ANNUAL ENERGY AUDIT REPORT

OF TP NORTHERN ODISHA DISTRIBUTION LIMITED(TPNODL)

[DC Registration No.-DIS0038OD]

Submitted to:

TP NORTHERN ODISHA DISTRIBUTION LIMITED

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Conducted by

M/s Zenith Energy Services Private Limited,

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July – 2023

TPNODL

To,

The Secretary,

4th Floor, Sewa Bhawan,

R.K. Puram, New Delhi-110066

Ref: TPNODL/EA/BEE/2023-24/02

Dated: 31.07.2023

Subject: Submission of Annual Energy Audit Report and Energy Accounting Pro-forma of TP Northern Odisha Distribution LTD. for the FY 2022-23

Sir,

This is with reference to the Annual Energy Audit Report and Energy Accounting Report compliance, the TP Northern Odisha Distribution LTD. report for the FY 2022-23 (Apr'2022-Mar'2023) is submitted in the specified Pro-forma.

The duly signed copy is attached for your reference please. The hard copy is being sent separately.

Kindly acknowledge the same.

Thanks and Warm Regards

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Zenith Energy Services (P) Ltd., HYD.

TP NORTHERN ODISHA DISTRIBUTION LIMITED
(A Tata Power and Odisha Government Joint Venture)

TABLE OF CONTENTS

ABBREVIATIONS

AMI	:	Advanced Metering Infrastructure
AMR	:	Automated Meter Reading
AT & C	:	Aggregate Technical and Commercial
BEE	:	Bureau of Energy Efficiency
CKT	:	Circuit Kilometer
CT	:	Current Transformer
DC	:	Designated Consumer
DISCOM	:	Electricity Distribution Company
DT	:	Distribution Transformer
EA	:	Energy Auditor
EHT	:	Extra High Tension
EHV	:	Extra High Voltage
EM	:	Energy Manager
FY	:	Financial Year
HT	:	High Tension
HVDS	:	High Voltage Distribution System
KVA	:	Kilo Volt Ampere
LT	:	Low Tension
MoP	:	Ministry of Power
MU	:	Million Unit
MW	:	Mega Watt
NO	:	Nodal Officer
OA	:	Open Access
POC	:	Point of Connection
PT	:	Potential Transformer
PVC	:	Polyvinyl Chloride
PX	:	Power Exchange
RE	:	Renewable Energy
RLDC	:	Regional Load Dispatch Centre
SDA	:	State Designated Agency
SLD	:	Single Line Diagram
SLDC	:	State Load Dispatch Centre
T&D	:	Transmission and Distribution
TPNODL	:	Tata Power Northern Odisha Distribution Limited
XLPE	:	Cross-linked Polyethylene

ACKNOWLEDGEMENT

Zenith Energy Services (Private) Limited places on record its sincere thanks to management of TP Northern Odisha Distribution Limited (TPNODL) for entrusting the task of conducting Energy Audit of TPNODL.

ZESPL acknowledges with gratitude the wholehearted support and co-operation extended by Mr. Bhaskar Sarkar, CEO, TPNODL, Mr. Dushyant Kumar Tyagi (Chief-Commercial Services & CSR), Mr. Manish Kriplani (HoG-Energy Audit), Mr. Rakesh Singh (EM), Mr. Rahul Shukla (TL Energy Audit), Mr. Amit Kumar (HoG OT), Mr. Raja Banik (TL Finance) while carrying out the study at TPNODL.

ZESPL sincerely thanks to all the officials and staff members of TPNODL who have rendered their all-possible cooperation and assistance to the audit team during the entire period of the audit.

AUDIT TEAM DETAILS

The following team members of M/s. Zenith Energy Services Private Limited were involved in the Annual Energy Audit of TPNODL for FY 2022-23.

Sl. No.	Organization	Team Member	Designation	Role
1	Zenith Energy Services (Private Limited)	Mr.R.Gopala Krishna	Sr. Consultant Accredited Energy Auditor Regd. No. –AEA-0123	Project Head, Review of Data and Report
2		Mr. D S R Krishna	Head (Energy Efficiency)	Inspection, Review of Data & Report
3		Mr L.Radha Krishna	Sector Expert	Field Visit, Verification of Data and Report
4		Mr Ch Sai Shankar	Senior Energy Engineer	Field Visit, Compilation of Data and Report
5		Sri Sreenivasulu Gandla	DISCOM Expert and Energy Auditor EA-9755	Data Verification and Report Preparation

CERTIFICATE

We certify the following:

- The data collection has been carried out diligently and truthfully.
- All data measuring devices used by the auditor are in good working condition, have been calibrated and have valid certificates from the authorized approved agencies and tampering of such devices has not occurred.
- All reasonable professional skill, care and diligence had been taken in preparing the energy audit report and the contents thereof are a true representation of the facts.
- Adequate training provided to personnel involved in daily operations for implementation of recommendations.
- The energy audit has been carried out in accordance with the BEE (Manner and Intervals for Conduct of Energy Audit in electricity distribution companies) Regulations, 2021.

1.0 EXECUTIVE SUMMARY

TP Northern Odisha Distribution Limited (TPNODL) is a joint venture of Tata Power (51%) and Govt. of Odisha (49%) on the Public-Private Partnership (PPP) model. TPNODL licensed area is spread over geography of 27920 Sq.Km and serves a registered consumer base of 2.05 million. TPNODL has been carrying out the business of Distribution and Retail Supply Licensee. TPNODL has been carrying out the business of distribution and retail supply of electricity in the 5 districts of Odisha namely; Balasore, Bhadrak, Jajpur, Keonjhar and Mayurbhanj. The Company is operating through 5 Circles, 16 Divisions, 50 Subdivisions, 159 Sections with a Corporate Office based at Balasore. The business of TPNODL utility is governed by the provisions of license issued by Hon'ble Odisha Electricity Regulatory Commission (OERC) for business of distribution and retail supply of electricity in Northern Odisha.

TPNODL receives electrical power at 33kV level from 29 numbers of Grid Sub stations (GSS) and 9 nos. of Switching Stations located within the vicinity of TPNODL operational area. TPNODL distributes the power at 33kV / 11kV / 415V / 230V depending on the demand of the consumers.

Fact sheet of TPNODL:

The Fact sheet of TPNODL is furnished below.

Supply Area	27920 Sq.Km
Maximum Demand	1154.65 MVA
Power Transformer Installed Capacity	2615.8 MVA
No. of Distribution Transformer (DTs)	74726
Distribution Transformer (DT) Installed Capacity	2787 MVA
HT Mains-33 kV	3024 Ckt. KMs
HT Mains-11 kV	40188.5 Ckt. KMs
LT Mains	67486.44Ckt. KMs
Length of Aerial Bunched Cables	44786.44 KMs
Length of Under Ground Cables	401 KMs
Nos. of 33 kV Feeders	108
Nos. of 11 kV Feeders	825
Nos. of 33/11 kV Sub Station	236
Nos. of Power Transformers	550

The Energy and Performance Fact Sheet of TPNODL for the last 2 financial years is furnished below:

PARTICULARS	FY 21-22	FY 22-23
Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded) in MU	5327.04	6473.32
Total Sale (MU)	4346.99	5410.05
% of T&D Losses	18.40%	16.43%
T & D Loss (MU)	980.05	1063.27
Billing Efficiency (%)	81.60%	83.57%
Billing to Consumers (Rs. in Cr.)	2560.14	3203.91
Collection Received (Rs. in Cr.)	2411.66	3397.92
Collection Efficiency (%)	94.20%	106.06%
AT& C Loss (%)	23.13%	11.36%

Metering Status of TPNODL:

Category	FY 2021-22			FY 2022-23		
	Total	No. of Metering Completed	% of Metering Completed	Total	No. of Metering Completed	% of Metering Completed
33 kV Feeders	98	98	100%	108	108	100%
11 kV Feeders	797	545	68.38%	825	825	100%
Distribution Transformers	72323	2208	3.05%	74726	2883	3.85%
Consumers	2089083	2010760	96.25%	2041588	1999017	97.91%

Abstract of Energy Bill Served by GRIDCO to TPNODL:

Sl.No.	Month	SMD Approved by OERC(kVA)	SMD Permitted by OERC(kVA)	Actual SMD (kVA)	Total Energy Billed (MU)	Total Energy Sale (MU)	LOSS (%)	Total Energy Billed as per OERC (MU)	Total Energy Sale as per OERC (MU)	LOSS (%) As per OERC
1	Apr-22	11,50,000	12,65, 000	11,22,526	552.103	427.016	22.66	551.981	427.016	22.66
2	May-22	11,50,000	12,65, 000	10,51,347	547.362	425.935	22.18	547.228	425.935	22.18
3	Jun-22	11,50,000	12,65, 000	11,54,650	566.214	489.565	13.54	566.183	489.565	13.54
4	Jul-22	11,50,000	12,65, 000	11,58,898	546.623	428.311	21.64	546.623	428.311	21.64
5	Aug-22	11,50,000	12,65, 000	10,55,120	561.813	485.385	13.60	561.812	485.385	13.60
6	Sep-22	11,50,000	12,65, 000	11,05,519	568.748	432.97	23.87	568.730	432.97	23.87
7	Oct-22	11,50,000	12,65, 000	10,01,333	555.275	490.661	11.64	555.161	490.661	11.64
8	Nov-22	11,50,000	12,65, 000	10.41,264	485.779	456.25	6.08	485.761	456.25	6.08
9	Dec-22	11,50,000	12,65, 000	10.61,664	492.153	423.962	13.86	492.100	423.962	13.86
10	Jan-23	11,50,000	12,65, 000	9,67,918	512.859	432.46	16.07	512.487	432.46	16.07
11	Feb-23	11,50,000	12,65, 000	9,99,265	501.359	430.562	14.12	501.191	430.562	14.12
12	Mar-23	11,50,000	12,65, 000	10,88,962	583.035	486.975	16.48	582.578	486.975	16.48
TOTAL		**1,38,00,000**	**1,51,80,000**	**96,00,019**	**6,473.32**	**5,410.05**	**16.43%**	**6,471.84**	**5,410.05**	**16.43%**

Note: GRIDCO is raising the invoice for the Total Energy Charges (Including the generator injection) for the TPNODL, while the OPTCL is raising the invoice for Transmission charges (Excluding the generator injection) to the TPNODL. Hence, the gap between GRIDCO & OPTCL Energy is on account of the Generator injection energy.

CALCULATION OF PAYBACK PERIOD:

Approved sale of TPNODL as approved by commission for FY 2022-23= 5410.05 MUCalculated

T&D Loss of TPNODL for FY 2022-23= 16.43 %

Target T&D Loss as approved by Hon'ble OERC for FY 2022-23 = 18.35%

So, Targeted Annual Energy Savings in Mus (wrt. FY2021-22) = 5410.05*(18.35-16.43) = 103.87 MUs

Approved Bulk Supply Price of GRIDCO for FY 2022-23= 3.21 per Unit

Approved Transmission Tariff of OPTCL for FY 2022-23= 0.28 per Unit

Hence financial saving of TPNODL due to T&D loss reduction= (3.21+0.28) *103.87/10=36.25 Crores

Total investment approved by Hon'ble OERC for T&D Loss = 326.54 Crores

Simple Payback period = TOTAL INVESTMENT / SAVINGS = 326.54/36.25= 9 Years

SYSTEM ADEQUACY & NETWORK PLANNING FOR LOAD GROWTH OF TPNODL:

Since the present network is overloaded and due to increase in the consumer base of EHT and HT network TPNODL proposed to undertake the following projects and the estimate cost is shown against each project.

Major Category	Activity	Amount (in Cr.)
Load Growth	Augmentation Power Transformers	4.98
	Augmentation of Distribution Transformers	20.81
	Addition of LT lines	13.66
	Addition of 11 kV Lines (O/H and U/G)	16.98
	Addition of 33 kV Overhead Lines (O/H and U/G)	10.87
	Addition of New PTR and New DTRs along with Associated HT/LT lines	15.58
	Provision for Nua Balasore Project	10.00
	Total	**92.88**

Major Category	Activity	Amount (in Cr.)
Statutory & Safety	Fencing of Distribution substations	2.34
	Boundary wall for Primary substations	3.96
	Development of training infrastructure for safety & strengthening of LOTO system	3.05
	Total	**9.35**

Major Category	Activity	Amount (in Cr.)
Loss Reduction	Installation of AMR meters at Distribution transformers.	4.50
	Conversion of LT Bare conductor to AB Cable	4.93
	Meters and metering equipment for energy audit	1.19
	Equipment for Meter data downloading	0.46
	Equipment for AMR enablement of 3 phase consumer meters	0.45
	Field Testing equipment - Metering (Portable Calibrator)	1.00
	Total	**12.53**

Major Category	Activity	Amount (in Cr.)
Disaster Mitigation	Conversion of 2nos PSS from AIS to GIS	20.40
	Conversion pole mounted DTR to plinth mounted (100 KVA and above)	3.52
	Height enhancement of the lines at river crossing	4.50
	Strengthening of poles in the cyclone prone area	2.40
	Trolley Mounted Pad Substations	1.17
	Overhead to Underground conversion for Major City	20.00
	Emergency Preparedness (Life boat and other emergency accessories)	1.80
	Total	**53.79**

Major Category	Activity	Amount (in Cr.)
Technology & Civil Infrastructure	DC Hardware	10.33
	Software Licenses for IT Application	12.66
	End computing devices	8.96
	Cyber Security	1.20
	Automation of non ODSSP PSS	7.66
	SCADA-ADMS	9.05
	GIS Software Implementation and Land Base & Network Survey & Digitization for Balasore & Jajpur Circle	17.94
	Total	**67.80**

Major Category	Activity	Amount (in Cr.)
Reliability	Refurbishment of 33KV/11KV Primary Substation (PSS)	10.00
	33 KV Conductor up gradation	11.20
	11 KV Conductor up gradation	8.80
	Refurbishment of 11KV/0.415 KV Distribution Substation (DSS)	2.40
	Installation of LV protection at DSS	5.54
	Installation of Auto reclosure / Sectionalizes ,RMUs, &FPIs	10.60
	33KVand 11 Kv Voltage Regulators for voltage improvement	4.20
	LT FLC System - Vehicle Fitted (5 Nos. -- 1 for each circle) + Power Analyser for Transformer workshop (2 Nos.) +Ultrasound Scanner (5 Nos. -- 1 for each circle)	3.52
	Installation of station transformers (PPS)	2.55
	Capacitor Bank at PSS for low voltage improvement	0.88
	Earthing of Power Transformers and Distribution Transformers	0.49
	Total	**60.18**

The present annual energy audit is conducted in compliance with BEE (Manner and Intervals for Conduct of Energy Audit in electricity distribution companies), Regulations 2021 by Zenith Energy Services (Private Limited).

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2.0 SUMMARY OF ANALYSIS, OBSERVATIONS AND RECOMMENDATIONS:

1. It was observed that quantum of losses pertaining to Bhadrak circle increased from 178.62 MU during 2021-22 to 199.45 MU during 2022-23. TPNODL should take necessary action to investigate the root cause for increase in the losses. However, the T&D loss has reduced from 28% to 24%.

2. T&D Losses in Jajpur circle got a significant reduction i.e from 303.28 MU in 2021-22 to 243.88 MU during 2022-23 the T&D losses are 12% which is highly appreciable.

3. In case of Baripada circle, there is an increase in T&D losses. The quantum of losses increased from 125.57 MU to 177.82 MU.% wise also the losses increased substantially. However, the AT&C losses has substantially decreased due to increase in Collection Efficiency.

4. Collection efficiency with respect to agricultural consumers increased from 39.79% to 71.38% from 2021-22 to 2022-23 which is highly appreciable.

5. AT&C losses in Balasore BTED (Basta) Division reduced from 55% during 2021-22 to 40% during 2022-23 which is still substantially high. The T&D losses for this division also got increased from 42% during 2021-22 to 43% during 2022-23.

6. As per the data provided by TPONDL, it is evident that the number of unmetered connections are only around 2.1% whereas T&D losses during the Assessment year are around 16.43%. This is matter of concern and TPNODL should take necessary initiatives on top priority basis to reduce the losses to the maximum extent possible.

7. Since sudden and stringent implementation of various type of measures to reduce the losses may call for opposition from the consumers TPNODL may take necessary steps to increase awareness amongst different categories of consumers about the importance of electricity in the development of the society, how it is produced, how much coal is spent in producing the one unit of electricity etc.

8. Although, TPNODL is consistently organizing customer engagement & awareness programs for Energy conservation and theft reduction.

9. The losses in few of the DISCOMs got reduced to less than 6% and AT&C losses got reduced to 7%. TPNODL should depute their officials to study their methodology adopted to reduce the losses and programs arranged by them to increase awareness among different categories of consumers.

10. One of the most important findings encountered by ZESPL is presence of high % of Harmonic currents where substantial quantity of non-liner loads IS in operation. The non-linear loads include PCs, Laptops, UPS, BLDC Fans etc. Because of these harmonics current flow in the neutral conductors is of the order of 20 to 50% of the total current in all the three phases together. Whereas in normal networks (Where non-liner loads are not present) very low neutral currents (0 to 1%) were measured. These abnormalities account for huge amount of Energy losses and also responsible for early failure of equipment and associated components. TPNODL should take this aspect into consideration and investigate new ideas to reduce the losses arising out of installation of non-linear loads.

The observations and comments with regards of the Field Visit of the Audit team to various TPNODL Grid Substations (GSS):

1. It is observed that the 33kV meters are installed at Grid Substation (GSS) interface points and at each consumer points. In the FY 2021-22, there is a significant increase in the meter installed at the 33/11 kV substation (PSS) input point as comparison to FY 2021-22.

2. SCADA & Automation system has been implemented in 105 out of 236 PSS under which 47 is in operation from PSC and 5 PSS are unmanned across TPNODL.

3. It is observed that the DT smart metering in various DTs under TPNODL is underway.

The various loss reduction recommendations are furnished below:

1. It is recommended that TPNODL should request the Hon'ble Commission for tariff rationalization measures to be adopted for HT / EHT Consumers so that HT / EHT Industries will be incentivized to procure power from DISCOM without depending muchon Open Access. TPNODL may be required to incentivise the Industrial Consumption by taking up better tariff rationalisation measures in future tariff hearing process, as increase in HT / EHT consumption will help in reducing the T&D losses and AT & C losses.

2. It is proposed that TPNODL should promote Energy Efficient Lighting System (LED Bulbs, Tube lights and Energy Efficient Fans) in association with BEE / EESL / Private ESCO in its utility area. There are few ESCO Companies available in India which will install new energy efficient equipment in place of old conventional equipment and share the energy savings (Monetary savings) on a pre agreed % basis.

3. At present Hon'ble OERC has implemented kVAh billing for the HT/ EHT/ Commercial / MSME and Industrial consumers. In view of the kVAh billing, the consumer which are having low power factor are paying higher energy bills, still the awareness about kVAh billing is not there and consumers are operating with low Power Factors. TPNODL may carry out special drives for awareness and sensitization about kVAh billing. Howerver, TPNODL has started installing Capacitor Bank and APFC Panel.

ACTION PLAN OF THE DISCOM:

Action Plan of the DISCOM to complete communicable metering of Feeders, DTs and Consumers:

In order to revive feeder and DT metering, 100% 33KV (at OPTCL GSS) and 11KV feeder metering have been already done and 9059 No. of DT metering (>=100kVA) is being targeted to be completed by the end of FY 23-24. The AMR and Modem installation is targeted to be completed by Oct'23.

With reference to the issue of communicable DT Meters, the TPNODL has started installation of the Smart Meters on DTs in the phased manner.

The consumer meter installation is in ongoing process, TPNODL have strengthened the system to liquidate all the pendency in FY 2023-24.

Metering Details	Count FY21-22	Count FY22-23	Plan FY23-24
33kV Feeder Metering (Emanating From GSS)	91	108	-
11kV Feeder Metering	327	825	-
DTR Metering (11/.4) KV (100kVA & above)	2269	2883	9059

From the data available it is observed that the following Divisions are having losses more than 38%.

(i) Balasore (BTED Basta) 43.79%
(ii) Bhadrak (BSED Bhadrak) 38.07%

Action Plan and Loss Reduction measures implemented by TPNODL in his service area

- Conductor Upgradation – 69.25 Km (11 kV) & 24.6 km (33 kV)
- 26 new PSS commissioned under ODSSP – III
- 26 Nos. New PTR (196 MVA) added in last year to ensure 100% PTR loading <80%
- Overloaded DTR capacity augmentation & Load Balancing – 163 Nos. (15 MVA added)
- LT Conversion from 1-ph to 3-ph -- 40 Ckm LT Bare overhead to LT ABC Conversion 249 Ckm.
- Thermo-scanning & Ultrasound Scanning to detect electrical leakages & preventive measures to reduce losses – 91 Feeders

Line Length Reduction

- 4 Nos. longest 33KV feeders reduced to < 50km,
- 2 Nos. longest 11KV feeders (>300Km) reduced to <100km
- 4 Nos. 11KV feeders (>100Km) reduced to <60km

Network Load Flow Study Based CAPEX plan

- 33 KV & 11KV Conductor up gradation. FY 23-24: 71 & 293 Ckt. Km respectively
- New link lines – FY 23-24: 210 Ckt. Km.
- 10 Nos 33 kV lines > 50 km length and 67 no 11 kV lines > 100 Km length

Pilferage proofing of LT Lines

- LT Bare Conductor with LT AB Cable: FY 23-24: 427 Ckt. Km

Plan for Length Reduction of Long 33 kV Feeders

Sl. No	Name of Circle	Nos of Feeders	Feeders > 50 kms	Mitigation Plan Proposed	Remarks
1	BALASORE	26	1	1	1) New link line from Agarpada GSS to Kupari PSS Proposed in ODSSP-IV Scheme for mitigation of Khaira feeder. (WIP)*
2	BHADRAK	10	2	2	1) Proposal of Basudevpur feeder considered in Capex FY 22-23 from Balimunda GSS. (Line construction complete, charging subject to GSS commissioning) - Completed 2) Chandabali GSS to Dhamra PSS Line under ODSSP - IV Scheme. (WIP)*
3	BARIPADA	19	3	3	1) New 7.5 kms line proposal from Karanjia GSS to Saharpada PSS for Karanjia feeder taken in Capex 22-23. (WIP)* 2) New line of 27.1 kms from Karanjia GSS to Joshipur PSS for Joshipur feeder taken. (Proposed under ODSSP-IV Scheme)* 3) Link line from Baripada GSS to Kalabadia PSS for New Bangiriposi feeder mitigation. (WIP)*
4	JAJPUR	12	1	1	1) Link line Planned from New Duburi grid for Sukinda Feeder. (WIP)*
5	KEONJHAR	26	3	3	1. New Link Line from Tikira GSS (Keonjhar No-1 feeder mitigation) - Completed 2. New line from Telkoi GSS (Judia feeder mitigation) - Completed 3. New line for bifurcation into 29 and 46 kms feeder respectively. (Remuli Fdr mitigation) *WIP (500 mtrs new line from Palaspanga GSS to Jhumpura tapping point line stringing left.)

Plan for Length Reduction of Long 11 kV Feeders

11 KV FEEDERS DETAILS AND THEIR MITIGATION PLAN SUMMARY					
SR NO	NAME OF CIRCLE	TOTAL NUMBERS OF 11 KV FEEDERS	NUMBERS OF 11 KV FEEDERS MORE THAN 100 KM	NUMBERS OF FEEDERS MITIGATION PLAN PROPOSED/COMPLETE	Remarks
1	JAJPUR	128	5	5	Charged Lalbagh PSS, Bramhabrada PSS, Chadheidhara PSS will allow the long feeders to be cut off and length reduced.
2	BALASORE	206	4	4	New PSS under ODSSP Scheme at Bartana and Behrampur, another PSS at Teghori under DDGJY and new link line under Capex from Shyamnagar PSS to Bhol PSS – WIP
3	BHADRAK	131	8	8	Link line btw Bonth and Munduli feeder - WIP, Talanga and Padampur PSS along with link Line - WIP under ODSSP 3.
4	BARIPADA	184	28	26	Oldihi, Deuli, Gidhibas PSS along with link line - WIP under ODSSP 3 Segregation of 300Km Jamda Feeder - Completed
5	KEONJHAR	148	16	11/2	3.5 kms Link line for Nayakote – WIP Sirigida PSS link line – WIP Segregation of 325 Km Kaliahota Feeder - WIP New feeder from Saharpada PSS - WIP (Bhagamunda and Ballia Fdr length feeder Complete)

3.0 BACKGROUND

Energy Conservation has become a top most priority in today's scenario in order to have asustainable growth, productivity, enhancement & environmental protection. Considering the vast potential of energy savings and benefits of energy efficiency as per the report prepared by National Development Council (NDC) Committee on power, Govt. of India enacted the Energy Conservation Act 2001. The aim of EC Act 2001 is to provide the much-needed legal framework and other institutional arrangements so that various energy efficiency improvement drives can beeasily launched at the state and national level. In order to implement the various provisionsunder the EC Act 2001, the Government of India established the Bureau of Energy Efficiency (BEE) on 1st March 2002 for development of policies and strategies with a thrust on self-regulation and market principles, with the primary objective of reducing energy intensity of the Indian Economy and to enact and enforce energy efficiency through various regulatory and promotional measures.

Role of BEE

BEE coordinates with designated consumers, designated agencies and other organizations and recognizes, identifies and utilizes the existing resources and infrastructure, in performing the functions assigned to it under the Energy Conservation Act. The Energy Conservation Act provides for regulatory and promotional functions.

The Major Promotional Functions of BEE include:

- Create awareness and disseminate information on energy efficiency and conservation
- Arrange and organize training of personnel and specialists in the techniques for efficientuse of energy and its conservation
- Strengthen consultancy services in the field of energy conservation
- Promote research and development
- Develop testing and certification procedures and promote testing facilities
- Formulate and facilitate implementation of pilot projects and demonstration projects
- Promote use of energy efficient processes, equipment, devices and system
- Take steps to encourage preferential treatment for use of energy efficient equipment orappliances
- Promote innovative financing of energy efficiency projects
- Give financial assistance to institutions for promoting efficient use of energy and itsconservation
- Prepare educational curriculum on efficient use of energy and its conservation
- Implement international co-operation programs relating to efficient use of energy andits conservation

Perform Achieve and Trade (PAT) Scheme

National Mission of Enhanced Energy Efficiency (NMEEE) is one of the eight national missions of the NAPCC released by the Prime Minister on 30th June 2008. BEE has been entrusted with the task of preparing the implementation plan for NMEEE. PAT scheme is formulated under National Mission for Enhanced Energy Efficiency (NMEEE) which is one of eight plans in the National Action Plan on Climate Change (NAPCC).

PAT is a regulatory instrument framed by BEE and Ministry of Power to reduce specific energy consumption in energy intensive industries and reduce T & D loss in DISCOMs with an associated market based mechanism to enhance the cost effectiveness through certification of excess energy saving which can be traded in power exchange.

Purpose of Audit and Accounting Report

DISCOMs are currently focusing on Energy Conservation and Energy Efficiency to a larger extent for reducing the T & D Loss and improving the performance. Efficient energy management, usage of energy efficient technologies and adopting best-practices for reduction T & D Loss would help utility to improve their billings, collection, energy sale and profitability. As per the PAT scheme of BEE, TPNODL being a DISCOM having annual AT & C losses more than 1000 Million kWh i.e.86000 Metric Tonnes of Oil Equivalent (MTOE) is a Designated Consumer as per EC Act 2001.

The main focus of the audit is to establish T & D Loss for the year 2022-23, collection of technical information like annual energy consumption, nos. of connections, nos. of disconnections, connected load and percentage of total connected load, energy billed, net input energy, power factor, total supply hours, scheduled outage, scheduled supply hours, unscheduled outage, available supply hours and evaluation of T & D loss, AT & C loss and billing efficiency of utility, finding out deviations from the baseline T & D loss, evaluations of energy management systems, exploring future energy conservation measures, energy saving potentials and providing recommendation for the same.

In line with Section 14(g) of the Energy Conservation(EC) Act, the Central Government has notified targets (in the form of Specific Energy Consumption) for Designated Consumers (DCs) on 26th October 2021 under the PAT cycle-VII. The baseline Distribution loss of TPNODL has been fixed as 18.74% for baseline year 2018-19 to with baseline net input energy 5575.61MU. TPNODL has been directed to reduce its T&D Loss to 17.09 % in Target Year 2024-25.

BEE (Manner and Intervals for Conduct of Energy Audit in electricity distribution companies), Regulations 2021 has been notified on 6th October 2021 and as per Regulation 3 of the said Regulations, it is required that the TPNODL to conduct the annual energy audit by an Accredited Energy Auditor and submit the report to BEE and SDA.

The management of TPNODL evinced keen interest in availing the services of ZESPL for conducting Annual Energy Audit of TPNODL. The proposal for conducting energy audit of the DISCOM was accepted by the management of TPNODL vides their PO No. 4800002117 dated 06.04.2023.Accordingly, ZESPL has been entrusted with the work of conducting the annual energy audit and submission of reports for the same. The field study, measurement and audit activities by ZESPL was conducted at site from 3rd July 2023 to 7th July 2023 andthe report has been prepared based on the field study data, available technical data as well as information / inputs received from TPNODL.

4.0 INTRODUCTION ABOUT TPNODL (DC)

TP Northern Odisha Distribution Limited (TPNODL) is a joint venture of Tata Power (51%) and Govt of Odisha (49%) on the Public-Private Partnership (PPP) model. Govt. of Odisha (GoO)'s share is held by it through its 100% owned company GRIDCO. TPNODL was vested in the Utilityof NESCO for distributing and retail supply of electricity in the northern part of Odisha, through a Vesting Order issued by the Hon'ble Odisha Electricity Regulatory Commission (OERC). The business of TPNODL utility is governed by the provisions of license issued by Hon'ble Odisha Electricity Regulatory Commission (OERC) for distribution and retail supply of electricity in Northern Odisha.

TPNODL procures power from GRIDCO which is a state-owned company, engaged in the business of purchase of electricity in bulk from various generators located inside Odisha and the state share of power from Central generators. GRIDCO supplies power to all power distribution utilities, including TPNODL under the existing Bulk Supply Agreement between TPNODL and the GRIDCO. The power procurement price is the Bulk Supply Price at which GRIDCO supplies power to Distribution utilities which is determined by Hon'ble OERC and apportioned based on the ability of each DISCOM to pay the energy charges to GRIDCO.

TPNODL license area is spread over geography of 27920 Sq.Km having coastal line of about 150 Km serving the registered consumer base of 2.05 million. TPNODL procures power from GRIDCO which is a state owned company. It receives electrical power at a sub transmission voltage of 33KV from Odisha Power Transmission Company Limited's (OPTCL) 220/132/33 kV Grid Substations and then distributes the power at 33KV / 11KV / 440V / 230V depending on the demand of the consumers. For effective operations, license area is divided in 5 circles which is further sub divided in 16 Divisions, 50 Sub-division & 159 sections which manages the commercial and O&M activities in order to serve its consumer.

The details of administrative set up of TPNODL are furnished below:

Name and Address of Designated Consumer:
TP Northern Odisha Distribution Limited (TPNODL)
Corporate Office: Januganj, Dist: Balasore-756019, Odisha
Phone: 06782-244865, Fax: 06782-244259
Email: ceooffice@tpnodl.com
Website: www.tpnodl.com

NAME AND CONTACT DETAILS OF ENERGY MANAGER AND AUTHORIZED SIGNATORY OF DISCOM:
CEO TPNODL:
Mr. Bhaskar Sarkar, Chief Executive Officer
Phone: 9223512396
E-mail: ceooffice@tpnodl.com

Nodal Officer:
Mr. Dushyant Kumar Tyagi, Chief-Commercial Services & CSR
Phone: 9971555724
Email: dk.tyagi@tpnodl.com

Designated Energy Manager:
Mr. Manish Kriplani, HoG Energy Audit,
Phone: 9799495503
E-mail: manish.kriplani@tpnodl.com

Certified Energy Manager:
Mr. Rakesh Singh, Energy Manager,
Phone: 8527056199
E-mail: rakesh.singh@tpnodl.com

IT Manager:
Mr. Amit Kumar, HoG OT
Phone: 9560044457
Email: amit.kumar@tpnodl.com

Financial Manager:
Mr. Raja Banik, Team Lead Finance
Phone: 9609933777
Email: raja.banik@tpnodl.com

The details of organizational set up of TPNODL are furnished below:

DETAILS	As on 31st March 2022	As on 31st March 2023
No. of Circles	5	5
No. of Divisions	16	16
No. of Subdivisions	50	50
No. of Sections	159	159

S.No.	Circle	Division	Sub-Division
1	Balasore	BED, Balasore	Supply No-I
			Supply No-II
		BTED, Basta	Basta
			Jamsuli
		JED, Jaleswar	Jaleswar
			Bhograi
		CED, Balasore	RE-I
			RE-II
			Nilagiri
		SED, Soro	Soro
			Bahanaga
			Markona
			Khaira
2	Bhadrak	BNED, Bhadrak	No.I Bhadrak
			No.II Bhadrak
			Basudevpur
			Dhamra
			Tihidi
		BSED, Bhadrak	Bhadrak Rural
			Dhamnagar
			Asurali
3	Baripada	BPED, Baripada	Baripada
			Rural
			Betnoti
			Kuliana
			Moroda
		UED, Udala	Khunta
			Udala
		RED, Rairangpur	Rairangpur-I
			Rairangpur-II
			Karanjia
			Joshipur
4	Jajpur Road	JRED, Jajpur Road	Panikoili
			Jajpur Road
			Duburi
		JTED, Jajpur Town	No. I Jajpur Town
			Dasrathpur
			Binjharpur
		KUED, Kuakhia	Bari
			Dharamsala
			Kuakhia
5	Keonjhar	KED, Keonjhar	No.I Keonjhar
			No.II Keonjhar
			Turumunga
		JOED, Joda	Joda
			Champua
			Barbil
		AED, Anandapur	Anandapur
			Ghatagaon
			Bidyadharpur

4.1 SUMMARY PROFILE OF TPNODL

TPNODL receives electrical power at 33kV level from 29 numbers of Grid Sub stations (GSS) and 9 no. of Switching stations located within the vicinity of TPNODL operational area.

TPNODL distributes the power at 33kV / 11kV / 415V / 230V depending on the demand of the consumers. At present, there are 108 numbers of 33KV feeders with a combined route length of approximately 3024 KMs supplying power to 236 numbers of 33/11KV Primary Substation (Structures). The 33KV supply is stepped down to 11KV level through 550 numbers of 33/11KV power transformers at these primary substations with an installed capacity of 2,615.8 MVA. Nearly 825 numbers of 11KV feeders radiates from the 33/11KV primary substations having length of approximately 40,188 KMs and supply power to HT consumers connected at 11KV level and LT customers connected to 11/0.415KV distribution substation. Approximately 74,726 numbers of distribution transformers are installed in all five circles with an installed capacity of 2787 MVA. The length of the LT feeders is 67,486.44 KMs approximately.

The Detail of Network Systems of TPNODL is furnished below:

Network System	As on 31st March 2022	As on 31st March 2023
Length of 33 KV Line (km.)	2895	3024
Length of 11 KV Line (km.)	37591	40188.5
Length of LT KV Line (km.)	66672	67486.44
Length of LT AB Cable (km.)	43971	44786.4

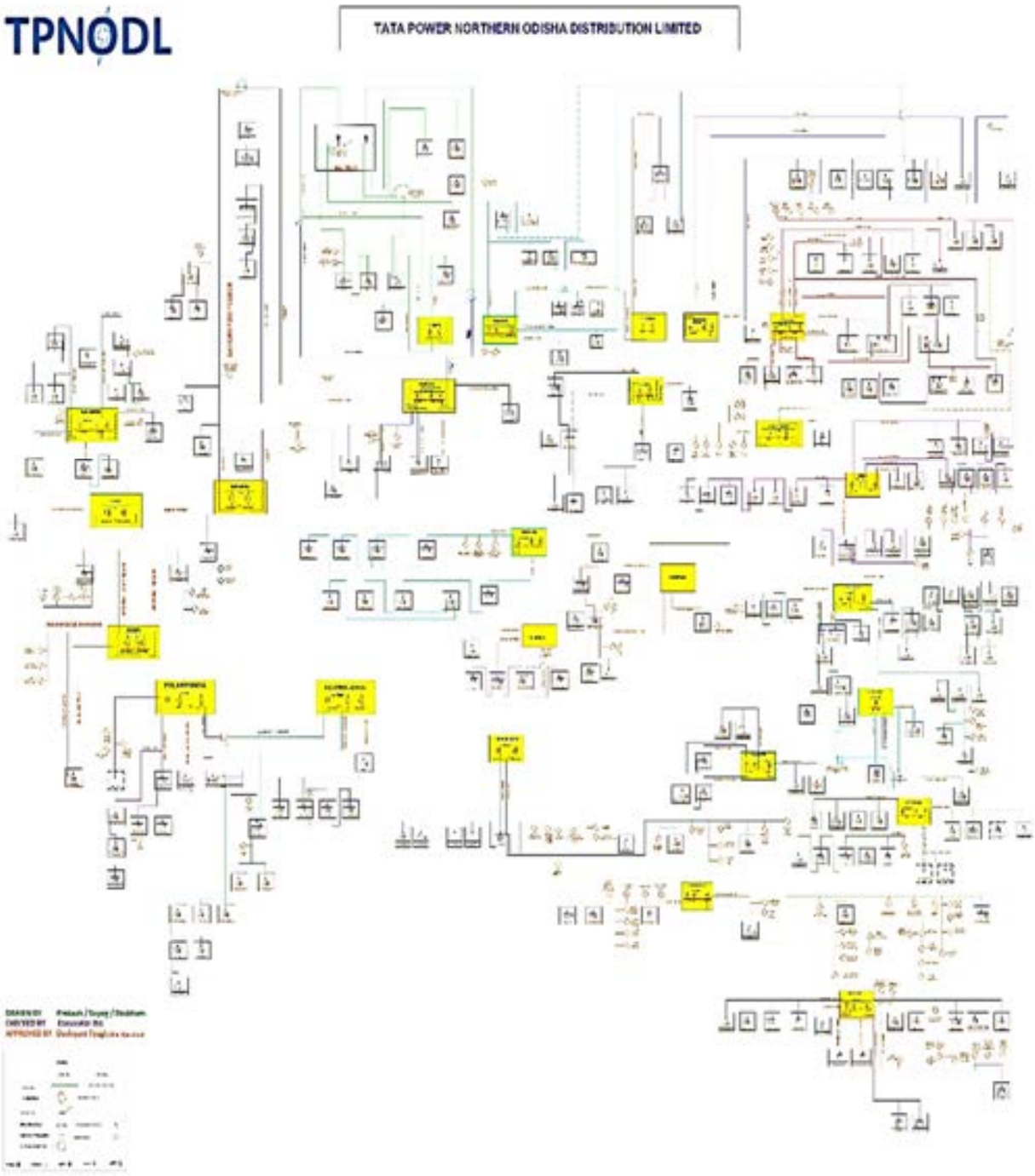
Metering Status of TPNODL:

CATEGORY WISE % OF METERING COMPLETED						
Category	**FY 2021-22**			**FY 2022-23**		
	Total	**No. of Metering Completed**	**% of Metering Completed**	**Total**	**No. of Metering Completed**	**% of Metering Completed**
33 kV Feeders	98	98	100%	108	108	100%
11 kV Feeders	797	545	68.38%	825	598	72.5%
Distribution Transformers	72323	2208	3.05%	74726	2883	3.85%
Consumers	2089083	2010760	96.25%	2041588	1999017	97.91%

Comments on the above table:

As per the performance review report of TPNODL submitted to Hon'ble OERC, the percentage of DT Metering in the FY 2021-22 is around 3.05 % and in the FY 2022-23 it is around 3.85%.

SLD of TPNODL as a whole:



Consumer Base of TPNODL:

The details of total numbers of Consumers in TPNODL area is furnished below:

Consumer Category	No of connections (Metered)	No of connection Un-metered (Nos)	Total Number of connections (Nos)
Residential	1834723	38354	1873077
Agricultural	25700	3124	28824
Commercial/Industrial-LT	114188	211	114399
Commercial/Industrial-HT	505	0	505
Others	23901	882	24783
Total	**1999017**	**42571**	**2041588**

The Detail of Assets under TPNODL is furnished below:

ASSETS	As on 31st March 2022	As on 31st March 2023
No. of 33 KV feeders (Including GRIDCO interface)	98	108
No. of 11 KV feeders	797	825
No. of 33 / 11 kV POWER Transformers	524	550
No. of Distribution Transformers (11/0.4 & 33/ 0.4 kV)	72323	74726

5.0 DISCUSSION AND ANALYSIS

The main objective of Energy Audit is to establish the following.

- Energy input to the system
- Energy utilized / sold (Energy Sales) to the consumer
- Energy losses in the system.
- To assess the efficiency of the system
- To identify the area of high T&D losses
- To assess the extent of theft & pilferage
- To take appropriate steps for making the system technically more efficient and financially sustainable

Energy audit distinctly addresses the problems of energy losses. Hence, any savings in energy usage and reduction of losses directly leads to the profitability of the utility.

The Energy and Performance Fact Sheet of TPNODL for the last 2 financial years is furnished below:

Energy Accounts of Previous Year:

TPNODL has purchased around 4346.99 MU of Energy from GRIDCO in FY 2021-22 and has billed around 4347 MU of energy to its various consumers and thus has a T&D Loss of around 18.40 % & AT&C Loss of around 23.13 % in FY 2022-23 as per the performance review report of TPNODL submitted to Hon'ble OERC.

PARTICULARS	FY 2021-22
Input Energy(MU)	5327.04
Total Sale (MU)	4346.998
T & D Loss (%)	18.40%
Billing Efficiency (%)	81.60%
Billing To Consumers (Rs. in Cr)	2560.14
Collection Received (Rs. in Cr)	2411.66
Collection Efficiency (%)	94.20%
AT& C Loss (%)	23.13%

Energy Accounts and performance of TPNODL in Current Year:

TPNODL has purchased around 6473.32 MU of Energy from GRIDCO in FY 2022-23 and has billed around 5410.05 MU of energy to its various consumers and thus has a T&D Loss of around16.43% & AT&C Loss of around 11.33% in FY 2022-23 as per the performance review report of TPNODL submitted to Hon'ble OERC.

PARTICULARS	FY 2022-23
Input Energy(MU)	6473.32
Total Sale (MU)	5410.05
T & D Loss (%)	16.43%
T & D Losses (MU)	1063.27
Billing Efficiency (%)	83.57%
Billing To Consumers (Rs. in Cr)	3203.91
Collection Received (Rs. in Cr)	3397.92
Collection Efficiency (%)	106.06%
AT& C Losses (%)	11.36%

Division Wise Energy & Performance Fact Sheet of TPNODL for FY 2022-23:

Name of Division	Energy Input (MU) (Assuming HT Loss 8%)	Energy Sold (MU)	T & D Loss (%) (Assuming HT Loss 8%)	Billing Efficiency (%)	Billing to Consumer (Rs. in Crs.)	Collection Received (Rs. in Crs.)	Collection Efficiency (%)	AT & C Loss (%)
BED, BALASORE	328.474	291.149	11.36	88.64	178.99	179.92	100.52	10.90
BTED, BASTA	151.636	85.841	43.39%	56.61%	42.05	44.78	106.50%	16.93
JED, JALESWAR	257.579	190.033	26.22	73.78	100.02	104.33	104.30	23.05
CED, BALASORE	488.412	391.338	19.88	80.12	226.58	270.38	119.33	4.38
SED, SORO	220.752	159.421	27.78	72.22	83.94	92.39	110.07	20.51
BNED, BHADRAK (N)	652.482	515.900	20.93	79.07	295.00	297.40	100.81	20.29
BSED, BHADRAK (S)	168.523	105.660	37.30	62.70	55.13	69.21	125.52	21.30
BPED, BARIPADA	340.170	248.502	26.95	73.05	139.59	145.64	104.33	23.79
UED, UDALA	101.814	78.521	22.88	77.12	41.33	45.50	110.10	15.09
RED, RAIRANGPUR	231.539	172.443	25.52	74.48	92.39	97.52	105.55	21.39
JRED, JAJPUR ROAD	1683.932	1599.067	5.04	94.96	986.11	1070.41	108.55	-3.08
JTED, JAJPUR TOWN	178.327	122.725	31.18	68.82	62.55	66.22	105.87	27.14
KUED, KUAKHIA	312.537	209.128	33.09	66.91	119.19	127.51	106.98	28.42
KED, KEONJHAR	340.970	314.605	7.73	92.27	199.42	201.12	100.86	6.94
JOED, JODA	838.147	802.137	4.30	95.70	513.39	512.81	99.89	4.40
AED, ANANDAPUR	178.027	123.582	30.58	69.42	68.22	72.79	106.70	25.93
TPNODL TOTAL	**6473.323**	**5410.052**	**16.43%**	**83.57%**	**3203.91**	**3397.92**	**106.06%**	**11.36%**

Category wise nos. of Consumers:

TPNODL is licensed to distribute electricity to consumers and collect revenue. The differentcategories of consumers in TPNODL are as per the following.

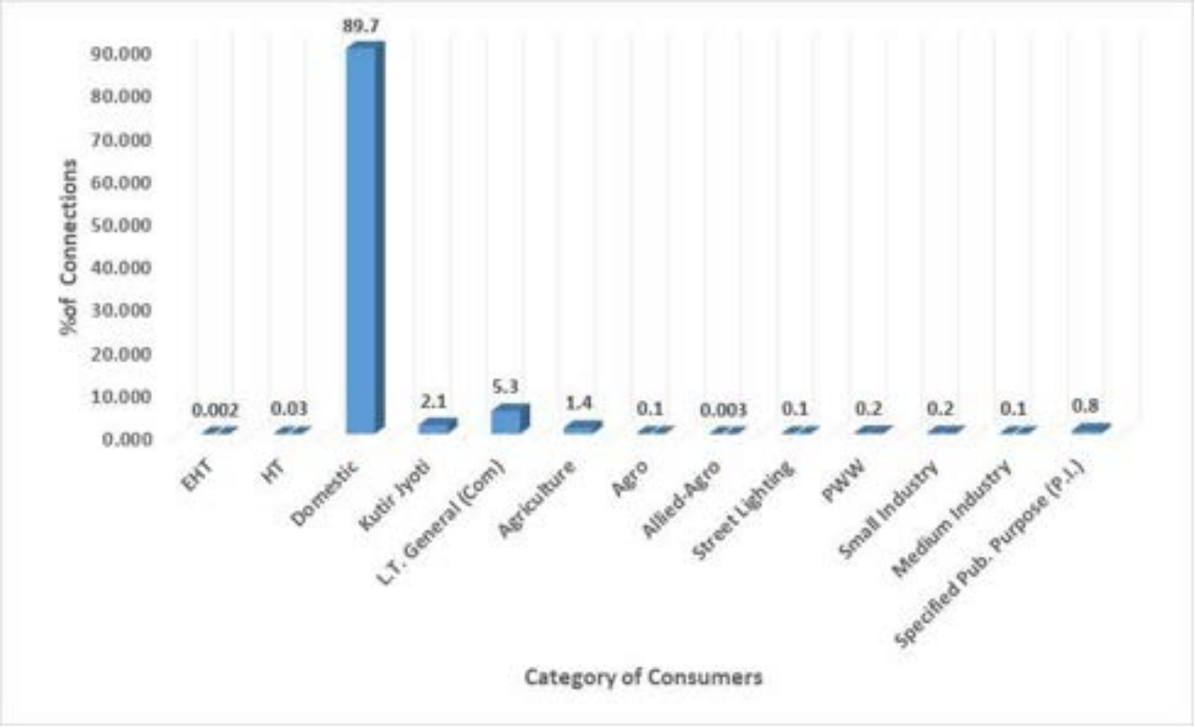
- Domestic
- Kutir Jyoti
- L.T. General (Com)
- Agriculture
- Agro
- Allied-Agro
- Street Lighting
- PWW
- Small Industry
- Medium Industry
- Specified Pub. Purpose (P.I.)
- Large Industry below 132kV
- Power Intensive Industries
- General Purpose
- Bulk-Supply Domestic
- Public Institution
- Irrigation
- Captive Power Plant
- Public Water Works above 110kVA
- Heavy Industries
- Railway Traction

Details of category wise nos. of consumers and their annual energy consumption, contract demand, correct meter, without meter and defect meter for the last financial year are given below:

Category wise no. of consumer under TPNODL

S.No	Type of Consumers	No of Connections	% of Connections
1	EHT	41	0.002
2	HT	659	0.03
3	Domestic	1830722	89.7
4	Kutir Jyoti	42329	2.1
5	L.T. General (Com)	108910	5.3
6	Agriculture	28815	1.4
7	Agro	2603	0.1
8	Allied-Agro	57	0.003
9	Street Lighting	1421	0.1
10	PWW	4490	0.2
11	Small Industry	4357	0.2
12	Medium Industry	1132	0.1
13	Specified Pub. Purpose (P.I.)	16052	0.8
TOTAL		**2041588**	**100%**

The above data is also depicted in a bar chart for better understanding.



Observations & Recommendations:

- From the above table, it is found that the total consumers in TPNODL are 2041588 in the FY 2022-23. The same was 2089083 during the year 2021-22. TPNODL got removed around 47495 no. of non-paying connections during FY 2022-23 which were identified under special drive (**Project Khoj**), hence, is the main reason for reduction of the consumer base.
- Among all categories, the percentage of domestic category consumers is around 89 % in FY 2022-23.
- Whereas percentage of nos. of HT consumers is around 0.03% in FY 2022-23, the percentage of nos. of EHT consumers is around 0.002% in FY 2022-23. There is slight increase in the EHT connections from 2021-22 to 2022-23.

Category wise connected contract demand under TPNODL

Category	FY 2022-23	
	CD (KW)	% w.r.t total CD
EHT	658500	19.04%
HT	283233	8.19%
Domestic	1892552	54.73%
Kutir Jyoti	7559	0.22%
L.T.General (Com)	306805	8.87%
Agriculture	116603	3.37%
Agro	31755	0.92%
Allied Agro	858	0.02%
Street Lighting	7022	0.20%
PWW	29204	0.84%
Small Industry	40529	1.17%
Medium Industry	49238	1.42%
Specified Pub.Purpose (P.I)	34048	0.98%
Total	**3457906**	**100.00%**

Category wise no. of consumers having defective meter in TPNODL

Category	FY 2022-23		
	Live Cons. (Nos)	No. of Defect meters	%w.r.t total defect meters
EHT	41	0	0.00%
HT	659	0	0.00%
Domestic	1830722	226107	87.46%
Kutir Jyoti	42329	20486	7.92%
L.T.General (Com)	108910	4833	1.87%
Agriculture	28815	5757	2.23%
Agro	2603	56	0.02%
Allied Agro	57	1	0.00%
Street Lighting	1421	166	0.06%
PWW	4490	57	0.02%
Small Industry	4357	7	0.00%
Medium Industry	1132	1	0.00%
Specified Pub.Purpose (P.I)	16052	1050	0.41%
Total	**2041588**	**258521**	**100.00%**

Category wise no. of consumers having correct meter under TPNODL

Category	FY 2022-23		
	Live Cons. (Nos)	No. of correct meters	%w.r.t total
EHT	41	41	0.00%
HT	659	659	0.04%
Domestic	1830722	1567607	90.07%
Kutir Jyoti	42329	20497	1.18%
L.T.General (Com)	108910	103866	5.97%
Agticulture	28815	19934	1.15%
Agro	2603	2541	0.15%
Allied Agro	57	56	0.00%
Street Lighting	1421	603	0.03%
PWW	4490	4414	0.25%
Small Industry	4357	4350	0.25%
Medium Industry	1132	1131	0.06%
Specified Pub.Purpose (P.I)	16052	14797	0.85%
Total	**2041588**	**1740496**	**100.00%**

Category wise no. of consumers without meter under TPNODL

Category	FY 2022-23		
	Live Cons. (Nos)	Total No. of cons without meters	%w.r.t total
EHT	41	0	0.00%
HT	659	0	0.00%
Domestic	1830722	37008	86.93%
Kutir Jyoti	42329	1346	3.16%
L.T.General (Com)	108910	211	0.50%
Agriculture	28815	3124	7.34%
Agro	2603	6	0.01%
Allied Agro	57	0	0.00%
Street Lighting	1421	652	1.53%
PWW	4490	19	0.04%
Small Industry	4357	0	0.00%
Medium Industry	1132	0	0.00%
Specified Pub.Purpose (P.I)	16052	205	0.48%
Total	**2041588**	**42571**	**100.00%**

OBSERVATIONS & RECOMMENDATIONS

- From the above table, it is found that the total no of consumer without meter in TPNODL is 42571 in FY 2022-23 whereas the total unmetered connection in 2021-22 were 73095.The efforts made by TPNODL to reduce the number of unmetered connections is highly appreciable.

- The percentage of no. of consumers with meter in Domestic around 86.93% in FY 2022-23 and as compared to the percentage of metered consumer in Domestic in FY 2021-22 (90.64%), there has been a significant increment in the metered consumers.

- The percentage of no. of consumers without meter in Kutir Jyoti around 3.16% in FY 2022-23 and as compared to the percentage of without metered consumer in Kutir Jyoti in FY 2021-22 (2.69%), there has been a slight reduction. However, in absolute no.s the Kutir Jyoti consumers have been reduced from 2104 to 1346.

- It is recommended to take action on priority basis to replace balance old mechanical meters with new smart meters. However, this initiative found in progress with TPNODL.

- It was observed that most of the small and medium scale industries increase their installed loads to suit their increased production requirements (Seasonal). TPNODL should make necessary efforts to identify such loads and regularize them so that system voltage balance will be maintained.

- In many of the old industries, the Transformers will not be having provision for on load tap changing. In that condition the system voltages during night hours will be very high and account for losses. TPNODL should identify such industries and insist them for installation of on load tap changers.

5.1 BILLED AMOUNT OF TPNODL

Total energy billed, amount billed, gross amount collected by the DISCOM for FY 2022-23 is furnished below:

ANNUAL BILLED AMOUNT IN CRORES			
Financial Year	Total Energy Billed	Amount Billed	Gross Amount Collected
	Million kWh	Rs. Cr	Rs. Cr
FY 2022-23	5410.05	3203.91	3397.92

Abstract of Energy Bill Served by GRIDCO to TPNODL

Sl.No.	Month	SMD Approved by OERC(kVA)	SMD Permitted by OERC(kVA)	Actual SMD (kVA)	Total Energy Billed (MU)	Total Energy Sale (MU)	LOSS (%)	Total Energy Billed as per OERC (MU)	Total Energy Sale as per OERC (MU)	LOSS (%) As per OERC
1	Apr-22	11,50,000	12,65, 000	11,22,526	552.103	427.016	22.66	551.981	427.016	22.66
2	May-22	11,50,000	12,65, 000	10,51,347	547.362	425.935	22.18	547.228	425.935	22.18
3	Jun-22	11,50,000	12,65, 000	11,54,650	566.214	489.565	13.54	566.183	489.565	13.54
4	Jul-22	11,50,000	12,65, 000	11,58,898	546.623	428.311	21.64	546.623	428.311	21.64
5	Aug-22	11,50,000	12,65, 000	10,55,120	561.813	485.385	13.60	561.812	485.385	13.60
6	Sep-22	11,50,000	12,65, 000	11,05,519	568.748	432.97	23.87	568.730	432.97	23.87
7	Oct-22	11,50,000	12,65, 000	10,01,333	555.275	490.661	11.64	555.161	490.661	11.64
8	Nov-22	11,50,000	12,65, 000	10.41,264	485.779	456.25	6.08	485.761	456.25	6.08
9	Dec-22	11,50,000	12,65, 000	10.61,664	492.153	423.962	13.86	492.100	423.962	13.86
10	Jan-23	11,50,000	12,65, 000	9,67,918	512.859	432.46	16.07	512.487	432.46	16.07
11	Feb-23	11,50,000	12,65, 000	9,99,265	501.359	430.562	14.12	501.191	430.562	14.12
12	Mar-23	11,50,000	12,65, 000	10,88,962	583.035	486.975	16.48	582.578	486.975	16.48
TOTAL		1,38,00,000	1,51,80,000	96,00,019	6,473.32	5,410.05	16.43%	6,471.84	5,410.05	16.43%

5.2 METERED/UNMETERED ENERGY SALE OF TPNODL

Annual energy consumption of the consumers in TPNODL for FY 2022-23 is given below.

Annual Metered/ Unmetered Energy Consumption (in MU) under TPNODL

ANNUAL METERED/UNMETERED ENERGY CONSUMPTION IN MU				
Financial Year	**Total Input Energy**	**Metered Energy Sales**	**Unmetered Energy Sales**	**Estimated unaccounted energy**
FY 2022-23	6473.32	5127.98	282.07	1063.27

Percentage of metered, unmetered & unaccounted energy consumption

% OF METERED/UNMETERED & UNACCOUNTED ENERGY CONSUMPTION				
Financial Year	**Total Input Energy**	**Metered Energy Sales in %**	**Unmetered Energy Sales in %**	**Estimated unaccounted Energy %**
FY 2022-23	6473.32	79.2	4.35	16.43

Observations & Recommendations:

The estimated unaccounted energy is around 16.43% which was around 18.39% during the FY 2021-22. The AT&C losses reduced from 23.13% to 11.33% from 2021-22 to 2022-23 which is a remarkable achievement. Efforts made by TPNODL are highly appreciable.

5.3 LOSSES IN DISTRIBUTION NETWORK

The losses in a distribution network are classified into three categories i.e. Transmission &Distribution (T&D) loss, Technical loss and Commercial loss.

1. T&D loss is the difference between energy supplied to a network and the total energy billed. It includes both technical & commercial loss.

T&D Loss =Input energy to the system- Energy billed to the consumer
Distribution (T&D) Loss = Input energy supplied to DISCOM system (-) Energy billed toconsumer by DISCOM

% Distribution (T&D) Loss = [Input Energy (-) Energy Billed] x 100 ÷ [Input Energy]

2. Technical loss or line loss occurs mainly due to the heating effects, loose bindings, earthing problem, unbalancing, inadequate size of conductors, shifting of load Centre, low power factor/reactive losses etc. This loss is difficult to calculate and the most accurate method isthe load flow study using network analysis software.

The Technical losses in the system comprises of the following

- 33 kV & 11 kV Line Losses
- Distribution Transformer Losses (Iron & Copper losses)
- L.T. Line Losses
- Miscellaneous Technical Losses
- Losses due to Loose Jump Connections in the line
- Losses due to Short Circuits & Earth Faults
- Losses in Service Mains of Installations.
- Losses incurred in CT"S & Current Coils of Energy Meters.

3. Commercial Loss is the difference between T & D loss and Technical loss.
   Commercial Loss = Distribution Loss (-) Technical Loss

The commercial losses comprise of the following

- Mistakes in the billing.
- Meters not recording (MNR)
- Meters not recording correctly
- Meters by passed due to defects/ intentionally
- Meters not read & billed.
- Theft and pilferage.

5.3.1 CALCULATION OF T&D LOSS

Distribution Loss or T&D loss is the difference between energy supplied to a network and the total energy billed. It includes both technical and commercial losses.

Sample Calculation:

A typical calculation for T&D Loss for FY 2022-23 is furnished below:

The total Demand of TPNODL for FY 2022-23 = 1022.21 MVA

The total Energy Input to TPNODL for FY 2022-23 = 6473.32 MU

BST Bill (P/U) = 3.49
BST Bill of GRIDCO to TPNODL for FY 2022-23 = Energy input (MU) x BST Bill (P/U)/10 + 1.01
=6473.32 * (3.49/10) +1.01
= 2260.20 Cr
Total Energy sale to all consumer i.e. EHT, HT and LT for FY 2022-23= 5410.052 MU
Energy sale to EHT consumer = 2651.931 MU
Energy sale to HT consumer = 625.417 MU
Energy sale to LT consumer = 2132.704 MU
For HT Category of T & D Loss is assumed at 8%

T & D Loss in LT Category = 1-(Energy sale to LT consumer in MU/ ((Total Energy input in MU - Energy sale to EHT consumer in MU) – ((Energy input in MU - Energy sale to EHT consumer in MU) x 8%) - Energy sale to HT consumer in MU))
= 1-(2132.704 / ((6473.32- 2651.931) - ((6473.32- 2651.931)*8%) – 625.417))
= 0.2621**= 26.21%**

T & D Loss in HT & LT Category = 1-(((Energy sale to HT consumer in MU+ Energy sale to LT consumer in MU)/ (Total Energy input in MU- Energy sale to EHT consumer in MU)))
=1-(((625.417+2132.704)/ (6473.32- 2651.931)))
=0.2782= **27.82%**

Overall T & D Loss of TPNODL for FY 2022-23 = 1- Total Energy sale to consumer including EHT,HT and LT in MU/ Total Energy input in MU
=1-(5410.05/6473.32)
=0.1643= **16.43%**

Based on the above methodology T&D loss for FY 2022-23 is calculated & furnished below:

PARTICULARS	FY 2022-23
BULK SUPPLY	
Demand (MVA)	**1022.211**
Energy input (MU)	**6473.323**
SALE TO CONSUMERS (MU)	
EHT	2651.931
HT	625.417
LT	2132.704
TOTAL SALE (MU)	**5410.052**
T & D LOSS (%)	
HT	**8%**
LT	**26.21%**
HT+LT	**27.82%**
OVERALL T & D LOSS (%)	**16.43%**

Month wise T & D loss FY 2021-22 is furnished below:

Table 3.1: T&D LOSS FOR FY 2022-23

PARTICULARS	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	TOTAL
BULK SUPPLY													
Demand (MVA)	979.826	1051.347	1154.650	989.965	1055.100	1105.519	1001.333	917.970	954.679	967.918	999.265	1088.962	1022.211
Energy input (MU)	552.103	547.362	566.214	546.623	561.813	568.748	555.275	485.779	492.153	512.859	501.359	583.035	6473.323
SALE TO CONS (MU)													
EHT`	163.304	167.121	194.914	184.543	211.704	214.709	237.895	236.277	253.659	256.037	245.614	286.154	2651.931
HT	54.693	58.648	56.719	52.620	49.589	47.637	49.913	46.509	49.522	52.686	51.272	55.609	625.417
LT	209.019	200.166	237.932	191.148	224.092	170.624	202.853	173.464	120.781	123.737	133.676	145.212	2132.704
TOTALSALE (MU)	427.016	425.935	489.565	428.311	485.385	432.970	490.661	456.250	423.962	432.460	430.562	486.975	5410.052
T & D LOSS (%)													
LT	31.02%	31.26%	16.48%	31.85%	17.77%	38.64%	16.20%	5.23%	28.91%	32.60%	27.36%	33.24%	26.21%
HT & LT	32.17%	31.93%	20.64%	32.68%	21.83%	38.35%	20.36%	11.84%	28.59%	31.31%	27.68%	32.36%	27.82%
OVERALL (%)	22.66%	22.18%	13.54%	21.64%	13.60%	23.87%	11.64%	6.08%	13.86%	15.68%	14.12%	16.48%	16.43%

5.3.2 CALCULATION OF AT&C LOSS

AGGREGATE TECHNICAL & COMMERCIAL (AT&C) LOSS:

Aggregate Technical & Commercial Loss (AT&C Loss) is defined as the summation of all technical as well as commercial power loss that occurs due to electrical power flow through sub- transmission and distribution network.

Technical Loss is defined as the summation of power loss through 33 kV, 11 kV line and LT Line loss including transformer loss and others.

Commercial Loss is defined as the summation of power loss occurring due to theft/ pilferage, deficient meter, inefficiency in billing & unrealized revenue due to collection inefficiency.

COMPUTATION OF AT& C LOSS

Aggregate Technical & Commercial Loss (AT&C) is computed from the actual meter readings of the meter installed at various locations in the system.

Calculations:

Calculation AT & C loss for FY 2022-23 is furnished below

The total Energy Input to TPNODL for FY 2022-23 = 6473.32 MU

The total Energy sale by TPNODL for FY 2022-23 = 5410.05 MU

Total collection received by TPNODL = 3397.92 Cr

Total Billing to consumers done by TPNODL = 3202.81 Cr

Overall Billing Efficiency (%) for FY 2022-23 = (Total Sale in MU/ Total input in MU)*100

= (5410.05/6473.32)*100 = 83.57 %

Overall Collection Efficiency (%) for FY 2022-23

= (Total Collection Received (Rs. in Cr) / Total Billing to Consumers (Rs. in Cr))*100

= 100* (3397.22 /3202.81) = 106.06 **%**

AT & C Loss (%) for FY 2022-23

AT & C Loss (%) = 1-{Collection Efficiency (%) x Billing Efficiency (%)}

Overall AT & C Loss (%) for FY 2022-23 = 1-(106.43* 83.57%)

= 0.1136

= 11.36 %

AT & C Loss for FY 2022-23 is furnished below:

Particulars	FY 2022-23
Total Sale (MU)	5410.05
T & D Loss (%)	16.43%
Billing Efficiency (%)	83.57%
Billing to Consumers (Rs. inCr)	3203.91
Collection Received (Rs. in Cr)	3397.92
Collection Efficiency (%)	106.06%
AT & C Loss (%)	11.36%

Month wise AT & C loss for last financial year is furnished below:

Table3. 4: AT&C LOSS FOR FY 2022-23

PARTICULARS	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	TOTAL
SALE TO CONSUMERS (MU)													
TOTAL SALE (MU)	427.016	425.935	489.565	428.311	485.385	432.970	490.661	456.250	423.962	432.460	430.562	486.975	5410.052
T & D LOSS (%)													
OVERALL (%)	22.66%	22.18%	13.54%	21.64%	13.60%	23.87%	11.64%	6.08%	13.86%	15.68%	14.12%	16.48%	16.43%
BILLING EFFICIENCY (%)													
OVERALL (%)	77.34%	77.82%	86.46%	78.36%	86.40%	76.13%	88.36%	93.92%	86.14%	84.32%	85.88%	83.52%	83.57%
BILLING TO CONSUMERS (Rs. in Crs.)													
TOTAL	252.25	253.35	281.24	251.32	279.24	251.60	281.93	267.70	267.27	266.39	261.63	289.99	3203.91
COLLECTION RECEIVED (Rs. in Crs.)													
TOTAL	220.60	225.80	256.74	304.73	246.48	310.36	274.23	281.38	275.04	267.33	284.85	450.37	3397.92
COLLECTION EFFICIENCY (%)													
OVERALL (%)	87.45%	89.13%	91.29%	121.25%	88.27%	123.36%	97.27%	105.11%	102.91%	100.35%	108.88%	155.31%	106.06%
AT & C LOSS(%)													
OVERALL (%)	32.36%	30.65%	21.07%	4.99%	23.74%	6.09%	14.05%	1.28%	11.35%	15.38%	6.50%	-29.72%	11.36%

Sample Study:

Calculation of Technical loss of 33KV feeder line loss (33KV to 11KV)

The 33 KV feeder line loss and 33/11 kV power transformer loss is calculated by comparing the energy inputs received at the 33 kV feeder emanating from OPTCL substation with the output energy in the 11KV outgoing feeder of the 33/11 kV substation.

Energy Audit calculation for 33kV Panikoili feeder:

S.NO.	PSS/HT CONSUMER NAME	METER NO	METER MF	CONSUMPTION(MU)
1	PANIKOILI PSS	TPN60769	120000	3.618
2	HP PETROL PUMP	TPNODL37101044	1	0.002
3	NOBEL GAS	NSC10723	1200	0.007
4	SRI KRUPALU STEEL &CASTING	NES52148	1500	0.000
5	ASHRIBAD AGRO PRODUCT	NSC94606	1200	0.170
6	ASHIRBAD AGRO PRODUCTS P.LTD	NES50278	1800	0.555
7	KRUPALI RICE MILL	NES52189	1500	0.174
8	HAREKRISHNA RICE MILL	NSC94507	1200	0.250
9	KRUPALU SOLVENT	NES83175	1200	0.114
10	KRUPALU REFINERY	TPN64764	600	0.002

33 KV Panikoili Feeder Input = 5.051

HT Consumer Input = 1.265

3-Phase Consumer Input = 0.009

PSS Input = 3.618

T&D Loss = {5.051-(1.265+0.009+3.618)} = 0.159

T&D Loss % = 3.15%

Energy Audit calculation for 33kV Kuakhia feeder:

S.NO.	PSS/HT CONSUMER NAME	METER NO	METER MF	CONSUMPTION
1	IDCOL FERRO CROM COLONY	NES50277	1200	0.024
2	M/S MAHARAJA RESOURCES PVT. LTD.	NES50976	1200	0.121
3	NINL PUMP HOUSE	TPN64773	3000	0.002
4	33/11 KV BYASASAROBARA PSS	TPN60515	120000	1.177
5	33/11 KV MARTHAPUR PSS	TPN60737	120000	0.354
6	33/11 KV MATHASAHI PSS	TPN60807	60000	1.541
7	MEGALIFT	NSC95187	60000	0.016
8	33/11 KV BARABATI PSS	TPN60581	60000	1.108
9	33/11 KV KUAKHIA PSS	TPN60612	60000	2.793

33 KV Kuakhia Feeder Input = 7.524

HT Consumer Input = 0.161

PSS Input = 6.793

T&D Loss = {7.524-(0.161+6.793)} = 0.39

T&D Loss % = 5.18%

11 kV Feeder loss sheet:

S.No.	Name of the Circle	Name of the Division	Name of the Sub-Station	Feeder Name	Type of feeder meter (AMI/AMR/Other)	Input Energy Received at Feeder (in MU)	Feeder Consumption (In MU)	T&D losses (%)
1	BALASORE	BED, Balasore	GANASWARPUR	KURUDA	AMR	5.50	3.55	36%
2	BALASORE	BED, Balasore	RAMESHWAR MANDIR	BUS STAND	OTHER	1.58	1.25	21%
3	BALASORE	BED, Balasore	SOVARAMPUR	BALIA	AMR	1.13	0.61	46%
4	BALASORE	BED, Balasore	CITY	ALUPUR	AMR	1.23	0.83	33%
5	BALASORE	BED, Balasore	SWADHINPADIA	BALARAMGADI	AMR	2.65	1.97	26%
6	BALASORE	BED, Balasore	SWADHINPADIA	FISHERY	AMR	0.67	0.49	27%
7	BALASORE	BED, Balasore	DIGRANIA	SUNHAT	AMR	1.99	1.62	19%
8	BALASORE	BED, Balasore	GOPALGAON	RANIPATNA	OTHER	2.03	1.16	43%
9	BALASORE	BTED, Basta	BALIAPAL	BALIAPAL	OTHER	1.61	1.49	7%
10	BALASORE	BTED, Basta	KALIAPADA	CHOWMUKH	AMR	0.83	0.45	45%
11	BALASORE	BTED, Basta	BASTA	MATHANI	AMR	1.13	0.90	20%
12	BALASORE	BTED, Basta	BASTA	SARTHA	AMR	1.75	1.13	35%
13	BALASORE	BTED, Basta	JAMSULI	NAIKUDI-1	OTHER	0.93	0.86	8%
14	BALASORE	BTED, Basta	SITADIHA(SIMILIA)	SITADIHA	AMR	0.49	0.38	21%
15	BALASORE	BTED, Basta	LANGALESWAR	BANIADIHA	AMR	1.39	0.80	43%
16	BALASORE	CED, Balasore	DURGADEVI	DURGADEVI	AMR	0.91	0.67	26%
17	BALASORE	CED, Balasore	(REMUNA)BIDYADHARPUR	GOURPUR	OTHER	0.69	0.51	26%
18	BALASORE	CED, Balasore	(REMUNA)BIDYADHARPUR	NUAPADHI	OTHER	0.72	0.42	42%
19	BALASORE	CED, Balasore	AJODHYA	AJODHYA	AMR	0.63	0.46	27%
20	BALASORE	CED, Balasore	AJODHYA	KANSA	AMR	0.80	0.51	36%
21	BALASORE	CED, Balasore	AJODHYA	MITHALI	AMR	0.29	0.25	14%
22	BALASORE	CED, Balasore	NILAGIRI	GOPINATHPUR	AMR	0.51	0.27	47%
23	BALASORE	CED, Balasore	NILAGIRI	PANCHALINGESWAR	AMR	1.11	0.92	17%
24	BALASORE	CED, Balasore	NILAGIRI	RAJANAGAR	AMR	0.71	0.41	43%
25	BALASORE	CED, Balasore	SERGARH	INDUSTRIAL	OTHER	0.98	0.53	46%
26	BALASORE	CED, Balasore	ODANGI	BALISUAN	AMR	0.98	0.57	42%
27	BALASORE	CED, Balasore	RUPSA	KASIAPADA	OTHER	0.81	0.74	9%
28	BALASORE	CED, Balasore	FULADI	FULADI	OTHER	1.24	0.89	28%
29	BALASORE	CED, Balasore	FULADI	NAGRAM	AMR	0.59	0.32	46%
30	BALASORE	CED, Balasore	FULADI	PADAMPUR	AMR	0.65	0.46	28%
31	BALASORE	CED, Balasore	RASALPUR	BHIMPUR	AMR	0.83	0.47	44%
32	BALASORE	CED, Balasore	SARAGAON	RASALPUR	OTHER	0.78	0.48	39%
33	BALASORE	CED, Balasore	SRIJANGA	KULIGAM	OTHER	0.43	0.27	36%
34	BALASORE	CED, Balasore	SRIJANGA	TUNDRA	OTHER	0.80	0.55	31%
35	BALASORE	CED, Balasore	BERAHAMPUR	BERHARMPUR	AMR	0.73	0.64	13%
36	BALASORE	CED, Balasore	BERAHAMPUR	GOHIRA	AMR	0.93	0.79	15%
37	BALASORE	JED, Jaleswar	JAGANNATHPUR	NIMATPUR	OTHER	1.87	0.97	48%
38	BALASORE	JED, Jaleswar	DEHURDA,JED	CHOUKI	AMR	0.34	0.29	16%

S.No.	Name of the Circle	Name of the Division	Name of the Sub-Station	Feeder Name	Type of feeder meter (AMI/AMR/Other)	Input Energy Received at Feeder (in MU)	Feeder Consumption (In MU)	T&D losses (%)
39	BALASORE	JED, Jaleswar	DEHURDA,JED	DEULA	AMR	1.75	1.41	19%
40	BALASORE	JED, Jaleswar	DEHURDA,JED	JAIRAMPUR	OTHER	1.20	0.82	32%
41	BALASORE	JED, Jaleswar	HATIGARH PSS	MAHULIA	OTHER	1.26	0.91	27%
42	BALASORE	JED, Jaleswar	HATIGARH PSS	RAJNAGAR	OTHER	1.54	1.04	33%
43	BALASORE	JED, Jaleswar	HATIGARH PSS	SAGI	OTHER	0.38	0.31	17%
44	BALASORE	JED, Jaleswar	TEGHARI	MAHULIA-2	OTHER	1.60	1.05	34%
45	BALASORE	JED, Jaleswar	JALESWAR	CHALANTI	OTHER	1.64	1.10	33%
46	BALASORE	JED, Jaleswar	KAMARDA	KAMARDA HEADQUARTER	AMR	0.55	0.40	28%
47	BALASORE	JED, Jaleswar	KAMARDA	MAHAGAB	AMR	0.69	0.47	32%
48	BALASORE	JED, Jaleswar	NAMPO PSS	SUGO	OTHER	1.32	0.94	29%
49	BALASORE	SED, Soro	BALIKHAND	BEGUNIA	AMR	1.06	1.00	6%
50	BALASORE	SED, Soro	JHAMJHUDI	KHIRKONA	AMR	0.50	0.35	31%
51	BALASORE	SED, Soro	JHAMJHUDI	JAMUJHADI BAZAR	AMR	0.24	0.20	19%
52	BALASORE	SED, Soro	JHAMJHUDI	JAMUJHADI RICE MILL	AMR	0.21	0.14	34%
53	BALASORE	SED, Soro	MARKONA	ADA	AMR	0.76	0.53	30%
54	BALASORE	SED, Soro	MARKONA	ANTAPUR	AMR	0.22	0.18	19%
55	BALASORE	SED, Soro	MARKONA	BARI	AMR	0.52	0.37	29%
56	BALASORE	SED, Soro	MARKONA	NAYAPALLI	AMR	0.55	0.50	10%
57	BALASORE	SED, Soro	BAHANAGA	BASULIPUR	OTHER	0.03	0.02	41%
58	BALASORE	SED, Soro	BAHANAGA	BIDU	OTHER	0.48	0.34	28%
59	BALASORE	SED, Soro	KHANTAPARA	PANPANA	AMR	0.92	0.56	39%
60	BALASORE	SED, Soro	KACHERIPADA	KESHARIPUR	AMR	0.28	0.17	37%
61	BALASORE	SED, Soro	KACHERIPADA	MANAITRI	AMR	0.26	0.13	49%
62	BALASORE	SED, Soro	BISHNUPUR (JHADTA)	ANJI	AMR	0.59	0.30	49%
63	BALASORE	SED, Soro	GOPALPUR	ARUHANBAD	OTHER	0.78	0.56	28%
64	BALASORE	SED, Soro	ANANTAPUR	ANANTAPUR	OTHER	0.82	0.42	48%
65	BALASORE	SED, Soro	ANANTAPUR	PAKHARA	OTHER	0.99	0.58	42%
66	BALASORE	SED, Soro	GOPINATHPUR	MULISINGH	OTHER	0.76	0.45	40%
67	BALASORE	SED, Soro	DUNGURA	GHARSANGA	AMR	0.58	0.48	18%
68	BALASORE	SED, Soro	GANDIBED	MAKHANPUR	OTHER	0.96	0.85	11%
69	BALASORE	SED, Soro	KHAIRA	ARJUNPUR	OTHER	0.09	0.05	45%
70	BALASORE	SED, Soro	KHAIRA	KHAIRA	OTHER	0.50	0.41	18%
71	BALASORE	SED, Soro	KUPARI	BARTANA	AMR	0.53	0.41	24%
72	BALASORE	SED, Soro	KUPARI	BAUNSAGADIA	AMR	0.20	0.14	29%
73	BALASORE	SED, Soro	KUPARI	KUPARI	AMR	0.59	0.42	28%
74	BALASORE	SED, Soro	OUPADA	OUPADA	AMR	0.31	0.28	8%
75	BALASORE	SED, Soro	ADDA	ADA BAZAR	AMR	0.41	0.34	17%
76	BALASORE	SED, Soro	ADDA	MURUNA	AMR	0.09	0.06	38%
77	BALASORE	SED, Soro	ADDA	RAFAYA	AMR	0.39	0.22	43%
78	BALASORE	SED, Soro	ADDA	SABANGA	AMR	0.21	0.12	43%
79	BALASORE	SED, Soro	PITAKALIA (ODSSP)	SABIRA	AMR	0.41	0.34	18%
80	BALASORE	SED, Soro	PITAKALIA (ODSSP)	SARSANG	AMR	0.56	0.38	32%

S.No.	Name of the Circle	Name of the Division	Name of the Sub-Station	Feeder Name	Type of feeder meter (AMI/AMR/Other)	Input Energy Received at Feeder (in MU)	Feeder Consumption (In MU)	T&D losses (%)
81	BALASORE	SED, Soro	COLLEGE CHHAKA	MANIPUR	OTHER	0.52	0.38	29%
82	BALASORE	SED, Soro	COLLEGE CHHAKA	SOROTOWN	OTHER	1.91	1.52	21%
83	BARIPADA	BPED, Baripada	RANDASAHI	KUSUMBANDH	AMR	0.92	0.55	41%
84	BARIPADA	BPED, Baripada	JHARPOKHARIA	JHARPOKHARIA	AMR	1.09	0.92	16%
85	BARIPADA	BPED, Baripada	CHANDUA	GADARGADI	AMR	0.61	0.42	31%
86	BARIPADA	BPED, Baripada	CHANDUA	KESHARPUR	AMR	0.46	0.30	34%
87	BARIPADA	BPED, Baripada	CHANDUA	KEUTUNIMARI	AMR	0.36	0.19	48%
88	BARIPADA	BPED, Baripada	KALABADIA PSS (KULIANA SECTION)	KULIANA	AMR	0.68	0.63	8%
89	BARIPADA	BPED, Baripada	BHALIASOLE PSS	CHUHAT	AMR	0.35	0.18	48%
90	BARIPADA	BPED, Baripada	BHALIASOLE PSS	SULIAPADA BAZAR	AMR	0.28	0.25	10%
91	BARIPADA	BPED, Baripada	KOSHTA PSS	KOSTA FEEDER	OTHER	0.66	0.47	29%
92	BARIPADA	BPED, Baripada	KUCHILAKHUNTA PSS	SIALGHATI	AMR	0.45	0.31	31%
93	BARIPADA	BPED, Baripada	SALABANI PSS	DANTIAMUHA (KC PUR)	AMR	0.59	0.34	42%
94	BARIPADA	BPED, Baripada	RASGOVINDPUR	MANIDA	AMR	0.80	0.41	49%
95	BARIPADA	BPED, Baripada	BAISINGHA	PAIKASAHI	AMR	0.90	0.55	39%
96	BARIPADA	BPED, Baripada	BETANOTI PSS	BETNOTI TOWN	AMR	1.48	1.38	6%
97	BARIPADA	BPED, Baripada	BARIPADA STADIUM	BHANJAPUR	OTHER	1.14	0.91	20%
98	BARIPADA	BPED, Baripada	LAL BAZAR (GOLAPBAG) (IPDS)	JUBILEE	AMR	2.37	1.80	24%
99	BARIPADA	BPED, Baripada	TAKATPUR	LIC	OTHER	1.27	1.18	7%
100	BARIPADA	BPED, Baripada	TAKATPUR	PALBANI	OTHER	1.46	0.99	32%
101	BARIPADA	BPED, Baripada	CHHANCHA	RURAL	OTHER	1.05	0.90	14%
102	BARIPADA	BPED, Baripada	RAGHUNATHPUR	KULIANA	AMR	0.48	0.25	47%
103	BARIPADA	BPED, Baripada	SAMAKHUNTA	BALDIHA	AMR	0.32	0.23	28%
104	BARIPADA	BPED, Baripada	SAMAKHUNTA	KENDUA	AMR	0.19	0.13	30%
105	BARIPADA	BPED, Baripada	SAMAKHUNTA	SAMAKHUNTA	AMR	0.73	0.60	18%
106	BARIPADA	BPED, Baripada	SAPANICHUA	BHALKI	AMR	0.46	0.32	30%
107	BARIPADA	RED, Rairangpur	KARANJIA PSS	KERKERA	OTHER	0.58	0.51	11%
108	BARIPADA	RED, Rairangpur	THAKURMUNDA PSS	CHAMPAJHAR	OTHER	0.77	0.53	32%
109	BARIPADA	RED, Rairangpur	THAKURMUNDA PSS	MAHULDIHA	AMR	0.71	0.62	13%
110	BARIPADA	RED, Rairangpur	THAKURMUNDA PSS	THAKURMUNDA	AMR	0.77	0.56	27%
111	BARIPADA	RED, Rairangpur	BAHALDA PSS	BAHALDA	AMR	1.75	1.18	32%
112	BARIPADA	RED, Rairangpur	BAHALDA PSS	BASINGI	AMR	0.64	0.51	21%
113	BARIPADA	RED, Rairangpur	KANTABANI PSS	DUBULABEDA	OTHER	1.14	0.80	30%
114	BARIPADA	RED, Rairangpur	KANTABANI PSS	RAIRANGPUR TOWN	AMR	1.29	1.09	16%
115	BARIPADA	RED, Rairangpur	TIRING PSS	TIRING	AMR	0.75	0.68	9%
116	BARIPADA	RED, Rairangpur	JAMDA PSS	JAMDA	OTHER	0.97	0.84	14%
117	BARIPADA	RED, Rairangpur	BIJATOLA PSS	PATPURA	OTHER	0.86	0.53	38%
118	BARIPADA	RED, Rairangpur	BISOI PSS	BISOI BLOCK	OTHER	0.69	0.57	17%

S.No.	Name of the Circle	Name of the Division	Name of the Sub-Station	Feeder Name	Type of feeder meter (AMI/AMR/Other)	Input Energy Received at Feeder (in MU)	Feeder Consumption (In MU)	T&D losses (%)
119	BARIPADA	RED, Rairangpur	ASANBANI	ANLADUBA	AMR	0.66	0.56	14%
120	BARIPADA	UED, Udala	BADASAHI	SINGTIA	OTHER	0.34	0.18	47%
121	BARIPADA	UED, Udala	PURNABARIPPADA	KUAMARA	OTHER	0.51	0.30	42%
122	BARIPADA	UED, Udala	PURNABARIPPADA	PASUDA	OTHER	0.38	0.31	18%
123	BARIPADA	UED, Udala	PURNABARIPPADA	SAINKULA	OTHER	0.38	0.31	19%
124	BARIPADA	UED, Udala	MANITREE	BHIMDA	OTHER	0.39	0.30	24%
125	BARIPADA	UED, Udala	MANITREE	DEULIA	OTHER	0.55	0.41	25%
126	BARIPADA	UED, Udala	MANITREE	MANAGOVINDPUR	OTHER	0.47	0.35	26%
127	BARIPADA	UED, Udala	AMBADALI	KHANUA	AMR	0.08	0.06	30%
128	BARIPADA	UED, Udala	AMBADALI	PRATAPUR	AMR	0.34	0.21	40%
129	BARIPADA	UED, Udala	SANKERKO	JADUNATHPUR	OTHER	0.23	0.16	29%
130	BARIPADA	UED, Udala	KHUNTA	KUSALDA	OTHER	0.97	0.54	44%
131	BARIPADA	UED, Udala	KHUNTA	SEEMAGADIA	OTHER	1.08	0.85	21%
132	BARIPADA	UED, Udala	SARAT	KATURIA	AMR	0.19	0.15	17%
133	BARIPADA	UED, Udala	KAPTIPADA	PEDAGADI	OTHER	0.55	0.43	22%
134	BARIPADA	UED, Udala	NUDUDIHA	NUDUDIHAA	AMR	0.23	0.15	33%
135	BARIPADA	UED, Udala	UDALA	PURUNA KHUNTA	OTHER	0.84	0.70	17%
136	BHADRAK	BNED, Bhadrak	BILANA (ODSSP)	BILANA	AMR	0.86	0.62	29%
137	BHADRAK	BNED, Bhadrak	BILANA (ODSSP)	NUNDOR	AMR	0.47	0.26	45%
138	BHADRAK	BNED, Bhadrak	POWER HOUSE	MATHASAHI	OTHER	0.84	0.74	12%
139	BHADRAK	BNED, Bhadrak	TAHASIL	BANTHCHAAK	OTHER	1.91	1.29	33%
140	BHADRAK	BNED, Bhadrak	POWER HOUSE	KANTABANIA	OTHER	1.30	0.84	35%
141	BHADRAK	BNED, Bhadrak	TAHASIL	SANTHIA	OTHER	2.27	1.32	42%
142	BHADRAK	BNED, Bhadrak	POWER HOUSE	CHARAMPA-II	OTHER	1.24	0.67	46%
143	BHADRAK	BNED, Bhadrak	ASURA	CHANDIGAON	AMR	0.35	0.31	12%
144	BHADRAK	BNED, Bhadrak	ASURA	CHARAMPA COLLEGE	AMR	1.60	1.05	35%
145	BHADRAK	BNED, Bhadrak	ASURA	POLY	AMR	0.43	0.26	41%
146	BHADRAK	BNED, Bhadrak	RAHANJA	RAHANJA	AMR	0.44	0.24	45%
147	BHADRAK	BNED, Bhadrak	BIJEGANGADHARPUR (ODSSP)	SANGAT	AMR	0.17	0.10	42%
148	BHADRAK	BNED, Bhadrak	KUNDIBAG (ODSSP)	BARANGA	AMR	1.19	0.85	29%
149	BHADRAK	BNED, Bhadrak	KUNDIBAG (ODSSP)	HARISHAKARPUR	AMR	0.50	0.35	31%
150	BHADRAK	BNED, Bhadrak	KUNDIBAG (ODSSP)	NACHIPUR	AMR	0.24	0.16	33%
151	BHADRAK	BNED, Bhadrak	NANDAPUR (TIHIDI)	DOLASAHI	AMR	0.75	0.52	30%
152	BHADRAK	BNED, Bhadrak	NANDAPUR (TIHIDI)	KAMARIA	AMR	1.03	0.66	36%
153	BHADRAK	BNED, Bhadrak	NANDAPUR (TIHIDI)	TALAPADA	AMR	0.51	0.26	49%
154	BHADRAK	BNED, Bhadrak	NANDAPUR (TIHIDI)	TIHIDI	AMR	1.69	0.86	49%
155	BHADRAK	BNED, Bhadrak	SINDOL (ODSSP)	KOLHA	AMR	0.43	0.26	40%
156	BHADRAK	BNED, Bhadrak	SINDOL (ODSSP)	MADHAPUR	AMR	0.74	0.45	39%
157	BHADRAK	BNED, Bhadrak	CHANDABALI	BIJAYANAGAR	AMR	0.78	0.62	21%
158	BHADRAK	BNED, Bhadrak	CHANDABALI	CHANDABALI	AMR	1.88	1.41	25%
159	BHADRAK	BNED, Bhadrak	CHANDABALI	TENTULIDIHI	AMR	0.44	0.28	37%
160	BHADRAK	BNED, Bhadrak	MATTO (ODSSP)	MATTO RURAL	AMR	0.51	0.27	47%

S.No.	Name of the Circle	Name of the Division	Name of the Sub-Station	Feeder Name	Type of feeder meter (AMI/AMR/Other)	Input Energy Received at Feeder (in MU)	Feeder Consumption (In MU)	T&D losses (%)
161	BHADRAK	BNED, Bhadrak	MATTO (ODSSP)	MATTO TOWN	AMR	0.70	0.51	28%
162	BHADRAK	BNED, Bhadrak	JASHIPUR	GHANTESWAR	AMR	1.33	1.11	17%
163	BHADRAK	BNED, Bhadrak	JASHIPUR	JALESWARPUR	AMR	0.24	0.22	7%
164	BHADRAK	BNED, Bhadrak	BASUDEVPUR	PADMAPUR	OTHER	2.24	1.52	32%
165	BHADRAK	BNED, Bhadrak	BASUDEVPUR	CHANDIMAL	AMR	1.94	1.23	37%
166	BHADRAK	BNED, Bhadrak	BASUDEVPUR	NARASINGHAPUR-II	OTHER	0.46	0.34	26%
167	BHADRAK	BNED, Bhadrak	BASUDEVPUR	ERAM BAZAR	OTHER	1.68	1.05	38%
168	BHADRAK	BNED, Bhadrak	ERAM	ERAM	AMR	0.64	0.49	23%
169	BHADRAK	BNED, Bhadrak	BIDEIPUR	BALIMUDA	OTHER	1.74	1.05	40%
170	BHADRAK	BNED, Bhadrak	DHAMARA	DOSINGA	AMR	1.32	1.09	17%
171	BHADRAK	BSED, Bhadrak	BISALPATA	CHARIGAN	OTHER	0.32	0.25	20%
172	BHADRAK	BSED, Bhadrak	BISALPATA	KADABARANGA	OTHER	0.15	0.10	33%
173	BHADRAK	BSED, Bhadrak	ASURALI	ARNAPALA	AMR	1.80	1.01	44%
174	BHADRAK	BSED, Bhadrak	ASURALI	DHUSURI	OTHER	1.40	1.11	21%
175	BHADRAK	BSED, Bhadrak	ASURALI	JHARADIA	AMR	0.16	0.10	33%
176	BHADRAK	BSED, Bhadrak	ASURALI	NADIGAN	AMR	0.49	0.40	18%
177	BHADRAK	BSED, Bhadrak	DAHALA	AKHUAPADA(Dahala)	OTHER	0.73	0.43	41%
178	BHADRAK	BSED, Bhadrak	DAHALA	MANJURIROAD	OTHER	0.73	0.48	34%
179	BHADRAK	BSED, Bhadrak	DAHALA	RWSS	OTHER	0.05	0.04	23%
180	BHADRAK	BSED, Bhadrak	MALDA (ODSSP)	MALDA	AMR	0.59	0.32	46%
181	BHADRAK	BSED, Bhadrak	MALDA (ODSSP)	RAHANIA	OTHER	0.18	0.11	40%
182	BHADRAK	BSED, Bhadrak	DHAMNAGARCHHAKA	GUHALIA	OTHER	0.20	0.17	13%
183	BHADRAK	BSED, Bhadrak	DHAMNAGARCHHAKA	INDUSTRIAL	OTHER	0.14	0.12	12%
184	BHADRAK	BSED, Bhadrak	DHAMNAGARCHHAKA	NIRGUNDI	OTHER	0.51	0.45	12%
185	BHADRAK	BSED, Bhadrak	DHAMNAGAR (IPDS)	BHAGABANPUR	OTHER	0.41	0.30	25%
186	BHADRAK	BSED, Bhadrak	DHAMNAGAR (IPDS)	DHAMNAGAR	OTHER	1.59	1.12	30%
187	BHADRAK	BSED, Bhadrak	RANIPOKHARI (ODSSP)	KHANGARA	AMR	0.76	0.44	41%
188	BHADRAK	BSED, Bhadrak	BARAPADA	KAUPUR	OTHER	0.81	0.51	37%
189	BHADRAK	BSED, Bhadrak	RANDHIA	SARAMANGA	OTHER	0.54	0.37	30%
190	JAJPUR	JRED	DEULKANA	NACHHIPURA	AMR	0.93	0.83	11%
191	JAJPUR	JRED	DUBURI	PANKAPAL	AMR	1.45	0.85	41%
192	JAJPUR	JRED	DAMODARPUR	MANGALPUR	AMR	0.55	0.28	49%
193	JAJPUR	JRED	DAMODARPUR	PIMPUDIA	AMR	0.18	0.11	40%
194	JAJPUR	JRED	MANPUR (ODSSP)	MANPUR	AMR	1.10	0.66	40%
195	JAJPUR	JRED	MANPUR (ODSSP)	SOLEI	AMR	0.81	0.50	38%
196	JAJPUR	JRED	CHORDA	SAPAGHADIA	AMR	1.97	1.05	47%
197	JAJPUR	JRED	BYASASAROBAR	MUNDAMAL	AMR	0.73	0.50	31%
198	JAJPUR	JRED	BYASASAROBAR	RACHHIPUR	AMR	1.24	0.90	27%
199	JAJPUR	JRED	MARTHAPUR	MARTHAPUR	AMR	0.38	0.25	34%
200	JAJPUR	JRED	PANIKOILI	NATHASAHI	AMR	1.29	0.83	35%
201	JAJPUR	JRED	PANIKOILI	SARASWATI BAZAR	AMR	0.60	0.51	14%
202	JAJPUR	JRED	SALAKANA	BT ROAD	AMR	1.60	1.09	32%

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203	JAJPUR	JRED	DHABALGIRI	DHABALGIRI	AMR	1.62	1.30	20%
204	JAJPUR	JRED	DHABALGIRI	NILACHACHAL	AMR	0.62	0.56	10%
205	JAJPUR	JRED	FIRESTATION	RANIPADA	AMR	0.48	0.29	39%
206	JAJPUR	JRED	FIRESTATION	TALAGADA	AMR	0.76	0.44	42%
207	JAJPUR	JRED	RAGADI	RAGADI	AMR	1.12	0.88	21%
208	JAJPUR	JRED	SALAKANA	KORAI	AMR	1.06	0.62	42%
209	JAJPUR	JRED	SALAKANA	TULATI	AMR	0.31	0.21	34%
210	JAJPUR	JTED	MANSARA	KALYANPUR	AMR	0.17	0.13	21%
211	JAJPUR	JTED	MAINDA	CHHIKANA	AMR	0.64	0.47	27%
212	JAJPUR	JTED	DAMDHADA	GUHALI	AMR	0.75	0.66	13%
213	JAJPUR	JTED	DAMDHADA	MARKANDAPUR	AMR	0.83	0.58	30%
214	JAJPUR	JTED	JAJPUR TOWN	BIRAJAHAT	AMR	1.06	0.70	34%
215	JAJPUR	JTED	JAJPUR TOWN	NO-1	AMR	3.25	2.24	31%
216	JAJPUR	JTED	JAJPUR TOWN	NO-2	AMR	3.22	2.42	25%
217	JAJPUR	JTED	JAJPUR TOWN	GOKHANA	AMR	0.60	0.48	21%
218	JAJPUR	JTED	JAJPUR TOWN	SIMULIA	AMR	0.79	0.59	25%
219	JAJPUR	JTED	BASANTIPADIA	AHIYAS	AMR	0.69	0.58	15%
220	JAJPUR	JTED	BASANTIPADIA	BAISPAN	AMR	0.52	0.35	34%
221	JAJPUR	JTED	BOULANGA	OLD DASRATHPUR	AMR	0.92	0.52	44%
222	JAJPUR	JTED	KANTIPADIA	DASARATHPUR	AMR	1.22	0.99	19%
223	JAJPUR	JTED	KANTIPADIA	NANDIPUR	AMR	0.59	0.47	21%
224	JAJPUR	JTED	BOULANGA	NARIGAON	AMR	1.20	0.78	34%
225	JAJPUR	JTED	BOULANGA	OLD AHIYAS	AMR	0.11	0.09	12%
226	JAJPUR	KUED	JARKA	NAKPOLE	AMR	1.31	0.98	25%
227	JAJPUR	KUED	NARSINGHPUR	KOTAPUR	AMR	0.77	0.44	43%
228	JAJPUR	KUED	NARSINGHPUR	KUNDAPATANA	AMR	0.50	0.40	21%
229	JAJPUR	KUED	CHADHEIDHARA	JENAPUR	AMR	0.26	0.16	38%
230	JAJPUR	KUED	KABATABANDHA	JENAPUR	AMR	1.93	1.04	46%
231	JAJPUR	KUED	CHITRAKULA(BARABATI)	BARABATI	AMR	0.60	0.33	45%
232	JAJPUR	KUED	KUAKHIA	BARABATI BAZAR	AMR	1.73	0.89	49%
233	JAJPUR	KUED	KUAKHIA	HARIPUR	AMR	1.28	1.21	6%
234	JAJPUR	KUED	CHITRAKULA(BARABATI)	SINGHPUR	AMR	1.05	0.57	46%
235	JAJPUR	KUED	MATHASAHI	DIPANCHAL	AMR	0.58	0.54	6%
236	JAJPUR	KUED	MATHASAHI	MADHUBAN	AMR	0.81	0.52	35%
237	JAJPUR	KUED	RATNAGIRI	RAIPUR	AMR	0.47	0.39	17%
238	JAJPUR	KUED	BARI	KAIPADA	AMR	0.72	0.57	21%
239	JAJPUR	KUED	BALIA	BANIARI	AMR	0.26	0.15	42%
240	JAJPUR	KUED	SUJANPUR	KUJHALA	AMR	0.70	0.53	24%
241	JAJPUR	KUED	SUJANPUR	RAGHUNATHPUR	AMR	0.78	0.49	37%
242	JAJPUR	KUED	SUJANPUR	BRAHMABARADA	AMR	2.83	2.07	27%
243	JAJPUR	KUED	BARUAN	BARUAN	AMR	0.22	0.17	22%
244	JAJPUR	KUED	BARUAN	KACHARINGA	AMR	0.16	0.10	34%

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245	JAJPUR	KUED	BARUAN	SANKHAMATHA	AMR	0.49	0.25	49%
246	KEONJHAR	AED, ANANDPUR	BIDYADHARAPUR	BAULA	AMR	0.68	0.64	7%
247	KEONJHAR	AED, ANANDPUR	BIDYADHARAPUR	HADAGARH	AMR	0.41	0.36	12%
248	KEONJHAR	AED, ANANDPUR	BIDYADHARAPUR	WATER SUPPLY	OTHER	0.32	0.17	46%
249	KEONJHAR	AED, ANANDPUR	BIDYADHARAPUR	SOSO	AMR	0.50	0.40	19%
250	KEONJHAR	AED, ANANDPUR	ANANDPUR	ANANDPUR	AMR	1.29	1.06	18%
251	KEONJHAR	AED, ANANDPUR	SALABANI (ODSSP)	TARATARA	AMR	0.35	0.23	36%
252	KEONJHAR	AED, ANANDPUR	CHHENAPADI (ODSSP)	BANCHO	AMR	0.33	0.20	40%
253	KEONJHAR	AED, ANANDPUR	CHHENAPADI (ODSSP)	MUGUPUR	AMR	0.55	0.48	13%
254	KEONJHAR	AED, ANANDPUR	GHASIPURA	BELABAHALI	AMR	0.99	0.56	43%
255	KEONJHAR	AED, ANANDPUR	GHASIPURA	DHAKOTA	AMR	0.78	0.58	25%
256	KEONJHAR	AED, ANANDPUR	GHASIPURA	SALAPADA	AMR	1.30	0.99	24%
257	KEONJHAR	AED, ANANDPUR	REKUTIA (ODSSP)	DEOGAON	AMR	0.72	0.58	20%
258	KEONJHAR	AED, ANANDPUR	REKUTIA (ODSSP)	KANSA	AMR	0.79	0.45	43%
259	KEONJHAR	AED, ANANDPUR	REKUTIA (ODSSP)	KESHDURAPAL	AMR	0.37	0.33	11%
260	KEONJHAR	AED, ANANDPUR	SAINKUL (ODSSP)	BATTO	AMR	0.98	0.58	41%
261	KEONJHAR	AED, ANANDPUR	DHENKIKOTE	KETANGA	AMR	0.35	0.32	11%
262	KEONJHAR	AED, ANANDPUR	PIPILIA (ODSSP)	JHARBEDA	AMR	0.58	0.44	23%
263	KEONJHAR	AED, ANANDPUR	PIPILIA (ODSSP)	TORANIPOKHARI	AMR	0.45	0.26	42%
264	KEONJHAR	AED, ANANDPUR	HARICHANDANPUR	BADAPALASPAL	AMR	1.09	0.63	42%
265	KEONJHAR	AED, ANANDPUR	HARICHANDANPUR	PITHAGALA	AMR	1.01	0.59	41%
266	KEONJHAR	AED, ANANDPUR	GHATAGAON (ODSSP)	BAIGANAPAL	AMR	0.23	0.19	19%
267	KEONJHAR	AED, ANANDPUR	GHATAGAON (ODSSP)	DHANGARDIHA	AMR	0.33	0.24	26%
268	KEONJHAR	AED, ANANDPUR	GHATAGAON (ODSSP)	GADADHARPUR	AMR	0.36	0.23	38%
269	KEONJHAR	AED, ANANDPUR	GHATAGAON (ODSSP)	GHATAGAON MARKET	AMR	0.76	0.49	35%
270	KEONJHAR	AED, ANANDPUR	PANDAPADA (ODSSP)	RUTISHILA	AMR	0.46	0.30	34%
271	KEONJHAR	AED, ANANDPUR	JANGHIRA (ODSSP)	JANGHIRA(JAN)	AMR	0.85	0.46	46%
272	KEONJHAR	AED, ANANDPUR	JANGHIRA (ODSSP)	JUNGA	AMR	0.25	0.14	45%
273	KEONJHAR	JOED, JODA	CHAMPUA	CHIMILA	AMR	0.47	0.30	37%
274	KEONJHAR	JOED, JODA	JHUMPURA	HANDIBHANGA	AMR	0.48	0.45	7%
275	KEONJHAR	JOED, JODA	JHUMPURA	JHUMPURA	AMR	1.42	0.91	36%
276	KEONJHAR	JOED, JODA	JHUMPURA	PALASPANGA	AMR	1.47	1.08	27%
277	KEONJHAR	JOED, JODA	BASUDEVPUR (ODSSP)	BASUDEVPUR	AMR	0.25	0.15	41%
278	KEONJHAR	JOED, JODA	REMULI	BALIBANDHA	OTHER	1.00	0.69	31%

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279	KEONJHAR	JOED, JODA	REMULI	CHAUTHIA	OTHER	0.54	0.33	40%
280	KEONJHAR	JOED, JODA	REMULI	REMULI PHD	OTHER	0.27	0.22	21%
281	KEONJHAR	JOED, JODA	UKHUNDA (ODSSP)	ASANPAT	AMR	0.39	0.35	10%
282	KEONJHAR	JOED, JODA	UKHUNDA (ODSSP)	BALAJHARI	AMR	0.24	0.20	20%
283	KEONJHAR	JOED, JODA	UKHUNDA (ODSSP)	KASHIPUR	AMR	0.22	0.19	14%
284	KEONJHAR	JOED, JODA	UKHUNDA (ODSSP)	UKHUNDA TOWN	AMR	0.12	0.10	19%
285	KEONJHAR	JOED, JODA	SUNDARA (BARBIL)	KALINGA	OTHER	0.33	0.24	29%
286	KEONJHAR	JOED, JODA	BHADRASAHI (ODSSP)	BHADRASAHI TOWN	AMR	2.02	1.61	21%
287	KEONJHAR	JOED, JODA	RUGUDI	RUGUDI	OTHER	1.44	1.26	13%
288	KEONJHAR	JOED, JODA	JODA(HIRAKUD COLONY) (ODSSP)	BANEIKALA	AMR	2.62	1.41	46%
289	KEONJHAR	JOED, JODA	JODA(HIRAKUD COLONY) (ODSSP)	BILEIPADA	AMR	1.52	0.94	38%
290	KEONJHAR	JOED, JODA	JODA(HIRAKUD COLONY) (ODSSP)	JODA TOWN	AMR	3.30	1.72	48%
291	KEONJHAR	KED, KEONJHAR	RAISUAN (ODSSP)	BANAJODI	AMR	0.65	0.56	13%
292	KEONJHAR	KED, KEONJHAR	RAISUAN (ODSSP)	KEMSODA	AMR	0.33	0.30	11%
293	KEONJHAR	KED, KEONJHAR	KENDEIPOSI (ODSSP)	KENDUAPADA	AMR	0.20	0.15	22%
294	KEONJHAR	KED, KEONJHAR	MUSAKHORI (ODSSP)	CHINAMALIPOSI	AMR	0.20	0.10	47%
295	KEONJHAR	KED, KEONJHAR	MUSAKHORI (ODSSP)	DUMURIA	AMR	0.25	0.13	47%
296	KEONJHAR	KED, KEONJHAR	MUSAKHORI (ODSSP)	MUSAKHORI	AMR	0.16	0.13	15%
297	KEONJHAR	KED, KEONJHAR	PATANA	PATANA	AMR	0.80	0.75	6%
298	KEONJHAR	KED, KEONJHAR	PATANA	SAHARPADA(PAT)	AMR	0.32	0.20	38%
299	KEONJHAR	KED, KEONJHAR	MACHAGADA (ODSSP)	MACHHAGARH(MAC)	AMR	0.21	0.12	46%
300	KEONJHAR	KED, KEONJHAR	SAHARAPADA	SAHARPADA(SAH)	AMR	0.68	0.43	36%
301	KEONJHAR	KED, KEONJHAR	BANSPAL	FULJHAR	AMR	0.46	0.27	41%
302	KEONJHAR	KED, KEONJHAR	BANSPAL	NAYAKOTE	AMR	0.60	0.35	41%
303	KEONJHAR	KED, KEONJHAR	KEONJHAR (GAMBARIA)	KJR TOWN-1	AMR	3.00	1.97	34%
304	KEONJHAR	KED, KEONJHAR	KEONJHAR (GAMBARIA)	KJR TOWN-3	AMR	2.77	2.05	26%
305	KEONJHAR	KED, KEONJHAR	KEONJHAR (GAMBARIA)	EXPRESS	AMR	0.80	0.60	25%
306	KEONJHAR	KED, KEONJHAR	KEONJHAR (GAMBARIA)	KJR TOWN-4	AMR	0.40	0.33	16%
307	KEONJHAR	KED, KEONJHAR	KEONJHAR (GAMBARIA)	KJR TOWN-2	AMR	3.23	2.25	30%
308	KEONJHAR	KED, KEONJHAR	KHIREITANGARI (ODSSP)	KANTIAPADA	AMR	0.12	0.09	32%
309	KEONJHAR	KED, KEONJHAR	KHIREITANGARI (ODSSP)	MAIDANKEL	AMR	0.35	0.22	36%
310	KEONJHAR	KED, KEONJHAR	NARANPUR (ODSSP)	JANGHIRA(NAR)	AMR	0.04	0.02	39%
311	KEONJHAR	KED, KEONJHAR	NARANPUR (ODSSP)	NARANPUR	AMR	0.54	0.31	43%
312	KEONJHAR	KED, KEONJHAR	NARANPUR (ODSSP)	SANKARPUR	AMR	0.39	0.27	30%
313	KEONJHAR	KED, KEONJHAR	JAGMOHANPUR (ODSSP)	JAGMOHANPUR	AMR	0.50	0.35	30%

S.No.	Name of the Circle	Name of the Division	Name of the Sub-Station	Feeder Name	Type of feeder meter (AMI/AMR/Other)	Input Energy Received at Feeder (in MU)	Feeder Consumption (In MU)	T&D losses (%)
314	KEONJHAR	KED, KEONJHAR	TELKOI	KALIAHOTA	AMR	1.66	0.89	46%
315	KEONJHAR	KED, KEONJHAR	TELKOI	ORIYAGODA	AMR	0.17	0.16	6%
316	KEONJHAR	KED, KEONJHAR	TELKOI	TELKOI	AMR	0.50	0.32	36%

Observations:

- From the above table it can be concluded that % of Losses are relatively on higher side in Rural areas.
- Losses on all Agricultural Feeders are also on higher side.
- Highest % of losses observed at Manaitri (Rural Feeder) which is around 49%.

RECOMMENDATIONS

- 33 kV System Loss should be estimated as the difference of sending end energy from the 220 / 132 / 33 kV Grid Sub-Station and receiving end energy of Primary Substation including energy sent out to Bulk consumers at 33 kV level.
- 33 kV Loss should be computed considering one month consumption by taking meter reading of all the incoming 33 kV feeders of Primary Sub-Station including bulk 33 kV consumer and related 33 kV outgoing feeders of Grid Sub-Station.
- 33 kV line loss = Σ(33 kV O/G Feeder meter reading at GRID SUB-STATION - Σ(33 kV I/C meter reading at PRIMARY SUBSTATION + 33 kV I/C meter reading at HT Bulk))
- Computation of 33/11 kV transformer loss: Σ 33 kV I/C meter reading at primary Substation
- −Σ 11 kV O/G meter reading at primary Substation.

➢ **COMPUTATION OF 11 kV LOSS:**

Energy Loss of 11 kV feeders should be arrived at by the difference between the sending end energy i.e. 11 kV outgoing feeders of primary sub-station and energy recorded at LV side of DTR including Bulk consumer connected in the same 11 kV feeder.

11 kV Loss should be computed considering one month's energy consumption by taking the meter reading of the 11 kV feeder of Primary Substation and all the DTR meter reading connectedin the same 11 kV feeder and bulk consumer connected in the same 11 kV feeder.

Thus the total 11 kV loss for this circle found out as

11 kV line loss = Σ(11 kV O/G Feeder meter reading at Primary Substation – Σ All DTRs'meter reading connected to that 11 kV feeder) – Σ 11 kV I/C meter reading at HT Bulk.

- **COMPUTATION OF LT LOSS:**

Energy Loss of LT feeders should be arrived at by the difference between the sending end energy i.e. Distribution Transformer (DTR) and Energy recorded at consumer meters of LT consumersconnected in the same DTR.

LT Loss should be computed considering one month's energy consumption by taking meterreading of DTR and the entire Consumers' meter reading connected to the same DTR.

Thus the total LT line loss for these circles is found out as

LT line loss = Σ (11/0.44 KV DTR meter reading – Σ All consumers' meter reading connected to that DTR)

- **COMPUTATION OF COMMERCIAL LOSS:**

Commercial Loss may be found out as

= AT&C Loss – Technical Loss

= {(1 – Billing Efficiency x Collection Efficiency) x 100} – (33 kV loss + 33/11 kV transformer loss) + (11 kV Line Loss + LT Line Loss)

The Billing efficiency, Collection Efficiency, Energy Billed and Energy to be collected from theTPNODL.

Technical Loss i.e.; 33 kV, 11 kV and LT Line Losses to be computed as mentioned above.

Hence Total amount of Commercial Loss has been arrived by deducting all other componentsfrom AT&C Loss.

RECOMMENDATION

a) Energy loss due to theft/ pilferage:

During field survey it was observed that there is some energy lost due to theft/ pilferage in the Power system. It needs to be prevented by checking periodically.

b) Defective meters:

Considerable percentage of defective meters is one of the reasons for provisional billing and consequential commercial losses in the TPNODL. Some energy meters installed at the consumer premises are found to be defective.

RECOMMENDATIONS

Technical loss recommendation

- Reduction in Transmission losses:
- Improvement in power factor
- Reconductring of transmission line
- Conversion of single circuit to double circuit

Reduction of Transformer losses:

- Improvement of die electric strength of transformer oil
- Improvement of power factor
- Thermographs of primary/ secondary cable/ bus terminations
- Reduction of contact resistance of terminations
- Regular checking and replacement of silica gel

Reduction of Bus losses

- Visual inspection of bus for detection of any loose connections or oxidation
- Thermographs of bus section for thermal imaging to detect any hot spots/ joints
- Reduction in contact resistance by proper termination after cleaning & tightening of contacts
- Replacement of bus by that of higher cross section & of material of higher conductivity (Copper in place of Aluminum) if necessary.

6.0 DEMAND SIDE MANAGEMENT (DSM), ENERGY EFFICIENCY & CONSERVATION:

Demand Side Management (DSM) is applied to energy efficiency measures that would modify or reduce end-user's energy demand. It is basically the selection, planning and implementation of measures intended to have an influence on the demand either caused directly or indirectly by the utility's programs. Hon'ble OERC has framed Odisha Electricity Regulatory Commission (Demand Side Management) Regulations, 2011, based on which DISCOM has to prepare the action plan and take measures for implementation of DSM Regulations.

TPNODL has established a Distribution System Operations Control Centre i.e. (DSOCC) (ABT Cell)in its Head Office for management of load at 33KV and 11KV feeder level, so that it can adhere to allotted drawl schedule of SLDC.

Following DSM measures and energy conservation options are proposed to beimplemented in TPNODL.

Promoting the use of Energy Efficient Products:

It is proposed that TPNODL should promote Energy Efficient Lighting System (LED Bulbs, Tube lights and Energy Efficient Fans) in association with BEE / EESL / Private ESCO in its utility area. The availability of LED Bulbs, Tube Lights, BLDC Fans, IE3 Meters which are supposed to be distributed to consumers through BEE / EESL / Private ESCO as part of the Utility based Demand Side Management Program are not available in plenty. TPNODL may discuss with BEE / EESL / Private ESCO to open more outlets and increase the LED Lights, Super Efficient AC and Fans Distribution.

Promoting the use of renewable energy (Solar) through facilitation:

Hon'ble Commission has notified Net Metering Scheme for Solar Roof Top Project in the consumer premises. TPNODL should popularize the scheme for LT consumers and provide prompt support and cooperation to the consumer for net metering agreement and solar project interconnection with DISCOM systems. Once Solar Interconnection happens at the LT systems,this will improve the voltage profile and reduce LT loss. Also the RPO of GRIDCO / DISCOM can be compiled which may reduce the BSP in future and will lead to financial savings for DISCOM. TPNODL should conduct more nos. of Consumer awareness programs on saving electricity, electricity wastage, power theft, using electricity during off peak hour, using star rated equipment.

Sensitization Program on kVAh Billing:

At present Hon'ble OERC has implemented kVAh billing for the HT/ EHT/ Commercial / MSME and Industrial consumers. In view of the kVAh billing, the consumer which are having low power factor are paying higher energy bills, still the awareness about kVAh billing is not there and consumers are operating with low Power Factors. TPNODL may carry out special drives forawareness and sensitization about kVAh billing. This may lead to more numbers of APFC installation and improvement in Power Factor and will lower the burden on the existing infrastructure. TPNODL may sign MoU with ESCO / AFPC installer under the Utility based Demand Side Management program so that APFC installer will assess the data base of Consumers with low power factor, take necessary action for installation of APFC Panels in consultation with Consumers directly.

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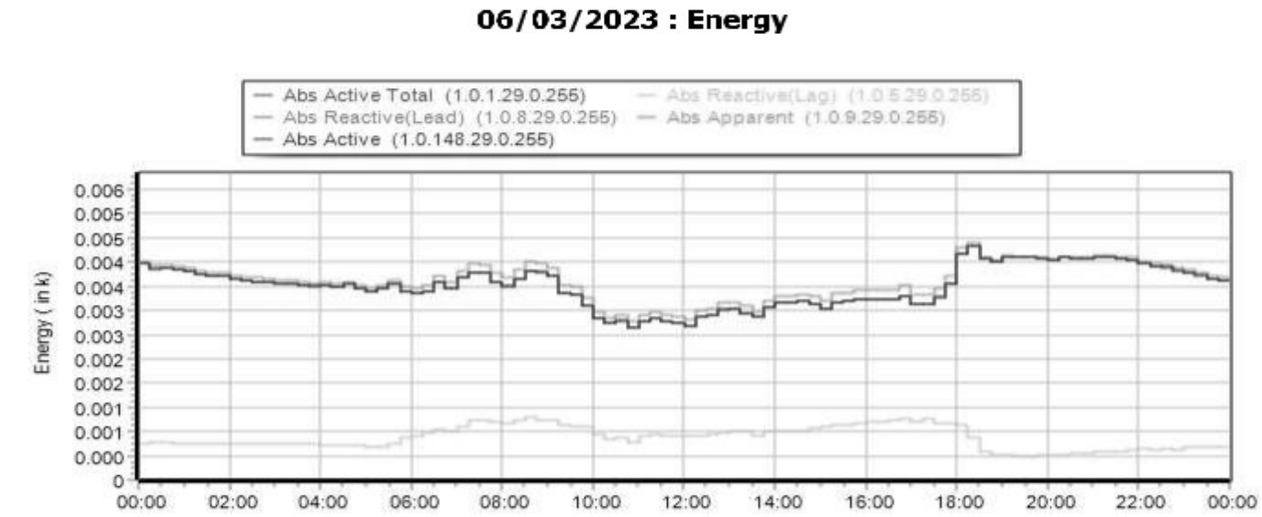
Facilitating Industrial Energy Efficiency:

TPNODL can facilitate DSM measures in industrial segments by promoting use of energy efficient motors, pumps, compressors, capacitor bank, etc. TPNODL can coordinate and inform BEE / EESL / Private ESCO to provide the Industrial LED lighting Solution, Solution, IE3 Motors and Energy Efficient in ESCO / PMC model as per the provision of DSM Regulations. This will facilitate Demand Side Management in a long way.

The costs benefit analysis various proposed DSM measures are furnished below.

6.1 ANALYSIS OF BLOCK WISE DRAWAL PATTERN

During Audit period Energy Pattern for different days in the Month of March 2023 was collected and sample load pattern is depicted as under.



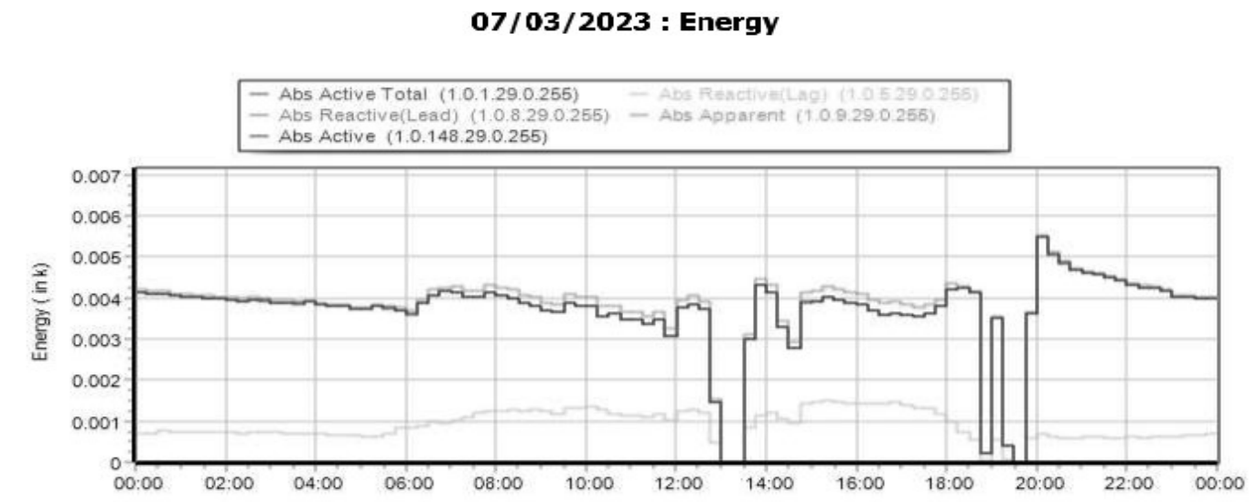
Param 1 : Abs Active Total (1.0.1.29.0.255)

Param 2 : Abs Reactive(Lag) (1.0.5.29.0.255)

Param 3 : Abs Reactive(Lead) (1.0.8.29.0.255)

Param 4 : Abs Apparent (1.0.9.29.0.255)

Param 5 : Abs Active (1.0.148.29.0.255)



Param 1 : Abs Active Total (1.0.1.29.0.255)

Param 2 : Abs Reactive(Lag) (1.0.5.29.0.255)

Param 3 : Abs Reactive(Lead) (1.0.8.29.0.255)

Param 4 : Abs Apparent (1.0.9.29.0.255)

Param 5 : Abs Active (1.0.148.29.0.255)

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Improvement in the performance of TPNODL:

The following table indicates the improvement in the performance of TPNODL.

S.No.	Particulars	As on 31st March 2021	As on 31st March 2022	As on 31st March 2023
1	No. of Circles	5	5	5
2	No. of Divisions	16	16	16
3	No. of subdivisions	50	50	50
4	No. of Sections	159	159	159
5	No. of Special Police Stations	5	5	5
6	No. of Courts	1	1	1
	No. of consumers			
7	EHT	36	37	41
8	HT	557	614	659
9	LT	20,07,540	20,88,432	20,40,888
10	Total	20,08,133	20,89,083	20,41,588
	Network System			
11	Length of 33 KV Line (km.)	2868	2895	3024
12	Length of 11 KV Line (km.)	37069	37591	40189
13	Length of LT KV Line (km.)	66300	66672	67486
14	Length of conductor stolen (km.)	0.33	0.00	27
15	Cost involved (Cr.)	0.09	0.00	0.23
16	No. of 33 KV Group & Feeder Breakers Required	136	50	102
17	No. of 33 KV Group & Feeder Breakers Installed	166	173	71
18	No. of 11 KV Group & Feeder Breakers Required	126	70	147
19	No. of 11 KV Group & Feeder Breakers Installed	228	240	107
	Feeder Metering			
20	No. of 33 kV feeders (excluding GRIDCO interface)	91	98	108
21	No. of 33 KV feeder metering	91	98	108
22	No. of 11 KV feeders	720	797	825
23	No. of 11 KV feeder metering	655	545	825
24	No. of 33/11 KV transformers	488	524	550
25	No. of 33/11 KV transformers metering position	246	246	244
26	No. of distribution transformers (11/0.4 & 33/0.4 kv)	70429	72323	74726
27	No. of distribution transformer metering position	2208	2208	2883
28	MVA capacity of DTRs	2584	2657	2787
29	Energy audit carried out -33 KV	74	77	92
30	Energy audit carried out -11 KV	617	545	344
31	Energy audit carried out – No. of DTR's	455	455	471

	Consumer Metering Position			
32	Total number of meters	19,02,980	20,10,760	19,99,017
33	No. of working meters	17,17,944	17,37,701	17,40,496
34	Percentage of working meters (%)	90%	86%	87%
35	New meters installed (3 ph)	5637	4930	11213
36	New meters installed (1 ph)	1,96,044	2,55,855	3,91,243
37	No of 3 Phase consumers	51097	34775	37152
38	No of consumers with TOD benefit	1124	1046	998
39	No of consumers 10 KW load and above	11439	12761	19590
40	No of consumers AMR rating	12979	9431	16743
41	Total no of consumers	20,08,133	20,89,083	20,41,588
42	No of consumers added	101577	80950	431037
43	No of meters purchased	500	124310	431037
44	No of meters used for installation for new consumer and replacements for old consumers	201681	260785	402456
45	Cost involved in purchase of meters (Rs. in Crs.)	0.13	9.08	55.11
46	Cost of meter rent collected (Rs. in Crs)	19.6	22.8	10.82
	Anti-Theft Measures			
47	No. of cases Finalized under Section 126 & 135	5428	37893	36387
48	Amount Finalised (Rs. Cr)	6.41	47.89	49.03
49	Amount accessed during filing of case (Rs. Cr)	7.3	64.37	67.38
50	No. of New connections given	114201	113608	87701
51	No of Connections Regularised	2145	2011	694
52	Amount Collected (Cr)	1.14	21.65	37.6
53	No. of FIR Lodged	6	12	29
54	No of illegal consumers prosecuted/ Initiated in Court	0	12	9
55	Number of Disconnection made	61609	67022	126935
56	Revenue realized (Rs. Cr)	34.42	206.06	257.94

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	Franchise Activity			
57	No of Micro-Franchises	76	211	301
58	No of Consumers Covered	97897	184767	218583
59	No of Macro- Franchises	0	0	0
60	No of Consumers Covered	0	0	0
61	No of Input based- franchises	1	0	0
62	No of consumers covered	43732	0	0
63	Total no of consumers covered under franchise	141629	184767	218583
	Quality of Supply			
64	Failure of Power Transformers	17	27	8
65	No of Distribution transformers burnt	2312	2533	2877
66	Cost involved (Cr.)	3.85	4.41	3.03
67	No of interruptions in 33 KV feeders	5544	16750	11571
68	No of interruptions in 11 KV feeders	463803	339516	288140
69	No. of Grievances received through CHP	518	388	415
70	Disposed through CHP including Bijli Adalat	511	341	399
71	No of GRF orders received	511	341	399
72	Mo of GRF orders compiled	402	241	358
	System Improvement Works During Review Period			
73	Installation of New transformers (DTR)	4	0	128
74	Upgradation of Transformers (DTR)	8	21	147
75	Installation of Pillar Box	0	0	0
76	Length of AB cable Laid (KM)	12.19	29.84	337
77	Conversion of Single Phase to Three Phase Lines	4.91	0	12

The above table highlights the measures initiated by TPNODL to improve the performance of the Network and reduce the losses in the system.

The major achievements during 2022-23 are

(i) Installation of More number of Transformers
(ii) Upgradation of Capacity of Transformers
(iii) Reduction in number of Interruptions in 33 Kv Feeders
(iv) Reduction in number of Interruptions in 11 Kv Feeders
(v) Reduction in Failure of number of Power Transformers
(vi) Increase in number of three Phase meters newly installed
(vii) Increase in number of single Phase meters newly installed

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(viii) Increase in Length of AB Cables Laid
(ix) Increase in number of EHT and HT Consumers
(x) Increase in the Consumption EHT Consumption from 1676 MU to 2651.931 MU

Matters of Concern

(i) Increase in losses of LT Consumers from 24.08 to 26.21%
(ii) Increase in losses of HT&LT Consumers from 26.84 to 27.82%
(iii) Increase in number of Distribution Transformers Burnt

6.2 ENERGY EFFICIENCY IN DEMAND SIDE MANAGEMENT

The purpose of Energy Efficiency and Demand Side Management should be to reduce the load during peak period and enhance load during the non-peak period.

DSM activity should be also carried out to protect the Environment and to win the trust of consumers. The DSM can be carried out at three levels: DISCOM level, consumer level and by usingtechnology like energy storage.

- The DSM activities are to be initiated by DISCOM however need to be carried out by consumers. DISCOM can only manage a few DSM activities like voltage regulation and power factor regulation.

- It is proposed that enough data are required to be generated by carrying out consumer load Research and third-party experts should be engaged.

- DSM programmes need skill about energy conservation and art of Communication with a consumer. It is better to engage Energy Manager/ Energy Auditors in a DSM cell.

  Awareness program on DSM should be conducted. Based on the analysis of data and third-party survey report and action plan to be prepared for submission to Hon'ble OERC.

- At the consumer level, the involvement of consumers is must for the success of demand side management. Awareness, Incentives, penalties and legislation are four main tools to involve consumers. The DSM scheme should be formulated based on these four tools.

- Demand side Management requires high level of awareness in the Consumers hence it is recommended to conduct awareness programs to various category of consumers.

- BEE introduced many initiatives to bring awareness among various categories of consumers about the importance of Demand side management and its importance and also funding non-profit organizations like APSECM, TSRECO etc to conduct programs on demand side management.

- ZESPL came across a situation where Industries are offered lower rate of unit during use of electricity in night hours.

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7.0 FIELD STUDY

S.No.	Date	Place	Activity
1	04.07.2023	TPNODL corporate Office	Arrival on Site, Opening meeting, Discussed Audit methodology & substation visit agenda discussion
2	05.07.2023	Rameshwar Mandir 33/11 kV PSS	Field Visit, Inspection, Collection & Verification of data
3		Kali Mandir 33/11 kV PSS	Field Visit, Inspection, Collection & Verification of data
4		Odangi 33/11 kV PSS	Field Visit, Inspection, Collection & Verification of data
5		132/33kV Basta Grid	Field Visit, Inspection, Collection & Verification of data
5	06.07.2023	Gaon Amarda 33/11 kV PSS	Field Visit, Inspection, Collection & Verification of data
6		Lal Bazaar 33/11 kV PSS	Field Visit, Inspection, Collection & Verification of data
7		Salabani 33/11 kV PSS	Field Visit, Inspection, Collection & Verification of data

VISIT TO RAMESWAR MANDIR 33/11 KV SUBSTATION, CED, BALASORE:

RAMESHWAR MANDIR PSS

SWITCHYARD OF RAMESHWAR MANDIR PSS

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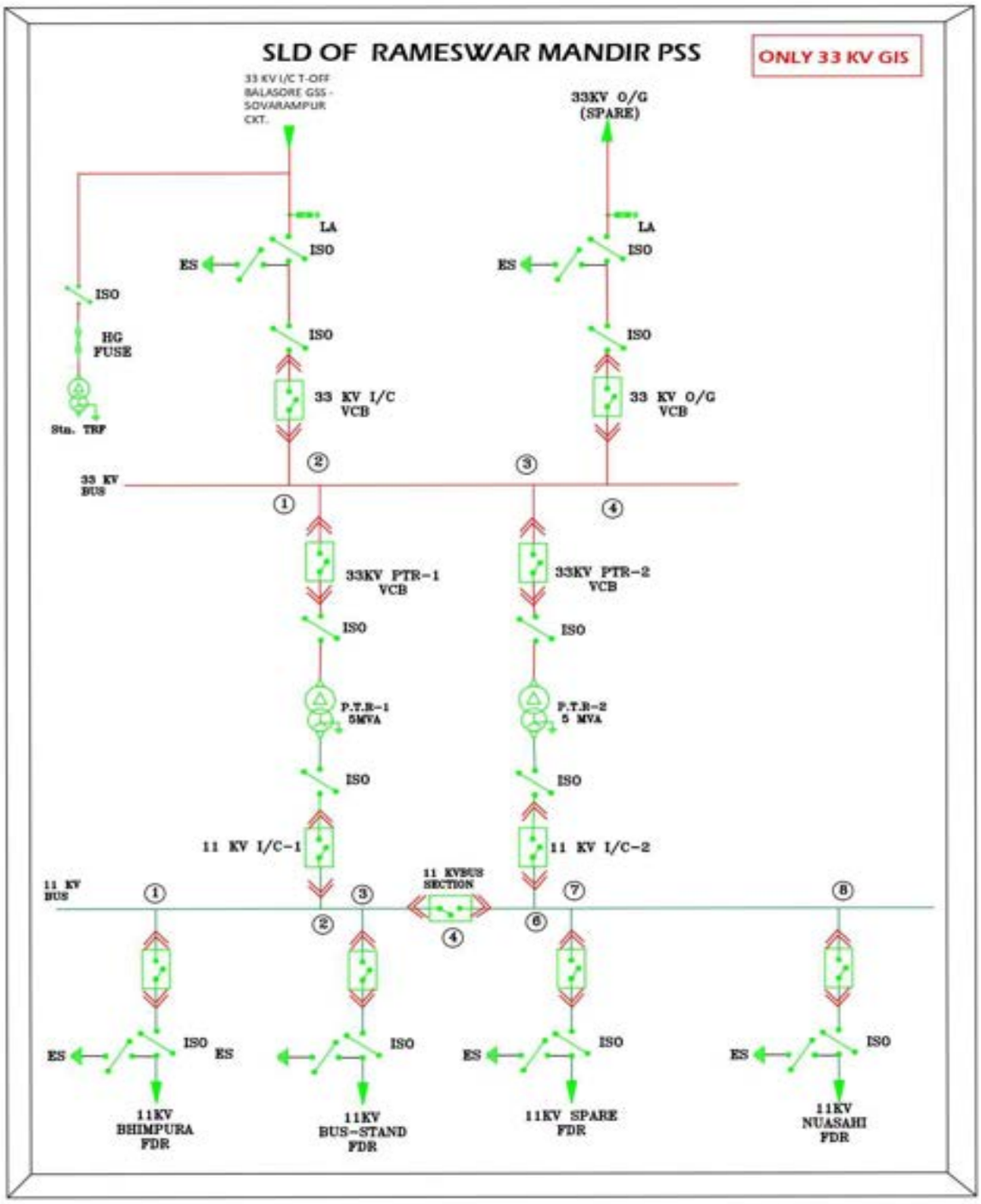
FEEDER METER OF RAMESHWAR MANDIR PSS

OBSERVATIONS:

- The 33 KV incoming is from Balasore-I Feeder.
- Three 11 KV Feeders emanate from the structure namely City Clinic, Nuasahi & Bus Stand. There is no any 33 KV outgoing feeder.
- The 11 kV Feeders have peak ampere of 25 Amp (City Clinic), 51 Amp (Nuasahi) and 93 Amp (Bus Stand).
- There are two nos. of 5 MVA Power Transformers in the structure.
- Silica gel of the transformers are also in good condition.
- WTI, OTI and Body Temperatures of the transformers are within in the limits.
- The meters of 11kV feeders are working and the reading of Kwh, KVArh, KVAh, KW, KVA etc. are shown in the energy meter in the Control panel.
- The meter at 33 kV incoming meter is smart meter and is working properly.
- All 11kV Feeder meters have AMR installed and is working properly.


SLD OF RAMESWAR MANDIR PSS
ONLY 33 KV GIS
33 KV I/C T-OFF BALASORE GSS - SOVARAMPUR CKT.
33KV O/G (SPARE)
LA
ISO
ES
HG FUSE
Stn. TRF
33 KV I/C VCB
33 KV O/G VCB
33 KV BUS
33KV PTR-1 VCB
33KV PTR-2 VCB
P.T.R-1 5MVA
P.T.R-2 5 MVA
11 KV I/C-1
11 KV I/C-2
11 KV BUS
11 KVBUS SECTION
11KV BHIMPURA FDR
11KV BUS-STAND FDR
11KV SPARE FDR
11KV NUASAHI FDR

VISIT TO KALI MANDIR 33/11 KV SUBSTATION, CED, BALASORE:

SWITCHYARD OF KALI MANDIR PSS

CONTROL PANEL OF KALI MANDIR PSS

BATTERY CHARGER SET OF KALI MANDIR PSS

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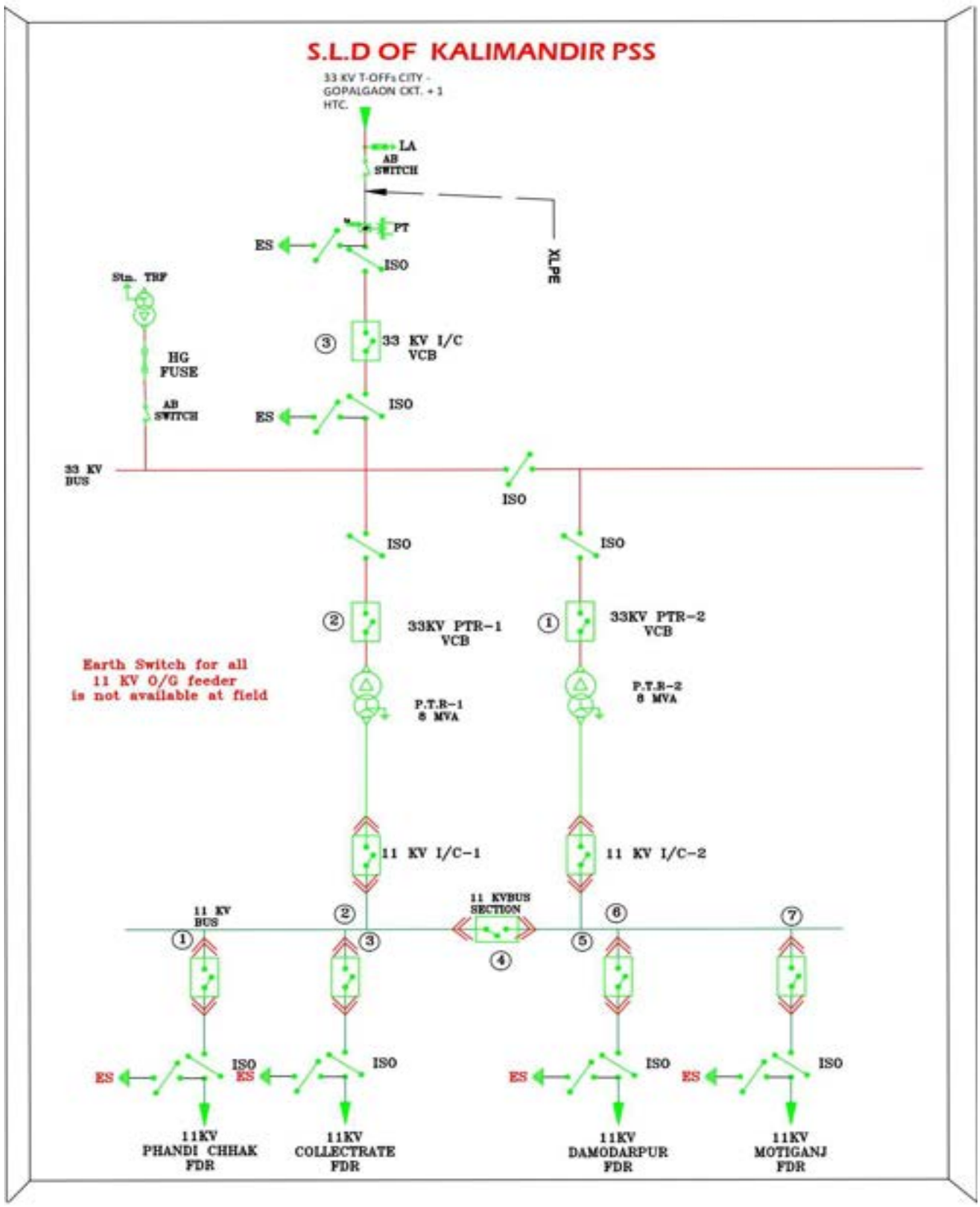
OBSERVATIONS:

- The 33 KV incoming is from Chandipur Feeder.
- Four 11 KV Feeder emanate from the structure namely Phandi chhak, Collecterate, Damodarpur and Motiganj. There is no any 33 KV outgoing feeder.
- The 11 kV Feeders have Peak Load of 39 Amp (Phandi Chhaka), 33 Amp (Collectorate Feeder), 44 Amp (Damodarpur) & 42 Amp (Motiganj).
- There are two nos. of 5 MVA Power Transformers in the structure.
- Silica gel of the transformers are also in good condition.
- WTI, OTI and Body Temperatures of the transformers are within in the limits.
- The meters of 11kV feeders are working and the reading of Kwh, KVArh, KVAh, KW, KVA etc are shown in the energy meter in the Control panel.
- The meter at 33 kV incoming meter is smart meter and is working properly.
- All 11kV Feeder meters have AMR installed and is working properly.


S.L.D OF KALIMANDIR PSS
33 KV T-OFFs CITY - GOPALGAON CKT. + 1 HTC.
LA
AB SWITCH
PT
ES
ISO
XLPE
Stn. TRF
HG FUSE
AB SWITCH
3
33 KV I/C VCB
ISO
ES
33 KV BUS
ISO
ISO
ISO
2
33KV PTR-1 VCB
1
33KV PTR-2 VCB
Earth Switch for all 11 KV O/G feeder is not available at field
P.T.R-1 8 MVA
P.T.R-2 8 MVA
11 KV I/C-1
11 KV I/C-2
11 KV BUS
11 KVBUS SECTION
1
2
3
4
5
6
7
ISO
ES
11KV PHANDI CHHAK FDR
11KV COLLECTRATE FDR
11KV DAMODARPUR FDR
11KV MOTIGANJ FDR

VISIT TO ODANGI 33/11 KV SUBSTATION, CED, BALASORE

SWITCHYARD OF ODANGI PSS

5 MVA PTR OF ODANGI PSS

OBSERVATIONS:

- The 33 KV incoming is from Odangi Feeder.
- Two 11 KV Feeder emanate from the structure namely Amara and Balisuan.
- The 11 kV Feeders have Peak Load of 42 Amp (Amara) and 67 Amp (Balisuan).
- There are two nos. of 5 MVA Power Transformers in the structure and observed that Silica gel need to be changed for one of the transformer.
- The meter at 33 kV incoming meter is smart meter and is working properly.

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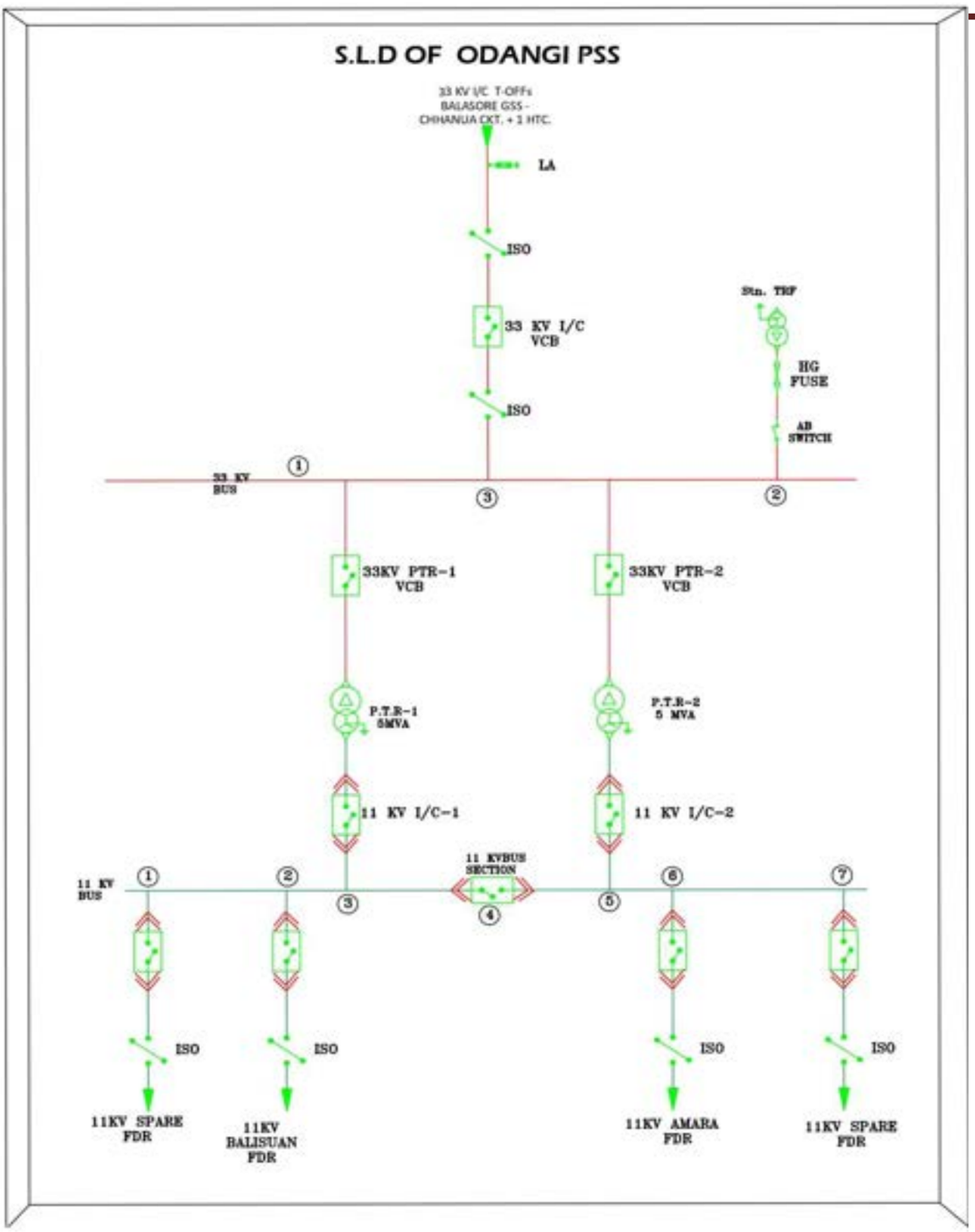
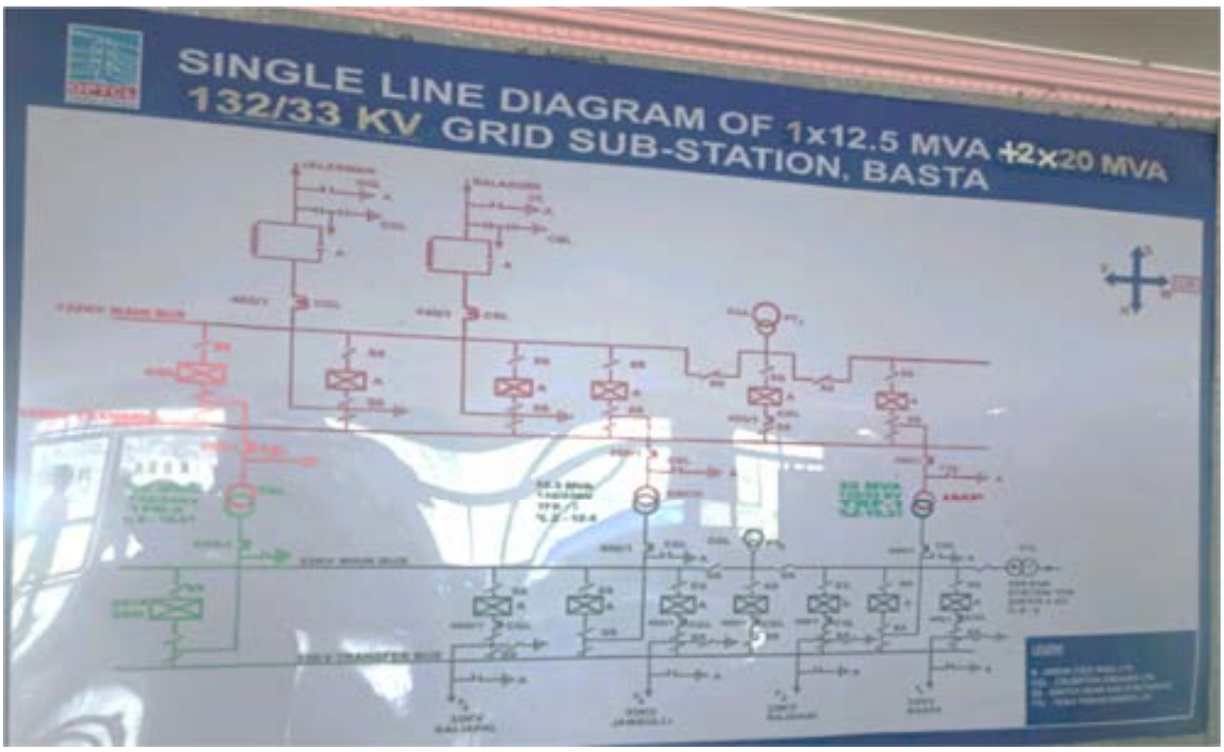

S.L.D OF ODANGI PSS
33 KV I/C T-OFFs
BALASORE GSS -
CHHANUA CKT. + 1 HTC.
LA
ISO
33 KV I/C
VCB
ISO
Stn. TRF
HG
FUSE
AB
SWITCH
33 KV
BUS
1
2
3
33KV PTR-1
VCB
33KV PTR-2
VCB
P.T.R-1
5MVA
P.T.R-2
5 MVA
11 KV I/C-1
11 KV I/C-2
11 KV
BUS
11 KVBUS
SECTION
1
2
3
4
5
6
7
ISO
ISO
ISO
ISO
11KV SPARE
FDR
11KV
BALISUAN
FDR
11KV AMARA
FDR
11KV SPARE
FDR

VISIT TO 132/33KV BASTA GRID SUBSTATION, BALASORE

SWITCHYARD OF BASTA GRID

CONTROL PANEL & TPNODL METERS



SINGLE LINE DIAGRAM OF BASTA GRID

VISIT TO LAL BAZAR 33/11 KV SUBSTATION, BED, BARIPADA:

SWITCHYARD OF LAL BAZAR PSS

CONTROL PANELS OF LAL BAZAR PSS

LOG BOOK OF LAL BAZAR PSS

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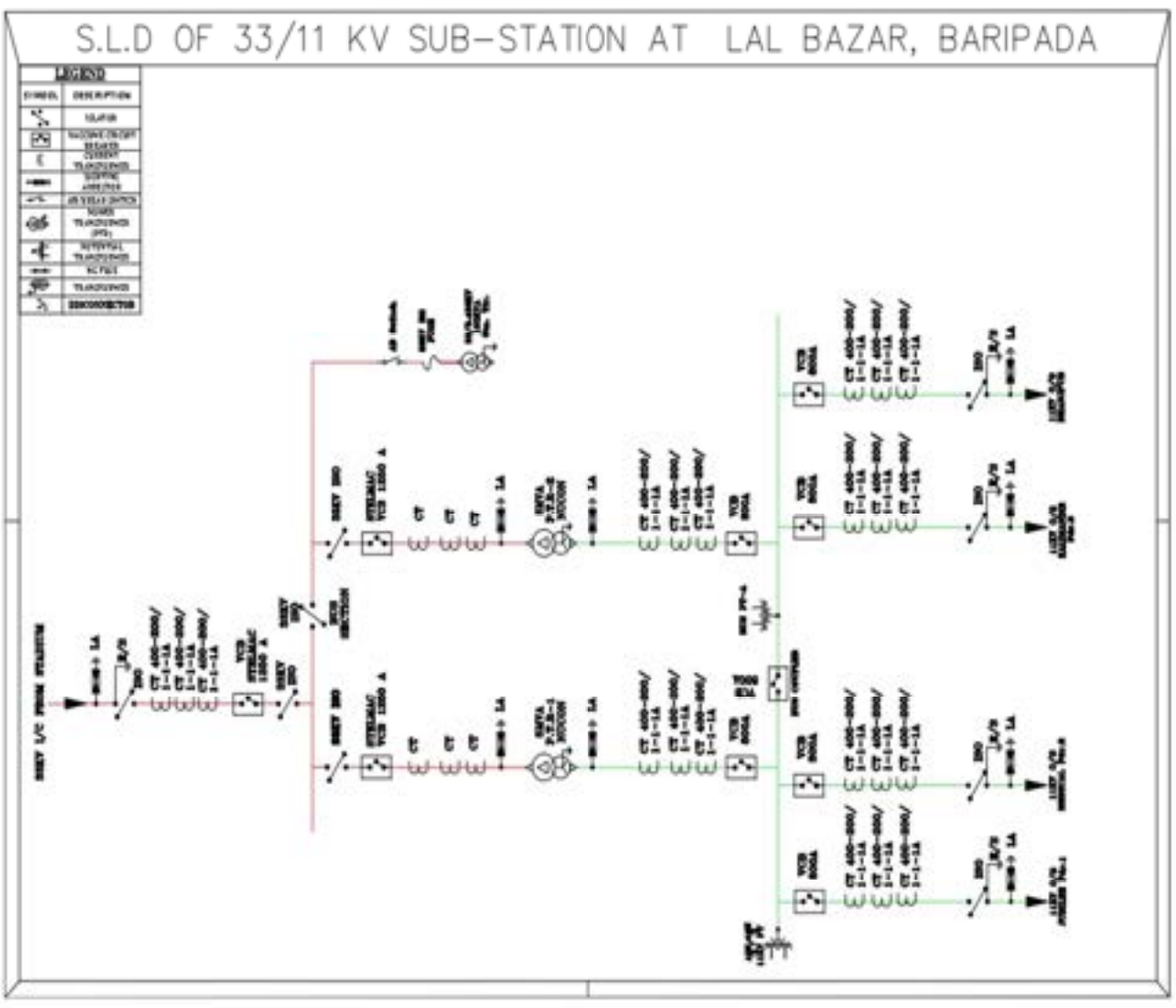
OBSERVATIONS:

- The 33 KV incoming is from Stadium 33/11 kV substation.
- Four 11 KV Feeders emanate from the structure namely Jubilee, Gopalbag and Kalimandir.
- The 11 kV Feeders have Peak Load of 259 Amp (Jubilee), 38 Amp (Gopalbag) and 84 Amp (Kalimandir).
- There are two nos. of 5 MVA Power Transformers in the structure and observed that Silica gel of both the transformers are in good condition.
- No oil leakages observed in the Power Transformers.
- The meter at 33 kV incoming meter is smart meter and is working properly.



8.0 DETAILS OF VARIOUS SYSTEM IMPROVEMENT & LOSS REDUCTION PROJECT UNDERTAKEN BY TPNODL

8.1 PROJECTS IMPLEMENTED BY TPNODL ACROSS ODISHA

Tata Power Northern Odisha Distribution Limited (TPNODL) has invested in a number of projectsacross Odisha for the benefit of its habitants, bringing electricity to remote regions, villages and underdeveloped areas since its inception. From providing electricity to installing LED lights, to securing the electrical network in the elephant corridor area and laying cables to providingdedicated electrical feeders for the fishery sectors, TPNODL is constantly working towards the development of the areas which it services.

1. Integrated Power Development Scheme (IPDS)

Government of India has launched Integrated Power Development Scheme (IPDS) for the urban areas with the following components:

- Strengthening of sub-transmission and distribution network in urban areas.
- Erection of new sub-stations including Gas Insulated Sub-station along with associated 66KV / 33 KV/ 22 KV/ 11 KV lines.
- Augmentation of existing sub-stations capacity by installation of higher capacity/additional power transformer along with associated equipment/ switchgears etc.
- Erection of HT lines for reorientation/ re-alignment including augmentation of existinglines.
- Installation of new distribution transformers and augmentation of existing distributiontransformers along with associated LT lines.
- Installation of capacitors.
- Renovation and modernization of existing sub-stations and lines
- Laying of under-ground cables in densely populated areas and areas of tourism and religious importance
- High voltage distribution system (HVDS)Aerial Bunched Cable for theft prone areas
- Metering of feeders / distribution transformers / consumers in urban areas.
- IT enablement of distribution sector and strengthening of distribution network.

2. Odisha Distribution System Strengthening Programme (ODSSP PH-I, II, III):

For quality supply of power to the consumers and to address the low voltage problem in rural area, Government of Odisha in Energy Department has decided to construct 99 nos of New 33/11 KV Substations in three phases in TPNODL operational area with an aim to reduce the high technical loss arising due to the length of 11 KV and 33KV lines and to provide uninterrupted power supply at appropriate voltage to the consumers by increasing the number of 33/11 KV Substations.

8.2 CAPEX PROGRAMME

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

provision of intermediate poles, replacement of joints, enhancing system protection, replacement of sick equipment and network augmentation to improve the reliability of power supply. Introduction of advanced technologies and analytics will be prime focus area for improving the accuracy of the meter reading, curtail tampering of the meters and providing better and effective customer services. Further Business process re-engineering is required to improve the customer services. Technology adoption is also required to provide quality customer services, manage revenue cycle processes for reduction of AT&C losses and efficiently manage to deliver reliable and quality supply in safe manner to its consumer by meeting various standards of operation.

To address the challenges and reduction of AT & C loss and quality power supply to consumers, TPNODL proposed to take up a detailed Capex investment plan in the FY 2022-23 under different heads. TPNODL has inherited the power distribution network in dilapidated state at some places, which is not compliant with the requisite statutory standards and poses threat to consumers, staffetc. Further, underrated/ undersized/ worn out conductors, poor earthing, presence of either faulty equipment's or non-availability of equipment's/ switchgears/ protection devices are creating potential safety hazards to the employees, consumers, children, animals, public, etc.

TPNODL has identified several challenges related to Safety, 33kV/11kV/0.415kV/0.230kV network, Metering infrastructure, Customer Services and Technology usage. The scope includes renovation/modernization of existing and new 33/11KV S/S, re-conduct ring of 33KV & 11KV lines, implementation of HVDS system and AB conduct ring, installation of theft proof energy meters etc. The capital investments have been proposed under the following broad cost centres that shall be aligned with multiple initiatives and schemes so as to reduce AT & C losses, improve system reliability and augment the network to support continuous load growth. Further, a need isalso felt to improve the existing facilities and infrastructure to provide a better consumer experience.

TPNODL has categorised the various activities of the Capital Investment Plan under 6 major subheads.

- Statutory Compliance/Safety
- Loss Reduction
- Reliability Improvement
- Load Growth
- Disaster Mitigation
- Technology & Civil Infrastructure

Out of the above, we have considered CAPEX related to Loss Reduction, Reliability Improvement, and Technology Intervention under the scope present Energy Account Audit as we feel that these major categories will lead to T&D Loss Reduction and AT&C Loss Reduction.

Loss Reduction

The technical losses are due to energy dissipated in the conductors of distribution line andequipment in Network System. Technical losses are directly dependent on the network characteristics such as lengthy distribution lines, overloading of the Line, inadequate size ofconductors, Unequal load distribution on 3 phases of the line, Poor workmanship, old Conductor having multiple joints. It is also observed that, meters are not installed on Feeders & Distribution Transformers leading to no energy accounting. As a result, it is not possible to determine energy input accurately and hence unable to measure AT&C losses at each level. Energy accounting provides the means to identify areas of leakages, wastage, and inefficient energy usage.

Therefore, in this head, following activities are planned for execution:

- Data collection & analysis for detecting problematic meters.
- Energy Monitoring System (AMR)
- LT bare to ABC Conversion
- On-site testing of meters to detect any metering abnormalities/theft.

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Major Category	Activity	Amount (in Cr.)
Loss Reduction	Installation of AMR meters at Distribution transformers.	4.50
	Conversion of LT Bare conductor to AB Cable	4.93
	Meters and metering equipment for energy audit	1.19
	Equipment for Meter data downloading	0.46
	Equipment for AMR enablement of 3 phase consumer meters	0.45
	Field Testing equipment - Metering (Portable Calibrator)	1.00
	Total	**12.53**

Installation of AMR meters at Distribution transformers:

In the absence of the DT meter the correct peak loading on the DTs also not available so TPNODL have started installing the Smart Meter on the DTs with the following objectives:

- For accurate Energy Audit
- For recording of the DT peak loading
- Reducing the no of transformer burning due to overloading

Moreover, TPNODL have also started DT wise Audit from this financial year.

SAMPLE PHOTOGRAPHS OF DT SMART METER INSTALLATION

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LT Bare Line to AB cable conversion:

To improve the safety factor, minimize the safety accident risk, reduce the chances of fault & strengthen existing 415V network, it is suggested to replace the overhead bare conductors with new aerial bundled cables. This in turn will help in providing reliable power supply for all consumers & stakeholders.

Moreover, during the survey, it is observed that LT bare conductor is more prone to hooking resulting into direct theft of the electricity. To avoid direct hooking, it is proposed to convert LT OH bare conductor into LT AB cable. This will help in eliminating the direct theft issue and thus protecting the revenue leakage.

The same shall be resulted in reducing direct 'hooking' on bare LT conductor lines therebyreducing commercial losses drastically in theft prone areas. LT Bare Line to ABC conversion would encompass following scope:

- LT Bare conductors shall be replaced with LT ABC.
- Erection of mid span pole.
- Earthing of every 5th Pole and poles which are installed across the road.
- Erection of Mid span pole wherever the span length is more than 40 meters to reduce the Sag.
- Installation of Distribution Box and removing of jumbling of service line cables.

Benefits:

- Reliable Power supply to the Consumers since bare conductor will get converted into insulated cable.
- Comparatively safer than the LT Bare conductor and eliminate the element of risk if comesin proximity.
- Simpler installation, as crossbars and insulators are not required.
- Suitable for congested lanes as well.
- Electricity theft is becoming hard as hooking would not be possible.
- Less required maintenance and necessary inspections of lines.

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Network Reliability:

TPNODL have many long overhead feeders. The present power distribution network is in bad condition resulting into frequent trippings and as a result consumer are not getting reliable and quality power supply.

Table below shows trippings occurred in FY20-21 and FY21-22:

Category of Feeders	In FY-2021-22		In FY-2022-23	
	No. of Tripping	Duration of Tripping	No. of Tripping	Duration of Tripping
	No.	Min.	No.	Min.
All 33kV I/C Feeders	12067	629520	8403	390300
All 11kV O/G Feeders	161806	4203240	108681	2299200

The numbers of tripping are extremely high when compared to best-in-class utilities. However, trippings have been decreased as compared to previous year. TPNODL intends to implement the following actions to improve the reliability of power supply:

- Identification and replacement of faulty / sick equipment causing frequent tripping.
- Introduction of technology to ensure faster restoration of supply in case of any tripping.

Various initiatives proposed to improve the reliability of power supply in 11kV and downstreamnetwork is given below:

- 33 kV &11 kV Network refurbishment to ensure Horizontal / Vertical clearances.
- Primary Substation (PSS) Distribution Substation (DSS) Refurbishment.
- Installation of Auto Reclosure & Sectionalizer is important in critical feeders.
- Installation of Communicable overhead FPIs for faster identification of faults.
- Installation of LV protection at Distribution substation to arrest the LT faults at LT level itself instead escalating to the 11kV feeder level.
- Replacement of Battery & Battery charger to strengthen the DC protection system in 33/11kV Grid Substations.
- Installation of AB switches at 33kV & 11kV lengthy feeders for improving reliability during planned / unplanned outages.
- Proposal for trolley mounted pad substations.
- Installation of lightning arrestors.

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Major Category	Activity	Amount (in Cr.)
Reliability	Refurbishment of 33KV/11KV Primary Substation (PSS)	10.00
	33 KV Conductor up gradation	11.20
	11 KV Conductor up gradation	8.80
	Refurbishment of 11KV/0.415 KV Distribution Substation (DSS)	2.40
	Installation of LV protection at DSS	5.54
	Installation of Auto reclosure / Sectionalizers ,RMUs, &FPIs	10.60
	33KVand 11 Kv Voltage Regulators for voltage improvement	4.20
	LT FLC System - Vehicle Fitted (5 Nos. -- 1 for each circle) + Power Analyser for Transformer workshop (2 Nos.) +Ultrasound Scanner (5 Nos. -- 1 for each circle)	3.52
	Installation of station transformers (PPS)	2.55
	Capacitor Bank at PSS for low voltage improvement	0.88
	Earthing of Power Transformers and Distribution Transformers	0.49
	Total	**60.18**

Refurbishment of Primary Substations (PSS):

To strengthen the existing network, it is suggested to replace the sick equipment in the existing network. Further, this replacement will help in utilization of the resources to the optimum level,managing the load in case of any exigency and mitigate the issue of overloading etc.

Following is the refurbishment work to be done:

- Replacement of the faulty equipment (VCB, CT/PT, CRP, Isolator, etc.) in PSS.
- Replacement / provision of AB switches.
- Provision of new / additional earthing as per site requirement.
- Carry out civil works as per site requirement.
- Replacement of damaged support structure at PSS. This includes MS / GI structure, channels etc. Dismantling of existing structure and erection of new structure at same location has been considered in scope of the work.
- Replacement of Battery and Charger.
- Replacement of all undersize bus bars with standard size to remove hotspot.
- Carry out civil works as per site requirement.
- Detailed technical inspection and testing of the equipment.

33 kV & 11 kV Network Refurbishment / Conductor Upgradation:

To ensure safety of equipment and human beings / animals, refurbishment of 33kV, 11kV and LV lines is urgently required in phase manner starting from critical area where movement of public /animals is high.

Refurbishment job would encompass following scope:

- Straightening of tilted poles.
- Replacement of damaged poles, insulators, and accessories.
- Earthing of every 5th Pole and poles which are installed across the road.
- Erection of Mid span pole wherever the span length is more than 50 Mtrs to reduce theSag.
- Restringing of conductor to increase the vertical clearance by reducing the sag.
- Replacement of the conductor in the sections having multiple joints.
- Replacement of weak Jumpers and connections.
- Replacement of binding wire joints with wedge connector to remove hotspots.
- Installation of Danger boards, Anti climbing devices, stay sets etc. to ensure safety & statutory compliance. TPNODL intends to implement the following actions to improve thereliability of power supply.

Refurbishment of Distribution Substation (DSS):

Existing DSS are in shabby condition with damaged or ill-maintained HT & LT protection equipment. All connections at pole mounted or plinth mounted substations are in very bad condition which not only cause high technical loss but also give rise to undue interruptions. The Aluminium lug / sockets used in DTs and other equipment in the substations are observed to beof inadequate size and proper crimping of lugs with the help of crimping tools found missing at almost all places. This is resulting into generation of hotspots and failure of connections. Replacement of the old/ non functional equipment CT/PT, Isolator, in PSS is required to be done.

Refurbishment/Life Enhancement of DSS helps in addressing the above-mentioned issues,improves the reliability of power system and above all ensures safety.

TPNODL proposes for activities under Refurbishment of Distribution Substation:

- Detailed technical inspection and testing of the equipment.
- Replacement of damaged support structure at DSS. This includes MS / GI structure,channels etc.
- Dismantling of existing structure and erection of new structure at same location has beenconsidered in scope of the work.
- Installation of palm connectors at HT and LT side of Distribution Transformers andensuring that all connections are through palm connectors.
- Replacement of all undersize conductors with standard size to remove hotspot.

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- Replacement / provision of AB switch, DD Fuse units, LT ACB or MCCB (depending onTransformer ratings) and all associated cables / conductors.
- Provision of new / additional earthing in all DSS as per site requirement.
- Installation of fencing to safeguard the DSS equipment and to maintain safety clearances.
- Installation of danger boards, anti-climbing devices, stay-sets etc. to ensure safety &statutory compliance.
- Carry out civil works as per site requirement.

S.No	Description	UOM	Unit Rate	Quantity Considered in this FY 22-23 (Nos.)	Amount (in Crores)
1	100 KVA DSS	EA	0.04	65	2.34
2	250 KVA DSS	EA	0.05	33	1.67
3	500 KVA DSS	EA	0.05	15	0.79
	Total			**113**	**4.80**

Installation of LV protection at DSS:

To reduce the effect of LT fault on 11kV System, it is recommended to install the MCCB on Pole Mounting substation for 100 kVA, ACB on 250 KVA & 500 KVA Distribution Substations.

S.No	Description	UOM	Unit Rate	Quantity Considered in this FY 22-23 (Nos.)	Amount (in Crores)
1	Supply and Installation of MCCB-100 KVA	EA	0.007	520	3.65
2	Supply and Installation of ACB -250 KVA	EA	0.012	140	1.68
3	Supply and Installation of ACB-500 KVA	EA	0.034	6	0.21
	Total			**609**	**5.54**

Installation of Auto-reclosure / Sectionalizers, FPI, RMU AB switches:

TPNODL currently has many very long overhead feeders. Moreover, it is observed that multiple 11kV feeders are controlled through single 11kV breaker or AB switch in some primary substation. This will ensure efficient operation & monitoring under steady state, dynamic &transient condition of the system.

S.No	Description	UOM	Quantity	Unit Rate	Amount (INR)
1	Supply & Installation Auto Reclosure	Nos	10	0.156	1.56
2	Supply & Installation Sectionaliser	Nos	30	0.157	4.70
3	Supply & Installation RMU 4 way O/D at 11 KV	Nos	35	0.169	5.92
4	Supply & Installation RMU 3 way O/D at 11 KV	Nos	32	0.160	5.13
5	Supply & Installation RMU 4 way O/D at 33 KV	Nos	5	0.526	2.63
6	Supply & Installation FPI	set of 3	147	0.008	1.16
				Total	**21.10**

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Benefits:

Auto-Recloser and Sectionaliser-Benefits:

- Continuity of power supply for the consumers resulting in fewer complaints fromconsumers.
- Reduce the time of power supply disconnection in cases of transient faults.
- Reduce the unsold energy due to faults.
- Reduce the cost of manpower operating in managing disconnected lines.
- Maximum utilization of the network components.
- Event Log and Remote control.
- Reduce cost of fault finding.

RMU- Benefits:

- The major advantage of Ring Main Units is the safety they provide to the operators. Like the operation of switching devices with interlocking system requires less knowledge and effort.
- Working with IEDs allows remote operation. SCADA implementation is easy with smart Ring main units.
- The space occupied by RMUs is less as they are Gas Insulated Switchgear.
- The time taken for installation and commissioning of RMUs is very less. RMUs require less maintenance.
- Beautification in the network.

FPI – Benefits:

- Easy fault identification.
- Easy to install, even on live network.
- Detects both short circuit and low current earth faults.
- Indicates both permanent and transient faults.
- Highly visible red flashlight.
- Reduction in supply restoration time by 1-2 hrs.
- Reduction in un-served energy
- Enhancing customer satisfaction

9.0 CONCLUSION

In line with Section 14(g) of the Energy Conservation(EC) Act, the Central Government has notified targets (in the form of Specific Energy Consumption) for Designated Consumers (DCs) on 26th October 2021 under the PAT cycle-VII. The baseline Distribution loss of TPNODL has been fixed as 18.74% for baseline year 2018-19 with baseline net input energy 5575.61MU. TPNODL has been directed to reduce its T&D Loss to 17.09 % in Target Year 2024-25. The T&D loss for the FY 2022-23 was 16.43% and TPNODL was successful in achieving the target set by BEE. Keeping in view of the present condition there is still scope for improvement in the network.

TPNODL Management has endeavored for continual improvement in its drive for achieving energy efficiency by adopting various energy saving measures with most energy efficient technology. Considering the trend in their energy performance, it is expected that TPNODL may get a target for further reduction of its T&D loss from its present level. Hence, TPNODL should focus to achieve the future target by adopting a strict energy conservation plan and energyefficiency measures.

Overall, the TPNODL management has a very progressive outlook and is open to ideas involving moderate to low investment, to improve the Energy Efficiency. Hence we feel TPNODL management needs to put best effort to achieve Energy Conservation in future.

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10. LIST OF ANNEXURE FOR TPNODL MEA:

10.1 COPY OF WORK ORDER:

TPNODL PO No. : 4800002117

PURCHASE ORDER

Vendor Name & Address **M/s ZENITH ENERGY SERVICES PRIVATE LIMITED,** 3rd Floor, Ramky Grandiose, Hyderabad, Telangana 500032 Vendor Code : 300878 GSTN No. : 36AAACZ0661K1Z6 BA Contact Person : Sindhu Jannareddy BA Contact No. : 9640064444	PO No. : 4800002117 PO Date : 06.04.2023 Release Date : 11.04.2023 Contact Person : Miss Sonal Samal Contact No. : 7609820784
Purchaser Address TP Northern Odisha Distribution Limited Januganj, Balasore 756019 GSTN No. : 21AAICT5123C1ZX	References : TPNODL/LT/2600000626/2022-23

Subject : PO for Conducting Energy Audit for the FY-22-23 filing for TPNODL.

Dear Sir,

This has reference to the above mentioned correspondence on the subject. We are pleased to place an order with you as under.

(i) Schedule of items / quantities/ Rates : Annexure I Attached
(ii) Special Conditions of the Contract : Annexure II Attached

Total PO Value : 225144.00 INR (TWO LAKH TWENTY FIVE THOUSAND ONE HUNDRED FORTY FOUR RUPEES)

Completion By :

Order Acceptance:

The Purchase Order constitutes Purchaser's offer to Business Associate upon the terms and conditions stated herein and shall become a binding Contract, when it is accepted either by Business Associate's acknowledgment or performance. The purchase order expressly limits acceptance to the terms and conditions stated herein. Any additional or different terms or conditions proposed by Business Associate are objected to and hereby rejected, including without limitation, Business Associate's quotation or acknowledgment forms. Any reference in the Purchase Order to Business Associate's quotation or proposal does not imply acceptance of any terms or conditions in that quotation or proposal. It is important that Business Associate signs and returns the Purchase Order copy within (3) days of receipt. Failure to return the acceptance does not diminish the responsibilities as set forth herein, but may result in delay to any payment that may be due to and may be a cause of termination of this Purchase Order.

For TP Northern Odisha Distribution Limited

AUTHORIZED SIGNATORY

Name : VIPIN CHAUHAN
Designation :
Contact No. :
E-mail id :

Digitally signed by VIPIN CHAUHAN
Date: 2023.04.11 11:31:55 +05'30'

Important Note:- 1. In case of any discrepancies between the stipulation in General Conditions of the Contract (GCC) given by the original order and Special Conditions of Contract (SCC), the GCC shall stand superseded by the SCC to the extent stipulated herein above while balance portion of respective clauses of GCC shall continue to be applicable.
Encl: as above
2. This document does not assure or warrant as regards the measurement of performance , non-performance or short performance by the party named as contracting party herein other than TPNODL in relation to the supplies/services or works involved and the same may not be read in support of any contended right or assertion made by such party in relation thereof unless supported with relevant performance certificate issued by TPNODL.

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TPNODL

PO No. : 4800002117

Annexure I

Schedule of Item/ Quantities/ Rate

Sr No	Material Code Description Details / Specifications	HSN / SAC Code	Qty	Unit	Rate	Amount INR
1	Energy Audit FY 22-23 i. Furnish the Annual Energy Audit Report in the BEE Pro-forma in accordance with the timeline and guidelines. ii. Recommendation and suggestions for system improvement (if any). iii. Submission of Annual Energy Audit Report to BEE/SDA/Concerned departments in accordance to the timelines defined in BEE guidelines	998349				
1.001	Filing energy audit report for FY22-23.		1	AU	190,800.00	190,800.00
	IGST			%	18.00	34,344.00
	Service Subtotal					**225,144.00**
Service Total(INR)						**225,144.00**
Total PO Value(INR)						**225,144.00**

E-Invoice Clause: The Central Board of Indirect Taxes and Customs vide Notification No. 01/2022 – Central Tax dated 24th February, 2022 have notified the mandatory issuance of E-Invoices w.e.f. 1st April 2022 for those suppliers whose turnover during previous years have exceeded Rs.20crs.In view of the aforesaid notification your office is required to issue Tax Invoice with appropriate IRN (Invoice Reference Number) and QR Code printed on the face of the invoice. Please note invoices issued without IRN and QR code if applicable to your organization will be rejected, as the same is not considered as a valid Tax Invoice.

GST Reimbursement Clause: As per GST law, the supplier/BA has to issue Tax Invoice along with supply of goods and in case of services within 30 days from the date of supply of service. The GST amount billed in the Tax Invoice has to be deposited first by your organization. In case, your organization doesn't deposit GST with Govt. treasury on/before prescribed due date, we reserve the right to withheld GST amount till the time it reflected in GSTR-2A / GSTR-2B of company portal.

10.2 COPY OF MINUTES OF MEETING:

Minutes of meeting held between TPNODL & Zenith energy Services Limited.

1. A meeting between TPNODL & Zenith Energy held on 04/07/2023 to finalize the energy accounting and report for the FY 2022-23.
2. Zenith examined the proforma prepared by TPNODL and enquired in details about each entry.
3. TPNODL explained various entries made by them at circle, division and subdivision levels.
4. Zenith Energy requested to provide the procedure followed by TPNODL to evaluate the unit rate of IP sets (Unmetered Connections). TPNODL provided the procedure followed by them to evaluate the unit rate for agricultural pump and also gave a sample calculation.
5. On request, TPNODL provided the data of Retail Tarrif Supply Rate of Consumers applicable during FY 2022-23.
6. TPNODL advised that since the report is being prepared based on the data in case of any issues pointed out by BEE, the corrections in the report shall be done by Zenith based on the final approved data, Zenith accepted to do the same.
7. Every Fortnight meeting carried out among the TPNODL and Zenith Energy for the audit related task and progress.

ZESPL Officials	Signature	TPNODL-Officials	Signature
Shri R Veera Swamy DISCOM Sector Expert		Mr. Manish Kriplani HoG-Energy Audit	
Shri DSR Krishna AEA		Mr. Rahul Shukla Team Lead-Energy Audit	
Shri. R. Sasidhar, CEA			
Shri. Sankar Satya Sai Engineer			

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10.3 POWER PURCHASE DETAILS:

GRIDCO LIMITED

(A Govt. of Odisha Undertaking)
(Formerly Grid Corporation of Orissa Limited)
Regd. Office: Janpath, Bhubaneswar-751022
Ph:0674-2541320/2540098/2540877 Fax:0674-2541904 E-mail:sgm.pp@gridco.co.in
CIN: U40109OR1995SGC003960

Ref. No.: CGM-PP-51/2022/ 319(8) Date: 05.04.2023

To

The Chief Executive Officer,
TP Northern Odisha Distribution Limited
Januganj, Balasore.

Sub: Energy Bill for the Month of Mar-2023

Dear Sir,

Enclosed please find herewith the Bulk supply energy bill for the month of Mar-2023 for Rs.1,87,15,43,644.00 towards supply of power by GRIDCO to TPNODL.

You are requested to kindly release the payment at the earliest. The rebate for prompt payment shall be admissible as per tariff order. The Energy Flow Statement, furnished by SLDC, based on which the bill is prepared are enclosed herewith for your reference.

Thanking You.

Encl: As stated above.

Yours faithfully,
05/04/2023
GM (T&BS)

Copy to:

Nodal Officer, DISCOM Monitoring Unit (DMU), GRIDCO, Bhubaneswar
Chief Load Despatcher, SLDC, Mancheswar, Bhubaneswar.
CFO, GRIDCO, Bhubaneswar.
DGM (F) PP Branch, GRIDCO, Bhubaneswar.
DGM (R&T), GRIDCO, Bhubaneswar
Manager, Union Bank of India, Main Branch, Bhubaneswar
GUARD File

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GRIDCO

G R I D C O Limited
Registered Office: Janpath,
Bhubaneswar 751022
CIN: U40109OR1995SGC003960
Bill of Supply
For TPNODL
March-2023

GRIDCO GSTIN:21AABCG5359P1Z3
Goods Description: Electricity
HSN Code: 27160000
Ref No: GRIDCO/23-24/ BOS

Date: 05-Apr-23
Pay By Date: 05-May-23

The Chief Executive Officer
TP Northern Odisha Distribution Limited
Janagarj, Balasore, Odisha
GSTIN: 21AAICT5123C1ZX

A. Total Energy for the month	583.035463 MU	
B. SMD approved by OERC	11,63,069 kVA	
SMD permitted by OERC	12,85,069 kVA	
Actual SMD occurred	10,88,962 kVA	
Excess SMD drawal	0 kVA	

Rows No			Amount (Rs.)
1	**Current Charges:**		
	(a) Bulk Supply Price @ 321 Paise per kWh for the Energy	1,87,15,43,643.63	
	(b) Excess Demand Charge @ Rs 250 per kVA	0.00	
	Sub Total: (a+b)		1,87,15,43,643.63
2	**Debit/Credit Bills:**		
	a) Debit Bills for the _____ vide Bill Nos _____ Dtd. _____	0.00	
	Sub Total:		0.00
3	**Total Current Charges: Items (1+2)**		1,87,15,43,644.00
4	**Add Delayed Payment Surcharge for the month of Mar-2023 (Annex-5)**		
5	**Add: Previous amount outstanding :-**		
	(i) Outstanding energy charges	3,26,34,26,248.00	
	(ii) Outstanding DPS	0.00	
	Total Previous Outstanding: (i+ii)		3,26,34,26,248.00
6	**Less payment received during the month**		
	(a) Amount received against Jan'23 bill	1,63,88,99,143.00	
	(b) Rebate allowed for Jan'23 bill	1,85,40,838.00	
	(c) Amount against TDS on Jan'23 Bill	15,94,064.00	
	(d) Other Adjustment (if any)	0.00	
	Total Payment and Adjustment: (a+b+c+d)		(1,65,40,83,045.00)
7	**Total amount claimed through this bill: Items (3 to 6)**		3,48,09,96,047.00
	(Rounded off to the nearest Rupee)		3,48,09,96,047.00

(Rupees three hundred forty eight crore nine lakh six thousand forty seven only)

Checked by

DGM(F), PP

AGM (EDC)

For & on behalf of GRIDCO

GM (T&BS)

Note:

1. The BSP Bill of Supply for the month has been prepared in line with the Bulk Supply Agreement executed with TPNODL and ARR & BSP Order dated 24.03.2022 in Case No 107/2021.
2. The billing for Bulk Supply of Power has been done based on the actual energy consumption statement provided by SLDC and in line with the Clause No. 368 of the BSP order DL24.03.2022 of GRIDCO for FY-2022-23 in Case No.107/2021 in the matter of overdrawal by the DISCOMs and as per the rates stipulated at Clause No.384 & 392 of the said BSP Order.
3. Rebate for prompt payment & Delayed Payment Surcharge shall be admissible/imposed as per the Clause No. 388 & 389 of BSP Order of GRIDCO Dt.24/03/2022 in case No.107 of 2021 of OERC and relevant provisions of Bulk Supply Agreement executed with TPNODL.
4. In case of any default in monthly BSP dues by the DISCOMs, they are liable for imposition of power regulation to the extent of non payment of monthly BSP dues as per Clause No. 385 of the BSP Order.
5. Statutory levy/duty/taxes/cess/toll etc. imposed under any law from time to time shall be charged over and above the bulk supply price fixed by the Commission as per Clause No. 391 of the BSP Order.
6. Discrepancy, if any, found later on, towards the billing will be taken into account.
7. **Details of the Annexures -**

Annexure 1	Energy Flow Statement	Annexure 2	Station Consumption statement
Annexure 3	Open Access Statements	Annexure 4	Energy Accounting Statement of SLDC
Annexure 5	Delayed Payment Surcharge	Annexure 6	Rebate Statement
Annexure 7	Billing Consideration Statement	Annexure 8	Billing Information Statement

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ODISHA POWER TRANSMISSION CORPORATION LIMITED
(A Government of Odisha Undertaking)
Registered Office:Janpath,Bhubaneswar-751022
PAN-AAACO7873L
GSTIN-21AAACO7873L1Z6

Provisional Monthly Transmission Charges Invoice
For TPNODL
March-2023

Invoice No: TRANS/TPNODL/Cur/March-2023

Date: 05-Apr-2023
Pay By Date: 04-May-2023

To,
The Chief Executive Officer,
TP Northern Odisha Distribution Ltd.,
Januganj, Balasore,

Data furnished by SLDC towards Transmission Charges for TPNODL

A	Actual Energy drawn	660.813084	MU
	Station Consumption	0.302443	MU
	Injection by 11kV and 33kV Generators	0.457089	MU
	Open Access Energy	77.475238	MU
B	Energy to be billed towards Transmission charges	582.578314	MU

ITEM NO	PARTICULARS	AMOUNT	AMOUNT
A	**Transmission Charges**		
	Transmission charges @ 28.00P/kWh		16,31,21,928.00
B	**Adjustment for past bills (Annexure-1 to 13)**		68,024
C	**Total current charges(A+B)**		16,31,89,952.00
D	**Delayed payment Surcharged Accrued**		
E	**Previous amount outstanding**		
i	Outstanding Transmission Charges	14,03,33,379.00	
ii	Outstanding DPS	0	
	Total of previous amount outstanding (i+ii)		14,03,33,379.00
F	**Less payment received during the month**		
i	Amount received towards last month bill	13,47,20,043.00	
ii	Rebate allowed on that bill	28,06,668.00	
iii	Collection towards arrears		
iv	Collection towards TDS	28,06,668.00	
	Total of payment received during the month		14,03,33,379.00
G	**Total amount claimed through this bill (C+D+E-F)**		**16,31,89,952.00**
	Rupees Sixteen Crore Thirty One Lakh Eighty Nine Thousand Nine Hundred Fifty Two Only		
H	**Rebate on Payment of Current Charges**		
i	Payable with 2% Rebate on or before	**10-04-2023**	**15,99,26,153.00**
ii	Payable with 1% Rebate on or before	**04-05-2023**	**16,15,58,052.00**
iii	Payable without Rebate after with DPS	**04-05-2023**	**16,31,89,952.00**

For and on behalf of OPTCL

DGM(F),RT&C | AGM(E)-II,RT&C | Sr.GM (RT&C)

1. **Pay by Date 30 days from the date of issuance of this bill** as per the OERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2014.
2. The billing for Transmission of power is done as per OERC Order dated 24.03.2022 in Case No. 105 of 2021 approving Transmission Tariff for FY 2022-23.
3. This invoice shall be deemed as accepted in full in the absence of any objection raised to the contrary within 7 (seven) days of the bill. The objection should indicate the amount not admitted and the specific reasons for the objections.

ଓଡିଶା ବିଦ୍ୟୁତ୍ ଶକ୍ତି ସଂଚାରଣ ନିଗମ ଲି୫.

ODISHA POWER TRANSMISSION CORPORATION LIMITED
(A Government of Odisha Undertaking)
Regd.Office: Janpath: Bhubaneswar
CORPORATE IDENTITY NUMBER (CIN) U40102OR2004SGC007553
Tele Fax: (0674) 2542120, *Email id: rtc@optcl.co.in*

No.RT&C-Bill-03/2022-23 1625 /Dated, 05.04.2023

To,

The Chief Executive Officer,
TP Northern Odisha Distribution Ltd.,
Januganj, Balasore,
Odisha-756019

Sub: Monthly Transmission charges Bill of **TPNODL** for the month of **March-2023.**

Sir,

Enclosed please find herewith the monthly transmission charges bill for the month of **March-2023** towards transmission of power to **TPNODL** amounting to **Rs.16,31,89,952/- (Rupees Sixteen Crore Thirty One Lakh Eighty Nine Thousand Nine Hundred Fifty Two)** only. The bill is raised as per order dated 24.03.2022 in OERC Case No.105/2021 in the matter of approval of ARR and Transmission tariff for the FY 2022-23 w.e.f 01.04.2022.

Yours faithfully,

05/04/23

Sr. General Manager (RT&C)

Encl: As Above

C.C. to

1. Sr. PS to CMD, OPTCL, Bhubaneswar for kind information of CMD, OPTCL.
2. C.G.M. (Finance), OPTCL, Bhubaneswar for kind information.
3. A.G.M, U.B.I. Main Branch. Bhubaneswar for kind information
4. Guard File.

Received
Ranjit Sahu
GRIDCO Ltd.

10.4 ANNUAL PERFORMANCE OF TPNODL FOR FY2022-23:

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

IN THE MATTER OF : Annual Performance Review of TP Northern Odisha Distribution Ltd. (TPNODL) for the Financial Year FY 2022-23.

And

IN THE MATTER OF : TP Northern Odisha Distribution Ltd., Corporate Office - Januganj, Balasore, Odisha- 756019

J.N. BEHERA, NOTARY, BLS
Sl. No. 2542 Vol 1/23
Date 20/5/23

Affidavit verifying submission of information for the Annual Performance Review of TPNODL for the financial year 2022-23

I, Sri Pratap Kumar Mohanty aged about 56 years, son of late Gyanendra Prasad Mohanty, residing at Balasore, do hereby solemnly affirm and state as follows:

I am the Sr. General Manager (Risk, Regulatory & Legal) of TP Northern Odisha Distribution Ltd (TPNODL), Corporate Office-Januganj, Balasore, Odisha-756019.

The statements made in the submission are true to the best of my knowledge and the statements made are based on information and records and I believe them to be true.

Pratap Kumar Mohanty

DEPONENT

Dated: 20-05-2023

Odisha Electricity Regulatory Commission, Received, 22 MAY 2023, R.O. Bhubaneswar

...solemnly affirm that the facts stated above ... knowledge and belief ... 20th day of May 2023

J N. BEHERA
Notary Public

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

IN THE MATTER OF : Annual Performance Review of TP Northern Odisha Distribution Ltd. (TPNODL) for the Financial Year FY 2022-23.

And

IN THE MATTER OF : TP Northern Odisha Distribution Ltd.
Corporate Office - Januganj, Balasore, Odisha- 756019

The above named utility most respectfully showeth :

That, in compliance to the letter no. DIR(T)-336/08/646 dated 09.05.2023 of Secretary, OERC, the required data for the annual performance review of TPNODL for the period April, 2022 to March, 2023 in the prescribed formats are enclosed herewith for favour of kind perusal of the Hon'ble Commission.

Pratap Kumar Mohanty.

Sr. General Manager (RR & L)
For & on behalf of TPNODL

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L.T.PERFORMANCE FOR THE PERIOD - APR-22 TO MAR-23										
Name of Division :	BED, BALASORE					BTED, BASTA				
Category	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)
Domestic	53070	89.491	42.91	46.21	107.70%	75014	47.850	22.45	25.10	111.78%
Kutir Jyoti	50	0.002	0.04	0.00	3.02%	56	0.015	0.03	0.01	25.56%
L.T. General (Com)	11253	38.820	29.06	29.11	100.16%	4587	12.111	9.06	9.06	100.00%
Agriculture	73	0.305	0.05	0.05	93.16%	3486	14.373	2.95	2.62	89.08%
Agro	121	5.759	1.20	1.18	98.59%	153	2.027	0.44	0.44	100.85%
Allied-Agro	0	0.000	0.00	0.00	#DIV/0!	9	0.096	0.06	0.06	99.34%
Street Lighting	19	2.340	1.47	1.47	99.46%	63	0.628	0.56	0.50	88.59%
PWW	156	4.229	3.17	2.92	92.25%	217	2.764	2.52	3.11	123.57%
Small Industry	128	0.960	0.65	0.67	102.09%	217	1.104	0.80	0.81	101.69%
Medium Industry	55	3.511	2.48	2.48	99.78%	28	0.926	0.72	0.71	99.15%
Specified Pub. Purpose (P.I.)	312	1.655	1.26	1.36	107.33%	668	0.819	0.64	0.81	126.08%
TOTAL LT	65237	147.072	82.3112	85.45	103.81%	84496	82.713	40.2153	43.23	107.49%
Energy Input in LT (MU)			163.681					136.987		
Energy Sold in LT (MU)			147.072					82.713		
LT LOSS (%)			10.15%					39.62%		
AT & C Loss (%)			6.72%					35.10%		
Realisation Cost per LT Input (P/U)			522					316		

L.T.PERFORMANCE FOR THE PERIOD - APR-22 TO MAR-23										
Name of Division :	JED, JALESWAR					CED, BALASORE				
Category	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)
Domestic	104947	64.887	28.91	33.41	115.59%	104855	80.457	36.99	43.45	117.48%
Kutir Jyoti	2172	0.448	0.21	0.26	124.17%	106	0.032	0.03	0.01	28.03%
L.T. General (Com)	7321	17.412	12.76	12.47	97.71%	6725	20.019	15.10	14.56	96.43%
Agriculture	4338	20.813	4.14	3.92	94.67%	2318	8.296	1.70	1.00	59.04%
Agro	412	12.696	2.88	2.72	94.18%	338	7.478	1.52	1.59	104.23%
Allied-Agro	3	0.043	0.03	0.03	92.17%	3	0.005	0.00	0.01	106.20%
Street Lighting	104	1.059	0.86	1.02	118.54%	62	0.516	0.39	0.33	84.15%
PWW	245	3.759	3.39	3.96	116.84%	309	3.449	3.19	3.64	114.15%
Small Industry	265	1.173	0.87	0.82	95.17%	251	1.026	0.76	0.81	105.92%
Medium Industry	32	1.128	0.99	1.39	140.17%	154	6.993	6.02	5.53	91.78%
Specified Pub. Purpose (P.I.)	824	1.382	0.97	1.23	126.95%	963	2.751	2.00	2.08	104.08%
TOTAL LT	120683	124.800	56.0015	61.22	109.33%	116084	131.022	67.7033	73.00	107.82%
Energy Input in LT (MU)			177.382					204.760		
Energy Sold in LT (MU)			124.800					131.022		
LT LOSS (%)			29.64%					36.02%		
AT & C Loss (%)			23.08%					31.01%		
Realisation Cost per LT Input (P/U)			345					358		

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L.T.PERFORMANCE FOR THE PERIOD - APR-22 TO MAR-23										
Name of Division :	SED, SORO					BNED, BHADRAK NORTH				
Category	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collectic Efficienc (%)
Domestic	140356	95.260	41.23	48.62	117.93%	166128	152.821	69.86	76.41	109.36%
Kutir Jyoti	683	0.017	0.04	0.06	162.67%	1857	0.482	0.21	0.17	83.41%
L.T. General (Com)	7525	21.887	16.29	16.94	104.02%	11423	39.661	29.30	28.64	97.72%
Agriculture	2110	2.836	0.61	0.41	68.27%	880	1.329	0.30	0.16	53.01%
Agro	689	2.721	0.53	0.55	103.60%	202	2.813	0.63	0.60	94.60%
Allied-Agro	3	0.075	0.04	0.04	101.03%	13	0.214	0.12	0.11	93.86%
Street Lighting	93	0.967	0.62	0.92	148.21%	158	3.171	2.06	2.19	106.00%
PWW	431	1.997	2.23	2.11	94.65%	298	3.814	3.80	4.38	115.24%
Small Industry	364	1.649	1.22	1.25	102.57%	549	2.060	1.53	1.53	99.98%
Medium Industry	52	1.446	1.56	1.48	94.96%	132	5.929	4.93	5.12	103.77%
Specified Pub. Purpose (P.I.)	1360	2.094	1.37	1.74	127.15%	1128	2.222	1.59	1.73	109.23%
TOTAL LT	**153666**	**130.949**	**65.7277**	**74.13**	**112.78%**	**182768**	**214.516**	**114.3366**	**121.03**	**105.85%**
Energy Input in LT (MU)			173.372					318.431		
Energy Sold in LT (MU)			130.949					214.516		
LT LOSS (%)			**24.47%**					**32.63%**		
AT & C Loss (%)			**14.81%**					**28.69%**		
Realisation Cost per LT Input (P/U)			**428**					**380**		

L.T.PERFORMANCE FOR THE PERIOD - APR-22 TO MAR-23										
Name of Division :	BSED, BHADRAK SOUTH					BPED, BARIPADA				
Category	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collectior Efficiency (%)
Domestic	104347	77.150	34.78	48.70	140.01%	193265	150.680	70.49	75.07	106.49%
Kutir Jyoti	219	0.012	0.01	0.01	137.36%	12652	1.354	1.45	1.72	118.31%
L.T. General (Com)	4402	13.819	10.20	10.35	101.46%	12055	41.883	30.52	31.06	101.83%
Agriculture	1132	1.908	0.52	0.25	47.99%	2933	10.074	2.01	1.24	61.58%
Agro	235	1.416	0.22	0.21	94.35%	145	1.386	0.28	0.26	91.30%
Allied-Agro	3	0.033	0.02	0.02	89.50%	3	0.007	0.00	0.01	452.38%
Street Lighting	88	0.623	0.47	0.71	149.56%	37	1.661	1.00	1.03	102.85%
PWW	199	0.570	0.93	1.27	136.28%	429	7.118	6.35	6.30	99.26%
Small Industry	273	1.174	0.87	0.88	101.40%	494	2.105	1.58	1.61	101.62%
Medium Industry	70	1.464	1.48	1.48	100.03%	155	3.905	3.81	3.79	99.45%
Specified Pub. Purpose (P.I.)	1015	1.606	1.26	1.45	114.77%	2163	7.047	5.25	5.53	105.25%
TOTAL LT	**111983**	**99.795**	**50.7740**	**65.33**	**128.67%**	**224331**	**227.219**	**122.7483**	**127.62**	**103.97%**
Energy Input in LT (MU)			150.547					287.791		
Energy Sold in LT (MU)			99.795					227.219		
LT LOSS (%)			**33.71%**					**21.05%**		
AT & C Loss (%)			**14.71%**					**17.91%**		
Realisation Cost per LT Input (P/U)			**434**					**443**		

L.T.PERFORMANCE FOR THE PERIOD - APR-22 TO MAR-23										
Name of Division :	UED, UDALA					RED, RAIRANGPUR				
Category	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)
Domestic	92263	53.924	24.41	28.27	115.81%	187853	110.341	49.57	52.81	106.55%
Kutir Jyoti	7650	1.184	0.66	0.69	105.28%	6116	1.211	0.70	0.59	85.00%
L.T. General (Com)	3785	11.168	8.37	8.78	104.97%	7240	23.589	16.89	17.47	103.43%
Agriculture	1318	2.601	0.51	0.26	50.25%	3259	8.122	1.51	0.51	33.53%
Agro	77	0.260	0.05	0.04	79.13%	22	0.739	0.13	0.12	97.31%
Allied-Agro	4	0.120	0.08	0.08	98.76%	4	0.284	0.15	0.14	95.95%
Street Lighting	9	0.314	0.14	0.09	65.57%	37	1.315	0.89	0.96	107.85%
PWW	175	2.257	2.29	2.97	129.93%	639	6.307	6.49	8.07	124.36%
Small Industry	231	1.007	0.74	0.72	97.70%	322	1.365	0.97	1.03	105.80%
Medium Industry	38	0.882	0.93	0.87	94.21%	65	1.683	1.62	1.44	88.81%
Specified Pub. Purpose (P.I.)	1125	2.647	1.82	2.06	113.23%	1979	5.105	3.70	4.29	115.93%
TOTAL LT	**106695**	**76.364**	**39.9901**	**44.84**	**112.13%**	**207536**	**160.061**	**82.6113**	**87.43**	**105.84%**
Energy Input in LT (MU)			92.693					197.249		
Energy Sold in LT (MU)			76.364					160.061		
LT LOSS (%)			**17.62%**					**18.85%**		
AT & C Loss (%)			**7.63%**					**14.12%**		
Realisation Cost per LT Input (P/U)			**484**					**443**		

L.T.PERFORMANCE FOR THE PERIOD - APR-22 TO MAR-23										
Name of Division :	JRED, JAJPUR ROAD					JTED, JAJPUR TOWN				
Category	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)
Domestic	89968	110.056	53.95	61.26	113.54%	93356	92.886	42.64	47.11	110.47%
Kutir Jyoti	195	0.026	0.02	0.01	53.88%	368	0.025	0.04	0.03	62.32%
L.T. General (Com)	5889	35.420	26.99	27.07	100.31%	4374	17.351	12.83	12.58	98.06%
Agriculture	1702	2.324	0.44	0.36	80.70%	1163	4.282	0.89	0.26	29.52%
Agro	19	0.154	0.01	0.01	82.98%	29	0.078	0.01	0.01	100.00%
Allied-Agro	0	0.003	0.00	0.00	#DIV/0!	0	0.006	0.00	0.00	#DIV/0!
Street Lighting	93	2.348	1.52	2.49	163.63%	80	0.846	0.78	1.18	152.68%
PWW	195	4.180	3.48	4.09	117.72%	148	1.918	1.69	1.79	105.83%
Small Industry	202	1.054	0.71	0.77	108.27%	256	0.953	0.82	0.78	94.23%
Medium Industry	94	3.019	2.79	2.85	102.43%	10	0.209	0.18	0.18	97.85%
Specified Pub. Purpose (P.I.)	501	2.262	1.37	1.43	104.98%	533	1.423	0.96	1.18	122.81%
TOTAL LT	**98856**	**160.846**	**91.2895**	**100.36**	**109.93%**	**100317**	**119.977**	**60.8476**	**65.10**	**106.98%**
Energy Input in LT (MU)			222.683					162.974		
Energy Sold in LT (MU)			160.846					119.977		
LT LOSS (%)			**27.77%**					**26.38%**		
AT & C Loss (%)			**20.59%**					**21.24%**		
Realisation Cost per LT Input (P/U)			**451**					**399**		

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L.T.PERFORMANCE FOR THE PERIOD - APR-22 TO MAR-23										
Name of Division :	KUED, KUAKHIA					KED, KEONJHAR				
Category	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)
Domestic	104829	93.118	43.27	52.20	120.62%	107888	67.969	32.34	35.00	108.25%
Kutir Jyoti	1565	0.188	0.19	0.16	80.06%	3409	0.267	0.35	0.37	105.93%
L.T. General (Com)	5082	20.435	15.99	15.70	98.19%	6132	24.634	18.49	18.62	100.68%
Agriculture	1152	3.586	0.62	0.24	38.01%	1243	1.491	0.40	0.33	82.74%
Agro	33	0.199	0.03	0.03	93.43%	47	0.318	0.07	0.08	111.49%
Allied-Agro	0	0.031	0.00	0.00	#DIV/0!	0	0.000	0.00	0.00	#DIV/0!
Street Lighting	100	0.662	0.64	1.25	194.23%	28	2.216	1.42	1.43	100.65%
PWW	190	2.026	1.75	2.26	129.21%	227	2.334	2.51	2.61	103.91%
Small Industry	241	1.286	0.90	0.92	102.54%	149	1.072	0.74	0.75	101.02%
Medium Industry	127	3.187	3.33	3.19	95.74%	38	1.403	1.38	1.40	101.10%
Specified Pub. Purpose (P.I.)	447	1.502	1.01	1.12	110.90%	1141	3.391	2.54	3.14	123.58%
TOTAL LT	**113766**	**126.440**	**67.7345**	**77.05**	**113.75%**	**120302**	**105.095**	**60.2383**	**63.72**	**105.78%**
Energy Input in LT (MU)			211.716					112.706		
Energy Sold in LT (MU)			126.440					105.095		
LT LOSS (%)			**40.28%**					**6.75%**		
AT & C Loss (%)			**32.07%**					**1.36%**		
Realisation Cost per LT Input (P/U)			**364**					**565**		

L.T.PERFORMANCE FOR THE PERIOD - APR-22 TO MAR-23										
Name of Division :	JOED, JODA					AED, ANANDAPUR				
Category	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)
Domestic	84980	70.043	33.68	38.02	112.89%	127585	84.491	38.33	41.10	107.24%
Kutir Jyoti	1495	0.144	0.17	0.17	104.72%	3736	0.528	0.42	0.37	87.62%
L.T. General (Com)	6203	28.715	21.64	21.79	100.69%	4914	18.225	13.49	13.93	103.25%
Agriculture	979	1.822	0.38	0.37	98.33%	729	0.361	0.09	0.15	163.20%
Agro	13	0.049	0.01	0.02	116.79%	68	0.477	0.09	0.10	106.97%
Allied-Agro	5	0.012	0.01	0.02	166.04%	7	0.041	0.03	0.03	93.45%
Street Lighting	120	3.200	1.99	1.87	93.70%	330	1.878	1.22	1.78	144.96%
PWW	360	2.550	2.47	2.71	109.58%	272	3.505	3.31	3.82	115.46%
Small Industry	163	0.894	0.66	0.64	98.76%	232	0.869	0.64	0.63	98.25%
Medium Industry	45	1.355	1.30	1.26	97.36%	39	0.653	0.85	0.88	103.69%
Specified Pub. Purpose (P.I.)	696	2.514	1.84	2.26	122.98%	1197	3.509	2.45	3.06	124.88%
TOTAL LT	**95059**	**111.298**	**64.1385**	**69.13**	**107.79%**	**139109**	**114.537**	**60.9173**	**65.83**	**108.07%**
Energy Input in LT (MU)			122.400					154.873		
Energy Sold in LT (MU)			111.298					114.537		
LT LOSS (%)			**9.07%**					**26.04%**		
AT & C Loss (%)			**1.99%**					**20.08%**		
Realisation Cost per LT Input (P/U)			**565**					**425**		

v

L.T.PERFORMANCE FOR THE PERIOD - APR-22 TO MAR-23					
Name of Division :	TPNODL AS WHOLE				
Category	No. of Consumer	Consumption (MU)	Amount Billed (Rs. in Crs.)	Amount Collected (Rs. in Crs.)	Collection Efficiency (%)
Domestic	1830722	1441.424	665.82	752.75	113.06%
Kutir Jyoti	42329	5.935	4.56	4.62	101.43%
L.T. General (Com)	108910	385.149	286.98	288.15	100.41%
Agriculture	28815	84.523	17.12	12.12	70.83%
Agro	2603	38.569	8.11	7.94	97.90%
Allied-Agro	57	0.970	0.54	0.53	99.01%
Street Lighting	1421	23.964	16.04	19.19	119.64%
PWW	4490	52.777	49.57	56.03	113.03%
Small Industry	4357	19.751	14.46	14.62	101.12%
Medium Industry	1132	37.713	34.38	34.06	99.06%
Specified Pub. Purpose (P.I.)	16052	41.929	30.02	34.46	114.79%
TOTAL LT	2040888	2132.704	1127.59	1224.47	108.59%
Energy Input in LT (MU)	2890.265				
Energy Sold in LT (MU)	2132.704				
LT LOSS (%)	26.21%				
AT & C Loss (%)	19.87%				
Realisation Cost per LT Input (P/U)	424				

PERFORMANCE OF TPNODL FOR THE FY 2022-23 (APR - MAR)

Sl. No.	Name of Division	Year	No. of Consumers	Energy Input (MU) (Assuming HT Loss 8%) LT	Energy Input TOTAL	Energy Sold (MU) EHT	HT	LT	TOTAL	T & D Loss (%) (Assuming HT Loss 8%) LT	Overall	Billing Efficiency (%) LT	Overall	Billing to Consumer (Rs. in Crs.) LT	TOTAL	Collection Received (Rs. in Crs.) LT	TOTAL	Collection Efficiency (%) LT	TOTAL	AT & C Loss (%) LT	TOTAL	Overall Realisation Per total Input P/U	LT Realisation Per LT Input P/U
DERC TARGET / APPROVAL				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21.69%	16.35%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
ACTUAL																							
1	BED, BALASORE	2022-23 (Apr-Mar)	65307	103.681	229.474	84.033	75.605	147.511	291.149	[illegible]	11.36%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	63048	157.285	294.834	87.378	61.053	130.620	287.411	11.72%	12.69%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	BTED, BASTA	2022-23 (Apr-Mar)	84498	135.507	151.836	0.000	2.115	83.323	85.841	[illegible]	43.39%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	80398	128.905	139.627	0.000	1.460	79.324	80.784	37.49%	42.15%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	JED, JALESWAR	2022-23 (Apr-Mar)	129699	177.302	267.878	80.700	4.124	125.615	190.033	20.18%	36.23%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	121761	164.434	237.002	55.021	2.989	125.459	183.469	23.70%	22.59%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	CED, BALASORE	2022-23 (Apr-Mar)	116174	204.780	488.412	196.039	64.212	131.087	391.338	30.99%	19.88%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	110026	200.014	299.094	15.800	57.774	129.650	203.224	35.88%	31.36%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	SED, SORO	2022-23 (Apr-Mar)	103706	175.372	226.752	0.000	29.720	129.701	159.421	25.15%	27.70%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	103016	167.631	216.838	0.000	26.156	143.431	169.587	14.44%	19.49%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	BNED, BHADRAK(N)	2022-23 (Apr-Mar)	152651	316.411	602.462	275.879	25.060	211.761	515.888	33.50%	20.93%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	BSED, BHADRAK(S)	2022-23 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	BPED, BARIPADA	2022-23 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	UED, UDALA	2022-23 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	RED, RAIRANGPUR	2022-23 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	JRED, JAJPUR [illegible]	2022-23 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	JTED, JAJPUR [illegible]	2022-23 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	2022-23 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NOTARY GOVT. OF ODISHA (INDIA)

Sl. No.	Name of Division	Year	No. of Consumers	Energy Input (MU) (Assuming HT Loss 8%) LT	Energy Input TOTAL	Energy Sold (MU) EHT	HT	LT	TOTAL	T & D Loss (%) (Assuming HT Loss 8%) LT	Overall	Billing Efficiency (%) LT	Overall	Billing to Consumer (Rs. in Crs.) LT	TOTAL	Collection Received (Rs. in Crs.) LT	TOTAL	Collection Efficiency (%) LT	TOTAL	AT & C Loss (%) LT	TOTAL	Overall Realisation Per total Input P/U	LT Realisation Per LT Input P/U
DERC TARGET / APPROVAL				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
14	KED, KEONJHAR	2022-23 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	JOED, JODA	2022-23 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	AED, ANANDAPUR	2022-23 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	TPNODL TOTAL	2022-23 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		2021-22 (Apr-Mar)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NOTARY GOVT. OF ODISHA (INDIA)

PERIOD OF REVIEW - APR-22 TO MAR-23														
NAME OF THE DIVISION	BED, BALASORE													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy Input (MU)	294.834	32.239	31.449	35.230	31.383	29.714	31.864	27.687	21.880	20.828	19.668	20.998	25.109	328.474
BST Bill of GRIDCO (Rs. in Crs.)	102.69	11.25	10.98	12.30	10.95	10.37	11.12	9.66	7.67	7.30	6.90	7.33	8.84	114.637
BST Bill (P/U)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	37.518	5.362	5.208	4.659	5.270	5.675	5.206	5.547	5.363	5.473	5.423	5.151	5.496	64.633
HT	61.065	8.459	6.322	9.438	7.460	6.214	7.275	6.678	6.393	6.185	4.833	3.912	6.436	79.605
LT	138.828	13.252	13.094	18.113	14.750	15.625	14.527	14.438	11.740	8.698	8.244	7.703	7.322	147.511
TOTAL SALE (MU)	257.411	26.073	24.622	32.410	27.480	27.514	27.008	26.663	23.496	20.356	18.500	16.766	19.256	291.149
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	11.72%	27.49%	26.53%	2.11%	15.92%	1.74%	15.79%	-5.46%	-21.99%	-8.31%	0.32%	11.13%	38.04%	9.88%
HT & LT	15.77%	28.86%	28.01%	9.29%	14.93%	9.15%	18.22%	4.63%	-9.13%	3.88%	8.19%	14.08%	30.66%	14.11%
OVERALL (%)	12.69%	22.23%	21.71%	8.00%	12.42%	7.40%	15.24%	3.70%	-6.90%	2.72%	5.93%	10.83%	24.01%	11.36%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	88.28%	72.54%	73.47%	97.89%	89.08%	98.26%	84.21%	105.46%	131.99%	108.31%	99.68%	88.87%	61.96%	90.12%
HT & LT	84.23%	73.34%	73.99%	90.71%	85.07%	90.85%	81.78%	95.37%	109.12%	96.32%	91.81%	85.92%	69.34%	85.89%
OVERALL (%)	87.31%	77.77%	78.29%	92.00%	87.58%	92.60%	84.76%	96.30%	106.90%	97.28%	94.07%	89.17%	75.99%	88.64%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	39.02	3.66	3.54	3.31	3.51	3.77	3.46	3.71	3.83	3.76	3.60	3.48	3.60	43.67
HT	44.42	4.31	4.31	5.90	4.89	4.12	4.75	4.48	4.31	4.20	3.62	3.93	4.32	53.22
LT	77.71	7.37	7.43	10.08	8.20	8.82	8.01	7.95	6.48	5.04	4.60	4.50	4.33	82.79
TOTAL	161.16	15.33	15.28	19.36	16.60	16.41	16.22	16.13	14.42	13.00	12.02	11.92	12.30	179.69
Billing to Govt Dept. & PSU	10.79	0.74	0.82	0.89	0.91	0.92	0.86	0.90	0.80	0.73	0.79	0.69	0.68	9.69
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	38.63	3.48	3.65	3.54	3.31	3.51	3.77	3.47	3.70	3.63	3.75	3.60	3.49	42.90
HT	44.46	2.97	4.07	4.29	5.70	4.78	4.32	4.82	4.53	4.31	4.16	3.54	4.08	51.57
LT	70.23	4.77	6.59	8.12	8.47	7.91	7.79	7.55	6.54	6.49	4.95	4.93	11.35	89.45
TOTAL	153.33	11.22	14.32	15.95	17.48	16.20	15.88	15.83	14.77	14.43	12.85	12.07	18.92	179.92
Collection from Govt Dept. & PSU	10.28	0.07	0.16	0.59	0.04	0.86	0.96	0.72	0.61	1.04	0.45	0.52	1.85	8.24
COLLECTION (PSU) Rs.	5.20	3.48	4.55	4.53	5.57	5.40	4.98	5.72	6.72	6.90	6.54	5.75	7.47	5.40
COLLECTION EFFICIENCY (%)														
EHT	98.99%	95.24%	103.20%	107.18%	94.27%	92.96%	108.81%	93.54%	101.57%	96.82%	104.17%	103.76%	95.57%	98.61%
HT	100.09%	68.93%	94.48%	71.67%	116.52%	116.14%	90.87%	107.70%	105.13%	102.57%	114.88%	90.15%	94.44%	96.90%
LT	90.38%	64.75%	88.71%	80.58%	103.26%	92.85%	97.26%	94.98%	100.91%	128.88%	[illegible]	109.38%	262.43%	103.32%
HT & LT	93.91%	66.26%	90.83%	77.25%	108.21%	100.44%	94.80%	99.56%	102.09%	116.82%	[illegible]	120.42%	176.47%	100.81%
OVERALL (%)	95.14%	73.17%	93.69%	82.38%	105.27%	98.73%	97.88%	98.18%	102.44%	111.07%	[illegible]	101.22%	153.85%	100.50%
Collection efficiency excl. Govt & PSU dues %)	95.19%	76.41%	97.90%	83.31%	107.93%	99.04%	97.12%	99.29%	103.87%	109.20%	107.21%	102.72%	146.93%	101.20%
AT & C LOSS(%)														
LT	20.21%	53.03%	34.83%	21.14%	8.02%	8.76%	18.09%	-0.16%	-33.19%	[illegible]	[illegible]	[illegible]	-62.58%	6.89%
HT & LT	20.90%	51.41%	32.80%	29.92%	7.94%	8.75%	22.37%	5.04%	-11.85%	[illegible]	0.69%	[illegible]	-23.79%	13.42%
OVERALL (%)	16.93%	43.10%	28.60%	24.23%	7.81%	8.58%	17.03%	5.40%	-9.60%	[illegible]	-0.67%	[illegible]	-16.91%	10.90%

PERIOD OF REVIEW - APR-22 TO MAR-23														
NAME OF THE DIVISION	BTED, BASTA													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy Input (MU)	139.527	16.403	12.902	12.857	13.363	12.501	13.620	12.145	8.890	8.469	12.575	13.244	14.567	151.626
BST Bill of GRIDCO (Rs. in Crs.)	48.58	5.72	4.50	4.52	4.66	4.36	4.75	4.24	3.10	2.96	4.38	4.62	5.08	52.921
BST Bill (P/U)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HT	1.460	0.146	0.266	0.235	0.237	0.209	0.198	0.244	0.178	0.176	0.165	0.218	0.246	2.518
LT	79.324	8.747	6.930	7.861	7.580	7.717	7.408	7.942	6.344	5.105	4.814	5.445	7.430	83.323
TOTAL SALE (MU)	80.784	8.893	7.196	8.096	7.817	7.926	7.606	8.186	6.522	5.281	4.979	5.663	7.676	85.841
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	37.49%	41.47%	40.28%	32.73%	37.13%	31.66%	39.93%	27.33%	20.71%	32.97%	57.79%	54.50%	43.52%	39.17%
HT & LT	42.10%	45.78%	44.23%	37.52%	41.50%	36.60%	44.16%	32.60%	26.64%	37.64%	60.41%	57.24%	47.31%	43.39%
OVERALL (%)	42.10%	45.78%	44.23%	37.52%	41.50%	36.60%	44.16%	32.60%	26.64%	37.64%	60.41%	57.24%	47.31%	43.39%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	62.51%	58.53%	59.72%	67.27%	62.87%	68.34%	60.07%	72.67%	79.29%	67.03%	42.21%	45.50%	56.48%	60.83%
HT & LT	57.90%	54.22%	55.77%	62.48%	58.50%	63.40%	55.84%	67.40%	73.36%	62.36%	39.59%	42.76%	52.69%	56.61%
OVERALL (%)	57.90%	54.22%	55.77%	62.48%	58.50%	63.40%	55.84%	67.40%	73.36%	62.36%	39.59%	42.76%	52.69%	56.61%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	1.01	0.10	0.17	0.15	0.15	0.13	0.13	0.15	0.12	0.12	0.11	0.14	0.16	1.61
LT	37.97	3.83	3.30	4.04	3.87	3.67	3.40	3.73	3.10	2.70	2.54	2.74	3.51	40.44
TOTAL	38.99	3.93	3.46	4.19	4.02	3.80	3.52	3.88	3.22	2.82	2.65	2.88	3.67	42.05
Billing to Govt Dept. & PSU	4.74	0.35	0.32	0.36	0.33	0.32	0.32	0.34	0.34	0.36	0.31	0.28	0.30	3.92
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	1.04	0.10	0.00	0.26	0.15	0.15	0.13	0.13	0.16	0.12	0.12	0.08	0.16	1.55
LT	29.34	1.83	2.56	3.14	3.43	2.98	4.20	3.47	3.60	3.48	2.58	2.97	9.00	43.25
TOTAL	30.38	1.92	2.56	3.40	3.57	3.13	4.33	3.60	3.76	3.60	2.69	3.05	9.16	44.79
Collection from Govt Dept. & PSU	2.51	0.01	0.28	0.13	0.27	0.08	0.63	0.37	0.47	0.32	0.12	0.04	1.61	4.33
COLLECTION (PSU) Rs.	2.18	1.17	1.89	2.63	2.67	2.90	3.18	2.97	4.23	4.25	2.14	2.31	6.20	2.95
COLLECTION EFFICIENCY (%)														
EHT	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
HT	102.78%	98.67%	0.00%	180.44%	98.87%	113.69%	104.87%	83.02%	131.78%	102.23%	105.90%	60.24%	101.09%	96.32%
LT	77.28%	47.67%	77.68%	77.66%	88.43%	81.17%	123.54%	93.20%	116.23%	128.81%	[illegible]	108.34%	256.10%	106.96%
HT & LT	77.94%	48.84%	73.98%	81.26%	88.81%	82.36%	122.86%	92.82%	116.80%	[illegible]	[illegible]	106.00%	249.52%	106.50%
OVERALL (%)	77.94%	48.84%	73.98%	81.26%	88.81%	82.36%	122.86%	92.82%	116.80%	[illegible]	101.63%	106.00%	249.52%	106.50%
Collection efficiency excl. Govt & PSU dues %)	81.42%	53.48%	72.52%	85.58%	89.45%	87.55%	115.46%	91.35%	114.02%	[illegible]	[illegible]	111.87%	223.69%	106.06%
AT & C LOSS(%)														
LT	51.70%	72.10%	53.61%	47.76%	44.41%	44.53%	25.79%	32.26%	7.84%	[illegible]	[illegible]	[illegible]	-44.64%	34.98%
HT & LT	54.87%	73.47%	58.74%	49.23%	48.05%	47.82%	31.39%	37.44%	14.31%	[illegible]	59.76%	[illegible]	-31.46%	39.71%
OVERALL (%)	54.87%	73.47%	58.74%	49.23%	48.05%	47.82%	31.39%	37.44%	14.31%	[illegible]	[illegible]	[illegible]	-31.46%	39.71%

PERIOD OF REVIEW - APR-22 TO MAR-23														
NAME OF THE DIVISION	JED, JALESWAR													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy input (MU)	237.002	26.830	20.708	21.678	23.473	21.807	22.779	21.058	15.850	14.688	22.438	23.716	22.700	257.279
BST Bill of GRIDCO (Rs. in Crs.)	82.48	9.37	7.24	7.57	8.19	7.61	7.95	7.35	5.46	5.13	7.83	8.28	7.92	89.895
BST Bill (P/U)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	55.021	5.145	4.827	4.434	5.157	5.361	4.877	5.088	4.983	5.227	5.073	5.025	5.017	60.290
HT	2.989	0.316	0.352	0.380	0.448	0.374	0.336	0.379	0.353	0.261	0.233	0.282	0.387	4.124
LT	125.459	12.042	10.185	13.597	11.780	12.731	10.813	12.457	11.171	8.487	6.593	7.213	8.550	125.619
TOTAL SALE (MU)	183.469	17.506	15.464	18.421	17.385	18.466	16.026	17.902	16.507	13.975	11.899	12.520	13.954	190.033
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	23.70%	28.67%	28.34%	12.13%	28.16%	13.73%	32.98%	13.08%	-18.08%	-0.51%	58.12%	57.33%	46.16%	29.10%
HT & LT	29.42%	43.01%	33.64%	18.89%	33.24%	20.31%	37.72%	19.72%	-4.03%	7.55%	60.69%	59.85%	49.46%	34.24%
OVERALL (%)	22.59%	34.76%	25.50%	15.02%	25.94%	11.32%	29.65%	14.98%	-5.48%	4.86%	46.97%	47.17%	38.53%	26.22%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	76.30%	61.33%	71.66%	87.87%	71.82%	86.27%	67.02%	86.92%	118.08%	100.51%	41.88%	42.67%	53.84%	70.92%
HT & LT	70.58%	56.99%	66.36%	81.11%	66.76%	79.69%	62.28%	80.28%	108.03%	92.45%	39.31%	40.15%	50.54%	65.76%
OVERALL (%)	77.41%	65.24%	74.50%	84.98%	74.06%	84.68%	70.35%	85.02%	105.48%	95.14%	53.03%	52.83%	61.47%	73.78%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	37.55	3.35	3.30	3.00	3.51	3.58	3.27	3.39	3.54	2.53	3.35	3.67	3.36	40.74
HT	1.78	0.19	0.19	0.21	0.21	0.19	0.20	0.22	0.22	0.21	0.19	0.22	0.24	2.50
LT	56.56	5.23	4.92	6.34	5.00	5.55	4.54	5.41	4.66	3.67	3.71	3.53	4.23	56.78
TOTAL	95.89	8.77	8.41	9.55	8.72	9.32	8.01	9.01	8.42	7.42	7.25	7.32	7.82	100.02
Billing to Govt Dept. & PSU	7.46	0.55	0.52	0.53	0.70	0.54	0.52	0.51	0.55	0.53	0.50	0.53	0.47	6.48
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	37.19	3.18	3.35	3.30	3.00	3.51	3.58	3.27	3.39	3.53	3.53	3.35	3.56	40.55
HT	2.28	0.25	0.20	0.16	0.24	0.20	0.20	0.21	0.21	0.22	0.20	0.19	0.28	2.55
LT	45.28	2.15	3.18	5.40	5.34	4.79	5.89	5.17	4.46	5.04	3.98	3.61	12.22	61.22
TOTAL	84.74	5.58	6.73	8.87	8.59	8.49	9.66	8.64	8.06	8.79	7.71	7.15	16.06	104.33
Collection from Govt Dept. & PSU	5.02	0.20	0.25	0.71	0.32	0.35	0.97	0.50	0.48	0.46	0.29	0.29	2.58	7.38
COLLECTION (P/U) Rs.	3.58	2.08	3.24	4.09	3.66	3.90	4.24	4.11	5.15	6.98	3.44	3.02	7.07	4.05
COLLECTION EFFICIENCY (%)														
EHT	98.83%	94.88%	101.30%	110.23%	85.36%	98.15%	109.36%	96.57%	95.81%	100.07%	105.51%	93.98%	106.19%	99.55%
HT	128.51%	130.33%	101.79%	76.59%	116.67%	103.31%	99.69%	93.34%	93.69%	100.98%	105.34%	89.02%	113.53%	101.84%
LT	80.23%	41.10%	64.77%	85.14%	106.80%	86.17%	129.75%	95.56%	95.60%	[illegible]	107.17%	102.15%	289.17%	107.82%
HT & LT	81.64%	44.27%	66.17%	84.86%	107.34%	86.75%	128.50%	95.48%	95.75%	[illegible]	[illegible]	101.40%	279.61%	107.57%
OVERALL (%)	88.37%	63.60%	79.87%	92.82%	98.48%	91.12%	120.60%	95.89%	95.71%	[illegible]	[illegible]	97.78%	205.23%	104.30%
Collection efficiency excl. Govt & PSU dues %)	90.19%	65.37%	82.04%	90.68%	103.12%	92.74%	116.13%	95.69%	[illegible]	[illegible]	[illegible]	101.27%	193.54%	103.64%
AT & C LOSS(%)														
LT	38.79%	74.80%	53.58%	25.19%	23.19%	25.68%	13.04%	16.94%	[illegible]	[illegible]	[illegible]	56.41%	-55.68%	23.64%
HT & LT	42.37%	74.77%	55.96%	21.17%	28.34%	30.89%	19.87%	23.30%	-3.44%	[illegible]	[illegible]	59.29%	-41.32%	29.36%
OVERALL (%)	31.59%	58.51%	40.43%	21.12%	27.06%	22.64%	15.09%	18.48%	-1.02%	[illegible]	[illegible]	48.35%	-26.16%	23.65%

PERIOD OF REVIEW : APR-22 TO MAR-23														
NAME OF THE DIVISION	CED, BALASORE													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy input (MU)	299.904	32.237	36.750	33.521	33.531	31.936	31.002	29.298	25.480	40.525	56.118	62.884	75.142	488.412
BST Bill of GRIDCO (Rs. in Crs.)	104.05	11.25	12.83	11.70	11.70	11.15	10.82	10.22	8.89	14.14	19.58	21.95	26.22	170.456
BST Bill (P/U)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	18.850	5.267	6.464	6.389	5.151	5.046	4.732	4.906	4.770	20.804	36.463	43.637	52.286	196.029
HT	57.774	5.428	6.623	5.635	5.738	5.311	5.053	5.012	4.832	5.082	4.851	4.971	5.676	64.212
LT	128.650	12.587	12.077	14.449	12.734	12.215	12.179	12.510	11.206	7.813	7.916	8.519	6.787	131.097
TOTAL SALE (MU)	205.224	23.282	25.164	26.473	23.623	22.572	21.964	22.427	20.808	33.799	49.250	57.127	64.820	391.338
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	35.68%	35.04%	43.17%	25.24%	37.49%	37.13%	38.29%	28.21%	21.20%	39.42%	48.09%	33.11%	55.50%	35.56%
HT & LT	33.47%	33.18%	38.28%	25.88%	34.91%	34.82%	34.40%	28.18%	22.56%	34.11%	34.98%	29.91%	45.21%	33.20%
OVERALL (%)	31.38%	27.78%	31.55%	21.03%	29.55%	29.32%	29.15%	23.45%	18.34%	16.60%	12.24%	9.15%	13.58%	19.88%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	64.32%	64.96%	56.83%	74.76%	62.51%	62.87%	63.71%	71.79%	78.80%	60.58%	58.91%	66.89%	44.50%	64.62%
HT & LT	66.53%	66.82%	61.72%	74.02%	65.09%	65.18%	65.60%	71.84%	77.44%	65.89%	65.02%	70.09%	54.79%	66.80%
OVERALL (%)	68.64%	72.24%	68.45%	78.97%	70.45%	70.68%	70.85%	76.55%	81.66%	83.40%	87.76%	90.85%	86.32%	80.12%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	18.99	3.22	3.89	3.81	3.11	3.30	3.03	3.23	3.19	13.47	22.11	26.36	30.00	118.84
HT	38.63	3.35	3.97	3.49	3.53	3.28	3.12	3.12	3.12	3.36	3.23	3.30	3.57	40.43
LT	63.66	6.10	6.04	7.24	6.35	6.34	6.01	6.13	5.43	4.62	4.15	4.81	3.94	67.21
TOTAL	119.29	12.73	14.00	14.54	13.00	12.92	12.16	12.48	11.74	21.46	29.49	34.47	37.50	226.50
Billing to Govt Dept. & PSU	7.29	0.45	0.50	0.52	0.52	0.52	0.51	0.47	0.47	0.49	0.51	0.42	0.40	5.77
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	29.13	3.07	3.09	3.89	3.92	3.22	16.75	16.36	16.57	9.57	19.81	28.48	32.59	157.42
HT	37.62	3.24	3.29	3.74	3.56	3.58	3.40	3.12	3.19	3.11	3.22	3.16	3.27	39.96
LT	52.52	3.03	3.66	5.59	5.47	5.18	6.13	5.89	5.56	5.59	4.38	5.71	16.69	73.09
TOTAL	119.26	9.34	10.13	13.23	12.95	11.97	26.29	25.37	25.32	18.27	27.41	37.35	52.55	270.28
Collection from Govt Dept. & PSU	5.03	0.22	0.20	0.38	0.47	0.33	0.66	0.58	0.63	0.45	0.32	0.25	1.85	6.34
COLLECTION (P/U) Rs.	3.99	2.90	2.76	3.95	3.86	3.75	8.48	8.66	9.94	4.51	4.92	5.94	6.99	5.54
COLLECTION EFFICIENCY (%)														
EHT	153.42%	95.40%	77.06%	102.09%	126.18%	97.57%	552.69%	506.07%	519.79%	71.03%	89.57%	108.06%	108.62%	132.56%
HT	102.79%	96.58%	83.39%	107.21%	100.69%	108.88%	109.12%	99.99%	102.19%	92.59%	99.60%	95.82%	91.60%	98.85%
LT	82.52%	49.18%	60.59%	75.98%	86.08%	81.73%	102.00%	96.14%	102.42%	[illegible]	[illegible]	118.66%	423.93%	108.81%
HT & LT	89.89%	65.59%	70.42%	88.12%	91.30%	90.91%	104.43%	97.44%	102.32%	[illegible]	[illegible]	109.42%	285.97%	104.84%
OVERALL (%)	100.01%	73.38%	72.32%	90.39%	99.64%	92.61%	216.14%	203.30%	215.69%	[illegible]	[illegible]	108.36%	140.11%	119.33%
Collection efficiency excl. Govt & PSU dues %)	102.62%	74.20%	73.53%	91.04%	99.99%	93.68%	219.88%	208.46%	[illegible]	[illegible]	[illegible]	108.98%	136.65%	119.58%
AT & C LOSS(%)														
LT	46.94%	68.05%	65.57%	43.20%	46.19%	48.61%	35.02%	30.98%	[illegible]	[illegible]	[illegible]	20.63%	-88.67%	30.47%
HT & LT	40.19%	55.87%	56.53%	36.29%	40.58%	40.75%	31.50%	30.00%	20.76%	[illegible]	21.23%	23.31%	-49.73%	29.99%
OVERALL (%)	31.38%	47.00%	50.50%	28.61%	29.80%	34.54%	-53.13%	-55.63%	-76.14%	[illegible]	[illegible]	1.54%	-20.93%	4.38%

PERIOD OF REVIEW : APR-22 TO MAR-23														
NAME OF THE DIVISION	SED, SORO													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy input (MU)	216.839	23.166	23.611	22.274	22.602	21.503	21.765	18.582	13.280	11.833	12.306	13.273	16.447	220.752
BST Bill of GRIDCO (Rs. in Crs.)	73.38	8.08	8.24	7.77	7.88	7.50	7.60	6.49	4.63	4.16	4.29	4.63	5.74	77.042
BST Bill (P/U)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HT	29.156	2.859	3.168	3.080	3.092	2.621	2.486	2.276	1.715	1.620	1.947	2.277	2.559	29.720
LT	143.431	14.072	14.128	16.213	11.851	12.301	10.996	12.553	10.323	6.893	5.239	7.555	7.567	129.701
TOTAL SALE (MU)	172.587	16.931	17.296	19.293	14.943	14.922	13.482	14.829	12.038	8.513	7.186	9.832	10.126	159.421
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	14.44%	23.74%	23.72%	6.89%	33.05%	26.32%	37.30%	15.35%	1.71%	28.34%	44.11%	23.95%	39.81%	25.19%
HT & LT	19.49%	26.91%	26.62%	13.38%	33.89%	30.61%	38.06%	20.24%	9.35%	28.06%	41.61%	25.92%	38.43%	27.78%
OVERALL (%)	19.49%	26.91%	26.62%	13.38%	33.89%	30.61%	38.06%	20.24%	9.35%	28.06%	41.61%	25.92%	38.43%	27.78%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	85.56%	76.26%	76.28%	93.11%	66.95%	71.68%	62.70%	84.65%	98.29%	73.66%	55.89%	76.05%	60.19%	74.81%
HT & LT	80.51%	73.09%	73.38%	86.62%	66.11%	69.39%	61.94%	79.76%	90.65%	71.94%	58.39%	74.08%	61.57%	72.22%
OVERALL (%)	80.51%	73.09%	73.38%	86.62%	66.11%	69.39%	61.94%	79.76%	90.65%	71.94%	58.39%	74.08%	61.57%	72.22%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	16.58	1.74	1.91	1.84	1.81	1.59	1.50	1.27	1.11	1.13	1.37	1.55	1.72	18.61
LT	68.59	6.65	6.93	7.83	5.90	6.08	5.34	6.35	4.89	3.91	3.33	3.93	4.17	65.33
TOTAL	85.17	8.39	8.83	9.67	7.71	7.67	6.85	7.72	6.00	5.04	4.70	5.48	5.87	83.94
Billing to Govt Dept. & PSU	10.25	0.42	0.50	0.49	0.47	0.43	0.40	0.43	0.40	0.38	0.37	0.45	0.43	5.26
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	15.21	1.38	1.75	1.84	1.81	1.71	1.57	1.45	1.24	1.15	1.07	1.26	1.83	18.26
LT	56.45	3.53	4.53	6.42	6.47	6.16	6.91	6.11	5.37	5.22	4.42	5.16	13.84	74.13
TOTAL	71.66	5.11	6.28	8.26	8.28	7.87	8.48	7.56	6.60	6.36	5.49	6.41	15.69	92.39
Collection from Govt Dept. & PSU	7.86	0.24	0.22	0.21	0.31	0.30	0.42	0.35	0.36	0.28	0.16	0.28	2.31	5.43
COLLECTION (P/U) Rs.	3.40	2.21	2.66	3.71	3.66	3.66	3.90	4.06	4.97	5.33	4.46	4.83	9.53	4.19
COLLECTION EFFICIENCY (%)														
EHT	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
HT	91.76%	90.70%	91.86%	100.07%	100.08%	107.91%	104.60%	105.64%	111.74%	101.77%	78.17%	81.08%	107.67%	98.09%
LT	82.29%	53.12%	65.38%	81.90%	109.77%	101.22%	129.23%	96.24%	[illegible]	[illegible]	132.73%	131.13%	331.88%	113.48%
HT & LT	84.13%	60.90%	71.10%	85.37%	107.38%	102.61%	123.82%	97.91%	[illegible]	[illegible]	116.84%	116.98%	266.91%	110.07%
OVERALL (%)	84.13%	60.90%	71.10%	85.37%	107.38%	102.61%	123.82%	97.91%	[illegible]	[illegible]	116.84%	116.98%	266.91%	110.07%
Collection efficiency excl Govt & PSU dues %	86.20%	61.09%	72.68%	87.61%	110.25%	104.63%	128.28%	98.82%	[illegible]	131.39%	[illegible]	121.87%	245.67%	110.49%
AT & C LOSS(%)														
LT	29.59%	59.49%	50.13%	23.71%	26.51%	27.45%	18.97%	18.53%	[illegible]	[illegible]	[illegible]	0.28%	-99.75%	15.10%
HT & LT	32.26%	55.49%	47.82%	26.06%	28.93%	28.80%	23.30%	21.91%	[illegible]	[illegible]	[illegible]	13.35%	-64.33%	20.51%
OVERALL (%)	32.26%	55.49%	47.82%	26.06%	28.93%	28.80%	23.30%	21.91%	[illegible]	9.00%	[illegible]	13.35%	-64.33%	20.51%

PERIOD OF REVIEW : APR-22 TO MAR-23														
NAME OF THE DIVISION	BNED, BHADRAK NORTH													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy input (MU)	477.349	54.845	58.824	65.676	50.606	61.744	65.007	59.817	46.233	45.047	45.064	45.281	53.549	652.482
BST Bill of GRIDCO (Rs. in Crs.)	158.12	19.14	20.53	22.96	17.73	21.50	22.68	20.88	16.14	15.72	16.04	15.80	18.51	227.716
BST Bill (P/U)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	122.850	16.721	19.652	26.586	12.421	25.284	27.542	26.755	23.689	25.754	25.347	23.605	25.213	278.379
HT	21.373	2.430	2.807	3.287	2.669	2.333	2.373	1.966	1.195	0.813	1.582	1.709	2.296	25.560
LT	213.500	17.114	23.489	23.409	19.366	23.528	12.920	21.172	16.741	11.652	12.288	12.078	17.944	211.781
TOTAL SALE (MU)	357.623	36.265	45.948	53.282	34.456	51.145	42.835	49.893	41.625	38.219	39.217	37.392	45.453	515.900
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	29.99%	47.39%	29.32%	28.74%	40.68%	24.61%	59.74%	25.59%	14.35%	30.79%	29.28%	33.76%	23.03%	33.50%
HT & LT	33.78%	49.68%	32.87%	32.03%	42.99%	29.07%	59.18%	30.03%	33.44%	34.87%	32.69%	36.40%	27.29%	36.53%
OVERALL (%)	25.08%	33.77%	21.89%	19.10%	32.18%	17.17%	34.11%	16.59%	9.97%	14.94%	14.66%	17.42%	14.32%	20.93%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	70.01%	52.61%	70.68%	71.26%	59.32%	75.39%	40.26%	74.41%	85.65%	69.21%	70.72%	66.24%	76.97%	66.50%
HT & LT	66.22%	51.42%	67.13%	67.97%	57.41%	70.93%	40.82%	69.97%	79.56%	65.13%	67.31%	63.60%	72.71%	63.47%
OVERALL (%)	74.92%	66.23%	78.11%	80.90%	67.82%	82.83%	65.89%	83.41%	90.03%	85.06%	85.34%	82.58%	85.68%	79.07%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	83.85	10.71	12.33	15.56	8.14	15.01	15.58	15.10	13.86	15.02	14.73	14.56	14.44	164.12
HT	15.69	1.56	1.77	2.11	1.83	1.58	1.60	1.35	0.89	0.87	1.23	1.26	1.53	17.68
LT	109.87	9.28	12.14	12.31	10.42	12.06	7.24	11.03	8.87	7.00	6.88	6.60	9.27	113.20
TOTAL	209.40	21.55	26.22	29.48	20.38	28.64	24.42	27.48	23.64	22.89	22.84	21.92	25.24	295.00
Billing to Govt Dept. & PSU	10.69	0.70	0.89	0.81	0.86	0.76	0.89	0.82	0.80	0.84	0.76	0.77	0.71	9.58
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	82.09	9.08	10.69	12.32	15.56	8.19	14.85	15.59	15.10	13.96	14.84	14.65	14.06	158.71
HT	15.71	1.56	1.54	1.62	2.02	1.74	1.78	1.56	1.29	1.04	0.88	1.24	1.19	17.67
LT	91.67	5.84	7.77	9.33	9.72	8.44	10.76	9.41	9.27	8.80	7.01	9.41	26.26	121.83
TOTAL	189.28	16.48	20.01	23.47	26.00	18.36	27.40	26.57	25.66	23.83	22.72	26.51	41.51	297.40
Collection from Govt Dept. & PSU	10.82	0.18	0.41	1.01	0.79	0.67	1.09	0.80	1.02	0.85	0.62	0.49	2.01	9.73
COLLECTION (P/U) Rs.	3.87	3.01	3.60	3.58	5.28	2.97	4.23	4.44	5.55	5.29	4.94	5.41	7.82	4.56
COLLECTION EFFICIENCY (%)														
EHT	97.90%	84.82%	86.64%	81.81%	184.99%	54.54%	95.92%	103.27%	107.99%	93.14%	100.73%	100.66%	97.38%	96.70%
HT	100.12%	100.12%	87.18%	86.17%	110.61%	109.88%	111.03%	115.31%	121.04%	120.25%	71.36%	98.52%	78.27%	99.96%
LT	83.35%	62.93%	64.03%	75.76%	93.36%	69.99%	148.61%	85.39%	103.30%	125.85%	101.86%	127.44%	283.09%	106.92%
HT & LT	[illegible]	69.20%	66.57%	77.28%	95.93%	74.61%	141.80%	88.66%	106.04%	125.23%	97.22%	122.76%	254.12%	105.66%
OVERALL (%)	[illegible]	76.50%	76.30%	79.59%	131.48%	64.10%	112.03%	96.69%	107.18%	104.17%	99.49%	111.90%	164.47%	100.81%
Collection efficiency excl Govt & PSU dues %	[illegible]	78.19%	77.39%	79.34%	133.28%	64.16%	111.97%	96.66%	108.51%	104.28%	100.11%	113.56%	161.02%	100.79%
AT & C LOSS(%)														
LT	[illegible]	66.89%	54.74%	46.01%	44.62%	47.24%	40.18%	36.46%	11.53%	12.90%	27.98%	15.58%	-117.90%	28.90%
HT & LT	[illegible]	64.89%	55.04%	47.47%	44.83%	47.08%	42.12%	37.96%	15.63%	18.44%	34.56%	21.92%	-84.78%	32.74%
OVERALL (%)	[illegible]	49.33%	40.40%	35.61%	10.83%	46.90%	25.85%	19.35%	3.50%	11.39%	15.10%	7.68%	-40.92%	20.29%

PERIOD OF REVIEW - APR-22 TO MAR-23														
NAME OF THE DIVISION	BSED, BHADRAK SOUTH													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy Input (MU)	168.600	18.016	17.493	18.010	17.401	16.839	16.974	14.490	9.800	8.779	9.262	9.431	11.926	168.523
BST Bill of GRIDCO (Rs. in Crs.)	58.67	6.29	6.11	6.29	6.07	5.88	5.92	5.06	3.46	3.06	3.23	3.29	4.16	58.815
BST Bill (P/U)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	0.387	0.015	0.032	0.257	0.221	0.143	0.018	0.103	0.077	0.003	0.002	0.002	0.064	1.047
HT	3.880	0.436	0.413	0.361	0.378	0.296	0.265	0.181	0.179	0.153	0.237	0.275	0.357	3.531
LT	106.862	11.864	10.302	12.316	10.122	11.124	5.260	10.020	7.445	3.035	5.229	5.316	9.030	101.082
TOTAL SALE (MU)	110.529	12.315	10.767	12.933	10.721	11.563	5.543	10.304	7.701	3.191	5.468	5.593	9.471	105.660
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	29.27%	26.42%	34.08%	22.90%	34.35%	28.16%	65.70%	22.81%	15.90%	61.88%	38.86%	38.71%	14.31%	32.86%
HT & LT	34.20%	31.67%	38.63%	29.60%	38.85%	31.46%	67.42%	28.70%	22.39%	63.67%	40.97%	40.70%	20.73%	37.34%
OVERALL (%)	34.21%	31.64%	38.46%	28.19%	38.33%	31.33%	67.34%	28.34%	22.21%	63.65%	40.96%	40.70%	20.59%	37.30%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	70.73%	73.58%	65.94%	77.10%	65.85%	73.64%	34.30%	77.19%	84.10%	38.32%	63.14%	63.29%	85.69%	67.14%
HT & LT	65.72%	68.33%	61.47%	71.40%	61.15%	68.40%	32.58%	71.30%	77.61%	36.33%	59.03%	59.30%	79.27%	62.46%
OVERALL (%)	65.79%	68.36%	61.54%	71.81%	61.67%	68.67%	32.66%	71.66%	77.79%	36.35%	59.04%	59.30%	79.41%	62.70%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	0.42	0.01	0.03	0.21	0.18	0.11	0.02	0.10	0.06	0.00	0.00	0.00	0.07	0.85
HT	2.48	0.35	0.33	0.30	0.31	0.25	0.24	0.19	0.20	0.18	0.23	0.25	0.30	3.14
LT	51.45	5.62	5.13	6.03	5.02	5.43	2.62	4.90	3.80	2.36	2.76	2.88	4.48	51.15
TOTAL	54.33	5.98	5.49	6.53	5.51	5.80	3.08	5.24	4.06	2.55	2.99	3.14	4.86	55.13
Billing to Govt Dept. & PSU	4.43	0.29	0.31	0.30	0.28	0.29	0.28	0.29	0.27	0.37	0.25	0.29	0.27	3.40
COLLECTION RECEIVED (Rs. In Crs.)														
EHT	0.38	0.02	0.01	0.06	0.18	0.16	0.11	0.02	0.15	0.06	0.00	0.00	0.00	0.80
HT	2.35	0.33	0.36	0.36	0.31	0.31	0.25	0.23	0.18	0.18	0.16	0.18	0.24	3.08
LT	46.89	3.17	3.75	4.11	4.36	4.18	4.98	4.96	4.39	4.64	3.86	4.15	18.78	65.33
TOTAL	49.54	3.51	4.12	4.52	4.85	4.67	5.35	5.21	4.72	4.89	4.02	4.32	19.02	69.21
Collection from Govt Dept. & PSU	3.56	0.13	0.13	0.23	0.44	0.25	0.36	0.28	0.21	0.25	0.23	0.09	1.23	3.94
COLLECTION (P/U) Rs.	2.94	1.95	2.36	2.51	2.79	2.77	3.15	3.58	4.77	5.57	4.34	4.60	15.95	4.11
COLLECTION EFFICIENCY (%)														
EHT	71.10%	119.57%	49.20%	26.86%	102.68%	157.75%	741.66%	11.06%	242.32%	2086.21%	175.00%	169.23%	1.58%	94.15%
HT	95.60%	94.82%	108.39%	120.09%	101.01%	121.36%	106.61%	118.19%	90.25%	101.08%	67.30%	70.89%	78.24%	98.16%
LT	91.13%	57.33%	73.08%	68.19%	86.76%	77.00%	176.29%	101.23%	113.47%	196.42%	139.71%	144.16%	419.99%	127.72%
HT & LT	[illegible]	58.54%	75.22%	70.83%	87.57%	78.96%	170.88%	101.87%	114.15%	189.50%	134.09%	138.22%	397.39%	126.61%
OVERALL (%)	95.18%	58.68%	75.09%	69.23%	88.07%	80.51%	173.74%	99.30%	116.08%	191.66%	134.12%	138.23%	391.65%	125.52%
Collection efficiency with Govt & PSU dues (%)	93.15%	60.47%	76.94%	68.84%	84.68%	80.34%	178.29%	87.21%	118.84%	203.27%	137.94%	149.21%	387.97%	126.18%
AT & C LOSS(%)														
LT	[illegible]	57.82%	51.81%	47.42%	43.05%	43.14%	39.49%	21.86%	3.00%	24.74%	11.79%	8.76%	-259.04%	14.24%
HT & LT	[illegible]	59.32%	53.79%	49.57%	46.45%	45.99%	44.32%	27.36%	11.40%	31.16%	20.85%	18.04%	-215.01%	21.29%
OVERALL (%)	[illegible]	59.21%	53.78%	50.29%	45.89%	44.72%	43.26%	28.84%	9.70%	30.54%	20.82%	18.02%	-211.03%	21.36%

PERIOD OF REVIEW - APR-22 TO MAR-23														
NAME OF THE DIVISION	BPED, BARIPADA													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy Input (MU)	330.291	36.550	33.726	32.459	32.032	31.274	31.679	27.815	21.580	21.587	22.939	22.447	26.082	340.170
BST Bill of GRIDCO (Rs. in Crs.)	114.94	12.76	11.77	11.33	11.18	10.91	11.06	9.71	7.53	7.53	8.01	7.83	9.10	118.719
BST Bill (P/U)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HT	19.560	2.345	2.311	2.179	2.091	2.000	1.882	1.801	1.764	2.059	2.145	2.209	2.379	25.166
LT	237.126	22.255	21.102	23.897	17.628	24.468	16.386	20.615	18.487	12.925	15.124	13.946	16.506	223.337
TOTAL SALE (MU)	256.682	24.600	23.413	26.076	19.719	26.468	18.268	22.416	20.251	14.984	17.269	16.155	18.885	248.502
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	16.68%	28.85%	28.82%	13.88%	35.61%	8.67%	39.90%	13.34%	-2.20%	27.39%	25.23%	24.38%	23.64%	22.40%
HT & LT	22.29%	32.69%	30.58%	19.66%	38.44%	15.37%	42.33%	19.41%	6.16%	30.58%	24.72%	28.03%	27.59%	26.95%
OVERALL (%)	22.29%	32.69%	30.58%	19.66%	38.44%	15.37%	42.33%	19.41%	6.16%	30.58%	24.72%	28.03%	27.59%	26.95%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	83.40%	71.15%	73.49%	88.32%	64.39%	91.39%	60.10%	86.66%	102.20%	72.61%	79.77%	75.62%	76.36%	77.60%
HT & LT	77.71%	67.37%	69.42%	80.34%	61.56%	84.63%	57.67%	80.59%	93.84%	69.41%	75.28%	71.97%	72.41%	73.05%
OVERALL (%)	77.71%	67.31%	69.42%	80.34%	61.56%	84.63%	57.67%	80.59%	93.84%	69.41%	75.28%	71.97%	72.41%	73.05%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	15.71	1.64	1.64	1.57	1.51	1.45	1.37	1.32	1.36	1.57	1.60	1.62	1.70	18.35
LT	119.32	11.87	11.56	12.70	9.83	12.91	8.96	11.01	9.90	7.58	8.27	7.68	9.00	121.25
TOTAL	135.04	13.51	13.20	14.27	11.34	14.36	10.34	12.33	11.26	9.15	9.87	9.30	10.69	139.60
Billing to Govt Dept. & PSU	18.60	1.48	1.66	1.63	1.51	1.64	1.64	1.62	1.51	1.54	1.44	1.24	1.25	18.15
COLLECTION RECEIVED (Rs. In Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	16.34	1.18	1.60	1.67	1.43	1.48	1.82	1.36	1.22	1.33	1.64	1.61	1.70	18.01
LT	97.89	7.26	8.97	10.07	10.48	8.87	11.68	11.04	9.58	9.94	8.24	9.09	22.38	127.62
TOTAL	114.24	8.44	10.57	11.74	11.91	10.35	13.50	12.40	10.80	11.27	9.88	10.70	24.08	145.64
Collection from Govt Dept. & PSU	18.01	0.70	0.92	1.11	1.25	0.93	2.12	1.88	1.18	1.06	1.28	0.97	5.12	18.50
COLLECTION (P/U) Rs.	3.46	2.31	3.13	3.62	3.72	3.31	4.28	4.46	5.01	5.22	4.31	4.77	9.23	4.28
COLLECTION EFFICIENCY (%)														
EHT	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
HT	104.00%	70.76%	97.74%	106.63%	94.73%	102.12%	132.14%	102.46%	89.65%	84.72%	102.76%	99.56%	99.95%	98.19%
LT	82.04%	61.21%	77.58%	79.28%	106.65%	68.73%	130.33%	100.30%	96.81%	131.45%	99.55%	118.44%	248.75%	105.26%
HT & LT	84.60%	62.46%	80.06%	82.28%	105.06%	72.10%	130.57%	100.53%	95.94%	123.41%	100.07%	115.15%	225.15%	104.33%
OVERALL (%)	84.60%	62.46%	80.06%	82.28%	105.06%	72.10%	130.57%	100.53%	95.94%	123.41%	100.07%	115.15%	225.15%	104.33%
Collection efficiency with Govt & PSU dues (%)	[illegible]	64.30%	83.62%	84.07%	108.46%	74.12%	130.83%	98.13%	96.69%	134.89%	102.00%	120.83%	200.60%	104.69%
AT & C LOSS(%)														
LT	[illegible]	56.39%	43.01%	31.57%	31.33%	37.19%	21.66%	13.06%	1.06%	4.56%	20.59%	10.42%	-89.95%	18.32%
HT & LT	[illegible]	57.96%	44.42%	33.90%	35.32%	38.99%	24.70%	18.98%	9.97%	14.34%	24.67%	17.12%	-63.02%	23.79%
OVERALL (%)	[illegible]	57.96%	44.42%	33.90%	35.32%	38.99%	24.70%	18.98%	9.97%	14.34%	24.67%	17.12%	-63.02%	23.79%

PERIOD OF REVIEW - APR-22 TO MAR-23														
NAME OF THE DIVISION														
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy Input (MU)	100.170	10.152	10.175	9.589	9.307	9.404	9.665	8.303	6.730	6.647	6.833	7.046	7.865	101.514
BST Bill of GRIDCO (Rs. in Crs.)	36.86	3.84	3.86	3.34	3.25	3.28	3.37	2.90	2.35	2.32	2.42	2.46	2.75	35.533
BST Bill (PU)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HT	0.238	0.053	0.091	0.062	0.041	0.014	0.013	0.013	0.015	0.041	0.165	0.213	0.235	0.976
LT	92.580	7.853	6.884	10.044	6.967	6.385	3.810	7.415	6.025	3.373	5.040	5.649	7.055	77.545
TOTAL SALE (MU)	92.818	7.906	6.975	10.106	6.008	6.399	3.823	7.428	6.040	3.414	5.205	5.862	7.310	78.521
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	-0.72%	15.44%	25.74%	-14.90%	29.51%	2.90%	67.03%	2.78%	2.49%	44.47%	18.88%	9.88%	-0.82%	16.34%
HT & LT	7.34%	22.12%	31.45%	-6.61%	36.02%	10.69%	69.39%	10.54%	10.25%	48.64%	24.92%	16.80%	7.21%	22.88%
OVERALL (%)	7.34%	22.12%	31.45%	-5.61%	36.02%	10.69%	69.39%	10.54%	10.25%	48.64%	24.92%	16.80%	7.21%	22.88%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	100.72%	84.56%	74.26%	114.90%	70.49%	97.07%	42.97%	97.24%	97.50%	55.53%	81.12%	90.11%	100.82%	83.66%
HT & LT	92.66%	77.88%	68.35%	105.61%	64.86%	89.31%	39.61%	89.46%	89.75%	51.36%	75.08%	83.20%	92.73%	77.12%
OVERALL (%)	92.66%	77.88%	68.35%	105.61%	64.86%	89.31%	39.61%	89.46%	89.75%	51.36%	75.08%	83.20%	92.73%	77.12%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	0.26	0.05	0.08	0.06	0.05	0.02	0.02	0.02	0.03	0.04	0.13	0.16	0.19	0.85
LT	45.04	3.82	3.62	4.85	3.23	4.33	2.16	3.80	3.06	2.40	2.84	2.95	3.31	40.48
TOTAL	45.30	3.87	3.70	4.91	3.27	4.35	2.18	3.82	3.08	2.44	2.98	3.11	3.50	41.33
Billing to Govt Dept. & PSU	5.45	0.42	0.44	0.46	0.45	0.44	0.42	0.47	0.38	0.37	0.37	0.37	0.41	4.83
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	0.31	0.04	0.04	0.08	0.05	0.04	0.02	0.02	0.02	0.03	0.04	0.13	0.18	0.66
LT	31.48	2.34	2.66	2.84	3.15	2.85	4.43	3.55	3.60	3.68	3.55	2.79	10.88	44.84
TOTAL	31.81	2.38	2.71	3.02	3.21	2.89	4.45	3.56	3.64	3.71	3.59	2.92	11.03	45.50
Collection from Govt Dept. & PSU	4.19	0.24	0.21	0.20	0.41	0.22	0.74	0.46	0.26	0.38	0.24	0.08	2.02	5.44
COLLECTION (PU) Rs.	3.18	2.34	2.68	3.15	3.44	3.08	4.60	4.28	4.52	5.58	3.74	4.15	14.00	4.47
COLLECTION EFFICIENCY (%)														
EHT	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
HT	118.38%	81.84%	54.80%	136.41%	125.84%	198.24%	89.71%	78.18%	74.37%	69.56%	28.55%	80.00%	81.94%	78.37%
LT	68.01%	59.63%	73.51%	60.52%	97.57%	65.93%	204.57%	93.24%	98.86%	153.36%	89.78%	94.66%	328.52%	110.77%
HT & LT	69.29%	59.69%	73.12%	61.41%	97.89%	66.57%	203.50%	93.15%	98.64%	151.85%	87.57%	93.89%	314.82%	110.10%
OVERALL (%)	69.29%	59.86%	73.12%	61.41%	97.89%	66.57%	203.50%	93.15%	98.64%	151.85%	87.57%	93.89%	314.82%	110.10%
Collection efficiency of Govt & PSU dues (%)														
AT & C LOSS (%) *	46.28%	60.04%	76.38%	83.20%	97.21%	68.47%	209.76%	82.49%	102.31%	181.45%	90.18%	103.87%	291.88%	110.05%
EHT														
LT	49.58%	49.58%	45.41%	35.46%	31.23%	36.00%	12.10%	9.34%	3.57%	14.84%	27.17%	14.70%	-231.23%	7.34%
HT & LT	53.36%	53.36%	49.88%	39.15%	36.39%	40.55%	19.40%	16.67%	11.47%	22.01%	34.63%	21.88%	-192.03%	15.09%
OVERALL (%)	53.36%	53.36%	49.88%	39.15%	36.39%	40.55%	19.40%	16.67%	11.47%	22.01%	34.63%	21.88%	-192.03%	15.09%

PERIOD OF REVIEW - APR-22 TO MAR-23														
NAME OF THE DIVISION														
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy Input (MU)	237.551	23.060	21.997	21.149	20.862	20.963	21.639	19.212	16.840	17.393	17.311	15.475	16.088	221.339
BST Bill of GRIDCO (Rs. in Crs.)	82.67	8.06	7.67	7.38	7.28	7.18	7.55	6.70	5.88	6.06	6.04	5.40	5.61	69.867
BST Bill (PU)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HT	11.704	1.332	1.434	1.323	1.358	1.106	1.134	1.065	1.070	1.299	1.485	1.480	1.567	15.767
LT	180.019	14.930	11.063	13.610	10.394	10.738	14.222	16.388	13.950	11.063	11.158	12.194	10.968	156.679
TOTAL SALE (MU)	191.723	16.262	12.497	14.933	11.750	11.842	15.356	17.453	15.020	12.298	12.643	13.674	12.535	172.443
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	12.90%	24.91%	41.14%	24.62%	41.73%	8.04%	24.25%	1.34%	3.28%	25.00%	22.73%	4.41%	16.36%	20.57%
HT & LT	19.29%	29.48%	43.18%	29.11%	43.68%	13.23%	29.04%	9.18%	10.81%	29.13%	26.87%	11.84%	21.34%	25.52%
OVERALL (%)	19.29%	29.48%	43.18%	29.11%	43.68%	13.23%	29.04%	9.18%	10.81%	29.13%	26.87%	11.84%	21.34%	25.52%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	87.03%	75.09%	58.88%	75.38%	58.27%	93.86%	75.75%	98.66%	96.72%	75.00%	77.27%	95.59%	83.64%	79.43%
HT & LT	80.71%	70.52%	56.64%	70.89%	56.32%	86.77%	70.96%	90.64%	89.19%	70.67%	73.03%	88.36%	78.66%	74.48%
OVERALL (%)	80.71%	70.52%	56.64%	70.89%	56.32%	86.77%	70.96%	90.64%	89.19%	70.67%	73.03%	88.36%	78.66%	74.48%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	7.86	0.85	0.98	0.87	0.90	0.79	0.81	0.77	0.77	0.89	1.02	1.07	1.20	10.93
LT	89.82	7.85	6.06	7.12	5.63	8.50	7.22	8.13	6.92	6.05	6.21	6.45	5.53	81.48
TOTAL	96.88	8.69	7.04	7.99	6.53	9.28	8.03	8.90	7.69	6.95	7.24	7.52	6.74	92.39
Billing to Govt Dept. & PSU	14.19	1.13	1.20	1.34	1.00	1.06	1.22	1.39	1.02	1.08	1.07	1.39	1.20	14.11
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	8.58	0.57	0.76	0.99	0.81	0.83	0.79	0.84	0.77	0.71	0.90	0.96	1.16	10.08
LT	86.92	3.62	4.89	5.69	5.62	4.59	9.85	7.10	7.01	7.34	5.62	6.08	21.06	87.43
TOTAL	95.50	4.19	5.63	6.68	6.43	5.41	9.64	7.94	7.78	8.05	6.54	7.04	22.18	97.52
Collection from Govt Dept. & PSU	11.18	0.43	0.57	0.84	0.98	0.31	2.00	1.24	1.20	0.89	0.73	0.22	5.07	14.45
COLLECTION (PU) Rs.	2.93	1.82	2.56	3.16	3.08	2.83	4.46	4.13	4.62	4.64	3.78	4.55	13.78	4.21
COLLECTION EFFICIENCY (%)														
EHT	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
HT	109.19%	66.43%	76.63%	113.67%	90.09%	105.18%	97.48%	109.09%	99.82%	79.02%	89.98%	91.81%	91.56%	92.29%
LT	68.43%	47.80%	80.00%	79.96%	99.53%	53.99%	122.63%	87.35%	101.26%	121.38%	90.50%	93.94%	360.98%	107.33%
HT & LT	71.74%	49.32%	79.95%	83.65%	98.49%	58.32%	120.08%	89.25%	101.12%	115.92%	90.43%	93.56%	329.24%	105.55%
OVERALL (%)	71.74%	49.32%	79.95%	83.65%	98.49%	58.32%	120.08%	89.25%	101.12%	115.92%	90.43%	93.56%	329.24%	105.55%
Collection efficiency of Govt & PSU dues (%)														
AT & C LOSS (%) *	75.63%	51.04%	80.67%	87.92%	98.54%	62.07%	111.95%	89.27%	98.60%	122.23%	94.84%	111.28%	308.29%	106.11%
EHT														
LT	31.57%	54.40%	52.91%	39.73%	41.83%	49.27%	7.10%	13.82%	2.08%	8.97%	30.07%	10.21%	-218.63%	14.75%
HT & LT	34.26%	55.22%	54.56%	40.70%	44.53%	49.40%	14.79%	18.92%	9.61%	17.85%	33.95%	17.31%	-158.98%	21.39%
OVERALL (%)	34.26%	55.22%	54.56%	40.70%	44.53%	49.40%	14.79%	18.92%	9.61%	17.85%	33.95%	17.31%	-158.98%	21.39%

PERIOD OF REVIEW - APR-22 TO MAR-23														
NAME OF THE DIVISION	JRSD, JAJPUR ROAD													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy Input (MU)	1288.052	113.052	113.636	137.494	135.615	134.562	126.069	158.375	158.659	160.275	143.068	136.052	164.875	1683.932
BST Bill of GRIDCO (Rs. in Crs.)	468.24	39.46	39.66	47.99	47.40	46.56	46.19	55.27	55.37	52.40	49.93	47.48	57.54	587.892
BST Bill (PU)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	933.253	73.588	77.264	104.008	103.820	102.238	107.206	122.238	134.973	129.218	120.515	114.333	139.758	1341.315
HT	106.277	11.369	11.049	8.251	7.401	7.469	6.799	6.220	6.266	6.664	7.177	6.867	6.873	92.525
LT	152.580	15.051	17.311	19.099	15.980	16.519	13.952	15.004	14.293	6.818	6.381	10.178	12.678	165.227
TOTAL SALE (MU)	1192.110	102.016	105.624	131.405	127.221	126.226	127.957	153.462	155.532	142.700	136.043	131.374	159.487	1599.067
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	30.68%	34.82%	22.76%	15.11%	27.41%	25.51%	35.38%	15.83%	7.94%	48.35%	38.47%	23.42%	21.44%	25.80%
HT & LT	27.04%	29.48%	22.03%	16.21%	26.86%	25.56%	32.76%	16.80%	13.20%	35.97%	31.15%	21.54%	21.77%	24.77%
OVERALL (%)	7.45%	9.76%	7.05%	4.43%	6.33%	6.12%	7.32%	3.10%	1.97%	5.04%	4.91%	3.44%	3.32%	5.04%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	69.31%	65.18%	77.24%	84.83%	72.59%	74.49%	64.61%	84.17%	92.06%	53.65%	61.53%	77.58%	78.56%	74.20%
HT & LT	72.96%	70.54%	77.97%	81.79%	73.14%	74.44%	67.24%	81.20%	86.80%	64.03%	68.85%	78.48%	79.23%	75.23%
OVERALL (%)	92.55%	90.24%	92.95%	95.37%	93.67%	93.88%	92.68%	96.90%	96.02%	94.96%	95.09%	96.56%	96.68%	94.96%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	605.38	52.06	56.22	81.72	82.11	82.82	84.38	79.24	82.33	83.32	74.68	70.70	84.90	828.17
HT	73.75	7.90	7.67	5.79	5.35	5.21	5.11	4.43	4.48	4.89	4.92	4.74	4.80	65.06
LT	81.69	8.05	9.42	10.45	8.78	9.09	7.85	9.24	7.83	5.11	5.47	5.71	7.08	92.88
TOTAL	760.81	68.01	67.32	77.96	76.24	77.12	77.14	91.91	94.39	93.12	85.06	81.15	96.78	986.11
Billing to Govt Dept. & PSU	26.12	4.06	4.17	3.93	2.28	1.67	1.32	1.21	1.22	1.25	1.17	3.94	3.81	30.01
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	611.25	75.38	82.83	94.23	109.30	81.76	75.83	66.22	78.47	81.82	76.66	74.12	66.68	872.48
HT	78.14	10.92	7.72	6.77	16.39	4.92	14.09	4.42	4.48	4.64	4.63	4.80	10.03	97.57
LT	75.31	4.41	6.84	7.18	7.13	6.86	10.19	8.10	8.24	7.20	5.23	7.18	21.39	100.36
TOTAL	764.71	90.70	97.19	78.20	134.83	73.53	100.08	77.74	91.17	93.25	86.72	86.10	98.20	1070.41
Collection from Govt Dept. & PSU	25.83	3.49	4.00	4.57	0.97	2.08	11.11	1.25	1.52	1.34	0.85	0.99	2.86	35.03
COLLECTION (PU) Rs.	5.84	8.02	5.91	5.11	9.93	5.46	7.35	4.91	5.75	6.21	6.06	6.37	5.96	6.36
COLLECTION EFFICIENCY (%)														
EHT	100.97%	144.80%	105.19%	87.87%	175.87%	98.31%	117.79%	82.31%	95.68%	97.96%	102.93%	104.84%	78.77%	105.35%
HT	105.96%	138.13%	100.59%	101.61%	343.77%	94.38%	275.31%	99.86%	100.31%	94.80%	94.91%	101.26%	208.96%	149.97%
LT	82.19%	84.75%	70.62%	68.63%	81.27%	75.44%	133.16%	98.21%	105.30%	140.87%	95.62%	138.28%	302.26%	108.05%
HT & LT	96.73%	96.05%	84.02%	98.32%	180.66%	82.34%	190.14%	98.79%	103.49%	118.72%	94.88%	120.38%	264.57%	125.32%
OVERALL (%)	100.51%	133.38%	99.91%	90.05%	176.84%	95.35%	128.73%	84.58%	96.68%	100.14%	101.99%	108.64%	101.56%	108.55%
Collection efficiency wrt Govt & PSU due	100.68%	139.38%	100.03%	88.65%	180.99%	94.69%	117.33%	84.33%	96.32%	100.05%	102.38%	111.01%	102.66%	108.29%
AT & C LOSS(%)														
LT	49.32%	64.31%	46.53%	41.61%	41.01%	43.81%	13.91%	17.34%	3.06%	24.42%	41.16%	-5.71%	-137.41%	19.83%
HT & LT	27.67%	32.25%	34.49%	19.59%	-32.14%	26.71%	-27.84%	19.78%	16.17%	23.99%	34.67%	5.55%	-108.86%	5.72%
OVERALL (%)	9.87%	-20.35%	7.22%	13.94%	-69.65%	10.49%	-20.22%	16.04%	5.22%	4.80%	3.96%	-3.17%	1.80%	-3.08%

PERIOD OF REVIEW - APR-22 TO MAR-23														
NAME OF THE DIVISION	JTSD, JAJPUR TOWN													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy Input (MU)	197.539	19.825	19.037	18.912	18.273	17.492	17.148	14.903	10.670	9.612	9.706	10.293	13.237	178.329
BST Bill of GRIDCO (Rs. in Crs.)	68.74	6.64	6.64	6.60	6.38	6.10	5.99	5.20	3.72	3.35	3.39	3.59	4.63	62.237
BST Bill (PU)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HT	0.838	0.074	0.079	0.081	0.079	0.065	0.096	0.079	0.089	0.096	0.100	0.105	0.128	1.089
LT	108.908	12.423	10.827	13.756	11.514	13.918	8.903	11.755	9.861	5.352	6.860	7.123	9.203	121.636
TOTAL SALE (MU)	109.746	12.497	10.906	13.837	11.593	14.004	9.049	11.834	10.050	5.448	6.960	7.228	9.329	122.725
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	39.89%	26.72%	37.90%	20.57%	31.19%	13.05%	42.91%	13.77%	-2.40%	38.81%	22.42%	23.94%	23.76%	25.39%
HT & LT	44.54%	34.31%	42.71%	26.83%	38.56%	19.94%	47.23%	20.59%	5.81%	43.32%	29.39%	29.78%	29.63%	31.18%
OVERALL (%)	44.54%	34.31%	42.71%	26.83%	38.56%	19.94%	47.23%	20.59%	5.81%	43.32%	29.39%	29.78%	29.63%	31.18%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	60.14%	71.28%	62.18%	79.43%	68.81%	86.95%	57.09%	86.23%	102.40%	61.19%	77.58%	76.06%	76.24%	74.64%
HT & LT	55.46%	65.69%	57.29%	73.17%	63.44%	80.06%	52.71%	79.41%	94.19%	56.68%	71.61%	70.22%	70.37%	68.82%
OVERALL (%)	55.46%	65.69%	57.29%	73.17%	63.44%	80.06%	52.71%	79.41%	94.19%	56.68%	71.61%	70.22%	70.37%	68.82%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	0.39	0.16	0.06	0.07	0.07	0.07	0.08	0.07	0.08	0.09	0.11	0.11	0.12	1.07
LT	53.40	6.20	5.47	7.34	5.68	6.88	4.42	5.73	4.82	3.18	3.45	3.72	4.58	61.48
TOTAL	53.79	6.36	5.53	7.40	5.75	6.95	4.50	5.80	4.89	3.27	3.56	3.83	4.70	62.55
Billing to Govt Dept. & PSU	5.86	0.39	0.41	0.46	0.41	0.40	0.42	0.39	0.39	0.37	0.33	0.31	0.34	4.68
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	0.48	0.27	0.10	0.13	0.00	0.50	0.18	0.01	0.00	-0.03	0.03	0.01	0.15	1.12
LT	51.33	4.15	4.79	5.11	5.20	4.88	6.43	5.59	5.09	4.34	3.25	4.14	11.70	65.18
TOTAL	52.01	4.42	4.89	5.24	5.20	5.19	6.60	5.60	5.10	4.30	3.28	4.15	11.85	66.22
Collection from Govt Dept. & PSU	7.88	0.03	0.50	0.22	0.31	0.38	0.73	0.49	0.27	0.29	0.19	0.12	1.47	5.78
COLLECTION (PU) Rs.	3.83	2.32	2.57	2.77	2.84	2.87	4.04	3.76	4.78	4.54	3.38	4.04	8.94	3.71
COLLECTION EFFICIENCY (%)														
EHT	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
HT	123.44%	170.24%	155.52%	189.71%	0.00%	423.73%	229.16%	16.69%	5.03%	29.22%	27.58%	7.80%	120.83%	104.70%
LT	99.30%	66.91%	87.69%	69.68%	91.47%	71.10%	154.44%	97.58%	105.78%	136.19%	94.20%	111.31%	255.94%	100.89%
HT & LT	96.69%	69.69%	88.48%	70.75%	90.43%	74.69%	154.01%	96.65%	104.18%	133.33%	92.22%	108.37%	251.96%	100.87%
OVERALL (%)	95.03%	69.49%	88.48%	70.75%	90.43%	74.69%	154.01%	96.65%	104.18%	133.33%	92.22%	108.37%	251.96%	100.87%
Collection efficiency wrt Govt & PSU due	92.01%	80.11%	85.75%	72.23%	91.48%	74.37%	151.84%	94.54%	107.17%	140.21%	95.69%	114.52%	237.87%	104.40%
AT & C LOSS(%)														
LT	48.10%	52.31%	45.05%	44.85%	37.06%	28.18%	11.82%	15.86%	-8.32%	16.68%	26.92%	15.33%	-94.63%	20.97%
HT & LT	46.29%	54.35%	49.31%	48.23%	42.63%	40.20%	18.73%	23.25%	1.87%	24.44%	33.97%	23.80%	-77.31%	27.14%
OVERALL (%)	46.38%	54.35%	49.31%	48.23%	42.63%	40.20%	18.73%	23.25%	1.87%	24.44%	33.97%	23.80%	-77.31%	27.14%

PERIOD OF REVIEW : APR-22 TO MAR-23														
NAME OF THE DIVISION	KUED, KUAKHIA													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy Input (MU)	289.627	30.757	30.694	30.312	29.516	28.737	29.084	27.238	21.890	19.675	30.320	19.812	24.302	312.537
BST Bill of GRIDCO (Rs. in Crs.)	100.38	10.73	10.71	10.58	10.30	10.03	10.15	9.51	7.64	6.94	7.09	6.91	8.48	109.075
BST Bill (P/U)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	28.690	3.254	3.615	3.448	2.888	2.828	3.160	3.682	3.492	3.791	3.842	2.764	3.681	40.623
HT	19.549	3.276	3.244	3.149	3.407	3.394	3.339	3.449	3.418	2.807	3.100	2.987	3.005	38.445
LT	121.438	13.172	12.908	14.269	12.050	13.340	9.887	12.489	10.724	5.621	8.348	7.995	10.066	130.060
TOTAL SALE (MU)	169.683	19.702	19.867	20.054	18.345	19.562	16.386	19.620	17.634	11.979	15.281	13.746	16.952	209.128
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	44.79%	40.20%	44.58%	33.42%	42.87%	34.74%	51.80%	31.46%	20.61%	54.03%	30.25%	37.04%	36.22%	38.57%
HT & LT	45.84%	40.20%	43.68%	34.83%	41.96%	35.41%	46.98%	32.33%	23.13%	48.97%	29.97%	35.82%	35.99%	38.63%
OVERALL (%)	41.29%	35.94%	36.53%	30.87%	37.85%	31.93%	43.66%	27.96%	19.44%	38.73%	24.31%	30.62%	30.24%	33.09%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	55.21%	59.80%	55.42%	66.58%	57.13%	65.26%	48.20%	68.54%	79.39%	45.97%	69.75%	62.96%	63.78%	61.43%
HT & LT	54.16%	59.80%	56.32%	65.17%	58.04%	64.59%	51.02%	67.67%	76.87%	51.03%	70.03%	64.38%	64.21%	61.37%
OVERALL (%)	58.71%	64.06%	61.47%	69.13%	62.15%	68.07%	56.34%	72.04%	80.56%	60.27%	75.69%	69.38%	69.76%	66.91%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	18.32	1.95	2.14	2.04	1.79	1.76	1.93	2.16	2.09	2.22	2.26	1.73	2.30	24.38
HT	13.84	2.19	2.12	2.09	2.26	2.22	2.20	2.22	2.28	1.92	2.19	2.07	2.11	25.87
LT	60.84	6.58	6.09	7.30	6.29	6.74	4.78	6.28	5.62	4.32	4.71	4.38	5.61	68.94
TOTAL	93.10	10.72	10.33	11.69	10.34	10.72	8.91	10.69	10.00	8.46	9.16	8.18	10.02	119.19
Billing to Govt Dept. & PSU	5.09	0.32	0.32	0.34	0.33	0.38	0.40	0.42	0.33	0.34	0.32	0.28	0.31	4.09
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	17.38	2.07	1.95	3.91	0.41	1.79	1.76	1.93	2.18	2.09	2.22	2.26	1.73	24.31
HT	16.86	2.41	2.17	2.13	2.08	2.24	2.19	2.18	2.27	2.28	1.89	2.18	2.15	26.16
LT	56.06	3.94	5.08	5.09	3.20	5.22	6.81	6.36	6.01	5.67	4.21	5.06	18.41	77.08
TOTAL	90.40	8.42	9.20	11.14	7.70	9.26	10.76	10.47	10.46	10.04	8.32	9.48	22.29	127.51
Collection from Govt Dept. & PSU	7.82	0.32	0.20	0.34	0.22	0.28	0.85	0.44	0.38	0.29	0.17	0.16	1.41	5.02
COLLECTION (P/U) Rs.	3.13	2.74	3.00	3.67	2.61	3.22	3.70	3.84	4.78	5.05	4.09	4.75	9.17	4.08
COLLECTION EFFICIENCY (%)														
EHT	94.87%	106.24%	91.29%	192.19%	22.88%	101.67%	91.28%	89.40%	104.27%	94.37%	97.98%	130.89%	75.34%	99.68%
HT	121.83%	109.96%	102.22%	102.04%	92.55%	100.86%	99.61%	98.12%	99.28%	118.94%	86.41%	104.44%	101.91%	101.11%
LT	92.15%	59.88%	83.59%	67.28%	82.71%	77.46%	142.51%	101.20%	106.89%	131.12%	89.33%	116.10%	327.96%	111.77%
HT & LT	97.64%	72.37%	88.41%	74.82%	85.30%	83.21%	128.88%	100.40%	104.69%	127.38%	88.41%	112.35%	266.26%	109.86%
OVERALL (%)	97.10%	78.53%	89.01%	95.27%	74.47%	86.25%	120.78%	97.96%	104.59%	118.73%	90.78%	116.26%	222.43%	106.98%
Collection efficiency excl Govt & PSU dues (%)	[illegible]	77.86%	89.85%	95.14%	74.74%	86.73%	116.48%	97.75%	104.48%	120.18%	92.14%	118.31%	215.11%	106.42%
AT & C LOSS(%)														
LT	[illegible]	64.19%	53.88%	55.20%	52.75%	49.49%	31.31%	30.63%	15.14%	39.72%	37.68%	26.90%	-108.17%	31.34%
HT & LT	[illegible]	56.72%	50.20%	51.24%	50.49%	46.25%	34.21%	32.07%	19.53%	35.00%	38.09%	27.67%	-70.42%	32.54%
OVERALL (%)	[illegible]	49.70%	45.29%	34.14%	53.72%	41.29%	31.95%	29.44%	15.74%	28.44%	31.30%	19.32%	-55.16%	28.42%

PERIOD OF REVIEW : APR-22 TO MAR-23														
NAME OF THE DIVISION	KED, KEONJHAR													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy Input (MU)	268.025	30.638	32.949	31.368	30.845	28.661	26.701	28.007	28.070	28.274	28.072	24.082	26.216	340.975
BST Bill of GRIDCO (Rs. in Crs.)	93.27	10.69	11.50	10.95	10.76	10.00	9.32	10.10	9.80	9.17	9.10	8.41	9.15	118.999
BST Bill (P/U)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	73.614	9.609	11.369	11.054	12.746	11.965	12.549	10.937	12.010	9.652	9.085	8.663	8.863	128.298
HT	76.613	6.956	7.375	7.245	6.932	5.980	4.791	7.413	7.577	7.318	7.660	6.798	6.897	82.952
LT	112.240	10.665	10.332	11.977	10.033	10.371	9.663	8.580	7.835	7.990	6.028	6.770	3.106	103.355
TOTAL SALE (MU)	262.467	27.229	29.073	30.276	29.711	28.336	26.503	26.999	27.422	25.160	22.793	22.231	18.876	314.605
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	-9.78%	13.94%	17.22%	-4.68%	-3.25%	-10.78%	-11.21%	6.99%	-8.85%	-2.56%	24.16%	8.47%	65.72%	8.50%
HT & LT	2.88%	16.21%	17.96%	5.37%	6.26%	1.95%	1.35%	11.58%	4.03%	6.78%	19.30%	17.06%	42.35%	12.40%
OVERALL (%)	2.07%	11.13%	11.76%	3.48%	3.67%	1.13%	0.74%	7.19%	2.31%	4.24%	12.58%	7.72%	28.00%	7.73%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	109.78%	86.06%	82.78%	104.68%	103.25%	110.78%	111.21%	93.01%	108.85%	102.56%	75.84%	91.53%	34.28%	91.50%
HT & LT	97.14%	83.79%	82.04%	94.63%	93.74%	98.05%	98.65%	88.44%	95.97%	93.22%	80.70%	82.94%	57.65%	87.60%
OVERALL (%)	97.93%	88.87%	88.24%	96.52%	96.33%	98.87%	99.26%	92.81%	97.69%	95.76%	87.42%	92.28%	72.00%	92.27%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	51.09	6.57	7.30	7.20	8.22	7.78	7.82	7.21	7.91	6.58	6.37	5.98	6.09	85.00
HT	50.27	4.57	4.77	4.78	4.66	4.08	3.39	4.81	4.91	4.16	5.01	4.48	4.54	54.76
LT	59.95	5.92	5.89	6.80	5.90	5.62	5.22	4.78	4.54	4.55	3.87	3.94	2.76	59.66
TOTAL	161.31	16.95	17.96	18.77	18.77	17.47	16.43	16.80	17.37	15.87	15.24	14.40	13.37	199.42
Billing to Govt Dept. & PSU	12.09	3.91	1.03	1.05	1.01	0.87	0.98	0.87	0.85	0.86	0.88	0.83	0.80	11.04
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	51.49	4.19	6.55	7.32	7.20	8.21	7.78	7.82	7.21	7.91	6.58	6.37	5.98	83.12
HT	54.15	2.92	5.40	6.27	3.36	4.58	4.23	3.25	4.91	4.99	4.59	5.25	4.57	54.29
LT	52.10	3.05	4.93	5.41	5.67	4.61	5.54	5.27	4.94	4.90	4.27	4.48	10.63	63.72
TOTAL	157.74	10.16	16.89	19.00	16.23	17.30	17.55	16.34	17.06	17.80	15.43	16.09	21.19	201.12
Collection from Govt Dept. & PSU	15.43	0.39	0.83	0.64	0.79	0.55	1.09	0.99	0.82	0.57	0.59	0.82	3.13	11.62
COLLECTION (P/U) Rs.	5.89	3.21	5.13	6.06	5.26	6.07	6.57	5.82	6.06	6.77	5.92	6.69	8.08	5.90
COLLECTION EFFICIENCY (%)														
EHT	100.77%	63.81%	89.67%	101.72%	87.57%	105.37%	99.47%	108.58%	91.13%	120.47%	103.33%	106.46%	98.51%	97.79%
HT	107.74%	63.94%	113.13%	131.38%	72.17%	112.15%	124.72%	67.48%	99.87%	104.67%	91.62%	117.13%	100.69%	99.12%
LT	86.90%	52.59%	84.02%	79.51%	96.23%	82.01%	106.28%	110.31%	108.75%	107.83%	110.26%	113.68%	385.49%	106.81%
HT & LT	96.40%	57.38%	97.65%	100.91%	85.61%	94.69%	113.33%	88.83%	104.13%	108.21%	99.75%	115.51%	208.27%	103.13%
OVERALL (%)	97.79%	59.97%	94.05%	101.22%	86.47%	99.53%	106.84%	97.29%	98.21%	112.11%	101.25%	111.79%	158.41%	100.86%
Collection efficiency excl Govt & PSU dues (%)	[illegible]	65.60%	96.03%	103.59%	86.84%	102.96%	106.96%	96.37%	98.28%	114.79%	103.29%	112.59%	143.57%	100.91%
AT & C LOSS(%)														
LT	[illegible]	54.74%	30.45%	16.78%	5.65%	9.15%	-18.17%	-2.61%	-18.37%	-10.59%	16.38%	-4.05%	-32.17%	2.89%
HT & LT	[illegible]	51.93%	20.38%	4.51%	19.75%	7.16%	-11.99%	21.44%	0.07%	0.99%	19.51%	-1.58%	-20.08%	9.65%
OVERALL (%)	[illegible]	46.79%	17.01%	2.30%	16.71%	1.60%	-6.04%	9.71%	4.08%	-7.35%	11.49%	-3.12%	-14.08%	6.94%

PERIOD OF REVIEW - APR-22 TO MAR-23														
NAME OF THE DIVISION	JOED, JODA													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy Input (MU)	609.893	67.284	65.668	58.721	60.414	77.244	74.068	72.887	68.427	78.125	76.855	65.979	71.475	836.147
BST Bill of GRIDCO (Rs. in Crs.)	212.24	23.48	22.92	20.49	21.08	26.96	25.85	25.44	23.88	27.81	26.82	23.03	24.94	292.515
BST Bill (P/U)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	385.770	42.336	38.605	33.833	36.859	53.044	49.919	48.517	46.920	53.577	50.287	42.416	45.424	541.737
HT	66.851	10.224	12.234	11.295	10.428	11.478	11.200	12.768	11.028	14.523	15.954	13.939	13.240	158.316
LT	115.019	11.313	10.663	12.440	9.447	12.490	9.146	9.543	8.311	8.376	5.709	8.179	3.887	119.184
TOTAL SALE (MU)	567.640	63.873	61.502	57.568	56.734	77.012	70.870	70.828	66.259	76.476	71.950	64.534	64.591	802.137
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	3.62%	11.12%	15.80%	-7.22%	15.97%	-15.80%	11.50%	1.13%	5.11%	6.74%	32.89%	-5.69%	55.46%	15.09%
HT & LT	9.93%	13.67%	15.39%	4.63%	15.62%	0.96%	13.24%	8.45%	10.08%	10.37%	16.52%	6.13%	26.58%	12.15%
OVERALL (%)	3.65%	5.07%	6.34%	1.96%	6.09%	0.30%	4.32%	2.82%	3.17%	3.35%	6.41%	2.19%	9.69%	4.30%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	96.38%	88.88%	84.20%	107.22%	84.03%	115.80%	88.50%	98.87%	94.89%	93.26%	67.11%	105.69%	44.54%	89.95%
HT & LT	90.07%	86.33%	84.61%	95.37%	84.38%	99.04%	86.76%	91.55%	89.92%	89.63%	81.48%	93.87%	73.42%	87.85%
OVERALL (%)	96.35%	94.93%	93.66%	98.04%	93.91%	99.70%	95.68%	97.18%	96.83%	96.65%	93.59%	97.81%	90.31%	95.70%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	257.78	27.50	25.65	22.36	24.10	32.52	30.79	29.98	29.38	33.11	31.41	27.53	28.56	343.19
HT	65.68	7.40	8.89	8.17	7.68	8.20	7.99	8.96	7.87	10.18	11.09	8.77	10.47	106.68
LT	62.66	6.06	5.93	6.97	5.58	6.75	5.45	5.30	4.88	4.91	4.02	4.71	3.65	63.61
TOTAL	386.12	40.96	40.69	37.32	37.35	47.47	44.24	44.23	42.13	48.20	46.51	42.01	42.68	513.39
Billing to Govt Dept. & PSU	14.49	1.09	1.12	1.17	1.25	1.43	1.26	1.32	1.36	1.38	1.43	1.14	0.97	14.87
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	253.29	25.79	27.49	30.30	18.50	33.33	30.03	28.69	27.85	28.16	32.20	31.43	27.56	341.32
HT	69.57	5.80	7.29	11.00	6.56	7.70	8.10	7.84	8.98	7.82	10.17	10.99	10.01	102.35
LT	57.74	3.57	5.20	5.96	6.41	5.67	5.96	5.80	5.31	5.43	4.85	4.77	10.20	69.13
TOTAL	380.61	35.15	39.98	47.25	31.47	46.70	44.10	42.43	42.15	41.41	47.22	47.20	47.77	512.81
Collection from Govt Dept. & PSU	14.37	0.79	0.78	0.97	1.22	1.21	1.03	1.35	1.28	1.15	1.24	1.29	2.81	15.51
COLLECTION (P/U) Rs.	6.24	5.27	6.09	8.00	5.21	6.06	5.95	5.82	6.16	5.23	6.14	7.15	6.68	6.12
COLLECTION EFFICIENCY (%)														
EHT	98.22%	93.78%	106.32%	135.59%	76.80%	102.51%	97.53%	95.70%	94.79%	85.05%	102.52%	114.18%	96.48%	99.49%
HT	105.92%	78.28%	82.06%	134.54%	85.38%	93.83%	101.38%	88.61%	114.18%	76.80%	91.74%	112.52%	95.58%	95.95%
LT	92.14%	58.91%	87.49%	85.39%	114.92%	83.90%	109.38%	109.47%	108.92%	110.60%	120.74%	101.39%	234.96%	108.67%
HT & LT	99.19%	68.58%	84.24%	111.91%	87.79%	88.35%	104.61%	96.36%	112.17%	87.80%	99.45%	106.90%	149.55%	100.70%
OVERALL (%)	98.58%	85.81%	98.27%	125.61%	84.26%	98.37%	99.68%	95.91%	100.05%	85.81%	101.53%	112.36%	113.52%	99.89%
Collection efficiency of Govt & PSU dues(%)	99.52%	85.09%	99.65%	127.28%	83.78%	98.79%	100.20%	85.71%	100.30%	85.88%	102.02%	112.35%	109.38%	99.84%
AT & C LOSS(%)														
LT	[illegible]	47.64%	26.33%	8.45%	3.44%	2.84%	3.21%	-8.23%	-2.36%	-3.15%	18.97%	-7.16%	-49.20%	2.24%
HT & LT	[illegible]	39.85%	28.73%	-6.72%	17.48%	11.51%	9.24%	11.79%	-0.86%	21.31%	18.97%	-2.22%	-8.50%	11.53%
OVERALL (%)	[illegible]	18.54%	7.96%	-23.44%	20.88%	1.93%	4.63%	6.80%	3.12%	16.86%	4.98%	-9.90%	-2.53%	4.40%

PERIOD OF REVIEW - APR-22 TO MAR-23														
NAME OF THE DIVISION	AED, ANANDAPUR													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)														
Energy Input (MU)	179.343	17.853	17.701	16.000	17.000	17.832	17.683	14.374	11.500	11.036	11.336	11.336	13.688	176.627
BST Bill of GRIDCO (Rs. in Crs.)	62.48	6.23	6.18	5.62	5.93	6.22	6.17	5.02	4.01	3.85	3.96	3.96	4.78	62.131
BST Bill (P/U)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HT	7.358	0.987	0.860	0.698	0.843	0.705	0.392	0.379	0.437	0.529	0.942	1.040	1.100	8.912
LT	111.844	11.619	9.741	12.734	9.907	12.625	9.897	9.962	8.908	7.540	6.805	7.817	7.115	114.679
TOTAL SALE (MU)	119.202	12.606	10.601	13.432	10.750	13.330	10.289	10.341	9.345	8.069	7.747	8.857	8.215	123.582
T & D LOSS (%)														
HT (Assume 8%)	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
LT	29.07%	24.74%	38.85%	13.10%	33.05%	19.59%	37.86%	22.45%	12.18%	21.67%	28.27%	18.74%	38.09%	25.96%
HT & LT	33.50%	29.39%	40.11%	19.50%	36.76%	25.25%	41.81%	28.06%	18.74%	26.90%	31.66%	21.87%	39.98%	30.58%
OVERALL (%)	33.50%	29.39%	40.11%	19.50%	36.76%	25.25%	41.81%	28.06%	18.74%	26.90%	31.66%	21.87%	39.98%	30.58%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	79.93%	75.26%	63.15%	86.90%	66.95%	80.41%	62.34%	77.55%	87.82%	78.33%	71.73%	83.26%	61.91%	74.04%
HT & LT	66.45%	70.61%	59.89%	80.50%	63.24%	74.75%	58.19%	71.94%	81.26%	73.10%	68.34%	78.13%	60.02%	69.42%
OVERALL (%)	66.45%	70.61%	59.89%	80.50%	63.24%	74.75%	58.19%	71.94%	81.26%	73.10%	68.34%	78.13%	60.02%	69.42%
BILLING TO CONSUMERS (Rs. in Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	6.02	0.70	0.64	0.54	0.65	0.58	0.27	0.38	0.44	0.49	0.76	0.81	0.84	7.20
LT	58.09	5.98	5.23	6.75	5.14	6.37	5.19	5.14	4.74	4.20	4.07	4.23	3.99	61.02
TOTAL	63.01	6.68	5.87	7.30	5.79	6.95	5.57	5.51	5.18	4.68	4.83	5.04	4.83	68.22
Billing to Govt Dept. & PSU	9.63	0.82	0.98	0.85	3.01	0.88	0.91	0.68	0.93	0.84	0.85	0.84	0.91	10.48
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HT	7.16	0.69	0.75	0.58	0.53	0.71	0.56	0.32	0.35	0.45	0.49	0.71	0.82	6.95
LT	45.40	2.92	3.84	4.20	4.71	4.36	5.33	4.66	4.59	4.52	3.76	4.97	17.98	65.83
TOTAL	52.57	3.59	4.59	4.79	5.24	5.07	5.89	4.98	4.93	4.97	4.25	5.68	18.80	72.79
Collection from Govt Dept. & PSU	8.24	0.69	0.52	0.69	0.84	0.87	1.05	0.77	0.99	0.87	0.56	0.50	2.96	11.12
COLLECTION (P/U) Rs.	2.93	2.01	2.59	2.87	3.08	2.85	3.33	3.46	4.29	4.51	3.75	5.01	13.74	4.05
COLLECTION EFFICIENCY (%)														
EHT	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
HT	119.02%	98.43%	116.73%	107.38%	81.95%	123.85%	149.84%	85.47%	78.07%	92.74%	64.51%	87.94%	97.08%	96.58%
LT	79.60%	48.77%	73.50%	62.25%	91.57%	68.45%	102.72%	90.64%	96.78%	107.75%	92.33%	117.57%	450.72%	107.89%
HT & LT	83.42%	53.79%	78.24%	65.60%	90.50%	73.03%	105.87%	90.29%	95.18%	106.19%	87.95%	112.60%	389.24%	106.70%
OVERALL (%)	83.42%	53.79%	78.24%	65.60%	90.50%	73.03%	105.87%	90.29%	95.18%	106.19%	87.95%	112.60%	389.24%	106.70%
Collection efficiency of Govt & PSU dues(%)	82.64%	48.09%	81.43%	64.47%	88.44%	98.99%	104.06%	90.75%	92.59%	111.08%	92.60%	123.40%	404.21%	106.77%
AT & C LOSS(%)														
LT	[illegible]	63.30%	53.58%	45.90%	38.69%	44.96%	35.97%	29.70%	15.00%	15.60%	33.78%	2.12%	-176.03%	26.12%
HT & LT	[illegible]	62.02%	53.14%	47.19%	42.77%	45.40%	38.40%	35.05%	22.86%	22.37%	39.90%	11.86%	-133.60%	23.93%
OVERALL (%)	[illegible]	62.02%	53.14%	47.19%	42.77%	45.40%	38.40%	35.05%	22.86%	22.37%	39.90%	11.86%	-133.60%	23.93%

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PERIOD OF REVIEW - APR-22 TO MAR-23														
NAME OF THE DIVISION	TPNODL AS WHOLE													
PARTICULARS	2021-22 (Apr to Mar)	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total
BULK SUPPLY														
Demand (MVA)	845.416	979.826	1051.347	1154.650	989.965	1055.100	1105.519	1001.333	917.979	954.679	967.910	999.263	1088.962	1022.211
Energy Input (MU)	5327.043	552.103	547.362	566.214	548.623	581.813	568.748	555.275	485.779	492.153	512.659	501.359	583.835	6471.323
BST Bill of GRIDCO (Rs. In Crs.)	1646.96	192.77	191.11	197.69	190.86	196.16	190.58	193.88	169.62	171.85	179.07	175.06	203.56	2260.20
BST Bill (PU)		3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	3.49	
SALE TO CONSUMERS (MU)														
EHT	1476.025	163.364	167.121	194.914	184.543	211.704	214.709	237.899	236.277	253.659	256.937	245.814	286.154	2651.931
HT	563.365	54.693	58.648	56.719	52.620	49.589	47.637	49.913	48.589	49.522	52.688	51.272	55.689	625.417
LT	2167.708	209.019	200.166	237.932	191.148	224.092	176.634	262.853	173.494	129.791	123.737	133.676	145.212	2132.704
TOTAL SALE (MU)	4346.998	427.016	425.935	489.565	428.311	485.385	432.979	490.661	458.259	423.962	432.460	430.562	486.975	5410.052
T & D LOSS (%)														
HT (Assume 6%)	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
LT	24.09%	31.82%	31.26%	16.48%	31.05%	17.77%	38.64%	16.20%	5.23%	28.91%	32.69%	27.36%	33.24%	26.21%
HT & LT	26.84%	32.17%	31.60%	28.64%	32.66%	21.83%	38.35%	20.36%	11.84%	28.59%	31.31%	27.68%	32.36%	27.92%
OVERALL (%)	16.49%	22.66%	22.18%	13.54%	21.64%	13.60%	23.87%	11.64%	6.08%	13.86%	15.68%	14.12%	16.48%	16.43%
Billing Efficiency (%)														
HT	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
LT	75.91%	68.98%	68.74%	83.52%	68.15%	82.23%	61.36%	83.80%	94.77%	71.09%	67.40%	72.64%	68.78%	73.79%
HT & LT	73.16%	67.83%	68.07%	79.36%	67.32%	78.17%	61.65%	79.64%	88.16%	71.41%	68.69%	72.32%	67.64%	72.18%
OVERALL (%)	81.60%	77.34%	77.82%	86.46%	76.36%	86.40%	76.13%	88.36%	93.92%	86.14%	84.32%	85.88%	83.52%	83.57%
BILLING TO CONSUMERS (Rs. in Crs.)												111		
EHT	1112.38	109.83	108.09	118.81	114.67	130.65	130.28	144.18	145.82	160.98	158.59	153.41	173.36	1648.37
HT	352.45	37.07	39.50	38.01	35.84	33.73	32.90	33.86	32.26	34.79	36.88	35.48	37.79	427.95
LT	1095.31	106.16	105.15	124.42	100.82	114.84	88.42	193.89	89.83	71.59	71.09	72.74	79.83	1127.59
TOTAL	2560.14	252.25	253.35	281.24	251.32	279.24	251.60	291.93	267.70	267.27	266.39	261.63	289.99	3203.91
Billing to Govt Dept. & PSU	167.81	14.07	15.06	15.24	13.87	12.68	12.38	12.32	11.60	11.83	11.32	12.75	13.27	156.48
COLLECTION RECEIVED (Rs. in Crs.)														
EHT	1120.48	126.26	109.60	118.98	160.88	123.70	154.53	142.37	154.63	150.56	159.79	164.47	155.85	1721.61
HT	370.35	34.75	37.16	44.09	47.01	35.24	43.55	31.84	33.78	32.20	34.19	36.30	41.73	451.84
LT	920.83	39.59	79.83	93.67	96.84	87.55	112.27	100.02	92.98	92.28	73.35	84.68	252.80	1234.47
TOTAL	2411.66	220.60	225.80	256.74	304.73	246.48	310.36	274.23	281.38	275.04	267.33	284.85	450.37	3397.92
Collection from Govt Dept. & PSU	155.33	8.94	10.02	12.80	10.11	9.43	25.84	12.59	11.63	10.23	8.01	7.89	40.26	166.95
COLLECTION (PU) Rs.	4.53	4.00	4.13	4.53	5.57	4.39	5.46	4.94	5.79	5.59	5.21	5.68	7.72	5.25
COLLECTION EFFICIENCY (%)														
EHT	100.73%	115.01%	100.83%	100.14%	140.30%	94.68%	118.61%	98.75%	106.04%	93.53%	100.81%	107.21%	89.90%	104.44%
HT	105.08%	93.75%	94.08%	116.01%	131.18%	104.39%	132.39%	94.02%	104.69%	92.61%	92.91%	102.32%	110.41%	105.58%
LT	84.07%	56.14%	75.10%	75.38%	96.06%	76.24%	126.98%	96.28%	103.74%	128.90%	103.18%	115.59%	320.67%	108.59%
HT & LT	89.18%	65.87%	80.33%	84.81%	105.27%	82.63%	128.45%	95.73%	103.99%	117.12%	95.68%	111.24%	252.53%	107.76%
OVERALL (%)	94.20%	87.45%	89.13%	91.29%	121.25%	88.27%	133.36%	97.27%	103.11%	102.91%	100.30%	108.88%	155.31%	106.06%
Collection efficiency for Govt & PSU (Excl.) (%)	94.31%	88.86%	90.55%	91.71%	123.66%	88.93%	118.94%	97.05%	103.33%	103.59%	101.67%	112.06%	148.20%	106.82%
AT & C LOSS(%)														
LT	36.58%	61.29%	48.33%	37.12%	34.54%	37.31%	22.09%	19.32%	1.69%	8.36%	36.46%	16.83%	-114.07%	19.87%
HT & LT	37.76%	55.32%	45.02%	32.70%	25.13%	35.41%	20.81%	23.76%	8.32%	16.37%	31.53%	19.56%	-70.82%	22.22%
OVERALL (%)	23.13%	32.36%	30.65%	21.87%	4.99%	23.74%	6.09%	14.05%	1.28%	11.35%	15.38%	6.56%	-29.72%	11.36%

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TPNODL

CONSUMER MIX DATA AS ON 31.03.2023

Sl. No.	Name of the Division	Category in terms of Area			Category in terms of Use of power (MU)							No of Villages	No of Villages Electrified
		Urban	Rural	Total	Kutir Jyoti	Agricultural	Domestic	Commercial	Industrial	Traction	Others		
1	BED, Balasore	59004	6303	**65307**	0.002	0.305	91.496	51.582	60.096	64.033	23.196	2933	2933
2	BTED, Basta	4346	80152	**84498**	0.015	14.373	47.85	12.111	3.173	0	7.709		
3	JED, Jaleswar	16949	103750	**120699**	0.448	20.813	64.887	17.928	3.088	60.29	21.76		
4	CED, Balasore	6112	110062	**116174**	0.032	8.296	80.457	22.193	253.458	0	26.827		
5	SED, Soro	15532	138176	**153708**	0.017	2.836	95.26	22.515	13.971	0	26.069		
6	BNED, Bhadrak (N)	35764	147087	**182851**	0.482	1.329	152.821	129.354	156.312	60.984	17.373	1314	1314
7	BSED, Bhadrak (S)	2009	109989	**111998**	0.012	1.908	77.15	14.665	5.006	0	5.632		
8	BPED, Baripada	41899	182487	**224386**	1.354	10.23	150.68	45.826	21.002	0	23.292	3966	3966
9	UED, Udala	7238	99463	**106701**	1.184	2.642	53.924	11.168	2.712	0	5.71		
10	RED, Rairangpur	13414	194152	**207566**	1.211	8.18	110.341	25.776	14.26	0	16.06		
11	JRED, Jajpur Road	19488	79443	**98931**	0.026	2.347	118.154	51.077	1293.128	118.931	11.023	1388	1388
12	JTED, Jajpur Town	9967	90356	**100323**	0.025	4.282	92.886	18.096	1.162	0	4.615		
13	KUED, Kuakhia	2695	111115	**113810**	0.188	4.102	93.282	21.03	82.24	0	4.666		
14	KED, Keonjhar	20810	99538	**120348**	0.267	1.502	68.356	29.031	149.923	55.963	11.304	2125	2125
15	JOED, [illegible]	31508	63645	**95153**	0.144	1.841	76.463	35.045	573.404	102.973	13.46		
16	AED, Anandapur	12516	126619	**139135**	0.528	0.361	84.619	18.397	8.149	0	11.395		
	TOTAL	298251	**1742337**	**2041588**	**5.935**	**85.347**	**1458.626**	**525.795**	**2641.084**	**463.174**	**230.091**	**11726**	**11726**

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PERFORMANCE OF TPNODL - SYSTEM IMPROVEMENT

Particulars	As on 31st March 2021	As on 31st March 2022	As on 31st March 2023
No. of Circles	5	5	5
No. of Divisions	16	16	16
No. of Subdivisions	50	50	50
No. of Sections	159	159	159
No. of Special Police Stations	5	5	5
No. of Courts	1	1	1
No. of consumers			
EHT	36	37	41
HT	557	614	659
LT	2007540	20,88,432	20,40,888
Total	**2008133**	**20,89,083**	**20,41,588**
Network System			
Length of 33 KV Line (km.)	2868	2895	3024
Length of 11 KV Line (km.)	37069	37591	40189
Length of LT KV Line (km.)	66300	66672	67486
Length of conductor stolen (km.)	0.33	0.00	27
Cost involved (Cr.)	0.09	0.00	0.23
No. of 33 KV Group & Feeder Breakers Required	136	50	102
No. of 33 KV Group & Feeder Breakers Installed	166	173	71
No. of 11 KV Group & Feeder Breakers Required	126	70	147
No. of 11 KV Group & Feeder Breakers Installed	228	240	107
FEEDER METERING			
No. of 33 KV feeders (excluding GRIDCO Interface)	91	98	108
No. of 33 KV feeder metering	91	98	108
No. of 11 KV feeders	720	797	825
No. of 11 KV feeder metering	655	545	825
No. of 33 / 11 kv transformers	488	524	550
No. of 33/11 kv transformer metering position	246	246	244
No. of Distribution transformers (11/0.4 & 33/ 0.4 kv)	70429	72323	74726
No. of Distribution transformer metering position	2208	2208	2883
MVA Capacity of DTRs	2584	2657	2787
Energy Audit Carried Out-33 KV	74	77	92
Energy Audit Carried Out-11 KV	617	545	344
Energy Audit Carried out- No of DTRs	455	455	471

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Particulars	As on 31st March 2021	As on 31st March 2022	As on 31st March 2023
Consumer Metering Position			
Total number of meters	1902980	20,10,760	19,99,017
No. of working meters	1717944	17,37,701	17,40,496
Percentage of working meters (%)	90%	86%	87%
New meters installed (3 ph)	5637	4930	11213
New meters installed (1 ph)	196044	255855	391243
No of 3 Phase Consumers	51097	34775	37152
No of Consumers with TOD benefit	1124	1046	998
No of Consumers 10 KW load and above	11439	12761	19590
No of Consumer AMR metering	12979	9431	16743
Total No of consumers	2008133	2089083	2041588
No of consumers added	101577	80950	-47495
No of meters purchased	500	124310	431037
No of meters used for installation for new consumer and replacements for old consumers	201681	260785	402456
Cost involved in purchase of meters (Rs. in Crs.)	0.13	9.08	55.11
Cost of meter rent Collected (Rs. in Crs.)	19.60	22.80	10.82
Anti Theft Measures			
No of cases Finalised under Section 126 & 135	5428	37893	36387
Amount Finalised (Rs. Cr.)	6.41	47.89	49.03
Amount Accessed during filing of case (Rs. Cr.)	7.30	64.37	67.38
No of new connections given	114201	113608	87701
No of Connection Regularised	2145	2011	694
Amount Collected (Cr.)	1.14	21.65	37.6
No. of FIR Lodged	6	12	29
No. of illegal consumers prosecuted/Initiated in Court	0	12	9
Number of Disconnection made	61609	67022	126935
Revenue realised (Rs. Cr.)	34.42	206.06	257.94

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Particulars	As on 31st March 2021	As on 31st March 2022	As on 31st March 2023
Franchisee Activity			
No of Micro-Franchisees	76	211	301
No of Consumers Covered	97897	184767	218583
No of Macro-Franchisees	0	0	0
No of Consumers Covered	0	0	0
No of Input Based-Franchisees	1	0	0
No of Consumers Covered	43732	0	0
Total no of consumers covered under Franchisee	141629	184767	218583
QUALITY OF SUPPLY			
Failure of Power Transformers	17	27	8
No. of Distribution Transformers burnt	2312	2533	2877
Cost involved (Cr.)	3.85	4.41	3.03
No of Interruptions in 33 KV Feeders	5544	16750	11571
No of Interruptions in 11 KV Feeders	463803	339516	288140
No. of Grievances received through CHP	518	388	415
Disposed through CHP including Bijuli Adalat	511	341	399
No. of GRF Orders received	511	341	399
No. of GRF Orders Complied	402	241	358
SYSTEM IMPROVEMENT WORKS DURING REVIEW PERIOD			
Installation of New Transformers (DTR)	4	0	128
Upgradation of Transformers (DTR)	8	21	147
Installation of Pillar Box	0	0	0
Length of AB Cable Laid (KM)	12.19	29.84	337
Conversion of Single Phase to Three Phase Lines	4.91	0	12

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TPNODL

STATUS OF ARREAR

(Rs. in Crs.)

Category	Arrears as on 31.03.2022	Billing for the period (Apr-22 to Mar-23)	Collection against current dues (Apr-22 to Mar-23) against '3'	Collection against arrear during (Apr-22 to Mar-23) against '2'	Total collection	Arrear for the period (Apr-22 to Mar-23)	Arrear as on 31-03-2023
1	2	3	4	5	6=4+5	7=3-4	8=2-5+7
EHT	390.26	1648.37	1594.05	127.56	1721.61	54.32	317.02
HT	72.07	380.55	377.10	24.27	401.36	3.45	51.26
LT	1993.81	1018.59	953.05	154.95	1108.00	65.54	1904.41
Govt & PSU HT	0.67	47.41	44.40	6.08	50.48	3.01	-2.40
Govt & PSU LT	15.12	108.99	108.64	7.83	116.47	0.35	7.64
Total of above	2471.93	3203.91	3077.23	320.69	3397.92	126.67	2277.92

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TPNODL				
OUTSTANDING GOVT ARREARS				
				Rs. in Lacs.
SL No.	GOVT. DEPARTMENTS	AS ON 31.03.2022	AS ON 31.03.2023	ARREAR ADDED
1	Housing & Urban Development			
(i)	PHD (Urban)	-342.88	-182.75	160.13
(ii)	Others	12.18	12.70	0.52
	Total	**-330.70**	**-170.05**	**160.65**
2	Rural Development			
(i)	Rural Water Supply (RWSS)	1836.49	1304.51	-531.98
(ii)	Others	-3.96	-4.31	-0.35
	Total	**1832.53**	**1300.20**	**-532.33**
3	Irrigation(WR)			
(i)	Lift Irrigation			
(ii)	Panipanchayat			
(iii)	Others	-84.81	-40.49	44.32
	Total	**-84.81**	**-40.49**	**44.32**
4	Home Deptt			
(i)	Judiciary			
(ii)	Police	-41.28	-111.12	-69.84
(iii)	Jail			
(iv)	Others			
	Total	**-41.28**	**-111.12**	**-69.84**
5	Law Deptt			
(i)	Judicial courts	-29.15	-31.17	-2.02
(ii)	Endowments			
(iii)	Others			
	Total	**-29.15**	**-31.17**	**-2.02**
6	Panchayat Raj Deptt			
(i)	Zila Parishada			
(ii)	Panchayat Samiti			
(iii)	Grampanchayat	1053.02	724.64	-328.38
(iv)	Other Establishments			
	Total	**1053.02**	**724.64**	**-328.38**
7	School & Mass Education	-359.91	-310.62	49.29
8	Higher Education	-86.48	-122.68	-36.20
9	Industries			
(i)	Technical Education	-0.34	-7.43	-7.09
(ii)	Other Establishments	-16.67	-7.78	8.89
	Total	**-17.01**	**-15.21**	**1.80**
10	Revenue	-28.43	-47.01	-18.58

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SL No.	GOVT. DEPARTMENTS	AS ON 31.03.2022	AS ON 31.03.2023	ARREAR ADDED
11	Works	-16.71	-31.13	-14.42
12	Fisheries & Animal Resources			
(i)	Fisheries	-16.18	-15.72	0.46
(ii)	Veterinary			0.00
(iii)	Others			
	Total	**-16.18**	**-15.72**	**0.46**
13	Co-Operatives			
(i)	Spinning Mills	-1.15	-0.60	0.55
(ii)	Other Establishments	-1.64	-1.39	0.25
	Total	**-2.79**	**-1.99**	**0.80**
14	Forestry	-19.86	-19.66	0.20
15	Civil Supply	4.74	-0.86	-5.60
16	Health &Family	-464.07	-441.65	22.42
17	Transport	-1.85	-0.69	1.16
18	Other Departments	-206.54	-172.63	33.91
	Total State Government	**1184.52**	**492.16**	**-692.36**
19	Urban Local Bodies			
(i)	Municipal Corporations			
(ii)	Municipality			
(iii)	NAC / Municipality	39.28	59.49	20.21
	Total	**39.28**	**59.49**	**20.21**
20	PSU	355.06	-28.32	-383.38
	Total Outstanding Arrear	**1578.86**	**523.33**	**-1055.53**

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10.5 TPNODL RETAIL SUPPLY TARRIF ORDER FOR FY 2022-23:

Annexure-B

RETAIL SUPPLY TARIFF EFFECTIVE FROM 1st APRIL, 2022

Sl. No.	Category of Consumers	Voltage of Supply	Demand Charge (Rs./KW/ Month)/ (Rs./KVA/ Month)	Energy Charge	Customer Service Charge (Rs./Month)	Monthly Minimum Fixed Charge for first kW or part (Rs.)	Monthly Fixed Charge for any additional KW or part (Rs.)	Rebate (P/kWh/ kVAh) / DPS
	LT Category			**(P/kWh)**				
1	Domestic							
1.a	Kutir Jyoti <= 30 Units/month	LT	FIXED MONTHLY CHARGE-->			80		
1.b	Others							Rebate 10
	(Consumption <= 50 units/month)	LT		**300.00**		20	20	
	(Consumption >50, <=200 units/month)	LT		**480.00**				
	(Consumption >200, <=400 units/month)	LT		**580.00**				
	Consumption >400 units/month)	LT		**620.00**				
2	General Purpose < 110 KVA							Rebate 10
	Consumption <=100 units/month	LT		**590.00**		30	30	
	Consumption >100, <=300 units/month	LT		**700.00**				
	(Consumption >300 units/month)	LT		**760.00**				
3	Irrigation Pumping and Agriculture	LT		**150.00**		20	10	Rebate 10
4	Allied Agricultural Activities	LT		**160.00**		20	10	Rebate 10
5	Allied Agro-Industrial Activities	LT		**470.00**		80	50	Rebate DPS
6	Public Lighting	LT		**620.00**		20	15	Rebate DPS
7	L.T. Industrial (S) Supply <22 KVA	LT		**620.00**		80	35	Rebate 10
8	L.T. Industrial (M) Supply >=22 KVA <110 KVA	LT		**620.00**		100	80	Rebate DPS
9	Specified Public Purpose	LT		**620.00**		50	50	Rebate DPS
10	Public Water Works and Sewerage Pumping <110 KVA	LT		**620.00**		50	50	Rebate 10
11	Public Water Works and Sewerage Pumping >=110 KVA	LT	200	**620.00**	30			Rebate 10
12	General Purpose >= 110 KVA	LT	200	**620.00**	30			Rebate DPS
13	Large Industry >=110 KVA	LT	200	**620.00**	30			Rebate DPS
	HT Category			**Energy Charge (P/kVAh)**				
14	Bulk Supply - Domestic	HT	20	**490.00**	250			Rebate 10
15	Irrigation Pumping and Agriculture	HT	30	**140.00**	250			Rebate 10
16	Allied Agricultural Activities	HT	30	**150.00**	250			Rebate 10
17	Allied Agro-Industrial Activities	HT	50	**460.00**	250			Rebate DPS
18	Specified Public Purpose	HT	250	As indicated in the notes below	250			Rebate DPS
19	General Purpose >70 KVA < 110 KVA	HT	250		250			Rebate 10
20	H.T Industrial (M) Supply	HT	150		250			Rebate DPS
21	General Purpose >= 110 KVA	HT	250		250			Rebate DPS
22	Public Water Works & Sewerage Pumping	HT	250		250			Rebate 10
23	Large Industry	HT	250		250			Rebate DPS
24	Power Intensive Industry	HT	250		250			Rebate DPS
25	Mini Steel Plant	HT	250		250			Rebate DPS
26	Railway Traction	HT	250		250			Rebate DPS
27	Emergency Supply to CGP (kWh)	HT	0	**780.00**	250			Rebate DPS
28	Colony Consumption (Both SPP & Industrial)	HT	0	**490.00**	0			Rebate DPS
	EHT Category			**Energy Charge (P/kVAh)**				
29	General Purpose	EHT	250	As indicated in the notes below	700			Rebate DPS
30	Large Industry	EHT	250		700			Rebate DPS
31	Railway Traction	EHT	250		700			Rebate DPS
32	Heavy Industry	EHT	250		700			Rebate DPS
33	Power Intensive Industry	EHT	250		700			Rebate DPS
34	Mini Steel Plant	EHT	250		700			Rebate DPS
35	Emergency Supply to CGP (kWh)	EHT	0	**770.00**	700			Rebate DPS
36	Colony Consumption	EHT	0	**485.00**	0			Rebate DPS

Note:

Slab rate of energy charges for HT & EHT (Paise/kVAh)

Load Factor (%)	HT	EHT
= < 60%	585.00	580.00
> 60%	475.00	470.00

(i) Energy charges for all LT consumers shall continue to be billed on the basis of kWh whereas the energy charges for HT and EHT consumers shall be billed on the basis of kVAh drawal. All open access transaction will be maintained in kWh sale only and kVAh based sale shall be converted into kWh base on the power factor for the month provided in the energy bills if necessary. For Electricity Duty purpose kWh shall be the unit for the consumers for whom ED is levied on the per unit basis. For load factor purpose kWh reading shall be taken into consideration.

(ii) Power factor penalty / incentive and reliability surcharge are abolished.

(iii) The reconnection charges w.e.f. 01.04.2015 shall continue unaltered

Category of Consumers	Rate Applicable
LT Single Phase Domestic Consumer	Rs.150/-
LT Single Phase other consumer	Rs.400/-
LT 3 Phase consumers	Rs.600/-
All HT & EHT consumers	Rs.3000/-

(iv) Energy Charges shall be 10% higher in case of temporary connection compared to the regular connection in respective categories.

(v) The meter rent w.e.f. 01.04.2022 shall be as follows:

Type of Meter	Monthly Meter Rent (Rs.)
1. Single phase electro-magnetic kWh meter	20
2. Three phase electro-magnetic kWh meter	40
3. Three phase electro-magnetic tri-vector meter	1000
4. Tri-vector meter for Railway Traction	1000
5. Single phase Static kWh meter	40
6. Three Phase Static kWh meter	150
7. Three phase Static Tri-vector meter	1000
8. Three phase Static Bi-vector meter	1000
9. LT Single Phase Smart Meter	60
10. LT Three phase AMR/AMI compliant meter	150

Note: Meter rent for meter supplied by DISCOMs shall be collected for a period of 60 months only. Once it is collected for sixty months meter rent collection should stop. All statutory levies shall be collected in addition to meter rent. The Commission may revise the meter rent by a special order.

(vi) All HT industrial consumers (Steel Plant) having Contract Demand (CD) of 1 MVA and above shall get a rebate on energy charge on achieving the load factor as given below:

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

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

Load reduction shall not be permitted to such category of industry for availing this rebate during the financial year 2022-23.

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

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

(ix) All the industrial consumers drawing power in EHT shall be eligible for a rebate of 10 paise per unit (kVAh) for all the units consumed in excess of 80% of load factor.

(x) LT Single Phase consumers of all categories having CD upto 5 KW with pole within 30 meters from the consumer premises shall pay new connection charges excluding processing fees as follows:

Upto 2 KW	:	Rs.1,500/-
Beyond 2 KW upto 5 KW	:	Rs.2,500/-

Provided that if the line extension is required beyond 30 meters, the licensee/supplier shall charge @ Rs.8,000/- for every span of line extension in addition to the above charges.

(xi) A "Tatkal Scheme" for new connection is applicable to LT Domestic, Agricultural and General Purpose consumers.

(xii) In case of installation with static meter/meter with provision of recording demand, the recorded demand rounded to nearest 0.5 KW shall be considered as the contract demand requiring no verification irrespective of the agreement. Therefore, for the purpose of

calculation of Monthly Minimum Fixed Charge (MMFC) for the connected load below 110 KVA, the above shall form the basis.

(xiii) LT Domestic, LT General Purpose and HT Bulk Supply Domestic consumers will get 10 paise/unit rebate for prompt payment of the bill within due date. Thereafter, if the bill is paid within the next due date, there shall be no Rebate/Delayed Payment Surcharge. But if it is paid beyond the next due date then there shall be a Delayed Payment Surcharge of 1% of the billed value for each month of delay.

(xiv) The billing demand in respect of consumer with Contract Demand of less than 110 KVA should be the highest demand recorded in the meter during the Financial Year irrespective of the Connected Load, which shall require no verification.

(xv) Three phase consumers with static meters are allowed to avail TOD rebate excluding Public Lighting, emergency supply to CGP, LT Domestic and LT General Purpose categories @ 20 paise/unit for energy consumed during off peak hours. **Off peak hours has been defined as 10 PM in the evening to 6 AM of the next day.**

(xvi) Hostels attached to the Schools recognised and run by SC/ST Department, Government of Odisha shall get a rebate of Rs.2.40 paise per unit in energy charge under Specified Public Purpose category (LT / HT) which shall be over and above the normal rebate for which they are eligible.

(xvii) Swajala Dhara consumers under Public Water Works and Sewerage Pumping Installation category shall get special 10% rebate if electricity bills are paid within due date over and above normal rebate.

(xviii) During the statutory restriction imposed by the Fisheries Department, the Ice Factories located at a distance not more than 5 Km. towards the land from the sea shore of the restricted zone will pay demand charges based on the actual maximum demand recorded during the billing period.

(xix) Poultry Farms with attached feed units having connected load less than 20% of the total connected load of poultry farms should be treated as Allied Agricultural Activities instead of General Purpose category for tariff purpose. If the connected load of the attached feed unit exceeds 20% of the total connected load then the entire consumption by the poultry farm and feed processing unit taken together shall be charged with the tariff as applicable for General Purpose or the Industrial Purpose as the case may be.

(xx) The food processing unit attached with cold storage shall be charged at Agro-Industrial tariff if cold storage load is not less than 80% of the entire connected load. If the load of the food processing unit other than cold storage unit exceeds 20% of the connected load, then the entire consumption by the cold storage and the food processing unit taken

together shall be charged with the tariff as applicable for general purpose or the industrial purpose as the case may be.

(xxi) Drawal by the industries during off-peak hours upto 120% of Contract Demand without levy of any penalty has been allowed. "Off-peak hours" for the purpose of tariff is defined as a period from 10 PM in the evening to 6.00 A.M. of the next day. The consumers who draw beyond their contract demand during hours other than the off-peak hours shall not be eligible for this benefit. If the drawal in the off peak hours exceeds 120% of the contract demand, overdrawal penalty shall be charged on the drawal over and above the 120% of contract demand (for details refer Tariff Order). When Statutory Load Regulation is imposed then restricted demand shall be treated as contract demand.

(xxii) General purpose consumers with Contract Demand (CD) < 70 KVA shall be treated as LT consumers for tariff purposes irrespective of level of supply voltage. As per Regulation 134 (I) of OERC Distribution (Conditions of Supply) Code, 2019 the supply for load above 5 KW upto and including 70 KVA shall be in 3-phase, 3 or 4 wires at 400 volts between phases.

(xxiii) Own Your Transformer – "OYT Scheme" is intended for the existing individual LT domestic, individual/Group General Purpose consumers who would like to avail single point supply by owning their distribution transformer. In such a case licensee would extend a special concession of 5% rebate on the total electricity bill (except electricity duty and meter rent) of the respective category apart from the normal rebate on the payment of the bill by the due date. If the payment is not made within due date no rebate, either normal or special is payable. The maintenance of the 'OYT' transformer shall be made by DISCOM utilities. For removal of doubt it is clarified that the "OYT Scheme" is not applicable to any existing or new HT/EHT consumer.

(xxiv) The rural LT domestic consumers who draw their power through correct meter and pay the bill in time shall get rebate of 10 paise per unit in addition to existing rebate for prompt payment.

(xxv) 3% rebate over and above normal rebate shall be allowed on the bill to the LT domestic and single phase general purpose category of consumers only over and above all the rebates who pay the bill through digital mode. This rebate shall be applicable on the current month bill, if paid in full.

(xxvi) 2% rebate shall be allowed to all pre-paid consumers on pre-paid amount.

(xxvii) A Special rebate to the LT single phase consumers in addition to any other rebate, he is otherwise eligible for shall be allowed at the end of the financial year (the bill for month of March) if he has paid the bill for all the 12 months of the financial year consistently

without fail within due date during the relevant financial year. The amount of rebate shall be equal to the rebate of the month of March for timely payment of bill.

(xxviii) The Educational Institution (Specified Public Purpose) having attached hostel and / or residential colony who draw power through a single meter in HT shall be eligible to be billed 15% of their energy drawal in HT bulk supply domestic category.

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

(xxx) The printout of the record of the static meter relating to MD, PF, number and period of interruption shall be supplied to the consumer wherever possible with a payment of Rs.500/- by the consumer for monthly record.

(xxxi) Charging of electric vehicle through public charging system/station shall be covered under General Purpose (GP) category and single part tariff of Rs.5.50 per unit shall be applicable. The charging unit established by group housing society through a separate connection shall also be treated as public charging system/station.

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

(xxxiii) LT Industrial (S) Supply consumers shall avail a rebate of 10 paisa per unit for all the units consumed if their monthly operating load factor is more than 60%.

(xxxiv) Tariff as approved shall be applicable in addition to other charges as approved in this **Tariff order w.e.f. 01.04.2022.**

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Annexure C

1. The Open Access Charges i.e. Cross Subsidy Surcharge, Wheeling and Transmission Charge for Open Access consumer of 1MW and above for FY 2022-23 effective from 01.04.2022 as determined by the Commission are given in the table below:

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

Name of the licensee	Cross Subsidy Surcharge (P/U)		Wheeling Charge P/U applicable to HT consumers only	Transmission Charges for Open Access Customer (applicable for HT & EHT consumers)
	EHT	HT		
TPCODL	163.39	83.02	98.43	The Open Access customer availing Open Access shall pay Rs.6720/MW-day (Rs.280/MWh) as transmission charges.
TPNODL	149.32	57.50	113.69	
TPWODL	123.19	53.60	77.12	
TPSODL	212.30	127.08	112.01	

2. The normative transmission loss at EHT (3.0%) and normative wheeling loss for HT level (8%) are applicable for the year 2022-23.
3. Additional Surcharge: No additional surcharge over and above the Cross-Subsidy Surcharge needs to be given to the embedded licensee.
4. The consumers availing renewable power through open access shall have to pay the transmission charge, wheeling charge and cross subsidy surcharge as applicable to consumers availing conventional power.
5. These charges as notified for the FY 2022-23 will remain in force until further order.

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10.6 TPNODL CAPEX PLAN DETAILS COPY:

TPNODL: CAPEX Approved Vis-a Vis Actual up to FY 2022-23

(Rs. Crore)

Sl No.	Major Category	Vesting Order	Capex Approved	Actual Capex till 31-03-2023	Capitalised till 31-03-2023
FY 2021-22					
1	Statutory & Safety	246.00	28.45	20.97	19.86
2	Loss Reduction		16.39	14.83	12.57
3	Reliability		94.35	82.26	62.95
4	Load Growth		21.71	22.76	22.51
5	Technology & Infrastructure		97.88	89.19	87.53
6	Disaster Mitigation		-	-	-
	Total	**246.00**	**258.78**	**230.00**	**205.41**
FY 2022-23					
1	Statutory & Safety	376.00	9.35	16.56	15.05
2	Loss Reduction		12.53	11.11	7.13
3	Reliability		60.18	49.82	27.13
4	Load Growth		92.88	87.54	62.37
5	Technology & Infrastructure		97.81	71.71	65.17
6	Disaster Mitigation		53.79	10.57	6.72
	Total	**376.00**	**326.54**	**247.31**	**183.57**
Total upto 31-03-2023					
1	Statutory & Safety	622.00	37.80	37.53	34.91
2	Loss Reduction		28.92	25.94	19.70
3	Reliability		154.53	132.08	90.08
4	Load Growth		114.59	110.30	84.88
5	Technology & Infrastructure		195.69	160.90	152.70
6	Disaster Mitigation		53.79	10.57	6.72
	Total	**622.00**	**585.32**	**477.31**	**388.98**

(Rs. in Crore)

Sl. No.	Capex Head	Board Approved Capex	Capex as per revised DPR Submitted
I	Statutory & Safety	49.41	49.41
II	Loss Reduction	56.61	56.61
III	Reliability	118.06	118.06
IV	Load Growth	102.14	102.14
V	Technology & Infrastructure	121.60	121.60
VI	Reducing Carbon Footprint	4.98	4.98
Total Proposed Capex		**452.80**	**452.80**

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(Rs. in Crore)

Sl No	Activity	Capex Proposed in Original DPR	Revised Proposal based on BoD Approval	Approved by Commission
1	Fencing of Distribution Substations	11.55	11.55	11.55
2	Boundary wall work at Primary Substations	10.73	10.73	10.73
3	Life enhancement of network and maintaining safe horizontal / vertical clearances	8.43	8.43	8.43
4	Yard Fencing with in PSS	0.98	0.98	0.98
5	Fire Extinguisher & Water Hydrant System for Jajpur Store	2.09	2.09	2.09
6	Fire wall for PTR **"6Mtr*8Mtr"**	1.14	1.14	1.14
7	Defective cable replacement	10.00	10.00	10.00
8	Shifting of O/H lines on safety ground on public request	4.34	4.34	4.34
9	Intrusion system for theft prevention is store	0.15	0.15	0.15
	Total	**49.41**	**49.41**	**49.41**

(Rs. in Crore)

Sl No	Activity	Capex Proposed in Original DPR	Revised Proposal based on BoD Approval	Approved by Commission
1	Testing equipment for Meter, Meter Reading, HT/LT Accucheck& other material.	5.91	5.91	5.91
2	Conversion of LT Bare conductor to AB Cable	43.35	43.35	43.35
3	Meters and metering equipment for energy audit	5.66	2.83	2.83
4	Equipment for AMR enablement of 3phase consumer meters	0.56	0.56	0.56
5	Field Testing equipment (PTR testing, PQ analizer, Switch gear testing kit)	7.93	3.96	3.96
	Sub-total	**63.41**	**56.61**	**56.61**

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(Rs. in Crore)

Sl. No.	Activity	Capex Proposed in Original DPR	Revised Proposal based on BoD Approval	Approved by Commission
1	Replacement/Addition of network component in 33/11kV Primary Substation	20.36	10.18	-
2	33 KV Conductor up gradation	10.74	-	-
3	11 KV Conductor up gradation	30.14	15.07	15.07
4	Refurbishment of 11KV/0.415 KV Distribution Substation (DSS)	3.11	3.11	3.11
5	Installation of LV protection at DSS	33.38	33.38	33.38
6	Installation of Auto reclosure /Sectionalizers, RMUs	15.04	7.52	7.52
7	Installation of FPIs for O/H Lines	1.86	1.86	1.86
8	Installation of AB Switch, HG Fuse & LA for DTRs	25.47	25.47	25.47
9	11 KV Voltage Regulators for voltage improvement	5.01	5.01	1.73
10	Installation of Station Transformers (PPS)	1.44	0.72	0.72
11	Procurement of spares and servicing for ODSSP & IPDS	1.45	1.45	-
12	Indoor Switch gear (AIS) for 33KV & 11KV	6.39	-	-
13	Earthing of Transformer	14.29	14.29	14.29
	Sub-total	**168.69**	**118.06**	**103.15**

Sl No	Activity	Capex Proposed in Original DPR	Revised Proposal based on BoD Approval	Approved by Commission
1	Augmentation of Power Transformer	5.23	2.60	2.60
2	Augmentation of Distribution Transformer	24.57	24.57	24.57
3	Addition of LT Lines	39.58	-	-
4	Addition of 11 kV Lines (O/H and U/G)	24.12	24.12	24.12
5	Addition of 33 kV Overhead Lines(O/H and U/G)	19.79	9.80	9.80
6	Addition of New PTR at PSS	5.08	5.08	5.08
7	Addition New DTRs along with Associated HT/LT lines	17.37	17.37	17.37
8	Network enhancement for unforeseen emergency	10.00	-	-
9	New 33/11kV PSS with Associated Lines	38.07	18.60	18.60
	Sub-total	**183.81**	**102.14**	**102.14**

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(Rs. in Crore)

Sl. No.	Activity	Capex Proposed in Original DPR	Revised Proposal based on BoD Approval	Approved by Commission
1	Security cameras, heavy-duty Racking system / Storage solutions for Jajpur store	1.50	1.50	1.50
2	Civil Infrastructure (Office Buildings, PSS, Stores, Approach Roads, Record room, Cafeteria Canteen, MRT office, STS office, STS Lab and others)	42.41	29.68	29.68
3	Office Administration	5.75	5.75	3.95
4	Automation of Non-ODSSP & SCADA Integration	12.00	12.00	12.00
5	Bluetooth printer, cash drop box, RRG App	0.88	0.88	0.88
6	Data Recovery (DR) for Hardware Equipment	25.09	16.82	16.82
7	Data Centre (DC) for Hardware Equipment	3.50	3.50	3.50
8	End computing devices	6.35	0.75	0.75
9	Cyber Security	8.70	7.70	7.70
10	Communication	4.01	4.01	4.01
11	SCADA-ADMS, Computing devices	1.95	10.10	10.10
12	GIS Software Implementation and Land Base & Network Survey & Digitization for 9 Division	36.30	27.86	27.86
13	Additional left-out Budget of previous FY for GIS & SCADA	18.15	-	-
14	Software and Application	0.75	0.75	0.75
15	Drones and its licence	0.30	0.30	0.30
	Sub-total	**167.64**	**121.60**	**119.80**

(Rs. in Crore)

Sl. No.	Activity	Capex Proposed in Original DPR	Revised Proposal based on BoD Approval	Approved by Commission
1	Budget for Electric Scooter/Car	3.99	3.99	1.00
2	Rooftop Solar System on office building (Solar Roof top system (Corp office, circle offices, Balasore Store)	0.99	0.99	0.99
	Sub-total	**4.98**	**4.98**	**1.99**

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consideration and to promote EV under pilot project, the Commission approves an amount of Rs.433.10 Cr. for the financial year 2023-24 against the TPNODL's CAPEX proposal of Rs.452.80 Cr. The details are shown in the table below:

TPNODL CAPEX Proposal and the Commission's approval for FY 2023-24

(Rs. in Crore)

Sl. No.	Major Category	Activity	Capex Proposed in Original DPR	Revised Proposal based on BoD Approval	Approved by Commission
1	Statutory & Safety	Fencing of Distribution Substations	11.55	11.55	11.55
		Boundary wall work at Primary Substations	10.73	10.73	10.73
		Life enhancement of network and maintaining safe horizontal / vertical clearances	8.43	8.43	8.43
		Yard Fencing with in PSS	0.98	0.98	0.98
		Fire Extinguisher & Water Hydrant System for Jajpur Store	2.09	2.09	2.09
		Fire wall for PTR **"6Mtr*8Mtr"**	1.14	1.14	1.14
		Defective cable replacement	10.00	10.00	10.00
		Shifting of O/H lines on safety ground on public request	4.34	4.34	4.34
		Intrusion system for theft prevention is store	0.15	0.15	0.15
		Sub-total	**49.41**	**49.41**	**49.41**
2	Loss Reduction	Testing equipment for Meter, Meter Reading, HT/LT Accucheck & other material.	5.91	5.91	5.91
		Conversion of LT Bare conductor to AB Cable	43.35	43.35	43.35
		Meters and metering equipment for energy audit	5.66	2.83	2.83
		Equipment for AMR enablement of 3phase consumer meters	0.56	0.56	0.56
		Field Testing equipment (PTR testing, PQ analyser, Switch gear testing kit)	7.93	3.96	3.96
		Sub-total	**63.41**	**56.61**	**56.61**
3	Reliability	Replacement/Addition of network component in 33/11kV Primary Substation	20.36	10.18	-
		33 KV Conductor up gradation	10.74	-	-
		11 KV Conductor up gradation	30.14	15.07	15.07

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Sl. No.	Major Category	Activity	Capex Proposed in Original DPR	Revised Proposal based on BoD Approval	Approved by Commission
		Refurbishment of 11KV/0.415 KV Distribution Substation (DSS)	3.11	3.11	3.11
		Installation of LV protection at DSS	33.38	33.38	33.38
		Installation of Auto reclosure /Sectionalizers, RMUs	15.04	7.52	7.52
		Installation of FPIs for O/H Lines	1.86	1.86	1.86
		Installation of AB Switch, HG Fuse & LA for DTRs	25.47	25.47	25.47
		11 KV Voltage Regulators for voltage improvement	5.01	5.01	1.73
		Installation of Station Transformers (PPS)	1.44	0.72	0.72
		Procurement of spares and servicing for ODSSP & IPDS	1.45	1.45	-
		Indoor Swich gear (AIS) for 33KV & 11KV	6.39	-	-
		Earthing of Transformer	14.29	14.29	14.29
		Sub-total	**168.69**	**118.06**	**103.15**
4	Network Optimisation & Load Growth	Augmentation of Power Transformer	5.23	2.60	2.60
		Augmentation of Distribution Transformer	24.57	24.57	24.57
		Addition of LT Lines	39.58	-	-
		Addition of 11 kV Lines (O/H and U/G)	24.12	24.12	24.12
		Addition of 33 kV Overhead Lines (O/H and U/G)	19.79	9.80	9.80
		Addition of New PTR at PSS	5.08	5.08	5.08
		Addition of New DTRs along with Associated HT/LT lines	17.37	17.37	17.37
		Network enhancement for unforeseen emergency	10.00	-	-
		New 33/11kV PSS with Associated Lines	38.07	18.60	18.60
		Sub-total	**183.81**	**102.14**	**102.14**
5	Technology and Civil Infrastructure	Security cameras, heavy-duty Racking system / Storage solutions for Jajpur store	1.50	1.50	1.50
		Civil Infrastructure (Office Buildings, PSS, Stores, Approach Roads, Record	42.41	29.68	29.68

Sl. No.	Major Category	Activity	Capex Proposed in Original DPR	Revised Proposal based on BoD Approval	Approved by Commission
		room, Cafeteria Canteen, MRT office, STS office, STS Lab and others)			
		Office Administration	5.75	5.75	3.95
		Automation of Non-ODSSP & SCADA Integration	12.00	12.00	12.00
		Bluetooth printer, cash drop box, RRG App	0.88	0.88	0.88
		Data Recovery (DR) for Hardware Equipment	25.09	16.82	16.82
		Data Centre (DC) for Hardware Equipment	3.50	3.50	3.50
		End computing devices	6.35	0.75	0.75
		Cyber Security	8.70	7.70	7.70
		Communication	4.01	4.01	4.01
		SCADA-ADMS, Computing devices	1.95	10.10	10.10
		GIS Software Implementation and Land Base & Network Survey & Digitization for 9 Division	36.30	27.86	27.86
		Additional left-out Budget of previous FY for GIS & SCADA	18.15	-	-
		Software and Application	0.75	0.75	0.75
		Drones and its licence	0.30	0.30	0.30
		Sub-total	**167.64**	**121.60**	**119.80**
6	Reducing Carbon Footprint	Budget for Electric Scooter/Car	3.99	3.99	1.00
		Rooftop Solar System on office building (Solar Roof top system (Corp office, circle offices, Balasore Store)	0.99	0.99	0.99
		Sub-total	**4.98**	**4.98**	**1.99**
Total			**637.94**	**452.80**	**433.10**

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29. Accordingly, the year-wise and cumulative Capex approved by the Commission is shown in the table below:

(Rs. in Crore)

Financial Year	Minimum Capex required as per Vesting Order (Rs Cr)	Capex Approved by the Commission (Rs Cr)
FY 2021-22	246.00	258.78
FY 2022-23	376.00	326.54
FY 2023-24	260.00	433.10
Cumulative Capex till FY 2023-24	**882.00**	**1018.42**

30. The approved cost shall be passed in the ARR as per the norm subject to rational utilization by the petitioner and prudent check through audit.

31. In addition to the observations stated above, the Commission directs TPNODL to

(i) Prioritize the completion of important works like strengthening/expansion of distribution infrastructure, measures for loss reduction, metering, addressing overloading & low voltage issue etc. over the refurbishment of PSS (in non-ODSSP) for implementation of SCADA & work related to DR & DC etc.

(ii) Submit the Capex proposal along with the approval of Board of Director for FY 2024-25 onwards for consideration by the Commission.

(iii) Submit the Capital Investment Plan strictly adhering to the provisions of Wheeling & Retail Supply Tariff Regulations, Vesting Orders and the License Conditions prioritizing the operation area of TPNODL (indicating the name of Division & activities undertaken) for proposed investment.

(iv) Submit quarterly progress report for the works along with the details of materials utilised vis-à-vis various activities shown in the DPR.

(v) Formulate implementation plan for the approved Capital Investment and take steps for execution accordingly to avoid cost and time overrun.

(vi) Procure the materials/award the contracts only through transparent competitive bidding process. The requirement of materials shall be prepared based on standardisation of distribution elements. The ratings of equipment / material including DTRs & PTRs need to be standardized across the Discoms and standard specifications need to the adopted across the Discoms.

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(vii) Effort should be made to optimise project cost with efficient project management and leveraging various technology options so that the benefit can be passed on to the consumers.

(viii) Ensure that there is no duplication of work covered under the CAPEX approved for 2023-24 and the assets created/ to be created through Government Schemes/support.

(ix) Planned new 33/11 kV substations shall have (N-1) contingency provision for incomer & Power Transformers (PTRs), double bus switching scheme/main & transfer bus scheme with Bus coupler and adequate space should be available in PSS for future expansion to avoid additional substations in the nearby areas.

(x) TPNODL should have regular interaction with the OPTCL to ensure that the requirement of additional Grid Sub-stations (220/33 kV or 132/33 kV or 220/132/33 kV) are planned as per need of TPNODL which will help in resolving low voltage issues and at the same time the available 33 kV outlets from existing Grid Sub-stations of OPTCL should be utilised by TPNODL for their distribution system.

(xi) Provide cost benefit analysis and quantification of benefits in terms of percentage of loss reduction, metering & billing, asset mapping, reduction in low voltage areas, reduction in tripping of 33 kV & 11 kV feeders, reduction in failure of equipment/material (PTRs, DTRs, CBs, SAs, etc.), and improvement in safety by reduction in fatal & non-fatal accidents of human being & animals etc. in different divisions of TPNODL's operating area due to addition of distribution infrastructure covered under the capex proposal for the FY 2023-24.

(xii) Provide the financial plan for funding of capex proposal along with rate of interest for the FY 2023-24

(xiii) The details of investment in development/augmentation of distribution infrastructure in various divisions of the TPNODL.

(xiv) Submit details of compliances of the direction given in the Capex Orders of previous years.

(xv) The system study report relating to installation capacitor banks.

v

(xvi) TPNODL need to carry out load flow study of the distribution network for a longer time frame (at least 5 year) as directed during the approval of capex for the FY 2022-23.

(xvii) Submit the status (on the date of taking over and as on 31.03.2023) of existing distribution system for each division indicating the achievement (quantification) in respect of following areas by September 2023:

- Reduction in feeder / line / section length at 33kV & 11kV level;
- Reduction in overloading of 33kV & 11kV lines, PTRS, DTRs;
- Reduction in low voltage pockets;
- Repairing of boundary walls for PSSs and fencing of DSSs;
- (N-1) contingency for PTRs and incomer at 33kV level in existing PSS;
- Smart metering of 33kV & 11kV feeders, PTRs, DTRs, Govt & non-Govt. establishments & 3 phase consumers etc;
- Provision of protection for 33kV & 11kV overhead lines & UG cable, PTRs & DTRs (primary & secondary side);
- Improvement in earthing in PSS &DSS;
- Length (in ckt.km.) of overhead line converted and proposed to be converted to ABC in future.

32. Accordingly, the case is disposed of.

Sd/-	Sd/-	Sd/-
(S. K. Ray Mohapatra)	**(G. Mohapatra)**	**(S. C. Mahapatra)**
Member	**Member**	**Chairperson**

v

10.7 TPNODL VESTING ORDER:

ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN PLOT NO. 4, CHUNUKOLI, SHAILASHREE VIHAR, BHUBANESWAR-751021

****

Present: Shri U. N. Behera, Chairperson
Shri S. K. Parhi, Member
Shri G. Mohapatra, Member

Case No. 9/2021

IN THE MATTER OF: **Suo Motu Proceeding on sale of utility of NESCO under Section 20 of the Electricity Act 2003 and for vesting of Utility (NESCO) to the intending purchaser under Section 21 of the said Act.**

And

IN THE MATTER OF:

Director (Regulatory Affairs), OERC
..... Designated Petitioner

Vrs.

Principal Secretary to Government,
Department of Energy, Government of Odisha,
Bhubaneswar -1 and Others ..... Respondents

NESCO Power Engineer's Association
..... Intervenor

ORDER

Date of order: 25.03.2021

1. North Eastern Electricity Supply Company of Odisha Limited (the **"NESCO"**) was incorporated on 19th November 1997 under the Companies Act, 1956. Pursuant to the Odisha Electricity Reforms Act 1995 and Odisha Electricity Reforms Rules 1998, all the assets of GRIDCO pertaining to the distribution business in the Northern Zone of GRIDCO comprising districts of Balasore, Mayurbhanj, Keonjhar, Jajpur, and Bhadrak were transferred to NESCO.

2. On 1st April 1999, 51% (fifty one percent) shares of GRIDCO in NESCO were transferred to BSES Limited selected through competitive bidding process. NESCO continued to be managed by BSES Limited and later by its successor R-Infra

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Limited.

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

4. Thereafter, in terms of Section 20 of Act the Commission initiated a transparent and competitive bidding process for selection of an investor for sale of utility of NESCO and had issued the updated Request for Proposal (the **"RFP"**) on 31.07.2020.

5. In response to the said RFP, single bid was received by the bid due date. After detailed evaluation by independent bid evaluation committee set up by the Commission, The Tata Power Company Limited (the **"TPCL"**) was recommended as the successful bidder and Commission accepted the same under Section 20(1)(a) of the Act.

6. Thereafter, the Commission issued a Letter of Intent (the **"LoI"**) to TPCL vide Letter No. OERC/RA/SALE of NESCO-26/2019(II)/160 dated 29.01.2021. TPCL communicated the acceptance of the LoI vide Letter No. T&D/BD/DOM/FY21/OERC/ NESCO/PPP/100 dated 05.02.021.

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

8. The Commission vide letter No. OERC/RA/SALE OF NESCO-26 /2019 (Vol.II)/162 dated 29.01.2021 then directed GRIDCO to incorporate the SPV to which the utility of NESCO shall be vested and license of NESCO Utility shall be transferred. TP Northern Odisha Distribution Limited (the **"TPNODL"**) will be incorporated as a wholly owned subsidiary of GRIDCO with an authorized share capital of Rs. 1000 crores (Indian Rupee One thousand crores) only and paid-up capital of Rs. 5 lakhs (Indian Rupee Five lakhs) only. TPNODL shall be the SPV in

which TPCL and GRIDCO shall hold 51% (fifty one percent) and 49% (forty nine percent) equity shares respectively after the completion of sale.

9. The Commission vide letter no. OERC/RA/SALE OF NESCO-26 /2019 (Vol.II)/162 dated 29.01.2021 provided GRIDCO/ OPTCL the RFP Documents namely – Share Acquisition Agreement, Shareholders Agreement, Bulk Supply Agreement and Bulk Power Transmission and SLDC Agreement for execution by concerned parties.

10. TPCL quoted a purchase price of Rs. 375 crores (Indian Rupee Three hundred seventy five crores) in its financial Bid in response to the RFP for 100% (one hundred percent) equity in the SPV. TPCL is required to pay 51% (fifty one percent) of the purchase price of Rs. 375 crores (Indian Rupee Three hundred seventy five crores) quoted in its Bid. As per terms of RFP, this amount is required to be deposited by TPCL with the Commission.

11. The Commission vide letter No. OERC/RA/SALE of NESCO-26/2019(II)/160 dated 29.01.2021 (LoI) had directed TPCL to submit the Performance Guarantee and deposit the amount equivalent to 51% (fifty one percent) of the purchase price with the Commission.

12. TPCL vide letter No. T&D/BD/DOM/FY21/OERC/NESCO/PPP/113 dated 10.03.2021 communicated that they have deposited Rs.191.25 (Indian Rupee One ninety one crore and twenty five lakhs only) with the Commission which is 51% of the bid amount of Rs. 375 crore and submitted the Performance Guarantee of Rs. 150 crores (Indian Rupee One hundred fifty crores) as per the directions of the Commission.

13. The Commission vide letter No. OERC/RA/SALE of NESCO-26/2019(II)/161 dated 29.01.2021 directed TPCL that it is required to comply with the requirements of the Competition Act, 2002 and furnish a certificate on such compliances to OERC. TPCL vide its letter No. No. T&D/BD/DOM/FY21/OERC/NESCO/PPP/106 dated 09.02.2021 informed the OERC that they have filed the notice with the Competition Commission of India (CCI) seeking its approval for the proposed transaction, which was acknowledged by the CCI on 08.02.2021. M/s TPCL vide its letter No. T&D/BD/DOM/FY21/OERC/NESCO/PPP/113 dated 19.03.2021 communicated to the OERC that CCI vide its e-mail dated 19.03.2021 to the TPCL intimated that it considered the proposed combination and approved the same under sub-section (1)

of Section 31 of the Act. This approval is with reference to the notice filed by the Tata Power Company Ltd. (TPCL/Acquirer) on 08.02.2021 under sub-section (2) of Section 6 of the Competition Act, 2002.

14. As per the proviso to Section 21(a) of the Act, the debt, mortgage or similar obligation shall attach to the purchase price in substitution for the utility of NESCO.

15. The transaction related costs shall be deducted by the Commission from the purchase price deposited with the Commission by TPCL. The transaction related costs shall include the fees paid to transaction advisor and legal advisor engaged by the Commission for advising in sale of utility of NESCO, the cost of incorporation of TPNODL, the fees of auditors for audit of the annual accounts for the period from 01.04.2020 to 31.03.2021 of NESCO Utility as provided in the para 51 of this Order and the cost of incorporation of a residual company in which the liabilities of NESCO Utility shall remain, if decided by the Commission and any other cost as determined by the Commission (the **"Transaction Process Costs"**).

16. On 10.03.2021, the Director (Regulatory Affairs), OERC initiated the suo-motu petition as the Designated Petitioner with the following prayers to the Commission:

    (a) To issue suitable directions to give effect to the vesting of utility of NESCO to TPNODL as per Section 21(a) of the Act.

    (b) To issue suitable directions for attachment of purchase price to debt, mortgage or similar obligation of NESCO Utility as per proviso to Section 21(a) of the Act.

    (c) To issue suitable directions for transfer of rights, powers, authorities, duties and obligations of the license under the license of NESCO Utility to TPNODL as per Section 21(b) of the Act.

17. The petition also stated that the following are required to be complied as per the provisions of the Act and the conditions of RFP:

    (a) The paid-up share capital of TPNODL shall be Rs. 250 crores (Indian Rupee Two hundred and fifty crores) only. This is the reserve price for the utility as per the RFP.

    (b) TPCL shall hold 51% (fifty one percent) equity shares and GRIDCO shall hold 49% (forty nine percent) equity shares in TPNODL. Share Acquisition

Agreement and Shareholders Agreement shall be executed to this effect between TPCL and GRIDCO.

(c) The Bulk Supply Agreement shall be executed between TPNODL and GRIDCO and the Bulk Power Transmission and SLDC Agreement shall be executed between TPNODL and Odisha Power Transmission Corporation Limited (the **"OPTCL"**).

(d) NESCO Utility shall be sold to TPNODL and the purchase price shall be received by the Commission. The Transaction Process Costs shall be deducted by the Commission from the purchase price deposited with the Commission by TPCL. As per Section 21(a) of the Act, such purchase price shall attach to the debt, mortgage or similar obligation of utility of NESCO. Remittance of this amount shall be as approved by the Commission.

(e) The Administrator of NESCO Utility shall deliver the utility to TPNODL on 01.04.2021.

(f) The Administrator of NESCO Utility shall be required to make available its provisional balance sheet as on 31.03.2021.

(g) An opening balance sheet for TPNODL shall be carved out from the balance sheet of NESCO Utility as on 31.03.2021 to effect the transfer of the utility to TPNODL. The carved out balance sheet shall be as per the broad principles laid out in Annexure - 1.

18. The Commission decided to dispose of the petition registered as Case No. 09/2021 through a hearing of the concerned parties namely NESCO Utility, TPCL, GRIDCO, OPTCL and the Government of Odisha and accordingly issued notice to the parties directing them to file written submissions to the suo-motu petition and appear for the hearing on 18.03.2021. Accordingly, the parties have filed their written responses.

19. The NESCO Power Engineer's Association requested the Commission to implead them as respondent in the proceeding. The Commission allowed the intervener to take part in the proceedings.

20. GRIDCO submitted its response with prayers related to suitable addressal of past dues on account of power purchase, non-servicing of loan and other dues. GRIDCO submitted that the arrear collection as committed by TPCL may be prioritised for

paying/ settling the outstanding dues of GRIDCO. GRIDCO suggested that TPCL may maintain a separate account for deposit and utilisation of the arrear towards GRIDCO dues with periodical reconciliation on quarterly/ monthly basis. GRIDCO further submitted that the Commission may consider recognising the net receivable after adjustment of the purchase and committed arrear collection by the operating company as on effective date as 'Regulatory Assets' and keep provision for amortisation of the same in future against the revenue gain to be achieved on AT&C loss trajectory as committed by the purchaser. GRIDCO has also submitted to frame an appropriate payment security mechanism for recovery of outstanding dues. GRIDCO has also submitted regarding payment of current dues of GRIDCO, Government of Odisha CAPEX Scheme loan outstanding, charge on current revenue in case of default in payment of BSP dues after utilising LC and PBG and capital expenditure committed by the TPCL.

21. OPTCL submitted that the Commission may issue appropriate orders making the successor organisation liable for making payment of revised transmission charges other applicable charges to OPTCL, if any prior to the date of vesting in case the energy quantum is revised by SLDC. OPTCL further submitted that the successor organisation be made liable for payment of any other dues of OPTCL receivable from NESCO which may appear in due course of transmission related activity of OPTCL.

22. TPCL filed its response with prayers such as removal of lien on escrow accounts, removal of corporate guarantee, mitigation of any tax impact on Deemed Licensee for subscription of equity in kind by GRIDCO, indemnification of TPCL from any claim of third party in relation to acquisition of the controlling stake in Deemed Licensee including the acquisition of controlling stake being stayed or reversed by a court of law (both in SAA & SHA), relaxation in AT&C loss levels and adjustment of the recovery of past arrears provided during the bidding process due to change in arrears in case any amnesty scheme/ Government scheme is launched.

23. Representatives from NESCO Power Engineer's Association submitted that the Commission may order to protect service condition of the employees which shall be applicable and continuance of present service regulation, for future post creations and appointment, no parallel cadre, adoption of DA as per State Government declaration, no lateral entry in any cadre, transparent recruitment process, no

modification or review of the AT&C loss target fixed by the Commission, restriction on creation of charge over any assets of NESCO, the new company to come under purview of CAG audit and RTI to ensure public trust and transparency and the vesting order to attain finality after acceptance and no further application for modification or review be entertained by the Commission.

24. The Commission conducted a hearing of the parties under suo-motu proceedings through video conference on 18.03.2021 in which the respondents as well as intervenors were heard by the Commission.

25. In the written submissions filed by the respondents, the Commission has observed that the respondents have agreed to enter into the following agreements:

(a) Share Acquisition Agreement shall be signed amongst GRIDCO, TPNODL and TPCL;

(b) Shareholders Agreement shall be signed between GRIDCO and TPCL;

(c) Bulk Supply Agreement shall be signed between GRIDCO and TPNODL; and

(d) Bulk Power Transmission and SLDC Agreement shall be signed between OPTCL and TPNODL.

26. The Commission further observed the following from the submissions made by the parties:

(a) TPNODL has been incorporated with an authorised share capital of Rs. 1000 crore and a paid-up share capital of Rs. 5 lakhs (Indian Rupee Five lakhs) only.

(b) The trade payables to GRIDCO (in the books of NESCO Utility) amounting to Rs. 249.95 crores (Indian Rupee Two hundred forty nine crores and ninety five lakhs) shall be converted to equity share capital of TPNODL. With this, the equity share capital shall be Rs. 250 crores (Indian Rupee Two hundred crores) only as required for the transaction. NESCO Utility has stated that it shall comply with the directions of the Commission in this regard. The Commission is concluding that the proposed transaction structure has been agreed among all the parties- GRIDCO, NESCO Utility and TPCL.

(c) As per the Share Acquisition Agreement, TPCL shall acquire 51% (fifty one percent) of the equity shares of TPNODL. Therefore, TPCL and GRIDCO

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shall hold 51% (fifty one percent) and 49% (forty nine percent) of the equity shares respectively in TPNODL with effect from 01.04.2021.

(d) The utility and license of NESCO Utility shall be transferred to TPNODL on 01.04.2021.

(e) GRIDCO and TPNODL shall execute the Bulk Supply Agreement on or before 01.04.2021. This agreement incorporates the terms of RFP related to power procurement conditions and establishment of payment security mechanism(s).

(f) OPTCL and TPNODL shall execute the Bulk Power Transmission and SLDC Agreement on or before 01.04.2021. This agreement incorporates the terms related to payment of transmission and SLDC charges and establishment of payment security mechanism(s).

(g) The purchase price after deducting Transaction Process Costs determined by the Commission shall be remitted to GRIDCO for extinguishment of past liabilities of NESCO and NESCO Utility towards power purchase cost from GRIDCO. NESCO Utility shall comply with the directions of the Commission in this regard.

(h) From the provisional accounts of NESCO Utility as of 31.03.2021, a provisional opening balance sheet for the utility transferred to TPNODL shall be prepared. This shall be done in accordance with the principles laid out in the Annexure - 1. Thereafter based on statutory audit of NESCO Utility, the provisional accounts of NESCO Utility as of 31.03.2021 shall be updated to prepare the final accounts. This shall be done on or before 30.09.2021 and shall be submitted to the Commission. From the final accounts of NESCO Utility, the actual opening balance sheet of TPNODL shall be finalized based on the principles as laid out in Annexure – 1 and shall be submitted to the Commission.

(i) As per the Shareholders Agreement, TPCL and GRIDCO shall maintain 51% (fifty one percent) and 49% (forty nine percent) shareholding respectively at all times and any future equity investment from GRIDCO in TPNODL shall be either in form of cash, kind or any other consideration as decided by GRIDCO in accordance with the Shareholders Agreement.

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(j) The RFP provided the principles for carving out the balance sheet of TPNODL from the balance sheet of NESCO Utility. Following these principles, an indicative opening balance sheet as of 01.04.2020 had been prepared based on the latest audited accounts of NESCO Utility as of 31.03.2020. The revised provisional opening balance sheet of the proposed Operating Company as of 01.04.2020 has been prepared and is provided at Annexure – 2.

27. The Commission has taken cognizance of the communications and submissions of all the parties till date and now issues this Vesting Order.

ORDER OF THE COMMISSION

28. As per Section 21(a) of the Act, the utility of NESCO shall be vested in TPNODL with effect from 01.04.2021 (the **"Effective Date"**) subject to completion of sale and delivery of the utility to TPNODL.

29. The Commission approves the transaction structure proposed by the parties. TPNODL has been incorporated with a paid-up share capital of Rs. 5 lakhs (Indian Rupee Five lakhs). The trade payables to GRIDCO (in the books of NESCO Utility) amounting to Rs. 249.95 crores (Indian Rupees Two hundred forty nine crores and ninety five lacs) only shall be converted to equity share capital of TPNODL. With this, the equity share capital shall be Rs 250 crores (Indian Rupee Two hundred fifty crores) only. TPCL shall purchase equity shares equivalent to 51% (fifty one percent) of the equity share capital in TPNODL from GRIDCO at the premium of Rs. 63.75 crores (Indian Rupee Sixty three crores and seventy five lakhs) only by paying to GRIDCO an amount of Rs. 191.25 crores (Indian Rupee One hundred ninety one crores and twenty fifty lakhs) only.

30. The amount of Rs. 191.25 crores (Indian Rupee One hundred ninety one crores and twenty five lakhs) only is already deposited by TPCL with the Commission as per the requirement of RFP documents. The Commission shall, after vesting of utility of NESCO with TPNODL, remit the amount after deducting the Transaction Process Costs incurred by the Commission for the sale process directly to GRIDCO. Suitable accounting adjustments may be made in the financial statements of NESCO Utility and GRIDCO to this effect.

31. If the Administrator of NESCO Utility delivers the utility to TPNODL but the sale does not get completed in its entirety by 01.04.2021, TPNODL shall, as per Section

20(4) of the Act, operate and maintain the utility for a maximum period of upto 7 (seven) days from 01.04.2021, pending completion of transaction. In case transaction is not completed in its entirety within such extended period, then the Commission may, at its discretion, either grant extension on day by day basis or cancel the LoI. The decision of the Commission shall be final in this regard.

TERMS OF VESTING

32. As per Section 21(a) of the Act, the utility shall vest in TPNODL free from any debt, mortgage and similar obligation of NESCO and NESCO Utility except for certain serviceable liabilities that are being transferred to TPNODL along with mechanism for funding of such liabilities as provided in para 52 of this Order.

33. As per Section 21(b) of the Act, the rights, powers, authorities, duties and obligations of the license under NESCO Utility's license shall stand transferred to TPNODL on Effective Date upon delivery of utility on the same date. The amended license shall be issued by the Commission within 90 (ninety) days from the Effective Date.

34. With the transfer of utility of NESCO and license, the rights and responsibilities of NESCO utility shall transfer to TPNODL with effect from 01.04.2021.

35. Performance Guarantee

(a) As per the terms of RFP, TPCL has provided to the Commission Performance Guarantee of Rs. 150 crores (Indian Rupee One hundred and fifty crores) with following details:

(i) Bank Guarantee (PBG) No. OGT0005210052060 for an amount of Rs. 110 crores (Indian Rupees One hundred and ten crores) from INDUSIND BANK LTD., 78 Janpath, Kharvelnagar, Bhubaneshwar with expiry date of 31.03.2024 and claim date of 31.03.2025.

(ii) Bank Guarantee (PBG) No. 0393NDLG00261821 for an amount of Rs. 40 crores (Indian Rupees Forty crores) from ICICI Bank Ltd., Mega Branch, Bhubaneswar with expiry date of 31.03.2024 and claim date of 31.03.2025.

(b) As per the terms of the RFP, the Performance Guarantee(s) shall be renewed till the completion of 15 (fifteen) years from the Effective Date by TPCL at

least 30 (thirty) days before the expiry date of such Performance Guarantee.

(c) Upon satisfactory performance of TPNODL for a period of 5 (five) years from the Effective Date, and TPNODL having met all its obligations in regard to the performance and commitments made as part of its Bid in response to the RFP as determined by the Commission in performance review as per para 57 of this Order, the value of the Performance Guarantee shall be reduced to half of the original amount in para 35(a) above i.e. Rs. 75 crores (Indian Rupee Seventy five crores).

(d) The existing bank guarantee as per clause 35(a) shall be returned to TPCL on submission of a revised Performance Guarantee of Rs. 75 crores (Indian Rupee Seventy five crores) by TPCL which shall initially be valid for 3 (three) years and thereafter renewed every year by TPCL till the end of the 10th (tenth) year from the Effective Date.

(e) Further, the Commission, on satisfactory performance of TPNODL between the 6th (sixth) and the 10th (tenth) year of operations, may further reduce the Performance Guarantee to 25% (twenty five percent) of the original amount in para 35(a) above i.e. to Rs 37.5 crores (Indian Rupee Thirty seven crores and fifty lakhs). The same shall be required to be maintained by TPCL till the end of the 15th (fifteenth) year from the Effective Date.

(f) The reduced Performance Guarantee shall be refunded to TPCL at the end of the 15th (fifteenth) year from the Effective Date.

(g) TPCL shall restore the Performance Guarantee to its original amount within 30 (thirty) days of its being encashed. Failure to restore the Performance Guarantee to its original value shall result in non-compliance of the license conditions and the Commission shall then act as per the relevant provisions provided under the Act.

(h) The Performance Guarantee may be encashed for any reasons as follows:

(i) Failure to meet loss reduction target as specified in para 40(b);

(ii) Failure to collect Past Arrears as per para 43(e);

(iii) Failure to pay the Bulk Supply Price and Transmission Charges as per para 37 and 38; or

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(iv) Any other reason as mentioned in the RFP and required under the license conditions.

36. Power Procurement conditions

(a) GRIDCO, a wholly owned company of the State Government, is engaged in the business of purchase of electricity in bulk from various Generators located inside and outside Odisha and the State share of power from the Central Generators for supply in bulk to the four distribution utilities in the State. Pursuant to the Government of Odisha notification No. PPD-II-2/05 (pt) 7947, Bhubaneswar dated 17.08.2006, GRIDCO is notified as the "State Designated Entity" to sign the Power Purchase Agreements (PPA) for procurement of all forms of power from different Generators. The terms of sale of power by GRIDCO to TPNODL shall be governed under the Bulk Supply Agreement.

(b) In order to fulfil its obligation as the bulk supplier in the State, GRIDCO has signed PPAs to meet the existing as well as future demand of power for the retail supply licensees in the State. As of 24.06.2020, the list of PPAs tied up by GRIDCO along with details, such as quantum, supply start date and supply end date are as provided in Annexure - 4.

(c) If in the opinion of GRIDCO, at any time during the term of license of TPNODL, the PPAs provided in Annexure – 4 are insufficient to meet the power purchase requirement of the retail supply licensees, then GRIDCO may sign additional PPAs with prior consultation with TPNODL, other retail supply licensees in the State and prior approval of the Commission. Such consultation shall also be required in case GRIDCO signs any PPAs to procure power from renewable energy sources to fulfil its Renewable Purchase Obligation targets set under the regulations and orders of the Commission.

(d) Till the time GRIDCO expresses its ability to meet the power purchase requirement of TPNODL from the PPAs provided in Annexure - 4 and any additional PPAs signed as per para 36(c) above, TPNODL shall be obligated to meet the full extent of its power purchase requirement from such PPAs from GRIDCO.

(e) In case GRIDCO conveys, in writing, its inability to make available any quantum of power requisitioned by TPNODL, such incremental quantum may

be procured directly by TPNODL from alternative source, provided that such alternative source is selected through a transparent and competitive process and with the prior approval of the Commission.

37. Payment security mechanism for payment of BSP bills

(a) In order to ensure security to GRIDCO for payment of its Bulk Supply Price (BSP) bills in full, TPNODL would need to provide GRIDCO with a revolving letter of credit facility backed by necessary security including Corporate Guarantee, if required, by the TPCL for an amount equivalent to the average BSP bills of 2 (two) months as a primary payment security mechanism. This Letter of Credit would be opened and maintained as per the provisions laid out in the Bulk Supply Agreement.

(b) In case of failure of GRIDCO to recover its dues through this letter of credit mechanism, it can approach the Commission with a request to encash the Performance Guarantee to the extent of the shortfall in the payment of BSP bills. Encashment of the Performance Guarantee would be at the sole discretion of the Commission. Upon encashment, TPCL shall be required to replenish the Performance Guarantee to its original value as provided in para 35(g) of this Order. The Commission shall provide TPNODL and/or TPCL with a reasonable opportunity to be heard before encashment of Performance Guarantee.

38. Payment security mechanism for payment of transmission and SLDC charges

(a) In order to ensure security to OPTCL for payment of transmission and SLDC charges in full, TPNODL would need to provide OPTCL with 2 (two) separate revolving letters of credit facilities backed by necessary security including Corporate Guarantee, if required, by the TPCL as payment security for transmission charges and SLDC charges. The amount of letters of credit shall be equivalent to the average transmission charges and average SLDC charges of 2 (two) months respectively. These letters of credit would be opened and maintained as per the provisions laid out in the Bulk Power Transmission and SLDC Agreement.

(b) In case of failure of OPTCL to recover its dues through this letter of credit mechanism, it can approach the Commission with a request to encash the

Performance Guarantee to the extent of the shortfall in the payment of transmission charges and SLDC charges. Encashment of the Performance Guarantee would be at the sole discretion of the Commission. Upon encashment, TPCL shall be required to replenish the Performance Guarantee to its original value as provided in para 35(g) of this Order. The Commission shall provide TPNODL and/or TPCL with a reasonable opportunity to be heard before encashment of Performance Guarantee.

39. Capital investment plan

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

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

Table 1: Capital Expenditure Commitment by TPCL

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

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

Table 2: TPCL Cumulative Capital Expenditure for 5 years

Cumulative Capex Expenditure (INR Cr)				
Upto 31-Mar-2022	**Upto 31-Mar-2023**	**Upto 31-Mar-2024**	**Upto 31-Mar-2025**	**Upto 31-Mar-2026**

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

(d) TPNODL would be required to seek the Commission's approval on the detailed capital expenditure plan in line with the regulations. TPNODL shall satisfy the Commission that the capital expenditure plan submitted in line with regulations adheres to the capital expenditure plan submitted as part of the Bid.

(e) The Commission will evaluate the performance of TPNODL at the end of 3rd (third) and 5th (fifth) financial year of operation. Failure to incur cumulative committed capex or meet the timelines committed as part of Bid may lead to imposition of a penalty which may be in the form of encashment of Performance Guarantee. However, before encashment of Performance Guarantee, the Commission will notify TPCL and will allow TPCL to wire transfer the penalty amount within notified timelines. Failure to transfer the amount within the timelines will lead to encashment of Performance Guarantee. Upon encashment, TPCL shall be required to replenish the Performance Guarantee to its original value as provided in para 35(g) of this Order. The Commission shall provide TPNODL and/ or TPCL with a reasonable opportunity to be heard before encashment of Performance Guarantee.

(f) The penalty amount from wire transfer or encashment of TPCL's Performance Guarantee shall be transferred to the TPNODL and the same shall be deducted by the Commission during the true-up process or future Aggregate Revenue Requirement so that the benefit of the penalty amount, so collected, is passed on to consumers.

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

(h) Depreciation on all existing assets transferred to TPNODL shall be determined based on the existing methodology being followed by the Commission.

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(i) The funding on account of the various ongoing schemes of the Government of Odisha will be made available to TPNODL as and when available and applicable.

40. AT&C loss targets

(a) As per terms of the RFP, the bidders were required to provide AT&C loss trajectory for first 10 years of operations i.e. FY 2021-22 to FY 2030-31 with the condition that the AT&C loss level in FY 2023-24 and FY 2025-26 shall not be higher than 21.5% and 16.0% respectively. As part of its Bid, TPCL has provided the AT&C loss reduction trajectory shown in the following table:

Table 3: AT&C Loss Trajectory Commitment by TPCL

AT&C Loss Trajectory (%)									
FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31
24.32	22.32	20.80	17.80	15.50	12.50	11.50	10.50	9.50	8.90

(b) As stated in the RFP, the Commission shall review the performance of TPNODL at the end of FY 2023-24 and FY 2025-26 to ascertain whether the committed AT&C loss targets have been achieved. In case of failure to achieve the targets, the Commission shall have the right to recover the penalty amount by encashing the Performance Guarantee for any shortfall in meeting the AT&C loss targets committed by TPCL in its Bid and/or revoke the license of TPNODL. TPCL shall be liable to pay a penalty of Rs. 40 crores (Indian Rupee Forty crores) for every 1% (one percent) shortfall in meeting the committed AT&C loss targets, or proportionately for a part thereof, found as a result of the Commission's review at the end of the FY 2023-24 and FY 2025-26. For the purpose of clarity, for example, if at the end of FY 2023-24, TPNODL has achieved an AT&C loss of 22.00%, vis-à-vis the committed target of 20.80% (being the committed AT&C loss for FY 2023-24 provided in Table 3), an amount of Rs. 48 crores, being [Rs. 40 crores x (22.00 – 20.80)], shall be recovered by the Commission by way of encashment of the Performance Guarantee. However, before encashment of Performance Guarantee, the Commission will notify TPCL and will allow TPCL to wire transfer the penalty amount within notified timelines. Failure to transfer the amount within the timelines will lead to encashment of Performance

Guarantee. Upon encashment, TPCL shall be required to replenish the Performance Guarantee to its original value as provided in para 35(g) of this Order. The Commission shall provide TPNODL and/or TPCL with a reasonable opportunity to be heard before encashment of Performance Guarantee.

(c) The penalty amount from wire transfer or encashment of TPCL's Performance Guarantee shall be transferred to the TPNODL and the same shall be deducted by OERC during the true-up process or future Aggregate Revenue Requirement so that the benefit of the penalty amount, so collected, is passed on to consumers.

(d) The penalty for non-achievement of AT&C loss targets may be relaxed by the Commission under conditions of Force Majeure, including acts of God, acts of GoO or the Government of India (de jure or de facto) or regulatory body or public enemy, war, riots, embargoes, industry-wide strikes, thereby, hindering the performance by TPNODL or any of its obligations hereunder. The Commission's decision in this regard shall be final and binding on all parties.

41. AT&C Loss Trajectory for tariff determination

(a) As part of the RFP, the Commission provided the following 10-year AT&C loss trajectory to be adopted for determination of tariff for period FY 2021-22 to FY 2030-31:

Table 4: 10-year AT&C Loss Trajectory for Tariff Determination

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

(b) TPNODL would be entitled to retain any gains resulting from its meeting and surpassing the AT&C loss trajectory for tariff determination. Such gains would be over and above the return on equity allowed by the Commission as part of OERC (Terms and Conditions for Determination of Wheeling Tariff and

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Retail Supply Tariff) Regulations 2014 (the **"Tariff Regulations"**) and shall not be adjusted as other income or in any way appropriated through any truing up process or future Aggregate Revenue Requirement process.

42. Payment of BSP for the month of March, 2021

On the Effective Date, BSP bills for the month of March, 2021 to be raised in April, 2021 will be outstanding. TPNODL will be required to pay the bill after taking over.

43. Recovery of Past Arrears and incentives thereon

(a) As part of the RFP, bidders were required to provide a commitment to recover Past Arrears from live as well as permanently disconnected consumers in the first 5 (five) years of operations. This was one of the criteria for evaluation of bids.

(b) As per the incentive mechanism for sharing of Past Arrears collection provided in the RFP, TPNODL shall be eligible for an incentive of 10% (ten percent) on Past Arrears collected from live consumers and 20% (twenty percent) on Past Arrears collected from permanently disconnected consumers. Such incentive would be on the amount of Past Arrears collected from the consumers, net of all taxes and duties recovered from consumers. However, collections from current live consumers may first be appropriated towards current bill and then towards Past Arrears. In this regard, the Deemed Licensee is expected to keep a separate records/ account and information regarding Past Arrears and their collection in each consumer's ledger. The cost incurred by TPNODL for such recovery of Past Arrears will not form a part of Aggregate Revenue Requirement of TPNODL.

(c) TPCL has committed to the recovery of following quantum of Past Arrears in its bid:

Table 5: TPCL Past Arrear Recovery Commitment

Commitment of Collection of Past Arrears (INR Cr)					
FY22	**FY23**	**FY24**	**FY25**	**FY26**	**Total**
50	120	100	80	50	**400**

(d) As stated in the RFP, the Commission shall review the performance of TPNODL vis-à-vis its commitment to collect Past Arrears, at the end of FY

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2025-26, on an aggregate cumulative basis, by when TPNODL is required to meet the commitment of Past Arrears collection for the entire period of 5 (five) years.

(e) Failure to meet the committed Past Arrears collection target at the end of FY 2025-26 shall lead to encashment of Performance Guarantee, to the extent of 10% (ten percent) of such shortfall, as computed at the end of FY 2025-26. For the purpose of clarity, for example, if at the end of the FY 2025-26, TPNODL has achieved Past Arrears collection of Rs. 370 crores (Indian Rupees Seventy crores) only vis-à-vis the committed target of Rs. 400 crores (Indian Rupees One hundred crores) only, an amount of Rs. 3 crores (Indian Rupee Three Crores) only, being [10% x (Rs. 400 crores – Rs. 370 crores)], shall be recovered by the Commission by way of encashment of the Performance Guarantee. The Commission's decision in this regard shall be final and binding on all parties. However, before encashment of Performance Guarantee, the Commission will notify TPCL and will allow TPCL to wire transfer the penalty amount within notified timelines. Failure to transfer the amount within the timelines will lead to encashment of Performance Guarantee. Upon encashment, TPCL shall be required to replenish the Performance Guarantee to its original value as provided in para 35(g) of this Order.

(f) The penalty amount from wire transfer or encashment of Performance Guarantee shall be transferred to TPNODL and the same quantum shall be deducted by OERC during the true-up process or future Aggregate Revenue Requirement so that the benefit of the penalty amount, so collected, is passed on to consumers.

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

(v) Failure to restore the Performance Guarantee as per para 35(g); or

(vi) Failure to meet the cumulative capital investment commitment at the end of 5th (fifth) year as per para 39.

TRANSFER OF LICENSE

59. As per Section 21(b) of the Act, the rights, powers, authorities, duties and obligations of the NESCO Utility under its license dated 27.10.2006 issued by the Commission shall stand transferred to TPNODL upon completion of sale.

60. TPNODL shall be the licensee to carry out the function of distribution and retail supply of electricity covering the distribution circles of Balasore, Bhadrak, Baripada, Jajpur and Keonjhar in the state of Odisha for a period of 25 (twenty five) years from 01.04.2021 unless the LoI is cancelled or this Order is withdrawn pursuant to para 31 of this Order.

61. Under Section 16 of the Act, the Commission has powers to lay down the license conditions of TPNODL. To incorporate the terms of the sale process and commitments made by TPCL in its Bid, the Commission shall through a separate order, amend the license conditions applicable to TPNODL.

62. The order amending license conditions shall be issued within 90 (ninety) days from the Effective Date. Till the time amended license is granted, the provisions of this Order and the rights, powers, authorities, duties and obligations specified in the existing license of NESCO Utility shall apply to TPNODL.

OTHER ORDERS OF THE COMMISSION

77. The ongoing government schemes under capital work in progress are being transferred to TPNODL. TPNODL is not allowed to use this capital amount for any other purpose.

78. The Commission notes that some amount of grants provided by the GoO in the past for various works is lying unspent in NESCO Utility at present. TPNODL shall ensure that any funds provided for specific purposes by GoO to NESCO Utility in the past which remains unutilized as on the Effective Date, along with interest earned on such funds, must be accounted for separately and utilized for those purposes as specified in the sanction order from time to time. Such schemes shall be jointly monitored by GoO, GRIDCO, OPTCL and TPNODL. In this regard, the Commission directs that TPNODL shall agree to the terms and condition for utilization of such grants through an agreement with GRIDCO/ GoO/ OPTCL. For new schemes formulated by the GoO, if TPNODL wishes to avail funding under such scheme, an agreement shall be signed between GoO/ GRIDCO/ OPTCL and TPNODL for utilization of such grants.

79. TPNODL or TPCL shall not be allowed to create any charge or encumbrance on the following throughout the term of the License:

(a) Fixed assets transferred to TPNODL as part of this Order; and

(b) Financial assets corresponding to Consumer Security Deposits.

Further, TPNODL or TPCL shall free the above listed assets from any

encumbrances/ charges that may exist on these assets as per the opening balance sheet of TPNODL as on Effective Date within a fixed time frame, not later than full 5 (five) Financial Years of operations from the Effective Date, as may be approved by the Commission.

80. In addition to para 79, TPNODL shall not create any charge or encumbrance over other assets of TPNODL, including but not limited to receivables of TPNODL, without prior approval of the Commission.

81. TPCL in its submission has made certain prayers for redressal. Such prayers include relaxation in AT& C loss levels, removal of lien on Escrow accounts , past arrear recovery, removal of corporate guarantee, mitigation of tax impact on account of transfer of assets by GRIDCO and indemnification from any third party claim on acquisition of stake in TPNODL. The Commission is not inclined to provide any concessions/ further clarifications in this regard as the conditions of the RFP and RFP Documents namely Share Acquisition Agreement, Shareholders Agreement, Bulk Supply Agreement and Bulk Power Transmission and SLDC Agreement provided with the RFP are amply clear.

82. With regards to the prayer of TPCL for removal of Escrow, it may be noted that continuation of Escrow account had not been envisaged in the RFP. Regarding payment of BSP bills to GRIDCO, adequate payment security mechanism in the form of Letter of Credit for an amount equivalent to 2 (two) months' BSP bills has been provided in para 37 of this order. Once the LC as mentioned above is made available there is no need for continuation of Escrow mechanism that was an arrangement with the earlier distribution licensee, when LC was not being provided. Binding down the cash flow of the Operating Company through an Escrow mechanism even after the LC for 2 (two) months' BSP bill is made available will severely constrain the operational flexibility of the Operating Company for meeting its expenses approved in the ARR and affect its efficient functioning. Regarding GRIDCO's concern for collection of its past receivables from the DISCOM, the Operating Company is not liable to pay those dues except as provided for in this Order. The purchase consideration is being remitted to GRIDCO against its past dues as per Section 21(a) of the Act. In addition, para 43 of this Order provides an additional mechanism for recovery of the past receivables of GRIDCO. Continuance of Escrow to secure its past receivable is not in conformity with Section 21 (a) of the

Act since the successor DISCOM cannot be forced to discharge the liabilities of the predecessor DISCOM. With adequate measures in conformity with the Act provided in this Order, there exists no sufficient ground for continuing with the Escrow arrangement that had been made with the earlier Licensee. The Commission therefore directs that within 7 (seven) days of opening of Letter of Credit by TPNODL, the escrow arrangement shall be discontinued and any lien/charge created on the bank account/Escrow account of TPNODL shall be vacated.

83. In case of any conflict between this Order and the provisions of RFP or RFP Documents namely Share Acquisition Agreement, Shareholders Agreement, Bulk Supply Agreement and Bulk Power Transmission and SLDC Agreement, the decision of the Commission shall be final.

84. The Commission shall not allow recovery or true up of costs owing to tax implications or any other costs arising out of this transaction in any manner except stamp duty on transfer of asset. The Commission directs TPCL and GRIDCO to ensure that necessary steps be taken while executing the transaction so as to not burden the consumers due to taxes and duties arising out of this transaction.

85. The terms of this Vesting Order shall be final and binding on the parties. The parties shall not be allowed to make any further submissions with regard to the matters dealt with in this Vesting Order.

86. The suo-motu proceeding is accordingly disposed off.

Sd/-	Sd/-	Sd/-
(G. Mohapatra)	**(S.K. Parhi)**	**(U. N. Behera)**
Member	**Member**	**Chairman**

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CERTIFIED COPY OF SECTOR SPECIFIC PROFORMA

General Information					
1	Name of the DISCOM	TPNODL			
2	i) Year of Establishment	1st April 2021			
	ii) Government/Public/Private	Public Private Partnership			
3	DISCOM's Contact details & Address				
i	City/Town/Village	TP NORTHERN ODISHA DISTRIBUTION LIMITED			
ii	District	Balasore			
iii	State	ODISHA		Pin	756019
iv	Telephone	06782-244865		Fax	06782-244259
4	Registered Office				
i	Company's Chief Executive Name	Mr. Bhaskar Sarkar			
ii	Designation	Chief Executive Officer			
iii	Address	TP NORTHERN ODISHA DISTRIBUTION LIMITED			
iv	City/Town/Village	Januganj		P.O.	Januganj
v	District	Balasore			
vi	State	ODISHA		Pin	756019
vii	Telephone	06782-244865		Fax	06782-244259
5	Nodal Officer Details*				
i	Nodal Officer Name (Designated at DISCOM's)	Mr. Dushyant Kumar Tyagi			
ii	Designation	Chief-Commercial Services & CSR			
iii	Address	Balasore			
iv	City/Town/Village	Januganj		P.O.	Januganj
v	District	Balasore			
vi	State	Odisha		Pin	756019
vii	Telephone	9971555724		Fax	NA
6	Energy Manager Details*				
i	Name	Mr. Manish Kriplani			
ii	Designation	HOD (Energy Audit)		Whether EA or EM	NA
iii	EA/EM Registration No.	NA			
iv	Telephone	9799495503		Fax	NA
v	Mobile	9799495503	E-mail ID	manish.kriplani@tpnodl.com	
7	Period of Information				
	Year of (FY) information including Date and Month (Start & End)	1st April 2022 - 31st Mar 2023			

Dushyant Tyagi
Chief Commercial Services & CSR
TPNODL

Manish Kriplani

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Performance Summary of Electricity Distribution Companies			
1	Period of Information Year of (FY) information including Date and Month (Start & End)	1st April 2022 - 31st Mar 2023	
2	**Technical Details**		
(a)	**Energy Input Details**		
(i)	Input Energy Purchase (From Generation Source)	Million kwh	7491.31
(ii)	Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	Million kwh	6473.32
(iii)	Total Energy billed (is the Net energy billed, adjusted for energy traded))	Million kwh	5410.05
(b)	Transmission and Distribution (T&D) loss Details	Million kwh	1063.27
		%	16.43%
	Collection Efficiency	%	106.06%
(c)	Aggregate Technical & Commercial Loss	%	11.36%

my knowledge and if any of the information supplied is found to be incorrect and such information result into loss to the Central Government or State Government or any of the authority under them or any other person affected, I/we undertake to indemnify such loss.

Authorised Signatory and Seal

Signature:-

Name of AEA*: R Gopala Krishna

Registration N AEA- 0123

Name of Authorised Signatory

Name of the DISCOM:

Full Address:-

Dushyant Tyagi
Chief Commercial Services & CSR
TPNODL

R. GOPALA KRISHNA
Accredited Energy Auditor
(B E E) EA-0432, AEA-0123

Zenith Energy Services (P) Ltd. HYD

Seal

Form-Details of Input Infrastructure					
1	**Parameters**	**Total**	**Covered during in audit**	**Verified by Auditor in Sample Check**	**Remarks (Source of data)**
i	Number of circles	5			TPNODL Data Base
ii	Number of divisions	16			TPNODL Data Base
iii	Number of sub-divisions	50			TPNODL Data Base
iv	Number of 33/11kV Sub-Stations	236			TPNODL Data Base
v	Total Number of feeders	933			TPNODL Data Base
vi	Total Number of DTs	74726			TPNODL Data Base
vii	Number of consumers	2041988			TPNODL Data Base
2	**Parameters**	**66kV and above**	**33kV**	**11kV**	**LT**
a. i	Number of conventional metered consumers	41	158	501	1998317
ii	Number of consumers with 'smart' meters	-	-	-	-
iii	Number of consumers with 'smart prepaid' meters	-	-	-	-
iv	Number of consumers with 'AMR' meters	-	-	-	-
v	Number of consumers with 'non-smart prepaid' meters	-	-	-	-
vi	Number of unmetered consumers	-	-	-	42171
vii	**Number of total consumers**	**41**	**158**	**501**	**2040888**
b. i	Number of conventionally metered Distribution Transformers	-	-	2883	-
ii	Number of DTs with communicable meters	-	-	814	-
iii	Number of unmetered DTs	-	-	71665	-
iv	**Number of total Transformers**	-	-	**74726**	-
c. i	Number of metered feeders	-	108	825	-
ii	Number of feeders with communicable meters	-	108	598	-
iii	Number of unmetered feeders	-	-	-	-
iv	**Number of total feeders**	-	**108**	**825**	-
d.	Line length (ckt km)	-	9224.67	69168.50	67486.44
e.	Length of Aerial Bunched Cables	44786.40			
f.	Length of Underground Cables	881.00			
3	**Voltage levels**	**Particulars**	**MU**	**Reference**	**Remarks (Source of data)**
		Long-Term Conventional		Includes input energy for franchisees	
		Medium Conventional			
		Short Term Conventional			
		Banking			
		Long Term Renewable energy			
		Medium and Short-Term RE		Includes power from bilateral/ PX/ DEEP	
i	66kV and above				

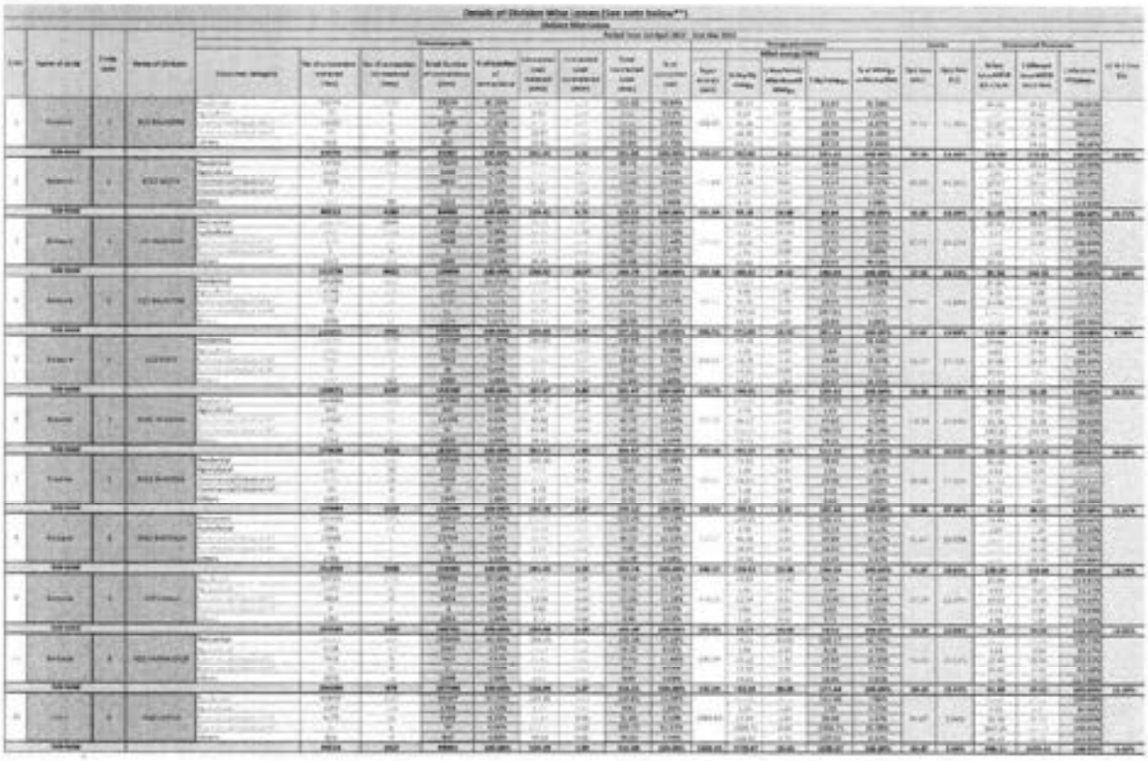
#	Voltage level	Particulars	MU	Reference	
i	[illegible]	Captive, open access input		Any power wheeled for any purchaser other than sale to DISCOM. Does not include input for franchisees.	
		Sale of surplus power			
		Quantum of inter-state transmission loss		As confirmed by SLDC, RLDC etc	
		Power procured from inter-state sources		Based on data from Form 5	
		Power at state transmission boundary	0.00		
ii	33kV	Long-Term Conventional			
		Medium Conventional			
		Short Term Conventional	6473.30		
		Banking			
		Long-Term Renewable energy			
		Medium and Short-Term RE			
		Captive, open access input			
		Sale of surplus power			
		Quantum of intra-state transmission loss	0.00		
		Power procured from intra-state sources	6473.30		
iii		**Input in DISCOM wires network**	6473.30		
iv	33 KV	Renewable Energy Procurement			
		Small capacity conventional/ biomass/ hydro plants Procurement			
		Captive, open access input			
v	11 KV	Renewable Energy Procurement			
		Small capacity conventional/ biomass/ hydro plants Procurement			
		Sales Migration Input			
vi	LT	Renewable Energy Procurement			
		Sales Migration Input			
vii		**Energy Embedded within DISCOM wires network**	0.00		
viii		**Total Energy Available/ Input**	6473.30		OPTCL 817.60
#	**Voltage level**	**Energy Sales Particulars**	**MU**	**Reference**	
i	LT Level	DISCOM consumers	2132.70	Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive		Non DISCOM's sales	
		Embedded generation used at LT level		Demand from embedded generation at LT level	
		Sale at LT level	2132.70		
		Quantum of LT level losses	1637.19		
		Energy Input at LT level	3769.89		
		DISCOM consumers	671.42	Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive		Non DISCOM's sales	

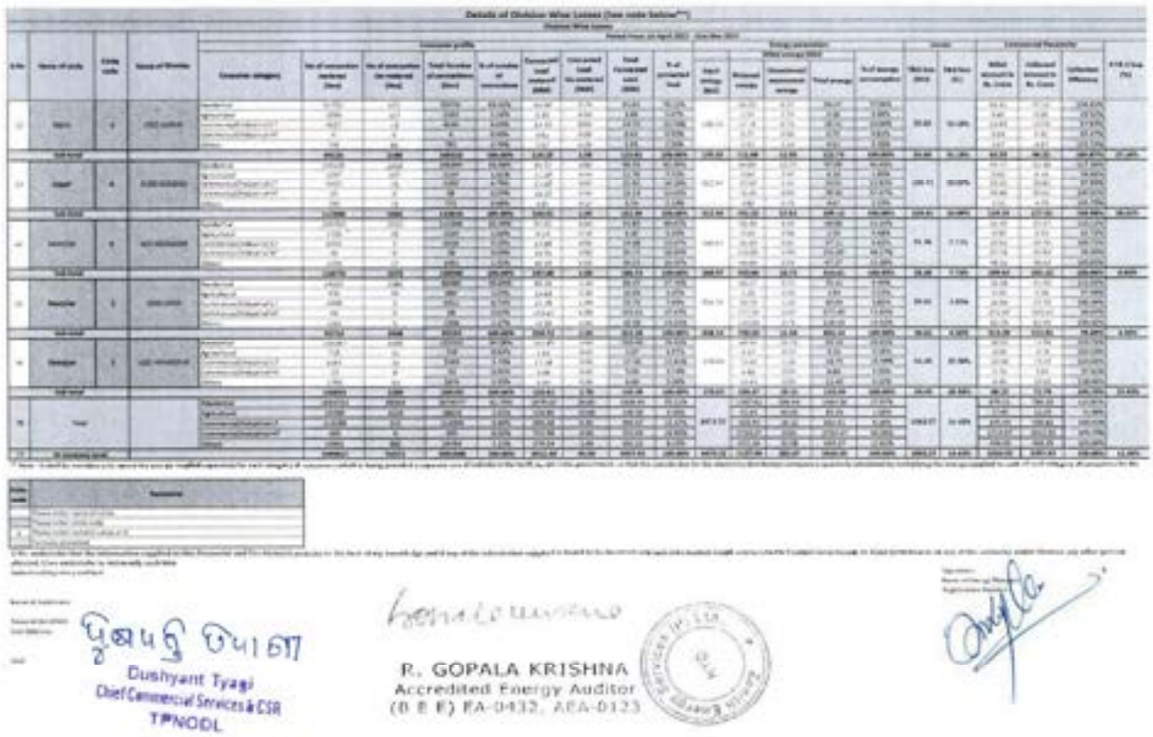
ii	11 kV Level	Embedded generation at 11 kV level used		Demand from embedded generation at 11kV level	
		Sales at 11 kV level	625.42		
		Quantum of Losses at 11 kV	26.06		
		Energy input at 11 kV level	651.48		
iii	33 kV Level	DISCOM' consumers		Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive		Non DISCOM's sales	
		Embedded generation at 33 kV or below level		This is DISCOM and DA demand met via energy generated at same voltage level	
		Sales at 33 kV level			
		Quantum of Losses at 33 kV	0.00		
		Energy input at 33kV Level			
iv	> 33 kV	DISCOM' consumers	2011.63	Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive		Non DISCOM's sales	
		Cross border sale of energy			
		Sale to other DISCOMs			
		Banking			
		Energy input at > 33kV Level	2951.93		
		Sales at 66kV and above (EHV)	2011.63		
		Total Energy Requirement	**6473.36**		
		Total Energy Sales	**5410.05**		

Energy Accounting Summary

S	DISCOM	Input (in MU)	Sale (in MU)	Loss (in MU)	Loss %
i	LT	3249.89	2132.70	1037.19	33%
ii	11 Kv	651.48	625.42	26.06	4%
iii	33 kv	-	-	-	-
iv	> 33 kv	2951.93	2951.93	0.00	0%
S	**Open Access, Captive**	**Input (in MU)**	**Sale (in MU)**	**Loss (in MU)**	**Loss %**
i	LT	-	-	-	-
ii	11 Kv	-	-	-	-
iii	33 kv	-	-	-	-
iv	> 33 kv	3264.53	3264.53	0.00	0%

Loss Estimation for DISCOM	
T&D loss	1,063.25
D loss	1,063.25
T&D loss (%)	16.43%
D loss (%)	16.43%





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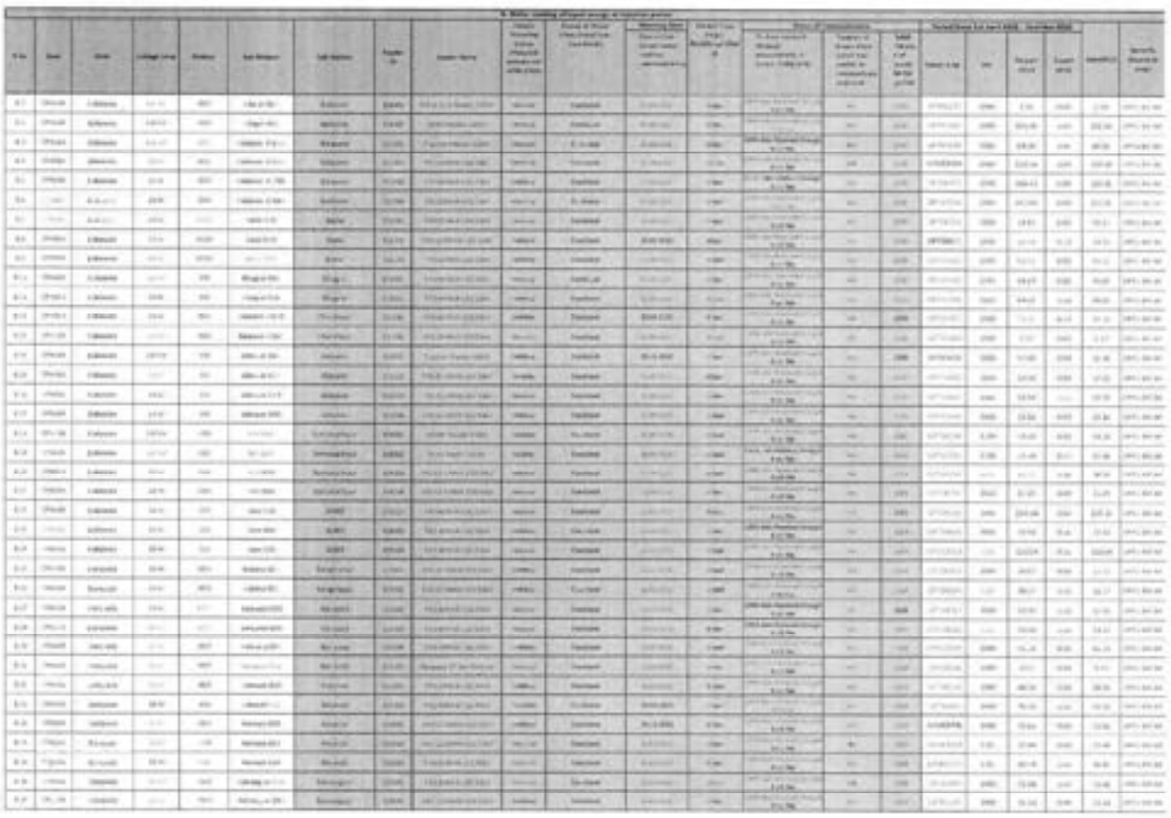
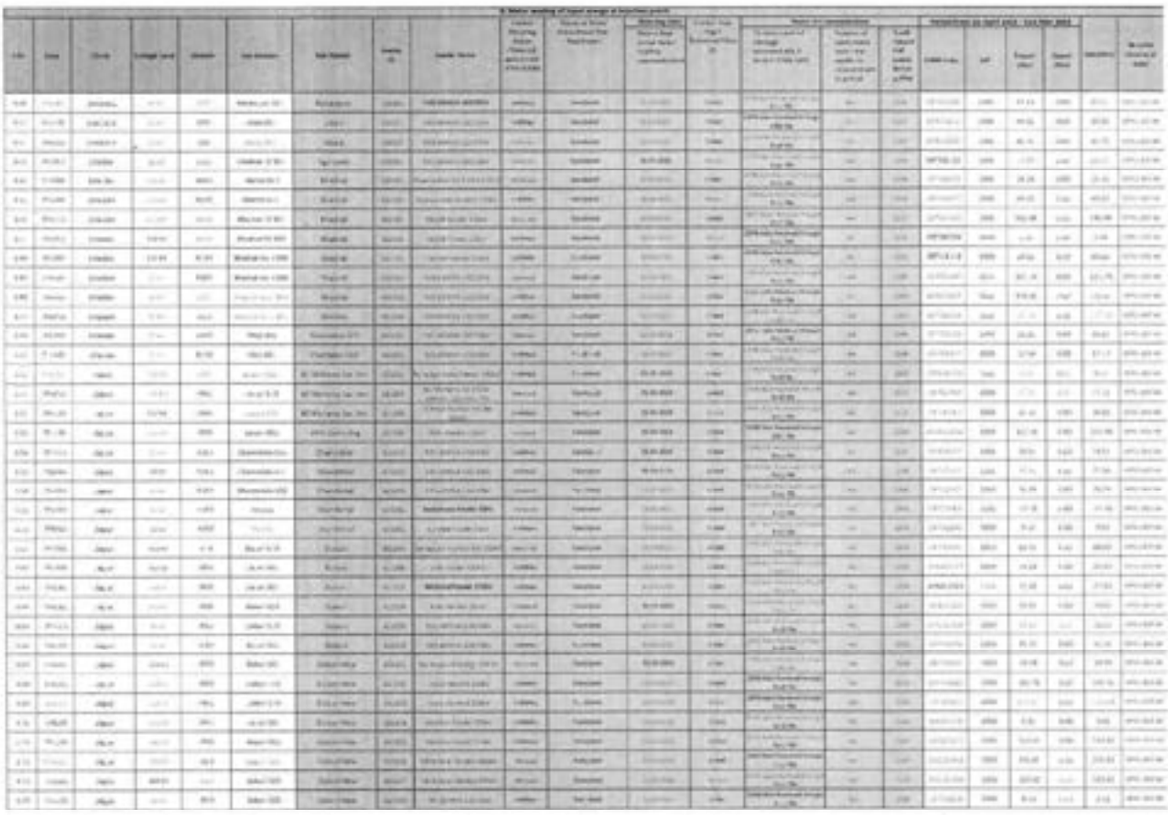
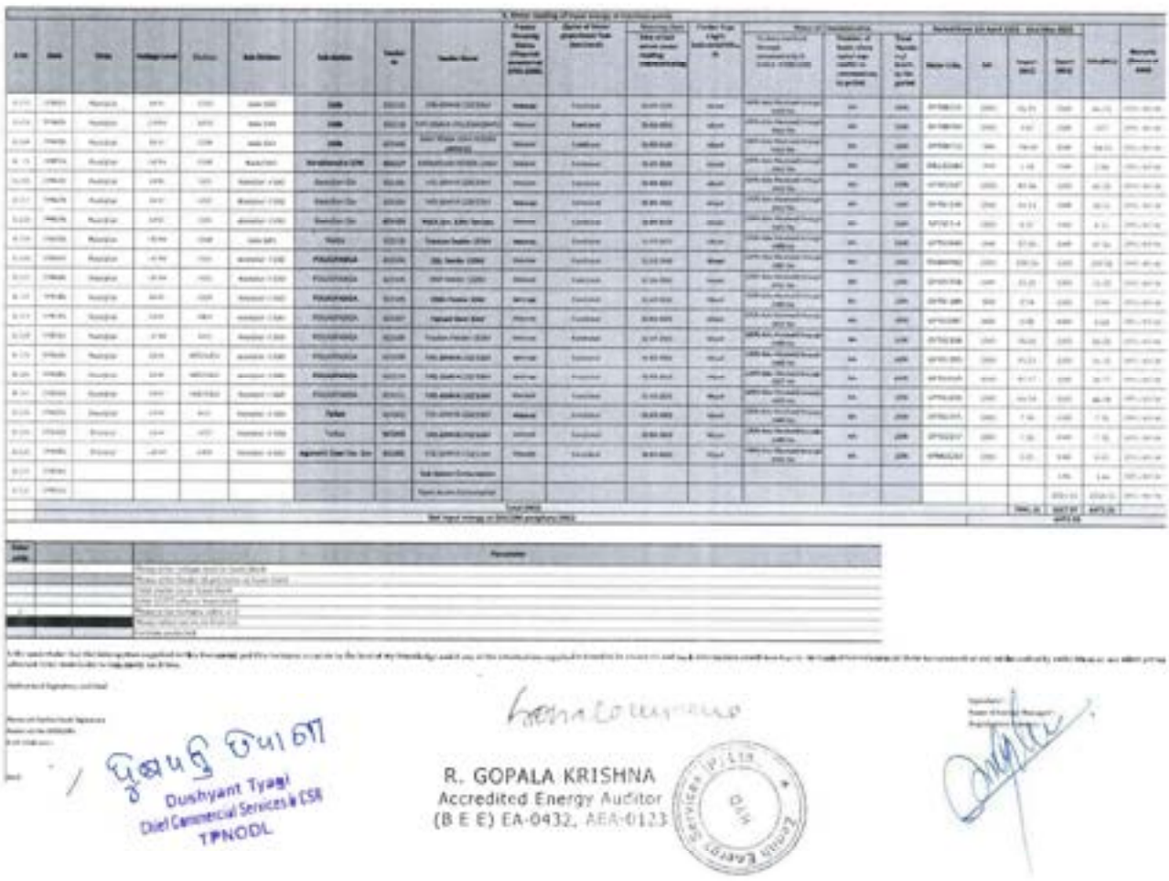
Chief Commercial Services & CSR
TPNODL

R. GOPALA KRISHNA
Accredited Energy Auditor
(B E E) EA-0432, AEA-0123

Form-Input energy(Details of Input energy & Infrastructure)			
A. Summary of energy input & Infrastructure			
S.No	Parameters	Period from 1st April 2022 - 31st Mar 2023	Remarks (Source of data)
A.1	Input Energy purchased (MU)	7491.31	OPTCL BST Bill
A.2	Transmission loss (%)	0.00%	
A.3	Transmission loss (MU)	0.00	
A.4	Energy sold outside the periphery(MU)	0.00	
A.5	Open access sale (MU)	1017.97	Open Access & Substation Consumption
A.6	EHT sale	0.00	
A.7	Net input energy (received at DISCOM periphery or at distribution point)-(MU)	6473.33	OPTCL BST Bill
A.8	Is 100% metering available at 66/33 kV (Select yes or no from list)	Yes	
A.9	Is 100% metering available at 11 kV (Select yes or no from list)	Yes	
A.10	% of metering available at DT	9%	
A.11	% of metering available at consumer end	98%	
A.12	No of feeders at 66kV voltage level	-	No any 66kV Network
A.13	No of feeders at 33kV voltage level	108	TPNODL Data Base
A.14	No of feeders at 11kV voltage level	825	TPNODL Data Base
A.15	No of LT feeders level	74726	Total No. of DTs
A.16	Line length (ckt. km) at 66kV voltage level	-	No any 66kV Network
A.17	Line length (ckt. km) at 33kV voltage level	3024.07	TPNODL Data Base
A.18	Line length (ckt. km) at 11kV voltage level	40188.50	TPNODL Data Base
A.19	Line length (km) at LT level	67486.44	TPNODL Data Base
A.20	Length of Aerial Bunched Cables	44186.40	TPNODL Data Base
A.21	Length of Underground Cables	401.00	TPNODL Data Base
A.22	HT/LT ratio	0.64	







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Details of Input Energy Sources

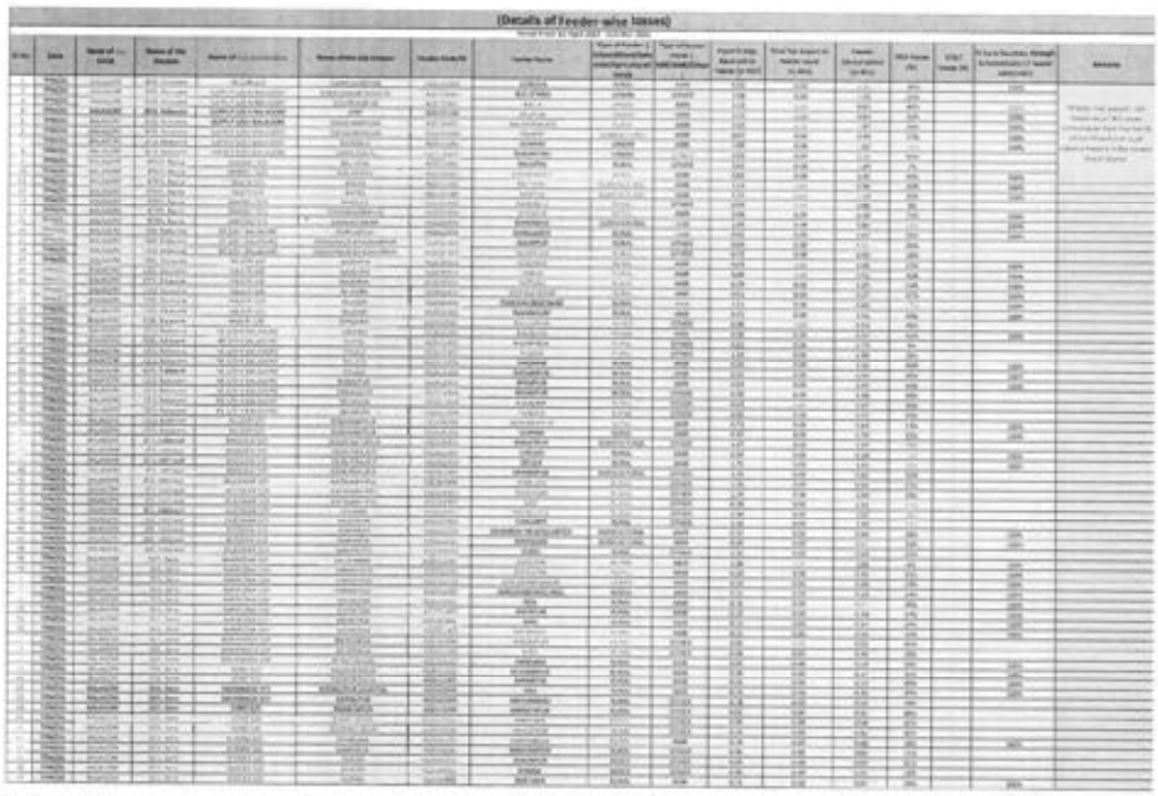
Period From: 1st April 2022 - 31st Mar 2023

5. Generation at Embedded/ Independent Producers (Details)

S.No.	Name of Generating Station	Generation Capacity (In MW)	Type of Station Generation (Based: Solid / Coal / Lignite / Liquid/Gas/Renewable / Biomass / Bagasse/Others)	Type of Contract (in years/months/days)	Type of Link (Intra-state/Inter-state)	Point of Connection (POC) Loss MU	Voltage Level (At input)	Remarks (Source of Data)
1	JAKHAPURA TRACTION SUB-STATION	25 MW	Railway	NA	Intra-State	0%	EHT	TPNODL is not drawing any power from all these Captive Power Plants Sources. Instead TPNODL is purchasing power from GRIDCO via OPTCL network.
2	M/S JINDAL STEEL & POWER LTD.	60 MW	Steel	NA	Intra-State	0%	EHT	
3	SENIOR DIVISIONAL ELECTRICAL ENGR.	25 MW	Railway	NA	Intra-State	0%	EHT	
4	M/S EMAMI CEMENT LTD.	11 MW	Cement	NA	Intra-State	0%	EHT	
5	TSIDS FERRO ALLOYS PLANT JODA	23 MW	Ferrous	NA	Intra-State	0%	EHT	
6	M/S TATA STEEL LTD.	16 MW	Steel	NA	Intra-State	0%	EHT	
7	M/S M.S.P SPONGE IRON LTD.	20 MW	SPONGE IRON	NA	Intra-State	0%	EHT	
8	M/S JSW CEMENT LTD.	12 MW	Cement	NA	Intra-State	0%	EHT	
9	M/S FACOR POWER LIMITED	100 MW(they have two CPP but now only one in use)	Steel and Power	NA	Intra-State	0%	EHT	
10	M/S SHRI JAGANNATH STEELS & PWR LTD	15 MW	Steel	NA	Intra-State	0%	EHT	
11	M/S SREE METALIKS LTD. (K/N-1)	5 MW	Steel	NA	Intra-State	0%	EHT	
12	M/S SREE METALIKS LTD. (KDVN)	4 MW	Steel	NA	Intra-State	0%	EHT	
13	RUNGTA MINES LTD. SPNG IRN DIV	40 MW	Iron Ore	NA	Intra-State	0%	EHT	
14	M/S SARDA MINES (PVT) LTD	2.5 MW	MINES	NA	Intra-State	0%	HT	
15	JINDAL STAINLESS LTD.	2*125MW + 1MW	Stainless Steel	NA	Intra-State	0%	HT	
16	PALINGA IRON WORKS COLONY	16 MW	Iron	NA	Intra-State	0%	HT	
17	M/S GROWAL ASSOCIATES (P) LTD.	2 MW	SPONGE IRON	NA	Intra-State	0%	HT	
18	M/S KAMALJEET SINGH AHLUWALIA	[illegible]MW(In use)+ 8MW(Currently not in use)	Steel Plant	NA	Intra-State	0%	HT	

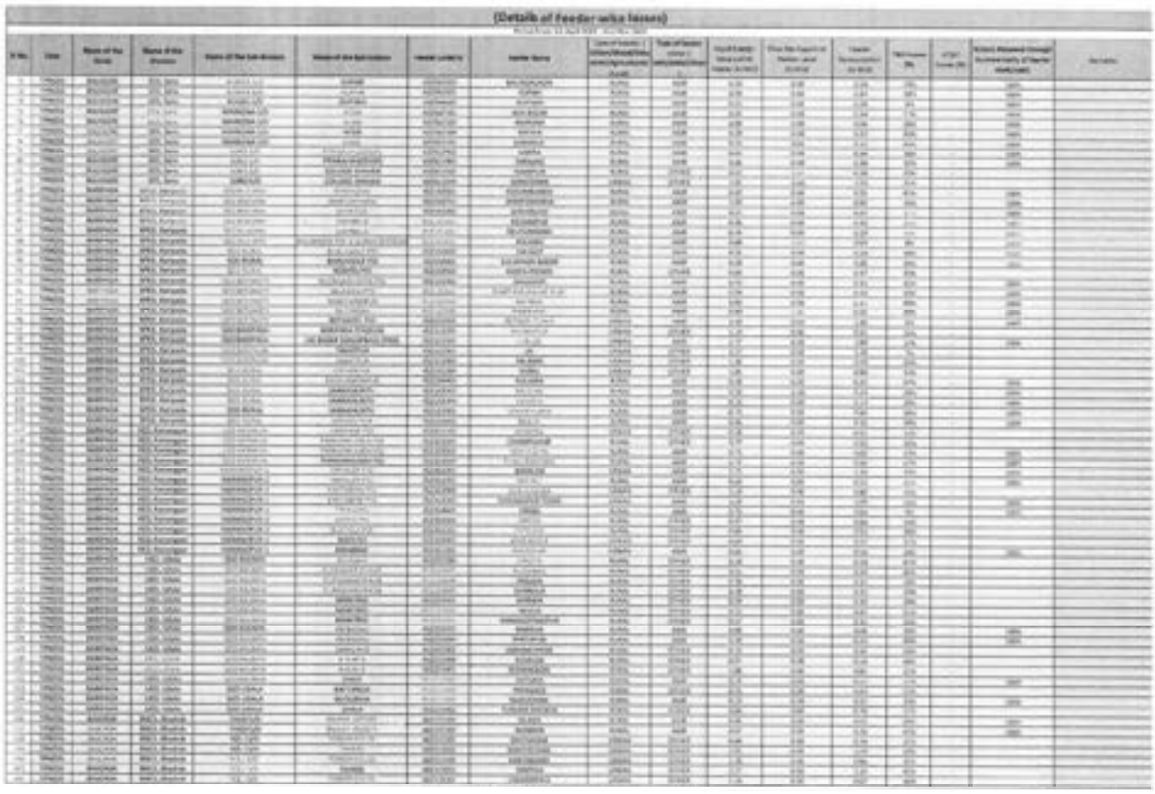
v

(Details of Consumers)						
Summary of Energy						
Period From 1st April 2022 - 31st Mar 2023						
S.No	Type of Consumers	Category of Consumers (EHT/HT/LT/Others)	Voltage Level (in kV)	No of Consumers	Total Consumption (in MU)	Remarks (Source of data)
1	Domestic	LT	(220-440)kV	1830721	1441.474	FG Billing Source
2	Kutir Jyoti	LT	(220-440)kV	42329	5.035	FG Billing Source
3	L.T. General (Core)	LT	(220-440)kV	108910	385.149	FG Billing Source
4	Agriculture	LT	(220-440)kV	26815	84.523	FG Billing Source
5	Agra	LT	(220-440)kV	2603	18.566	FG Billing Source
6	Allied-Agro	LT	(220-440)kV	57	0.97	FG Billing Source
7	Street Lighting	LT	(220-440)kV	1421	23.964	FG Billing Source
8	PWW	LT	(220-440)kV	4490	32.777	FG Billing Source
9	Small Industry	LT	(220-440)kV	4357	33.751	FG Billing Source
10	Medium Industry	LT	(220-440)kV	1132	37.713	FG Billing Source
11	Specified Pub. Purpose (P.I.)	LT	(220-440)kV	16052	41.926	FG Billing Source
12	Large Industries below 132 kv	HT	(11-33)kV	342	470.032	FG Billing Source
13	Power-Intensive Industries	HT	(11-33)kV	1	10.632	FG Billing Source
14	General Purpose	HT	(11-33)kV	127	54.709	FG Billing Source
15	Bulk Supply : Domestic	HT	(11-33)kV	26	17.202	FG Billing Source
16	Public Institution	HT	(11-33)kV	46	12.156	FG Billing Source
17	Irrigation	HT	(11-33)kV	9	0.824	FG Billing Source
18	Al- Agro	HT	(11-33)kV	73	17.383	FG Billing Source
19	Al-Agro Ind	HT	(11-33)kV	13	31.822	FG Billing Source
20	Captive Power Plant	HT	(11-33)kV	2	0.142	FG Billing Source
21	Public Water Works above 110 KVA	HT	(11-33)kV	20	10.524	FG Billing Source
22	Heavy Industries	EHT	<110kV	1	8.571	FG Billing Source
23	Power-Intensive Industries	EHT	<110kV	3	81.977	FG Billing Source
24	Railway Traction	EHT	<110kV	8	463.174	FG Billing Source
25	CPP	EHT	<110kV	2	1.146	FG Billing Source
26	General Purpose	EHT	<110kV	1	85.947	FG Billing Source
27	Large Industries at 132 kV	EHT	<110kV	27	2011.117	FG Billing Source
	TOTAL			2041588	5410.05	

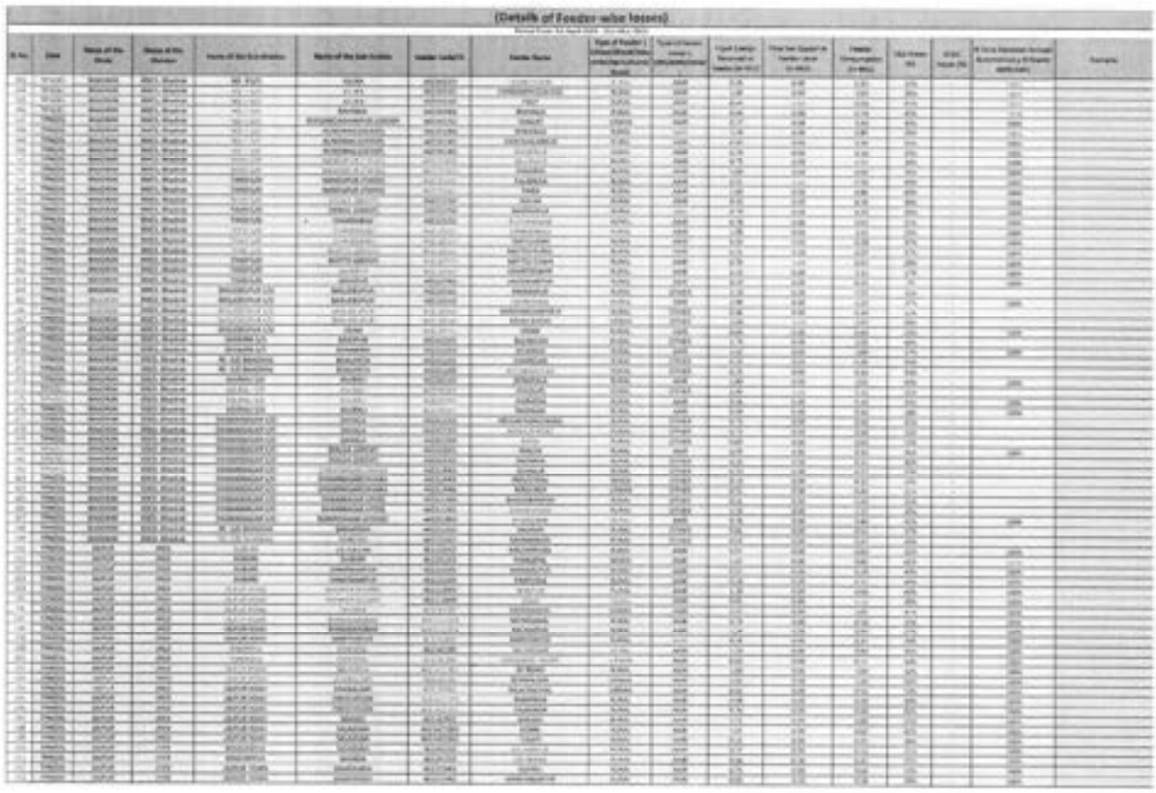


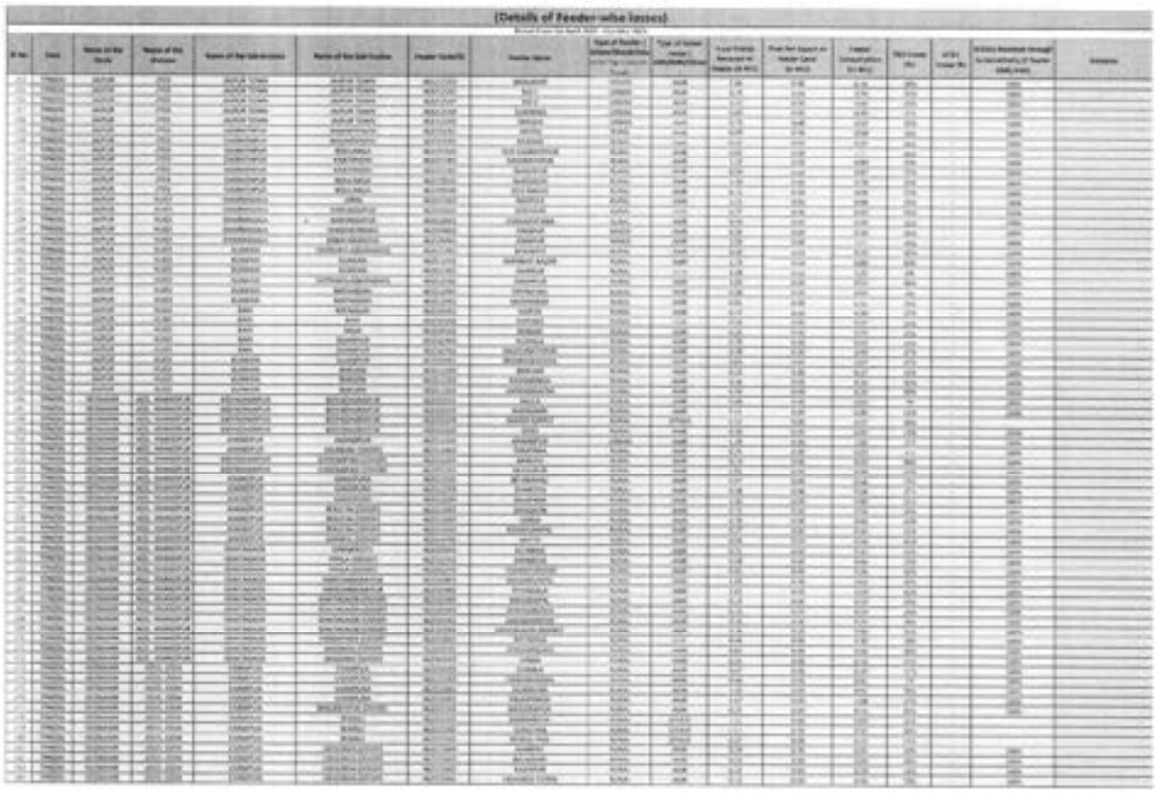
(Details of Feeder-wise losses)

(Details of feeder-wise losses)



(Details of Feeder-wise losses)





(Details of Feeder-wise losses)

(Details of Feeder-wise losses)

v

No subsidy is applicable

दुष्यन्त त्यागी
Dushyant Tyagi
Chief Commercial Services & CSR
TPNODL

ENERGY IS LIFE
BEE
CONSERVE IT

BUREAU OF ENERGY EFFICIENCY

Examination Registration No. : EA-0432

Accreditation Registration No.: AEA-0123

Certificate of Accreditation

This is to certify that Mr./Ms. R Gopalakrishna having its trade/registered office at Hyderabad has been given accreditation as accredited energy auditor. The certificate shall be effective from 26th day of November 2013

The certificate is subject to the provisions of the Bureau of Energy Efficiency (Qualifications for Accredited Energy Auditors and Maintenance of their List) Regulations, 2010.

This certificate shall be valid until it is cancelled under regulation 9 of the Bureau of Energy Efficiency (Qualifications for Accredited Energy Auditors and Maintenance of their List) Regulations, 2010

On cancellation, the certificate of accreditation shall be surrendered to the Bureau within fifteen days from the date of receipt of order of cancellation.

Your name has been entered at AEA No. 0123 in the register of list of accredited energy auditors. Your name shall be liable to be struck out on the grounds specified in regulation 8 of the Bureau of Energy Efficiency (Qualifications for Accredited Energy Auditors and Maintenance of their List) Regulations, 2010.

Given under the seal of the Bureau of Energy Efficiency, Ministry of Power, this 26th day of May 2014

Secretary,
Bureau of Energy Efficiency
New Delhi

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