	

<p>Cyber Security for Data Centre & End User system</p>	<p>-Next Generation Firewall has been installed at Data Center along with Deep Security Anti-Virus. -Active Directory along with Domain joining of all users completed for unified access. -For End User system anti-virus is installed in all system with proper policies.</p>	
<p>Launch of enterprise & customer oriented Application</p>	<p>-Enterprise Application: Suraksha Prahari, Suraksha Kawach, FCC App, Connect2Resolve, Achievers Portal, SANGAM, PTL App and Knowledge management portal, BAMS, Arpan and E-Saathi -Customer application: E-collection, Samadhan Calculator, Mera MMG, Mo Bidyut, My Tapa Power, CIS Application, DO App, iCams</p>	
<p>AI/ML Analytics dashboarding on Power BI platform Helps in taking data driven decisions improving Billing Efficiency, Collection Efficiency and AT&C loss mitigation.</p>	<p>-Multiple dashboard prepared for Real time monitoring & data analysis i.e. - -Consumer Consumption -Provisional Bill Frequency -Predicted Payment Defaulter -No Billed Consumer Revenue Profile -Collection Analysis and Collection Efficiency</p>	

6.11.6 Civil & Administration:

Initiatives	Outcome	
<p>-Improvement of existing office Infrastructure & construction of new buildings:</p> <p>-Remodelling, Renovation, Rehabilitation existing structures and Construction of New Structures</p>	<p>Ergonomic work stations, improved office ambiance and hygiene at 4 Circle Offices, 13 Division Offices & 30 SDO</p> <p>Enhanced Asset life for 114 Section Offices and 105 PSS buildings</p> <p>Work in Progress for new Buildings at 1 Circle Office and 3 Division Offices.</p> <p>Canteen: Completed 3 nos, 6 nos planned</p> <p>Multi-Gym/ Courts : Completed 2 nos, 4 nos planned</p>	
<p>-Infrastructure development/ improvement for Customers:</p> <p>-To improve access points and provide early resolution</p>	<p>Customer Care: 16 nos. with Consumer friendly Infra., ergonomic counters and shaded waiting zone</p> <p>137 Anubhav Kendras at various GPs for easy access</p>	

7. Performance of TPNODL in First Two and Half Years of Operation- Initiatives Undertaken

In compliance to the vesting order of Hon'ble Commission, TPNODL started operation with effect from 1.04.2021. The overview of the network position as on 30.09.2023 has been depicted in the following table:

Table-46 : Overview of the Network Position

Particulars	As on 31.03.2021	As on 31.03.2022	As on 31.03.2023	As on 30.09.2023	Growth (Nos.) w.r.t. takeover	Growth (%) as on 30.09.2023
No. of 33/11kV Sub-station (Nos.)	217	236	244	245	28	12.90%
Power Transformers (Nos./ MVA)	488/2211	524/2419	550/2615	553/2640	65/429	13.32%/19.40%
Distribution Transformers (Nos./ MVA)	70429/2583	72323/2657	74726/278 6	76366/286 2	5937/279	8.43%/10.80%
33KV Line (CKT Km.)	2,868	2,895	3,024	3,074	206	7.19%
11KV Line (CKT Km.)	37,069	37,591	40,188	40,748	3,679	9.92%
LT Line (CKT Km.)	66,300	66,672	67,486	67,851	1,551	2.34%
No. of Consumers:						
EHT	36	37	41	41	5	13.89%
HT	557	614	659	713	156	28.01%
LT	20,07,540	20,88,432	2040888*	1942819	-64721	-3.22%
TOTAL	20,08,133	20,89,083	2041588	1943573	-64560	-3.21%
Sales :						
Input (MU)	4941	5327	6473	3842.82	-	-
Sales (MU)	3922	4347	5410	3272.20	-	-
Number of Employees	2158	2585	3025	2974	816	37.81%

The performance parameters of the licensee in the first two years of operation has been depicted in the following table

Table No.-47: Performance Parameters

Key Business Parameters (Overall)	FY 2020-21	FY 2021-22	FY 2022-23	Increase / Decrease w.r.t FY 2021-22	OERC Approved for FY 2022-23
INPUT (MU)	4941.19	5327.043	6476.00	1148.957	6020
SALES (MU)					
EHT	1424.984	1676.025	2651.931	975.906	1680.00
HT	388.865	503.265	625.417	122.152	500.00
LT	2107.784	2167.708	2132.704	-35.004	2735.30
Total	3921.633	4346.998	5410.052	1063.054	4915.30
DISRIBUTION LOSS %	20.63%	18.40%	16.43%	-1.97%	18.35%
COLLECTION EFFICIENCY %	94.28%	94.20%	106.06%	11.86%	99.00%
AT & C LOSS %	25.17%	23.13%	11.36%	-11.77%	19.17%

Both T&D Loss and AT&C Loss reduced by 1.97% and 11.77% (Including past arrear collection) respectively in FY 2022-23 with respect to 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.

TPNODL has also taken up several initiatives under Energy Audit, Operation & Maintenance of Distribution Networks, Commercial Services, Safety, IT & OT and HR during last two and half years of operation which are described as below:

7.1 Initiatives Under Energy Audit

Energy audit is considered as the key focus area by the TPNODL. In order to ensure precise energy consumption measurement at various voltage levels, several initiatives have been implemented to establish robust metering infrastructure. With this objective all the defective and faulty meters are replaced with DLMS meters at all the 33 kV and 11 kV Voltage level in PSS and ensured 100% metering for energy consumption measurement. TPNODL has placed a strong focus for the installation/replacement of CT and PT units in the PSS to ensure reliable voltage and current source for the metering. All these 33 kV and 11 kV feeder meters are equipped with AMRs for accurate and remotely capturing of the energy consumption on monthly basis. Furthermore, the energy audit is extended up to the DT levels by installation of smart meters for the DTs.

These initiatives have enabled TPNODL to conduct energy audits across various voltage levels in accordance with the directives and notifications of the Gazette of India for Energy Audits and relevant guidelines published by the Bureau of Energy Efficiency (BEE).

The various key energy audit initiatives taken by the utility is as follows

7.1.1 100% Exchange Level Metering at OPTCL GSS:

The energy meters installed at the exchange points, i.e. 114 Nos. of 33 kV feeders (Including 33 kV dedicated consumers) emanating from the O.P.T.C.L. G.S.S., are metered and their energy is monthly accounted. To ensure 100% energy accounting at the exchange level, a dedicated metering rectification drive was undertaken to rectify any discrepancies in the metering process. This involved checking all the meters for wiring issues, meter connections, and replacing any old or defective meters.

Table-48: The status of 33 kV TPNODL Feeder metering at OPTCL GSS is as follows

Circle	TPNODL 33 kV Feeders (at OPTCL GSS)	33 kV Feeder with Meter	% Metering
Balasore	31	31	100%
Baripada	24	24	100%
Bhadrak	12	12	100%
Jajpur	17	17	100%
Keonjhar	30	30	100%
Total	114	114	100%

To ensure accurate energy accounting at the point of energy exchange, a monthly energy audit is performed. This audit involves analysing the raw data files from each meter and comparing them with

the data from OTPCL-installed energy meters. This process helps to identify any discrepancies or disputes in energy consumption accounting, ensuring timely payment of Bulk Power Purchase Invoices without delays.

7.1.2 100 % metering for 33 kV and 11 kV Feeder at TPNODL PSS.

In order to ensure accurate energy measurement at various nodes of PSS level, the utility has made significant efforts to revive the 33 kV and 11 kV feeder metering at the PSS. To achieve this, a dedicate project initiated including the 828 Feeder meter replacement, installation/revival of 723 Line PTs and CTs to replace burnt and faulty metering units, shifting of meters to panels inside PSS, rectification of unsafe wiring and connections, and mapping of complete energy flow of feeders for audit purposes. were The Initiatives were taken to establish robust and accurate energy measurement infrastructure.

With the aforesaid initiative’s efforts, **100 % of 33 kV and 11 kV Feeder metering is achieved.** This has facilitated the audit of technical losses of network as well as identify the 11-kV high loss-making feeders to initiate loss reduction activities.

The Circle wise current status of metering is as follows

a) 100% metering for the 11 kV Feeders

Circle	11 kV Feeders		
	Total 11 kV Feeders	Feeder Metering	% Completion
Balasore	222	222	100%
Baripada	183	183	100%
Bhadrak	128	128	100%
Jajpur	129	129	100%
Keonjhar	163	163	100%
Total	825	825	100%

b) 100 % Metering for the 33 kV Feeders

Circle	33 kV PSS Feeders		
	Total 33kV Feeders	Feeder Metering	% Completion
Balasore	65	65	100%
Baripada	51	51	100%
Bhadrak	35	35	100%
Jajpur	41	41	100%

Keonjhar	47	47	100%
Total	239	239	100%

7.1.3 100% AMR Installation for 33 kV and 11 kV Feeders

In line with the BEE compliance, TPNODL has implemented the initiative for the AMR installation for all the 11 kV and 33 kV feeders, at the PSS in order to capture the meter data remotely without manual intervention, so that timely and accurate energy accounting can be carried out by the organisation. With this initiative, 1064 modems have been installed to fetch the accurate energy data in time bound manner. Some modems also installed for the HT and EHT consumer so that meter readings along with complete load survey can be captured remotely This has substantially curtailed the cycle time for energy meter data collection.

Table-49 : Status of AMR Installation

Circle	11 kV Feeders			33 kV PSS Feeders		
	Total 11 kV Feeders	AMR Installed	% Completion	Total 33kV Feeders	AMR Installed	% Completion
Balasore	222	222	100%	65	65	100%
Baripada	183	183	100%	51	51	100%
Bhadrak	128	128	100%	35	35	100%
Jajpur	129	129	100%	41	41	100%
Keonjhar	163	163	100%	47	47	100%
Total	825	825	100%	239	239	100%

With the AMR installation initiative, it is feasible to monitor and collect the various others operational parameters viz peak loading, average voltage, power factor of the complete network system and plan the technical losses accordingly

7.1.4 Feeder wise Consumer Mapping

TPNODL has taken an important step towards feeder-wise consumer mapping to audit the losses of the feeders. As a part of this initiative, the mapping of 33 kV and 11 kV feeder-wise consumers has been completed for around 20 lakh consumers, including both HT and LT consumers. The mapping is continuously updated in coordination with the respective circle and divisional managers. Subsequently, the consumer mapping is correlated with their metering and billing data to calculate the feeder-wise Transmission & Distribution (T&D) and Aggregate Technical & Commercial (AT&C)

losses. This initiative will help in identifying the high loss-making feeders and taking corrective actions to reduce the losses.

7.1.5 Smart metering for the DTs (Capacity >= 100 kVA)

Energy Accounting and loss identification at the DT level is one of the most important activity for steering the initiatives of AT&C loss reduction. In line with that, DT metering initiated by of TPNODL to ensure DT wise energy measurement. It is targeted to install the smart meters on 9059 DTs having capacity >=100KVA.

Currently, over 5303 (59%) DTs are equipped with these smart meters and integrated with MDM. In addition to real-time data acquisition, these smart meters can be used to monitor DT parameters remotely for driving operational and commercial excellence initiatives. GIS mappings are also integrated with the smart meters of DTs in order to provide accurate energy flow mapping up to the DT level in the GIS.

With this initiative, it is feasible to perform energy audit up to DT level to identify the energy losses and formulate the loss mitigation plan. Also, DT performance parameters, such as peak load, load factor, and phase-by-phase loading, can be measured on an operational level, which will contribute to the enhancement of power reliability and reduce technical losses.

Table-50: Smart Meter Installation Status on DTs

Circle	Smart Meter Installation on DTs		
	Total 33kV Feeders	Feeder Metering	% Completion
Balasore	3222	1988	62%
Baripada	1343	745	55%
Bhadrak	1403	633	45%
Jajpur	1784	1132	63%
Keonjhar	1311	805	61%
Total	9063	5303	59%

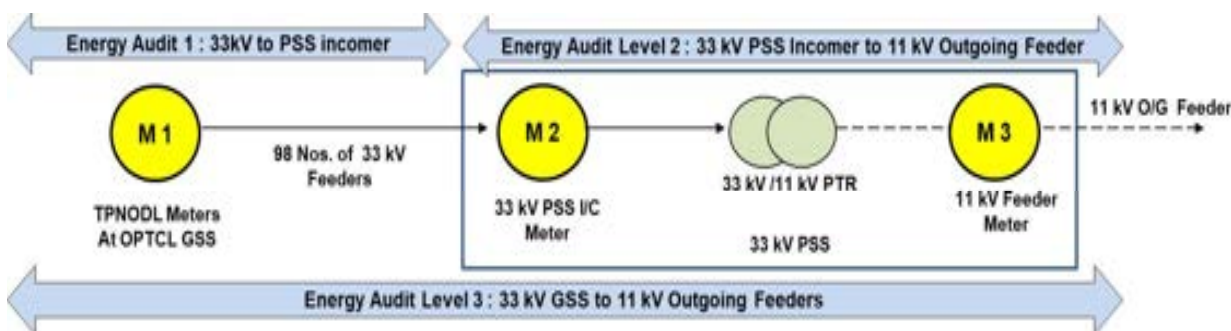
7.1.6 Section wise AT&C losses

The utility has taken initiative to compute the AT&C losses up to the lowest organisation unit i.e. up to section level. The 100 % metering at the feeder level and section wise consumer mapping facilitated to compute the HT and LT losses for the Circle, Division, Subdivision and up to Section level. These losses are published every month to so as to plan and implement actions for AT&C loss reduction. The highest loss-making sections are reviewed by the management for further improvement.

7.1.7 Energy Audit of the 33 kV Feeder Tree (33 kV GSS Level to 11 kV energy flow)

TPNODL has achieved 100% metering performance for the 11kV and 33 kV voltage level. As per the Bureau of Energy Efficiency (BEE) directives, energy loss is required to be calculated at various levels of the energy system. Therefore, energy audits have been completed to compute technical losses for the 114 Nos. of 33 kV feeders at the following levels

- a) **Energy Audit Level 1:** Energy audit carried out for all 33 kV TPNODL feeders emanating from the OPTCL GSS, i.e., computation of the 33-kV line loss up to the PSS level.
- b) **Energy Audit Level 2:** Energy audit carried out for 33 kV PSS (239 Nos.), i.e., computation of the energy loss between 33 kV PSS incomer to 11 kV outgoing feeders (825 Nos.)
- c) **Energy Audit Level 3:** Energy Audit carried out between the 33 kV (114 No.) TPNODL feeders emanating from GSS to the 11 kV Feeders (825 Nos.) falling under them i.e. computation of the energy loss between 33 kV GSS energy flow to 11 kV Outgoing feeders



Energy Audit at the various levels.

The sample audit is as mentioned below.

Energy Audit Level 1: 33 kV Feeder to the 33 kV PSS incomer

SL NO	33 KV FEEDER NAME	GSS INPUT	PSS / 33 KV CONSUMER	PSS IC / 33 KV CONSUMER (MU)	TOTAL PSS IC / 33 KV CONSUMER (MU)	% LOSS GSS TO PSS IC (C-E)
A	B	C	D	E	F	G
1	JARKA	4.5680	JARKA	2.3970	4.5020	1.44%
			NARSINGHPUR	0.6870		
			NEULPUR	1.3910		
			33 KV CONSUMER	0.0270		

Energy Audit Level 2: 33 kV PSS incomer to 11 kV Outgoing Feeders

PSS / 33 KV CONSUMER	PSS IC / 33 KV CONSUMER (MU)	TOTAL PSS IC / 33 KV CONSUMER (MU)	% LOSS GSS TO PSS IC (C-E)	11 KV FEEDER NAME	11 KV FEEDER (MU)	TOTAL 11 KV FEEDER (MU)	PSS LOSS (E-J)	%PSS LOSS				
D	E	F	G	H	I	J	K	L				
JARKA	2.3970	4.5020	1.44%	DHARMASALA	1.1140	2.3851	0.0119	0.50%				
				NAKPOLE	0.5175							
				KAEMA	0.7536							
NARSINGHPUR	0.6870			4.5020	1.44%	NALAKULA	0.1696	0.6822	0.0048	0.70%		
						KUNDAPATANA	0.2084					
						KOTAPUR	0.3042					
NEULPUR	1.3910					4.5020	1.44%	CHANDIKHOL	0.6876	1.3796	0.0114	0.82%
								NEULPUR	0.6921			
								SUNDARIA	0.0000			
33 KV CONSUMER	0.0270											

Energy Audit Level 3: 33 kV GSS to 11 kV Outgoing Feeders

SL NO	33 KV FEEDER NAME	GSS INPUT	PSS / 33 KV CONSUMER	11 KV FEEDER NAME	11 KV FEEDER (MU)	TOTAL 11 KV FEEDER (MU)	GSS TO 11 KV FEEDER LOSS (C-J)	% GSS TO 11 KV FEEDER LOSS
A	B	C	D	H	I	J	M	N
1	JARKA	4.5680	JARKA	DHARMASALA	1.1140	2.3851	0.0941	2.06%
				NAKPOLE	0.5175			
				KAEMA	0.7536			
			NARSINGHPUR	NALAKULA	0.1696	0.6822		
				KUNDAPATANA	0.2084			
				KOTAPUR	0.3042			
			NEULPUR	CHANDIKHOL	0.6876	1.3796		
				NEULPUR	0.6921			
				SUNDARIA	0.0000			
			33 KV CONSUMER					

7.1.8 Enforcement activities integrated with Energy Audit Data

In order to compute 11 kV Feeder wise distribution losses, the energy consumption of each feeder is compared with the billed units of consumers mapped to 11 kV feeders. The high loss-making feeder information is shared with the the enforcement team for detection of any possible electricity theft in the meters and network, thus supports to mitigate the energy pilferage across the utility. Additionally, the energy audit team checks the 11 kV meters, P.T., and C.T. connections in coordination with MRT to validate the exact multiplying factors. These initiatives have established a framework for systematic energy audit.

7.2 Initiatives under for Operation & Maintenance Activities

Initiatives undertaken by the licensee are furnished hereunder:

7.2.1 Safety Related Initiatives:

- **Safety Practice Yard & Porta Cabin:** Safety practice yard for hands-on training right from 33KV to LT lines & network is set up for all 16 Divisions. Safety Porta Cabin is also set up for classroom training session of all the linesman & BA employees.



- **Behavioral Based Safety Training:** NGO Aakar was engaged for behavioural based safety training & 5676 regular & BA employees were covered under this training session so far.



- **Suraksha Parivar Training Session:** One emotional video of true story on a fatal incident of a lineman is narrated in Odia language. We imparted training session with the family members of the lineman through this video on the part of counselling them to avoid unethical and unauthorised work. All linemen are covered.



➤ **Innovative Safety Harness integrated with Voltage Detector Helmet:** Ingeniously designed technology with modern, inventive Safety Helmet & Safety Harness connected with advanced communicative snap hooks. Interlinked through a wireless communication entirely powered through Solar power.

- A very novel concept to alert & identify the safe working practices in all respects while working at height, which in turn saves the life of workmen.
- Covers intentional or unintentional mistake like unfastened harness, not wearing a helmet, or unanchored hooks etc.



➤ **Innovative Self-locking Spring Controlled clamp:** In “as-is” methodology, field staff use to carry 7 nos. of rods (6 discharge rod+1 neon tester rod) for creation of safety zone & making both side earthing. Team face difficulty in carrying 7 Nos. long discharge rods & neon tester. It is also very unsafe to carry on bike. Instead of these, we developed a special type of self-locking spring-

controlled clamp which can be connected/disconnected in overhead bare conductor through “push & pull” mechanism with the usage of a single operating rod from the ground level. Hence, team need to carry 6 nos. of these clamps & a single operation rod for creation of safety zone.



7.2.2 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.

As on 30th September'23, DTR Maintenance (63KVA & above) of 16,218 nos. DTRs has been completed out of 17,236 DTRs, achieved approx. 94% of DTRs (63KVA & above).

The Overall scope and coverage of DTRs under MISSION 100: PROJECT RAKSHA 2.0 is given in table 1 below:

Table-51: Scope of Activities under MISSION 100: PROJECT RAKSHA 2.0

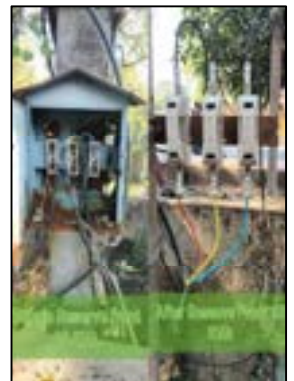
Sl. No.	DT Rating	Scope of Activities		LT Protection
		Maintenance Activities	Installation of LT Protection Devices	
1	63 kVA	100%	(Urban & Industrial)	KitKat Fuse
2	More than 63 kV up to & less than 250 kVA	100%	(Urban & Industrial)	MCCB & KitKat Fuse
3	250 kVA & Above up to 1 MVA	100%	100 %	ACBs

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 given below:

Table-52: Details of Activities under MISSION 100: PROJECT RAKSHA 2.0

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



7.2.3 Mega Block Initiatives

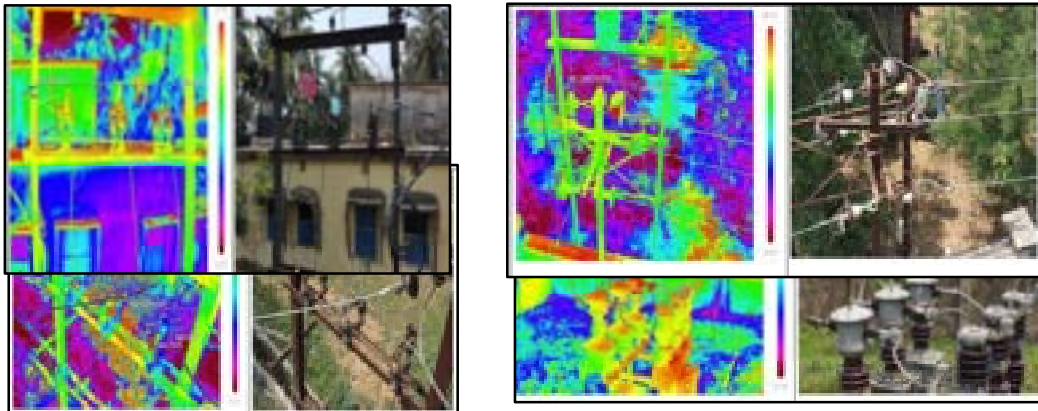
Long 8 hours outage involving 11KV & 33KV team, Project, AMC for effective maintenance in a single outage with a Prior announcement to all the affected areas & Information to DC, Local MLA, Industries etc. A holistic approach of Maintenance including all type of repair/replacement of vulnerable network 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.



7.2.4 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 field, 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 181 nos. 11kV Feeders & covered approx. 1829 kms. Completed total 99 Nos. of Priority feeders (41 nos. through Drone & 58 nos. through hand – held) by Oct-23.**



7.2.5 PTR Health Indexing

287 No's PTR health card index is being prepared as per the testing conducted by STS Team. 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.



7.2.6 Project PTR BACHAO

PTR Overhauling on Site for the first time. Same was already completed for 85 No's of PTR & 14 Nos's completed YTD till 30th Sep. Target to complete another 16 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.

7.2.7 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.
- The 2nd Voltage Regulator was installed and commissioned on 24th March'2023 at Pokhoria, under Jharadihi Feeder, ESO Bahalda, Rairangpur.

The installation has helped to improve the power quality, as the voltage at the receiving end is maintained constant amidst varying demand, increasing the longevity of all load equipment.



7.2.8 Satellite PSCC

In addition to main PSCC at Kalimata Mandir, Licensee has 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 & field crew to cater vast areas across TPNODL. Same was already set up at 12 divisions & others in progress.

7.2.9 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.



Table-53: Cable Fault location Identification Status through Power Cable Fault Locator

Input Received	No of Calls Received	No of Calls Attended	Healthy	Faulty
Sub Transmission (33 kV)	56	56	30	26
Distribution (11 KV)	59	57	39	18
Cable Route tracing	6	6	-	-
Total	121	121	69	44

7.2.10 Project 100% TREE FREE FEEDERS

Since the month of May-2022, the COS team have initiated an extensive tree trimming activities & we have received a huge support from the circle / division / section team as well. In view of maintaining a 2.5 metres distance from the 11KV Lines, a project named “100% TREE FREE FEEDER” was initiated by

the COS team, wherein the Associate shall be ensuring & certifying each and every 11KV feeders to be vegetation free. All the Tree Free Feeders needs to be also re-validated by the Associate & due verification by the COS team is conducted to validate the claim. This initiative has not only reduced the transient faults in the network but also reduced the restoration time during Kalbaishakhi or any natural calamity. As on 31st October'2023, 657 Feeders out of 831 Feeders have been completely "100% Tree Free Feeders" i.e. 79% achievement.

7.2.11 Predictive Maintenance – Ultrasound Scanning

Ultrasound Detection is conducted to predict the future failure through capturing the electrical discharges & preventive measures are initiated to mitigate the untimely break down & save the valuable assets. The objective of this Ultrasonic scanning is to identify abnormalities in the lines & network which may get converted into a potential failure and taking corrective action in advance to mitigate the same. Completed Survey of 45 11KV & 33KV Feeders & have rectified 84 % of the anomalies.



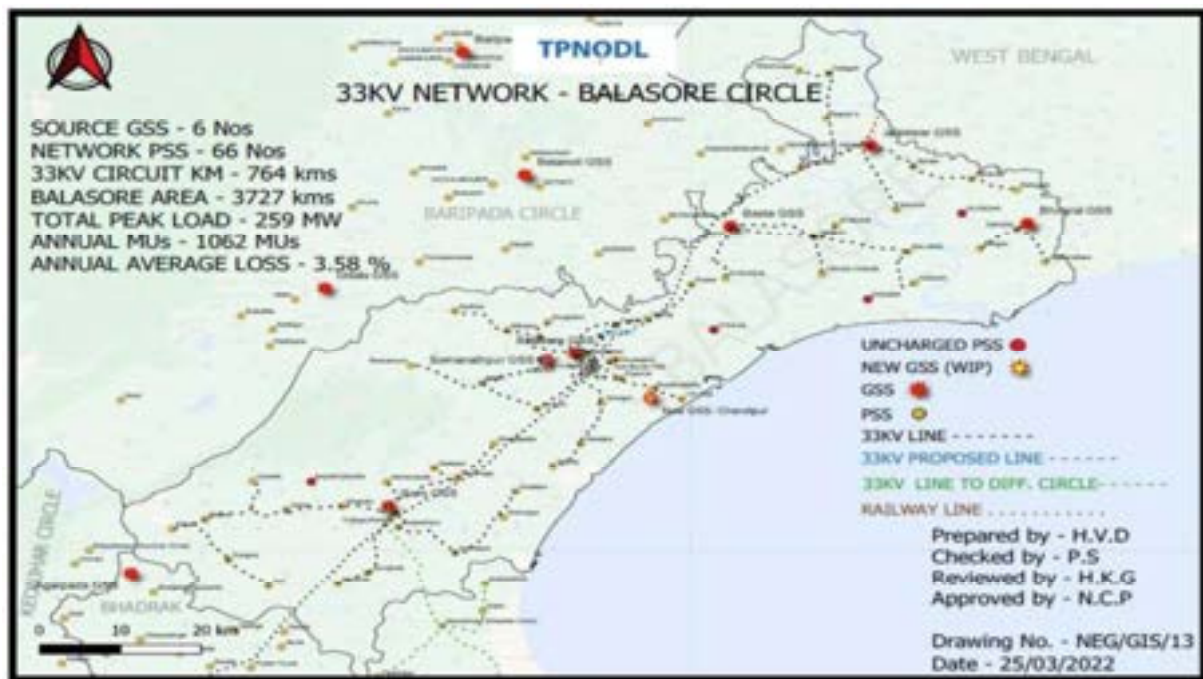
7.2.12 Centralized Remote Operation of PSS through SCADA Control Room (OpCenEx):

- Total 105 PSS integrated with SCADA
- 40 PSS – under remote operation from PSCC
- 3 Nos. PSS are completely unmanned
- 62 nos. are under final (pre-handover) testing



7.2.13 Network Load Flow Study

Completed network load flow study covering 100% 33KV & 11KV feeders – This has enabled us proper CAPEX planning & Optimum utilization of CAPEX. We are also in use of the same for feeder segregation/ bifurcation/ Shortening the network length to reduce the technical losses.



1.21 LT HT Protection to improve upon Reliability: Installation of 33KV & 11KV VBC (157 Nos.), RMU- 18 Nos. & Auto-recloser-38 Nos. Installation of FPI 1585 nos. in 11kv / 33kv Feeders.



7.2.14 Priority Feeder Maintenance

102 Nos. of 11KV & 38 Nos. of 33KV feeders were identified as the priority feeder based on various parameters, like tripping, loading, type of feeder (industrial/urban/feeding to HQ etc.) & conducted all round maintenance work (Tree trimming, insulator replacement, jumper replacement, earthing, cross arm, conductor restringing, interposing pole, installation of AB Switches etc.)



7.2.15 Tower Wagon

TPNODL have purchased 3 nos. tower wagon & deployed on filed for Effective Tree trimming & maintenance activities on height in a safe manner particularly on 13m long Joist pole.



7.2.16 Mobile Transformer Trolley

We have introduced & started utilizing “TROLLEY MOUNTED Distribution Transformer” for the first time in our operational area. This mobile trolley is consisting of 400KVA Transformer & 800A LT Air Circuit Breaker fitted on Trolley. Thus this is a transformer with LT side protection on wheel. This will surely help in reducing the downtime during DTR failure & uninterrupted supply for the consumers during longer outages for maintenance of project work. 5 Nos. of this Mobile Trolley were already procured & delivered at all the 5 circles namely Balasore, Bhadrak, Baripada, Jajpur & Keonjhar Circle. Another 4 Nos. are already in pipeline. Hence, 1 No. of trolley in each circle along with additional ones at few critical areas will be ensured with the availability of total 9 Nos. of trolley.



Chadak Mela, Jaleswar



President Visit, Rairangpur



President Visit, Baripada



EID Festival, Bhadrak

7.2.17 FCC App

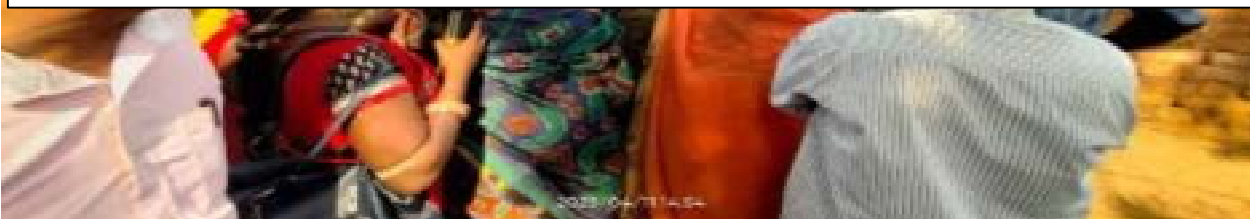
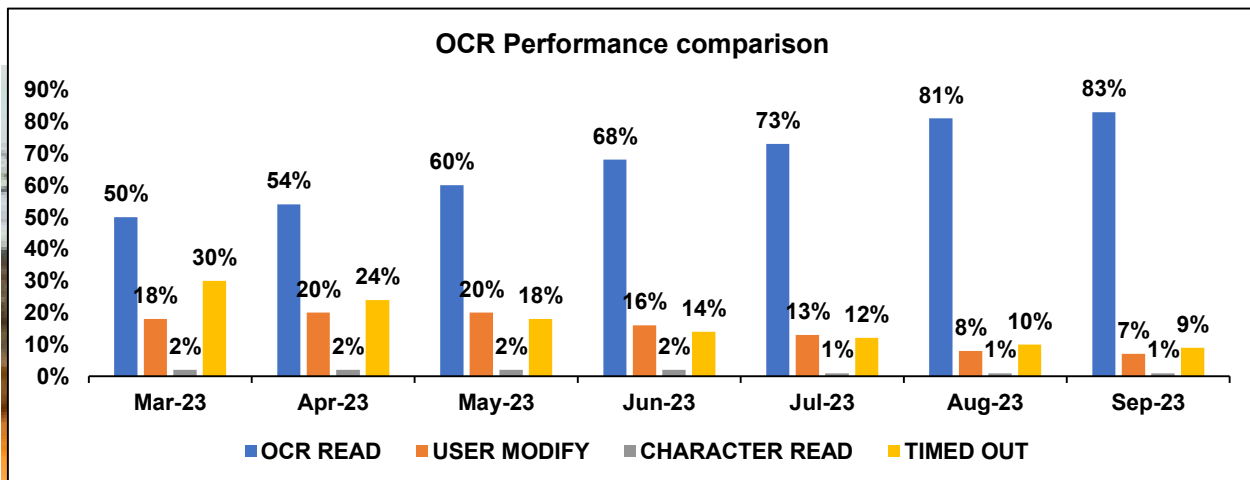
We have introduced the FCC App which is a mobile application to resolve the No Power Supply Complaints in an effective & efficient manner. The Consumer complaints will directly be forwarded to the Area Lineman through the Call Centre Executive or Customer Care Centres in this application which will be reflected in a mobile phone of the lineman. The Area Lineman will be able to acknowledge the Calls as per availability & close the complaints, post completion of the work. The calls can also be easily transferred from one FCC Camps to another or from one section to another in case of high call volume to one lineman. Section Manager & Area Lineman will be able identify and track each complaint i.e. call landing time, attending time, closure time etc. This Application will also help the Section Managers to closely control & monitor the complaints thereby enabling us to reduce the downtime and providing faster response to our valuable consumers. We have also provided Samsung Galaxy A-13 mobile phone & SIM card to our lineman for usage of this application.



7.3 Initiatives Under Commercial

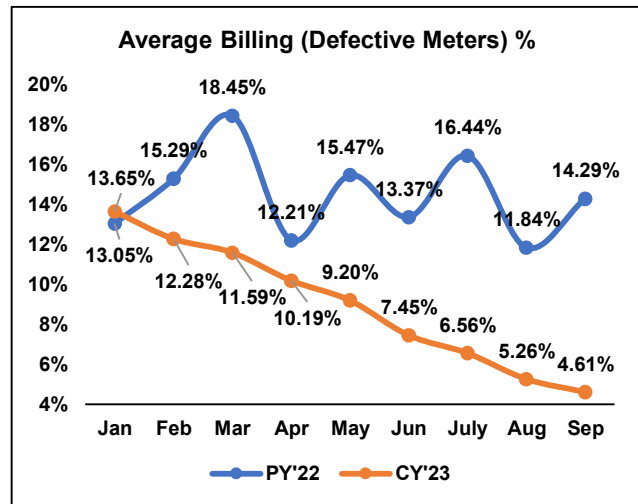
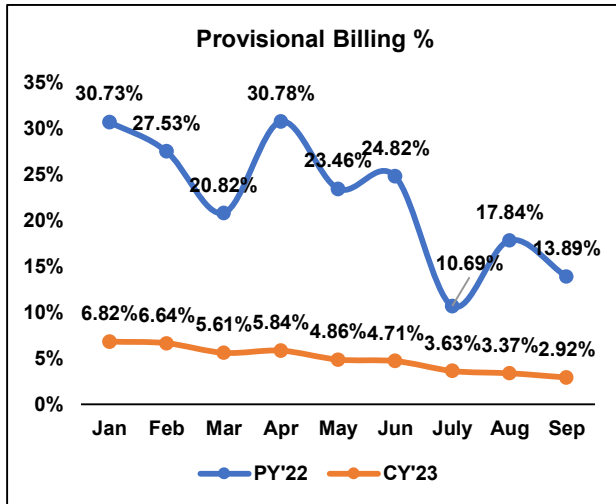
7.3.1 Highest OCR Based Billing

In order to enhance the accuracy of single-phase billing TPNODL adopted AI & Optical Characteristic based meter reading in last financial year. By multipronged approach like frequent training for Meter Readers, Daily monitoring from field as well as from Corporate level have improved OCR based meter reading to 90% at the end of the H1 of Current financial year. With this technology driven initiative we have ensured consumers getting correct bill without any human intervention.



7.3.2 Lowest Provisional & Average Billing

Rigorous training, follow-ups & monitoring of meter readers performance for adhering scheduled MRU wise meter reading leads TPNODL billing performance into the next orbit. At the end of the H1 of CFY we have achieved highest ever actual billing of 92.5% and Billing Coverage of 97% which leads significant reduction of Provisional billing to 2.9% & Average billing to 4.6%.



Training camp with Meter Readers

7.3.3 Proactive Customer Care

For listening to the voice and build trust and satisfaction of the consumers our “Sambandh customer Meet” at division level has been expended and completed 53 nos of such meet by H1. To convey & deliver all the available services at Village & Panchayat level we have launched “Disha Village Meet” program and completed 8 nos of meet in the Q2. For encouraging students of School & colleges and providing digital awareness by igniting young minds our “Jagriti Meet at educational Institution” continue to serve better result for improving Digital Collection. Completed 23 nos of such meet at various school & colleges in H1 of CFY



7.3.4 Project LT Vijaypath:

Project LT Vijaypath was launched for touching consumer for resolution of their billing issues and ensuring collection of arrear amount along with current demand in the month of March'23. Team TPNODL has significantly collected more than Rs. 400 Cr. In the month of March to achieve lowest ever AT&C loss of 11.36% in the FY23.

Table-54: LT Vijaypath Collection Summary

Billing & Collection as on		31-03-2023	
Category	Billing completed till date in Rs Crs	Collection till date in Rs Crs	Collection Efficiency %
HT / EHT	203.97	215.83	105.81%
LT	81.47	192.90	236.78%
Total	285.44	408.73	143.19%



7.3.5 Successful Implementation of OTS scheme Approved by Honorable Commission

Arrear recovery is one of the key factors for increasing collection Efficiency as well as consumer payment behavior practice. Hon’ble Commission has been circulated One Time Settlement scheme for benefit of consumers where can get rebate of maximum 30% on the Past Arrear for clearing full outstanding, which can resolve long pending Arrear of the consumers. TPNODL has implemented & execute the One-time settlement scheme very successfully and collected more than Rs. 100 Cr. throughout the OTS scheme period.

Table-55: Collection Status under OTS

Circle	Total	
	Numbers	Amount (Lakh)
Balasore	54071	2212.37
Bhadrak	41621	2365.62
Baripada	54425	1768.85
Jajpur	53539	2566.32
Keonjhar	27395	1386.09
Grand Total	231051	10299.25

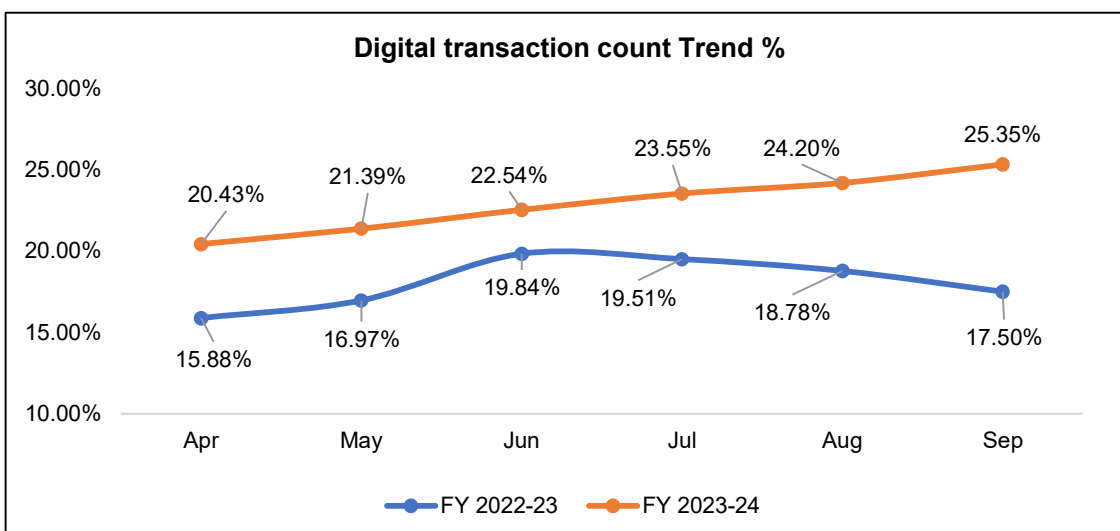
7.3.6 Project Swachh:

AT&C loss reduction is the main factor 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 the main focus area for that. Project “Swachh” is implemented for liquidation high value arrear by Collection, Correction of their disputed bill & Disconnection.

Circle	Total Numbers	Total TPN Arrear SWACHH (Rs. Cr.)	Total TPN Arrear as 30 th Sept. (Rs. Cr.)
Balasore	8589	22.51	20.57
Bhadrak	5967	13.87	13.70
Baripada	8218	26.80	24.28
Jajpur	7149	18.32	17.05
Keonjhar	10009	16.78	15.47
Grand Total	39932	98.29	91.08

7.3.7 Digital Collection Improvement

To ensure the movement with Digital India, TPNODL doing continuous effort to enhance various digital platforms for the consumers. In the revenue collection TPNODL strengthened multiple digital avenues like “zero” Convenience fee in My Tatapower App with referral code, Cashback offer in PayTm & GPay and introduction of digital collection at SBI CSP & SBI MPOS etc. leads Digital collection significantly up-to 26% by no of transactions & 50% by LT Revenue collection. For sustainability of Digital Collection by long-term Door to Door collection has been stopped for 9 section in 9 division which will increase up-to 16 section by H2 of CFY.





Strategic Collaboration with SBI for Digital Services & MPOS

7.4 Initiatives Under Safety

7.4.1 Initiative to build Safety Culture at TPNODL

Safety is the core value of TPNODL. Senior leaders at TPNODL provides a strong and visible leadership to promote safety culture necessary for the systematically managing the job 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.

- Apex Leadership Team (ALT) meets every month to discuss on safety related issues and concerns and identify improvement areas.
- 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 and Division safety committee to drive and implement safety across organization. Circle safety committee chaired by circle head and division safety committee chaired by division head every month.
- 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 agenda of meetings, conducting safety sessions during their visits to the operations/project's sites.

- 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. Nobody is allowed without safety induction and personal protective equipment (PPE).
- Tata Power Skill Development Institute (TPSDI) conducts safety training program to meet the safety Capability of Business Associates employees. We have established 14 nos practice yard and modern porta cabin to conduct all trainings. Different safety training module conducted for all employees everyday by dedicated experienced trainers.
- TPNODL has devised various Safety Reward & Recognition (R&R) mechanisms in order to encourage positive safety behaviors across various levels.
- 100% personal protective equipment provided to all business associate employees and TPNODL employees.
- 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.
- Regular safety communication is done to all in every meeting in TPNODL commences with a Safety Instruction.
- Safety themes are decided every month and communicated to create safety campaign across organization. Special safety drive during festival like Suraksha Bandhan, Raja Sankranti, Biswakarma Puja (MO PSS Nirmal PSS) etc.
- Mass awareness on fire and safety for employees and stakeholders is done during the celebration of National Electrical Safety Week, National electrical safety week, Road safety week, and Fire Week across the organization. Employees and their families are involved in various activities during the week.
- As per the safety policy, all employees are empowered to stop any unsafe work. These employees are also rewarded from time to time.
- 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.
- 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 avoid recurrence. All

incidents are reported and investigated to find out the root cause and corrective action and preventive action made to prevent reoccurrence.

- All incident learnings sharing with all employees and BA employees.
- We established practice yard with class room porta cabin at division level to develop skill of BA employees.
- Innovative Virtual Reality immersing training conducted. People are feeling like doing actual work at site.
- Public safety awareness created through mobile vehicle demonstration, display of hoarding at Gram panchayat level, posting videos and messages through social media.
- Behavioural based safety training (BBS) for TPNODL employees and BA employees conducted. **SURAKSHA PARIVAR** unique safety drive conducted for employees and their family members to build up safety culture across the TPNODL.
- New concept Behavioural based safety intervention “**JEEVAN KI AUR**” at site initiated through family counselling, **SPIRITUAL BHAJAN** programme,

7.4.2 Safety Training Centres/Yards

13 practice yards with porta cabins installed in across 16 divisions in 16 division TPSDI training centre is installed at CED, Balasore for L1 safety training. Safety Training conducted for (Employees/BA/Public) during FY 22 and FY 23 are given below:

Table-56: Details of Safety Training Conducted in FY 2021-22

Sl. No.	Training Details	No. of Persons Covered
1	Awareness on Felt Leadership	119
2	Safety Marshel "Train the Trainers"	575
4	Safety Induction (New Joining) officers	172
5	“Train the trainer” programme for engineers	79
6	Safety induction for new BA employees 11 and 33 kV AMC, MMG	8904
7	Safety training for 6% BA employees	144
8	TPSDI training attended	755
	Grand Total	10748

Table-57: Details of Safety Training Conducted in FY 2022-23

Sl. No.	Training Details	No. of BA Employees Covered
1	Fire safety training	2236
2	Safety Awareness Session	7758
3	Safety Induction Training	7893
4	Demonstration at site for Safety Zone Creation /Work at Height /PPEs/PTW	5622
5	Safety induction training to TPNODL new joined employee	672
6	Behavior Based Safety Training(TPNODL and BA employee)	5676
7	TPSDI training	1064
8	Handhold Practical demonstration training at practice yard and classroom training at porta cabin	2097
	Grand Total	21683

Table-58: Details of Safety Training Conducted in FY 2023-24 till Sep'2023

Sl. No.	Training Details	No. of BA Employees Covered
1	Fire safety training	1742
2	Safety Awareness Session	2926
3	Safety Induction Training L1 training	9607
	Safety Training for line man L2 training	
	Safety Training for supervisor L3 training	116
4	Demonstration at site for Safety Zone Creation /Work at Height /PPEs/PTW	1722
5	Safety induction training to TPNODL new joined employee	95
6	Behavior Based Safety Training (TPNODL and BA employee)	891
7	TPSDI training	390
8	First Aid training	
	Grand Total	17489

Initiatives are undertaken for the reduction of Electrical Accidents (Fatal/LTI etc.) for humans and animals

7.4.3 Step taken to reduce Electrical Accidents

- ✓ Innovative Pole climber Designed and trial completed for phase-wise implementation
- ✓ Innovative Self-locking Spring Controlled clamp used to overcome the problem of carrying 6 no of discharge rods by two-wheeler.

- ✓ Vertical lifeline: -Provision for a vertical lifeline and fall arrester is implemented while working on tower erection.
- ✓ Installation of Cable height meter The Cable Height Meter is an electromagnetic frequency-controlled handheld meter for the measurement of cable sag, cable height, and overhead clearance.
- ✓ Innovative Audiovisual of full body harness anchoring and wearing a helmet. FBH equipped with LED to visualize of anchoring hooks and wearing a helmet. The red color LED will blink while wearing the FBH and fastening the waist strap.
- ✓ Surprise Night visit:-101 Nos of surprise night visits and alcohol detection tests by the line managers
- ✓ Transformer Oil top-up with SOP at sites to reduce loading, unloading, and transportation hazard
- ✓ LTDB Box:-Installation of 118 LTDB Box for LT fuse protection in DTR
- ✓ Regular Surprise Safety Audits of 768 nos. were conducted, 94 batches of awareness sessions were organized and 1625 employees participated.

7.4.4 Process Development for Safety

- ✓ Job Safety Analysis -JSA prepared for all non-routine activities. Site specific JSA has been carried out at the site by Project Engineer /Section Manager and approved by immediate superior for all planned maintenance jobs. Every JSA must have the SLD showing the isolation points & discharge rod locations. Joint survey and risk assessment should be carried out by visiting the worksite by Operations, Projects & BA team.
- ✓ Safe zoning must be ensured before work on Electrical system of HT line and system where mandatory outage is required.
- ✓ SOP for all activities shall be reviewed to include learning, extensive awareness and monitored for its implementation.
- ✓ Work has been carried out after ensuring the control measures at site by the site supervisor as per SOP/SMP/WI/JSA. Anticipated hazards to be discussed in toolbox talk prior to start the work.
- ✓ No Supervision No Work concept to be ensured. Concerned officers shall monitor the activities of Site Supervisor deployed by the BA.

7.4.5 Training, Capability Development and Competency Development/ Behavior Intervention

- ✓ All the Project BA supervisors are trained on SOP preparation & reading of single line diagram (SLD). Workmen without undergoing Safety induction training is not allowed to work.
- ✓ Technical & safety competency mapping of BA supervisors to be re-assessed and training is provided in addition to training on Behavior safety. Competency mapping of Project BA supervisors is carried out with developmental plan.
- ✓ Behavioural improvement required. Extensive TBT had been conducted across the TPNODL to stop unsafe act by co-worker. BBS interventions through AKAR was implemented across TPNODL.
- ✓ Efficacy of individual Safety Commitment to be reemphasized through mass meetings at every section level.
- ✓ Test Before Touch – Reinforce this concept by behavioural interventions.
- ✓ Alcohol use by workmen during work had been checked using breathe analysers.
- ✓ Involvement of family members of workmen to ensure during safety discussions to reinforce safe practice adoption. In TPNODL 212 **Suraksha Parivar** Session conducted.
- ✓ A total of 1684 family members participated.

7.4.6 Public Awareness

- ✓ Consumer awareness drive had been taken up to make public aware of unsafe acts being done by workman and request public to report such unsafe acts through WhatsApp number.
- ✓ 38 public safety awareness rallies conducted in FY24.
- ✓ 42 electrical safety awareness training conducted at school and college level.
- ✓ Display of Public awareness video through LED van through all 5 circle in TPNODL.
- ✓ Sharing of whatsApp no to the public to report unsafe condition /act.
- ✓ Sharing of pamphlet, Magnet safety batch distributed to public and display electrical safety awareness video in rural areas

7.5 Initiatives Under IT & OT

Many new initiatives from IT & OT side have been taken in last two financial year i.e., FY 22 and FY 23 and many new digital improvements and initiatives are taking place in current FY 24. To improve the reliability and quality of power, it is very much essential to strengthen IT along with Operational Technology on ADMS and management of consumers outages, integrated

ADMS-GIS and data creation of pan TPNODL in GIS. Various initiatives have been taken to establish IT and OT Technologies to drive the benefits as mentioned below:

7.5.1 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:

- Mobile app (My Tata Power App) to provide one app solution from applying to new connection, billing & payment update and history, complaint registration etc.
- Interactive solution through WhatsApp
- SMS based intimation on various services
- Mobile app for collection
- Mobile app for Fuse Call Complaint Handling
- 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.

7.5.2 Key Considerations for IT Landscape Transformation

- Development of On-premises data center for hosting various applications and creation of DR center for handling any eventualities.
- Bespoke Applications for digitalization of business processes.
- Mobile Applications for consumers and employees to stay connected all the

time for faster action and response.

- Cyber security practices to protect the IT systems from any penetration and vulnerabilities.

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

- ❖ **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.
- ❖ **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.
- ❖ **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.
- ❖ **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. Consumers can now also recharge their prepaid accounts and also their post-paid outstanding dues. Smart-metered consumers can now view their daily consumption on this platform.
- ❖ **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. This is a user-

friendly app in terms of consumption posting of materials to SAP along with commercial data modification to CIS database on a real-time basis

- ❖ **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.
- ❖ **New Connections through MO BIDYUT** - New consumer up to 5KW can apply, track & raise complain in this portal. Real time synking available with our Billing application for smooth processing of new application.
- ❖ **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.
- ❖ **Integrated Call Centre:** Call centre 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 are now establishing integrated call centre solution which will provide all services to consumers and auto work flow for resolution of complaints.
- ❖ **E-Office Application:** We have initiated this application at location basis where 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.
- ❖ **PayTM's UPI Intent Flow** – We will be integrating the PayTm UPI Intent flow within the My Tata Power App. Through this approach, after clicking the PayTm UPI link, it will directly take the consumers to PayTm App (in-case app is installed). Consumer can then make the payment directly after entering the PIN. Through this users need not remember their VPA (Virtual Payment Address) for making UPI payment. Consumers do not need to switch between the Merchant App, UPI PSP App and SMS.

- ❖ **DO App** – We can execute disconnection order and cancel it on a real-time basis. We can also view the latest payment details of the consumers. An MIS tool is also available in the Portal for analyse the Disconnection details of various consumer.
- ❖ **Vendor Management System** – Though this app our valuable business associate can submit their documents and validated by our Finance and contract team without manual innervation. Vender number can auto generate through this app in SAP.
- ❖ **Power BI** –We have rolled out this digital tool of Dashboarding which will empower our users take data driven decisions which in turn will help us improve our Billing Efficiency, Collection Efficiency and AT&C loss mitigation. Billing analysis, Consumer Consumption Analysis, Non-Actual Bill Frequency Analysis, Predicted Payment Defaulter, No Billed Consumer, Revenue Profile, Collection Analysis and Collection Efficiency have been integrated so as to help the users take data driven decisions for better output.
- ❖ **Smart Metering:** We have deployed AMI infrastructure and applications i.e. HES (Head End System), MDM (Meter Data Management systems) for monitoring and controlling smart meters. Integration between this system has been completed. Its integration with CIS and the My Tata Power app, as a result of which, smart-metered consumers are able to see their daily consumption, prepaid consumers are able to recharge and provision given to clear their previous post-paid outstanding dues. It is essential to have a connect with customer on real time basis so that information to the consumer can be sent timely. So, Smart metering is implemented which will create AMI to have post-paid and prepaid connection with multiple features. Further, we are proposing to expand this system to integrate newly proposed smart meters to cover more consumers under smart metering project.

7.5.3 IT Assets and Services to TPNODL Employee

a) **EMAIL ID** - E-mail Ids has been provided for pan TPNODL employees. All employees are having email system for faster and effective communication. We have cloud based MS Office 365 email services which enables email access over the internet anywhere through secure channels and data security is also ensured. Total 2260 users are accessing not only emails but also other applications available which are useful for official activities and other primary functionalities. We have also allocated 1 TB cloud storage per user in the form of one drive

application to maintain data backup and data loss prevention technology protecting cyber risks. Appropriate policies have been put in place to maintain organisational process of information sharing as per the hierarchy. Restricting unauthorized or vulnerable domains available in the internet to manipulate user mailbox through spam/junk emails.

b) Laptop, Desktop, Printer & Scanner – To improve the accessibility of applications and digital environment developed by the organisation each user has been allocated by a desktop or laptop as per business requirement. We have allocated 2050 laptops and 650 desktops to our employees with all cybersecurity configurations. To ensure central management and reporting we have implemented active directory domain services under which all the systems are controlled. System administration policy could be managed through GPO (Group policy objects) templates and patch management as per CERT-IN guidelines and other government cybersecurity guidelines. We have provided 300 printers and 250 scanners across PAN TPNODL for improvement of daily productivity

7.5.4 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 centre devices we have taken multiple steps.

We have implemented next generation firewall towards internet traffics which protects all inbound and outbound data traffic to be filtered through various security policies configured as per global standard. This next generation firewall has UTM (Unified thread management), ASM (Attack surface management), sandboxing features which analyses real-time packets for each individual applications and services hosted over the intranet and internet.

We have also provided an AD enabled self- service platform for reliable and user-friendly password management.

We have implemented Antivirus for End User system and Servers in data centre for protection against malicious virus attack

7.5.5 Communication and Network Infra

- To make the application cyber secured and redundant connectivity we are connecting offices with IP/MPLS Connectivity.
- All major offices, Corporate office, Circle Office and Division office are now connected in MPLS network.

- 100% of the offices are facilitated by internet over the intranet with enablement of MPLS VPN secure channel.
- We have developed our own IT communication media through optical fiber channels across five different circles for self-management and zero risks assurance. We have connected a span of 20-Km optical fiber channels covering 60 offices.
- 110 PSS are connected in MPLS network for automation related activities.
- To enable secure access to our business associates for delivery of third-party service configurations SSL and IPsec VPN licenses over internet cloud.

7.5.6 Operation Technology

7.5.6.1 GIS Implementation and Consumer Indexing

GIS is foundational Technology for 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 implemented GIS in 6 Division and in remaining 9 Division GIS activity in under progress. Till date we have captured more than 7 lacs consumer indexing in GIS system.

7.5.6.2 SCADA & ADMS Implementation:

- 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.
- 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.
- 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.

7.6 Initiatives Under HR

In order to successfully manage the workforce of around 2900 employees on rolls and about 13000 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, connect to resolve, permit to leave, Aagaman portal for candidate onboarding etc. has been implemented and few other applications 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.

Learning need assessment is being conducted across all positions and training program are designed and delivered through in-house development of training center. This year the newly joined 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 centers.

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 two years, 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. In continuation to the last year initiatives, this year also we have taken steps for our employee wellbeing, upskilling for the development and professional growth of employees. New Initiatives have been taken in the area of women empowerment as our women workforce has grown over the period of time. Following are the new programs taken up during the FY 2023-24:

- **Fire Safety Session for Women Employees:** The objective of this fire safety training for women employees is to empower them with the knowledge, skills, and confidence to effectively respond to fire emergencies, ensuring their safety and that of their colleagues. Increase awareness of fire hazards in the workplace and at home. Provide hands-on training in the proper use of fire extinguishers and other firefighting equipment.
- **Monthly Health Talk:** The Monthly Health Talk initiative is born out of our desire to empower each employee with the knowledge and tools needed to prioritize their health. By fostering a culture of well-being, we aim to create a workplace where everyone can thrive both personally and professionally. Monthly Health Talk series! As part of our commitment to supporting holistic health of our employees. During this session we bring expert insights, practical tips, and a platform for open discussions on various health topics.
- **E-Learning Portal:** The objective of implementing an e-learning platform i.e. LinkedIn, for employees is multifaceted, aiming to enhance individual and organizational growth. Provide employees with access to a diverse range of courses and training modules to continuously develop and upgrade their skills. Foster a culture of lifelong learning, ensuring that employees stay relevant in a rapidly evolving business landscape.
- **Odia Classes for Non-Odia Employees:** Cultivate an inclusive and diverse work environment by providing language classes, ensuring that all employees, regardless of their native language, feel valued and integrated. Enable non-Odia employees to communicate more effectively with Odia-speaking colleagues and clients, fostering better collaboration and understanding in the workplace. Improve interactions with Odia-speaking customers and clients, enhancing customer satisfaction and building stronger relationships by demonstrating a commitment to linguistic and cultural understanding. By addressing these objectives, Odia

classes for non-Odia employees can serve as a strategic initiative to build a more cohesive, communicative, and culturally aware workforce.

- **Tech-Skill Program:** Under this program new joiners are imparted with Microsoft Office Suits like Advance Excel, Microsoft Word, Power Point along with email antiquates.

- **5S Training:** Enhance overall workplace efficiency by instilling the principles of Sort, Set in Order, Shine, Standardize, and Sustain (5S), leading to streamlined processes and reduced waste. Increase employee productivity through organized workspaces, minimizing the time spent searching for tools, materials, or information. Create a safer work environment by eliminating clutter, reducing the risk of accidents, and promoting a culture of safety and awareness. Identify and eliminate unnecessary items and processes, resulting in cost savings through reduced material usage, improved resource allocation, and minimized downtime. Empower employees to take ownership of their workspaces, fostering a sense of responsibility, pride, and engagement in maintaining a clean and organized environment.

- **Code of Conduct and Prevention of Sexual Harassment (POSH):** Instil a deep understanding of ethical principles outlined in the Code of Conduct (TCOC), ensuring that employees are well-versed in the company's commitment to integrity, honesty, and transparency. Ensure that employees comprehend and adhere to the legal and regulatory requirements outlined in the TCOC, fostering a culture of compliance and responsible business practices. Educate employees about what constitutes sexual harassment, ensuring a clear understanding of unacceptable behaviour and its impact on individuals and the workplace. Cultivate a workplace culture that rejects all forms of sexual harassment, promoting respect, dignity, and inclusivity for all employees.

- **Behavioural Based Safety Program:** Along with our regular employees, our organisation also focuses on safety of our Business Associates. For this a Behavioural Based Safety (BBS) programs has been designed & are being conducted across the organisation.

7.6.1 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. This year we have covered 100% of Executive employees under the Suraksha Sambad – Garima Training Program and all the senior leaders under the Felt Leadership Safety training program ensuring employees are aware on the way they approach the unsafe condition in a professional manner and help the employee understand the importance of safety in their day to day activities. In addition to the regular employees Behavioural based safety trainings are also being carried out for the Business Associate employees for safe working.

7.6.2 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 each year is finalized during 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.

7.6.3 Behavioral 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 behavioral 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 behavioral competency gaps among executives, basis which training needs could be finalized.

Divisional HR Team shall ensure completion of maximum behavioral 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 behavioral training and/or OD interventions, services of external trainer of repute may be utilized.

7.6.4 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 being 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 are provided certain training specific to their group/ department for which focus group training would be imparted for the group depending on group's need.

7.6.5 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 strategizes 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. To ensure development of competency of Leaders Executive Development program was organized at XIM, Bhubaneswar for all JE, EE, SE and Team Leads.

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.

7.6.6 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.

7.6.7 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 stabilized. TPNODL will review all its processes and execute towards ensuring a higher level of consumer delight and achieving other business results TPNODL has been accredited with IMS Certification last year and has resulted into seamless integration of all crucial management system into one place. It has also enabled TPNODL to streamline its management operations, improve efficiency, and save adequate time. This year 5S methodology is being introduced as an awareness program among employees with an aim to implement in the next few years for the same to improve efficiency and eliminate waste by maintaining clean and organized work environment.

7.6.8 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. This year employees participated in the Tata Volunteering week 20 which was organized from September 5th to October 7th, 2023 with a theme 'Team TV Twenty – League of Extraordinary Volunteers'. A total of 1332 dedicated volunteers actively participated across 16 divisions, collecting investing more than 5,388 hours in diverse range of activities such as tree plantation programs in local schools and communities, spending time with old age homes, orphans, and individuals with special abilities etc.

7.6.9 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. Each year Engagement calendar is prepared and various programs are organized on a regular basis for the involvement of employees, business associates and family members. Just like the previous year's various engagement programs like celebration of Vishwakarma, Ganesh, Diwali & Durga Pujas were organized along with competitions such as drawing, painting, Diya making etc. where the participation of employees has been immense. The carom & chess competitions were also organized for employees recently and ethnic day was celebrated with much fervor. Further, many such activities are in store such as Family Picnic, Cricket etc for employees and family members to come together.

7.6.10 Employee Training Plan

Employee Training Plan for the FY 2024-25 has been depicted in the below table:

Table-59: Training Plan FY 2024-25

Types of Training	FY-2024-25	
	Batches	% Coverage
Pehchaan (Induction)	25 Batches	100%
Pratigya (Positivity & Motivation Program)	40 Batches	85%
Prarambh (Senior Leadership Development Program)	3 Batches	100%
Prarambh (Middle Level Leadership Development Program)	10 Batches	100%
Prarambh (Executive Level Leadership Development Program)	20 Batches	100%
Prayaas (Customer Centric Program)	5 Batches	100%
Prerna (Best Practice Visit)		20% Of total Executives
Gyankosh-LinkedIn		100%
Safety Training Programs	75 batches	100%
Safety Training Programs (BA)	50 Batches	50%
Women Empowerment Programs	10 Batches	100%
Health -Power Talk	14 Batches	For All Emp
Functional Training	10 batches	100%
Behavioral Training	30 batches	85%
Organizational Training	2 batches	85%
SAP GRC Modules	As per Requirement	
Tech Skills (MS Office Suit)	20 Batches	All OAG & New Joinees
Mentor Mentee Program	10 group	
Train the Trainer (Internal Trainer certification)	50 nos Emp	

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-60: Statement of Allocation of Wheeling and Retail Supply Cost

SI No.	Cost/Income Component	ARR for Ensuing FY	Assumption Ratio for consideration in Wheeling Business	Assumption Ratio for consideration in Retail Supply Business	Wheeling cost for Ensuing FY	Retail supply Cost for Ensuing FY
1	Cost of Power	2733.96	0%	100%	0.00	2733.96
2	Transmission Charges	195.87	0%	100%	0.00	195.87
3	SLDC Charges	1.16	0%	100%	0.00	1.16
	Total power purchase cost *	2930.99			0.00	2930.99
	O&M	0.00				
4	Employee Cost	532.72	60%	40%	319.63	213.09
5	Repair & Maintenance Cost	321.45	90%	10%	289.30	32.14
6	Administrative & General Expenses	134.40	50%	50%	67.20	67.20
7	Bad & Doubtful Debt including Rebate	40.49	0%	100%	0.00	40.49
8	Depreciation	97.29	90%	10%	87.56	9.73
	Interest on Loans	0.00				
9	for Capital loan	61.95	90%	10%	55.75	6.19
10	for Working capital	51.86	10%	90%	5.19	46.67
11	Interest on Security Deposits	63.17	0%	100%	0.00	63.17
12	Return on Equity	102.54	90%	10%	92.28	10.25
13	Tax on RoE	34.49	90%	10%	31.04	3.45
	Special Appropriation	0.00				
14	Carrying Cost	9.24	25%	75%	2.31	6.93
15	True Up of Current year GAP 1/3rd	0.00	25%	75%	0.00	0.00
16	Other, if any- Contingency Reserve	0.00	100%	0%	0.00	0.00
	Grand Total	4380.57			950.27	3430.31
	Miscellaneous Receipt	0.00				
19	Total Misc. Receipts	207.34	10%	90%	20.73	186.61
20	Total Revenue Requirement	4173.23			929.53	3243.70

9. Demand Side Management

Energy is the lifeblood of modern societies, and the efficient use of energy resources is of paramount importance to ensure sustainable development, reduce carbon emissions, and ensure energy security. Demand Side Management (DSM) represents a holistic approach to energy conservation and efficiency by addressing the consumption side of the energy equation. It encompasses a range of strategies, programs, and initiatives aimed at optimizing energy consumption, enhancing grid stability, and promoting a greener and more resilient energy future.

DSM recognizes that while the augmentation of energy supply is vital, equal emphasis must be placed on optimizing the consumption pattern of end consumers and thereby moderating demand growth. By engaging the end consumers, DSM endeavours to alter consumption patterns and peak demand behaviour, thereby reducing the strain on existing infrastructure and deferring the need for additional generation and distribution capacity

Further, a combined petition was filed for approval of Energy Efficiency Program for Domestic Consumers for promotion of Demand Side Management in the State before Hon'ble Commission. The above petition which is registered as Case 79/2023 proposes replacement of 20,00,000 induction Fans with BEE 5 Star rated Brush-Less Direct Current (BLDC) Fans (maximum 2 per household) for domestic consumers. The Proposal includes 30% subsidy by GoO and 20% by DISCOMS by way of approval in ARR. Total Rs. 38 Cr for each DISCOM (total Rs. 152 Cr for four DISCOM) is proposed which translates into yearly requirement of Rs. 8 Cr in ARR of each DISCOM.

About BLDC Fans:

- Fans are virtually available in each household, and unlike tube lights which are used only during late evening / night hours, fans are used virtually throughout the 24 hour day and hence have a significant energy savings potential.
- BLDC fan reduces power consumption by up to 63% and in fact, it is more cost-efficient. One of the primary reasons is that these fans use less energy consumption but still generate the same amount of airflow.

- A typical conventional induction-based fan consumes around 75 watts while a BEE 5 Star BLDC fan consumes about 28 watts. If a fan runs for more than 15 hours on a daily basis, at an average electricity cost of Rs. 5.5 per unit¹ and an average price of installation of BLDC fan at Rs. 3416 per fan (Please refer to Table-B for cost details), its full cost can be recovered in less than three years (Rs. 3416/Rs.1415=2.4 years) in the form of energy-savings with BEE 5 Star BLDC fans.
- The computation of Annual Savings from installation of BEE 5 Star BLDC vis-a vis conventional induction fans is provided in table below.

Table-61: Annual Savings: BEE 5 Star BLDC Fan vs Conventional Induction Fans

Type of Fan	Watt	Hourly Consumption (Units)	Daily Consumption (Units)	Yearly Consumption (Units)	Yearly Cost at Average Electricity Charges of Rs. 5.5 per unit (Rs.)
A	B	C	D=CX15 hrs	E=DX365	F=EXRs. 5.5
Induction based Fan	75	0.075	1.125	411	2258
BEE 5 Star BLDC Fan	28	0.028	0.42	153	843
Annual Savings				257	1415

- As specified in the above, the estimated annual energy savings due to use of a BEE 5 Star BLDC Fan over conventional induction fan is estimated at 257 units with an annual monetary saving of Rs. 1415 per Fan
- As a result, estimated cumulative annual energy saving for consumers participating in this DSM program for a total of 20,00,000 Fans shall be 515 MUs per year and annual monetary saving at consumers end would be Rs. 283 Crore.

Table-62: Cost of installation of one BEE 5 Star BLDC Fan replacing one existing Induction Fan

Sr No	Particular	Amount (Rs.)
1	Basic Price of One BEE 5 Star BLDC Fan	2405
2=1X18%	GST @ 18%	432.90
3=1+2	Total Price of One BEE 5 Star BLDC Fan Including GST	2837.90
4	Dismantling and Installation Charge	250

5=1X10%	Transportation Charges	240
6= (4+5) X 18%	GST @ 18% on Dismantling, Installation & Transportation Charges	88
7=3+4+5+6	Total Cost of Installation of one BEE 5 Star BLDC Fan (Supply and Service Cost including Transport)	3416

Table-63: Year wise Allowance of DSM Expenditure in ARR of each DISCOMs

Sr No.	Particulars	UoM	FY 2023-24	FY 2024-25
A	Numbers of BEE 5 Star BLDC Fan Proposed to be installed (replacing existing induction fans) by each DISCOM	Nos	20000	120000
B	Cost of installing One BEE 5 Star BLDC Fan by replacing existing one induction Fan (Inc. GST)	Rs.	3416	3416
C=20% X B	Subsidy / Incentive per BEE 5 Star BLDC Fan by each DISCOM by Allowance as DSM Expenditure in ARR	Rs.	683	683
D=4X(AXC)/10^7	Total Cost of subsidy/ Incentive for BEE 5 Star BLDC Fan in ARR of all Four DISCOM	Rs. Cr.	5.50	32.80
E	*Expenditure towards Information, Education and Communication (IEC) expenses and other expenses for Implementation of the Scheme as DSM Expenditure in ARR	Rs. Cr.	2.40	2.40
F=D+E	Total 'DSM Expenditure' to be allowed in ARR of all Four DISCOMs	Rs. Cr.	7.90	35.20
G=F/4	Total 'DSM Expenditure' to be allowed in ARR of all each DISCOM	Rs. Cr.	2	8.8

Final order in this matter is yet to be pronounced. The licensee most humbly prays before Hon'ble Commission to consider the cost component towards implementation of DSM, basing on the decision of Hon'ble Commission in the matter.

10. Tariff Rationalisation Measures

10.1 DPS on Electricity Bills

It is to submit that, Hon'ble Commission had discontinued the practice of levy of DPS on the Electricity Bills to LT Domestic, LT GP and HT Bulk Supply Domestic consumers, in the Tariff Order for FY 2023-24. The Extracts of the Tariff Order is as follows:

87. The issue of levy of DPS to above categories of consumers was raised by DISCOMs during hearing. The Commission thoroughly scrutinised the issue. It is found that levy of DPS is acting as a hurdle for small consumers in resolving their disputed bills. The revenue impact of DPS for these small consumers is also not substantial. Therefore, in order to resolve bill disputes quickly, the Commission decides to abolish DPS for LT Domestic, LT General Purpose and HT Bulk Supply Domestic Consumers w.e.f. 01.04.2023.

It is to submit that rescinding the levy of DPS has resulted in willful delay in payment by the above category of consumers, as there is no deterrent available presently. The DPS was acting as the required deterrent and the consumers were paying in time.

In this regard we wish to assure that the DPS would be applicable only on the undisputed portion. Hence when the Bill gets revised due to Disputes, the DPS would be once again computed on the Un Disputed amount. Further we also note that the consumers at times are required to pay DPS as the bill delivery is delayed. Such situation arises as the Due Date is very short of 7 days. Hence in order to address this grievance of the consumer, it may be appropriate to increase the Due Date of such consumers to 30 days. In this regard, the stand of the Hon'ble Commission in Tariff Order for FY 2022-23 is relevant and presented below:

There is a tendency among the category of LT Domestic, General Purpose and HT Bulk Supply Domestic etc. consumers who don't pay delayed payment surcharge to be negligent towards bill payment once the due date is over. Therefore, it is directed that LT Domestic, LT General Purpose and HT Bulk Supply Domestic consumers will get 10 paise/unit rebate for prompt payment of the bill within due date. Thereafter, if the bill is paid within the next due date, there shall be no

Rebate/Delayed Payment Surcharge. But if it is paid beyond the next due date then there shall be a Delayed Payment Surcharge of 1% of the billed value for each month of delay.

We therefore request the Hon'ble Commission to kindly consider re-introducing the DPS for LT Domestic, LT General Purpose and HT Bulk Supply Domestic Consumers. However, the Due Date for the payment can be extended from the normal 7 days to the next due date as made applicable in the past.

10.2 Pro-rata Billing

TPNODL in this issue is drawing the attention of the Hon'ble Commission's to the importance of pro-rata billing for Tariff Slab applicability in case of billing being in deviation to the monthly billing cycle prescribed by the Hon'ble Commission. The relevant Regulation for Billing Cycle is reproduced below:

*109(i) The meter shall normally be read **on fixed date ± 3 working days for monthly billing cycle.** The licensee/supplier shall issue proper photo identity cards to all meter readers and meter readers shall carry the photo identity card during the course of meter reading. (Emphasis Supplied)*

It is submitted that while the Discom is working towards achieving the above norm under normal conditions, the Hon'ble Commission is cognizant of the uncontrollable climatic conditions such as Kalbaisakhi, monsoons and extremely high temperature during summer months which beset Odisha regularly, that effect normal meter reading billing cycles. While occurrence of such events result in extension of billing period beyond the + 3 working days for monthly billing cycle, processes are being put in place to ensure that subsequent month's billing is done earlier than 30 + 3 days so as to ensure that over two billing cycles, the billing period is largely restored as per norms. The relevant Regulation with respect to pro-rata monthly billing is reproduced below:

*148. The charges payable by a consumer for supply of electrical power and other sums payable to the licensee/supplier shall be billed **on pro-rata monthly basis** indicating the period for which charges have been levied. **When supply to a new consumer is commenced or an agreement is terminated on a day other than the first day of a month**, demand charges and other charges as applicable under tariff notification shall be levied pro-rata for the number of days during the month for which supply shall have been given or agreement shall have been in force. (Emphasis Supplied)*

The issue of Pro-rata Billing in case of deviation of billing from 30 days billing cycle was clarified by the Hon'ble Commission vide letter dated 06.06.2022, wherein pro-rata billing was denied in all cases other than in cases of commencement or termination of supply on a day other than

the first day of a month. The Discoms were further directed to follow Regulation 109 (on billing cycle period). The clarification, however has not addressed the situation where the billing, for various reasons , cannot be carried within the stipulated norms as per regulation 109 of the Supply Code,2019.The relevant extract from the above referred letter is reproduced below:

*“A harmonious reading of the Regulation 148 of the OERC Distribution (Conditions of Supply) Code, 2019 reveals that the prorata billing should be adopted only in cases when supply to a new consumer commenced or an agreement is terminated on a day other than first day of a month. **Prorata billing should not be adopted in other cases including the case of spot billing as provided under Regulation 147 of the OERC Distribution (Conditions of Supply) Code, 2019. Regulation 109 of the OERC Distribution (Conditions of Supply)Code, 2019 shall be strictly followed by DISCOMs without any deviation.**”*

Considering that Billing on the fixed date every month (± 3 days) may not be feasible for reasons as explained above, it is submitted that the Hon’ble Commission may kindly consider permitting pro-rata adjustment of Slabs limits based on actual days of billing vis a vis the standard norm of 30 days (365 Days/ 12) to ensure that the Consumers get the full slab benefit under all actual billing period scenarios (vis a vis the norm).

We provide below an illustration to demonstrate the impact on Consumer Bill, of thetariffs applied for ‘Fixed Slabs’ irrespective of the number of days of billing vis-à-vis the same tariff being applied to ‘Pro-rata Slab’ based on actual no. of days billing’.

Table-64 : Scenario for Number of Billing Days

Sr No.	Particular	UoM	Scenario-1	Scenario-2	Scenario-3
1	Actual Billing Days	Days	33	27	30
2	Standard Monthly Billing Days (365/12)	Days	30	30	30
3 = (1/2)	Pro-Rata Factor	No	1.1	0.9	1
4	Total Billed Unit for the Month	kWh	500	500	500

Table-65 : Impact Analysis of Scenarios

Scenario -1 Actual Days of Billing: 33 days, Pro-Rata Factor: 1.1 (33/30)						
Slabs for Domestic Consumers	Energy Charges for Slab (Rs./kwh)	Standard Slab (Existing Practice) in kwh	Adjusted Slab on Pro- rata basis (Proposed Method) in kwh	Energy Charges as per existing method of Billing	Energy Charges as per proposed method of Billing	Difference (Rs.)
				(Rs.)	(Rs.)	
	A	B	C = B X Pro-Rata factor	D = A x B	E = A X C	F = D-E
0-50	3	50	55	150	165	-15
50-200	4.8	150	165	720	792	-72
200-400	5.8	200	220	1160	1276	-116
>400	6.2	100	60	620	372	248
Total		500	500	2650	2605	45

Scenario -2 Actual Days of Billing: 27 days, Pro-Rata Factor: 0.9 (27/30)						
Slabs for Domestic Consumers	Energy Charges for Slab (Rs./kwh)	Standard Slab (Existing Practice) in kwh	Adjusted Slab on Pro- rata basis (Proposed Method) in kwh	Energy Charges as per existing method of Billing	Energy Charges as per proposed method of Billing	Difference (Rs.)
				(Rs.)	(Rs.)	
	A	B	C = B X Pro-Rata factor	D = A x B	E = A X C	F = D-E
0-50	3	50	45	150	135	15
50-200	4.8	150	135	720	648	72
200-400	5.8	200	180	1160	1044	116
>400	6.2	100	140	620	868	-248
Total		500	500	2650	2695	-45

Scenario -3 Actual Days of Billing: 30 days, Pro-Rata Factor: 1 (30/30)						
Slabs for Domestic Consumers	Energy Charges for Slab (Rs./kwh)	Standard Slab (Existing Practice) in kwh	Adjusted Slab on Pro- rata basis (Proposed Method) in kwh	Energy Charges as per existing method of Billing	Energy Charges as per proposed method of Billing	Difference (Rs.)
				(Rs.)	(Rs.)	
	A	B	C = B X Pro-Rata factor	D = A x B	E = A X C	F = D-E
0-50	3	50	50	150	150	0
50-200	4.8	150	150	720	720	0
200-400	5.8	200	200	1160	1160	0
>400	6.2	100	100	620	620	0
Total		500	500	2650	2650	0

As can be observed from above, pro-rata billing for slab adjustment based on actual no's of days of billing vis a vis the standard norm of 30 days is just and equitable for consumers as it compensates the consumers for any deficit in slab benefit in a particular month (less than one month) in the subsequent month where the Billing is for more than 30 days.

It is further submitted that similar methodology of pro-rata Slab adjustment is adopted by various States. We are willing to provide the copies of the Bills of the Other states to the Hon'ble Commission.

In view of the above explained difficulties in ensuring billing all the time within the stipulated norms, we request the Hon'ble Commission to permit pro-rata billing for any deviation from the billing cycle of 30 days as explained above.

10.3 Meter Cost to be recovered in CAPEX instead of through Meter Rent

It is submitted that at present the cost of meters are recovered through the approved Meter Rents by the Hon'ble Commission. Further, the Meter rents permitted are for a period of 5 years or 8 years for Single Phase Smart Meters. In addition, the Meter Rents are different for various kind of meter installed

In addition, the Supply Code also permits recovery of rent even after a period of 5 years after the meter is changed due to technological upgradation. It is noticed that such conditions in the Supply Code as well as the availability of various types of meters leads to difference in interpretation of various clauses of Tariff Order and also the Supply Code and consumer disputes with regards to recovery of Meter Rent.

In view of the above, we propose that the expenditure on Meters for consumers should be a part of the Capex plan that needs to be approved by the Hon'ble Commission. Such Capex Plan would then be a part of the overall Capital Expenditure Plan which needs to be approved by the Hon'ble Commission. In case the same is approved by the Hon'ble Commission, the Meter Rent application can be ceased. Further for those meters that are installed, the Capital Expenditure incurred so far on such meters less the amount of rent recovered can be considered as Capital Expenditure of the Discom.

10.4 Encouragement towards E-bill

Now, with digital platform, all are familiar with Electronic Bill (E-Bill). Almost all the bankers are encouraging/adopting E-Statement for the account holder. Credit Card bills are being served through E mode, which is acceptable to all the users. Almost in all segment, E-Bill is generally acceptable. However, as per Regulation serving of electricity bill through E-mode has not been emphasized. No doubt high value consumers are accepting E-Bill and desiring to continue regularly, to save their bill processing time & avail prompt payment rebate.

As per present Distribution (Conditions of Supply) Code, 2109 vide regulation 147(i) licensees are directed serve the bill in the following manner;

*(i) It would be the duty of the engineer or his authorized agent to ensure that the bills are dispatched within ten days from the end of billing cycle and records of such dispatch are duly maintained. The licensee/supplier shall send the bills to the consumers either by post or by courier or through the messenger well before the due date to avoid any inconvenience to the consumer not covered under spot billing. The licensee/supplier may **send the information on billed amount and due date of payment to the consumers through registered E-mail ID/Mobile numbers/smart meters. The mobile number of each consumer shall be collected /recorded for sending billing SMS.**(Emphasis added)*

Even though, information to the extent of billed amount and due date of payment to the consumer has been mandated to send through registered E-mail Id/Mobile numbers/Smart meters etc but serving of bill to the consumer physically through courier/special messenger/spot billing has been strictly mandated. Further, the Hon'ble Commission has also directed to connect with the consumer through registered post/courier service/registered E-mail/personal service with proper acknowledgement in case of load reduction (Regulation 123) and Load Enhancement (Regulation 130). Therefore, considering the present lifestyle and technology advancement, the most powerful communication are email and mobile phone.

At present, all the licensees are spending a substantial amount on Meter Reading and Bill Distribution. In Dec-2020, the Ministry of Power (MoP) has also brought guidelines for replacement static/old meters with Smart meters in phased manner. Accordingly, across the country demand for Smart meters has been increased substantially and the licensee has also started installation of Smart meters. We have already replaced around 55000 old meters with smart meters and all the new 3-phase/1-phase connections are being provided with Smart Meters. So, consumers with smart meters can be served with E-bill without any additional cost. Going forward, all the consumers will be covered under Smart Meter fold. So, to promote installation of smart meters and reduction in Meter Reading and Bill Distribution Expenses, the licensee proposes **Rs.10/ p.m.**

additional Rebate over and above all other rebate as the consumer is otherwise eligible may please be approved where a consumer desires/opt for E-bill instead of physical bill. If this is permitted, our MRBD cost will be zero where consumer is having smart meter.

Further, if provision of E-mail ID will be mandated the consumer can also get many information/communication from the licensee and the benefits are as under:-

- Consumer will be able to get the estimate and all timely updates in her/his mail.
- No involvement of hard copy, no use of paper, system will become more Eco friendly, less carbon footprint.
- Fear of loss of physical copy shall be ruled out.
- Consumer can fetch the e-Bill details via his/her mail.
- No need of physical movement for customer which will enhance customer satisfaction.

10.5 Creation of Corpus for Meeting Natural Calamities

The state of Odisha faces a lot of natural calamities like, cyclone, flood, thunderstorm, wind storm etc. In such case, the 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 creation of adequate resource is not cost effective. Therefore, it is to submit that DISCOM needs to create certain fund for such distress requirement. In view of the above it is the humble submission of the licensee a separate charge of Rs.2 per month may kindly be allowed to be recovered from all the consumers through energy charges.

10.6 Billing of Public Lighting.

There are many public light points; where metering arrangement is not possible due to various reason as detailed below:

- a. Previously there was a practice to generate one electricity bill against multiple connection points/ connected load under different Sections and from multiple source/transformer.
- b. Many such connections are there specifically in Gram Panchayat area where dedicated street light phase has not drawn for separate metering and switching system is done manually. Further, such connection are in scatter manner.

Hence, it is proposed that wherever meters are not installed billing should be considered assuming 11 hours burning time taking the average use of summer and winter seasons. Further,

there should be a mandate for periodic maintenance of the timer and other switching apparatus by the concerned local authorities in order to avoid the wastage of energy.

10.7 Continuity of digital rebate to 4% for LT Domestic, LT GP single phase & Single-phase irrigation consumers

Hon’ble Commission has pleased to extend additional rebate of 4% towards digital payment for LT single phase Domestic & GP category of consumers. This is yielding very good result. The collection cost is always higher if done in otherwise mode. Therefore, the additional digital rebate in addition to normal rebate as otherwise applicable may be continued to LT single phase Domestic (including Kutirjyoti) & single-phase GP category of consumers. This benefit may also be extended to LT single phase irrigation consumers.

After demonitization, Hon’ble Commission has launched digital rebate mechanism 1st time in FY 17-18 with 1% rebate (Continued for FY 18-19) to promote online collection, thereafter it was increased to 2% in FY 19-20 (continued till FY 21-22). During previous year the digital rebate was 3%. Initially consumers were not attracted for 1% or 2% digital rebate, however with increase up to 4% rebate figures showing upward trend. The impact with 2%, 3% & 4% under TPNODL area is appended below:-

Table-66:Digital Transaction Details

No. of Transactions			
	2021-22 (2%)	2022-23 (3%)	2023-24 (4%)
Apr	2268	96233	209725
May	2569	137809	237915
Jun	2519	129658	238903
Jul	2684	150465	271573
Aug	8465	143246	276132
Sep	25911	165173	288738
Oct	69760	173403	300481
Nov	74772	177575	
Dec	79346	184522	
Jan	81768	180467	
Feb	82807	182129	
Mar	101332	206902	
Total	534201	1927582	1823467
Monthly Average	44517	160632	260495

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 fingertips. People are

searching for each of their daily needs through mobile without help of 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 continuity of digital rebate is essential. Therefore, the licensee is in support of continuity of 4% digital rebate, 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.

10.8 Continuity of Discount to Domestic Rural Consumers

Hon'ble Commission has allowed special rebate for Rural LT domestic consumers @ 5 paise per unit in addition to existing prompt payment rebate who draw their power through correct meter and pay the bill in time. However, on submission of all the DISCOMs Hon'ble Commission has pleased to increase the same to @ 10 paise per unit for the LT Rural consumers in addition to the existing prompt payment rebate & digital rebate who draw their power through correct meter and pay the bill in time. The licensee request Hon'ble Commission to continue the same in the ensuing year also.

10.9 Charges for Temporary Supply:

As per the Hon'ble Commission's RST order vide para 238, charges for temporary supply have been allowed with payment of 10% higher on energy charges. For this purpose, the rate provided as per relevant consumer category shall be applicable.

*"Para 238 The tariff for the period of temporary connection shall be at the rate applicable to the relevant consumer category with the exception that Energy Charges shall be 10% higher (in case of temporary connection) **compared to the regular connection**. Connections, temporary in nature, shall be provided as far as possible with pre-paid meters to avoid accumulation of arrears in the event of dismantling of the temporary connection etc."**(Emphasis added)***

As per Distribution Conditions of Supply Code 2019, Temporary supply has been defined as under **"138 (p) Temporary supply**

This category relates to supply of power 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. "

With the above Regulatory provisions, a person, or industries desires to avail construction supply, applicability of charges as respective category is becoming a challenge. Because unless construction completed, they may not be covered under appropriate category as per tariff norms. So, the licensee is of the view a more clarity may be provided for easy of doing business. Non the less for construction purposes, GP tariff may be made applicable for all types of construction irrespective of future tariff category upon completion of construction activity. During construction period electricity is being used for general purpose only, upon completion they may be covered on appropriate category as per the terms of power supply agreement. This may please be approved.

10.10 Continuity in Levy of CSS on RE power

Upon pronouncement of RE Policy by Govt of Odisha, the Hon'ble Commission has amended applicable tariff in the RST order dt.23.03.2023 suitably to promote RE generation in the state of Odisha. But applicability of CSS & Wheeling charges on RE power availed through open access from other source (other than Odisha) is in force. Therefore, the licensee is submitting before Hon'ble Commission to continue the same practice for the ensuing year, to promote more RE generation in the state of Odisha.

10.11 Creation of Category for Mega lift points under EHT and applicability of Demand Charges.

The licensee is having a consumer under mega lift with CD of 13500 Kva and availing power supply with 132kv level. As there is no such tariff category under EHT for such supply, TPNODL is billing it under HT irrigation as per applicable tariff. The Hon'ble Commission in the RST order dt.23.03.2023 has notified tariff for Mega lift points in the following manner:

*(xxxii)The Mega Lift consumers (who are using electricity for irrigation purpose and not covered under irrigation pumping and agriculture category of the Regulation) **connected either to HT or EHT system shall be treated as GP consumers and shall not pay any demand charges and shall get an additional rebate of Rs.2 per unit (kVAh) on the respective energy charges.***

It is respectfully submitted that extending rebate of Rs.2 per unit on Energy charges may be permitted but waiver of Demand charges is a discrimination with other consumers and the licensee is heavily affected. So, it requested to kindly create separate category under EHT with demand charges of Rs.250 per kVA and energy charges under graded slab method for Mega lift points connected at HT & EHT level.

10.12 Continuity of Special tariff to steel industries

Hon’ble Commission in the RST order dt.23rd March 23 has pleased to extend continuation of special discount to steel industries (without having CGP) connected at 33 kv level having load of 1MW and above with certain terms and conditions as appended

Load Factor	CD upto 6 MVA	CD above 6 MVA
For load factor of 65% and above upto 75%	10% on energy charge	-
For load factor above 75% upto 85%	15% on energy charge	8% on energy charge
For load factor above 85%	20% on energy charge	10% on energy charge

The above rebate shall be on energy charges of entire unit of consumption.

Load reduction shall not be permitted to such category of industry for availing this rebate during the financial year 2023-24. For continuity of business and confidence upon tariff stability in the State of Odisha, the licensee requested the Hon’ble Commission for continuation of the scheme.

10.13 Special tariff for industries those who have closed their units if reopen/starts.

TPNODL has made a wide study in its area of operation and found that there are no of industries who have closed their units since long. This may be due to different reason, but resources are getting wasted because of non-operational. To start a business creating all the infrastructure is always a challenge. However, having a set up an industry can start with minimum expenditure. Specifically, with the present market condition which is moving much faster pace, if a suitable tariff structure for the closed units can be introduced, we hope definitely some more industry can restart their units. Further, when industries will run, it will create employment opportunity, GST & Income Tax also contributes towards national GDP. Further operationalization of industries will help in growth of industrialization, create employment opportunity, improvement in national GDP, etc.

- a) The proposal is for industries those who have closed their units in complete shape prior to take over.
- b) Industries those who have arrear outstanding even after adjustment of SD has to clear it’s dues before availing the benefit.

- c) The industry has to start with the load when it was closed. No load reduction is permissible before or after availing this benefit during FY 24-25.
- d) The incentive may be given @ 20% on entire units consumed if achieves 60% L.F. in a month.
- e) Closed Industry may be permitted at 11kV or 33kv level with minimum CD of 500 kw
- e) As this is a special scheme for revival of the closed units it will be for the year 2024-25 only.
- f) On account of closure of units no one is benefited including Government of Odisha who will get electricity duty @8% on energy charges. So, this will offset the incentive so offered to a large extent.
- g) This incentive will be over and above all other existing incentives in the tariff
- h) Industries opting for this benefit shall not be eligible for open access.
- i) Double incentive is not to be permitted.

10.14 Continuity of Special tariff for industries with CGP & CD up to 20 MW

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.”

However, in the RST order dt.23.03.2023, Hon'ble Commission has made certain departure and directed for prior permission from GRIDCO and also increased the applicable charges to Rs.5.00 paise per KVAh from Rs. 4.30 paise per kVAh.. Relevant para is reproduced as follows;

ii) Any industry having CGP with CD up to 20MW willing to avail power from DISCOMs up to 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.5.00 per kVAh. Industries availing this

benefit shall not be permitted to avail benefit under other schemes. 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. The concerned DISCOM must take prior permission of GRIDCO for providing this concession to consumer.

Due to substantial rise in charges, out of 4 nos consumers availing power supply under special tariff in FY 22-23, only two consumers are availing the benefit in FY 23-24, resulting in lower actual drawl of 165.18 MU in 2023-24 against projected drawl of 641.29 MU in the ARR for the FY 2023-24.

Further, regarding obtaining prior permission from GRIDCO for extending this provision, the requirement should be one time before allowing the consumer in that Financial year. Requirement of monthly approval from GRIDCO is disrupting the power supply to the consumer under Special Tariff every month due to procedural delay which is hampering the planning and operation of the unit. As the scheme is purely within the approved SMD of DISCOM, one time approval from GRIDCO before facilitating the provision to any particular consumer may be considered.

For sustainability of the scheme, it is requested before Hon'ble Commission that the scheme may kindly be approved for ensuing year with reduced rate of Rs 4.30per KVAh as was approved in RST Order FY 22-23 in place of Rs 5.00 per KVAh, with one time prior permission from GRIDCO in the financial year. In addition to this an industry availing this benefit shall not be permitted to avail benefit of another scheme.

10.15 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 was approved by Hon'ble Commission as per para 370 of BST order FY 22-23 & clause (viii) Annexure-B of RST order. Subsequently, in RST order dt.23.03.2023 vide para (vii) has pleased to direct continuation of the scheme:

(vii) Any industry having CGP with CD above 20 MW 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.5.00 per kVAh for all incremental energy drawal above 80% load factor. No overdrawal penalty

shall be levied on them. For this purpose, the industry shall enter into a tripartite agreement with DISCOMs and GRIDCO.

In the BSP Order dt. 23.03.2023, vide Case Nos. 78 & 79 of 2022 under Para 457 & 458, has allowed industries having CGP with Contract Demand (CD) to avail intermittent surplus power from DISCOMs beyond 80% of load factor at a tariff of Rs. 5.00/ kVAh, by entering into a special tripartite agreement with GRIDCO (Bulk Supplier), DISCOMs. Hon'ble Commission also observed that other observation of the Commission in Case No. 25/2022 regarding this tripartite sale shall continue as such.

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.

10.16 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 for 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 and 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.

10.17 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 need power intermittently to meet seasonal requirements. For such temporary outages of their CGP and short-term business need they approaches DISCOM for 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 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.

It is relevant to mention that there are around 74 nos of CGP at present under all 4 DISCOMs (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.

10.18 Continuation Green Tariff Premium (GTP) mechanism with reduced rate of 20 p/u.

Hon’ble Commission 1st time has launched premium rate for RE power in RST order of FY 22-23 and pleased enough to direct for continuation in FY 23-24 also with more clarity with GTP of 25 paise per unit. The following provision has been created in both RST & BST.

*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 25 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)**”*

For CGP industries some modified direction has been given vide para 86

“.....

*There are some obligated entities, particularly industries having CGPs who are required to fulfil their Renewable Purchase Obligation (RPO). Such entity can purchase their obligated quantum of renewable power from DISCOMs by payment of premium of 25 paise per unit over and above the normal tariff available to them. However, Green Consumer Certification cannot be issued to such CGP as their 100% electricity consumption is not from renewable sources. The Commission has directed GRIDCO to allocate the total drawal of Renewable Energy from different RE sources among the DISCOMs as approved in GRIDCO’s BSP order. **While issuing Green Consumer Certification and selling renewable power to industries having CGPs for meeting their RPO, the DISCOMs shall operate within the green power allotted to them for the FY 2023-24 in GRIDCO’s BSP order**”.*

In the BSP order vide para 315 has also directed for allocation of Renewable power to DISCOM regualalry.

The Commission observed that as per the RST order for FY 2023-24, the consumers of any category can get a ‘Green Consumer Certificate’, if 100% of their power requirement is met by DISCOMs from renewable sources, for which the consumer has to pay additional 25 Paise/Unit as premium over and above the normal rate of energy charges. For this purpose, the quantum of renewable energy purchased by GRIDCO needs to be apportioned in favour of each DISCOM in order to facilitate them to provide renewable power to the green consumers to that extent. In view of the above, the Commission apportions the total projected available renewable energy to the DISCOMs in proportion to their estimated total energy requirement for the FY 2023-24. Accordingly, out of the total projected renewable energy of 3783.78 MU available to GRIDCO for the ensuing year, 1152.02 MU, 768.42 MU, 1359.79 MU & 503.56 MU are allocated to TPNODL, TPWODL, TPNODL & TPSODL

respectively for the above purpose. The DISCOMs can issue 'Green Consumer Certificate' to the consumers desirous of availing such certificates in their respective area within the above ceiling limit of renewable energy.

19 nos of SBI connections under Bhadrak, Balasore and Baripada districts are availing Green Tariff under this provisions .

On receipt of monthly allocation from GRIDCO, DISCOMs are levying GTP of 25 paise per unit over and above normal charges for Green Consumer certification and industries having CGP for their requirement of RPO on monthly basis.

Now, with reduction in price of RE power in the market RE certification charges also reduced. Previously, industries were avoiding RE certificate and opting GTP mechanism from DISCOM, because it was competitive. Therefore, the DISCOM suggest the GTP may be fixed at 20 paise for the ensuing year, which will be win-win for all the stake holders.

10.19 Minimum offtake for the industries having CGP.

Presently the BST of all the DISCOMs is with composite of Energy and Demand charges. Considering the approved SMD composite BST is determined by Hon'ble Commission. At the same time HT & EHT consumers have to pay the demand charges @ Rs.250 per kva per month on Demand Recorded or 80% of CD which ever is higher. The existing Demand charges is continuing since long. In the neighboring states the Demand charges is on the installed capacity @ Rs.375 per kva per month however, here in Odisha irrespective of installed capacity, consumer has the choice to keep the contract demand. With increased consumer mix under LT segment as well as increase of O&M cost meeting fixed cost like Staff cost & R&M by Distribution company becoming sturdier.

The major impact is due to the CGP industries who are keeping their CD, but not using the DISCOM energy. Wherever, they use only on occasional requirement that to during peak period. As result, GRIDCO is facing difficulty in arranging power for them as they are drawing without prior intimation or scheduling in the imploration of fixed demand charges. With Demand charges of Rs.250 per kva and occasional drawing has major impact on DISCOM. Therefore, the DISCOM proposes that for Industry having CGP has to off take minimum 25% of the requirement commensurate with their CD or Demand charges has to be on installed capacity instead of CD

10.20 Billing with Defective Meter

As per existing regulation the licensee is permitted to raise provisional bill for maximum up to 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 when the bill is revised with upward assessment the consumer is not willing to pay such huge amount.

The DISCOM understands the provision of 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 24-25 for revision of the provisional bill in case of defective meter, considering the past

corresponding period’s actual consumption. That means if meter found defective in Summer, bill shall be revised considering actual consumption of summer only and if it is in winter past winter period actual meter reading may be taken into consideration. However, basing upon actual consumption during the succeeding six-month period, necessary sundry debit shall be made if the actual consumption in succeeding month is less than or more than the past corresponding period’s actual consumption.

10.21 . Matters Related to Supply Code

10.21.1 Revision of Reconnection Charges

At present, the Reconnection Charges are recovered from consumers for reconnecting their supply after disconnection. The Charges have been fixed way back on 1st April 2012. Over the cost of reconnection has also gone up. Hence we request the Hon’ble Commission to increase the Charges . We propose the following revised Reconnection Charges to be applicable from 1st April 2024

Table-67: Proposed Category wise Reconnection Charges

	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/-

10.21.2 Realistic Assessment of Load

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 Supply Code for various categories under regulation 52 is found to be very less which does not reflect the actual probable usage of the various equipment which results in less assessment than the units actually consumed.

This is even less than the units recorded in the tampered meter, 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 load factor prescribed under regulation 52. For instance, if one consumer having 3KW load including one AC and if we consider AC is running for 6hrs per day, then his minimum consumption will be $3KW \times 6Hrs \times 30days = 540units$. However, this is a fact that in case of tampered meter, the actual usage hour will be much more.

If the consumer has tampered the meter and his recorded consumption in the meter is 220units, and on assessment, as per regulation the units assessed will be $= 3KW \times 2.4 \times 30 = 216units$ which is less than even his recorded units .

Such assessment will not be able to develop the discipline of authorized power consumption or consumption through a correct meter.

Therefore, Hon'ble Commission is requested to consider allowing 30% LF for domestic consumers, 60% for GP and 100% for continuous process industries for assessment purpose in place of the Load factors prescribed for initial SD under regulation 52.

Therefore, under regulation 201 and 203 of OERC Distribution (Condition of Supply) Code,2019, the licensee most humbly prays before Hon'ble Commission to kindly consider the above submissions and pass necessary direction.

10.21.3 Standard Service Connection charges:

While the OERC supply code defines the Standard Service connection charges for single phase connections upto 5 KW, there is no mention of service connection charges for three phase LT connections. In the absence of which, an estimate is required to be prepared for each case. Thus,

in order to fasten the process and making the system based auto Demand Note for three phase connections in line with single phase cases, it is suggested that based on the average length of service cable, a standard cost of serviceconnection charges for three phase connections is to be defined. Below is the proposalas per TPNODL costing on service cable.

Table-68: Connection Charges

Sr No	Contract Demand	Service Connection Charges (excluding GST)
1	Upto 10 KW	4500
2	11-20 KW	7000
3	21-40 KW	10000
4	41-50 KW	19500
5	51-63 KW (70 KVA)	33000
6	>70 KVA	As per load requirement and Estimate thereof
The Charges are calculated based on average 25 meters service length and use of armoured cable		

10.21.4 Extension of Time period for temporary connections:

As per OERC supply code 2019, Temporary power connections can be given to meet temporary needs on special occasions including marriage or other ceremonial functions, fairs, festivals, religious functions, for construction of residential houses etc upto aperiod of 6 months. In general, the power requirement of a temporary connection isonly upto 6 months like fairs, festivals, religious functions etc except power requirement for construction purpose wherein electricity connection is normally required from 1 to 2 year and even more for big projects to complete the construction activity. Further, asthe construction of premise and wiring are not completed, a permanent connection can also not be given.

In the amendment to SoP Regulations dated 16.12.2010, provision is there for extension of Temporary Connection beyond six months on requirement. Relevant extract from the Regulations reproduced hereunder:

“3.8 Temporary supply of power

Licensee shall examine the technical feasibility of the connection requested for and if found feasible shall sanction the load and raise a demand note in accordance within 3 days of acceptance of application in Urban Areas and within 7 days of acceptance of application in Rural Areas. If the connection is not found technically feasible, Licensee shall intimate to the applicant in writing within 3 days of completion of technical feasibility study. No connection up to 10 kW shall be rejected on technical grounds.

The applicant shall make the payment in accordance with the demand note within 2 days of receipt of demand note failing which the sanction shall stand lapsed. Also Licensee may, at the request of applicant, accept payment at the time of making application which shall be received on account and subject to completion of all commercial formalities.

After payment of applicable charges, Licensee shall energize the connection in accordance with the date indicated in the application.

Temporary connection shall be granted for a period of up to 6 months at a time, which can be further extended depending upon the requirement.

The grant of temporary connection does not in any way create a right in favor of the applicant for claiming a permanent connection.”

In view of the above , Hon’ble Commission is requested to incorporate the same in Supply Code also.

10.21.5 Processing fee for each services as per Regulation

Presently, the licensees are directed to serve the consumer for their different requirement apart from Billing and collection activities. Consumers also needs, Load Change (Reduction/Enhancement), attribute changes (like Change of name, Category Change, name correction, address correction /Change etc.)

As per existing Regulation, for new connection the processing fee has been defined as Rs.50/-per application, however, there is no such charges is payable for the other services like Change of name, Category Change, name correction, address correction /Change etc. But the licensee is spending considerable amount for such services. Therefore, the DISCOM proposes, the following charges may

kindly be approved for providing better & timely services to the consumer for each of the services requested for;

Table-69: Proposed Application Processing Charges

Sl. No.	Purpose of Application	Application Processing charges (APC)
1	Change of Category	Rs. 100/-
2	New Connection / Load Change	Rs. 100/-
3	Change/correction of Name or address, Ownership change/modification	Rs. 100/-

It will help to maintain uniformity in processing of all types of New Connection and Attribute change applications.

11. Formats

The following filled in formats as a part of the ARR and Tariff Application for FY 2024-25 are submitted attached as annexures.

11.1 Commercial/Technical Formats T-1 to T-9

11.2 Financial Formats F-1 to F-29 (Modified F Formats)

11.3 Details Performance Formats (P-1 to P-17) in Volume- II

12. Prayer

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

- (1) Take the ARR application and Tariff Petition for the FY 2024-25 on record.
- (2) Approve the Aggregate Revenue Requirement for FY 2024-25.
- (3) Bridge the Revenue Gap for the FY 2024-25 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

Place : Balasore

Dated: 30.11.2023

BHASKAR SARKAR

CHIEF EXECUTIVE OFFICER

TP Northern Odisha Distribution Limited