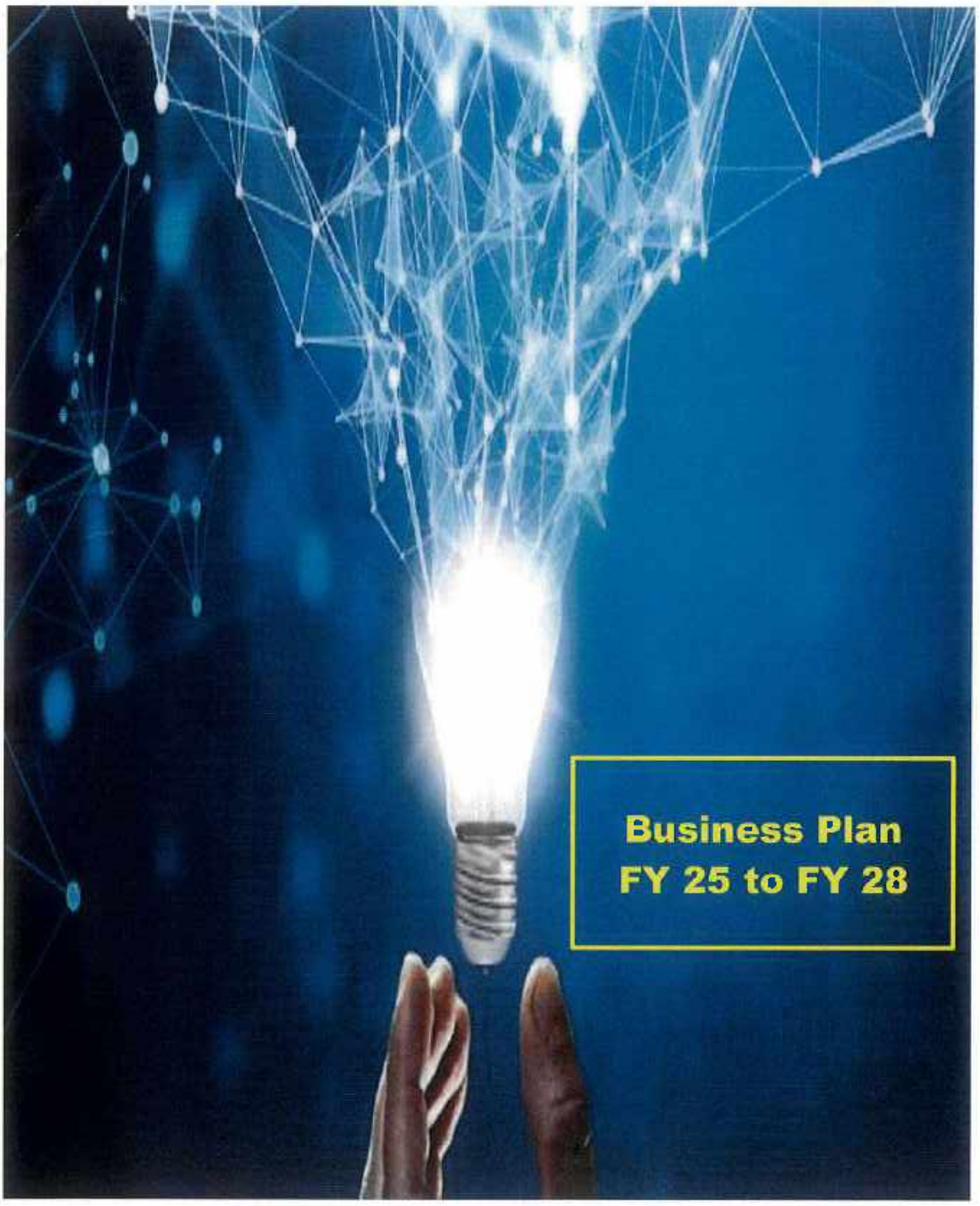


TPWODL

TP WESTERN ODISHA DISTRIBUTION LIMITED

(A Tata Power and Odisha Government Joint Venture)

BEFORE THE HON'BLE ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN, PLOT NO.4, CHUNOKOLI, SHAILASHREE VIHAR, CHANDRASEKHARPUR, BHUBANESWAR-751021

In the matter of: **An application for approval of Business Plan from FY 2024-25 to FY 2027-28 in compliance to Annexure-I of the Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022.**

AND
In the matter of:

TP Western Odisha Distribution Ltd.

Corporate Office, Burla, Sambalpur, Odisha-768017 --------- **TPWODL**

AFFIDAVIT

I, Kshirod Chandra Nanda, Son of Late Radhanath Nanda, aged about 54 years, residing at, Burla, do hereby solemnly affirm and state as follows: -

That, I am the General Manager (RA & Strategy) of TP Western Odisha Distribution Ltd. (TPWODL), Corporate Office-Burla, Sambalpur, Odisha-768017.

Sl. No. 609
Dt. 31/05/2023
K.P. MISHRA
Notary
Reg. No. ON23/94
Sambalpur Odisha

That, I am authorized representative of TPWODL, the applicant in the instant case and competent to swear this affidavit for and on behalf of the Licensee.

That, the facts stated in the letter are true to the best of my knowledge & belief and are as per available records.

Kshirod Ch Nanda.

DEPONENT

Verified that the contents of above affidavit are true and correct, no part of it is false and nothing material has been concealed there-from.

Place

Date

The deponent solemnly affirms today at about 8:48 A.M./P.M

31/05/2023

K.P. MISHRA
NOTARY
Reg.: ON-23/94
SAMBALPUR

Kshirod Ch Nanda

DEPONENT

Table of Contents

Kshirod Ch. Nanda.

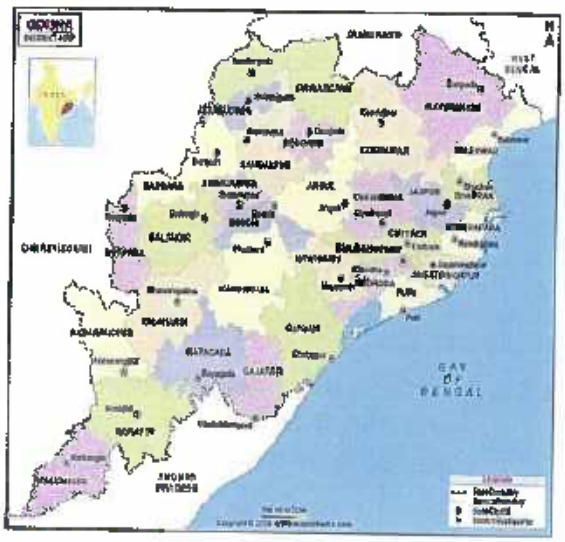
List of Table:

List of Figure:

1. Introduction

1.1. Electricity in the State of Odisha

1.1.1. The State of Odisha has been the pioneer of reforms in the power sector in the country. The first major step towards reforming the sector came in April 1996 when the Govt. of Odisha enacted The Orissa Electricity Reforms Act 1995 (hereafter referred as the 'Act, 1995'). The Act, 1995 envisaged the creation of an independent and transparent electricity regulatory authority known as the Orissa Electricity Regulatory Commission (OERC). The Commission's primary objective was to promote accountability in the sector and to encourage private sector investment. The Act, 1995 further envisaged unbundling of the Orissa State Electricity Board (OSEB) into units handling generation, transmission and distribution. Each of them was to undergo a process of corporatization, commercialization and eventual privatization with a motto for infusion of capital through private investment to strengthen the Distribution segment.



1.1.2. Post the implementation of the Act, 1995, the thermal power plants were transferred to Odisha Power Generation Corporation (OPGC) and the hydro power generation stations were transferred to Odisha Hydro Power Corporation (OHPC). The Grid Corporation of Orissa Limited (GRIDCO) was entrusted with the responsibility of transmission and distribution of power in the State. The transmission business was transferred to Odisha Power Transmission Corporation Limited (OPTCL).

1.1.3. In 1997, distribution companies North-Eastern Electricity Supply Company (NESCO), Western Electricity Supply Company (WESCO), Southern Electricity Supply Company (SOUTHCO) and Central Electricity Supply Company (CESCO) were incorporated under the Companies Act, 1956 to distribute power in different regions of the State of Odisha. The entities took over the business of Distribution and Retail Supply of Electricity in the North-Eastern Zone, Western, Southern & Central Zone of GRIDCO, Odisha. In 2006, all the assets, liabilities, rights, proceedings and manpower of CESCO were transferred to Central Electricity Supply Utility (CESU).

1.1.4. In April 1999, the distribution business of GRIDCO was privatized as envisaged in the Act, 1995 wherein GRIDCO disinvested 51% of its share to Private Investors. By virtue of Power Sector reform, NESCO, WESCO & SOUTHCO became a subsidiary of BSES Limited, Mumbai.

Verified by Notary.

PART OF AFFIDAVIT
31/5/2023
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

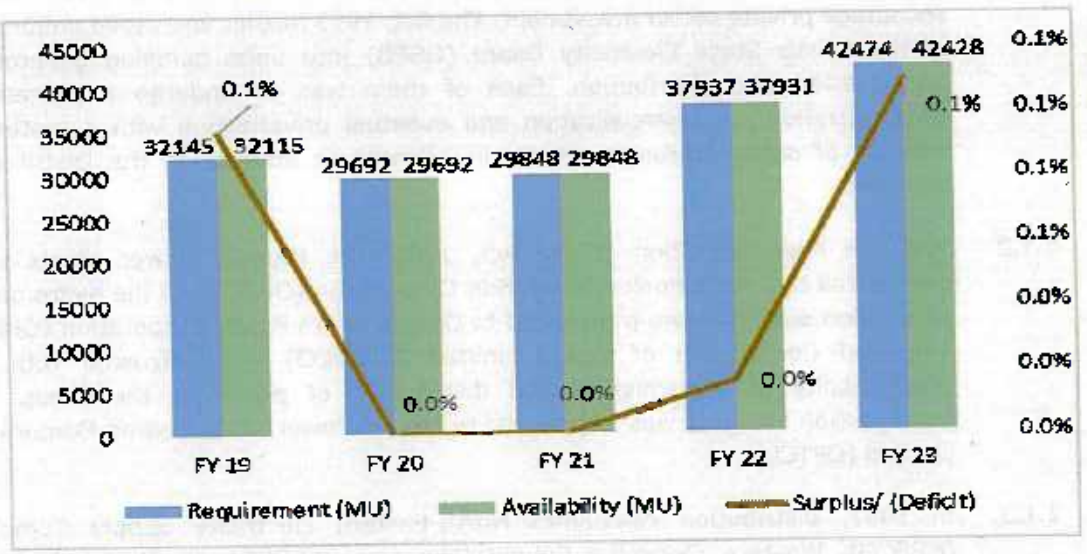
1.1.5. Odisha was the first state to privatize power sector in the country, by segregating power generation, trading and distribution business way back in 1996. Out of four power distribution companies (DISCOM's), three were managed by Reliance Infra while the fourth, Central Electricity Supply Utility (CESU) was run by Odisha Electricity Regulatory Commission (OERC).

1.1.6. Licenses of the three DISCOM's namely NESCO, WESCO and SOUTHCO were revoked in 4th March 2015 and in order to ensure continued supply of electricity in the North-Eastern, Western and Southern Zone, GRIDCO was entrusted with the responsibility of managing the three DISCOMS.

1.1.7. Subsequently, in terms of section 20 of the Act, 2003, a transparent and competitive bidding process was initiated for sale of utilities of NESCO, WESCO, SOUTHCO and CESU. Accordingly, GRIDCO disinvested 51% of its share to TPCL and thus the distribution business of Odisha were transferred to TPNODL, TPWODL, TPSODL & TPCODL for North-Eastern, Western, Southern & Central parts of Odisha respectively.

1.1.8. GRIDCO has been primarily responsible for Bulk Supply of power to the DISCOMs and trading of electricity. The following graphs provides the Power Supply position of Odisha during the past 5 years.

Figure 1: Power Supply Position of Odisha



Source: CEA LGBR Reports

1.1.9. The energy requirement and availability has increased over the last five years and is expected to increase on similar rates in the comingyears.

1.2. TP WESTERN ODISHA DISTRIBUTION LIMITED (TPWODL)

1.2.1. TP Western Odisha Distribution Limited (TPWODL) was incorporated as a joint venture of Tata Power (51%) and Odisha Government (49%) on the Public-Private Partnership (PPP) model. TPWODL took over the license to distribute electricity in the Western part of Odisha, which was earlier served by erstwhile WESCO, through a competitive bidding process. TPWODL's utility business is governed by the provisions of license conditions issued by Hon'ble OERC for distribution and

PART OF AFFIDAVIT
N: 21/05/2023
Regd
SAMBA

retail supply of electricity in Western Odisha along with terms of Vesting Order.

1.2.2. TPWODL license area is spread over a geography of 48,373 Sq. Km. and serves electricity to a population of ~88 lakh with a consumer base of ~25 lakh across nine revenue Districts under five Circles of the western part of the State of Odisha. TPWODL procures power from GRIDCO, which is a state-owned company, engaged in the business of purchase of electricity in bulk from various generators located inside & outside Odisha and the state share of power from Central generators. It receives electrical power at different transmission voltage level through Odisha Power Transmission Company Limited's (OPTCL) 400/220/132 kV network and then distributes the power at 33KV / 11KV / 440V / 230V depending on the demand of the consumers. For effective operations, license area is divided in 5 circles, which is further sub divided in 17 Divisions, 57 Sub-division and 201 Sections, which manages the commercial, and O&M activities in order to serve its consumer.

1.2.3. The following table indicates the details of Circle, Division & Sub-divisions:

Circle Name	Division Name	District Name	Sub-Division Name
Sambalpur Circle	SED - SAMBALPUR	Sambalpur	SDO-I, AINTHAPALI, SBP
			SDO-II, KHETRAJPUR, SBP
			SDO- BURLA
			SDO- HIRAKUD
	SEED - SAMBALPUR	Sambalpur	SDO-I, BHUTAPARA
			SDO-II, DHANUPALI
			SDO-RENGALI
			SDO-RAIRAKHOL
	JED- JHARSUGUDA	Jharsuguda	SDO No-1, JHARSUGUDA
			SDO No-2, JHARSUGUDA
			SDO-KUCHINDA
	BED-BRAJRAJNAGAR	Jharsuguda	SDO-BRAJRAJNAGAR
			SDO-BELPAHAR
	DED - DEOGARH	Deogarh	SDO-DEOGARH
Rourkela Circle	RSED – ROURKELA	Sundargarh	SDO No –1, ROURKELA
			SDO No -5, ROURKELA
			SDO No -7, ROURKELA
	RED - ROURKELA	Sundargarh	SDO No -2, ROURKELA
			SDO No -3, ROURKELA
			SDO No -4, ROURKELA
			SDO No -6, ROURKELA
	SED - SUNDARGARH	Sundargarh	SDO-SUNDARGARH
			SDO-UJALPUR
	SED - RAJGANGPUR	Sundargarh	SDO-I, RAJGANGPUR
			SDO-II, RAJGANGPUR
			SDO- KALUNGA
			SDO- KUARMUNDA
Bargarh Circle	BED - BARGARH	Bargarh	SDO No-I, BARGARH
			SDO No-II, BARGARH
			SDO-BHATLI

Identified by Nanda.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23194
SAMBALPUR (ODISHA)

Circle Name	Division Name	District Name	Sub-Division Name
			SDO-BHEDEN
			SDO-ATTABIRA
	BWED - BARGARH	Bargarh	SDO-BARPALLI
			SDO, PADAMPUR
			SDO-PAIKMAL
			SDO-SOHELA
Bolangir Circle	BED - BOLANGIR	Bolangir	SDO – I, BOLANGIR
			SDO – II, BOLANGIR
			SDO-TUSURA
			SDO-LOISINGHA
	SED - SONEPUR	Sonepur	SDO-SONEPUR
			SDO-BINKA
			SDO-B.M.PUR
	TED - TITLAGARH	Bolangir	SDO-I, TITILAGARH
			SDO-II, TITILAGARH
			SDO-KANTABANJI
			SDO-PATNAGARH
Kalahandi Circle	NED – NUAPARA	Nuapada	SDO-NUAPADA
			SDO-KHARIAR ROAD
			SDO-KHARIAR
	KEED – KALAHANDI	Kalahandi	SDO NO-I, BHAWANIPATNA
			SDO NO-II, BHAWANIPATNA
			SDO-NARLA
			SDO-KESINGA
	KWED – KALAHANDI	Kalahandi	SDO-JUNAGARH
			SDO-DHARMAGARH
			SDO-CHARBAHAL

1.2.4. TPWODL has been carrying out the business of distribution and retail supplyof electricity in the nine districts of Odisha, namely, Sambalpur, Sundargarh, Bolangir, Bargarh, Deogarh, Nuapada, Kalahandi, Sonepur and Jharsuguda. The consumer mix of TPWODL comprises of Domestic (90.41%), General Purpose (4.54%), Irrigation (3.71%), Industrial (0.26%) & others (1.08%).

1.2.5. In FY 21-22, against the total input energy of 9313 MU, billed energy was 7356 MU resulting in billing efficiency of around 80%. Out of 7356 MU of billed energy, approximately 39% of the billed energy is supplied to Domestic Consumers while EHT and HT Consumers contribute to 36% and 25% of the total billing (in terms of MUs) respectively. In terms of Revenues, Domestic Consumers contribute around 32% while EHT and HT Consumers contribute 42% and 27% respectively.

1.2.6. TPWODL has been continuously serving with the objective of providing quality and reliable power supply to all its consumers and in this process during the last 2 years has been trying to build a robust infrastructure the details ofwhich have been provided as follows:

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Table 1: Existing Infrastructure

Particulars	Value (As on 31 Mar 2023)
No. of 33 kV feeders	186
No. of 11 kV feeders	1160
No. of 33/11 kV S/S	307
No. of power transformers	684
Capacity of PTR (in MVA)	3483
No. of distribution transformers	75485
Capacity of DTR (in MVA)	3687
Length of 33 kV lines (K.M.)	5358
Length of 11 kV lines (K.M.)	50249
Length of L.T lines (K.M.)	65141

1.3. Vision

1.3.1. The TP Western Odisha Distribution Limited (TPWODL) was formed with the following Vision:

"To be the preferred power distribution company for consumers by providing reliable, safe, affordable supply with environment friendly innovative energy solutions by creating values for all stakeholders."

1.4. Mission

1.4.1. To attain the aforesaid vision, the following mission were envisaged:

- Innovate to provide environment friendly energy solutions to all stakeholders.
- Demonstrate excellence in our work to reduce AT&C Loss to single digit.
- Outreach to the last consumer connected with safety and technology.
- Be the company of choice for all stakeholders.
- Empower Employee, nurture talents to create an agile and future ready workforce.
- Service excellence with customer centric approach.
- Trust, Transparency and Teamwork to achieve our goal.

1.5. Values

1.5.1. TPWODL strives on the following values:

- Safety – A core value over which no business objective can have a higher priority.
- Care for Stakeholders, Environment, Customers & Shareholders.
- Agility - Speed, Responsiveness and being Proactive.
- Learning - Building future ready skillsets through learning & training.
- Ethics – Achieve the most admired standards of Ethics through Integrity & Mutual Trust.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR-ORISSA

2. Regulatory Provision for filing of Business Plan

2.1.1. The Hon'ble Odisha Electricity Regulatory Commission (OERC) vide its notification dated20th December 2022 (Gazette - 23rd December 2022) has given the directions to all DISCOM's to submit the BusinessPlan for the Control Period (FY 2023-24 to FY 2027-28) in accordance with the Regulation 2.1 of the OERC (Determination of Wheeling Supply Tariff and Retail Supply Tariff) Regulation, 2022 (hereafter referred as 'Tariff Regulations, 2022').

2.1.2. The Regulation 2.1 of the Tariff Regulations, 2022 stipulate the following:

"2.1. BUSINESS PLAN

2.1.1. The Distribution Licensee shall file for the Commission's approval, not less than 120 days before the commencement of the first year of the Control Period or such other date as may be directed by the Commission, a Long-Term Business Plan prepared in accordance with these regulations for the entire Control Period. The Business Plan shall be filed for the wheeling and retail supply business and shall, inter alia, contain:

1) Sales/Demand Forecast for each consumer category and sub-category for each year of the Control Period;

2) Distribution loss reduction trajectory and collection efficiency for each year of the Control Period;

3) Power Procurement Plan including details of availability of power from renewable energy source as concurred by GRIDCO for each year of the business plan period as per the terms of Vesting Orders. [The Distribution Licensee shall project the power purchase requirement based on the Quantum of Renewable Purchase Obligation (RPO), and the target set, if any, for Energy Efficiency (EE) and Demand Side Management (DSM) schemes. GRIDCO shall intimate the DISCOMs of its ability and readiness to procure power to meet the forecasted / projected Demand of electricity and the energy requirement of the State, failing which the DISCOMs shall provide their Plan to the Commission for meeting their demand.];

4) The Capital Investment Plan of the Distribution Licensee shall be prepared in accordance with the sales/demand forecast, power procurement plan, distribution loss trajectory, targets for quality of supply etc. The Capital investment plan shall be consistent with the perspective plan developed by the State Transmission Utility (STU) based on the data submitted by the Distribution Licensees and Load Flow studies conducted in line with the requirements of the State Grid Code. The planning of Distribution network, based on load flow study, shall be carried out for minimum five (5) year time frame and shall form the basis for capital

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

investment. The investment plan should also include yearly phasing of capital expenditure along with the financing plan and corresponding capitalization schedule with due consideration of capital expenditure as per the Vesting Order. The capital investment plan shall show separately, on-going projects that will spill over into the Control Period, and new projects (along with justification) that will commence in the Control Period but may be completed within or beyond the Control Period. The Commission shall consider and approve the capital investment plan for the Wheeling Business and Retail Supply Business of the Distribution Licensee. The Commission, for its satisfaction, may require the Distribution Licensee to provide relevant technical and commercial details.

5) The purpose of investment shall be strengthening of distribution network, creation of new assets or augmentation / replacement of existing assets, meeting load growth, technical loss reduction, non-technical loss reduction including improvement in collection efficiency, meeting energy requirement, custom service improvement in terms of quality & reliability of supply including energy audit, asset mapping and consumer indexing, etc.

6) The Distribution licensee shall focus on (a) safety of human, animal and equipment including implementation of protection system (b) strengthening of distribution network (c) standardization of equipment & material and standardization of technical specification in line with national regulations & national standards to ensure use of good quality equipment & material, facilitate interchangeability and faster delivery (d) optimum utilization of assets i.e. avoid underutilization of assets (e) adoption of state-of-art technology including SCADA & Automation system, smart metering and use of modern diagnostic tools for monitoring of health of distribution assets etc. with objective to improve reliability, safety, providing uninterrupted (24x7) quality power to all and better customer service;

7) The appropriate capital structure and cost of financing (interest on debt) and return on equity, terms of the existing loan agreements, etc;

8) The Operation and Maintenance (O&M) costs estimated for each year of the Business Plan Period based on the proposed efficiency in operating costs, norms for O&M cost allowance including indexation and other appropriate mechanism, if any;

9) Details of depreciation based on useful life of the assets and capitalization schedule for each year of the control period.

10) A set of targets proposed for other controllable items such as working capital, quality of supply etc. The targets shall be consistent with the capital investment plan proposed by the Licensee;

11) Proposals for other items such as external parameters used for indexation (inflation, etc);

12) The Distribution Licensee shall forecast expected revenue from prevailing tariff and charges based on the estimates of quantum of electricity to be supplied to consumers and to be wheeled on behalf of Distribution System Users for ensuing Financial Year within the Control Period as on the date of making the application.

13) The Distribution Licensee shall provide voltage wise cost of supply for each year of the control period.

14) The filings in addition to the Business Plan period shall also contain the data

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

for the cost and revenue parameters for the previous five-year period.

15) The Applicant shall provide full details, supporting the forecast, including but not limited to details of past performance, proposed initiatives for achieving efficiency or productivity gains, technical studies, contractual arrangements and/or secondary research, to enable the Commission to assess the reasonableness of the forecast.

2.1.2. The variation in revenue/cost on account of uncontrollable factors and controllable factors shall be trued up annually.

2.1.3. For all controllable costs, the Commission may set the targets for each year under review in the approved Business Plan. These targets shall be used for computing revenue requirement.

2.1.4. All non-controllable costs shall be treated as pass-through by the Commission after due diligence and prudence check.

2.1.5. The performance parameters, whose trajectories have been specified as per these Regulations, shall form the basis of projection of these performance parameters in the Business Plan.

2.1.6. Annual review of performance shall be conducted based on the actual vis-à-vis the approved forecast and categorization of variations in performance into controllable factors and uncontrollable factors;

2.1.7. The Commission shall make periodic reviews of the licensee's performance during the control period to address any practical issues, concerns or unexpected outcomes that may arise either in generally or in specific situations.

2.1.8. On receipt of Business Plan application, the Commission shall either:

(a) issue an Order approving the Business Plan for the entire Control Period, subject to such conditions as it may specify in the said Order; or

(b) reject the application for reasons to be recorded in writing, as the Commission may deem appropriate:

Provided that the Applicant shall be given a reasonable opportunity to present/submit his case before rejection of his application."

Subsequently, the Hon'ble Commission vide letter No. DIR(T)-394/2023/125 dated 27th January 2023 had requested the DISCOMs to file the Business Plan for 1st Control Period before 31st January 2023 positively.

Considering the above-mentioned letter of the Hon'ble Commission, TPWODL vide its Affidavit dated 30th January 2023 had provided the parameters for FY 2023-24 and requested the Hon'ble Commission to consider the same towards Business Plan approval for FY 2023-24 and grant some time for filing the Business Plan for the balance of the Control Period (i.e. FY 2024-25 to FY 2027-28).

In the meantime, TPCODL, on behalf of all Odisha DISCOMs, had hired M/s PricewaterhouseCoopers Private Limited (M/s PwC Ltd.) to study Long Term Demand Forecast' for all Odisha DISCOMs and the report was shared for discussion.

PART OF AFFIDAVIT
NOTARY
Regd. No. OW 21/94
ODISHA

The Hon'ble Commission vide Public Notice dated 17.02.2023 had registered the

Business Plan for FY 2023-24 as Case No. 13/ 2023. However, vide Tariff Order dated 23rd March 2023, the Hon'ble Commission at Para Nos. 77 – 79 has held as under:

"77. As per the Regulation 2.1 of OERC Wheeling & RST Regulations, 2022, the DISCOMs have to submit separate petition for approval of long-term Business Period spanning over the control period containing Sales and demand forecast for each consumer and sub category, Distribution loss trajectory and collection efficiency trajectory, Power Procurement Plan Capital investment Plan etc. of distribution licensees.

78. Due to time constraint, the DISCOMs have submitted the Business Plan for the FY 2023-24 only through their petitions which are registered as Case No. 11 of 2023 (TPCODL), Case No. 10 of 2023 (TPNODL), Case No. 12 of 2023 (TPSODL) and Case No. 13 of 2023 (TPWODL). The licensees have requested the Commission to grant some more time for filing of Business Plan for the balance period of the present control period i.e. FY 2024-25 to 2027-28.

79. The Commission has reviewed the application of Business Plan of licensees and found it appropriate to approve the ARR for FY 2023-24 (i.e. first year of the present control period). Considering the prayers made by the licensees. The Commission directed them to submit the business plan for the balance control period by 30th April 2023."

In furtherance to the above, TPCODL, on behalf of all DISCOMs, vide letter No. TPCODL/Regulatory/2023/96/2861 dated 29th April 2023 had requested the Hon'ble Commission to allow time till 31st May 2023 for submitting the Business Plan for the remaining 4 years of the Control Period i.e. FY 2024-25 to FY 2027-28 considering the time taken for projection especially w.r.t estimation of consumer demand and consequently the power requirement of the DISCOMs.

The Hon'ble Commission vide letter No. Dir(T)-394/2023/692 dated 16th May 2023 had taken cognizance of the TPCODL's letter and allowed extension of time up to 31st May 2023 to file the Business Plan for the balance Control Period.

Accordingly, TPWODL is filing this business plan for the remaining 4 years of the 1st Control Period, considering the PwC report for Long Term Demand Forecast and other parameters. The Business Plan has been prepared in accordance with the following acts, policies and regulations issued by the Hon'ble Commission:

a) Electricity Act 2003.

b) Provisions of National Electricity Policy.

c) Provisions of Tariff Policy, 2016.

d) OERC (Determination of Wheeling Supply Tariff and Retail Supply Tariff) Regulation, 2022.

2.1.3. The Applicant has considered the following components while preparing its Business Plan:

a) Sales/Demand Forecast for each consumer category and sub-categories for each year of the Control Period.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/9
SAMBALPUR-ORISSA

b) Distribution Loss & Collection Efficiency trajectory for each year of the Business Plan commensurate with AT&C loss trajectory committed as per Vesting order

c) Power Procurement Plan based on the sales forecast and distribution loss trajectory including availability of power from renewable energy sources as concurred by GRIDCO for each year of the business plan period.

d) Capital Investment Plan (CIP) considering the sales/demand forecast, power procurement plan, distribution loss trajectory, targets for quality of supply etc. and consistent with the perspective plan developed by the State Transmission Utility. The CIP includes the corresponding capitalization schedule and financing plan.

e) Appropriate capital structure and cost of financing (interest on debt) and return on equity, Income Tax etc.;

f) Operation and Maintenance (O&M) costs forecast for each year of the Business Plan Period.

g) Details of depreciation based on the useful life of the asset and capitalization schedules for each year of the Control Period.

h) Set of targets proposed for other controllable items such as working capital, quality of supply targets etc. consistent with the capital investment plan.

i) Proposals for other items such as external parameters used for indexation (inflation, etc).

2.1.4. Hence, in accordance with the above the Licensee prays that the Hon'ble Commission may:

a) Admit the accompanying Business Plan Petition for FY 2024-25 to FY 2027-28.

b) Consider and approve the submissions made by the Petitioner.

c) Condone any inadvertent omissions/errors/shortcomings and permit Petitioner to add/change/modify/alter this filing and make further submissions as may be required at future date and

d) Pass orders, as the Hon'ble Commission may deem fit and proper, keeping hview the facts and circumstances of the case.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON'23/98
SAMBALPUR: ORISSA

3. Existing System & Performance – post Vesting

3.1. Existing system

3.1.1. At the time of takeover of the distribution licensee from the erstwhile WESCO, TPWODL had to mitigate many issues in order to tackle the efficiency of the network system. Some of the issues observed/visualized during the takeover/post takeover are listed as under:

A) Dilapidated Network & safety

TPWODL had taken over the assets of erstwhile WESCO on "as is where is" basis. The network was in dilapidated condition and not compliant to statutory guidelines and posed threat to safety of employees, public and animals at large. One of the major reasons was the absence of structured preventive maintenance and systematic.

A list of issues pertaining to the existing network are as under:

1) The overall overhead network was radial in nature with 11KV circuits at average length of 90-100 kms and 33KV circuits at 60-80 kms.
2) 33KV & 11KV circuits had underrated, uneven-sized & worn-out bare conductors with extremely long span lengths.
3) The LV circuits were also very long and radial.
4) Both HV & LV circuits had a large number of damaged/ bent/ tilted poles, poor workmanship in jointing & jumpers compromised safety clearances and are devoid of guard wires on road crossing.
5) 11/0.415 kV Distribution Substations (DSS) had no fencing.
6) the LT side fuse box/MCCB box were missing,
7) The earthing system was in very bad condition & most of the AB switches & DD/HG fuse were bypassed/broken.
8) 33/11KV PSS did not have compound wall/ fencing & poor earthing system.
9) HT switchgear equipment like Circuit Breakers, Isolators, CT, PT, LA were either non-functional or not provided.
10) Relay control panels were either bypassed or non-functional. The protection panels were not maintained properly investment for past many years.

B) Limited Customer Touch Points

Customer service delivery is crucial for any distribution licensee. However, limited customer touch points and the non-availability of a dedicated workforce have led to customer dissatisfaction.

Customers used to visit their respective Division / Sub-Division / Section office for registering supply related complaints and had to spend considerable amount of time, money, and effort in registering basic complaint like No Power Supply, Billing issues etc. Also due to the vast geographical area, difficulty was

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/...
SAMBALPUR-...

faced to attend complaints at night hours and in rural areas. This had led to an increase in restoration time and customer dissatisfaction. Customers could also register their complaints through the Call center but due to limited lines, customers were not able to connect to the call center for registering the complaints.

Processes w.r.t New Connection, Complaint Processing, Bill Correction, Attribute Change etc. were processed manually. This had led to undue delay in processing of customer requests, updating of customer payment/ record, and reconciliation of material and inconsistency of data in system. Delay in assessment, rectification of incorrect bills, and inordinate delay in replacement of defective meters resulted in provisional billing for a long period. Further, the defined recovery process was not followed judicially, and connections were not disconnected in time on account of non-payment which in turn had led to the accumulation of Significant Arrears.

C) Poor Maintenance Management (Poor health of equipment)

There was acute shortage of manpower for operation and maintenance of the network. There was no structured, and documented maintenance system in place for feeders and substation equipment. There was no preventive or condition-based maintenance program for timely identification and removal of defects to maintain the efficiency of the equipment and for planning the replacement actions. Likewise, for 33KV feeders, there was no dedicated 24X7 breakdown crew to attend breakdowns and preventive maintenance crew for upkeep of substations. As a result, the internal health of various power distribution equipment was not known and many power transformers were more than 25 years old. The physical condition of some equipment was also reported to be bad.

D) Poor IT Infrastructure

There was no concept of Centralized Power System Control Centre or Area Power System Control Centre along with GIS & SCADA. No captive IT resources and infrastructure were available. Local vendors were managing the IT facilities as and when required. The mailing system was outdated. Billing and collection process managed through third party.

E) Human Resource

Challenge related to Human resources were:

1) An aging workforce

   TPWODL had inherited the existing manpower of WESCO with an average age of 44 years. In executive cadre, more than 16.5% of employees were in the age range of 54-60 years while for non-executives it was at 25%. These employees are working in areas of O&M, Commercial, Finance, Administration etc.

2) Lack of required skill set.

   In absence of structured Training and Development program, employees had limited option to enhance their competency level in this fast-changing business environment. Competency enhancement in terms of internal job rotation, either horizontal or vertical movement was also not visible. There were around 500 ITI technical employees (non-Executives) but only few

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

(approx. 40-50 had supervisory license).

3) Shortage of competent manpower

On manpower font, acute shortage of manpower was very much visible and reason of massive employee dissatisfaction. At Sub- Division level mostly, one single officer was working as SDO and SDM simultaneously. In Grid operation also, five or six manpower were available against approved/ designed number of nine.

4) Pending legal cases and non-compliances

It was reported that several legal cases involving commercial, HR, contractual and other issues were pending before various courts/forums. Most of the pending cases were filed against the licensee. In some cases, involving major financial as well policy decisions, cases were filed by licensee against adverse decisions of courts/ forums/ tribunals/ authorities. The majority of cases pertained to assessment u/Sec. 126 of the Electricity Act, 2003, compensation against electrocution accident/ claims of consumers/ contractor/ service providers, Statutory Authorities and HR issues.

5) Poor gender diversity

On Gender diversity, the overall ratio was at approx. 5%, which was very low. It is essential to ensure adequate representation of women employees in the workforce across all cadre.

F) Poor Civil Infrastructure

The offices in circles and sub-divisions were crowded and haphazardly planned for seating arrangements. Also, most of the circulation area was occupied with files, documents etc. Furniture was old and in non-serviceable condition. The stores were in dilapidated condition and needed urgent refurbishment and proper indoor stacking arrangement. Further, administrative activities such as housekeeping, deployment of Security at all offices were not being carried out due to shortage of funds and staff.

G) Governance challenges

Process related to Material Management, Maintenance Management, Meter Installation, Complaint Management, Customer services and financial management were being practiced without standardization. These led to undue delay in processing of customer requests, updating customer payment, reconciliation of material and inconsistency of data capturing.

3.1.2. As a result of the above, the AT&C Losses were quite high. The reported AT&C Losses for FY 2019-20 was 28.56% with Billing Efficiency of around 78%. One of the major reasons for low Billing Efficiency was leakages in meter reading process clubbed with inaccurate or no recording of reading in meter due to faulty/ no meter. Some of the challenges that led to increased AT&C losses of the distribution licensees are as under:

1) The presence of Mechanical Meter in the network - Leads to inaccurate or no recording of meter reading as they are prone to getting sluggish over a period of time.

2) Non-availability of quality check parameters in spot billing system - Prone to wrong reading/ bills.

3) Door-to-door collection - Became a norm of payment collection and thus customers are not encouraged to make regular payment by visiting office/using online payment avenues.
4) Manual cash receipt posting in system - Prone to error as multiple entries at different level are being done manually.
5) Manual reconciliation of payment - Error prone leading to customer dispute.
6) Retention and Storage of Hard Copy Receipt - Occupies considerable space in Division Office.
7) Meter Testing Labs – 4 nos. of labs in dilapidated condition and not NABL accredited.

3.2. Performance post vesting

3.2.1. The inherited distribution network is the mixture of assets created during OSEB time, GRIDCO period and some of the assets created by Govt. of Odisha in different time span with different thought process & need based. During, privatization period from 1999 to 2015 the then DISCOM did not invest remarkably under Capex. Considering such an aspect, status of network asset as on FY 21 (effective date) was almost not compliant up to requisite statutory standards at most of the places and it was in a dilapidated state. Distribution lines were lengthy and most of the feeders were of radial nature. Some of the span had under-rated/ uneven sized conductors thus compromising the circuit capacity as per the lowest capacity of the conductor available in the network. O/H network had worn out conductors, poor/ improper earthing, damaged/ tilted poles/ accessories resulting into abnormal sag. Similarly, 33/11 kV Primary Substation (PSS) and 11/0.415 kV Distribution Substations were in very deteriorated condition. The boundary walls were broken and there was no fencing to outdoor switchyards.

3.2.2. There have been several innovations and new practices in the utility business which has assisted utilities in the country and the world to improve operational performance and provide quality supply of electricity to the consumers. Since the incorporation of TPWODL, the DISCOM has been continuously undertaking various measures and initiatives for improvement of electricity supply to its consumers. This can only be achieved by overall improvement in-both technical and financial parameters of the utility. Strengthening and modernizing the distribution network is a constant endeavor at TPWODL, with a view to meeting the expectations of all its customers, in terms of providing state-of-the-art services and world-class reliability and continuity of supply. Some of the key performance indicators in the last two years has been summarized as follows:

Table 2: Key Performance Indicators

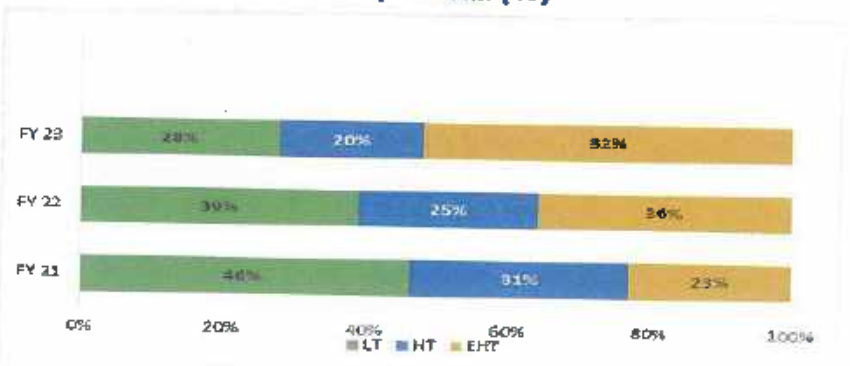
Sl.	Particulars	Unit	FY 22	FY 23	% Increase/ (Decrease) w.r.t Prev. Year
1	Consumer	No.	2552518	2673133	5
2	Energy Input	MU	9313	13002	40
3	Energy Sold	MU	7356	10610	44
4	Billing Efficiency	%	79	82	4
5	Distribution Losses	%	21	18.4	-12
6	Collection Efficiency	%	92.7	100.15	8
7	AT&C Losses	%	26.80	18.28	-32
8	Revenue from Operations	INR Cr	4368.72	6241.02	43

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR-ORISSA

3.3. Increasing Demand

3.3.1. With continuous endeavor to provide uninterrupted service to the consumers, the demand in Licensee served area has been increasing with the pace of increasing consumer base leading to increasing per capita consumption. The Licensee has observed a variation in the consumption mix thathad an impact on the overall revenue and cost structure.

Figure 2: Consumption Mix (%)

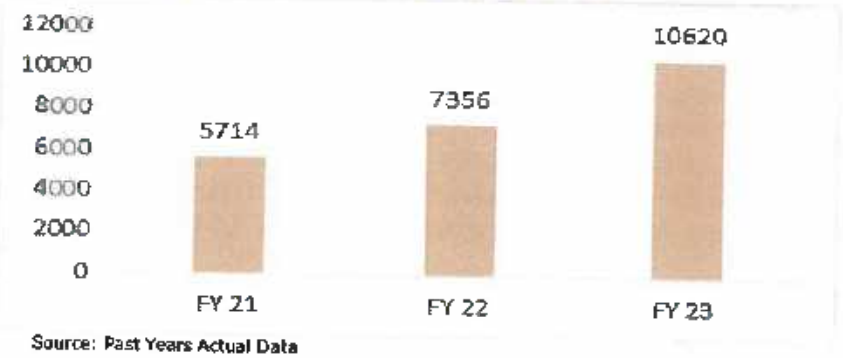


Source: Past Years Actual Data

The growth of consumption has been created with new thought and innovative idea with the support of all stakeholders like GRIDCO, Govt. of Odisha and consumer as well as Regulator. This not only enhances the revenue but supported GRIDCO to sustain higher BSP.

3.3.2. The following graphs depict the increasing consumer base, consumption and load growth in TPWODL served area, since takeover.

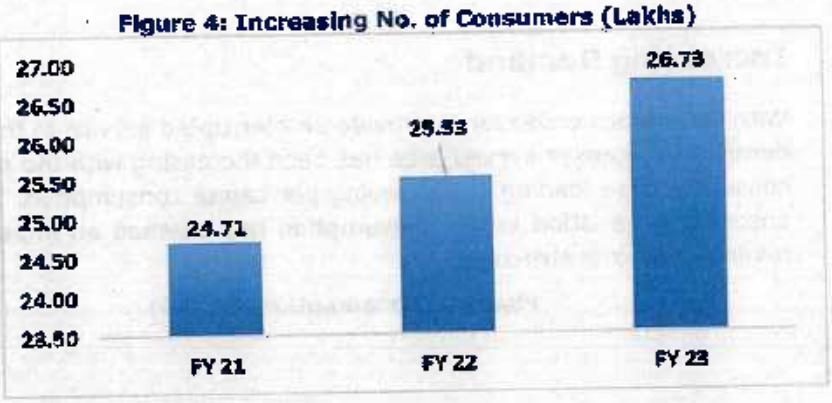
Figure 3: Increasing Energy Sales (MU)



Source: Past Years Actual Data

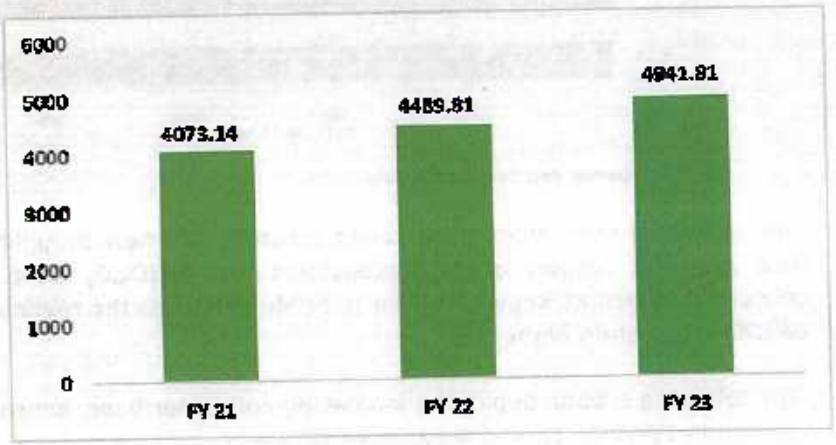
PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Figure 4: Increasing No. of Consumers (Lakhs)



Source: Past Years Actual Data

Figure 5: Increasing Connected Load (MVA)



Source: Past Years Actual Data

3.4. Key Focused Areas

3.4.1. Since the takeover, TPWODL has taken up various initiatives for providing ease of access to electricity to consumers like camps, spot bill payments, a 24*7 customer service center, the inclusion of SHGs, etc. Furthermore, TPWODL, through in-depth studies, has identified the critical issues and has worked diligently to propose the most suitable and feasible action plan to address the same. However, the company is still facing several challenges in curbing theft and recovery of arrears.

A) Network refurbishment and maintenance

To improve safety, overhauling & restoration of lines and distribution sub-stations through structured planning are being carried out.

1) Proper preventive maintenance and a dedicated team has been put in place in order to improve response time and frequency of interruptions.
2) Technical survey of 33 kV & 11 kV feeders conducted to identify defects and carry out refurbishment to improve the reliability performance. Refurbishment of feeders includes placement/ replacement of dangerous towers/ poles, provision of intermediate towers/ poles, replacement of worn out/ undersize conductor, replacement of other defective accessories, and strengthening of earthing of towers/ poles, Installation of HT spacers

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR-ORISSA

in high sag lines.

3) Similarly, refurbishment of 33/11KV Primary Substation and Distribution Substation is also carried out to improve the safety of human beings & animals.

B) Customer Touch Points & Customer Centric Approach

It is utmost important to resolve the consumer grievances as quickly as possible.

1) Call Centre

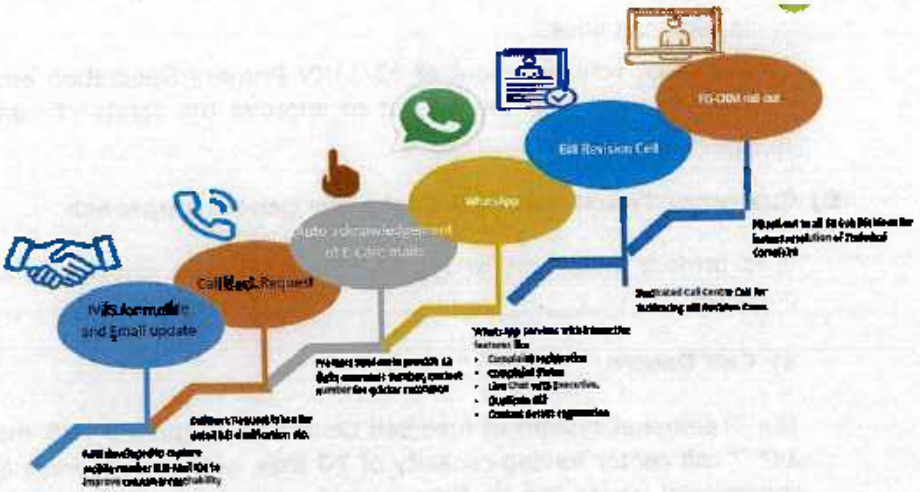
The Traditional system of fuse call Centre now replaced with more advanced 24* 7 call center having capacity of **70 Nos.** seater to address all technical & commercial issues like No Power supply, billing, payment, reading, metering & material etc.

Features:

- Interactive Voice Response System (IVRS) based calls routing to agents;
- Computer Telephony Integration with CRM;
- Options of three languages i.e. Odia, English and Hindi;
- Auto-forwarding of complaints to SDO & Section based on codes derived from consumer account.
- 7 options to choose on main IVRS.
- Reporting of theft and ethics related issues through voice recorded message;
- Auto-answer by IVRS in case of outages (being explored);
- Option available on IVRS for mobile number and Email ID updating.

Presently, Call Centre has been made live with Interactive Voice Response System (IVRS) based calls routing to agents, options of three languages i.e., Odia, English and Hindi, auto-forwarding of complaints to SDO & Section based on codes derived from consumer account, reporting of theft and ethics related issues through voice recorded message etc.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA



2) Digital (Online) Payment

It is observed that more consumers are moving towards online mode and availing the rebate fixed by the Hon'ble Commission (4%). To improve the reach to the consumers, the licensee has engaged various service providers for easy payment option to the consumers for payment of Energy Bills through offline/ online mode which would enhance the overall collection efficiency. Following service providers assigned with the responsibilities for collection of electricity bills:

- Post Offices - Collection of cash through Post Offices.
- CSC e-Governance Services India Limited - Collection of Electricity Bills through CSCs / VLEs.
- ICICI Bank - Through Debit / Credit card and Net Banking Services.
- Atom Technology - Payment Gateway (PG) Services, through Debit/ Credit card and Net Banking Services (28 Banks including SBI, UBI, Indian Bank, HDFC Bank)
- Bill desk -

  Payment Gateway (PG) Services - Through Debit/ Credit card and Net Banking Services (50 Banks including SBI, UBI, Indian Bank, HDFC Bank)

  EBPP Services - Through Airtel Money & Vodafone m-paisa
- Paytm - Through Paytm wallet or directly from the service provider using credit card and debit card.
- Various Bank's POS machine – HDFC Bank, Bank of India, IndusInd Bank, State Bank of India have provided POS machines in division offices, customer care offices and every Bill collector to facilitate swapping of Debit card/ Credit card/UPI for making payment of the electricity bills.
- Bharat Money Store (BMS) – Services of Bharat Financial Institution Ltd. (BFIL) which is a wholly owned subsidiary of IndusInd Bank will open various out lets at the doorstep of consumer i.e., at Kirana store in different villages across the licensee area where rural/ village level consumers can avail the services of TPWODL particularly payment of electricity bill.
- OCAC - tied up with Odisha Computer Application Centre in every

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR:ORISSA

village with nominal charges.

- MY TATAPOWER App – Newly launched mobile app to provide all kinds of services to the consumer. Consumers can pay their bill in any mode of payment through MY TATA POWER APP and can avail digital rebate.
- Engagement of Gram Panchayat Level Federation (GPLF) & Women's Self-help Group (WSHG) for Metering, Billing and Collection (MBC) activities.

C) Technology Adoption

In order to improve reliability and reduce the losses and to improve the overall performance, effective implementation of technologies is required. TPWODL is in the midst of technological transformation to provide quality customer services and to deliver highly reliable and improved quality supply in a safe manner to its consumers by meeting various standards of operation. A robust and reliable communication system will be the foundation to support business applications like IT, Operations, Commercial and Customer care services.

Key Operational Technology initiatives undertaken by TPWODL includes:

1) Establishment of 24*7 Power System Control Centre (PSCC) - Provides a strong backbone to real-time monitoring of the Company's network and Power Scheduling.
2) Automation of substations through Supervisory Control and Data Acquisition (SCADA) - For central monitoring and control of 33kV & 11kV network.
3) Consumer and asset mapping through Geographical Information System (GIS).
4) Integrated Communication Technology (ICT) - Deployment of multi-protocol label switching (MPLS) technology to coordinate with the entire substation.
5) Smart meter - To accomplish metering of feeders and consumers together with Smart Metering in order to curtail the commercial loss.
6) Provision of mobile applications to all 33/11KV Primary Sub-Station to collect the operational information, Planned Outages monitoring, and information pass on to consumers.
7) Rural Digital Substation - A smart digital solution for the refurbishment of PSS with digital communication by integrating the same with SCADA Control Centre.
8) Installation and integration of Fire Detection System in TPWODL PSS.
9) Implementation of Oil Temperature Indicators & Winding Temperature Indicators in Transformers – To provide alarm and control signals when integrated with SCADA Control Centre.
10) Implementation of Vehicle tracking system - Used for tracking and positioning of any vehicle by using Global Positioning System (GPS) and Global system for mobile communication (GSM).
11) In-house automation lab - For rectification of various equipment, operational and theoretical training to all staffs by providing easy solutions for timely fault rectification.
12) CCTV Installation at high revenue PSS - 1 No 360◦ High Resolution CCTV Camera with night vision and motion sensors in Each Substation for seamless monitoring of the Substations from a single point.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

D) Human Resource Plan

A consolidated Human Resource Strategy (Short term and long term) is being developed keeping in mind existing challenges and future expectation towards building an organization of engaged workforce, structured talent management, a culture of high performance and excellence apart from creating a conducive Industrial Relation atmosphere. TPWODL will be exploring and adopting best practices & policies in the country and in line with the Tata Group. TPWODL will focus on enhancing diversity in its workforce and women empowerment through various policy guidelines. TPWODL shall be implementing a training & development policy for continuous competency enhancement of the existing workforce. Use of online e-learning module shall be encouraged to ensure maximum participation of its employees. Structured employee grievance redressal mechanism shall be set up with an objective of speedy resolution of employee issues and building a culture of care across the organization.

E) Strengthening of Civil Infrastructure

To ensure safe, hygienic, well-ventilated, and spacious working environment for employees as well as consumers, various proposals are recommended like renovation of existing buildings to enhance the additional seating capacity for employees; renovation of old buildings to enhance the structural strength and enhance the life of the buildings; renovation of the stores to improve the safety & security of the material kept inside the badly damaged sheds/ roofs. Further, it is also planned to provide additional workstations and conference tables to ensure an employee friendly work environment.

F) IT Infrastructure

Information Technology (IT) commenced its journey in FY 21-22, the very first year of TPWODL, by initiating large scale computerization & digitalization efforts in the Company. For FY 21-22, IT was majorly on account of DC Hardware, Primary Data Centre, Call Centre & Customer Care Centre, DC Software & Licenses (ERP, MBC, DB, OS), Locational Network, Communication Network, Front -End Devices & End User Licenses. IT vertical implemented all the schemes successfully and achieved 100% capitalization in FY 21-22.

In FY 22-23, schemes namely Data Centre at Sambalpur, Front end Devices and SW, DC Hardware, DC Software & Licenses, Locational Network, Optical Fiber Cabling which included hardware and software and IT Infrastructure for expansion and modernization of call center were implemented. TPWODL IT has already initiated concrete steps towards 100% implementation of the approved schemes in FY 22-23.

In the 1st Control Period of the Business Plan, TPWODL vows to continue the journey for implementation of cutting edge technologies across TPWODL, scaling up of projects being implemented till FY 22-23, building infrastructure and facilities to strengthen Business Continuity Planning (BCP), secured business operation with implementation of state of the art Cybersecurity technologies and ensuring adoption of the new initiatives by the end users for optimizing all round efficiency which would ultimately help in reducing the AT&C loss levels and ensure consumer satisfaction.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

To scale up, strengthen and build redundancies, with special emphasis on business continuity, cyber security and seamless communication, TPWODL proposes strengthening of IT Infrastructure in the following proposals:

1. Build & strengthen end-user IT Infrastructure

   Till date, TPWODL has procured and distributed around 1600 laptops and 1000 desktops to its officers. TPWODL is also installing around 200 heavy duty printers (Multi-Functional Devices (MFD)) across all offices of TPWODL.

   With the addition of new manpower and establishments as well as roll out of more and more IT applications, it is imperative that the end users are equipped with necessary IT infrastructure for smoothly performing day to day works.

2. Strengthening Network Connectivity

   TPWODL established MPLS connectivity in its offices. The technology used was IP MPLS. WiFi connectivity was established in offices with more than 20 users. TPWODL is in the process of establishing connectivity in 67 additional IT locations by taking the total tally to 282. WiFi connectivity is also being extended up to section level for ease of operations.

   For all new office buildings/extension of office buildings coming up in FY 23-24 onwards, necessary extension of LAN connectivity and new MPLS connectivity, if required, shall also be planned.

3. Disaster Recovery Center – Hardware & Software

   TPWODL Data Center was commissioned successfully at Burla, Sambalpur in FY 21-22. Currently, SCADA, GIS and AMI applications are hosted at TPWODL Data Center.

   As per best practices, it is proposed to set up Disaster Recovery Center (DR) for TPWODL Data Center at Bhubaneswar, Odisha which will ensure business continuity in the aftermath of any breakdown of the Data Center (DC) owing to a natural calamity or other unforeseeable disaster. The DR will operate at 100% capacity of the DC and the same will be equipped with latest cyber security measures. DR will also ensure 100% data protection for all data stored at DC. For setting up the DR as proposed above, all hardware and software for necessary compute, storage, networking and cyber security compliance, will have to be procured to ensure operation at full capacity in active-passive mode.

4. Augmentation of Data Center Infrastructure – Hardware & Software

   Augmentation of TPWODL's Data Center (DC) infrastructure (both hardware and software) is required in order to cater to extended GIS and AMI implementation, ADMS implementation as well as compliance to cyber security guidelines. For catering to third phase of GIS implementation, the DC infra shall have to be suitably augmented. In case of extension of smart metering landscape in TPWODL, further augmentation of DC infrastructure will be required. MBC and ERP solutions of all utilities of Odisha are hosted

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR-ORISSA

at IPDS Datacenter at Bhubaneswar along with key bespoke applications. In order to enable 360-degree visibility to TPWODL management across the entire business spectrum, it is essential to build a robust, scalable and sustainable reporting system. Consequently, TPWODL shall have to procure necessary appliances, required for building business intelligence enabled reporting tools as mentioned above, to be hosted at IPDS Data Center at Bhubaneswar. For augmenting existing cyber security measures at TPWODL Data Center, additional Infrastructure is proposed to be procured in the 1st Control Period of the Business Plan.

5. Digitization of Old Documents

TPWODL has started implementing e-office application, which is an extension of DWS project aimed for digital/ paperless office. In near future, once the application is implemented, each and every document which are part of the concerned workflow shall be automatically digitized.

However, in order to reap complete benefit of this massive digitization exercise, hard copies of all old documents (i.e., documents collected/generated before Go Live of e-office application) shall have to be digitized, Majority of these documents are related to electricity connections provided to consumers. This exercise will ensure safekeeping of legacy data which can be cross referenced at any point of time on need basis.

3.5. AT&C Loss

3.5.1. One of the most significant measures of operational efficiency in the power distribution sector is the reduction of AT&C losses. AT&C losses refer to the difference between energy input and energy for which revenue is realized.

3.5.2. During FY 2022-23, the noted Billing Efficiency was 81.65 %, Collection Efficiency was 100.15 % and AT&C loss was 18.28 %. The Company has taken the following steps to reduce AT&C loss during the year:

a) Resolved 2.53 lakhs faulty meter cases, replaced 1.8 lakh meters, and punched metering data into Fluent Grid (FG) billing system which had a total annual financial cost-benefit of around ₹ 5 crore and effect on overall loss is 0.25 % on a year-on-year basis.

b) Statutory testing of EHT/HT Meters was completed in 1834 (100%) cases.

c) Development of "MANAK" application to reduce billing cycle time for punching Metering data in billing system from 1 month to 1 week. During March 2023 the cycle time was 2 days. The advanced version of MANAK i.e. MMG 2.8 is now ready for implementation.

d) Total 35500 3ph WC Smart meter has been replaced which include 100% metering of Govt. 3phase consumers.

e) Load of over 100 MW was booked under theft and assessment.

3.6. Other Focused Areas

A) Connection Management

TPWODL is committed in providing best-in-class services to its customers. The

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23194
SAMBALPUR: ORISSA

key element in serving customers is to keep new connections/attribute change simple processes, customer-friendly and yet swift. In order to achieve this objective, 100% workflow-based 'on-line' new connection and load change processes have been implemented to provide our customers with a fair, transparent and hassle-free experience. With valuable support from operations, TPWODL was able to introduce new initiatives in new connection and attribute change processes as follows:

1) Online Application: The customers can apply online for a new connection and status check through the Company's website i.e. https://www.tpwodl.com.
2) Centralized back-office team has been trained to provide the consumer with superior services experience while applying for a new connection, load change and name/category change through the FG system.
3) Online payment of estimation through system generated auto triggers SMS via URL link directly into FG system.
4) Facility for online submission of declaration cum undertaking (power supply agreement) for HT/LT connection up to 33 kV.
5) "Go Green" initiative: New connections and other applications were processed without physical documents.
6) As per management approval processing of all single phase (up to 5 kW) and Three phase (up to 20 kW) Load enhancement applications (Except agriculture cases) made without site feasibility and site installation.
7) Post management approval, New Connection applications are processed, except Agriculture connection (up to 20 kW), without site installation where there is no requirement of Network augmentation.

The Company has derived the following benefits from online services:

1) Process lead time reduced to 22 days from 90 days for all 3 pH LT/HT connection.
2) Early release of service connection advances consumption/billing by 2 months.
3) Total billing MUs enhanced by 51 MUs (~₹ 40 crore) by early delivery of new connections.
4) Estimate issued to customer within 2 days from the date of application and release cases in system within 2 days post estimate payment for all Single-Phase Load enhancement cases (Within 5 Kw) and 3 phase load enhancement cases (up to 20 kW) except agriculture connection. This has reduced the average process cycle time for such cases to 1.8 days.
5) Releasing of New Connection cases (up to 20 kW) within 2 days post estimate payment where there is no requirement of Network augmentation is a milestone achieved in the period under report. Average process cycle time for such cases is 1.9 days to release in system post payment.

B) PM-KUSUM scheme Component C

1) TP Western Odisha Distribution Limited is the State designated Implementing Agency (IA) for the implementation of PM KUSUM Component C (Individual Grid Connected Pump Solarization Program & Feder Level Solarization Program).
2) A total of 20000 agricultural grid connected pumps will be solarized under this scheme with financial support from the Ministry of New and Renewable Energy

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

(MNRE), Govt. of India and Govt. of Odisha. Hon'ble Commission has already approved the Gross metering scheme where generation cost would be @ 3.60 per unit and the self-consumption shall be calculated at RST rate of Rs.1.50 per unit. Balance amount shall be passed on to the farmer. Hon'ble Commission has also allowed cost of interest & AMC cost (after five year) out of NTI of DISCOM, if the farmer avails loan for installation of the solar project. Now, PM KUSUM C has been extended till 31st March 2026.

C) Customer Services

The Company is consistently implementing newer technologies and processes to improve customer satisfaction. During the year, the following initiatives were taken for Customer Services:

1) 14 New & Smart Customer Care Centers became functional across 5 Circles.
2) Complaint Registration Facilities made available on Website, App & WhatsApp.
3) Introduction of Fuse Call Centre and FCC App (375 Operational and 250 planned in FY 23-24)
4) 24X7 Twitter Response Desk to address consumer complaints & queries.
5) Know Your Consumer Campaign (KYC).
6) Call Centre Bill Revision Desk to facilitate immediate bill revision.
7) Initiated Welcome E – Letter for awareness of consumer profile details, various essential information & touchpoint details to newly energized consumers.
8) Rollout of FG CRM for the automatic flow of complaints related to O&M, Fire/Emergency, Billing, Payment & Reading.
9) Dedicated Technical Help Desk for MY TATA POWER APP and Digital Payment related issues.

D) Digital Transformation

1) Revamping of TPWODL Official Website and providing interface in "Odia" language also.
2) Implementation of Commercial Information Portal (CIP) at Customer Care Centers
3) E-billing through WhatsApp and Email to trigger regular monthly bills to consumers.
4) Activation of DM (Direct Message) feature in Twitter – To enhance consumer experience.
5) Promotion of TPWODL Virtual Account through emails to high value and 3 phase consumers for smooth online payment.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

E) Consumer awareness & Campaigns

1) Digital literacy, Safety & Energy Conservation Awareness Campaign through GP meets.
2) Digital Services Stickers at consumer premises
3) Consumer Charter finalized to make consumers aware about Rules, Regulations, standards of performance including Customer Services.
4) TPWODL Participated in Tech Fest at VSSUT Burla, Sambalpur to spread awareness among consumers on various consumer centric services.
5) Arrear Due intimation through IVR OBD (Voice Message) has been implemented to intimate the arrear dues to consumers.
6) Earn while you learn Campaign through Student Volunteers to promote digital payments.
7) OTSS-2022 Scheme announcement through IVR Voice OBD, SMS & Emails to all consumers

F) Consumer Satisfaction

1) Conducted face to face C-SAT across TPWODL through third party. (C-SAT Score - 96%)
2) Customer Delight index (Post transaction feedback at Call Centre)
3) Customer Behavior Rating implemented at Call Centre.
4) Thank You mailers to Regular Payee/Loyal Consumers.
5) Happy Calling to consumers to understand the consumer satisfaction level on various parameters.
6) Online transaction feedback at Customer Care Centre e-DARPAN.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

G) Meter Management

The Company is committed to providing best class metering facilities to the customers. The Company has replaced 1.8 lakh faulty meters to enhance the accuracy in billing. To achieve new heights of metering, the company has installed SMART Meters for high value consumers. New initiatives taken to provide customers error free metering and billing facilities are as follows:

1) More than 34468 WC & 555 LTCT Smart Meters installed. Actual reading based Non-SBM (Other than Agriculture & STL) billing increased from 69% in June -22 to 95% in March-23
2) Resolved 2.53 lac faulty meter cases, replaced 1.8 lac meters, and punched the metering data into Fluent Grid (FG) billing system.
3) 5560 number of unmetered Agricultural connections have been metered.
4) Statutory testing of EHT/HT Meters was completed in 1834 (100%) cases.
5) Development of "MANAK" application to reduce billing cycle time for punching Metering data in billing system from 1 month to 1 week. During March 2023, the protocol punch cycle time was 2 days. A new advanced field force app for paperless protocol punching was also implemented (MMG 2.8).
6) Use of resin cast based CTPT cubicle instead of Oil based metering units to avoid severe hazard and environment effects.
7) Continuous improvement in installation time for New connection of HT category from 54% to 91% within SOP timeline.
8) Continuous improvement in Installation time for New connection of LT category from 42% to 78% within SOP timeline.

H) Energy Audit

To ensure no slippage in energy accounting our energy audit group took the following new initiatives:

1) For calculation of more accurate system-based T&D and AT&C loss in Division/Sub-Division & Section level Energy Audit App has been designed.
2) Energy audit app includes SL1 to SL10.
3) BST Bill analysis done, and 3.020 MU additional unit raised amounting to Rs 1.06 Cr.
4) Exchange point input analysis with respect to EHT consumers done - unit

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/9a
SAMBALPUR: ORISSA

saved 6.485 amounting to Rs 4.54 Cr.

5) Industrial audit like T-OFF audit, HTLT comparison done- Unit saved 2.787 amounting to Rs 1.95 Cr.

I) Meter Testing

TPWODL has set up 2 Nos. meter testing labs in FY 23. The following new initiatives were taken:

1) Meter Testing Lab Burla received recommendation for NABL.
2) 2 Nos. of Meter Testing Lab has been commissioned in the month of Oct 2022.
3) The Lab has facility to test all type of energy meters like:
   i. Single Phase Meter (Uni & Bidirectional) as per IS 13779
   ii. Poly Phase Meter (Uni & Bidirectional) as per IS 14697
   iii. LTTVM (Uni & Bidirectional) as per IS 14697
   iv. HTTVM (Uni & Bidirectional) as per IS 14697
   v. Smart Meter as per IS 16444
4) All three Lab have facility to test CT/ PT/ Cubicle/ Composite Box and operational.
5) The Lab tested approx. 20000 new meters, 250 Consumer request meters and 1150 Nos. of CT & PT.

J) AMR

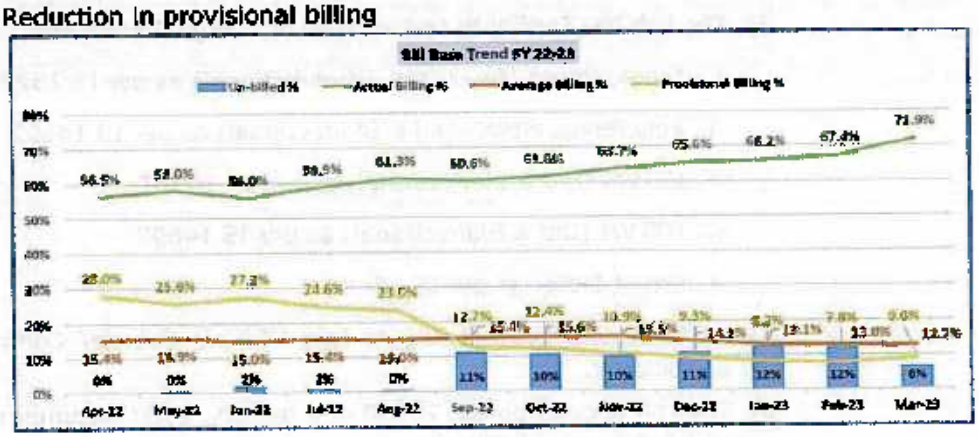
1) 95% successful communication achieved in EHT & HT consumer category, consistently for last 6 months.
2) Verticross MDAS has been integrated with FG billing system for seamless billing information.

K) Revenue Cycle Management

1) OCR technology was introduced to achieve error-free billing.

PART OF AFFIDAVIT
NOTARY
Regd. No. OR 23/94
SAMBALPUR-ORISSA

2) Provisional billing reduced from Opening level of 12% to 9%.
3) Actual Reading base performance 74% to 77% total actual reading base bill count is improved from 9.13 lakh to 12.43 lakh.
4) Total 31K theft leads identified and forwarded to enforcement team.
   i) Total no of DT/DAE cases booked was 1274.
   ii) Total load booked 3.3 MW.
   iii) Total revenue realized was Rs 70.59 lakh.
5) Billing Coverage has been improved considerably.
6) Reading base bill for agricultural billing improved from opening level of 10% to 38.4%.
7) Reduction in provisional billing

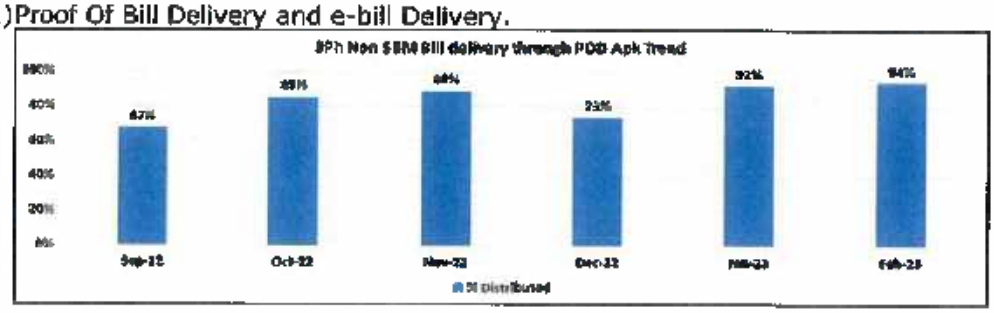


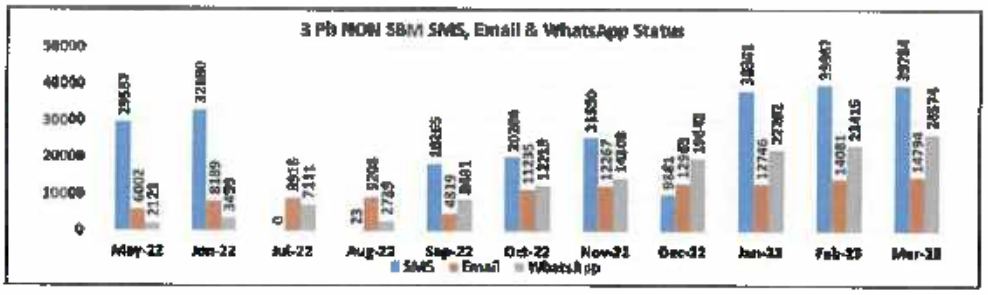
8) Implementation of "RQC" logics in FG to ensure error free billing.
9) Implementation of "BQC" logics in FG to ensure error free billing.
10) Central Bill Revision Team
   i) Total 217947 Bill revised with Net Credit amount of Rs. 45.61 Cr in F.Y 2022-23.
   ii) 16529 upwards Assessment of defective meter processed with 19.32 MU and Rs 10.16 Cr debit for Improvement of Billing Efficiency.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR-ORISSA

Summary of Bill Revision cases from Jan'21 to till 5 April'23										
FY	Cases Allocated for Analysis	Total Analysed	Cases Where Bill Revision Was Revision cases	Bill Revision Done	Debit Sundries		Credit Sundries		Total Sundries	
					Count	Amount in Cr.	Count	Amount in Cr.	Count	Amount in Cr.
Jan'21 to March'21	55,875	55,875	55,875	55,875	27,535	99.52	28,340	-62.37	55,875	37.15
April'21 to March'22	98,999	98,999	98,999	98,999	48,995	97.24	50,004	-221.88	98,999	-124.63
April'22 to 31 March'23	11,85,730	11,85,730	2,17,947	2,17,947	73,632	43.89	1,44,315	-89.50	2,17,947	-45.61
April'23 to 5 April'23	7,28,079	22,559	1,153	1,153	214	0.39	939	-1.06	1,153	-0.67
Total	20,68,683	13,63,163	3,73,974	3,73,974	1,50,376	240.84	2,23,598	-374.80	3,73,974	-133.97

11) Proof Of Bill Delivery and e-bill Delivery.





L) Key Consumer Group

1) Total collection for FY22-23 is Rs. 6250.06 Cr. out of total revenue billed of Rs 6241.03 Cr.
2) Achieved collection efficiency is 100.15%. FY 22-23.
3) 99% of KCG consumers made Digital payment.
4) 60% KCG Consumers made via Virtual mode.
5) Legacy Bill Disputes: 22 out of 36 cases resolved.
6) Arrear Reduced to Rs 26.35 Cr from Rs 105.57 Cr. in FY 22-23.
7) HRB cases identified for Tier-1 which will be worked in FY 23-24.
8) Data Analysis activity initiated and collected Rs. 0.30 Cr in FY 22-23.
9) HRB provisional cases reduced to 6.3% from 20%.

M) Enforcement Assessment Cell

1) Total Load booked during FY 22-23 was 102.523 MW.
2) Inhouse Data Analysis by Enforcement Back office which has resulted in booking of 5.8 MW Load from Non-SBM Consumers
3) 11 Nos of enforcement mega drives were carried out in FY 22-23 and total load of 12.47 MW booked and. Rs 2.78 Crore received during these drives on the spot against enforcement penalty.
4) 572 Nos of Government establishment was booked and total load of 1.47 MW and Rs.1 Crore Revenue was Recovered

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/9
SAMBALPUR: ORISSA

5) 30.89 MW of Load Booked under Meter Anomalies and Rs.2.42 Crores amount recovered from these cases.
6) 244 Cases of Suppressed reading/Reading Accumulation identified having 1.93 MUs discovered.
7) Settlement Camps: 180 settlement camps held and with 6965 cases settled and settlement amount being Rs.13.08 Crores.
8) Many customers friendly features developed in Fraud Management Module such as customization of instalment, part payment facility, identification of multiple theft cases for same consumer, Total Collection Report etc.
9) Re-Constitution of PVR Monitoring and Reviewing Committee
10) Formulation of Enforcement Process along with relevant Documents released for maintaining uniformity.
11) Training on Fraud Management Module given to all Assessing Officers/ Billing Staff
12) Introduction of Online/ WhatsApp camps for consumers so as to enable resolution of enforcement cases and enhancement of amount recovered by settlement at Section/SDO Offices done from December 2022 onwards.
13) 17 Training Camps were held with EE/SDO/ Section/ Enforcement Staff on regular intervals covering over 300 participants.
14) Creation of Centralized Assessment Desk which is a facilitation desk for Registration of Enforcement Cases in FG. Team ensured Timely Registration of 27493 cases and preparation of 27493 Provisional Assessment Orders. Finalization of 26500+ Cases have been done through FM Module.

Verified by Nayak.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

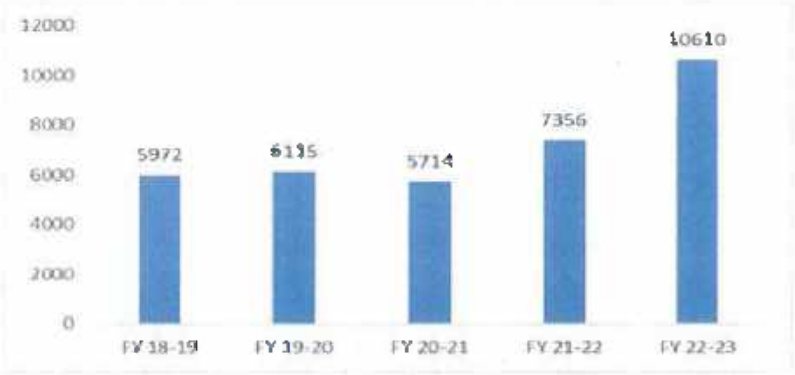
4. Assumptions considered for BusinessPlan

4.1. Demand Forecast

Overview

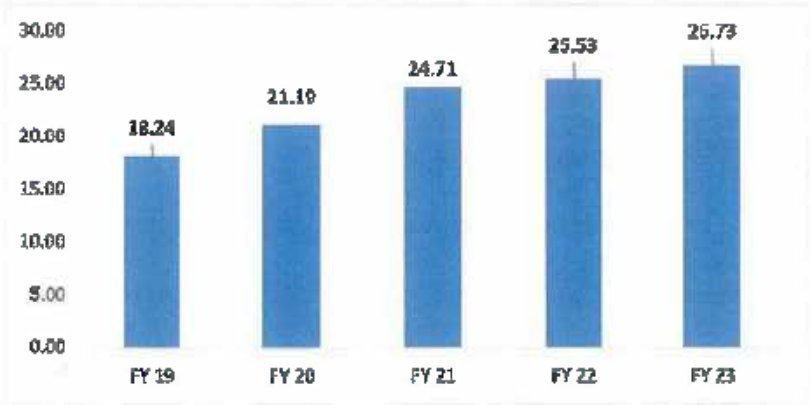
4.1.1. The demand of power in Licensee served area has been increasing significantly at an annual rate of 15.45 % over the past five years. The graphs below presents the y-o-y increase in sales, connected load and the consumers in the area served by TPWODL:

Figure 6: Energy Sales (MU)



Source: Past Years Actual Data

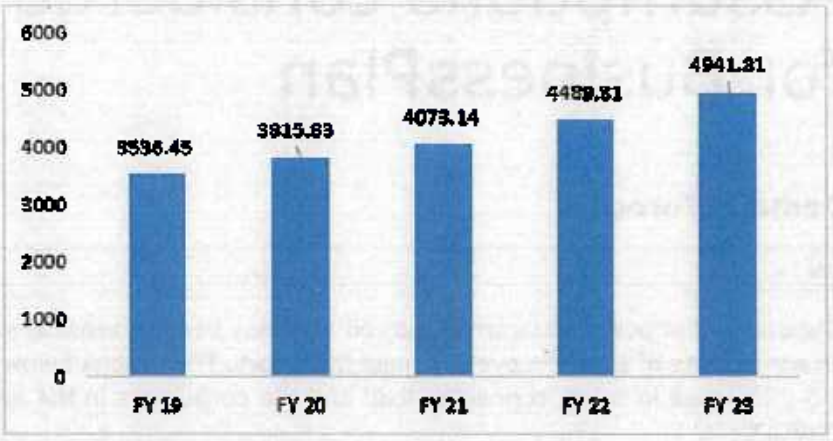
Figure 7: No. of Consumers (Lakhs)



Source: Past Years Actual Data

PART OF AFFIDAVIT
NOTARY
Regd. No. 08 2394
SAMBALPUR (ODISHA)

Figure 8: Connected Load (MVA)



Source: Past Years Actual Data

4.1.2. The increasing demand is majorly a consequence of the increase in consumer base which has increased by over 46% in the last five years as can be interpreted from above.

Approach & Methodology for projection of demand

4.1.3. TPWODL has considered the following steps for Energy Sales forecast:

1. **Step 1 – Assessment of historical trends:**
   a) Analysis of last 10-year annualized data for number of consumers, connected load and energy sales by tariff category.
   b) Assessment of specific consumption (i.e. consumption per connection) for different consumer categories.

2. **Step 2 – Identification of category-wise demand drivers and inhibitors:**
   a) Analysis of econometric parameters such as GDP growth, income growth, population growth, urbanization etc.
   b) Analysis of government schemes such as PM KUSUM, Rooftop Solar Scheme.
   c) Analysis of technological factors.

3. **Step 3 – Assessing impact of demand drivers/ inhibitors on electricity consumption:**
   a) Assessment of multiple econometric parameters and their impact on number of consumers, sales and specific consumption.
   b) Demand drivers/ inhibitors have been projected considering secondary data such as reports of Government department, historical trends etc.

4. **Step 4 – Energy Sales Forecast:**
   a) Using the correlation between demand drivers/ inhibitors, the energy sales have been forecasted for each category.

5. **Step 5 – Adjustments due to disruptions:**
   a) Disruptions such as Solar Rooftop, EVs did not have significant impact in the past and hence are not captured in the historical correlation of

electricity consumption and demand drivers/ inhibitors.

4.1.4. **TPA Sales Adjustment –** TPA demand from FY 24-25 till FY 27-28 has not been considered. As of now only 1 industry namely M/s. Vedanta Limited has made the TPA with the licensee. Continuity of the same has little chance due to following reasons:

a) M/s. Vedanta Limited has acquired 2x600 MW power plant of Athena Chhattisgarh Power Limited located at Jhanjgir, Chhattisgarh which will be operational from FY 24-25 onwards. The generation from the said power plant is expected to meet the demand of M/s. Vedanta Limited.

b) Other reasons: Due to increased DISCOM demand, surplus capacity available with GRIDCO may be constrained. Hence, GRIDCO may not be in a position to supply power through TPA.

Category-wise Analysis (Energy Sales & Revenue)

4.1.5. TPWODL has carried out its category-wise analysis as under:

a) Domestic Category –

i) Growth in Domestic Category largely driven by increase in number of connections. Number of connections grew due to increase in population and increase in number of connections/ populations which may be attributed to housing growth, shift towards nuclear families and increase in electrification rate.

ii) Increase in Specific Consumption may be attributed to income growth and urbanization leading to increased use of white goods. Penetration of ACs in Odisha increased from 9% in FY 15-16 to 14% in FY 20-21 and that of refrigerators increased from 14% to 24% leading to an increase in specific consumption.

iii) Installation of rooftop solar would act as demand inhibitor.

b) Agricultural Category –

i) Growth in Agriculture Category largely driven by increase in agriculture GDP and rural electrification which led to increase in number of connections.

ii) Increase in Specific Consumption driven by farm mechanization and increase in irrigation facilities.

iii) PM KUSUM and PV Solar adoption would act as demand inhibitors.

c) Industrial Category –

i) Growth in EHT category has largely been flat due to captive power supply.

ii) HT sales is largely driven by an increase in Industrial GDP leading to an increase in number of connections.

iii) Specific Consumption is impacted by increased energy efficiency

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR (ORISSA)

leading to a fall in specific consumption.

iv) Energy Intensity is expected to decline, and PV Solar adoption would act as demand inhibitor.

d) Public Works Category –

i) Growth in Public Works Category has largely been driven by infrastructure growth of the state leading to an increase in the number of connections.

ii) Specific Consumption is impacted by increased energy efficiency leading to a fall in specific consumption.

iii) Energy Intensity is expected to decline.

e) General Purpose Category –

i) Growth in General Purpose Category is largely driven by an increase in Service GDP which is driven by Infrastructure growth, education, healthcare and tourism leading to an increase in the number of connections.

ii) Specific consumption is impacted by adoption of energy efficient appliances.

iii) PV Solar adoption may act as demand inhibitor.

f) Railways Category –

i) Growth in Railways Category largely driven by an increase in the number of trains, freight traffic and increase in train network leading to an increase in number of connections.

ii) Again, Railway is challenging the order of Hon'ble Commission at ATE to establish as a deemed distribution licensee. However, the licensee along with other DISCOMs is defending the matter strongly, but adverse order if any will certainly affect the business of the licensee.

g) Transport Category –

i) All transport categories have witnessed strong growth momentum in last 10 years due to increase in public transportation and tourism.

ii) Strong growth momentum in 2 wheelers, & 4 wheelers segment due to increase in per capita income.

iii) Trucks & tractors are expected to maintain growth trends on the back of increased commercial and industrial activity in the state.

iv) Rapid adoption of Electric Vehicles seen on back of fall in battery prices which makes EV an affordable option and increases the production rate. EV adoption led by 2 wheelers, 3 wheelers & buses.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

4.1.6. Accordingly, TPWODL has projected the Total No. of Consumers & Connected Load (MVA) for the 1st Control Period as appended below:

Total Consumers (Nos.)

Sl. No.	PARTICULARS	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
		Nos.	Nos.	Nos.	Nos.
1	LT	2834173	2997012	3169103	3350981
2	HT	1200	1251	1305	1361
3	EHT	41	42	43	45
4	Total No. of Consumers	2835413	2998305	3170451	3352387

Total Connected Load (MVA)

Sl. No.	PARTICULARS	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
		MVA	MVA	MVA	MVA
1	LT	4816	5319	5878	6502
2	HT	184	205	229	256
3	EHT	283	312	343	377
4	Total Connected Load	5284	5836	6450	7135

4.1.7. In purview of the driving factors as mentioned above along with the projected consumers & connected load, the projection of sales for each of the consumer categories has been done. Past year trends have been analyzed and accordingly the energy sales have been projected for each consumer category. The following table provides the growth considered (in %) for different scenarios for the balance years of the 1st Control Period:

Table 3: Growth considered (%) (FY 25 to FY 28)

S. No.	Particulars	FY 24-25	FY 25-26	FY 26-27	FY 27-28
1	Energy Sales	7%	6%	5%	5%

4.1.8. However, TPWODL is proposing Energy Sales from FY 24-25 to FY 27-28 both including & excluding Railways as the matter with respect to Deemed Distribution Licensee of Railways is pending before Hon'ble APTEL.

4.1.9. Currently, TPWODL serves 18 Railway Traction consumers under EHT category having cumulative Contract Demand of 257 MVA with actual consumption of 855 MUs in FY 22-23. The average tariff for Railways is Rs. 6.21/ kVAh (Rs. 5.80/kVAh as energy charges + Rs. 0.41/kVAh as demand charges). The detail is appended below:

PART OF AFFIDAVIT
NOTARY 31/03
Regd. No. ON 23/94
SAMBALPUR (ORISSA)

Sl. No	Consumer No	Name of the Consumer	Contract Demand (kVA)	Consumption (MU)					
				Actual	Projection				
				FY 22-23	FY 23-24 (Est.)	FY 24-25 (7%)	FY 25-26 (6%)	FY 26-27 (5%)	FY 27-28 (5%)
1	512000000177	The Sr Divisional Electrical Engineer TRD	30000	25.82	28.67	30.64	32.48	34.11	35.81
2	911000000072	THE SR.DIVISIONAL ELEC.ENGINEER TRD	14000	30.64	34.02	36.36	38.55	40.47	42.50
3	912000000070	M/S THE DRM-(ELECT),E.CO. RAILWAY	12000	24.35	27.03	28.90	30.63	32.16	33.77
4	915000000055	DIVISIONAL RLY.ENGINEER(TR)E.CO.RLY	14000	29.29	32.51	34.75	36.84	38.68	40.61
5	903000000070	THE DRM (ELECT), EAST COAST RAILWAY	14000	48.10	53.39	57.07	60.50	63.52	66.70
6	903000000083	THE SR.DIVNL. ELECTRICAL ENGINER.TRD	14000	46.67	51.81	55.38	58.70	61.64	64.72
7	906000000049	THE SR. DIVISIONAL ELECTRICAL ENGINEER TRD	8000	22.10	24.54	26.23	27.80	29.19	30.65
8	818000000002	DIVISIONAL RAILWAY MANAGER(TRD)	17000	59.57	66.13	70.69	74.94	78.68	82.62
9	818000000149	M/S. THE DIVISIONAL RAILWAY MANAGER TRD	16500	81.26	90.21	96.43	102.22	107.33	112.69
10	813000000055	DIVISIONAL RAILWAY MANAGER(TRD)	17500	67.58	75.03	80.20	85.01	89.26	93.73
11	813000000139	DIVISIONAL RAILWAY MANAGER(TRD)	9500	29.09	32.30	34.52	36.59	38.42	40.34
12	814000000043	DIVISIONAL RAILWAY MANAGER(TRD)	17500	31.03	34.45	36.83	39.03	40.99	43.04
13	814000000200	M/S. THE DIVISIONAL MANAGAER TRD	6500	13.33	14.80	15.82	16.77	17.61	18.49
14	413000000007	DIVISIONAL RAILWAY MANAGER(TRD)	30800	133.00	147.66	157.84	167.31	175.67	184.46
15	413000000090	DIVISIONAL RAILWAY MANAGER(TRD)	20500	90.51	100.48	107.41	113.86	119.55	125.53
16	416000000108	DRM(ELEC) EAST COAST RAILWAY	18000	78.80	87.48	93.52	99.13	104.08	109.29
17	416000000115	THE DIVISIONAL ELECT.ENG.(TRACTION)	11000	27.74	30.79	32.91	34.89	36.63	38.47
18	417000000126	THE DIVISIONAL RAILWAY MANAGER(TRD)	6500	16.84	18.70	19.99	21.19	22.25	23.36
Total			257000	855.74	950.00	1015.50	1076.43	1130.25	1186.77

It is pertinent to mention here that if Railways would be a Deemed Distribution Licensee, it will cause a major impact on the Revenue and AT&C Loss of TPWODL.

4.1.10. Accordingly, TPWODL has projected Energy Sales for the remaining 4 years of the 1st Control Period including & excluding Railways which is appended as under:

Table 4: Projected Energy Sales (MUs) (FY 25 to FY 28) (Incl. Railways)

Sl. No.	CATEGORY OF CONSUMERS	FY 24-25	FY 25-26	FY 26-27	FY 27-28
		MU	MU	MU	MU
	LT CATEGORY (A.C.)				
1	DOMESTIC				
I)	Kutirjyoti<=30kWh	32.278	34.215	35.925	37.722
II)	Others				
	0<=50 kWh	660.301	699.919	734.914	771.660
	>50<=200	890.325	943.745	990.932	1040.479
	>200<=400	338.126	358.414	376.334	395.151
	More than 400 kWh (SLAB)	353.489	374.698	393.433	413.105
	Total Domestic	**2274.52**	**2410.99**	**2531.54**	**2658.12**
2	General Purpose<100 kW				
	All Units if cons. within				
	0-100 kWh	61.603	65.299	68.564	71.993
	>100<=300	88.021	93.302	97.967	102.866
	More than 300 kWh(SLAB)	350.684	371.725	390.311	409.827
	Total General Purpose (<100kW)	**500.31**	**530.33**	**556.84**	**584.68**
3	Irrigation Pumping and Agriculture	484.01	513.05	538.70	565.63
4	Allied Agricultural Activities	7.75	8.21	8.62	9.05
5	Allied Agro-Industrial Activities	3.87	4.11	4.31	4.53
6	Public Lighting	48.42	51.32	53.89	56.58
7	L.T. Industrial (S) Supply	23.67	25.09	26.35	27.66

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Sl. No.	CATEGORY OF CONSUMERS	FY 24-25	FY 25-26	FY 26-27	FY 27-28
		MU	MU	MU	MU
8	L.T. Industrial (M) Supply	74.24	78.69	82.63	86.76
9	Specified Public Purpose <100 kW	73.16	77.55	81.43	85.50
10	Public Water Works <100 kW	69.94	74.13	77.84	81.73
11	Public Water Works >=100 kW	5.59	5.93	6.23	6.54
12	General Purpose >=100 kVA	0.16	0.17	0.18	0.19
13	Large Industry	0.00	0.00	0.00	0.00
A	**Total LT----->**	**3565.64**	**3779.57**	**3968.55**	**4166.98**
	HT Category				
14	Bulk Supply - Domestic	16.19	17.16	18.02	18.92
15	Irrigation Pumping and Agriculture	67.00	71.02	74.57	78.30
16	Allied Agricultural Activities	5.58	5.92	6.21	6.52
17	Allied Agro-Industrial Activities	8.04	8.52	8.95	9.40
18	Specified Public Purpose	40.20	42.61	44.74	46.98
19	General Purpose>70 kVA <110 kVA	0.11	0.12	0.12	0.13
20	General Purpose >=110 kVA	187.59	198.84	208.79	219.23
21	H.T. Industrial (M) Supply				
22	Public Water Works & Sewerage Pumping	48.01	50.89	53.44	56.11
23	Large Industry	1099.85	1165.84	1224.14	1285.34
24	Power Intensive Industry	681.13	721.99	758.09	796.00
25	Mini Steel Plant	195.41	207.13	217.49	228.36
26	Railway Traction	0.00	0.00	0.00	0.00
27	Emerg. Supply to CPP				
28	Colony Consumption	4.69	4.97	5.22	5.48
B	**Total HT ----->**	**2353.80**	**2495.02**	**2619.78**	**2750.76**
	EHT Category				
29	General Purpose				
30	Large Industry	420.62	445.86	468.15	491.56
31	Railway Traction	1015.50	1076.43	1130.25	1186.77
32	Heavy Industry	781.16	828.03	869.43	912.90
33	Power Intensive Industry	1163.92	1233.76	1295.45	1360.22
34	Mini Steel Plant	9.01	9.55	10.03	10.53
35	Emerg. Supply to CPP	2.40	2.55	2.68	2.81
36	Colony Consumption	86.53	91.72	96.31	101.12
C	**Total EHT ----->**	**3479.15**	**3687.90**	**3872.29**	**4065.91**
D	**GRAND TOTAL**	**9398.58**	**9962.50**	**10460.62**	**10983.65**

Table 5: Projected Energy Sales (MUs) (FY 25 to FY 28) (Excl. Railways)

Sl. No.	CATEGORY OF CONSUMERS	FY 24-25	FY 25-26	FY 26-27	FY 27-28
		MU	MU	MU	MU
	LT CATEGORY (A.C.)				
1	DOMESTIC				
I)	Kutirjyoti<=30KWH	32.278	34.215	35.925	37.722
ii)	Others				
	0<=50 KWH	660.301	699.919	734.914	771.660

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Sl. No.	CATEGORY OF CONSUMERS	FY 24-25 MU	FY 25-26 MU	FY 26-27 MU	FY 27-28 MU
	>50<=200	890.325	943.745	990.932	1040.479
	>200<=400	338.126	358.414	376.334	395.151
	More than 400 KWH (SLAB)	353.489	374.698	393.433	413.105
	Total Domestic	**2274.52**	**2410.99**	**2531.54**	**2658.12**
2	General Purpose<100 Kw				
	All Units if cons. within				
	0-100 KWH	61.603	65.299	68.564	71.993
	>100<=300	88.021	93.302	97.967	102.866
	More than 300 KWH(SLAB)	350.684	371.725	390.311	409.827
	Total General Purpose (<100kw)	**500.31**	**530.33**	**556.84**	**584.68**
3	Irrigation Pumping and Agriculture	484.01	513.05	538.70	565.63
4	Allied Agricultural Activities	7.75	8.21	8.62	9.05
5	Allied Agro-Industrial Activities	3.87	4.11	4.31	4.53
6	Public Lighting	48.42	51.32	53.89	56.58
7	L.T. Industrial (S) Supply	23.67	25.09	26.35	27.66
8	L.T. Industrial (M) Supply	74.24	78.69	82.63	86.76
9	Specified Public Purpose <100 kw	73.16	77.55	81.43	85.50
10	Public Water Works <100 KW	69.94	74.13	77.84	81.73
11	Public Water Works >=100 KW	5.59	5.93	6.23	6.54
12	General Purpose >=100 Kva	0.16	0.17	0.18	0.19
13	Large Industry	0.00	0.00	0.00	0.00
A	**Total LT----->**	**3565.64**	**3779.57**	**3968.55**	**4166.98**
	HT Category				
14	Bulk Supply - Domestic	16.19	17.16	18.02	18.92
15	Irrigation Pumping and Agriculture	67.00	71.02	74.57	78.30
16	Allied Agricultural Activities	5.58	5.92	6.21	6.52
17	Allied Agro-Industrial Activities	8.04	8.52	8.95	9.40
18	Specified Public Purpose	40.20	42.61	44.74	46.98
19	General Purpose>70 Kva <110 Kva	0.11	0.12	0.12	0.13
20	General Purpose >=110 Kva	187.59	198.84	208.79	219.23
21	H.T. Industrial (M) Supply	0	0	0	0
22	Public Water Works & Sweage Pumping	48.01	50.89	53.44	56.11
23	Large Industry	1099.85	1165.84	1224.14	1285.34
24	Power Intensive Industry	681.13	721.99	758.09	796.00
25	Mini Steel Plant	195.41	207.13	217.49	228.36
26	Railway Traction	0	0	0	0
27	Emerg. Supply to CPP	0	0	0	0
28	Colony Consumption	4.69	4.97	5.22	5.48
B	**Total HT ----->**	**2353.80**	**2495.02**	**2619.78**	**2750.76**
	EHT Category				
29	General Purpose				
30	Large Industry	420.62	445.86	468.15	491.56
31	Railway Traction				
32	Heavy Industry	781.16	828.03	869.43	912.90
33	Power Intensive Industry	1163.92	1233.76	1295.45	1360.29

Highest of Samples.

PART OF AFFIDAVIT

NOTARY
Regd. No. ON 23/94
SAMBALPUR ORISSA

Sl. No.	CATEGORY OF CONSUMERS	FY 24-25	FY 25-26	FY 26-27	FY 27-28
		MU	MU	MU	MU
34	Mini Steel Plant	9.01	9.55	10.03	10.53
35	Emerg. Supply to CPP	2.40	2.55	2.68	2.81
36	Colony Consumption	86.53	91.72	96.31	101.12
C	**Total EHT ----->**	**2463.65**	**2611.46**	**2742.04**	**2879.14**
D	**GRAND TOTAL**	**8383.08**	**8886.06**	**9330.37**	**9796.88**

4.1.11. TPWODL has considered the actual ABR for FY 22-23 for computing the revenue projected from FY 24-25 to FY 27-28. The following table provides the voltage-wise sales and revenue (including & excluding Railways) proposed for FY 24-25 to FY 27-28:

Table 6: Voltage-wise Sales vis-à-vis Revenue (FY 25 to FY 28) (Incl. Railways)

Particulars	FY 24-25			FY 25-26			FY 26-27			FY 27-28		
	Sales	ABR	Rev.	Sales	ABR	Rev.	Sales	ABR	Rev.	Sales	ABR	Rev.
	MU	Rs./ kWh	Rs. Cr.	MU	Rs./ kWh	Rs. Cr.	MU	Rs./ kWh	Rs. Cr.	MU	Rs./ kWh	Rs. Cr.
LT	3566	4.85	1730	3780	4.85	1834	3969	4.85	1925	4167	4.85	2022
HT	2354	6.16	1451	2495	6.16	1538	2620	6.16	1614	2751	6.16	1695
EHT	3479	6.52	2269	3688	6.52	2406	3872	6.52	2526	4066	6.52	2652
Total	9399	5.80	5450	9962	5.80	5777	10461	5.80	6066	10984	5.80	6369

Table 7: Voltage-wise Sales vis-à-vis Revenue (FY 25 to FY 28) (Excl. Railways)

Particulars	FY 24-25			FY 25-26			FY 26-27			FY 27-28		
	Sales	ABR	Rev.	Sales	ABR	Rev.	Sales	ABR	Rev.	Sales	ABR	Rev.
	MU	Rs./ kWh	Rs. Cr.	MU	Rs./ kWh	Rs. Cr.	MU	Rs./ kWh	Rs. Cr.	MU	Rs./ kWh	Rs. Cr.
LT	3566	4.85	1730	3780	4.85	1834	3969	4.85	1925	4167	4.85	2022
HT	2354	6.16	1451	2495	6.16	1538	2620	6.16	1614	2751	6.16	1695
EHT	2464	6.35	1564	2611	6.35	1657	2742	6.35	1740	2879	6.35	1827
Total	8383	5.66	4744	8886	5.66	5029	9330	5.66	5280	9797	5.66	5544

4.2. Distribution Loss trajectory

4.2.1. Distribution loss is referred in power sector as a yardstick for measurement of performance of distribution utilities. This parameter is also used for measuring operational performance of smaller business units/geographies within a DISCOM area. Distribution loss is the difference between the energy input and the energy billed to the consumer. Distribution loss takes into account the losses in the distribution system including commercial losses up to the point of billing and does not take into account the units for which revenue is actually collected or realized.

4.2.2. TPWODL since takeover has been able to reduce the Distribution losses in it's area significantly which is in turn lower than TPCL's commitment in the Vesting Order. Reduction in distribution loss is mainly on account of emphasis on achieving 100% metering, implementation of LT AB cables, HVDS system, and enforcement activities.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

4.2.3. The current loss level and possibility of loss reduction in future years for a

distribution utility depends on various parameters such as:

a) Sales Mix
b) Consumer Mix
c) Consumption pattern
d) HT-LT Ratio
e) Current network conditions
f) Ground conditions for upgradation of network
g) Financial position of utility to undertake CAPEX
h) Financial Aid/ Government support etc.

4.2.4. The following table provides the T&D loss trajectory proposed by TPWODL for the 1st Control Period (Remaining Years):

Table 8: Distribution Loss (%) trajectory proposed Control Period

S. No.	Particulars	UoM	FY 24-25	FY 25-26	FY 26-27	FY 27-28
A	**Incl. Railways**					
1	AT&C Loss (As per TPCL's commitment)	%	20.50%	18.50%	14.50%	12.50%
2	Collection Efficiency (Norm as per Tariff Reg., 22)	%	99%	99%	99%	99%
3	**Distribution Loss**	**%**	**19.70%**	**17.68%**	**13.64%**	**11.62%**
B	**Excl. Railways**					
1	**Distribution Loss ***	**%**	**21.57%**	**19.40%**	**15.04%**	**12.84%**
2	Collection Efficiency	%	99%	99%	99%	99%
3	AT&C Loss	%	22.35%	20.21%	15.69%	13.71%

** Distribution Loss trajectory for TPWODL (Excl. Railways) has been computed deducting Railways quantum (MU) from Total Energy Requirement (MU), as provided below.*

4.3. Energy Requirement

4.3.1. Depending on the demand/ energy sales estimated as above and the projected distribution loss levels for each year, the energy requirement for each year of the Control Period at the Distribution Periphery is derived:

Table 9: Energy Requirement for FY 25 to FY 28 (Incl. Railways)

S. No.	Particulars	UoM	FY 24-25	FY 25-26	FY 26-27	FY 27-28
1	Energy Sales	MU	9399	9962	10461	10984
2	T&D Loss	%	19.70%	17.68%	13.64%	11.62%
3	**Energy Requirement**	**MU**	**11704**	**12102**	**12112**	**12427**

Table 10: Energy Requirement for FY 25 to FY 28 (Excl. Railways)

S. No.	Particulars	UoM	FY 24-25	FY 25-26	FY 26-27	FY 27-28
1	**Energy Requirement (Incl. Rly)**	MU	**11704**	**12102**	**12112**	**12427**
2	Energy Sales - Railways	MU	1016	1076	1130	1187
3	**Energy Requirement (excl. Rly)**	**MU**	**10688**	**11025**	**10982**	**11240**

4.3.2. The Power Procurement for all the DISCOM's in the State is being done by GRIDCO depending upon variety of factors most importantly the requirement and load profile.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR-ORISSA

4.4. Power Purchase Cost including transmission charges

Power Purchase Cost

4.4.1. The Hon'ble Commission vide its Tariff Orders dated 23rd March 2023 had approved the Bulk supply tariff for TPWODL @ Rs. 3.90/ kWh, OPTCL Transmission charges @ Re. 0.24/ kWh & SLDC charges @ Rs.17.138 Lakhs/ month. TPWODL has considered the same for computation of power purchase cost for FY 24-25 to FY 27-28. The following table provides thepower purchase cost estimate for each year of the Control Period:

Table 11: Power Purchase Cost for FY 25 to FY 28 (Incl. Railways)

S. No.	PP Cost	UoM	FY 24-25	FY 25-26	FY 26-27	FY 27-28
1	Energy Requirement	MU	11704	12102	12112	12427
2	BST bill (@390 p/u)	Rs. Cr.	4564.52	4719.66	4723.80	4846.61
3	Transmission (@24 p/u)		280.89	290.44	290.70	298.25
4	SLDC Charges (@Rs.17.138 Lakhs/ month)		2.06	2.06	2.06	2.06
5	Power Purchase Cost		4847.47	5012.15	5016.55	5146.92
6	Per unit Cost	Rs./ kWh	4.14	4.14	4.14	4.14

Table 12: Power Purchase Cost for FY 25 to FY 28 (Excl. Railways)

S. No.	PP Cost	UoM	FY 24-25	FY 25-26	FY 26-27	FY 27-28
1	Energy Requirement	MU	10688	11025	10982	11240
2	BST bill (@390 p/u)	Rs. Cr.	4168.47	4299.85	4283.00	4383.78
3	Transmission (@24 p/u)		256.52	264.61	263.57	269.77
4	SLDC Charges (@Rs.17.138 Lakhs/ month)		2.06	2.06	2.06	2.06
5	Power Purchase Cost		4427.05	4566.51	4548.62	4655.60
6	Per unit Cost	Rs./ kWh	4.14	4.14	4.14	4.14

4.5. Capital Investment Plan (CIP)

4.5.1. Para 2.1.1 (4) & (5) of the Tariff Regulations, 2022 stipulates the following:

"4) The Capital Investment Plan of the Distribution Licensee shall be prepared in accordance with the sales/demand forecast, power procurement plan, distribution loss trajectory, targets for quality of supply etc. The Capital investment plan shall be consistent with the perspective plan developed by the State Transmission Utility (STU) based on the data submitted by the Distribution Licensees and Load Flow studies conducted in line with the requirements of the State Grid Code. The planning of Distribution network, based on load flow study, shall be carried out for minimum five (5) year time frame and shall form the basis for capital investment. The investment plan should also include yearly phasing of capital expenditure along with the financing plan and corresponding capitalization schedule with due consideration of capital expenditure as per the Vesting Order. The capital investment plan shall show separately, on-going projects that will spill over into the Control Period, and new projects (along with justification) that will commence

PART OF AFFIDAVIT NOTARY

in the Control Period but may be completed within or beyond the Control Period. The Commission shall consider and approve the capital investment plan for the Wheeling Business and Retail Supply Business of the Distribution Licensee. The Commission, for its satisfaction, may require the Distribution Licensee to provide relevant technical and commercial details.

5) The purpose of investment shall be strengthening of distribution network, creation of new assets or augmentation / replacement of existing assets, meeting load growth, technical loss reduction, non-technical loss reduction including improvement in collection efficiency, meeting energy requirement, custom service improvement in terms of quality & reliability of supply including energy audit, asset mapping and consumer indexing, etc."

4.5.2. TPWODL has been continuously upgrading and strengthening its network over theyears to cater quality and reliable power services to its increasing consumer base.

4.5.3. In TPWODL, the network conditions in different areas possess different challenges related to unsafe networks for our employees, public and animals and equipment. The following issues are observed and the same needs urgent attention to strengthen network and make network safe, reliable and statutory compliant:

- Unsafe horizontal / vertical clearances in 33 KV, 11KV and LT feeders.
- Damaged Conductor / Poles / Stay wire
- Poor Earthing of the Poles & Structure.
- Absence of cradle wire in overhead MV feeders.
- Poor condition/Absence of fencing/ boundary wall at most of the Distribution Substations & 33/11KV Primary Substations (Structure's)
- Dilapidated Civil Infrastructure and no maintenance
- Damaged 33 KV Tower at River Crossing
- Higher Tripping in 11KV feeders
- Low Voltage Complaints
- No LT Protection in Distribution substation.
- Higher Distribution Transformers Failure Rate
- Aged Network

Unsafe horizontal / vertical clearances in 33 KV, 11KV and LT feeders:

Most of the network are very old and laid on 8 Mtrs / 9 Mtrs poles with lengthy span. As per construction practice, 1/6th of the total pole length is erected below the ground and thus only available length is approx. 7.5 Mtrs above ground. Considering the fittings and accessories installation, there is hardly any room to account for increased sag or rise in road level. To further worsen the problem; the span length varies from 60-120 Mtrs. More span length causes high sag. At some places, due to re- construction of the roads, vertical clearances of the lines have reduced to the dangerous level causing violation of statutory guidelines. TPWODL proposes to take up installation of mid pole, refurbishment/life enhancement work for lines to rectify all such defects. Since the volume of such locations are high, huge investment spread across many years would be required to rectify all the deficiencies.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Damaged Poles / Conductors / Stay:

Due to vast geography widespread network and absence of Capex expenditure in past the existing network has become very weak due to ageing and repeated tripping. Major element, which resulted into weak network, includes damaged pole, worn out conductors, and damaged stay wires. At some locations, poles or support structure are damaged, rusted or tilted. Major factors causing damage to the poles includes structural deterioration of poles, flood, Kalbaisakhi, heavy vegetation etc. Tilting of poles has resulted in increase in conductor sag and if replacement /refurbishment of the tilted or broken pole is not done, mechanical strength of the line will reduce and may result into falling of line during high-speed winds / storms. Falling of line can cause fatal accident. It is also a major concern for ensuring reliable power supply to the consumers as restoration may take many days depending upon the location and severity of damage to the line. To prevent tilting of any pole from its normal position due to abnormal wind pressure, installation of Stay wire is required. At many places egg (stay/guy) insulators are either missing or damaged, which may cause major safety concern not only for the safety of Public but animal also in case of leakage current. Moreover, there are other reasons, which have resulted into depletion of existing network such as use of undersized conductor in overhead feeders, poor condition of the conductor, multiple joints in a single span in many sections, poor binding wire joints etc. witnessed in the sections causing hot spot and may result into jumper parting. Under the refurbishment/life enhancement activity TPWODL has planned to replace damaged poles, replacement of worn-out conductor, re-sagging of the conductor, installation of mid-span pole, introduction of stay-wire at start, end and at every H- pole with at least two stays together.

Poor Earthing of the Poles & Structure:

In case the earthing of any power equipment or network becomes weak or defective due to corroded connections or damaged connection, clearance of fault may take more time and putting stress on the equipment connected in the network.

This situation is dangerous for the stability of power system and there are chances of electric shock to the human beings and animals. TPWODL proposes to strengthen the earthing system by introducing fresh earthing in both DSS and PSS as part of refurbishment activity. This will enhance life not only of equipment but shall also help in proper functioning of protection relays.

Absence of Cradle/Guard wire in Overhead MV feeders crossing the road:

Guarding is an arrangement provided in overhead MV/HV/LV feeders, by which a live conductor, when accidentally gets broken, is prevented to come in contact with public or animals and vehicles moving beneath the road. By having cradle guards in place, immediately after a live conductor breaks, it first touches the cradle guard thus completing the electrical circuits necessary for the operation of the protection relays installed at substations. This in-turn trips the circuit breaker and danger to any living object is averted. In such scenario, cradle guard will help in avoiding accidents caused by snapping of conductors of overhead MV feeders. TPWODL proposes to put in place the cradle wire/guard wire on National Highway and State Highway crossings near school, college, Hospitals and market area.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Poor condition/ Absence of fencing/ boundary wall at Distribution Substations & 33/11KV Primary Substations:

Absence of boundary walls and fencing around the Primary Substation and Distribution Substations has exposed the live power distribution equipment to the human beings and animals, who are not aware of the consequences of coming in direct contact or in the arching zone of high voltage equipment. There are high chances of entry of unauthorized persons or animals in high voltage switchyards. TPWODL proposes to put up fencing/build boundary wall under the DSS and PSS Refurbishment.

Dilapidated Civil Infrastructure and no maintenance:

TPWODL currently have offices in all the five circles and subdivisions. Some of them are owned and various offices are on rented property. TPWODL is facing challenge while accommodating additional new employees in current office buildings and infrastructure. The current existing infrastructure are old and needs modernization to provide hygienic, well ventilated and spacious work environment. These office locations are touch base points between end consumers and utility. Hence aesthetic along with safety of each stakeholders needs to be focused.

Damaged 33KV Tower:

Presently TPWODL network consists of 645 Nos tower. Most of these towers are more than 50 years old and crossing rivers, forest & serving critical load requirement of Rourkela, Sambalpur & other areas. Corporate civil design team were engaged to inspect foundation of these towers. 30% tower are having poor foundation & structure. In few areas tower leg is being cut and stolen. Considering the above conditions special maintenance activities are planned to repair and strengthen these Towers.

Higher Tripping in 11KV & 33KV feeders:

Majority of 11KV & 33KV networks are overhead in nature. Many OH feeders are passing through forest area. Most faults that occur on overhead lines are transient faults caused by lightning and tree branches touching the live line conductor.
The table below gives a snapshot of feeder tripping recorded at the 33/11 kV Substations in different circle. Number of tripping of 11KV Feeders for FY 22-23 (Apr'22 to Oct'22) is as under:

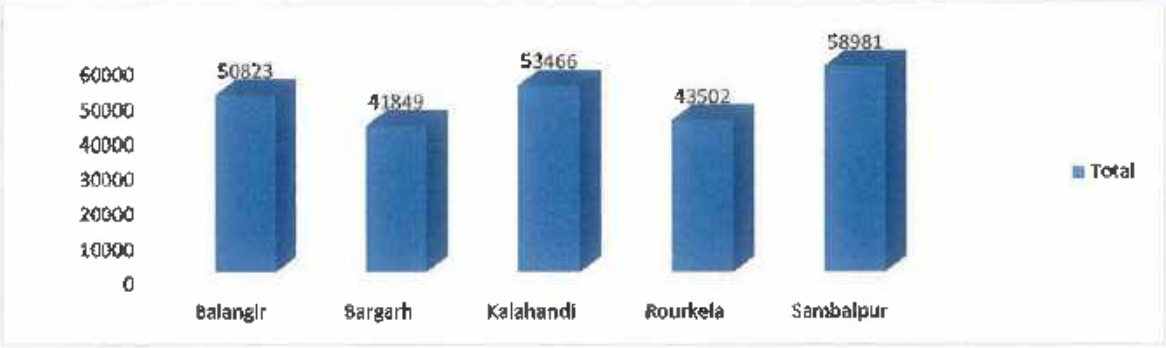
Table 13: No. of tripping of 11 kV Feeders

Circle Name	Division	Total Tripping
Bolangir	BED, Bolangir	16,304
	SED, SONEPUR	18,303
	TED, Titilagarh	16,216
Bolangir Total		**50,823**
Bargarh	BED, Bargarh	23,169
	BWED, Bargarh	18,680
Bargarh Total		**41,849**
Kalahandi	KEED	20,647
	KWED	19,555
	NED	13,264
Kalahandi Total		**53,466**
Rourkela	RED, Rourkela	4,222

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR-ORISSA

Circle Name	Division	Total Tripping
	RGP, Rajgangpur	15,544
	RSED, Rourkela	8,858
	SED, Sundargarh	14,878
Rourkela Total		**43,502**
Sambalpur	BNED, BRAJARAJNAGAR	5,941
	DED, DEOGARH	9,668
	JED, JHARSUGUDA	15,684
	SED, SAMBALPUR	7,902
	SEED, SAMBALPUR	19,786
Sambalpur Total		**58,981**
Grand Total		**2,48,621**

Figure 9: 11 kV Interruption in FY 23 (Up to Oct'22)



Low Voltage Complaints:

TPWODL has introduced Call Centre, Telephone Operator to register the consumer complaints so that TPWODL can act on various types of problems. List of Various types of No power Complaints received form 1st April-2022 to 31st Oct-2022 in TPWODL area are listed in below table:

Table 14: No Power Complaints for FY 23 (Up to Oct'22)

Complaint Nature	No of complaints registration	Percentage
VOLTAGE LOW	30037	60.28%
SERVICE WIRE BROKEN	4987	10.01%
SC-WIRE LOOSE CONNECTION	2704	5.43%
LT BREAKDOWN	1961	3.94%
SERVICE CABLE CHANGE	1629	3.27%
SERVICE WIRE DAMAGED	1570	3.15%
TREE FALLEN ON WIRES	803	1.61%
VOLTAGE HIGH	744	1.49%
SPARKING IN SERVICE LINE	714	1.43%
SPARKING IN METER	678	1.36%
SPARKING ON POLE	640	1.28%
DIM SUPPLY	567	1.14%

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR ORISSA

Complaint Nature	No of complaints registration	Percentage
SPARKING ON TRANSFORMER	459	0.92%
FIRE IN METER/SERVICE CABLE	281	0.56%
FIRE ON POLE/TRANSFORMER	279	0.56%
NEUTRAL NOT COMING	237	0.48%
EARTH LEAKAGE IN PREMISESS	222	0.45%
TRANSFORMER - CABLE/LUGS BURNT	190	0.38%
REVERSE PHASE COMING	166	0.33%
CABLE SPARK	129	0.26%
VOLTAGE VARIATION(HIGH/LOW)	127	0.25%
POLE FELL DOWN	119	0.24%
MCCB TRIP	114	0.23%
LEAKAGE IN POLE	74	0.15%
VF TAP OF TRANSFORMER	73	0.15%
POLE - RUSTED/DAMAGED	60	0.12%
TRANSFORMER LEAKAGE	58	0.12%
POLE BROKEN	54	0.11%
TRANSFORMER - SMOKE/FLAMES	50	0.10%
POLE - CURRENT LEAKAGE	23	0.05%
AB SWITCH REPLACEMENT	18	0.04%
POLE SHIFTING	15	0.03%
LT CABLE SAGGING	11	0.02%
TRANSFORMER FENCING	11	0.02%
REPAIR OF LT SYSTEM	10	0.02%
FIRE IN HOUSE	5	0.01%
REPAIR OF CAPACITOR	3	0.01%
REPAIR OF HT SYSTEM	3	0.01%

From above table it is pertinent to mention here that more than 60% complaints received from consumer is for Low Voltage, which needs to be resolved at the earliest.

No LT Protection:

Most of DSS protection and control are not operating properly. As a result, fault in any one LT circuit resulting into tripping of DT incoming 11KV feeder. Also, while carrying out maintenance or replacing the LT circuit blown fuses the operator needs to take hand trip of entire 11KV feeder from PSS.

Higher Distribution Transformers Failure Rate:

Other major problem is high number of DT failure effects the supply system very badly.

A. Root cause analysis of DT'S failure:

1) FY'21 DTR failure Analysis – In FY'21 Total 3297Nos. DTRs are mainly failed due to Overloading, Aging & Vijay Electrical make. Failure data is as follows:

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Table 15: DTR Failure Analysis FY-22

DTR Analysis category-wise	Reasons	FY 21-22		
		10KVA TO 63KVA BELOW	63KVA TO 200KVA BELOW	ABOVE 200KVA TO 1000 KVA
Urban	Over loaded	128	73	27
	Vijay electrical	25	22	0
	Ageing (15 yrs. Above)	98	43	22
	Good	114	27	30
Rural	Over loaded	267	98	9
	Vijay electrical	157	43	0
	Ageing (15 yrs. Above)	465	74	12
	Good	199	141	17
Agriculture	Over loaded	458	11	0
	Vijay electrical	67	0	0
	Ageing (15 yrs. Above)	357	21	0
	Good	257	35	0

2) FY'22 DTR failure Analysis – In FY'22 Total 2268Nos. DTRs are mainly failed due to Overloading, Aging & Vijai Electrical make. Failure data is as follows:

Table 16: DTR Failure Analysis FY-23

DTR. Analysis category-wise	Reasons	FY 22 -23		
		10KVA to 63KVA BELOW	63KVA to 200KVA BELOW	ABOVE 200KVA to 1000 KVA
Urban	Over loaded	108	115	23
	Vijay electrical	24	27	0
	Ageing (15 yrs. Above)	67	69	18
	Good	71	66	13
Rural	Over loaded	297	214	10
	Vijay electrical	75	57	0
	Ageing (15 yrs. Above)	159	135	8
	Good	210	132	7
Agriculture	Over loaded	135	10	0
	Vijay electrical	30	6	0
	Ageing (15 yrs. Above)	84	4	0
	Good	88	6	0

Reasons for DTR Failure-

Over loading:

During field verification & system Reliability inspection it has been observed that many DTRs are overloaded above their capacity & which is the main Cause of DTR failure in Summer Season. In SAUBHAGYA/DDUGY/RGGVY Many DTs (16kVa to 25 kVA) are installed with new connections adding load on already installed DTRs. Every Year 20000 new connections are given to our new consumer in

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

various TPWODL area in Existing Distribution Transformer.

Ageing:

In TPWODL System Many Distribution Transformers are Installed about 15 to 20 years back. These Transformers are failing because of over age and frequent faults in the system. These Transformers are either not repairable or having high No Load losses, also the cost of repair of this transformer is comparatively high as compare to new Transformer. Which is also causing reliability of power supply to the Consumers. Hence instead of repairing these old age transformers it is better to replace with new one. Over aging is also impacting the technical losses of the system.

VIJAI MAKE:

M/s. Vijai make DTRs installed During Wesco time & under govt. initiative of DDUGJY/RGGVY, 12th plan are frequently failing since installation. These transformers are also having high losses and not repairable by Regular Vendors. There is difficulty to repair these transformers due to complicated core arrangement and core design

Other reasons:

Apart from above mentioned reasons there are some other reasons which affecting failure of DTs.

a. Heavy Lightening: TPWODL is high lightening prone area. Lightening strokes are regularly observed during Kal-baisakhi and normal rainy season also.

b. Oil Level Low- Many Old Transformers are also failing due to low Oil level by several years.

c. Improper Earthing- In several DSS either earthing system in not available or improper earthing has been done earlier.

B. Aged Network:

One of the most important reason for failure of PTR, DTR and tripping in the network is due to the natural ageing. Many of the network equipment and lines in TPWODL has outlived their useful life and in service for more than 25 years. Over the years, various network operations, atmospheric conditions and overloading has gradually led to degradation of the windings and insulations of equipment causing failures. Considering the overall cost benefit and incremental losses from this aged equipment, it becomes worthwhile to install new equipment and line to replace the aged asset. This will help in improving the reliability and reduction in the losses. Aged network details are mentioned below:

Table 17: Aged Network Details

Network Details	< 10 year	10-20 year	20-30 year	30-40 year	> 40 years	Total
Length of 11 KV lines(km.)	16242	9302	11652	5758	7295	**50249**
Length of 33 KV lines(km.)	1618	979	606	664	1491	**5358**
Length of L.T. lines(km.) (AB Cable)	28651	8765	1529	-	-	**38945**
Length of L.T. lines(km.) (Bare Conductor)	1480	5498	6883	6445	5890	**26196**
No. of 11 KV Feeder Breakers Installed	529	206	32	47	52	**866**
No. of 11 KV Group Breakers Installed	238	128	24	25	14	**429**
No. of 33 KV Feeder Breakers Installed	209	65	8	12	26	**320**

PART OF AFFIDAVIT

NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Network Details	< 10 year	10-20 year	20-30 year	30-40 year	> 40 years	Total
No. of 33 KV Group Breakers Installed	146	108	9	12	20	295
No. of 33/11 kV transformers (PTR)	385	151	81	30	37	684
No. of distribution transformer (11/0.4 & 33/0.4 kV)	39562	19523	7140	4738	4522	75485

To address the above key challenges and to safeguard the assets along with consumer interest, substantial investment has been planned to enhance reliability, reduction in AT&C losses, safe environment, meeting new load requirement and efficiency improvement along with customer satisfaction.

Table 18: TPWODL CAPEX Investment Proposal

TPWODL	FY-24*	FY-25*	FY-26*	FY-27	FY-28	Total
Year wise Committed (Rs. Cr)	333	322	202	200	200	1257

Note:- * Amount as per Vesting

TPWODL proposes the expenditure under five proposed major categories i.e.

1. Statutory, Safety and Security
2. Loss Reduction
3. Reliability
4. Load Growth
5. Technology adoption & Infrastructure

These Proposals will be based on below methodology.

Network Related Proposals

- Proposal based on Load flow study (Existing loading conditions with Load growth)
- Proposals based on field inputs i.e. Field safety mitigation, replacement of equipment outlived useful life/ non-repairable equipment, sick cables/sections replacement, DSS/PSS refurbishment proposals, commercial loss reduction proposals, reliability improvement proposals (Auto Recloser, Sectionalizers, RMUs, FPI, AB Switches, Capacitor banks) etc.

Proposals related to specialized requirements

- Civil requirements for new building infrastructures, reconstruction of dilapidated building, Boundary Walls of PSS and Fencing of DSS to enhance safety.
- MMG/ Energy Audit requirements i.e. Smart Meter installation etc.
- IT/OT requirements including GIS implementation, SCADA, Smart metering infrastructure, Communication infrastructure etc.

Objective of Load Flow Study

The main objective of this study is to evaluate the 11kV network in TPWODL area for following objectives:

- Modelling of detailed electrical network of 11KV with all relevant technical details for Base-1 & base-2 Study.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

- Identification of abnormal conditions (Under Voltage, Over Voltage, over loading, N-1 redundancy of high revenues) In 11kV network as per loading of year 2021 & future load growth of 2 Yrs.
- Calculation of accurate technical losses with different loading condition on Network (For Lines, Cables and distribution transformers etc.)
- Plan mitigation proposals for identified abnormalities for catering future (next 2 years) load demand.
- Prepare & submit detailed study report after load flow study to mitigate over loading, under voltage and N-1 of High revenue feeder.
- Ensuring adequacy of the Network to serve the objectives of schemes like 24 x 7 Power for all, which mandates uninterrupted power supply to consumers.

Benefits of Proposal

Refurbishment of substations and feeders will benefit TPWODL through:

- Improvement of voltage profile.
- Reduction in number of outages
- Increase in vertical clearances
- Reduction in equipment downtime
- Reduction in unserved energy
- Enhanced reliability of power supply
- Reduction in number of accidents.
- Ease of Operation and Operational flexibility

Benefits of SCADA:

Centralized operation would ensure optimum resource utilization of the hardware and software and functionalities used in the SCADA System. Other benefits include:

- This will ensure efficient operation & monitoring under steady state, dynamic & transient condition of the system.
- To achieve improvement in operations considering complex Load- Demand cycle changes to bring in better and holistic visibility while making critical decisions.
- Optimize on unscheduled power interchange, maximize utilization of the assets
- Better Inventory management, low maintenance cost
- Multi-skilling of operational and maintenance personals
- Enhanced operational safety
- Using the latest Operating systems, with enhanced functionalities, enabling Analysis and Power System studies/event analysis including Integrated Graphical User Interface (GUI) for SCADA, ADMS and other applications, which would be uniform across all substations and would be cyber security compliant for IT/OT integration requirements of the future.
- With common system interfaces, it brings in optimized resource management, common training platform for systems, and maintenance of assets. Avoidance of multiple systems in OS and software is also affected.
- Data exchange with redundancy to any external system
- Better Control on Cyber Security Management, optimization of cyber security measures implementation
- Better Data Synchronization between MCC, APSCC, ensuring data accuracy, availability and reliability
- N-2 Communication redundancy will be provided at critical location for

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR:ORISSA

communication by using advanced MPLS Technology

- Improved reliability of service
- Better Integration and coordination with enterprise system to provide relevant information to those internal & external users that rely on accurate information in a timely manner

Benefits to Customer:

- Reduction in restoration time of outage
- Improved reliability of service
- Better control of power quality and enhanced use of reactive power sources
- Useful feedback information to the customer in terms of expected outage duration time etc.
- Monitoring the potential quality problems and the reliability problems due to supply interruptions.

4.5.4. Capital expenditure is an important part of the business planning for any organization, particularly for a distribution utility. With the growing consumer base, load and per capita consumption, the existing networks are expected to be overloaded resulting in frequent outages and high loss levels. Hence, the distribution network of WESCO needs to be developed and strengthened in such a way that demand of such consumers can be met and reliable power supply can be made available to the consumers. This along with the objective to modernize the existing systems, improving reliability and quality of supply and reducing system losses, TPWODL has proposed the Capital Investment Plan for the Business Plan period. The following table provides the summary of the capital investment plan proposed for Control Period:

Table 19: Proposed CAPEX Plan for 1st Control Period (FY 24 to FY 28)

S. No.	Particulars (Rs. Cr.)	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
1	Statutory, Safety & Security	27.50	26.59	20.19	16.00	11.00
2	Loss Reduction	150.00	145.05	30.32	40.00	50.01
3	Network Reliability	125.00	120.87	60.58	63.99	59.99
4	Load Growth	80.00	77.36	50.52	56.00	64.00
5	Technology & Civil Infrastructure	117.50	113.62	40.39	24.01	15.00
6	**Total CAPEX**	**333.00**	**322.00**	**202.00**	**200.00**	**200.00**

4.6. Capitalization Schedule

4.6.1. Based on the Capital Investment Plan proposed during the business plan period the following table provides the capitalization schedule:

Table 20: Capitalization Schedule for FY 25 to FY 28

S. No.	Gross Fixed Assets (Rs. Cr.)	Proposed Additions				
		FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
1	Land	-	-	-	-	-
2	Buildings	-	-	-	-	-
3	Network Assets	757.84	589.35	497.28	664.04	660.55
4	Overhead Lines	-	-	-	-	-

PART OF AFFIDAVIT
NOTARY
Regd. No. OR 23/94
SAMBALPUR: ORISSA

S. No.	Gross Fixed Assets (Rs. Cr.)	Proposed Additions				
		FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
5	Furniture & Fixtures	1.50	1.55	1.60	1.65	1.70
6	Vehicles	1.00	1.05	1.10	1.15	1.20
7	Office Equipment	0.75	0.80	0.85	0.90	0.95
8	Office Equipment - Computer	12.18	12.25	12.35	12.45	12.55
9	Software	4.75	4.80	4.90	5.00	5.10
6	**Total**	**778.02**	**609.80**	**518.08**	**685.19**	**682.05**

4.7. Capital Structure

4.7.1. Based on the capitalization proposed for each year of the Control Period the capital structure for the proposed capitalization has been provided in the table below. The funding of capitalization has been proposed on normative basis with 70% of new capitalization to be funded by way of debt and the balance from consumer contribution.

Table 21: Capital Structure

Particulars	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Capitalization (INR Cr)	778.02	609.80	518.08	685.19	682.05
Debt (%)	70%	70%	70%	70%	70%
Equity (%)	30%	30%	30%	30%	30%
Debt (INR Cr)	544.62	426.86	362.65	479.64	477.43
Equity (INR Cr)	233.41	182.94	155.42	205.56	204.61

4.7.2. Based on the funding of capitalization, to be met by way of debt to the extent of 70% of capitalization, the loan addition for each year of the control period has been shown as follows:

Table 22: Loan Addition (INR Cr)

Particulars	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Opening Normative Loan	699.81	820.97	889.18	1,096.08
Add: Normative Loan during the year	261.12	232.40	384.73	389.28
Less: Repayment (20% of Opening)	139.96	164.19	177.84	219.22
Closing Normative Loan	**820.97**	**889.18**	**1,096.08**	**1,266.14**

4.7.3. The addition in equity from FY 23-24 to FY 27-28 has been proposed in the control period the resultant equity addition schedule has been shown as follows:

Table 23: Equity Addition (INR Cr)

Particulars	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Opening Equity	359.97	440.06	489.82	534.10	607.42
Net Addition	80.09	49.76	44.29	73.31	74.18
Closing Equity	**440.06**	**489.82**	**534.10**	**607.42**	**681.60**

Ushnmoved by Nande.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR:ORISSA

4.8. Operation & Maintenance Expenses

4.8.1. The Tariff Regulations, 2022 stipulates the following:

"3.9 Operation and Maintenance Expenses:
3.9.1. The Operation and Maintenance (O&M) expenses shall include:
a. Salaries, wages, pension contribution and other employee Expenses;
b. Administrative and General Expenses including expenses of outsourced employees for watch and ward; and
c. Repairs and Maintenance Expenses.
3.9.2. The Commission shall undertake a prudence check of the submission made by distribution licensee for O&M cost before allowing such expenditure in ARR.
3.9.3. The Operation & Maintenance expenses shall be allocated between the Wheeling Business and Retail Supply Business, as per the allocation statement subject to approval of the Commission."

4.8.2. As can be seen from the Regulation, O&M Expenses has been categorized under three major heads viz 1) Employee Salaries and Wages 2) Repairs & Maintenance (R&M) 3) Administrative and General (A&G).

4.8.3. Accordingly, each constituent of the O&M expenses has been estimated in the following sections.

Employee Expenses

4.8.4. TPWODL has taken over the distribution business from erstwhile WESCO utility w.e.f 1st Jan-21. It is a fact that when distribution companies were carved out from GRIDCO as per 2nd Transfer Scheme in 1998 and thereby all the personnel deployed in Distribution business were transferred from erstwhile GRIDCO. Initially, the no. of personnel on roll were around 5500 nos, which were inadequate and unevenly distributed to meet the organizational requirement. Subsequently, by way of separation due to retirement, resignation, death, etc drastic reduction in manpower was observed. In view of the large scale energization of new areas either through rural electrification or due to addition of new consumers, the Utility has been restructured and reorganized by creation of new Divisions, Sub-Divisions and Sections with reinforcement of allied activities such as MRT, Energy Audit, Maintenance of Distribution Transformers and Vigilance activities.

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

TPWODL HR Team carried out detailed study of the existing manpower gaps across various departments and geographical areas spread across 48,373 sq. km and accordingly started formulating comprehensive recruitment plan for filling up the

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

resource gaps.

A comparative analysis of the no. of employees and the no of consumers since FY 2012 is appended below:

Figure 10: No of Employees Y-o-Y

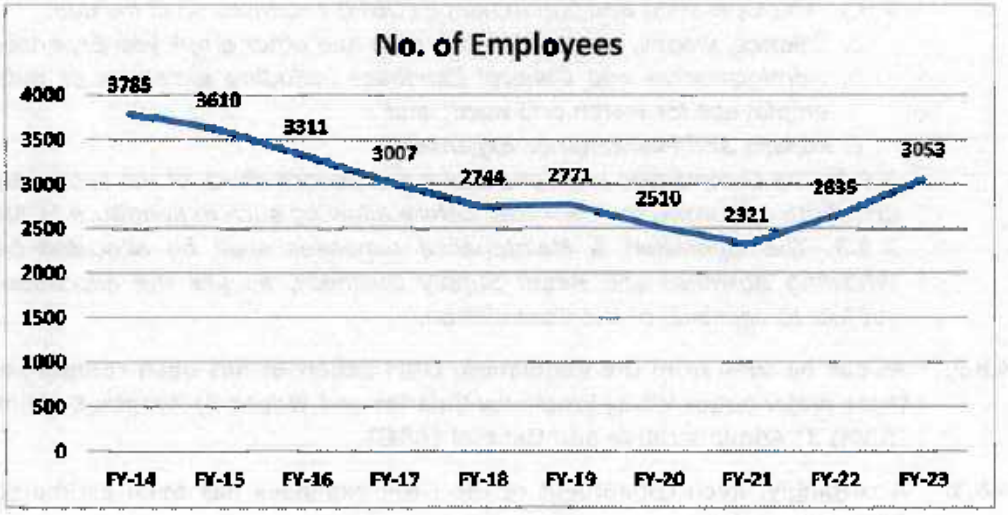
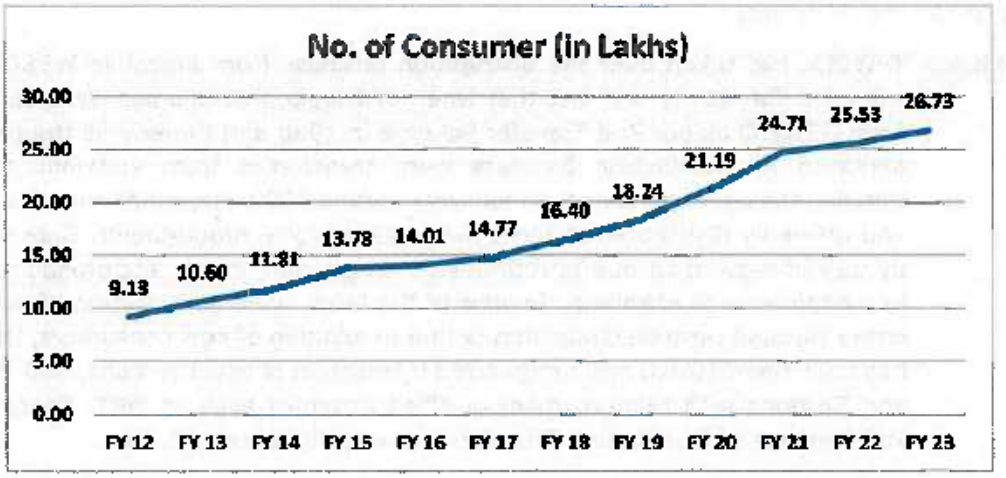


Figure 11: No of Consumers Y-o-Y



The main objective is to improve the consumer coverage (100%), reduction in Distribution and AT&C Losses and to meet the Revenue Collection Target.

As per terms of the vesting order, TPWODL is also mandated to deploy 4209 nos. of manpower in different segment for fulfillment of other terms along with AT&C Loss reduction. The employee strength at the time of taken over was as under:

Table 24: Employee Strength

Particulars	As on 1999-00	As on 31st Dec-20	As on March-23
Consumer Strength (nos.)(including TD & PD)	2.50 Lakhs	23.5 Lakhs	26.73 Lakhs
Employee on pay roll (nos.)	5500	2388	3053

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR-ORISSA

Hon'ble Commission has approved recruitment of 508 nos. for FY 2021-22 and during the year 208 employees have been retired.

From the above table it is evident that the consumer base has increased by almost 90 times during the span of 20 years and at the same time the employee strength has reduced by more than 50%.

Further, the licensee recruited 590 (correct the figure) employees in FY 22-23 and planned 556 nos. of employees in FY 23-24 for recruitment. The proposed recruitments were in line with the employee strength benchmark of 1.4 employees per 1000 consumers as directed by Hon'ble Commission.

To keep the manpower cost optimized, TPWODL has recruited majorly trainees - Graduate Engineer Trainees, Diploma Engineer Trainees, Commercial Trainees. Same philosophy has been extended to the five years projection appended below for new recruitment.

Table 25: Five Years Recruitment Projection

Particulars	FY-24	FY-25	FY-26	FY-27	FY-28
Graduate Engineer Trainee	109	50	50	30	30
Diploma Engineer Trainee	155	50	50	30	30
Other Trainees (MT/FT/LT)	12	0	0	0	0
Technician / Lineman (Trainees)	130	100	100	100	100
Lateral*	150	25	25	15	15
Total	**556**	**225**	**225**	**175**	**175**

Effective management of employee costs is crucial for the financial stability and long-term viability of any organization, including power DISCOMs. While ensuring fair compensation and a healthy work environment for employees, it is imperative to strike a balance between operating expenses and the quality of services provided. A comparative analysis of the no. of recruitments done/planned from the effective date and the control period and the percentage of trainees inducted year wise is depicted below:

Table 26: Percentage of Trainees to Total Recruitments

Financial Year	Total No of Recruitment done/planned	No of trainees out of (b)	Percentage of trainees to total no. of recruitments
(a)	(b)	(c)	(d)
21-22	407	44	11%
22-23	590	335	57%
23-24	556	406	73%
24-25	225	200	89%
25-26	225	200	89%
26-27	175	160	91%
27-28	175	160	91%

In last two years of operation TPWODL has started its transformational journey. Over the years we have enhanced our capabilities by providing world class training and development, engaging employees and their families throughout the year through various programs, implementing digital platform for better employee experience, implementing good health & wellness program and also tried to introduce performance-oriented work culture for better customer services.

The Licensee also aim to curate culture of start-up mindset in TPWODL and in order to inculcate the same good no. of break through projects are being implemented. For any organization culture plays a pivotal role in its developmental

journey. Accordingly, the Licensee has been continuously been focusing, developing, reinforcing and improvising work environment of TPWODL to ensure employees are happy and sufficiently challenged in their respective roles within the team. The influence of a company culture goes a long way in this practice. For improvement of our talent retention, it is important to counteract this risk and promote longevity and satisfaction amongst the team's career paths.

Significant efforts have been made for the paradigm shift in employee experience to enhance the employee satisfaction and morale.

To reach the last consumer connected with safety and technology and to be the company of choice for all stakeholders, the Licensee constantly strive to augment capability of the workforce. Accordingly, to provide service with excellence to our esteem consumer, following new departments were created:

- Sub Transmission System – STS
- Safety
- Primary Substation modernization - PSS
- Primary Substation Maintenance & testing - PSS(M&T)
- Power System Control - PSC
- Automation & SCADA
- Geographical Information System – GIS
- Communication
- Smart Metering
- Revenue Collection & Assurance
- Business Excellence
- Information Technology

TPWODL has also recruited skilled manpower, mostly from State of Odisha, under various categories to strengthen the existing workforce. At present, we are recruiting basing upon Hon'ble Commissions approval i.e., 1.40 staff member per 1000 customer. However, **this figure is below the permissible limit of recruitment (It is 2.47 staff members per 1000 customers in India as per study report given by M/s Smart power India and Rockefeller Foundation in partnership with NITI Aayog in Oct-20) which is applicable for DISCOMs based in urban area.**

- Manpower: Before the joint venture, Erstwhile WESCO has on its rolls, 2,388 (Two thousand three hundred and eighty-eight) number of regular employees and 10 (Ten) number of contractual employees as of 30.11.2020. Whereas as on 31.03.2023 total manpower of TPWODL is 3053.
- Gender Ratio: The licensee has also ensured female participation in overall manpower and today female gender ratio is of 8% against 5% earlier.
- State Domicile Ratio: The Company has recruited most of the employees who are native of Odisha and as on date we are having 88% of employees who are from Odisha.
- Growth Opportunity for outsourced associates:

a. **Recruitment of "Operation Trainee"** In Non-Executive Cadre- One of the long pending demands of the Union was to regularize the outsourced employees working through agencies/ business associates. Management agreed to provide suitable opportunity to the eligible candidates. Accordingly, around 1745 candidates had applied for the post of "Operation Trainee", out

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

of which 823 applicants appeared for written test conducted on 28.08.2022 and further selection process is in progress.

b. **Skill Development** – The Licensee has good number of Business Associate workforce who could not avail opportunities of formal structured technical education. TPWODL, with the help of its partner, arranged to facilitate technical competency enhancement of its Business Associate workforce who is undergoing comprehensive theoretical and practical technical training which will help them become more competent technically. Along with the technical course, TPWODL is also providing training on Safety, Ethics and Customer Centricity to its Business Associate workforce to help them provide the highest quality services to its customers. This scheme is titled as "Udaan". Details have been given below:

Implementation of UDAAN Scheme for the outsourced manpower at TPWODL	
No. of Candidates	575
No. of Center for UDAAN Course	9
No. of Batches	18
UDAAN Inaugurated on	27-07-2022

HR plays a pivotal role in developing, reinforcing and enhancing the culture of an organization. It is where company should focus energies on keeping employees happy and sufficiently challenged in their respective roles within the team. The influence of a company culture goes a long way in this practice. If the culture in the organization is poor, it inevitably leads to a high employee turnover rate, meaning company will have to face replacement costs regularly. By improving the retention strategy, we can reduce the risk, promote longevity and satisfaction amongst the team's career paths.

Identification, sourcing, onboarding, training and development, rewards and recognition play an important role for continuity of any business. In order to ensure employees, remain focused, company needs to keep encouraging them to develop their knowledge, skills, abilities and increase their chances of career advancement.

Performance management, reward and recognition are vibrant part of HR. An effective performance management system enables managers to offer support to employees who need it and identify future talents. They enhance employee performance, boost employee productivity, reduce employee turnover, and improve company culture. It's widely recognized that employee development contributed towards better employee engagement, increased productivity, reduced employee turnover and a more positive culture.

We need to strengthen employee life cycle and gear it to encompass every stage of an employee's experience in the company. Essentially, designing an employee life cycle strategy which is rooted in the idea that the employee experience is just as valuable as their customer's experience. Moreover, a better reputation increases the chances of more committed and driven workforce.

4.8.6. The Tariff Regulations, 2022 stipulates the following:

"Employees of erstwhile DISCOMs

3.9.4. The Employee Expenses such as Salary, Terminal benefit and Liabilities of erstwhile DISCOMs, shall be serviced as per terms and conditions of the Vesting Orders.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/9a
SAMBALPUR: ORISSA

3.9.5. As all the employees of erstwhile DISCOMs have been transferred to new Distribution Licensees from the effective date as per the Vesting Orders, the corresponding liabilities towards pension, gratuity, leave encashment and provident fund of such employees (the "Employees' Liabilities") have also been transferred to new Distribution Licensees.

.....

Employees recruited after Effective Date

.....

3.9.10. The expenses for the employees recruited after Effective Date shall be determined based on the formula shown below:

$EMP_n = EMP_{n-1} X (1+Index_{Escn})$

where,

EMP_n: Employee Cost of Distribution Licensee for the ensuing year;

EMP_{n-1}: Approved Employee Cost of Distribution Licensee for the year preceding ensuing year;

Provided that for first year of the control period EMPn shall mean employee expenses as approved by the Commission for the first year of the Control Period in the Business Plan;

$Index_{Escn} = CPI_n$

where,

'CPI_n' (expressed in %) means the average yearly inflation of Consumer Price Index (Industrial workers) over the years for the nth year.

[Source for CPI calculation: Consumer Price Index for Industrial Workers (all India) as per Labour Bureau, Government of India {Base Year: 2001=100}]

Provided that CPI_n is to be computed based on the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past three Financial Years, at the time of filing of Petition, as per the Labour Bureau, Government of India and such escalation factor so derived to be applied to Operation and Maintenance expenses of each preceding year."

4.8.7. The major heads of employee expenses includes salaries and wages, leave travel allowance, earned leave encashment, dearness allowance, other allowances/bonus/benefits and terminal benefits. Salary also includes contractual obligations towards agencies providing manpower for various services like grid maintenance, billing & meter reading, vigilance activities along with outsource obligation.

4.8.8. In order to provide reliable supply to all its consumers, it is necessary to recruit talented and motivated workforce which can function efficiently in the DISCOM setup. The following table provides the savings out of retirement for erstwhile employees during each year of the Control Period:

Table 27: Number of Employee during the Control Period

Particulars	FY 24-25	FY 25-26	FY 26-27	FY 27-28
No. of Retiring Employees	56	41	41	30
No. of Employees	1894	1838	1797	1756
Avg. Salary per Retiring Employees (Rs.)	70000	72100	74263	76491
Savings out of Retirement (Rs. Cr.)	**0.39**	**0.30**	**0.30**	**0.23**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

4.8.9. The following assumptions have been considered while projecting the components of the employee expenses.The assumptions have been considered based on the past years' trends observed, the Govt. of Odisha directives and the norms prescribed in the Tariff Regulations, 2022.

Table 28: Assumptions considered for projection of Employee Expenses

Category	Sub-category	Assumptions
Salaries, Wages, Allowances & Benefits	Basic Pay + Grade Pay (Salaries)	Considered 3% escalation over approved figures for FY 23-24 less savings out of retirement.
	Dearness Allowance	At present 42% and thereafter 4% increase in every six months considered.
	Reimbursement of House Rent	18% of Basic Salaries.
	Contractual Obligation	Considered 3% escalation over approved figures for FY 23-24.
	Additional employee cost-CTC	Considered as per formula provided in Tariff Regulations, 2022. Escalation considered @9.5% plus impact of additional recruitment.
Other Staff Costs	Reimbursement of Medical Expenses	5% of Basic Salaries.
Staff Welfare	Staff Welfare Expenses	Considered 3% escalation over approved figures for FY 23-24.
	Terminal Benefits (Pension+Gratuity+Leave+PF+ Commuted+NPS/ CPS)	Considered 3% escalation over approved figures for FY 23-24.
	Employee Cost Capitalized	Considered 3% escalation over approved figures for FY 23-24.

4.8.10. Furthermore, the Licensee has projected the additional impact on account of recruitment of CTC employees in the balance period of the Business Plan (1st Control Period) as appended below:

Particulars	FY 24-25		FY 25-26		FY 26-27		FY 27-28	
	Nos.	Cost (Rs. Cr.)	Nos.	Cost (Rs. Cr.)	Nos.	Cost (Rs. Cr.)	Nos.	Cost (Rs. Cr.)
Graduate Engineer Trainee	50	3.333	50	3.67	30	2.42	30	2.661
Diploma Engineer Trainee	50	1.54	50	1.70	30	1.12	30	1.2298
Other Trainees (MT/FT/LT)	0	0	0	0	0	0	0	0
Technician / Lineman (Trainees)	100	2.64	100	2.90	100	3.19	100	3.5138
Lateral*	25	4.125	25	4.54	15	2.99	15	3.294
Total	**225**	**11.64**	**225**	**12.80**	**175**	**9.73**	**175**	**10.70**

** Includes recruitment of 50 ex-service men in FY 23-24*

4.8.11. Accordingly, the Employee Expense estimated by TPWODL for each year of the Control Period has been provided as follows:

Table 29: Employee Expenses projected for the Control Period (INR Cr)

Particulars	FY 24-25		FY 25-26		FY 26-27		FY 27-28	
	CTC	Erstwhile WESCO	CTC	Erstwhile WESCO	CTC	Erstwhile WESCO	CTC	Erstwhile WESCO
Basic Pay + Grade Pay		109.25		112.23		115.3		118.53

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR-ORISSA

Particulars	FY 24-25		FY 25-26		FY 26-27		FY 27-28	
	CTC	Erstwhile WESCO	CTC	Erstwhile WESCO	CTC	Erstwhile WESCO	CTC	Erstwhile WESCO
Dearness Allowance		59		69.58		80.71		92.45
Reimbursement of House Rent		19.67		20.2		20.75		21.33
Other Allowance		2.19		2.25		2.31		2.37
Bonus		0.36		0.37		0.38		0.39
Subtotal	**0**	**190.46**	**0**	**204.64**	**0**	**219.45**	**0**	**235.08**
ADDITIONAL EMP. COST								
Contractual Obligation		40.18		41.39		42.63		43.91
Additional employee cost-CTC	153.23		180.59		207.48		237.89	
Total additional Emp. cost	**153.23**	**40.18**	**180.59**	**41.39**	**207.48**	**42.63**	**237.89**	**43.91**
OTHER STAFF COST								
Reimbursement of Medical Exp.		5.46		5.61		5.76		5.93
Leave Travel Concession/ UL		1.1		1.14		1.17		1.2
Honorarium		0.52		0.53		0.55		0.56
Payment under Workmen compensation Act		0.1		0.11		0.11		0.11
Ex-gratia/Incentive		6.7		6.9		7.1		7.32
Miscellaneous		6.18		6.37		6.56		6.75
Total of other staff cost	**0**	**20.06**	**0**	**20.64**	**0**	**21.25**	**0**	**21.87**
Staff Welfare Expenses		10.68		11		11.33		11.67
Terminal Benefits (Pension+Gratuity+Leave+ PF+Commuted+NPS /CPS)		211.57		217.92		224.46		231.19
Total	**153.23**	**472.95**	**180.59**	**495.59**	**207.48**	**519.11**	**237.89**	**543.72**
Less: Employee cost Capitalised	2.71	11.49	2.42	10.25	1.51	6.40	1.66	7.03
Net Employee Cost	**150.51**	**461.46**	**178.17**	**485.34**	**205.97**	**512.72**	**236.23**	**536.69**

Table 30: Total Employee Expenses projected for the Control Period (INR Cr)

Particulars	FY 24-25	FY 25-26	FY 26-27	FY 27-28
CTC Employees	150.51	178.17	205.97	236.23
Erstwhile Employees	461.46	485.34	512.72	536.69
Total Employee Expenses	**611.97**	**663.50**	**718.68**	**772.93**

Repair & Maintenance Expenses (R&M)

4.8.12. The Tariff Regulations, 2022 stipulate the following:

> "*3.9.19. Repair and Maintenance expenses shall be allowed as a % of opening Gross Fixed Assets (GFA) only on assets owned by the distribution company, for each year of the Control Period as provided in the table below:*

DISCOMs	TPCODL	TPWODL	TPNODL	TPSODL
FY 23-24	4.20%	4.50%	4.50%	5.40%
FY 24-25	4.00%	4.20%	4.20%	4.50%
FY 25-26	3.50%	4.00%	4.00%	4.20%
FY 26-27	3.00%	3.00%	3.00%	3.50%
FY 27-28 & onwards as per the directives of the Commission	3.00%	3.00%	3.00%	3.00%

3.9.20. The Distribution Licensee(s) shall prepare a plan and budget for periodic preventive maintenance of distribution network including emergency repairs and restoration works under each division.

3.9.21. The Distribution Licensee(s) shall provide the breakup details of R&M expenses in the ARR for the Financial Year along with requirement of annual maintenance spares for smooth operation with minimum down time of the system.

3.9.22. The Commission shall allow an amount for maintenance of assets added under State and Central Government Schemes @ 3.00% of the opening GFA of such assets. The

Distribution Licensee(s) shall be required to separately submit to the Commission along with ARR, the details of assets taken into service under these Schemes.

3.9.23. 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.

3.9.24. The R&M expense shall be allowed on normative basis in the ARR for ensuing year and shall be subject to True-Up.

Provided that, in case the actual R&M expense is lower than the approved R&M expense, the actual R&M expense shall be considered for True-Up purpose.

Provided that, in case the actual R&M expense is more than the approved R&M expense, the approved R&M expense shall be considered for True-Up purpose.

3.9.25. Under the R&M expense, Distribution Licensees shall keep provision for annual maintenance spares and material bank to meet any exigencies & faster restoration of supply under natural calamities like cyclone, flood etc."

4.8.13. TPWODL submits that comprehensive repair and maintenance is required in the areas of safety, system operation, distribution system and distribution services, centralized power system control center, civil structures, automation technology etc. R&M Expenses are mainly incurred by the Petitioner under 33 kV & 11 KV grid substation and lines (AMC & material), safety expenses, PSCC, SCADA, GIS, transformer and other equipment repairs, civil repair and maintenance, IT related and store related material handling. Further, the monthly average of AMC costs is around Rs. 16 Cr. (excluding Material costs of around Rs. 40 Cr. annually).

It is submitted that ageing also plays an important factor in the distribution system. Due to ageing of the electrical equipment, power distribution system is plagued with problems of high failures. Also, if proper repair and maintenance is not carried out in time, it may lead to high failures in distribution transformers and sub-stations leading to interruption in power supply to the consumers.

Some of the key reasons for failures in distribution transformers are as given below:

a. Prolonged overloading

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR (ORISSA)

b. Oil pilferage or leakage
c. Non-topping up of oil
d. Single phasing
e. Improper size of fuses
f. No lightning arresters installed/faulty
g. Faulty earthing
h. Tree cutting
i. Improper sag in lines and miscellaneous maintenance reasons.

Timely and regular maintenance helps to reduce outages, lower costs, and increased energy efficiency. However, maintenance includes costs and it is the commitment of the Licensee to provide uninterrupted power supply to all its consumers.

TPWODL receives electrical power at 33KV level from 220/33KV or 132/33KV GSS substation (OPTCL) located within and in the vicinity of TPWODL operational area. TPWODL distributes the power at 33KV / 11KV / 440V / 230V depending on the demand of the consumers. Presently, there are 186 numbers of 33KV feeders with a combined circuit length of approximately 5358 CKMs supplying power to 307 numbers of 33/11KV Primary Substation (Structures). The 33KV supply is stepped down to 11KV level through 684 numbers of 33/11KV power transformers. 1160 numbers of 11KV feeders emanates from the 33/11KV primary substations having cumulative length of approximately 50249 CKMs and supply power to HT consumers connected at 11KV level and other LT customers connected to 11/0.415KV distribution substation. Approx. 75485 numbers of distribution transformers are installed in all five circles. The length of the LT network is approximately 65141 CKMs. These LT feeders supply power to three phase and single-phase consumers.

4.8.14. With this objective of ensuring reliable power supply and ensuring best customer services to the end consumers, TPWODL requires expenditure for maintain the existing 33KV, 11KV, LT Network and its office buildings under "Repair & Maintenance" Head. In order to ensure the Operation, repair and maintenance and upkeep of the existing network, TPWODL has placed various AMC contract through competitive bidding process for 33KV Operations, 33KV Network and 11KV network in the previous year and proposed for upcoming years. Additionally, various spares, repairs & OEM services are also proposed under Repair & Maintenance Head.

a) Civil infrastructure R&M:

Civil maintenance for offices, PSS, Store, Access Road need time bound maintenance, painting to ensure safe, and hygiene atmosphere. Maximum buildings are old and some of the buildings are more than 50 years of age and maintenance requirement is very high. Following activities are covered under civil repair & maintenance:

1. Old Building Painting where paint is totally fed
2. Maintenance work of AC & sanitary item
3. Periodically cleaning of Septic Tank & Soak Pit
4. Replacing of Light Fittings
5. Shifting of material including scrap
6. Other Miscellaneous work.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

b) 33 kV Network AMC:

33KV Network AMC is placed for each circle through competitive bidding process, which covers following activities.

1) FEEDER MAINTENANCE:

- Replacement of damaged poles/assistance for erecting structures during the breakdown. For towers, separate order will be placed. However, feeder will be restored by installing rail/joist poles.
- Replacement of corroded, cracked, flashed insulators (Disc/Pin). Trimming (off Line) of trees under/near the feeders on regular basis
- Attending to hotspots / replacement of joints
- Repairs and re-tensioning of conductors, G.I. Earth wire, providing of guard laces, stay wires. repairs to the earthing of the poles.
- Installation of lightning arrestors, in places, where the chances of lightning is very high, as per guidance of Division In charge.
- Thermo vision scanning to be carried out on periodic basis or on the instruction of Division in charge (without outage)
- Aiding in identification of tower/poles without earthing. Identification of locations where guard wires/cradle guards are required. The details would be sent to engineer-in-charge for needful action after the inspections are affected.
- To ensure Plan Maintenance Schedule for 5358 Ckm. lines.

2) PSS MAINTENANCE:

- Inspection, Preventive and Predictive maintenance of all equipment installed in Primary Substation S/S as per the schedule and check list provided by respective engineer in charge to ensure optimum performance.
- Replacement of defective power and control cables as envisaged by respective engineer in-charge for smooth functioning of Primary Substation sub-station
- Identification of hotspots / weak points / defects by visual inspection and their rectification by replacing clamps / connectors or replacement of jumpers / other actions.
- Inspection, maintenance, and restoration of Charger, Battery, CRP panel, Earthing System, Circuit Breaker, CT, PT.
- Inspection and maintenance of Power Transformer, Station Transformer.

c) 11 kV Network AMC:

Presently 11KV contract includes combined activities related to Maintenance of LT & HT Network, Installation, replacement of single-phase meter, new connection up to 5kW, recovery and disconnection in TPWODL area.

TPWODL intends to deploy 11kV AMC contract to ensure better quality services to its esteemed consumers and also in order to improve the collection efficiency, disconnection being part of the existing contract needs to be strengthened in order to achieve desired targets of organization.

Routine maintenance practice has now begun which has significantly improved Distribution Network health. So far, the licensee has covered high value DTs and now requires urgent attention to improve heath of lower rating DTs whose failure rate is very high. Hence, resources in terms of manpower, testing equipment's and vehicles would be required for condition monitoring and

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

maintenance.

The Safety of human, animal and electrical equipment's is a big challenge. In last one and half year TPWODL has strengthen safety processes but 100% usage of PPE is also a big concern. Hence, TPWODL is deploying dedicated safety personals and with all required PPE and other safety gadgets to the line staff. This will be helping to enhance and maintain safety culture in the organization.

To take care of the movement of the team, all the 17 Nos. of divisions are provided with 24 Hrs. and 12 Hrs. vehicles considering geographical locations, total number of sections and number of feeders per section etc. We have deployed total 164 Nos. of 12 Hrs. vehicles and 95 Nos of 24 Hrs. vehicles in all 17 Nos. of divisions of TPWODL. Due to addition of 11KV feeders and new line additional resource would be deployed.

d) Operation of PSS – 33 kV/ 11 kV substation:

All the 33/11KV Grid substations Operations and Condition monitoring are being carried out 24X7 by various AMC Business Associates across TPWODL.

Major activities –

- Recording of the readings at periodical intervals including Feeder Metering Points as specified by Officer-in charge of Sub-station and maintain them in the log book. All log sheets and registers should be signed with name by the concerned person on duty deployed by the Service Provider in every shift.
- Carrying out the operations like charging CBs circuit breakers and other equipment, issue of PTW to authorized person etc. and follow the SOP (Standard Operating Procedure) during PERMIT TO WORK
- Recording all tripping of Breakers and other events that occur in the order of sequence with the time of occurrence correctly and record them in log-book.
- Up-dating of interruption registers, Telephone Call Register, Data Book, Battery Register, Register of Inspection of Jumpers. Apart from the above, the Service Provider shall carryout the routine checks during the Contract period daily.
- Must attend to all emergencies that may arise during the contract period such as equipment failures, fire accidents etc., shall get acquainted with all the operations such as isolating transformers and other equipment etc.
- Periodical inspection and intimation for any defects, abnormality to PSCC/ maintenance team.
- Transformers –
  1) Logging & reporting of oil level & leakages & recording temperatures of oil and winding.
  2) Reporting un-usual internal noises.
  3) Reporting relief diaphragm for cracks.
  4) Reporting status of HG-Fuses and Section Fuses of Station Transformer for replacement by TPWODL.
  5) Reporting the condition of silica gel and record in the Logbook.
  6) Shall record hourly readings of temperature of oil and winding in the logbook.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

7) Reporting for Release of gas from Buchholz relay during its operation.

- 33/ 11 kV Breakers –
  1) Reporting of healthiness of trip circuits, SF-6 Gas pressure, pneumatic and hydraulic
  2) pressures and oil leakage, if any, and other works specified by the Officer of TPWODL.
- Switchyard –

  Checking of the Yard at hourly intervals and note down & report unusual observations, defects, sparks, loose contracts, red hot spots, jumpers, abnormalities detected in the equipment and loose bolts & nuts etc., and informing the concerned officers of TPWODL.
- Batteries –
  1) Logging of specific gravity and voltage of pilot cells daily during morning shift and for all cells weekly once & observation shall be recorded in the log book.
  2) Logging/Checking of DC Earth leakage, physical condition of connectors and top up distilled water when required.

4.8.15. **Additional R&M Expenses:**

TPWODL requests the Hon'ble Commission to provide the additional R&M Expenses on account of the following reasons-

- Maintenance of Assets owned by the Government and maintained by the DISCOM

  The Company has placed Annual Maintenance Contracts for maintenance of LT, 11 kV and 33 kV infrastructure, which includes both the infrastructure in the GFA /Books of TPWODL 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 DISCOM owned as well as the Govt. owned Assets. Since these are largely labor-intensive contracts for maintenance of the entire network, the cost of such maintenance cannot be different for own and govt. funded assets.

  While the labor cost for maintaining of entire network (including own and Govt. funded Assets) would not be different, due to relatively newer vintage of the Govt. funded Assets, the material cost for R&M of such Assets could be lower than that of own, particularly the inherited Assets on their Effective Date of the DISCOM.

  In view of the above, TPWODL requests the Hon'ble Commission to allow some additional R&M expenses for maintenance of assets.
- Huge geographical area

  TPWODL operates in a vast geographical area, which presents logistical and operational challenges. The repair and maintenance of power infrastructure across such an extensive region require additional resources, including manpower, equipment, and transportation. Allocating additional funds will

PART OF AFFIDAVIT 31/1/25 NOTARY Regd. No. ON 23/94 SAMBALPUR: ORISSA

help us overcome these challenges and ensure that maintenance activities are conducted promptly and efficiently throughout the region.

- Special skill and technology required to maintain Elephant Corridors

  TPWODL includes elephant corridors, which require special attention and maintenance efforts. These corridors are critical for the conservation and protection of wildlife. Maintaining power infrastructure in these areas requires specialized skills and technology to minimize disruptions while ensuring the safety of both the animals and our personnel. Additional funds will enable us to invest in training, equipment, and resources specific to the maintenance of elephant corridors.

- More Forest area needs more patrolling in case of breakdown

  Power infrastructure located in forested areas faces additional challenges due to vegetation encroachment and the risk of breakdowns caused by falling trees or other natural factors. Regular patrolling and monitoring are essential to identify and address potential issues promptly. Allocating additional funds for repair and maintenance expenses will allow us to increase patrolling efforts, ensuring timely response and reducing downtime in these areas.

- Occurrence of thunderstorm and Kal-Baisakhi in most of the districts

  TPWODL is prone to severe thunderstorms and Kal-Baisakhi (pre-monsoon thunderstorms) that can cause significant damage to power infrastructure. These extreme weather events require additional repair and maintenance efforts to restore service quickly. Allocating additional funds will enable us to enhance our response capabilities and minimize disruptions caused by these weather events.

- Age old assets require considerable time to replace with new assets

  A significant portion of TPWODL power infrastructure consists of age-old assets that require regular maintenance to ensure their optimal functioning. While replacing these assets with new ones is a long-term goal, it requires considerable time and financial investment. In the interim, allocating additional funds for repair and maintenance expenses will help us extend the lifespan of these assets, ensuring their reliable operation until they can be replaced.

  Considering the factors mentioned above, TPWODL believe that the allocation of additional funds for repair and maintenance expenses is crucial for the efficient and reliable functioning of DISCOM. These investments will allow to overcome unique challenges, improve service quality, and maintain the integrity of our power infrastructure.

4.8.16. In accordance with the above, TPWODL has projected the y-o-y Opening GFA for DISCOM owned assets as under:

Table 31: GFA for DISCOM Owned Assets projected (INR Cr)

Particulars	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Opening GFA	2667.64	3414.11	4007.75	4563.19	5129.69
Estimated Capitalisation - Own CAPEX	523.46	325.22	289.46	479.18	484.85
Estimated Capitalisation - Cons. Contribution (incl. Govt. funded)	177.61	236.77	186.07	135.58	125.93

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Particulars	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
GRIDCO contribution of Assets 49% of 30% of capitalisation through own CAPEX	76.95	47.81	42.55	70.44	71.27
Closing GFA	**3445.66**	**4055.46**	**4573.54**	**5258.73**	**5940.78**

4.8.17. Further to the above, TPWODL has projected the cumulative GFA for Govt. owned assets maintained by the DISCOM as appended below:

Table 32: GFA for Govt. Owned Assets projected (INR Cr)

Particulars	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
3DUGJY New (Infra)	285.70				
DDUGJY New (Metering)	87.72				
IPDS (Infra)	214.44				
IPDS (Metering)	30.21				
IPDS IT Phase-2	54.20				
DDUGJY 12th Plan (PGCIL)	492.92				
DDUGJY 12th Plan (NTPC)	1114.25				
ODSSP	1028.73				
RLTAP (District Administration)	90.00				
SACI		299.29			
CMPDP		100.05	203.00		
Disaster Resilient (33 kV & 11 kV Network)		75.00			
RDSS		226.00	390.00	390.00	337.00
ODSSP-IV		100.00	200.00	237.00	101.00
Elephant Corridor		50.00	57.00	73.00	
Biju Gram Jyoti Scheme (BGJY)		50.00	50.00		
TOTAL	**3398.17**	**4298.51**	**5198.51**	**5898.51**	**6336.51**

4.8.18. The R&M Expenses for each year of the Control Period have been estimated in accordance with the Tariff Regulations, 2022. The following table provides the estimated R&M Expenses for each year of the Control Period:

Table 33: R&M Expenses projected for the Control Period (INR Cr)

Particulars	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Opening GFA for DISCOM Owned Assets	2667.64	3445.66	4055.46	4573.54	5258.73
Approved % (As per New Regulation, 2022)	4.50%	4.20%	4.00%	3.00%	3.00%
R&M Expenses for DISCOM Owned Assets	120.04	144.72	162.22	137.21	157.76
GFA for Govt. Owned Assets maintained by DISCOM	3398.17	4298.51	5198.51	5898.51	6336.51
Approved % (As per New Regulation, 2022)	3.00%	3.00%	3.00%	3.00%	3.00%
R&M Expenses for Govt. Owned Assets maintained by DISCOM	101.95	128.96	155.96	176.96	190.10
Total R&M Expenses	**221.99**	**273.67**	**318.17**	**314.16**	**347.86**
Addnl. R&M Expenses	60.00	50.00	40.00	30.00	20.00
Grand Total	**281.99**	**323.67**	**358.17**	**344.16**	**367.86**

Administrative & General (A&G) Expenses

4.8.19. The Tariff Regulations, 2022 stipulate the following:

PART OF AFFIDAVIT
NOTARY
Regd. No. OH 23/94
SAMBALPUR-ORISSA

"3.9.16. The normal A&G Expenses for each subsequent year will be determined by escalating the approved A&G Expenses (excluding additional or special A&G expense) for the previous year, at the escalation factor of 7 % to arrive at permissible A&G expenses for each year of the Control Period.

3.9.17. The Commission, in addition to the normal A&G expenses may allow additional expenses, under this head for special measures to be undertaken by the distribution licensees which are not covered under Capital Investment plan approved by the
Commission.
Provided the Commission will undertake a prudence check before allowing such expenditure.

3.9.18. The A&G expense shall be allowed on normative basis in the ARR for ensuing year and shall be subject to True-Up.
Provided that, in case the actual A&G expense is lower than the approved A&G expense, the actual A&G expense shall be considered for True-Up purpose.
Provided that, in case the actual A&G expense is more than the approved A&G expense, the approved A&G expense shall be considered for True-Up purpose."

4.8.20. The Administrative and General expenses for the ensuing years have been forecasted based on estimated expenses considering actual A&G expenses of FY 23-24 as base and considering the normative increase of 7%, in line with the Tariff Regulations, 2022.

4.8.21. **Justification for Additional A&G Expenses:**

TPWODL requests Hon'ble Commission for kind consideration in allocating an additional Rs. 50 Crs. annually for special A&G Expenses. These funds will be utilized to undertake various essential initiatives, including Energy Police Station, GIS, SCADA, Communication, OT, Data Charges, IT, Automation, Special Drive to improve MBC Activity, Special Drive for shifting of Meter to outside premises, Vigilance and Enforcement, Energy Audit and other related activities.

The DISCOM recognizes the importance of efficient and reliable power distribution for the socio-economic development of western region of Odisha. To ensure seamless service delivery, it is imperative to invest in critical areas that require specialized attention and resources. The proposed allocation for special Administrative & General expenses will enable us to address the following key initiatives:

1. **Energy Police Station / Deployment of Police Personnel:**
   - Establishing dedicated energy police stations to tackle power theft, unauthorized connections and other illegal activities especially in areas where handling locals becomes difficult.
   - Strengthening collaboration between law enforcement agencies and the DISCOM to effectively combat energy theft and minimize revenue losses.
   - Conducting awareness campaigns and training programs to educate the public about the negative consequences of power theft.

2. **Geographic Information System (GIS) and Supervisory Control and Data Acquisition (SCADA):**
   - Implementing GIS technology to accurately map and manage the power distribution network (11kV & 33kV).

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Verified by Notary.

- Integrating SCADA systems for real-time monitoring, control and predictive maintenance of critical assets.
- Identification of priority feeders and pole to pole surveys/ thermo scanning & actioning for preventive maintenance & Usage of Drone technology.
- Enhancing the DISCOM's ability to respond swiftly to faults, optimize power flow and reduce outage durations.

3. **Communication, Operations and Technology (OT):**
   - Strengthening communication networks to ensure seamless connectivity across the distribution infrastructure.
   - Upgrading IT infrastructure to support advanced analytics, data management and system integration.
   - Implementing mobile applications and customer portals for efficient service delivery, query resolution and bill payment options.

4. **Data Charges, IT Automation and Energy Audit:**
   - Provision for data charges related to smart metering, data analytics and communication systems.
   - Automation of IT systems to streamline processes, reduce manual intervention and improve data accuracy.
   - Conducting regular energy audits to identify energy-saving opportunities and improve operational efficiency.

5. **Special Drive to Improve Metering, Billing and Collection (MBC) Activity:**
   - Conducting focused initiatives to improve metering accuracy, optimize billing processes and enhance revenue collection efficiency.
   - Enhancing customer data management systems to ensure accurate billing, timely dispute resolution and effective customer service.
   - Deployment of Vendor for recovery from disconnected consumers/ defaulting & irrigation consumers
   - Through MBC Initiatives, TPWODL has been able to reduce the provisional billing rate from 30.45% to 9% in the span of 2 years.
   - Due to non-availability of manpower, monthly and bi-monthly base billing is done for all SBM category of consumers. TPWODL proposed to bill all the consumers on monthly basis as per OERC Regulation. For this activity additional manpower is required under MBC contract (BAs). This would result in improvement of actual billing performance, consumer collection coverage, monthly payment habit of the Consumers.
   - Meter reading and Billing Coverage improved from 71% to 83%.
   - Door-to-door collection in extremely rural areas and poor villages.
   - To attain 100% consumer metering, billing coverage and collection efficiency funds for special drives is required for the well-being of our valued consumers.

6. **Special Drive for shifting meters to Outside Premises**:
   - Implementing initiatives to shift meters from inside premises to outside, ensuring easy accessibility for meter reading and maintenance.
   - Conducting awareness campaigns to educate customers about the benefits of meter shifting and facilitating the process through collaborations with housing societies and residents' associations to reduce provisional billing.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

7. **Vigilance and Enforcement:**
   - Strengthening the vigilance and enforcement department to ensure compliance with regulations, prevent power theft and enforce penalties.
   - Enhancing the monitoring and surveillance systems to detect and deter any illegal activities in TPWODL area.

TPWODL firmly believes that the proposed allocation of Rs. 50 Crores annually for special A&G expenses is crucial to enhance the operational efficiency, reliability and overall performance of DISCOM. These investments will not only enable the licensee to optimize revenue collection, reduce losses and improve service quality but also foster a culture of energy conservation and sustainable development in TPWODL.

TPWODL understands that any decision regarding the allocation of additional A&G expenses require careful consideration of the DISCOM's financial sustainability and the interests of consumers. The licensee assures that the proposed initiatives have been thoroughly evaluated and are aligned with the vision & goals of our DISCOM.

4.8.22. The following table provides the A&G expenses estimated for each year of the Control Period:

Table 34: A&G Expenses projected for the Control Period (INR Cr)

Particulars	FY 23-24 (OERC Approved)	FY 24-25	FY 25-26	FY 26-27	FY 27-28
PROPERTY RELATED EXP.					
Licence Fees	1.21	1.29	1.38	1.48	1.58
Rent	3.07	3.29	3.52	3.77	4.03
Rates & Taxes including inspection fee	0.13	0.14	0.15	0.16	0.17
Insurance	4.43	4.74	5.07	5.42	5.80
Sub-total:	**8.84**	**9.46**	**10.12**	**10.83**	**11.58**
COMMUNICATION					
Telephone & Trunk Call	1.03	1.11	1.18	1.27	1.36
Postage & Telegram	0.19	0.20	0.22	0.23	0.25
Sub-total:	**1.22**	**1.31**	**1.40**	**1.50**	**1.61**
PROFESSIONAL CHARGES					
Legal expenses	0.54	0.58	0.62	0.67	0.71
Consultancy/ Retainer charges	5.12	5.47	5.86	6.27	6.71
Collection cost through agencies	33.85	36.21	38.75	41.46	44.36
Audit fees and expenses	1.24	1.32	1.42	1.52	1.62
Other Professional charges	3.07	3.28	3.51	3.76	4.02
Sub-total:	**43.81**	**46.88**	**50.16**	**53.67**	**57.43**
CONVEYANCE & TRAVELLING					
Conveyance expenses	0.25	0.27	0.29	0.31	0.33
Travelling expenses	5.14	5.50	5.88	6.29	6.73
Hire charges of vehicle	6.26	6.70	7.17	7.67	8.20
Sub-total:	**11.65**	**12.46**	**13.33**	**14.27**	**15.26**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Particulars	FY 23-24 (OERC Approved)	FY 24-25	FY 25-26	FY 26-27	FY 27-28
OTHER EXPENSES					
Fees & Subscription	0.16	0.17	0.18	0.19	0.21
Books & Periodicals	0.01	0.01	0.01	0.01	0.01
Printing & Stationery	0.74	0.79	0.84	0.90	0.97
Advertisement	1.44	1.54	1.65	1.76	1.89
Meeting Expenses	0.12	0.12	0.13	0.14	0.15
Housekeeping	2.15	2.30	2.46	2.63	2.81
Electricity Charges	3.42	3.65	3.91	4.18	4.48
Vigilance activity for rev imp	2.53	2.71	2.90	3.10	3.32
Expenditure for Customer care & call Centre	0.51	0.55	0.58	0.63	0.67
Miscellaneous*	1.02	1.09	1.17	1.25	1.34
MBC	37.19	39.80	42.58	45.56	48.75
Training	0.42	0.45	0.49	0.52	0.56
Sub-total:	**49.70**	**53.18**	**56.90**	**60.88**	**65.14**
MATERIAL RELATED EXPENSES					
Clearing & forwarding charges	2.90	3.11	3.33	3.56	3.81
Sub-total:	**2.90**	**3.11**	**3.33**	**3.56**	**3.81**
TOTAL A&G Expenses	**118.12**	**126.39**	**135.24**	**144.70**	**154.83**
Additional A&G Expenses on account of Special Drives	40.00	50.00	50.00	50.00	50.00
TOTAL A&G Expenses (Incl. Special Drives)	**158.12**	**176.39**	**185.24**	**194.70**	**204.83**

4.9. Depreciation

4.9.1. The Tariff Regulations, 2022 stipulate the following:

"Depreciation
3.8.1. Depreciation shall be computed separately for assets capitalized prior to the Effective Date and the assets put to use after the Effective Date.
....
3.8.4. For the assets of erstwhile DISCOMs transferred to the new Distribution Licensees through the Vesting Orders, the depreciation shall be calculated on the pre-up valued cost of assets at pre-1992 rate on the asset base approved by the Commission.
3.8.5. For assets achieving date of commercial operation (COD)in this control period, depreciation shall be computed in the following manner:
a. The approved original cost of the project/fixed assets shall be the base value for calculation of depreciation;
b. Depreciation shall be computed annually based on the straight-line method at the rates specified in the Annexure II to these Regulations."

4.9.2. In accordance with the Regulations, the depreciation for each year of the Control Period has been computed in the following table.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR:ORISSA

Table 35: Depreciation for the Control Period (INR Cr)

Particulars	OLD	FY 2024-25		FY 2025-26		FY 2026-27		FY 2027-28	
		TPWODL	Total	TPWODL	Total	TPWODL	Total	TPWODL	Total
Land	-	-	-	-	-	-	-	-	-
Buildings	0.29	0.99	1.27	0.99	1.27	0.99	1.27	0.99	1.27
Network assets	23.68	58.62	82.30	83.99	107.67	111.11	134.79	142.04	165.72
Overhead lines	49.94	17.58	67.52	17.58	67.52	17.58	67.52	17.58	67.52
F&F	0.09	0.33	0.42	0.43	0.52	0.53	0.63	0.64	0.73
Vehicles	0.06	0.42	0.49	0.53	0.59	0.63	0.70	0.74	0.81
O/E	0.22	0.69	0.91	0.74	0.96	0.80	1.02	0.86	1.08
O&E-Computer	0.45	9.31	9.76	11.15	11.61	13.01	13.47	14.89	15.34
Software	-	13.01	13.01	14.46	14.46	15.95	15.95	17.46	17.46
Total	**74.73**	**100.95**	**175.68**	**129.87**	**204.60**	**160.60**	**235.33**	**195.20**	**269.93**
Less: Depreciation on Consumer Contribution Assets	47.09	25.70	72.79	30.50	77.59	35.50	82.59	40.50	87.59
Net Depreciation			**102.89**		**127.01**		**152.74**		**182.34**

4.10. Interest & Finance Charges

Interest on CAPEX loan/ long term debt

4.10.1. The Tariff Regulations, 2022 provides that the loan taken for the assets put to use shall be considered as gross normative loan for calculation of interest. The interest and finance charges on CWIP shall be excluded. 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. The rate of interest shall be weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of each year as applicable to the respective distribution licensee. The interest on loan shall be calculated based on the weighted average rate of interest at the time of truing up on the normative average loan of the year and the actual asset capitalization approved by the Hon'ble Commission for the year.

4.10.2. TPWODL has considered the rate of interest @ 9.00% for the period from FY 24-25 till FY 27-28.

4.10.3. As discussed in the Capital Structure section at Table 16, TPWODL has projected the interest on CAPEX loan for the Control Period as under:

Table 36: Interest on CAPEX Loans (INR Cr)

Particulars	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Opening Normative Loan	699.81	820.97	889.18	1,096.08
Add: Normative Loan during the year	261.12	232.40	384.73	389.28
Less: Repayment (20% of Opening)	139.96	164.19	177.84	219.22
Closing Normative Loan	**820.97**	**889.18**	**1,096.08**	**1,266.14**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Particulars	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Rate of Interest	9.00%	9.00%	9.00%	9.00%
Interest on Opening Balance	62.98	73.89	80.03	98.65
Interest on Additions	7.83	6.97	11.54	11.68
Total Interest on CAPEX loans	**70.82**	**80.86**	**91.57**	**110.33**

Interest on Security Deposit

4.10.4. The Hon'ble Commission in Tariff Order dated 23rd March 2023 at Para 136 had held as under:

"136. The Interest on security deposit is allowed by the Commission as per the OERC Distribution (Conditions of Supply Code), 2004. The prevailing bank rate is 6.75% per annum during February 2023 as notified by RBI in their website. The Commission, accordingly, allows the interest at the rate of 6.75% on the closing balance on consumer's security deposit as on 31.3.2022."

4.10.5. In accordance with the above, TPWODL has projected the Interest on Security Deposits as under:

Table 37: Interest on Security Deposit (INR Cr)

Particulars	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Opening SD	1106.51	1146.68	1188.06	1230.68
Addition during the period	66.95	68.96	71.03	73.16
Repayment of SD	27	28	28	29
Closing SD	1146.68	1188.06	1230.68	1274.57
Rate of Interest	6.75%	6.75%	6.75%	6.75%
Interest on Opening Balance	74.69	77.40	80.19	83.07
Total Interest on Security Deposit	**74.69**	**77.40**	**80.19**	**83.07**

Interest on Working Capital

4.10.6. The Tariff Regulations, 2022 stipulates the following:

"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 1stApril of the Financial

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
BAMBALPUR-ORISSA

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."

4.10.7. Accordingly, TPWODL has arrived at the Interest on Working Capital in the following manner:

Table 38: Interest on Working Capital (INR Cr)

Particulars	FY 24-25	FY 25-26	FY 26-27	FY 27-28
O&M Expenses	1099.49	1191.68	1236.33	1323.88
O&M Expenses for 1 month	91.62	99.31	103.03	110.32
R&M Expenses	323.67	358.17	344.16	367.86
Maintenance spares @ 20% of average R&M expenses for 1 month	5.39	5.97	5.74	6.13
Power Purchase Cost	4564.52	4719.66	4723.80	4846.61
Power Purchase Cost for 1 month	380.38	393.30	393.65	403.88
Working Capital	**477.40**	**498.58**	**502.41**	**520.34**
Rate of Interest	11.50%	11.50%	11.50%	11.50%
Total Interest on Working Capital	**54.90**	**57.34**	**57.78**	**59.84**

4.11. Provisions for Bad & Doubtful Debts

4.11.1. The Tariff Regulations, 2022 stipulates the following:

"5.8.1. The Commission shall allow provisioning for bad debts as a pass through in the Aggregate Revenue Requirement, as a prudent commercial practice in the revenue requirement of the licensee. The Bad and Doubtful debt during this control period shall be allowed on normative basis of 1% of the total annual revenue billed for sale of electricity.

Provided that during True-Up, the DISCOMs shall submit the audited annual accounts depicting provision for bad and doubtful debt for the respective years and provisioning for bad debt shall be allowed subject to ceiling of @ 1% of the total annual revenue billed for sale of electricity and provisioning of bad and doubtful debt mentioned in the audited annual accounts whichever is lower.

Provided further that if subsequent to the write off of a particular bad debt, revenue is realized from such bad debt, the same shall be included as an uncontrollable item under the Non-Tariff Income of the year in which such revenue is realized."

4.11.2. Therefore, according to the above provisions of the Regulation, TPWODL has computed the provisions for bad and doubtful debts (including and excluding Railways) as under:

Table 39: Provisions for Bad & Doubtful Debts (INR Cr) (Incl. Railways)

Particulars	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Annual revenue billed for sale of electricity	5449.92	5776.92	6065.77	6369.05
Norm (as per Tariff Reg., 2022)	1%	1%	1%	1%
Bad and Doubtful debt	**54.50**	**57.77**	**60.66**	**63.69**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR- ORISSA

Table 40: Provisions for Bad & Doubtful Debts (INR Cr) (Excl. Railways)

Particulars	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Annual revenue billed for sale of electricity	4744.10	5028.75	5280.19	5544.20
Norm (as per Tariff Reg., 2022)	1%	1%	1%	1%
Bad and Doubtful debt	**47.44**	**50.29**	**52.80**	**55.44**

4.12. Return on Equity

4.12.1. The Hon'ble Commission in Tariff Regulations, 2022 has provided as under:

"Return on Equity

3.6.1. 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."

4.12.2. As discussed in the capital structure section at Table 17, TPWODL had proposed the equity additions during the 1st Control Period i.e. FY 24-25 to FY 27-28.

4.12.3. Accordingly, the return on equity has been determined based on the existing equity base and RoE approved in the tariff regulations as summarized in table below:

Table 41: Return on Equity for the Control Period (INR Cr)

Particulars	FY 24-25	FY 25-26	FY 26-27	FY 27-28
Opening Equity	440.06	489.82	534.10	607.42
Net Addition	49.76	44.29	73.31	74.18
Closing Equity	**489.82**	**534.10**	**607.42**	**681.60**
RoE (%)	16%	16%	16%	16%
Return on Equity	**70.41**	**78.37**	**85.46**	**97.19**
Tax Rate (%)	25.17%	25.17%	25.17%	25.17%
Grossed up RoE (Incl. Tax)	**94.09**	**104.73**	**114.20**	**129.88**

4.13. Non- Tariff Income

4.13.1. The Tariff Regulations, 2022 provides that the amount of Non-Tariff Income relating to the Wheeling Business & Retail Supply Business as approved by the Hon'ble Commission shall be deducted from the Aggregate Revenue Requirement in calculating charges of the Distribution Licensee.

4.13.2. Further, list of various heads to be considered for Non-Tariff Income shall be as under:
a. Income from rent of land or buildings or other assets;
b. Income from sale of scrap pertaining to period prior to effective date and Profit/ Loss from sale of scrap of assets created after effective date;
c. Income from statutory investments;
d. Income from interest on Fixed Deposits (including contingency reserve investment);

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

e. Interest on Security Deposits not passed on to the consumers;
f. Interest on advances to suppliers/ contractors;
g. Rental from staff quarters;
h. Rental from contractors;
i. Income from hire charges from contactors and others;
j. Income from advertisements, sale of tender documents etc.;
k. Service charges;
l. Income from customer Charge;
m. Revenue from delayed payment surcharge;
n. Miscellaneous receipts;
o. Deferred Income from grant, subsidy, etc., as per Annual Accounts;
p. Interest on advances to suppliers;
q. Excess or deficit found on physical verification, subject to prudence check by the Commission;
r. Prior period income;
s. Supervisory charges for contractual works;
t. Any Other Non-Tariff Income.

4.13.3. TPWODL has considered an escalation of 5% over the approved figures for Non-Tariff Income for FY 23-24 except Power Purchase Rebate & Income from CSS.

4.13.4. TPWODL has also projected Income from CSS with an y-o-y reduction of 10% and Power Purchase Rebate as 1% of the the total Power Purchase Cost.

4.13.5. Accordingly, NTI for each year of the Control Period has been projected. The following table provides the proposed NTI for each year.

Table 42: Non-Tariff Income for the Control Period (INR Cr)

S. No.	Particulars	FY 24-25	FY 25-26	FY 26-27	FY 27-28
1	Power Purchase Rebate	48.47	50.12	50.17	51.47
2	Meter Rent	-	-	-	-
3	ODP/ DPS	12.24	12.86	13.50	14.17
4	Reliability	-	-	-	-
5	Supervision Charges	7.00	7.35	7.72	8.10
6	Misc.	15.75	16.54	17.36	18.23
7	FD Interest	58.80	61.74	64.83	68.07
9	Sale of Scrap	6.50	6.03	4.58	2.16
10	Income from CSS	204.00	185.00	167.00	155.00
11	**Total**	**352.77**	**339.63**	**325.15**	**317.21**

4.14. Annual Revenue Requirement (ARR)

4.14.1. In accordance with the various components of ARR as discussed in the foregoing sections, the Annual Revenue Requirement (ARR) for each year of the Control Period has been estimated as follows:

Table 43: ARR for the Control Period (FY 25 to FY 28) (INR Cr) (Incl. Railways)

S. No.	Particulars	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
A	**Power Purchase Cost**					
1	Cost of Power	5207.53	4564.52	4719.66	4723.80	4846.61
2	Transmission charges	318.86	280.69	290.44	290.70	298.25
3	SLDC Charges	2.06	2.06	2.06	2.06	2.06
4	**Total power purchase cost**	**5528.45**	**4847.47**	**5012.15**	**5016.55**	**5146.92**

S. No.	Particulars	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
B	**Distribution Costs**					
5	Employees cost	554.90	611.97	663.50	718.68	772.93
6	Repair and Maintenance cost	281.99	323.67	358.17	344.16	367.86
7	Admin. & General Expenses	158.12	176.39	185.24	194.70	204.83
8	Provision for bad & doubtful debts	62.52	54.50	57.77	60.66	63.69
9	Depreciation	72.93	102.89	127.01	152.74	182.34
10	Interest on Capex loans-Norm	45.57	70.82	80.86	91.57	110.33
11	Interest on working Capital-Norm	53.87	55.02	57.48	57.98	60.05
12	Interest on Security Deposits	72.06	74.69	77.40	80.19	83.07
13	Grossed up RoE (incl. Tax)	57.59	94.09	104.73	114.20	129.88
14	Less: Interest capitalized	17.58	7.83	6.97	11.54	11.68
15	**Total Distribution cost**	**1341.97**	**1556.21**	**1705.20**	**1803.35**	**1963.28**
16	Less: Non-Tariff Income	400.33	352.77	339.63	325.15	317.21
17	**Total Revenue Requirement**	**6470.10**	**6050.91**	**6377.72**	**6494.74**	**6793.00**
18	**Revenue from tariffs (full year)**	**6251.99**	**5449.92**	**5776.92**	**6065.77**	**6369.05**
19	**Revenue Gap(+) / surplus(-) (STAND ALONE)**	**218.11**	**600.98**	**600.80**	**428.97**	**423.95**
20	Carrying Cost on regulatory assets/liabilities		-36.29	19.47	80.56	129.86
21	Opening Gap(+)/Surplus(-)		-359.27	205.42	826.96	1339.46
a	Appropriation allowed by OERC	-277.38				
b	Leftover Surplus (as per OERC)	-300.00				
22	**Revenue Gap(+) / surplus(-) (CUMULATIVE) at each yr end**	**-359.27**	**205.42**	**826.96**	**1339.46**	**1898.70**

Table 44: ARR for the Control Period (FY 25 to FY 28) (INR Cr) (Excl. Railways)

S. No.	Particulars	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
A	**Power Purchase Cost**					
1	Cost of Power	5207.53	4168.47	4299.85	4283.00	4383.78
2	Transmission charges	318.86	256.52	264.61	263.57	269.77
3	SLDC Charges	2.06	2.06	2.06	2.06	2.06
4	**Total power purchase cost**	**5528.45**	**4427.05**	**4566.51**	**4548.62**	**4655.60**
B	**Distribution Costs**					
5	Employees cost	554.90	611.97	663.50	718.68	772.93
6	Repair and Maintenance cost	281.99	323.67	358.17	344.16	367.86
7	Admin. & General Expenses	158.12	176.39	185.24	194.70	204.83
8	Provision for bad & doubtful debts	62.52	47.44	50.29	52.80	55.44
9	Depreciation	72.93	102.89	127.01	152.74	182.34
10	Interest on Capex loans-Norm	45.57	70.82	80.86	91.57	110.33
11	Interest on working Capital-Norm	53.87	55.02	57.48	57.98	60.05
12	Interest on Security Deposits	72.06	74.69	77.40	80.19	83.07
13	Grossed up RoE (incl. Tax)	57.59	94.09	104.73	114.20	129.88
14	Less: Interest capitalized	17.58	7.83	6.97	11.54	11.68
15	**Total Distribution cost**	**1341.97**	**1549.15**	**1697.72**	**1795.49**	**1955.04**
16	Less: Non-Tariff Income	400.33	352.77	339.63	325.15	317.21
17	**Total Revenue Requirement**	**6470.10**	**5623.43**	**5924.59**	**6018.96**	**6293.43**

PART OF AFFIDAVIT

NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

S. No.	Particulars	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
18	**Revenue from tariffs (full year)**	**6251.99**	**4744.10**	**5028.75**	**5280.19**	**5544.20**
19	**Revenue Gap(+) / surplus(-) (STAND ALONE)**	**218.11**	**879.32**	**895.84**	**738.77**	**749.23**
20	Carrying Cost on regulatory assets/liabilities		-36.29	48.86	144.27	233.46
21	Opening Gap(+)/Surplus(-)		-359.27	483.76	1428.46	2311.51
a	Appropriation allowed by OERC	-277.38				
b	Leftover Surplus (as per OERC)	-300.00				
22	**Revenue Gap(+) / surplus(-) (CUMULATIVE) at each yr end**	**-359.27**	**483.76**	**1428.46**	**2311.51**	**3294.21**

4.15. PROPOSALS FOR MITIGATION OF GAP

4.15.1. As can be seen from the above Table Nos. 43 & 44, TPWODL has projected the gap/surplus for the balance control period i.e FY 24-25 to FY 27-28 both including & excluding Railways.

4.15.2. In order to mitigate the gap, challenges faced by the DISCOM and meet the expectations of the end consumers, TPWODL proposes three different scenarios each for gaps (Incl. & excl. railways) as under:

1) Decrease in Bulk Supply Price

In this scenario, TPWODL proposes the following:

Incl. Railways:

- BSP suggested for FY 24-25 – Rs. 3.60/kWh (Reduction of 30 Paise/kWh over OERC Approved FY 23-24 Rs. 3.90/kWh)
- BSP suggested for FY 25-26 - Rs. 3.55/kWh (Reduction of 5 Paise/kWh over FY 24-25 Rs. 3.60/kWh)
- No further change in BSP for FY 26-27 & FY 27-28 (considered same as FY 25-26)
- The reduction in BSP will enable the DISCOM to procure power at a lower cost, thereby reducing the overall financial burden on both the DISCOM and the end consumers.

Table 45: Scenario 1 (Decrease in Bulk Supply Price | Incl. Railways)

Particulars	UoM	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Total Energy Requirement	MU	11704	12102	12112	12427
BSP considered (Approved)	Rs./ U	3.90	3.90	3.90	3.90
Revised BSP		3.60	3.55	3.55	3.55
BST bill	Rs. Cr.	4213	4296	4300	4412
Transmission		281	290	291	298
SLDC Charges		2.06	2.06	2.06	2.06
Total		**4496**	**4589**	**4593**	**4712**
Decrease in Purchase Cost		351	424	424	435
Revised Revenue Requirement		**5700**	**5954**	**6071**	**6358**
Revenue from Tariffs		**5450**	**5777**	**6066**	**6369**
Revenue Gap(+) / surplus(-) (STAND ALONE)		**250**	**177**	**5**	**-11**
Carrying Cost on regulatory assets/liabilities		-36	-15	2	2
Opening Gap(+)/Surplus(-)		-359	-146	17	24
Revenue Gap(+) / surplus(-) (CUMULATIVE) at each yr end		**-146**	**17**	**24**	**15**

PART OF AFFIDAVIT

NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Excl. Railways:

- BSP suggested for FY 24-25 – Rs. 3.45/kWh (Reduction of 45 Paise/kWh over OERC Approved FY 23-24 Rs. 3.90/kWh)
- BSP suggested for FY 25-26 - Rs. 3.15/kWh (Reduction of 30 Paise/kWh over FY 24-25 Rs. 3.45/kWh)
- No change in BSP for FY 26-27 (considered same as FY 25-26)
- BSP suggested for FY 27-28 - Rs. 3.25/kWh (Increase of 10 Paise/kWh over FY 26-27 Rs. 3.15/kWh)

Table 46: Scenario 2 (Decrease in Bulk Supply Price | Excl. Railways)

Particulars	UoM	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Total Energy Requirement	MU	10688	11025	10982	11240
BSP considered (Approved)	Rs./ U	3.90	3.90	3.90	3.90
Revised BSP		3.45	3.15	3.15	3.25
BST bill	Rs. Cr.	3687	3473	3459	3653
Transmission		257	265	264	270
SLDC Charges		2.06	2.06	2.06	2.06
Total		**3946**	**3740**	**3725**	**3925**
Decrease in Purchase Cost		481	827	824	731
Revised Revenue Requirement		**5142**	**5098**	**5195**	**5563**
Revenue from Tariffs		4744	5029	5280	5544
Revenue Gap(+) / surplus(-) (STAND ALONE)		**398**	**69**	**-85**	**19**
Carrying Cost on regulatory assets/liabilities		-36	0	7	-1
Opening Gap(+)/Surplus(-)		-359	3	72	-6
Revenue Gap(+) / surplus(-) (CUMULATIVE) at each yr end		**3**	**72**	**-6**	**12**

2) Increase in Retail Supply Tariff

In this scenario, TPWODL proposes the following:

Incl. Railways:

- RST suggested for FY 24-25- Rs. 6.03/kWh (Increase by 4% over ABR considered Rs. 5.80/kWh)
- RST suggested for FY 25-26- Rs. 6.39/kWh (Increase by 6% over ABR considered for FY 24-25 Rs. 6.03/kWh)
- RST suggested for FY 26-27- Rs. 6.20/kWh (Reduction of 3% over ABR considered for FY 25-26 Rs. 6.39/kWh)
- No change in RST for FY 27-28 (considered same as FY 26-27)
- Increase in RST will ensure the financial sustainability of the DISCOM while enabling the provision of high-quality services to the customers.

Table 47: Scenario 3 (Increase in Retail Supply Tariff | Incl. Railways)

Particulars	UoM	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Total Energy Sales	MU	9399	9962	10461	10984
ABR considered	Rs./ U	5.80	5.80	5.80	5.80
Revised ABR		**6.03**	**6.39**	**6.20**	**6.20**
Increase in Revenue from Tariff	Rs. Cr.	218	592	421	442
Revised Revenue from Tariffs		**5668**	**6368**	**6486**	**6811**
Revenue Requirement		**6051**	**6378**	**6495**	**6793**
Revenue Gap(+) / surplus(-) (STAND ALONE)		**383**	**9**	**8**	**-18**

Attested by Notary

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR, ORISSA

Particulars	UoM	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Carrying Cost on regulatory assets/liabilities		-36	-1	0	0
Opening Gap(+)/Surplus(-)		-359	-13	-5	3
Revenue Gap(+) / surplus(-) (CUMULATIVE) at each yr end		**-13**	**-5**	**3**	**-14**

Excl. Railways:

- RST suggested for FY 24-25- Rs. 6.23/kWh (Increase by 10% over ABR considered Rs. 5.66/kWh)
- RST suggested for FY 25-26- Rs. 6.66/kWh (Increase by 7% over ABR considered for FY 24-25 Rs. 6.23/kWh)
- RST suggested for FY 26-27- Rs. 6.46/kWh (Reduction of 3% over ABR considered for FY 25-26 Rs. 6.66/kWh)
- No change in RST for FY 27-28 (considered same as FY 26-27)

Table 48: Scenario 4 (Increase in Retail Supply Tariff | Excl. Railways)

Particulars	UoM	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Total Energy Sales	MU	8383	8886	9330	9797
ABR considered	Rs./ U	5.66	5.66	5.66	5.66
Revised ABR		**6.23**	**6.66**	**6.46**	**6.46**
Increase in Revenue from Tariff	Rs. Cr.	474	890	748	786
Revised Revenue from Tariffs		**5219**	**5919**	**6028**	**6330**
Revenue Requirement		**5623**	**5925**	**6019**	**6293**
Revenue Gap(+) / surplus(-) (STAND ALONE)		**405**	**6**	**-9**	**-36**
Carrying Cost on regulatory assets/liabilities		-36	1	2	1
Opening Gap(+)/Surplus(-)		-359	9	16	8
Revenue Gap(+) / surplus(-) (CUMULATIVE) at each yr end		**9**	**16**	**8**	**-27**

3) Combination of Decrease in BSP & Increase in RST

In this scenario, TPWODL proposes a combination of decreasing the Bulk Supply Price (BSP) and increasing the Retail Supply Tariff (RST). This approach aims to strike a balance between reducing the cost of power procurement and maintaining the financial stability of the DISCOM. The decrease in BSP will lower the cost burden on the DISCOM, while the increase in RST will help generate sufficient revenue to cover operational expenses and ensure service reliability.

Proposal is as under:

Incl. Railways:

- BSP suggested for FY 24-25 – Rs. 3.70/kWh (Reduction of 20palse/kWh- over OERC approved Rs. 3.90/kWh)
- No further change in BSP from FY 25-26 to FY 27-28 (considered same as FY 24-25)
- No increase in RST suggested for FY 24-25.
- RST suggested for FY 25-26 - Rs. 6.09/kWh (Increase of 5% over ABR considered Rs.5.80/kWh)
- RST suggested for FY 26-27 - Rs. 6.00/kWh (Reduction by 1.5% over ABR for FY 25-26 Rs.6.09/kWh)
- No Increase in RST suggested for FY 27-28. (ABR considered same as FY 26-27)

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

Table 49: Scenario 5 (Combination of Decrease in BSP & Increase in RST | Incl. Railways)

Particulars	UoM	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Total Energy Requirement	MU	11704	12102	12112	12427
BSP considered (OERC Approved)	Rs./ U	3.90	3.90	3.90	3.90
Revised BSP		3.70	3.70	3.70	3.70
BST bill	Rs. Cr.	4330	4478	4482	4598
Transmission		281	290	291	298
SLDC Charges		2.06	2.06	2.06	2.06
Total		4613	4770	4774	4898
Decrease in Power Purchase Cost		234	242	242	249
Revised Revenue Requirement		5817	6136	6252	6544
Energy Sales	MU	9399	9962	10461	10984
ABR considered	Rs./ U	5.80	5.80	5.80	5.80
Revised ABR	Rs./ U	5.80	6.09	6.00	6.00
Revised Revenue from Tariff	Rs. Cr.	5450	6066	6274	6587
Revised Revenue Gap(+) / surplus(-) (STAND ALONE)		367	70	-21	-43
Carrying Cost		-36	-3	4	2
Opening Gap(+)/Surplus(-)		-359	-29	38	21
Revenue Gap(+) / surplus(-) (CUMULATIVE) at each yr end		-29	38	21	-19

Excl. Railways:

- BSP suggested for FY 24-25 – Rs. 3.50/kWh (Reduction of 40paise/kWh- over OERC approved Rs. 3.90/kWh)
- No further change in BSP from FY 25-26 to FY 27-28 (considered same as FY 24-25)
- RST suggested for FY 24-25 - Rs. 5.83/kWh (Increase of 3% over ABR considered Rs.5.66/kWh)
- RST suggested for FY 25-26 - Rs. 6.00/kWh (Increase of 3% over ABR for FY 24-25 Rs.5.83/kWh)
- No Increase in RST suggested for FY 26-27 and FY 27-28. (ABR considered same as FY 25-26 Rs.6.00/kWh)

Table 50: Scenario 6 (Combination of Decrease in BSP & Increase in RST | Excl. Railways)

Particulars	UoM	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Total Energy Requirement	MU	10688	11025	10982	11240
BSP considered (OERC Approved)	Rs./ U	3.90	3.90	3.90	3.90
Revised BSP		3.50	3.50	3.50	3.50
BST bill	Rs. Cr.	3741	3859	3844	3934
Transmission		257	265	264	270
SLDC Charges		2.06	2.06	2.06	2.06
Total		4000	4125	4109	4206
Decrease in Power Purchase Cost		428	441	439	450
Revised Revenue Requirement		5196	5484	5580	5844
Energy Sales	MU	8383	8886	9330	9797
ABR considered	Rs./ U	5.66	5.66	5.66	5.66
Revised ABR	Rs./ U	5.83	6.00	6.00	6.00
Revised Revenue from Tariff	Rs. Cr.	4886	5335	5602	5882
Revised Revenue Gap(+) / surplus(-) (STAND ALONE)		309	149	-22	-38
Carrying Cost		-36	-9	5	4
Opening Gap(+)/Surplus(-)		-359	-86	54	37
Revenue Gap(+) / surplus(-) (CUMULATIVE) at each yr end		-86	54	37	3

4.15.3. The Hon'ble Commission is requested to suitably adjust the Revenue Gap if Railway Traction is excluded from Energy Sales.

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR, ORISSA

TPWODL

INDEX

Withdrawn as per Annexure.

ANNEXURE 1 – ENERGY SALES (MUs) (Incl. Railways)

SL No.	CATEGORY OF CONSUMERS	FY 23-24 (ARR)	FY 23-24 (Estd.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
		MU	MU	MU	MU	MU	MU
	LT CATEGORY (A.C.)						
1	DOMESTIC						
I)	Kutirjyoti<=30KWH	30.000		32.278	34.215	35.925	37.722
ii)	Others						
	0<=50 KWH	613.701		660.301	699.919	734.914	771.660
	>50<=200	827.493		890.325	943.745	990.932	1040.479
	>200<=400	314.264		338.126	358.414	376.334	395.151
	More than 400 KWH (SLAB)	328.542		353.489	374.698	393.433	413.105
	Total Domestic	**2114.000**		**2274.518**	**2410.990**	**2531.539**	**2658.116**
2	General Purpose<100 Kw						
	All Units if cons. within						
	0-100 KWH	57.256		61.603	65.299	68.564	71.993
	>100<=300	81.809		88.021	93.302	97.967	102.866
	More than 300 KWH(SLAB)	325.935		350.684	371.725	390.311	409.827
	Total General Purpose (<100kw)	**465.000**		**500.308**	**530.326**	**556.843**	**584.685**
3	Irrigation Pumping and Agriculture	449.849		484.007	513.047	538.699	565.634
4	Allied Agricultural Activities	7.200		7.747	8.212	8.622	9.053
5	Allied Agro-Industrial Activities	3.600		3.873	4.106	4.311	4.527
6	Public Lighting	45.000		48.417	51.322	53.888	56.582
7	L.T. Industrial (S) Supply	22.000		23.670	25.091	26.345	27.663
8	L.T. Industrial (M) Supply	69.000		74.239	78.694	82.628	86.760
9	Specified Public Purpose <100 kw	68.000		73.163	77.553	81.431	85.502
10	Public Water Works <100 KW	65.000		69.936	74.132	77.838	81.730
11	Public Water Works >=100 KW	5.200		5.595	5.931	6.227	6.538
12	General Purpose >=100 Kva	0.151		0.162	0.172	0.181	0.190
13	Large Industry	0					
A	**Total LT----->**	**3314.000**	**3332.370**	**3565.636**	**3779.574**	**3968.553**	**4166.980**
	HT Category						
14	Bulk Supply - Domestic	14.500		16.191	17.162	18.020	18.921
15	Irrigation Pumping and Agriculture	60.000		66.996	71.016	74.567	78.295
16	Allied Agricultural Activities	5.000		5.583	5.918	6.214	6.525
17	Allied Agro-Industrial Activities	7.200		8.040	8.522	8.948	9.395
18	Specified Public Purpose	36.000		40.198	42.610	44.740	46.977
19	General Purpose>70 Kva <110 Kva	0.100		0.112	0.118	0.124	0.130
20	General Purpose >=110 Kva	168.000		187.589	198.844	208.787	219.226
21	H.T. Industrial (M) Supply	0					
22	Public Water Works & Sweage Pumping	43.000		48.014	50.895	53.439	56.111
23	Large Industry	985.000		1099.853	1165.844	1224.136	1285.343
24	Sale through Special Tariff	15.000					
25	Power Intensive Industry	610.000		681.127	721.995	758.094	795.999
26	Mini Steel Plant	175.000		195.405	207.130	217.486	228.360
27	Railway Traction	0.000					
28	Emerg. Supply to CPP	0.000					
29	Colony Consumption	4.200		4.690	4.971	5.220	5.481
B	**Total HT ----->**	**2123.000**	**2199.810**	**2353.797**	**2495.024**	**2619.776**	**2750.765**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR ORISSA

SL No.	CATEGORY OF CONSUMERS	FY 23-24 (ARR)	FY 23-24 (Estd.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
		MU	MU	MU	MU	MU	MU
	EHT Category						
30	General Purpose	0					
31	Large Industry	350.000		420.622	445.860	468.153	491.560
32	Sale through Special Tariff	150.000					
33	Railway Traction	845.000		1015.503	1076.433	1130.254	1186.767
34	Heavy Industry	650.000		781.156	828.025	869.426	912.898
35	Power Intensive Industry *	968.500		1163.922	1233.757	1295.445	1360.218
36	Sale through TPA	2000.000					
37	Mini Steel Plant	7.500		9.013	9.554	10.032	10.533
38	Emerg. Supply to CPP	2.000		2.404	2.548	2.675	2.809
39	Colony Consumption	72.000		86.528	91.720	96.306	101.121
C	**Total EHT ------>**	**5045.000**	**5351.540**	**3479.148**	**3687.897**	**3872.292**	**4065.906**
D	**GRAND TOTAL**	**10482.000**	**10883.720**				
E	**GRAND TOTAL (Excl. TPA)**		**8783.720**	**9398.580**	**9962.495**	**10460.620**	**10983.651**
F	**Growth Considered**			**7%**	**6%**	**5%**	**5%**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

ANNEXURE 2 – ENERGY SALES (MUs) (Excl. Railways)

SL No.	CATEGORY OF CONSUMERS	FY 23-24 (ARR)	FY 23-24 (Estd.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
		MU	MU	MU	MU	MU	MU
	LT CATEGORY (A.C.)						
1	DOMESTIC						
i)	Kutiriyoti<=30KWH	30.000		32.278	34.215	35.925	37.722
ii)	Others						
	0<=50 KWH	613.701		660.301	699.919	734.914	771.660
	>50<=200	827.493		890.325	943.745	990.932	1040.479
	>200<=400	314.264		338.126	358.414	376.334	395.151
	More than 400 KWH (SLAB)	328.542		353.489	374.698	393.433	413.105
	Total Domestic	**2114.000**		**2274.518**	**2410.990**	**2531.539**	**2658.116**
2	General Purpose<100 Kw						
	All Units if cons. within						
	0-100 KWH	57.256		61.603	65.299	68.564	71.993
	>100<=300	81.809		88.021	93.302	97.967	102.866
	More than 300 KWH(SLAB)	325.935		350.684	371.725	390.311	409.827
	Total General Purpose (<100kw)	**465.000**		**500.308**	**530.326**	**556.843**	**584.685**
3	Irrigation Pumping and Agriculture	449.849		484.007	513.047	538.699	565.634
4	Allied Agricultural Activities	7.200		7.747	8.212	8.622	9.053
5	Allied Agro-Industrial Activities	3.600		3.873	4.106	4.311	4.527
6	Public Lighting	45.000		48.417	51.322	53.888	56.582
7	L.T. Industrial (S) Supply	22.000		23.670	25.091	26.345	27.663
8	L.T. Industrial (M) Supply	69.000		74.239	78.694	82.628	86.760
9	Specified Public Purpose <100 kw	68.000		73.163	77.553	81.431	85.502
10	Public Water Works <100 KW	65.000		69.936	74.132	77.838	81.730
11	Public Water Works >=100 KW	5.200		5.595	5.931	6.227	6.538
12	General Purpose >=100 Kva	0.151		0.162	0.172	0.181	0.190
13	Large Industry	0					
A	**Total LT----->**	**3314.000**	**3332.370**	**3565.636**	**3779.574**	**3968.553**	**4166.980**
	HT Category						
14	Bulk Supply - Domestic	14.500		16.191	17.162	18.020	18.921
15	Irrigation Pumping and Agriculture	60.000		66.996	71.016	74.567	78.295
16	Allied Agricultural Activities	5.000		5.583	5.918	6.214	6.525
17	Allied Agro-Industrial Activities	7.200		8.040	8.522	8.948	9.395
18	Specified Public Purpose	36.000		40.198	42.610	44.740	46.977
19	General Purpose>70 Kva <110 Kva	0.100		0.112	0.118	0.124	0.130
20	General Purpose >=110 Kva	168.000		187.589	198.844	208.787	219.226
21	H.T. Industrial (M) Supply	0					
22	Public Water Works & Sweage Pumping	43.000		48.014	50.895	53.439	56.111
23	Large Industry	985.000		1099.853	1165.844	1224.136	1285.343
24	Sale through Special Tariff	15.000					
25	Power Intensive Industry	610.000		681.127	721.995	758.094	795.999
26	Mini Steel Plant	175.000		195.405	207.130	217.486	228.360
27	Railway Traction	0.000					
28	Emerg. Supply to CPP	0.000					
29	Colony Consumption	4.200		4.690	4.971	5.220	5.481
B	**Total HT ----->**	**2123.000**	**2199.810**	**2353.797**	**2495.024**	**2619.776**	**2750.765**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

SL No.	CATEGORY OF CONSUMERS	FY 23-24 (ARR)	FY 23-24 (Estd.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
		MU	MU	MU	MU	MU	MU
	EHT Category						
30	General Purpose	0					
31	Large Industry	350.000		420.622	445.860	468.153	491.560
32	Sale through Special Tariff	150.000					
33	Railway Traction	845.000					
34	Heavy Industry	650.000		781.156	828.025	869.426	912.898
35	Power Intensive Industry *	968.500		1163.922	1233.757	1295.445	1360.218
36	Sale through TPA	2000.000					
37	Mini Steel Plant	7.500		9.013	9.554	10.032	10.533
38	Emerg. Supply to CPP	2.000		2.404	2.548	2.675	2.809
39	Colony Consumption	72.000		86.528	91.720	96.306	101.121
C	**Total EHT ----->**	**5045.000**	**5351.540**	**2463.645**	**2611.464**	**2742.037**	**2879.139**
D	**GRAND TOTAL**	**10482.000**	**10883.720**				
E	**GRAND TOTAL (Excl. TPA)**		**8783.720**	**8383.078**	**8886.063**	**9330.366**	**9796.884**
F	**Growth Considered**				**6%**	**5%**	**5%**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

ANNEXURE 3 – REVENUE (Rs. Cr.) (Incl. Railways)

SL No.	CATEGORY OF CONSUMERS	FY 22-23 (Actuals)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
		Rs./ kWh	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.
	LT CATEGORY (A.C.)					
1	**Total Domestic**	**4.74**	**1078.86**	**1143.59**	**1200.77**	**1260.81**
2	**Total General Purpose (<100kw)**	**7.45**	**372.65**	**395.01**	**414.76**	**435.50**
3	Irrigation Pumping and Agriculture	1.16	56.24	59.61	62.59	65.72
4	Allied Agricultural Activities	1.72	1.33	1.41	1.48	1.56
5	Allied Agro-Industrial Activities	5.49	2.13	2.25	2.37	2.48
6	Public Lighting	7.22	34.97	37.07	38.92	40.87
7	L.T. Industrial (S) Supply	7.20	17.05	18.07	18.98	19.93
8	L.T. Industrial (M) Supply	8.00	59.42	62.98	66.13	69.44
9	Specified Public Purpose <100 kw	6.67	48.77	51.70	54.28	57.00
10	Public Water Works <100 KW	7.64	53.43	56.63	59.46	62.44
11	Public Water Works >=100 KW	8.81	4.93	5.23	5.49	5.76
12	General Purpose >=100 Kva	10.37	0.17	0.18	0.19	0.20
13	Large Industry					
A	**Total LT----->**	**4.85**	**1729.94**	**1833.74**	**1925.42**	**2021.69**
	HT Category					
14	Bulk Supply - Domestic	5.04	8.16	8.65	9.08	9.53
15	Irrigation Pumping and Agriculture	4.01	26.84	28.45	29.88	31.37
16	Allied Agricultural Activities	1.63	0.91	0.97	1.01	1.06
17	Allied Agro-Industrial Activities	5.17	4.15	4.40	4.62	4.85
18	Specified Public Purpose	8.50	34.18	36.23	38.04	39.95
19	General Purpose>70 Kva <110 Kva	7.43	0.08	0.09	0.09	0.10
20	General Purpose >=110 Kva	7.08	132.75	140.71	147.75	155.14
21	H.T. Industrial (M) Supply					
22	Public Water Works & Sweage Pumping	7.31	35.12	37.22	39.08	41.04
23	Large Industry	6.41	705.19	747.50	784.88	824.12
24	Sale through Special Tariff					
25	Power Intensive Industry	5.74	391.08	414.55	435.27	457.04
26	Mini Steel Plant	5.62	109.78	116.37	122.19	128.29
27	Railway Traction					
28	Emerg. Supply to CPP					
29	Colony Consumption	4.90	2.30	2.44	2.56	2.69
B	**Total HT ----->**	**6.16**	**1450.55**	**1537.58**	**1614.46**	**1695.18**
	EHT Category					
30	General Purpose					
31	Large Industry	6.10	256.44	271.83	285.42	299.69
32	Sale through Special Tariff					
33	Railway Traction	6.95	705.82	748.17	785.58	824.86
34	Heavy Industry	7.58	591.78	627.28	658.65	691.58
35	Power Intensive Industry	5.80	674.97	715.47	751.24	788.81
36	Sale through TPA					
37	Mini Steel Plant	7.63	6.88	7.29	7.66	8.04
38	Emerg. Supply to CPP	11.91	2.86	3.03	3.19	3.34
39	Colony Consumption	3.55	30.69	32.53	34.15	35.86
C	**Total EHT ----->**	**6.52**	**2269.44**	**2405.80**	**2525.88**	**2652.18**
D	**GRAND TOTAL**	**5.80**	**5449.92**	**5776.92**	**6065.77**	**6369.05**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

ANNEXURE 4 – REVENUE (Rs. Cr.) (Excl. Railways)

SL. No.	CATEGORY OF CONSUMERS	FY 22-23 (Actuals)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
		Rs./ kWh	Rs. Cr.	Rs. Cr.	Rs. Cr.	Rs. Cr.
	LT CATEGORY (A.C.)					
1	Total Domestic	4.74	1078.86	1143.59	1200.77	1260.81
2	Total General Purpose (<100kw)	7.45	372.65	395.01	414.76	435.50
3	Irrigation Pumping and Agriculture	1.16	56.24	59.61	62.59	65.72
4	Allied Agricultural Activities	1.72	1.33	1.41	1.48	1.56
5	Allied Agro-Industrial Activities	5.49	2.13	2.25	2.37	2.48
6	Public Lighting	7.22	34.97	37.07	38.92	40.87
7	L.T. Industrial (S) Supply	7.20	17.05	18.07	18.98	19.93
8	L.T. Industrial (M) Supply	8.00	59.42	62.98	66.13	69.44
9	Specified Public Purpose <100 kw	6.67	48.77	51.70	54.28	57.00
10	Public Water Works <100 KW	7.64	53.43	56.63	59.46	62.44
11	Public Water Works >=100 KW	8.81	4.93	5.23	5.49	5.76
12	General Purpose >=100 Kva	10.37	0.17	0.18	0.19	0.20
13	Large Industry					
A	Total LT----->	4.85	1729.94	1833.74	1925.42	2021.69
	HT Category					
14	Bulk Supply - Domestic	5.04	8.16	8.65	9.08	9.53
15	Irrigation Pumping and Agriculture	4.01	26.84	28.45	29.88	31.37
16	Allied Agricultural Activities	1.63	0.91	0.97	1.01	1.06
17	Allied Agro-Industrial Activities	5.17	4.15	4.40	4.62	4.85
18	Specified Public Purpose	8.50	34.18	36.23	38.04	39.95
19	General Purpose>70 Kva <110 Kva	7.43	0.08	0.09	0.09	0.10
20	General Purpose >=110 Kva	7.08	132.75	140.71	147.75	155.14
21	H.T. Industrial (M) Supply					
22	Public Water Works & Sweage Pumping	7.31	35.12	37.22	39.08	41.04
23	Large Industry	6.41	705.19	747.50	784.88	824.12
24	Sale through Special Tariff					
25	Power Intensive Industry	5.74	391.08	414.55	435.27	457.04
26	Mini Steel Plant	5.62	109.78	116.37	122.19	128.29
27	Railway Traction					
28	Emerg. Supply to CPP					
29	Colony Consumption	4.90	2.30	2.44	2.56	2.69
B	Total HT ----->	6.16	1450.55	1537.58	1614.46	1695.18
	EHT Category					
30	General Purpose					
31	Large Industry	6.10	256.44	271.83	285.42	299.69
32	Sale through Special Tariff					
33	Railway Traction	6.95				
34	Heavy Industry	7.58	591.78	627.28	658.65	691.58
35	Power Intensive Industry	5.80	674.97	715.47	751.24	788.81
36	Sale through TPA					
37	Mini Steel Plant	7.63	6.88	7.29	7.66	8.04
38	Emerg. Supply to CPP	11.91	2.86	3.03	3.19	3.34
39	Colony Consumption	3.55	30.69	32.53	34.15	35.86
C	Total EHT ----->	6.35	1563.62	1657.44	1740.31	1827.32
D	GRAND TOTAL	5.66	4744.10	5028.75	5280.19	5544.20

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR, ORISSA

ANNEXURE 5 – ENERGY REQUIREMENT (MUs) & POWER PURCHASE COST (Rs. Cr.) (Incl. Railways)

S. No.	Particulars	UoM	FY 23-24 (Estd.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
1	Energy Sales	MU	8783.720	9398.580	9962.495	10460.620	10983.651
2	AT&C Loss (Vesting Order)	%	18.90%	20.50%	18.50%	14.50%	12.50%
3	Collection Efficiency	%	99%	99%	99%	99%	99%
4	T&D Loss	%	18.08%	19.70%	17.68%	13.64%	11.62%
5	**Energy Requirement**	MU	**13286**	**11704**	**12102**	**12112**	**12427**
6	BSP Bill (@390 p/u)	Rs. Cr.	5207.53	4564.52	4719.66	4723.80	4846.61
7	Transmission Charges (@24 p/u)	Rs. Cr.	318.86	280.89	290.44	290.70	298.25
8	SLDC Charges (@Rs.17.138 Lakhs/ month)	Rs. Cr.	2.06	2.06	2.06	2.06	2.06
9	**Total Power Purchase Cost**	**Rs. Cr.**	**5528.45**	**4847.47**	**5012.15**	**5016.55**	**5146.92**
10	Rate of power purchase (Incl. Transmission charges)	Rs./ kWh	4.16	4.14	4.14	4.14	4.14

ANNEXURE 6 – ENERGY REQUIREMENT (MUs) & POWER PURCHASE COST (Rs. Cr.) (Excl. Railways)

S. No.	Particulars	UoM	FY 23-24 (Estd.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
1	Energy Sales	MU	8783.720	9398.580	9962.495	10460.620	10983.651
2	Energy Requirement (Incl. Railways)	MU	13286	11704	12102	12112	12427
3	Railway Sales	MU		1016	1076	1130	1187
4	**Energy Requirement (Excl. Railways)**	**MU**		**10688**	**11025**	**10982**	**11240**
5	T&D Loss	%	18.08%	21.57%	19.40%	15.04%	12.84%
6	Collection Efficiency	%	99%	99%	99%	99%	99%
7	AT&C Loss (Vesting Order)	%	18.90%	22.35%	20.21%	15.89%	13.71%
6	BSP Bill (@390 p/u)	Rs. Cr.	5207.53	4168.47	4299.85	4283.00	4383.78
7	Transmission Charges (@24 p/u)	Rs. Cr.	318.86	256.52	264.61	263.57	269.77
8	SLDC Charges (@Rs.17.138 Lakhs/ month)	Rs. Cr.	2.06	2.06	2.06	2.06	2.06
9	**Total Power Purchase Cost**	**Rs. Cr.**	**5528.45**	**4427.05**	**4566.51**	**4548.62**	**4655.60**
10	Rate of power purchase (Incl. Transmission charges)	Rs./ kWh	4.16	4.14	4.14	4.14	4.14

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

ANNEXURE 7 – EMPLOYEE EXPENSES (Rs. Cr.)

Particulars (Rs. Cr.)	FY 2024-25			FY 2025-26			FY 2026-27			FY 2027-28		
	CTC	Erstwhile WESCO	Total	CTC	Erstwhile WESCO	Total	CTC	Erstwhile WESCO	Total	CTC	Erstwhile WESCO	Total
Basic Pay + Grade Pay		109.25	109.25		112.23	112.23		115.30	115.30		118.53	118.53
Dearness Allowance		59.00	59.00		69.58	69.58		80.71	80.71		92.45	92.45
Reimbursement of House Rent		19.67	19.67		20.20	20.20		20.75	20.75		21.33	21.33
Other Allowance		2.19	2.19		2.25	2.25		2.31	2.31		2.37	2.37
Bonus		0.36	0.36		0.37	0.37		0.38	0.38		0.39	0.39
Subtotal	**0.00**	**190.46**	**190.46**	**0.00**	**204.64**	**204.64**	**0.00**	**219.45**	**219.45**	**0.00**	**235.08**	**235.08**
ADDITIONAL EMPLOYEE COST												
Contractual Obligation		40.18	40.18		41.39	41.39		42.63	42.63		43.91	43.91
Additional employee cost-CTC	153.23		153.23	180.59		180.59	207.48		207.48	237.89		237.89
Total additional Employee cost	**153.23**	**40.18**	**193.41**	**180.59**	**41.39**	**221.98**	**207.48**	**42.63**	**250.11**	**237.89**	**43.91**	**281.80**
OTHER STAFF COST												
Reimbursement of Medical Expenses		5.46	5.46		5.61	5.61		5.76	5.76		5.93	5.93
Leave Travel Concession/ UL		1.10	1.10		1.14	1.14		1.17	1.17		1.20	1.20
Honorarium		0.52	0.52		0.53	0.53		0.55	0.55		0.56	0.56
Payment under Workmen compensation Act		0.10	0.10		0.11	0.11		0.11	0.11		0.11	0.11
Ex-gratia/Incentive		6.70	6.70		6.90	6.90		7.10	7.10		7.32	7.32
Miscellaneous		6.18	6.18		6.37	6.37		6.56	6.56		6.75	6.75
Total of other staff cost	**0.00**	**20.06**	**20.06**	**0.00**	**20.64**	**20.64**	**0.00**	**21.25**	**21.25**	**0.00**	**21.87**	**21.87**
Staff Welfare Expenses		10.68	10.68		11.00	11.00		11.33	11.33		11.67	11.67
Terminal Benefits		211.57	211.57		217.92	217.92		224.46	224.46		231.19	231.19
Total	**153.23**	**472.95**	**626.18**	**180.59**	**495.59**	**676.18**	**207.48**	**519.11**	**726.59**	**237.89**	**543.72**	**781.61**
Less:-Employee cost Capitalised	2.71	11.49	14.21	2.42	10.25	12.68	1.51	6.40	7.91	1.66	7.03	8.69
Net Employee Cost	**150.51**	**461.46**	**611.97**	**178.17**	**485.34**	**663.50**	**205.97**	**512.72**	**718.68**	**236.23**	**536.69**	**772.93**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR:ORISSA

Explained & remarks.

ANNEXURE 8 – REPAIR & MAINTENANCE EXPENSES (Rs. Cr.)

Particulars (Rs. Cr.)	FY 23-24 (Estd.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Opening GFA for DISCOM Owned Assets	2667.64	3445.66	4055.46	4573.54	5258.73
Approved % (As per New Regulation, 2022)	4.50%	4.20%	4.00%	3.00%	3.00%
R&M Expenses for DISCOM Owned Assets	120.04	144.72	162.22	137.21	157.76
Opening GFA for Govt. Owned Assets maintained by DISCOM	3398.17	4298.51	5198.51	5898.51	6336.51
Approved % (As per New Regulation, 2022)	3.00%	3.00%	3.00%	3.00%	3.00%
R&M Expenses for Govt. Owned Assets maintained by DISCOM	101.95	128.96	155.96	176.96	190.10
Total R&M Expenses	**221.99**	**273.67**	**318.17**	**314.16**	**347.86**
Add: Addnl. R&M Expenses	60.00	50.00	40.00	30.00	20.00
Grand Total R&M Expenses	**281.99**	**323.67**	**358.17**	**344.16**	**367.86**

ANNEXURE 9 – ADMINISTRATIVE & GENERAL EXPENSES (Rs. Cr.)

Particulars (Rs. Cr.)	FY 23-24 (Estd.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
PROPERTY RELATED EXPENSES					
Licence Fees	1.21	1.29	1.38	1.48	1.58
Rent	3.07	3.29	3.52	3.77	4.03
Rates & Taxes including inspection fee	0.13	0.14	0.15	0.16	0.17
Insurance	4.43	4.74	5.07	5.42	5.80
Sub-total:	**8.84**	**9.46**	**10.12**	**10.83**	**11.58**
COMMUNICATION					
Telephone & Trunk Call	1.03	1.11	1.18	1.27	1.36
Postage & Telegram	0.19	0.20	0.22	0.23	0.25
Sub-total:	**1.22**	**1.31**	**1.40**	**1.50**	**1.61**
PROFESSIONAL CHARGES					
Legal expenses	0.54	0.58	0.62	0.67	0.71
Consultancy/ Retainer charges	5.12	5.47	5.86	6.27	6.71
Collection cost through agencies	33.85	36.21	38.75	41.46	44.36
Audit fees and expenses	1.24	1.32	1.42	1.52	1.62
Other Professional charges	3.07	3.28	3.51	3.76	4.02
Sub-total:	**43.81**	**46.88**	**50.16**	**53.67**	**57.43**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR (ORISSA)

Particulars (Rs. Cr.)	FY 23-24 (Estd.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
CONVEYANCE & TRAVELLING					
Conveyance expenses	0.25	0.27	0.29	0.31	0.33
Travelling expenses	5.14	5.50	5.88	6.29	6.73
Hire charges of vehicle	6.26	6.70	7.17	7.67	8.20
Sub-total:	**11.65**	**12.46**	**13.33**	**14.27**	**15.26**
OTHER EXPENSES					
Fees & Subscription	0.16	0.17	0.18	0.19	0.21
Books & Periodicals	0.01	0.01	0.01	0.01	0.01
Printing & Stationery	0.74	0.79	0.84	0.90	0.97
Advertisement	1.44	1.54	1.65	1.76	1.89
Meeting Expenses	0.12	0.12	0.13	0.14	0.15
Housekeeping	2.15	2.30	2.46	2.63	2.81
Electricity Charges	3.42	3.65	3.91	4.18	4.48
Vigilance activity for rev imp	2.53	2.71	2.90	3.10	3.32
Customer care & call Centre	0.51	0.55	0.58	0.63	0.67
Miscellaneous	1.02	1.09	1.17	1.25	1.34
MBC	37.19	39.80	42.58	45.56	48.75
Training	0.42	0.45	0.49	0.52	0.56
Sub-total:	**49.70**	**53.18**	**56.90**	**60.88**	**65.14**
MATERIAL RELATED EXPENSES					
Clearing & forwarding charges	2.90	3.11	3.33	3.56	3.81
Sub-total:	**2.90**	**3.11**	**3.33**	**3.56**	**3.81**
TOTAL	**118.12**	**126.39**	**135.24**	**144.70**	**154.83**
Add: Additional A&G Expenses	**40.00**	**50.00**	**50.00**	**50.00**	**50.00**
TOTAL A&G Expenses	**158.12**	**176.39**	**185.24**	**194.70**	**204.83**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/9a
SAMBALPUR: ORISSA

ANNEXURE 10 – PROVISIONS FOR BAD & DOUBTFIL DEBTS (Rs. Cr.) (Incl. Railways)

Particulars (Rs. Cr.)	FY 23-24 (Estd.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Annual revenue billed for sale of electricity	6251.99	5449.92	5776.92	6065.77	6369.05
Norm	1%	1%	1%	1%	1%
Bad and Doubtful debt	**62.52**	**54.50**	**57.77**	**60.66**	**63.69**

ANNEXURE 11 – PROVISIONS FOR BAD & DOUBTFIL DEBTS (Rs. Cr.) (Excl. Railways)

Particulars (Rs. Cr.)	FY 23-24 (Estd.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Annual revenue billed for sale of electricity	6251.99	4744.10	5028.75	5280.19	5544.20
Norm	1%	1%	1%	1%	1%
Bad and Doubtful debt	**62.52**	**47.44**	**50.29**	**52.80**	**55.44**

ANNEXURE 12 – DEPRECIATION (Rs. Cr.)

Particulars (Rs. Cr.)	INHERITED ASSETS	FY 24-25		FY 25-26		FY 26-27		FY 27-28	
		TPWODL	Total	TPWODL	Total	TPWODL	Total	TPWODL	Total
Land	-	-	-	-	-	-	-	-	-
Buildings	**0.29**	0.99	1.27	0.99	1.27	0.99	1.27	0.99	1.27
Network assets	23.68	58.623	8230	83.99	107.67	111.11	134.79	142.04	165.72
Overhead lines	49.94	17.58	67.52	17.58	67.52	17.58	67.52	17.58	67.52
F&F	0.09	0.33	0.42	0.43	0.52	0.53	0.63	0.64	0.73
Vehicles	0.06	0.42	0.49	0.53	0.59	0.63	0.70	0.74	0.81
O/E	0.22	0.69	0.91	0.74	0.96	0.80	1.02	0.86	1.08
O&E-Computer	0.45	9.31	9.76	11.15	11.61	13.01	13.47	14.89	15.34
Software	-	13.01	13.01	14.46	14.46	15.95	15.95	17.46	17.46
Total	**74.73**	**100.95**	**175.68**	**129.87**	**204.60**	**160.60**	**235.33**	**195.20**	**269.93**
Less: Depreciation on Consumer Contribution Assets	47.09	25.70	72.79	30.50	77.59	35.50	82.59	40.50	87.59
Net Depreciation			**102.89**		**127.01**		**152.74**		**182.34**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

ANNEXURE 13 – INTEREST & FINANCE CHARGES (Rs. Cr.)

a) Interest on CAPEX Loans

Particulars (Rs. Cr.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Rate of interest	9.00%	9.00%	9.00%	9.00%
Opening Balance	699.81	820.97	889.18	1096.08
Additions	261.12	232.40	384.73	389.28
Repayment	139.96	164.19	177.84	219.22
Closing Balance	820.97	889.18	1096.08	1266.14
Interest on OB	62.98	73.89	80.03	98.65
Interest on Addition	7.83	6.97	11.54	11.68
CAPEX Interest	**70.82**	**80.86**	**91.57**	**110.33**

b) Interest on Security Deposits

Particulars (Rs. Cr.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Opening SD	1106.51	1146.68	1188.06	1230.68
Addition during the period	66.95	68.96	71.03	73.16
Repayment of SD	27	28	28	29
Closing SD	1146.68	1188.06	1230.68	1274.57
Rate of Interest	6.75%	6.75%	6.75%	6.75%
Interest on OB	74.69	77.40	80.19	83.07
SECURITY DEPOSIT Interest	**74.69**	**77.40**	**80.19**	**83.07**

c) Interest on Working Capital

Particulars (Rs. Cr.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
O&M Expenses	1099.49	1191.68	1236.33	1323.88
O&M Expenses for 1 month	91.62	99.31	103.03	110.32
R&M Expenses	323.67	358.17	344.16	367.86
Maintenance spares @ 20% of average R&M expenses for 1 month	5.39	5.97	5.74	6.13
Power Purchase Cost	4564.52	4719.66	4723.80	4846.61
Power Purchase Cost for 1 month	380.38	393.30	393.65	403.88
Working Capital	**477.40**	**498.58**	**502.41**	**520.34**
Rate of Interest	11.50%	11.50%	11.50%	11.50%
WORKING CAPITAL Interest	**54.90**	**57.34**	**57.78**	**59.84**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA

ANNEXURE 14 – RETURN ON EQUITY (Rs. Cr.)

Particulars (Rs. Cr.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Equity as on 31st March	440.06	489.82	534.10	607.42
Equity Contribution (Less: GRIDCO Contribution)	49.76	44.29	73.31	74.18
Total Equity Base	**489.82**	**534.10**	**607.42**	**681.60**
RoE (%)	16%	16%	16%	16%
RoE	**70.41**	**78.37**	**85.46**	**97.19**
Tax Rate (%)	25.17%	25.17%	25.17%	25.17%
Grossed up RoE (Incl. Tax)	**94.09**	**104.73**	**114.20**	**129.88**

ANNEXURE 15 – NON-TARIFF INCOME (Rs. Cr.)

Particulars (Rs. Cr.)	FY 23-24 (Estd.)	FY 24-25 (Proj.)	FY 25-26 (Proj.)	FY 26-27 (Proj.)	FY 27-28 (Proj.)
Power Purchase Rebate	51.00	48.47	50.12	50.17	51.47
Meter Rent	-	-	-	-	-
ODP/ DPS	11.66	12.24	12.86	13.50	14.17
Reliability	-	-	-	-	-
Supervision Charges	6.67	7.00	7.35	7.72	8.10
Misc.	15.00	15.75	16.54	17.36	18.23
FD Interest	56.00	58.80	61.74	64.83	68.07
Sale of Scrap	10.00	6.50	6.03	4.58	2.16
Income from CSS	250.00	204.00	185.00	167.00	155.00
Total	**400.33**	**352.77**	**339.63**	**325.15**	**317.21**

PART OF AFFIDAVIT
NOTARY
Regd. No. ON 23/94
SAMBALPUR: ORISSA