ANNUAL ENERGY AUDIT REPORT

KASHMIR POWER DISTRIBUTION CORPORATION LIMITED

(KPDCL)

Exhibition Ground, Opposite High Court,
Jahanagir Chowk, Srinagar – 190009
(Jammu & Kashmir)

FY 2023 -24

Conducted by

A-Z Energy Engineers Private Limited

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List of Abbreviations

AMI	Advanced Metering Infrastructure
AMR	Automated Meter Reading
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
AT&C	Aggregate Technical and Commercial
BEE	Bureau of Energy Efficiency
ckt	Circuit
CT	Current Transformer
DC	Designated Consumer
DEEP	Discovery of Efficient Electricity Price
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 Units
MW	Mega Watt
NO	Nodal Officer
OA	Open Access
POC	Point of Connection
PT	Potential Transformer
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

Acknowledgement

We would like to express our heartfelt gratitude to the KPDCL, Jammu & Kashmir for providing us the opportunity to conduct the Annual Energy Audit of their DISCOM for FY 2023-24, in accordance with the Bureau of Energy Efficiency (Manner and Intervals for Conduct of Energy Audit in electricity distribution companies) Regulations, 2022 and its Amendments.

We are immensely grateful to the management of KPDCL, Jammu & Kashmir for their invaluable cooperation and providing us with all the relevant information necessary for the successful completion of the Annual Energy Audit.

In this regard, we express our sincere thanks to Mr. Mahmood A Shah (KAS), Managing Director, KPDCL and Ms. Aaquib Sultana W Dewa, Chief Engineer (D), KPDCL for reposing their faith in us to conduct Annual Energy audit of KPDCL for third year in running. We also express our sincere thanks to Er. Shabir A Khan, CEO, IT & C Division (Energy Manager) KPDCL and his team for extending necessary co-operation and providing all relevant information for successful completion of the Audit.

We look forward to a continued partnership with KPDCL, Jammu & Kashmir and we look forward to their continued support in all our future endeavours.

Signature
Name: Dr. P.P Mittal
Designation: Director
Registered No: AEA-011
Firm: A-Z Energy Engineers Pvt. Ltd.

1. Executive Summary

Kashmir Power Distribution Corporation Limited (KPDCL)–a state-owned Power Distribution Utility. KPDCL has the privilege of empowering millions of people by supplying electricity in their homes as well as to places where they do all kinds of activities – agricultural (or allied), commercial, industrial & others. KPDCL has a consumer base of more than Eleven Lakh consumers spread over 10 districts of Kashmir region. The Company, headquartered at Jehangir Chowk, Srinagar, functions with 06 Circles, 19 Divisions and 67 Sub-divisions. KPDCL has a unique mix of consumers i.e. on one hand it caters to industrial consumers alongside urban areas and on the other it caters to agricultural consumers, scattered tribal & forest area consumers. Thus the expansive operational area and motley consumer mix sets KPDCL apart from private utilities which usually cater only to urban landscapes. In a bid to provide its valued consumers with quality power supply, the company undertakes various infrastructure revamping and technical upgradation programs on continual basis like laying of underground cables and installations of RMUs, creation of new feeders and bifurcation of existing feeders, erection of new sub-stations, creation of new transformer centers, etc. The consumer centric initiatives include dedicated fault restoration centers at the sub-divisional level, 24 x 7 centralized Customer Care Centre at Bemina, Srinagar and a range of services available online on KPDCL Website and Mobile Application. In addition, KPDCL also hears and redresses consumer grievances through public fora regularly.

While the Input Energy purchase, Net Input energy at DISCOM Periphery and Energy billed for the customer is **11124.05 MU, 10841.30 MU** and **5205.55 MU**, the monthly consumption per customer stands **at 373.64 KWH/Month**. KPDCL caters to area spread in 6 circles, 19 Division.

1.1. Goals and Objectives

KPDCL is a Designated Consumer in DISCOM sector. Being a Designated Consumer KPDCL need to have an Annual Energy Audit (Accounting) of their facilities as per BEE notification No 18/1/BEE/DISCOM/2021 dated 6th October 2021.

The Annual Energy Audit (Accounting) at KPDCL is conducted with the following Objectives:

- Verification of existing pattern of energy distribution across periphery of electricity Distribution Company.
- Verification of accounted energy flow submitted by electricity Distribution Company at all applicable voltage levels of the distribution network.
- Verification of the accuracy of the data collected and analysis and processes the data with respect to consistency, improvement in accounting and reducing loss of DISCOM.
- Verification of the information submitted by Designated Consumer to the SDA/BEE about status of Energy Input, Output and Loss for the previous two years.
- Access the past performance of the establishment.
- Quantification of Energy Losses, and Energy Saving Potential.

1.2. About Energy Audit firm

A-Z Energy Engineers Pvt. Ltd. is an Accredited Energy Auditor from BEE and an ISO 9001:2015 certified company that aims to assist all stakeholders in implementing energy efficiency and creating awareness about the merits of energy efficiency and safety practices. They are empaneled by BEE for PAT M & V Audits and Mandatory Energy Audit Projects and have completed more than 1800 projects, including 80 PAT projects. The founder director, Shri. P.P Mittal, has received several awards and recognitions for his services in the field of energy. We have a pool of experienced BEE Accredited & Certified Energy Auditors, Electrical Engineers, Mechanical Engineers and Technicians having experience of more than 30 years. The Energy Audits is being carried out with sophisticated instruments namely Power-Analyzer, Flue Gas Analyzer, Ultra-sonic flow meter, Techo-meter, Anemometer, Hego-Meter, Digital Thermometer, Thermography Camera, Lux Meter, Leak detectors. Laser gun etc.

1.3. AT&C losses for FY 2023-24

Distribution area of KPDCL is dived into 6 circles & 19 divisions. The AT&C losses for FY 2023-24 are 40.65%. The AT&C losses for the FY 2023-24 are shown in the table below:

Table 1: Energy Balance & Losses for FY 2023-24

Energy Input Details	Formula	UoM	Value
Input Energy Purchase (From Generation Source)	A	MU	11124.05
Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	B	MU	10841.30
Total Energy billed (is the Net energy billed, adjusted for energy traded))	C	MU	5205.55
Transmission and Distribution (T&D) loss Details	D	MU	5635.75
	E = D/B x 100	%	51.98%
Collection Efficiency	F	%	123.61%
Aggregate Technical & Commercial Loss	G = 1-{(1-E) x Min(F,100%)}	%	40.65%

2. Background

2.1. Extant Regulations and role of BEE

2.1.1. The Objectives of BEE

- To develop policies and programs on efficient use of energy and its conservation with the involvement of stakeholders.
- To plan, manage and implement energy conservation programs as envisaged in the EC Act.
- To assume leadership and provide policy framework and direction to national energy efficiency and conservation efforts and programs.
- To demonstrate energy efficiency delivery mechanisms, as envisaged in the EC Act, through Public-Private Partnership (PPP).
- To establish systems and procedures to measure, monitor and verify energy efficiency results in individual sectors as well as at the national level.
- To leverage multi-lateral, bi-lateral and private sector support in implementation of programs and projects on efficient use of energy and its conservation.
- To promote awareness of energy savings and energy conservation.

2.1.2. Role of BEE

- BEE coordinates with designated agencies, designated consumers and other organization working in the field of energy conservation/efficiency to recognize and utilize the existing resources and infrastructure in performing the functions assigned to the Bureau under the Energy Conservation Act.
- The Act provides regulatory mandate for standards & labelling of equipment and appliances; energy conservation building code for commercial buildings; and energy consumption norms for energy intensive industries.
- The EC Act was amended in 2010 to incorporate few additional provisions required to better equip BEE to manage ever evolving sphere of energy efficiency in the country.
- Create awareness and disseminate information on energy efficiency and conservation.
- Arrange and organize training of personnel and specialists in the techniques for efficient use of energy and its conservation.
- Strengthen consultancy services in the field of Energy Efficiency.
- 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 systems.

- Take steps to encourage preferential treatment for use of energy efficient equipment or appliances.
- Promote innovative financing of energy efficiency projects.
- Give financial assistance to institutions for promoting efficient use of energy and its conservation.
- Prepare educational curriculum on efficient use of energy and its conservation.
- Implement international co-operation programmes relating to efficient use of energy and its conservation.

2.1.3. Regulatory framework for Energy Accounting & Audit

The Energy Conservation Act 2001 (hereafter referred to as EC Act 2001) was enacted on 29thSeptember 2001. The EC Act 2001 empowers BEE to notify regulations regarding energy conservation and efficiency improvement. In accordance with the EC Act 2001, BEE notified the Bureau of Energy Efficiency (Manner and Intervals for Conduct of Energy Audit) Regulations, 2021, on 6thOctober 2021. BEE subsequently amended these regulations with the Bureau of Energy Efficiency (Manner and Intervals for Conduct of Energy Audit) (Amendment) Regulations, 2022. The Ministry of Power (MoP) issued guidelines on 17thJanuary 2023, for energy accounting and auditing of distribution companies, in line with the BEE regulations. Distribution companies and energy audit firms must comply with this regulatory framework when preparing energy accounts and audit reports. The regulatory framework for Energy accounting and Energy Auditing is shown in the below figure:

Figure 1: Regulatory framework for Energy Accounting & Audit

Key highlights of the Regulatory framework are listed below:

- Bureau of Energy Efficiency (BEE) through Ministry of Power, Government of India issued regulations for Conduct of Mandatory Annual Energy Audit and Periodic Energy Accounting in DISCOMs. As per the regulation, all Electricity Distribution Companies are mandated to conduct annual energy audit and periodic energy accounting on quarterly basis.
- Owing to the impact of energy auditing on the entire distribution and retail supply business and absence of an existing framework with dedicated focus on the same, it was imperative to develop a set of comprehensive guidelines that all Distribution utilities across India can follow and adhere to.
- Accordingly, Regulations on Manner and Intervals for Conduct of Energy Audit and Accounting in Electricity Distribution Companies has been framed. Energy Accounting means accounting of all energy inflows at various voltage levels in the distribution periphery of the network, including renewable energy generation and open access consumers, and energy consumption by the end consumers. Energy accounting and a consequent annual energy audit would help to identify areas of high loss and pilferage, and thereafter focus efforts to take corrective action.
- These Regulations for Energy audit in Electricity Distribution Companies provides broad framework for conduct of Annual Energy Audit though and Quarterly Periodic Energy Accounting with necessary Pre-requisites and reporting requirements to be met.

2.2. Purpose of Audit and Accounting Report

KPDCL is a designated consumer in DISCOM sector. Being a designated Consumer KPDCL need to have Annual energy audit (Accounting) of their facilities as per BEE notification No 18/1/BEE/DISCOM/2021 dated 6th October 2021.

The energy intensity of India is higher with respect to GDP growth and there is an urgent need to address these issues on priority through integrated and comprehensive approach and by adopting latest techniques and technologies with active participation of all stakeholders.

Annual Energy Audit (Accounting) will not only help in reducing losses in system, but it also helps DISCOM in sustainable growth. The objective of this energy audit is to reduce T&D loss and AT&C loss of the DISCOM through identification of commercially viable and implementable schemes for reduction of technical and commercial loss in the DISCOM thus leading to sustainable energy cost reductions.

The Annual Energy Audit (Accounting) at KPDCL is conducted with the following Objectives:

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- Verification of accounted energy flow submitted by Electricity Distribution Company at all applicable voltage levels of the distribution network.
- Verification of the accuracy of the data collected and analysis and processes the data with respect to consistency, improvement in accounting and reducing loss of DISCOM.
- Verification of the information submitted by Designated Consumer (KPDCL) to the SDA/BEE about status of energy input, Output and loss for the previous two years.
- Access the past performance of the establishment.
- Quantification of Energy Losses, and Energy Saving Potential.

2.3. Period of Energy Auditing and accounting

Energy audit activity for FY 2023-24 was started with a meeting at Head Office of KPDCL in the month of July 2024. Based on the requirement visit was made to Divisions, Subdivisions, Grid Sub stations etc. for data collection and technical discussion. The period of study was from April 2023 to March 2024

Table 2: Period of Energy Auditing and accounting

Particulars	Energy Accounting				Energy Audit
	Q1	Q2	Q3	Q4	FY 2023-24
Applicable period	1-Apr-23 to 30-Jun-23	1-Jul-23 to 30-Sep-23	1-Oct-23 to 31-Dec-23	1-Jan-24 to 31-Mar-24	1-Apr-23 to 31-Mar-24
Date of Commencement	07.08.2023	03.11.2023	13.02.2024	04.07.2024	03.07.2024
Date of Publishing	11.08.2023	08.11.2023	17.02.2024	08.07.2024	
Officer In charge	Er. Shurjeel Gani Lala	Er. Shurjeel Gani Lala	Er. Shurjeel Gani Lala	Er. Shurjeel Gani Lala	Dr. P P Mittal [AEA 0011] Registration No: EmAEA-0024

3. DISCOM Introduction and Overview

3.1. Name and address of DISCOM

KPDCL is having its office at Exhibition Ground Opposite High Court, Jahangir Chowk, Srinagar – 190009 (J&K)

Table 3: Name and Address of DISCOM

Particulars	Details
Name of DC	Kashmir Power Distribution Corporation Ltd.
Address	Exhibition Grounds, Opposite High Court, Jahangir Chowk, Srinagar-190009 (J&K)

3.2. Name and contact details of energy manager (BEE Certified, if any) and Authorized signatory of DISCOM (Nodal Officer)

The Energy Accounting / Audit wing is headed by Ms. Aaquib Sultana W Deva, Chief Engineer (D) and Er. Shabir A Khan, (Energy Manager). Mr. PP Mittal, proprietor A-Z Energy Engineers is a BEE certified Energy Manager has been appointed to conduct the Annual Energy Accounting job in KPDCL. The details of DISCOM's energy manager and authorized signatory for this report are shown below:

Table 4: Details of energy manager and Authorized signatory of DISCOM

Particulars	Details
Energy Manager	Er. Shabir A Khan Mobile : 9419424639 Email: shabirkhanjk@gmail.com
Authorized Signatory	Ms. Aaquib Sultana W Deva, Chief Engineer (D) Mobile: 9419753008, 7006863197 Email: ce.mre.kmr@gmail.com

3.3. Summary profile of DISCOM

3.3.1. Jurisdiction of DISCOM

Kashmir Power Distribution Corporation Limited (KPDCL) – a state-owned Power Distribution Utility. KPDCL has the privilege of empowering millions of people by supplying electricity in their homes as well as to places where they do all kinds of activities – agricultural (or allied), commercial, industrial & other. KPDCL has a consumer base of more than Eleven Lakh consumers spread over 10 districts of Kashmir region. The Company, headquartered at Jahangir Chowk, Srinagar, functions with 06 Circles, 19 Divisions and 67 Sub-divisions. KPDCL has a unique mix of consumers i.e. on one hand it caters to industrial consumers alongside urban areas and on the other it caters to agricultural consumers,

scattered tribal & forest area consumers. Thus the expansive operational area and motley consumer mix sets KPDCL apart from private utilities, which usually cater only to urban landscapes. In a bid to provide its valued consumers with quality power supply, the Company undertakes various infrastructure revamping and technical upgradation programs on continual basis like laying of underground cables and installations of RMUs, creation of new feeders and bifurcation of existing feeders, erection of new sub-stations, creation of new transformer centers, etc. Our consumer centric initiatives include dedicated fault restoration centers at every sub-division and a 24 x 7 centralized Customer Care center at Bemina, Srinagar.

While the Purchase, Net Input & Billed Energy by KPDCL for the customer is 11124.05 MU, 10841.30 MU &5205.55 MU the monthly consumption per customer stands at 373.64 KWH/Month. KPDCL caters to area spread in 6 circles, 19 Division.

3.3.2. Energy Accounting/Audit wing in the DISCOM:

The Energy Accounting/Audit wing in the DISCOM is in place. The Organogram of the DISCOM is as shown below:

Figure 2: Organogram of Energy Accounting wing in the DISCOM

As on June 2023, the Energy Accounting wing comprises of No. of employees as shown in the table below:

Table 5: Details of Energy Manager and Authorized Signatory of DISCOM

Designation	No. of Officers
Managing Director	Mr. Mahmood A Shah (KAS)
Chief Engineer	Er. Aaquib Sultana W Deva
CEO (Energy Manager)	Er. Shabir A Khan

3.3.3. Administrative hierarchy

KPDCL is having its office at Exhibition Ground Opposite High Court, Jehnagir Chowk, Srinagar – 190001 (J&K) and has 6 Circles. These Circles are further divided into Divisions, Sub-Divisions and Sections as shown in the below tables.

Table 6: Administrative hierarchy structure in KPDCL

Parameters	Total
Number of Circles	6
Number of Divisions	19
Number of Sub-Divisions	67

The Circles are further divided into Divisions, Sub-Divisions and Sections as shown in the table below:

Table 7: Administrative hierarchy in KPDCL upto section level

Circle	Division	Name of Sub-Divisions
Circle-1st	DIV-I (BASANT BAGH)	SHEIKH BAGH
		DALGATE
		NISHAT
		KHONMOH
		HABBA KADAL
	DIV-IV (KHANYAR)	KHANYAR
		RAINAWARI
		KHANKAHI MOULLA
		HAWAL
		ZAKURA
Circle-2nd	BUDGAM	BUDGAM
		CHADURA
		BEERWA
		CHARAR-I-SHAREEF

Circle	Division	Name of Sub-Divisions
		NARBAL
	DIV-II (RAJBAGH)	RAJBAGH
		HAZURI BAGH
		KARAN NAGAR
		CHANAPORA
		BAGHAT
	DIV-III (SHREEN BAGH)	WATAL KADAL
		PATHER MASJID
		NAWAKADAL
		MR GUNJ
		ZAINAKOTE
Circle-Bijbehara	ANANTNAG	ANANTNAG
		ACCHBAL
		DOORU
	BIJBEHARA	BIJBEHARA
		AISHMUQAM
	KULGAM	KULGAM
		D. H. PORA
		QAZIGUND
		RESHIPORA
Circle-Ganderbal	BANDIPORA	BANDIPORA
		KULOOSA
		GUREZ
	DIV SUMBAL	SUMBAL
		HAJIN
	GANDERBAL	GANDERBAL
		MANIGAM
		TULMULLA
		KANGAN
Circle-Pulwama	AWANTIPORA	AWANTIPORA
		PAMPORE
		TRAL
	PULWAMA	PULWAMA
		NEWA
		RAJPORA
	SHOPIAN	SHOPIAN
		CHITRAGAM
		KELLAR
Circle-Sopore	BARAMULLAH	BARAMULLAH-I
		BARAMULLAH-II

Circle	Division	Name of Sub-Divisions
		MOHRA
		WAGOORA
		WATREGAM
	HANDWARA	HANDWARA
		LANGATE
	KUPWARA	KUPWARA
		TREHGAM
		TANGDHAR
	SOPORE	SOPORE-I
		SOPORE-II
		SOPORE-III
		PATTAN
	SPL-TANGMARG	TANGMARG

3.3.4. Consumer Details

Energy consumption with type of customer is given in the table:

Table 8: Customer Profile for FY 2023-24

Category	No. of Connections		Connected Load		Energy		Billed Amount in Rs. Crore	Collected Amount in Rs. Crore
	Nos	%	MW	%	MU	%		
Residential	963036	82.95%	1488.14	58.12%	3508.76	67.40%	1029.92	920.76
Agricultural	1462	0.13%	69.92	2.73%	81.86	1.57%	60.19	329.05
Commercial/ Industrial-LT	188423	16.23%	571.43	22.32%	668.62	12.84%	386.67	432.22
Commercial/ Industrial-HT	435	0.04%	177.62	6.94%	422.73	8.12%	222.64	216.22
Others	7652	0.66%	253.34	9.89%	523.59	10.06%	415.12	715.60
Total	**1161008**	**100%**	**2560.45**	**100%**	**5205.55**	**100%**	**2114.55**	**2613.86**

3.4. Electrical infrastructure and Assets Voltage wise

The following table provides the details of network infrastructure owned by KPDCL:

Table 9: Network Infrastructure details

Asset	Particulars	Unit	FY23-24
66 kV and above	66/ 11 kV Sub station	Nos	-
	66 kV Feeders	Nos	-
	66 kV Line	Ckt. km	-
33 kV	33/ 11 kV Sub station	Nos	320
	33 kV Feeders	Nos	180
	33 kV Line	Ckt. km	2366.69
11 kV	11 kV Feeders	Nos	1218
	11 kV Overhead Line	Ckt. km	20265
	11 kV Underground Line	Ckt. km	
LT	LT Line	Ckt. km	47689
PT	Power Transformer	Nos	
	Power Transformer Capacity	MVA	
DT	Distribution Transformer	Nos	40779
	Distribution Transformer Capacity	MVA	

The Input energy, consumption, transmission losses and key infrastructure details of the KPDCL for FY 2023-24 are summarized in table below:

Table 10: Input Energy & Infrastructure details

Parameters	FY 2023-24
Input Energy purchased (MU)	11124.05
Transmission loss (%)	2.54177%
Transmission loss (MU)	282.75
Energy sold outside the periphery (MU)	0

Parameters	FY 2023-24
Open access sale (MU)	0
EHT sale	0
Net input energy (received at DISCOM periphery or at distribution point)-(MU)	10841.30
Is 100% metering available at 66/33 kV (Select yes or no from list)	Yes
Is 100% metering available at 11 kV (Select yes or no from list)	Yes
% of metering available at DT	0%
% of metering available at consumer end	40%
No of feeders at 66kV voltage level	0
No of feeders at 33kV voltage level	180
No of feeders at 11kV voltage level	1218
No of LT feeders level	0
Line length (ckt. km) at 66kV voltage level	0
Line length (ckt. km) at 33kV voltage level	2366.69
Line length (ckt. km) at 11kV voltage level	20265
Line length (km) at LT level	47689
Length of Aerial Bunched Cables	6038
Length of Underground Cables	137.25
HT/LT ratio	0.4249

3.4.1. Metering Details

The status of meters installed in KPDCL as on 31-03-024 are given in the below tables:

Table 11: Voltage wise Meter Consumers

Parameters	66kV and above	33kV	11/22kV	LT
Number of conventional metered consumers	0	380	19654	130632
Number of consumers with 'smart' meters	0	0	o	254736
Number of consumers with 'smart prepaid' meters	0	0	o	54327
Number of consumers with 'AMR' meters		0	0	0
Number of consumers with 'non-smart prepaid' meters	0	0	0	0
Number of unmetered consumers	0	0	0	701279
Number of total consumers	**0**	**380**	**19654**	**1140974**

3.4.2. Distribution Transformer (DT) details

The details of distribution transformers in KPDCL as on 31-03-024 are given in the below tables:

Table 12: Numbers of Distribution Transformers

Parameters	66kV and above	33kV	11/22kV	LT
Number of conventionally metered Distribution Transformers	0	0	0	0
Number of DTs with communicable meters	0	0	0	0
Number of unmetered DTs		0	40779	0
Number of total Transformers	**0**	**0**	**40779**	**0**

3.4.3. Feeder details

The details of feeders in KPDCL as on 31-03-024aregiveninthe below tables:

Table 13: Voltage wise numbers of Feeders

Parameters	66kV and above	33kV	11/22kV	LT
Number of metered feeders	0	180	878	
Number of feeders with communicable meters	0	0	340	0
Number of unmetered feeders	0	0	0	0
Number of total feeders	**0**	**180**	**1218**	**0**

3.4.4. Distribution Line details

The details of distribution lines in KPDCL as on 31-03-2024 are given in the below tables:

Table 14: Length of Distribution Lines

Particulars	66kV and above	33kV	11/22kV	LT
Line length (ct km)	0	2366.69	20265	47689
Length of Aerial Bunched Cables	6038			
Length of Underground Cables	137.25			

3.4.5. Energy Flow details

Energy flow details for FY 2023-24 are given in the below table:

Table 15: Energy Flow details

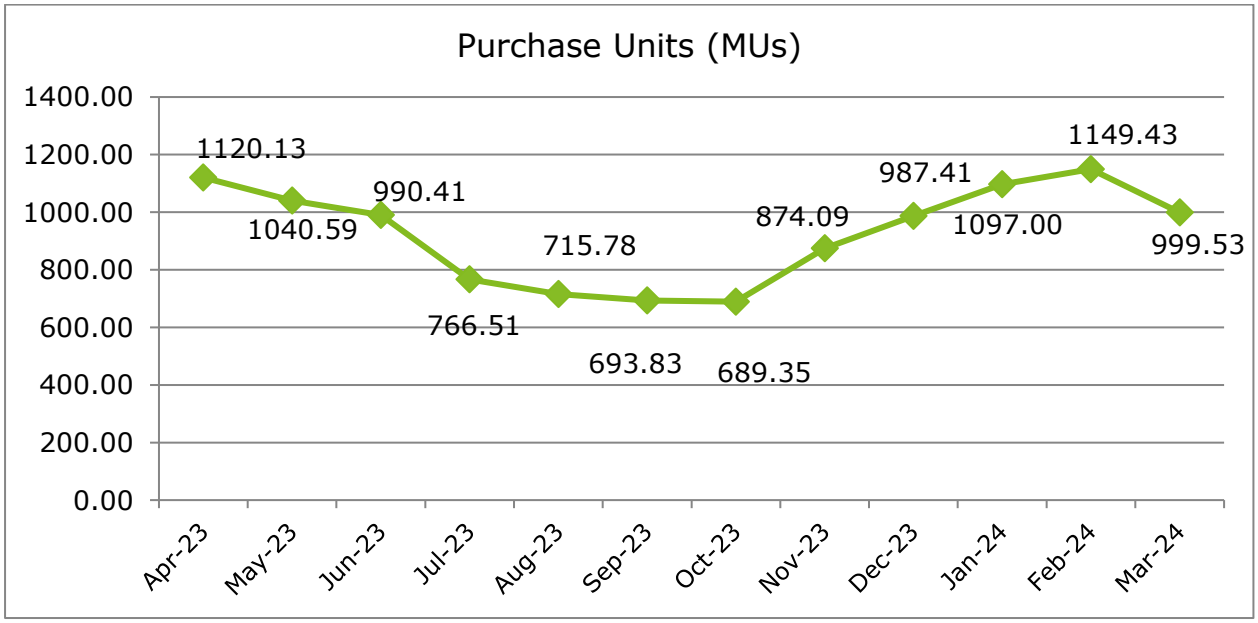
Energy Input Details	Formula	UoM	Value
Input Energy Purchase (From Generation Source)	A	MU	11124.05
Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	B	MU	10841.30
Total Energy billed (is the Net energy billed, adjusted for energy traded)	C	MU	5205.55
Transmission and Distribution (T&D) loss Details	**D**	**MU**	5635.75
	E = D/B x 100	**%**	51.98%

3.4.6. Pattern of energy distribution

Power Purchase:

During the analyzed period, KPDCL purchased a maximum energy of 1149.43 million units (MUs) in Feb. 2024, while the least energy of 689.35 MUs was purchased in Oct. 2023. This shows that the company's energy purchase varies considerably from month to month depicting the seasonal impact.

Figure 3: Month wise Purchase Energy (MU) pattern



Energy Billed:

The energy billed by KPDCL showed a minor increasing trend from April 2023 to March 2024, with a slight bump in Jan & Feb 2024. This indicates that the company's energy consumption has increased gradually over the analyzed period.

The chart below shows KPDCL Input & Billed energy pattern from April 2023 to March 2024:

Figure 4: Monthly Energy Input and Energy billed pattern

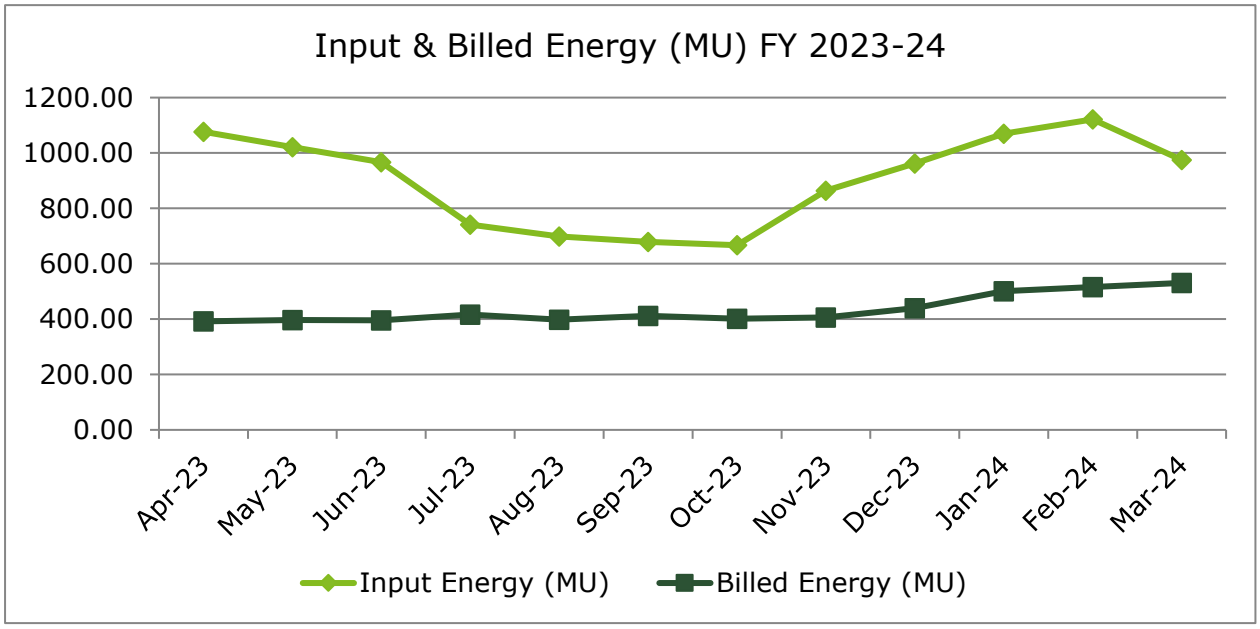
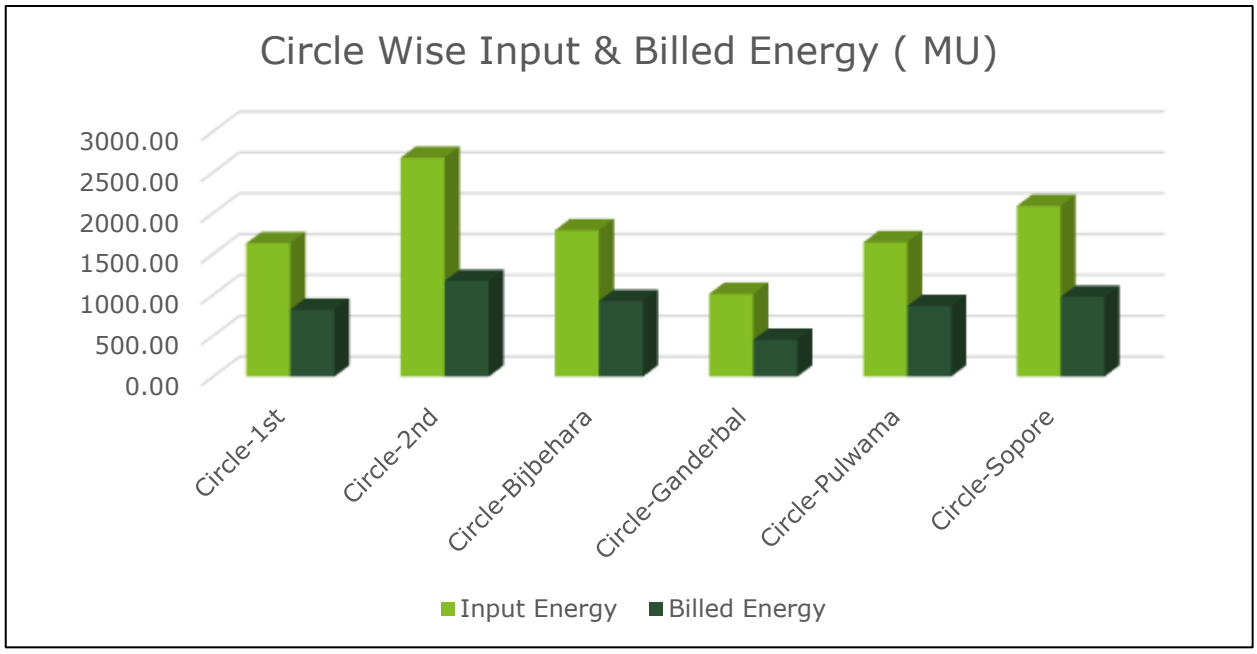


Figure 5: Circle wise Energy Input (MU) and Energy billed (MU) pattern



Above graphs indicates that KPDCL energy purchase pattern shows considerable variation from month to month. While the maximum energy was purchased in Feb 2024, the least energy was purchased in Oct 2023. The energy billed shows a major increasing trend from April 2023 to March 2024, indicating a gradual increase in energy consumption. The chart shows that the energy purchase pattern fluctuates considerably i.e. it drops in summer and increases considerably in winter months, which may pose challenges for the company in managing its energy supply and demand especially in December, January and February Months.

The Month wise break up of input energy (MUs) parameter for all the circle is given below:

Table 16: Month wise Input Energy for FY 2023-24

Circle Name	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Circle-1st	160.13	155.30	148.28	112.18	108.87	107.20	102.78	127.21	141.00	157.71	162.88	147.43	**1630.98**
Circle-2nd	272.43	252.43	235.94	180.52	169.20	166.02	161.30	207.33	236.07	267.94	279.85	247.71	**2676.75**
Circle-Bijbehara	177.02	167.49	160.42	122.67	116.71	113.90	113.33	141.88	160.48	174.43	186.97	154.28	**1789.60**
Circle-Ganderbal	103.06	98.58	92.40	68.58	61.07	56.42	56.31	85.62	88.68	102.40	107.70	91.47	**1012.28**
Circle-Pulwama	160.15	146.68	135.75	107.75	105.47	103.13	102.22	132.49	149.76	168.74	177.61	153.86	**1643.61**
Circle-Sopore	203.76	201.11	194.03	149.64	136.71	131.87	130.98	169.32	185.68	198.00	206.32	180.67	**2088.09**
Total	**1076.56**	**1021.59**	**966.82**	**741.34**	**698.03**	**678.54**	**666.91**	**863.85**	**961.68**	**1069.22**	**1121.33**	**975.42**	**10841.30**

The Month wise break up of billed energy (MUs) parameter for all the circle is given below:

Table 17: Month wise Billed Energy for FY 2023-24

Circle Name	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Circle-1st	60.38	55.20	60.85	65.85	58.66	58.62	62.13	62.45	73.40	84.75	87.64	89.85	**819.80**
Circle-2nd	88.08	88.36	75.66	95.29	84.72	87.32	82.70	88.41	108.07	119.01	122.47	129.83	**1169.90**
Circle-Bijbehara	68.58	73.80	74.96	72.54	74.16	73.65	72.74	72.15	75.21	87.49	90.58	89.40	**925.24**
Circle-Ganderbal	32.96	35.44	38.72	36.60	36.05	36.04	34.99	33.98	35.90	42.35	42.04	44.90	**449.97**
Circle-Pulwama	66.20	66.72	67.01	69.23	69.61	78.92	71.96	69.37	68.27	75.72	79.34	82.86	**865.21**
Circle-Sopore	75.77	77.21	78.50	76.87	75.11	76.89	77.09	80.25	78.51	91.76	93.58	93.88	**975.43**
Total	**391.97**	**396.73**	**395.70**	**416.38**	**398.32**	**411.43**	**401.61**	**406.60**	**439.36**	**501.07**	**515.65**	**530.72**	**5205.55**

The voltage wise consumption pattern is given below:

Table 18: Voltage wise consumption pattern

Voltage Level	Consumers		Energy Consumption	
	No.	%Share	MUs	%Share
33kV	380	0.03%	473.31	9.09%
11kV	19654	1.69%	834.01	16.02%
440V	1140974	98.27%	3898.24	74.89%
Total	**1161008**	**100%**	**5205.55**	**100%**

3.4.7. Salient features

KPDCL main objectives are to achieve efficiency gains and make necessary changes to make the company commercially viable, progressively self-sustainable, and less dependent on the government while balancing the interests of consumers with regards to quality of service and economical tariffs.

a) Vision

Customer Satisfaction through service excellence

b) Mission

- To provide reliable and quality power at competitive cost
- To attain national standards in reducing distribution losses

c) Core values

- Customer Satisfaction
- Participative Work Culture
- Pride of belongingness
- Excellence
- Being ethically and socially responsive

3.5. Energy Conservation measures

Energy conservation is a critical issue in today's world, as the demand for energy continues to increase while the resources available to produce it are finite. The energy conservation measures that have already been taken and propose some measures for the future are explained below.

Energy Conservation Measures taken by the DISCOM:

Several energy conservation measures have already been implemented to reduce energy consumption and promote sustainable energy use. Some of these measures are:

- Energy-Efficient Lighting: The company promoted use of energy-efficient LED bulbs, which has reduced energy consumption and saved power purchase costs.

- Energy Management Systems: The company has implemented energy management systems to monitor and control energy consumption, identify areas of energy waste, and optimize energy usage.
- Renewable Energy: The company is promoting the use of renewable energy sources, such as solar roof top systems on domestic and government installations.
- Energy Audits: Regular energy audits are conducted to identify energy waste and implement measures to reduce it.

1. 100% Smart Consumer Metering.
2. 100% System Metering (DT & Feeder Meters)
3. 100% Smart Metering of Govt. Consumers
4. Replacement of LT overhead conductor with LT AB Cables
5. Creation of HVDS Network
6. Segregation/Bifurcation of Lengthy/Overloaded 11 KV Feeders
7. Reduction of LT/HT Ratio

Proposed Energy Conservation Measures for the Future:

1. Installation of Smart Meters.
2. Identify unmetered consumers and installing meters
3. Installation of Automatic Power factor controller (Capacitor Bank) at newly constructed Power Substations.
4. System improvement & automation.
5. Replacing worm out /under sized conductors.
6. Redesigning Distribution infrastructure to improve HT:LT Ratio.
7. Preventive & Periodic maintenance of lines& transformers.
8. Renewable Energy: The Company has increased and is promoting the use of renewable energy sources, such as solar power, to reduce reliance on fossil fuels and reduce carbon emissions.

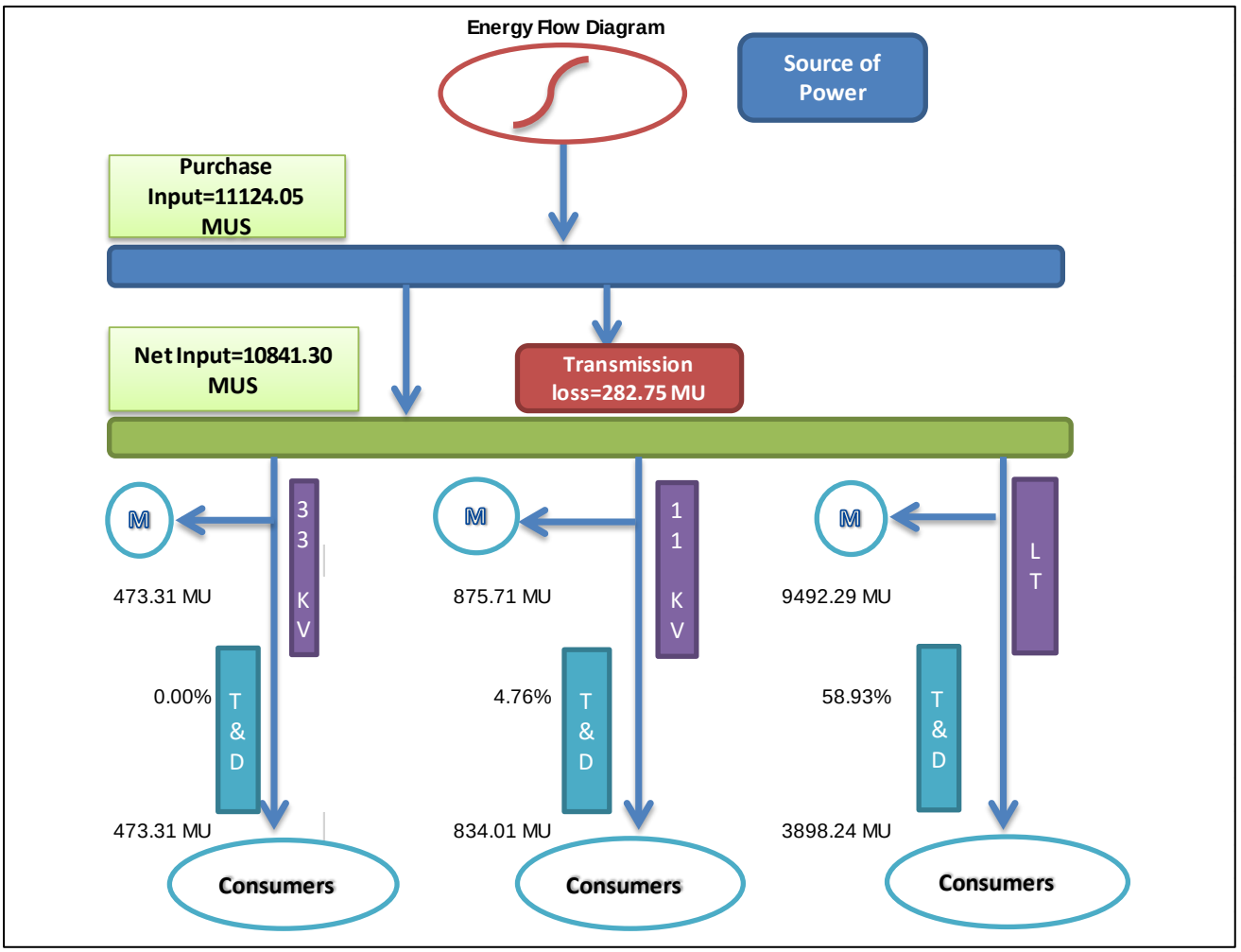
4. Energy flow analysis

4.1. Energy flow across Service Levels

The Energy at different voltage levels and the losses at different levels are shown in below table:

Table 19: Energy Flow at different Voltage level Losses for FY 2023-24

	DISCOM	Input (in MU)	Sale (in MU)	Loss (in MU)	Loss %
I	LT	9492.29	3898.24	5594.05	58.93%
II	11 Kv	875.71	834.01	41.70	4.76%
III	33 kv	473.31	473.31	0.00	0.00%



4.2. Validation of metered data

a) **Validation of feeder data:** Based on data available in 11 kV Feeder meter at substation for a sample size of 10% for which documentary evidence to be captured in the audit report.

b) **Validation of energy flow data and losses**: Based on field survey as per the following sample size:

- Min. 10 or 1% (whichever is higher) of DISCOM's input energy metering points between Transmission and 66kV/33kV/11kV distribution feeders by checking functional and communication status of meters etc.

- For all Divisions with AT&C losses greater than 25% or at-least 1/3 of the total Divisions of DISCOM, verify:

  - Total of min. 10 or 1% of metering points (whichever is higher) between 220-132- 110- 66 /33 kV outgoing and 22kV-11kV-6.6kV-3kV incoming feeders/ direct end consumer by checking functional and communication status of meters.

  - In an Urban High Loss Division, check 5 or 1% of Metering points (whichever is higher) at DTs where communicable meters were already installed under other schemes such as R-APDRP and IPDS.

  - Total of min. of 10 or 1% of metering points (whichever is higher) between 11kV/6.6kV feeders and DTs by checking functional and communication status of meters, foot survey of feeder to check for thefts/ hooking etc.

  - Verify metering and connection status of min. of 10 or 2% consumers of the Division (whichever is higher) of the following category of consumers – Agriculture (Metered and Un-metered), Govt. category connection (ULB, RLB etc.), and LT Industrial

c) **Field verification report** of the activities undertaken in a) and b) above to be included as an annexure to the energy audit report. >

  - The Category wise metered consumers and unmetered consumers are shown in below table. As per the consumers details most of the consumers are residential which is 82.95% and the energy share is 67.40% of total consumers and energy, commercial/industrial LT is 16.23% of total consumers and energy share is 12.84% of total billed energy, commercial/industrial HT is 0.04% of total consumers and energy share is 8.12% of total billed energy.

Consumer category	Metered	Unmetered	Total Consumer	% share of Consumer	Metered Energy	Unmetered Energy	Total Billed Energy (MU)	% Share energy
Residential	290046.0	672990.0	963036.0	82.95%	1083.54	2425.22	3508.76	67.40%
Agricultural	1343.0	119.0	1462.0	0.13%	72.20	9.65	81.86	1.57%
Commercial/Industrial-LT	161118.0	27305.0	188423.0	16.23%	485.77	182.85	668.62	12.84%
Commercial/Industrial-HT	432.0	3.0	435.0	0.04%	422.05	0.67	422.73	8.12%
Others	6790.0	862.0	7652.0	0.66%	500.05	23.54	523.59	10.06%
At Company	**459729.0**	**701279.0**	**1161008.0**	**100%**	**2563.62**	**2641.94**	**5205.55**	**100%**

Field visit of 33/11kv Substations and 11/0.433kV DTs was conducted. It was observed that:

- CTs and PTs are in working condition and meters are recording energy.
- 85 No substations have AMR facility and meters are sending data to Control Center through Meter Data Acquisition system without any manual intervention. 8 No sub stations were visited and AMR data acquisition was found working in these stations.
- At the time of field visit it was observed that capacitor banks are not installed in most of the 33/11kV substations.
- It was observed that average power factor was found in the range of 0.97 to 0.99.
- It was observed that hourly load parameters are recorded in the logbook apart from transformer parameters like Oil and winding Temperature.
- The DT meters have become nonfunctional due to damage to cables and it can be concluded that very very few DT meters are functional. No monitoring of DT meters is in place.
- It was observed that a good number of the consumers are billed on flat rate basis.

4.3. Validation of energy flow data and losses

The Energy at different voltage levels and the losses at different levels are show in below table long term energy, short term energy and renewable energy wise details are given below.

3	Voltage level	Particulars	MU
i	66kV and above	Long-Term Conventional	
		Medium Conventional	
		Short Term Conventional	
		Banking	
		Long-Term Renewable energy	
		Medium and Short-Term RE	
		Captive, open access input	
		Sale of surplus power	
		Quantum of inter-state transmission loss	
		Power procured from inter-state sources	0
		Power at state transmission boundary	0
ii	33kV	Long-Term Conventional	
		Medium Conventional	
		Short Term Conventional	
		Banking	
		Long-Term Renewable energy	10704.83
		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	10704.83

iii		**Input in DISCOM wires network**	10704.83
iv	33 kV	Renewable Energy Procurement	
		Small capacity conventional/ biomass/ hydro plants Procurement	136.47
		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**	136.47
viii		**Total Energy Available/ Input**	10,841.30
4	**Voltage level**	**Energy Sales Particulars**	
i	LT Level	DISCOM' consumers	3898.24
		Demand from open access, captive	
		Embedded generation used at LT level	
		Sale at LT level	3898.24
		Quantum of LT level losses	5594.05
		Energy Input at LT level	9492.29
ii	11 kV Level	DISCOM' consumers	834.01
		Demand from open access, captive	
		Embedded generation at 11 kV level used	
		Sales at 11 kV level	834.01
		Quantum of Losses at 11 kV	41.70
		Energy input at 11 kV level	875.71
iii	33 kV Level	DISCOM' consumers	473.31
		Demand from open access, captive	
		Embedded generation at 33 kV or below level	136.47
		Sales at 33 kV level	473.31
		Quantum of Losses at 33 kV	0.00
		Energy input at 33kV Level	473.31
iv	> 33 kV	DISCOM' consumers	
		Demand from open access, captive	
		Cross border sale of energy	
		Sale to other DISCOMs	
		Banking	
		Energy input at > 33kV Level	
		Sales at 66kV and above (EHV)	**0**
		Total Energy Requirement	**10841.30**
		Total Energy Sales	**5205.55**

Loss and subsidy computation

4.4. Energy accounts analysis for previous year

Previous cycle of audit is energy accounting base on the notification No. 18/1/BEE/DISCOM/2021 from Bureau of Energy Efficiency dated 6th October 2021.

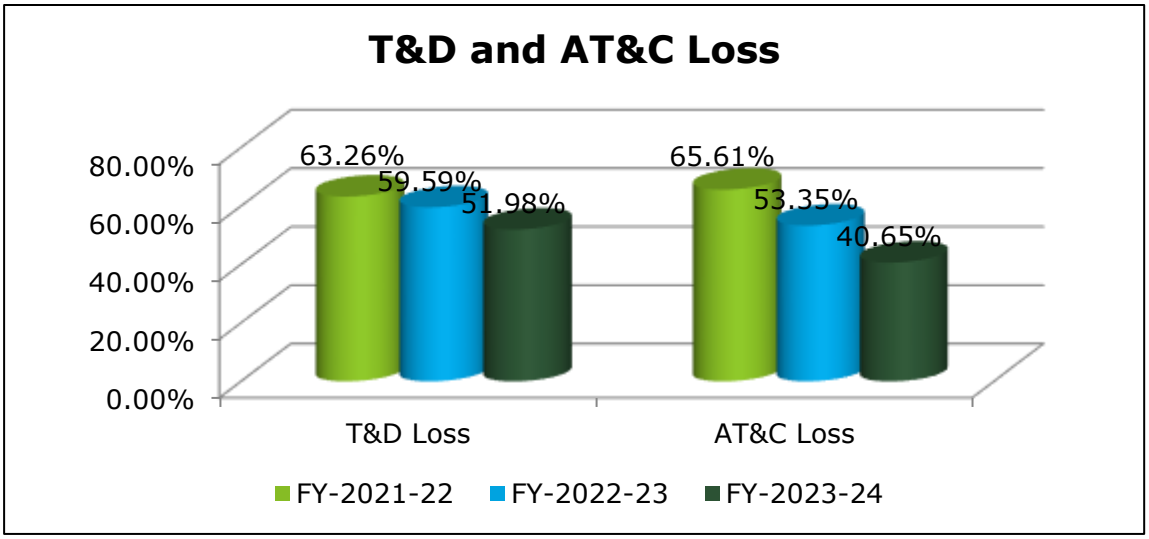
a) Summary of AT&C losses

As compared to the FY 2021-22, FY 2022-23 & FY 2023-24. it is observed that the T&D losses for the FY 2021-22 & FY 2022-23 is high as compared to the FY 2023-24, It is also observed that the collection in FY 2021-22 & FY 2022-23 is low as compared to assessment year, Hence the AT&C losses is less in FY 2021-22 & 2022-23 as compared to assessment year.

The AT&C losses over the annual AT&C losses for FY 2021-22, 2022-23 & 2023-24 are as shown below:

Table 20: AT&C losses in FY 2021-22

Energy Input Details	Formula	Units	Annual FY 21-22	Annual FY 22-23	Annual FY 23-24
Input Energy Purchase (From Generation Source)	A	MU	10,854.84	10,991.62	11,124.05
Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	B	MU	10,466.13	10,661.88	10,841.30
Total Energy billed (is the Net energy billed, adjusted for energy traded)	C	MU	3,845.29	4,308.55	5,205.55
Transmission and Distribution (T&D) loss Details	D	MU	6,620.84	6,353.33	5,635.75
	E = D/B x 100	%	63.26%	59.59%	51.98%
Collection Efficiency	F	%	93.61%	115.45%	123.61%
AT&C Losses	G = 1-{(1-E) x Min(F,100%)	%	65.61%	53.35%	40.65%



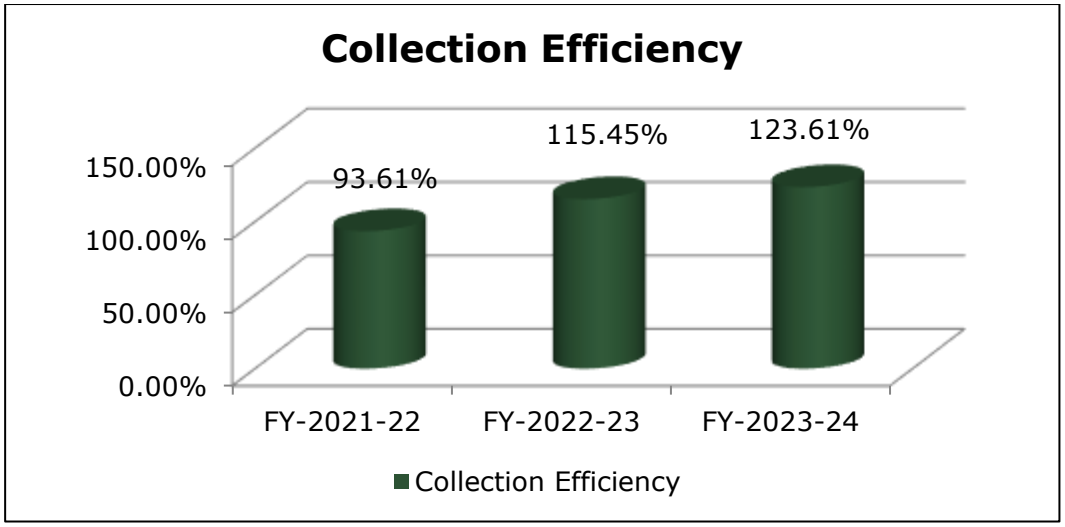


Table show the last three year's trend of T&D loss, Collection efficiency and AT&C loss. The collection efficiency FY 2023-24 is increase as compare to previous year. AT&C losses in FY 2023-24 have been decreases as comparison to last two financial years.

b) Circle wise T&D and AT&C Losses FY 2022-23 & 2023-24

The circle wise comparison (FY 2022-23 & 2023-24) transmission& distributions losses and AT&C loss is given in following table:

Table 21: Circle wise T&D and AT&C losses in FY 2022-23 & 2023-24

Name of circle	FY 2022-23		FY 2023-24	
	T&D loss (%)	AT&C loss (%)	T&D loss (%)	AT&C loss (%)
Circle-1st	60.54%	56.71%	49.74%	45.24%
Circle-2nd	64.38%	62.04%	56.29%	53.61%
Circle-Bijbehara	57.31%	56.30%	48.30%	41.48%
Circle-Ganderbal	60.61%	29.65%	55.55%	13.10%
Circle-Pulwama	53.39%	48.02%	47.36%	28.72%
Circle-Sopore	58.79%	50.76%	53.29%	40.85%
At DISCOM level	**59.59%**	**53.35%**	**51.98%**	**40.65%**

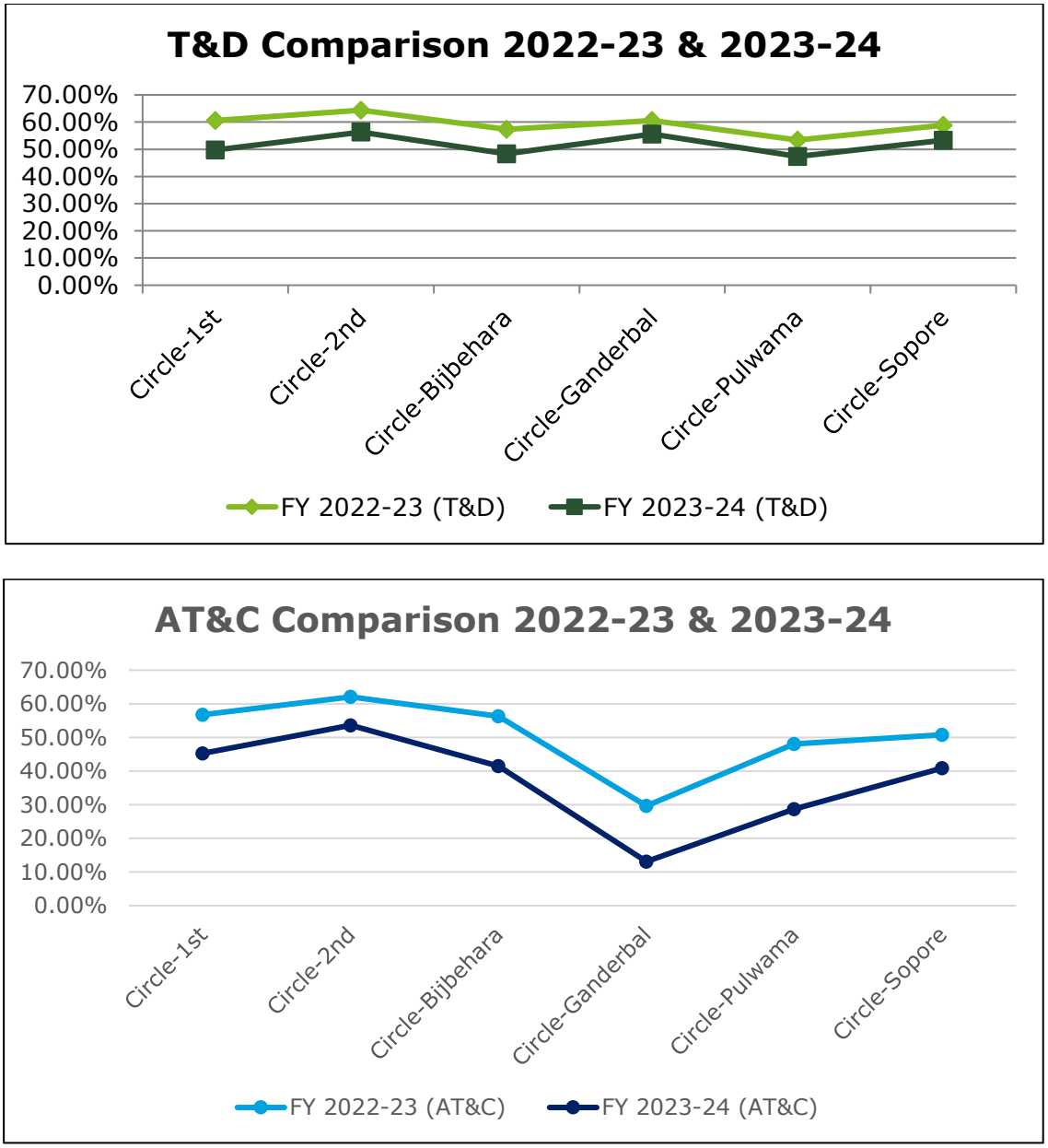


Figure 6: Circle wise T&D and AT&C Compression

4.5. Energy accounts analysis and performance in current year (based on quarterly data)

4.5.1. Month wise Purchase, Input energy and billed energy details

The Month wise Purchase, input energy & billed energy for FY 2023-24 of the Discom periphery is shown in below table.

Table 22: Month wise Purchase, input energy & billed energy for FY 2023-24

Months	Purchase Energy (MU)	Net Input Energy (MU)	Billed Energy (MU)
Apr-23	1120.13	1076.56	391.97
May-23	1040.59	1021.59	396.73
Jun-23	990.41	966.82	395.70

Months	Purchase Energy (MU)	Net Input Energy (MU)	Billed Energy (MU)
Jul-23	766.51	741.34	416.38
Aug-23	715.78	698.03	398.32
Sep-23	693.83	678.54	411.43
Oct-23	689.35	666.91	401.61
Nov-23	874.09	863.85	406.60
Dec-23	987.41	961.68	439.36
Jan-24	1097.00	1069.22	501.07
Feb-24	1149.43	1121.33	515.65
Mar-24	999.53	975.42	530.72
Total	**11124.05**	**10841.30**	**5205.55**

Note: Details Sheet Attached in Annexure

4.5.2. Quarterly and annual AT&C losses

The Quarter wise and annual AT&C losses for FY 2023-24 is shown in below table.

Table 23: Energy Input and AT&C Losses for FY 2023-24

Energy Input Details	Formula	UoM	Quarterly				Annual
			Q1	Q2	Q3	Q4	FY 23-24
Input Energy Purchase (From Generation Source)	A	MU	3202.64	2238.81	2541.33	3255.57	11124.05
Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	B	MU	3119.71	2181.49	2509.56	3170.23	10841.30
Total Energy billed (is the Net energy billed, adjusted for energy traded)	C	MU	1191.57	1232.70	1217.21	1521.75	5205.55
Transmission and Distribution (T&D) loss Details	D	MU	1928.14	948.79	1292.35	1648.48	5635.75
	E = D/B x 100	%	61.81%	43.49%	51.50%	52.00%	51.98%
Collection Efficiency	F	%	74.65%	78.99%	89.06%	103.27%	123.61%
Aggregate Technical & Commercial Loss	G = 1-{(1-E) x Min(F,100%)	%	71.49%	55.37%	56.81%	50.43%	40.65%

As per above table it is observe that the Quarter-wise T&D & AT&C losses is shown in above table. The T&D and AT&C losses for FY 2023-24 are 51.98% and 40.65% at 123.61% collection efficiency.

4.5.3. Voltage wise AT&C losses

The voltage wise AT&C losses of KPDCL for FY 2023-24 are as shown in the below table:

Table 24: Voltage-wise AT&C Losses for FY 2023-24

S. No.	Particulars	Units	Values
1	**Losses in 132 KV System and Connected Equipment**		
1.a.	Total Energy delivered into 132 KV Distribution System from EHT SSs	MUs	10987.58
1.b.	Energy consumed by HT consumers at 132KV (Sales + Third Party)	MUs	
1.c.	Energy Delivered to lower voltage	MUs	10704.83
1.d.	**Losses (132 kV System)**	MUs	282.75
1.e.	**% Losses (132 kV System)**	%	2.57%
2	**Losses in 33 KV System and Connected Equipment**		
2.a.	Total Energy delivered into 33 KV Distribution System from EHT SSs	MUs	10841.30
2.b.	Energy consumed by HT consumers at 33KV (Sales + Third Party)	MUs	473.31
2.c.	Energy Delivered into 11 KV and LT System from 33/11 KV SSs	MUs	10367.99
2.d.	**Losses (33 kV System)**	MUs	0
2.e.	**% Losses (33 kV System)**	%	0.00%
3	**Losses in 11 KV System and Connected Equipment**		
3.a.	Total Energy delivered into 11 KV and LT Distribution System	MUs	10367.99
3.b.	Energy consumed by HT consumers at 11KV (Sales + Third Party)	MUs	834.01
3.c.	Total Output from 11kV to LT	MUs	9492.29
3.d.	**Losses (11kV System)**	MUs	41.70
3.e.	**% Losses (11kV System)**	%	0.40%
4	**Losses in LT system and connected equipment**		
4.a.	Energy delivered to LT system from 11/400 V DTRs	MUs	9492.29
4.b.	Energy sold at LT level	MUs	3898.24
4.c.	**Losses (LT System)**	MUs	5594.05
4.d.	**% Losses (LT System)**	%	58.93%
5	**Total losses in the Distribution System**		
5.a.	Total Input to the distribution system	MUs	10841.30
5.b.	Total Output from the Distribution System	MUs	5205.55
5.c.	**Distribution System Losses**	%	5635.75
5.d.	**% Distribution System Losses**	%	51.98%

4.5.4. Circle wise AT&C losses analysis

1. Circle wise connections & energy consumptions for FY 2023-24

The circle wise connections, load, input energy & Billed energy with percentage share in different circle is given below the "Circle-Sopore" circle having maximum numbers of consumers and "Circle-1st" circle having minimum numbers of consumers. "Circle-2nd" have maximum input energy as well as billed units and "Circle-Ganderbal" have minimum input energy as well as billed units as shown in table:

Table 25: Circle wise No. of consumers, Input energy and Sales in FY 2023-24

Circle	Total Number of connections		Total Connected Load		Input energy		Billed energy	
	Nos.	% Share	MW	% Share	MU	% Share	MU	% Share
Circle-1st	112456	9.69%	347.39	13.57%	1630.98	15.04%	819.80	15.75%
Circle-2nd	253540	21.84%	604.09	23.59%	2676.75	24.69%	1169.90	22.47%
Circle-Bijbehara	250871	21.61%	446.67	17.45%	1789.60	16.51%	925.24	17.77%
Circle-Ganderbal	114038	9.82%	232.36	9.07%	1012.28	9.34%	449.97	8.64%
Circle-Pulwama	160789	13.85%	437.22	17.08%	1643.61	15.16%	865.21	16.62%
Circle-Sopore	269314	23.20%	492.72	19.24%	2088.09	19.26%	975.43	18.74%
Total	**1161008**	**100.00%**	**2560.45**	**100.00%**	**10841.30**	**100%**	**5205.55**	**100.00%**

2. Circle-wise AT&C losses

The circle wise AT&C losses are shown in the table below:

Table 26: Circle wise T&D losses, Collection Efficiency and AT&C losses for FY 2023-24

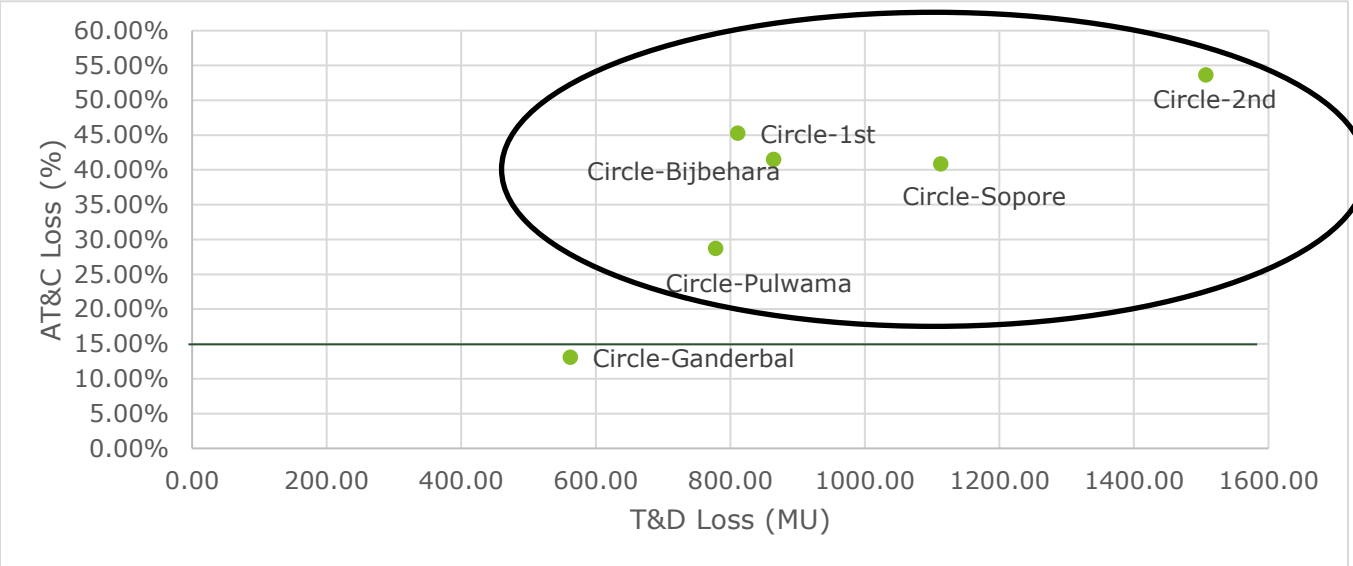
Name of Circle	Input energy (MU)	Billed energy	T&D loss		Collection Efficiency	AT& C loss (%)
			(MU)	(%)		
Circle-1st	1630.98	819.80	811.18	49.74%	108.95%	45.24%
Circle-2nd	2676.75	1169.90	1506.84	56.29%	106.14%	53.61%
Circle-Bijbehara	1789.60	925.24	864.36	48.30%	113.20%	41.48%
Circle-Ganderbal	1012.28	449.97	562.31	55.55%	195.50%	13.10%
Circle-Pulwama	1643.61	865.21	778.40	47.36%	135.42%	28.72%
Circle-Sopore	2088.09	975.43	1112.66	53.29%	126.62%	40.85%
Total	**10841.30**	**5205.55**	**5635.75**	**51.98%**	**123.61%**	**40.65%**

Note: *AT&C Losses calculation as per BEE proforma the calculation is as per actual Collection efficiency.*

3. High loss Circles

Circle-2nd" Circle had the highest T&D loss quantum of 1506.84 MUs and Circle-2nd had the highest T&D loss percentage of 56.29%. However, when T&D losses (MU) and T&D losses (%) are seen together then reducing T&D losses in Circle-2nd Circle must be prioritized in order to have overall reduction in AT&C losses of the DISCOM. Further, the circles with high loss that needs to be prioritized can be identified from the below chart:

Figure 7: Circle wise T&D losses (MUs) Vs T&D losses (%)



Division wise AT&C losses analysis

4. Division-wise AT&C losses

The Division wise AT&C losses are shown in the table below:

Table 27: Division wise T&D losses, Collection Efficiency and AT&C losses for FY 2023-24

Name of Circle	Division	Consumer category	Total Number of Connections (Nos)	Total Connected Load (MW)	Input Energy (MU)	Total Billed Energy (MU)	T&D Loss (MU)	T&D Loss (%)	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	AT& C Loss (%)
Circle-1st	DIV-I (BASANT BAGH)	Residential	31966	55	836.24	145.16	343.95	41.13%	45.97	44.62	97.07%	
		Agricultural	8	0		0.16			0.10	0.21	204.79%	
		Commercial/Industrial-LT	14750	61		81.10			46.83	48.56	103.69%	
		Commercial/Industrial-HT	80	43		160.07			78.49	76.50	97.47%	
		Others	567	41		105.81			84.10	111.94	133.11%	
Sub-total			**47371**	**200.11**	**836.24**	**492.30**	**343.95**	**41.13%**	**255.49**	**281.84**	**110.31%**	**35.06%**
Circle-1st	DIV-IV (KHANYAR)	Residential	51902	79	794.73	227.93	467.23	58.79%	72.17	71.65	99.28%	
		Agricultural	121	1		0.58			0.29	0.52	182.69%	
		Commercial/Industrial-LT	12634	37		37.19			21.69	20.81	95.95%	
		Commercial/Industrial-HT	8	2		3.96			2.17	1.53	70.63%	
		Others	420	29		57.84			48.06	59.30	123.40%	
Sub-total			**65085**	**147.28**	**794.73**	**327.50**	**467.23**	**58.79%**	**144.37**	**153.82**	**106.54%**	**56.09%**
Circle-2nd	BUDGAM	Residential	104756	146	1269.40	369.72	795.93	62.70%	103.79	74.01	71.31%	
		Agricultural	4	0		0.07			0.13	0.39	295.65%	
		Commercial/Industrial-LT	18218	57		64.08			37.06	36.79	99.25%	
		Commercial/Industrial-HT	32	7		15.81			8.21	5.89	71.71%	
		Others	398	12		23.81			17.69	26.73	151.05%	
Sub-total			**123408**	**222.32**	**1269.40**	**473.48**	**795.93**	**62.70%**	**166.89**	**143.80**	**86.16%**	**67.86%**

Circle-2nd	DIV-II (RAJBAGH)	Residential	49552	123	686.22	226.99	265.06	38.63%	77.41	79.98	103.32%	
		Agricultural	11	0		0.02			0.00	0.00	102.60%	
		Commercial/Industrial-LT	18500	60		69.18			40.62	41.33	101.76%	
		Commercial/Industrial-HT	62	17		24.95			16.85	14.38	85.34%	
		Others	549	37		100.03			77.19	96.09	124.49%	
Sub-total			**68674**	**237.64**	**686.22**	**421.17**	**265.06**	**38.63%**	**212.08**	**231.79**	**109.30%**	**32.92%**
Circle-2nd	DIV-III (SHREEN BAGH)	Residential	47854	86	721.12	204.19	445.86	61.83%	64.17	57.42	89.49%	
		Agricultural	16	0		0.49			0.34	6.87	2012.35%	
		Commercial/Industrial-LT	13286	35		38.48			21.91	21.19	96.73%	
		Commercial/Industrial-HT	15	2		2.72			2.14	5.52	257.89%	
		Others	287	20		29.38			23.69	54.79	231.29%	
Sub-total			**61458**	**144.13**	**721.12**	**275.26**	**445.86**	**61.83%**	**112.25**	**145.81**	**129.89%**	**50.42%**
Circle-Bijbehara	ANANTNAG	Residential	87190	122	771.35	307.00	394.23	51.11%	89.60	86.53	96.57%	
		Agricultural	15	2		1.35			1.00	5.80	580.73%	
		Commercial/Industrial-LT	18137	44		46.66			26.78	35.71	133.34%	
		Commercial/Industrial-HT	6	7		1.67			2.49	2.30	92.33%	
		Others	503	13		20.44			15.43	23.92	155.09%	
Sub-total			**105851**	**188.22**	**771.35**	**377.12**	**394.23**	**51.11%**	**135.30**	**154.26**	**114.01%**	**44.26%**
Circle-Bijbehara	BIJBEHARA	Residential	48062	78	385.84	169.19	169.66	43.97%	49.28	46.46	94.28%	
		Agricultural	224	5		8.23			5.12	20.74	404.97%	
		Commercial/Industrial-LT	9262	25		27.81			16.65	20.89	125.42%	
		Commercial/Industrial-HT	9	2		4.69			3.05	3.06	100.19%	
		Others	388	3		6.27			5.15	10.32	200.49%	
Sub-total			**57945**	**113.73**	**385.84**	**216.19**	**169.66**	**43.97%**	**79.26**	**101.47**	**128.03%**	**28.27%**
Circle-Bijbehara	KULGAM	Residential	74655	97	632.40	271.94	300.47	47.51%	78.26	70.45	90.02%	
		Agricultural	5	0		0.88			0.51	1.23	243.39%	
		Commercial/Industrial-LT	12183	34		44.32			25.58	32.49	127.04%	
		Commercial/Industrial-HT	24	5		7.34			4.30	4.34	100.97%	
		Others	208	9		7.46			5.51	7.85	142.37%	
Sub-total			**87075**	**144.72**	**632.40**	**331.93**	**300.47**	**47.51%**	**114.15**	**116.36**	**101.93%**	**46.50%**

Circle-Ganderbal	BANDIPORA	Residential	31616	70	172.97	85.80	72.84	42.11%	25.68	23.50	91.50%	
		Agricultural	3	0		0.00			0.00	0.88	25902.54%	
		Commercial/Industrial-LT	3555	8		8.10			4.79	5.26	109.77%	
		Commercial/Industrial-HT	6	3		1.29			1.34	0.85	63.49%	
		Others	343	6		4.93			3.90	4.67	119.83%	
Sub-total			**35523**	**86.52**	**172.97**	**100.12**	**72.84**	**42.11%**	**35.71**	**35.16**	**98.45%**	**43.01%**
Circle-Ganderbal	DIV SUMBAL	Residential	25127	27	263.65	94.25	131.64	49.93%	26.90	18.62	69.22%	
		Agricultural	159	10		12.43			9.36	122.60	1309.41%	
		Commercial/Industrial-LT	3286	10		11.50			6.48	4.59	70.85%	
		Commercial/Industrial-HT	4	1		0.52			0.36	0.45	124.86%	
		Others	213	6		13.31			11.12	67.68	608.42%	
Sub-total			**28789**	**53.89**	**263.65**	**132.01**	**131.64**	**49.93%**	**54.23**	**213.94**	**394.52%**	**-97.54%**
Circle-Ganderbal	GANDERBAL	Residential	42294	51	575.66	156.78	357.83	62.16%	44.54	35.72	80.20%	
		Agricultural	29	2		2.14			1.58	5.62	355.88%	
		Commercial/Industrial-LT	6887	21		33.51			19.06	23.61	123.87%	
		Commercial/Industrial-HT	14	6		7.26			5.27	4.79	90.91%	
		Others	502	11		18.15			15.31	24.66	161.08%	
Sub-total			**49726**	**91.94**	**575.66**	**217.84**	**357.83**	**62.16%**	**85.76**	**94.40**	**110.08%**	**58.35%**
Circle-Pulwama	AWANTIPORA	Residential	47134	57	722.26	183.78	323.09	44.73%	53.33	52.18	97.83%	
		Agricultural	236	23		29.04			18.00	66.77	370.90%	
		Commercial/Industrial-LT	8825	27		40.97			22.82	31.55	138.24%	
		Commercial/Industrial-HT	21	38		118.47			55.97	53.67	95.88%	
		Others	270	12		26.91			20.41	41.69	204.27%	
Sub-total			**56486**	**157.85**	**722.26**	**399.17**	**323.09**	**44.73%**	**170.54**	**245.85**	**144.16%**	**20.32%**
Circle-Pulwama	PULWAMA	Residential	42576	88	501.40	168.79	224.47	44.77%	50.69	50.65	99.91%	
		Agricultural	231	9		8.93			6.11	24.57	402.39%	
		Commercial/Industrial-LT	9406	40		41.27			23.00	27.42	119.19%	
		Commercial/Industrial-HT	112	33		49.93			27.70	28.51	102.94%	
		Others	327	5		8.01			6.99	19.46	278.52%	
Sub-total			**52652**	**174.77**	**501.40**	**276.93**	**224.47**	**44.77%**	**114.49**	**150.61**	**131.55%**	**27.34%**

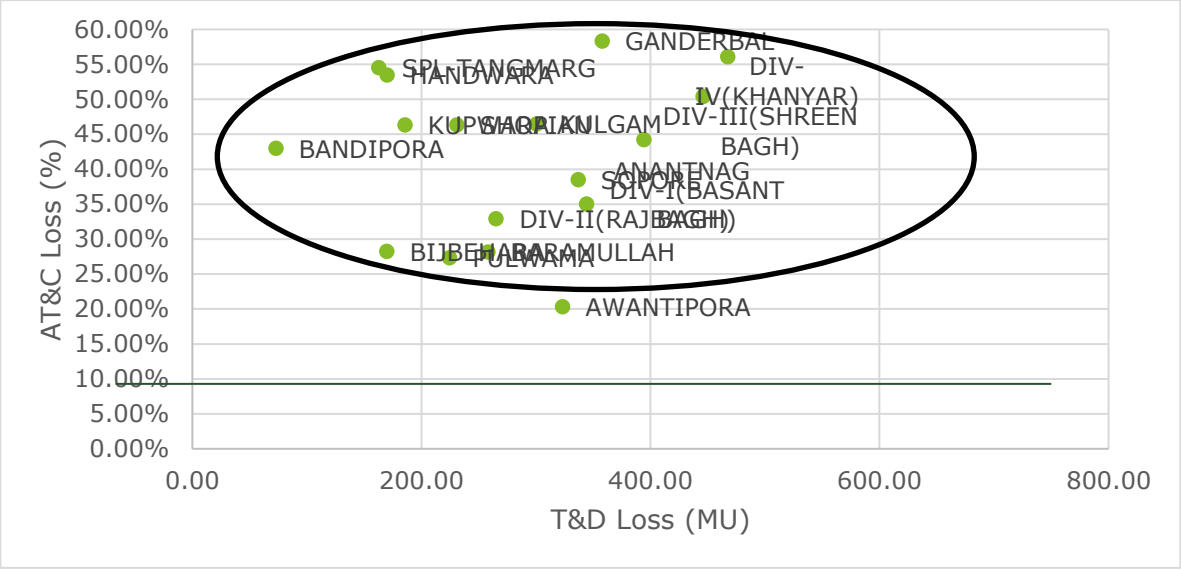
Circle-Pulwama	SHOPIAN	Residential	45028	76	419.95	158.02	230.84	54.97%	45.36	44.36	97.79%	
		Agricultural	233	3		0.84			0.53	6.58	1252.25%	
		Commercial/Industrial-LT	5912	18		17.62			10.73	10.34	96.36%	
		Commercial/Industrial-HT	9	3		8.33			3.96	4.16	104.90%	
		Others	469	5		4.31			3.95	11.46	290.08%	
Sub-total			**51651**	**104.59**	**419.95**	**189.12**	**230.84**	**54.97%**	**64.54**	**76.90**	**119.16%**	**46.34%**
Circle-Sopore	BARAMULLAH	Residential	62987	134	570.10	221.04	257.86	45.23%	63.88	53.58	83.87%	
		Agricultural	36	8		13.44			10.69	37.42	350.03%	
		Commercial/Industrial-LT	10205	24		26.61			15.03	13.59	90.44%	
		Commercial/Industrial-HT	4	1		1.95			1.05	1.03	97.96%	
		Others	1030	21		49.20			39.41	64.94	164.78%	
Sub-total			**74262**	**188.95**	**570.10**	**312.24**	**257.86**	**45.23%**	**130.06**	**170.56**	**131.14%**	**28.18%**
Circle-Sopore	HANDWARA	Residential	37092	32	304.14	114.04	169.83	55.84%	29.94	22.46	75.01%	
		Agricultural	30	2		0.28			1.40	7.33	522.77%	
		Commercial/Industrial-LT	4125	11		15.56			8.82	12.07	136.92%	
		Commercial/Industrial-HT	1	0		0.46			0.26	0.26	100.00%	
		Others	187	3		3.97			3.22	3.84	119.18%	
Sub-total			**41435**	**47.53**	**304.14**	**134.31**	**169.83**	**55.84%**	**43.64**	**45.96**	**105.30%**	**53.50%**
Circle-Sopore	KUPWARA	Residential	50509	34	358.52	132.79	185.66	51.79%	32.73	28.66	87.57%	
		Agricultural	0	0		0.00			0.00	0.00	0.00%	
		Commercial/Industrial-LT	5179	16		24.42			14.52	24.79	170.74%	
		Commercial/Industrial-HT	1	0		0.06			0.13	0.00	0.00%	
		Others	330	6		15.59			11.18	11.73	104.93%	
Sub-total			**56019**	**55.87**	**358.52**	**172.86**	**185.66**	**51.79%**	**58.55**	**65.18**	**111.32%**	**46.33%**
Circle-Sopore	SOPORE	Residential	59758	80	591.43	201.83	336.66	56.92%	57.18	44.06	77.05%	
		Agricultural	73	4		2.93			5.03	21.52	428.01%	
		Commercial/Industrial-LT	11009	29		25.69			15.34	12.56	81.90%	
		Commercial/Industrial-HT	9	2		2.76			1.88	1.73	91.82%	
		Others	366	8		21.54			17.50	58.52	334.50%	
Sub-total			**71215**	**123.66**	**591.43**	**254.76**	**336.66**	**56.92%**	**96.93**	**138.39**	**142.77%**	**38.50%**

Circle-Sopore	SPL-TANGMARG	Residential	22978	53	263.91	69.52	162.65	61.63%	19.02	15.85	83.30%	
		Agricultural	28	0		0.04			0.01	0.00	77.11%	
		Commercial/Industrial-LT	3064	14		14.55			8.97	8.69	96.88%	
		Commercial/Industrial-HT	18	5		10.48			6.99	7.23	103.39%	
		Others	295	5		6.66			5.32	16.00	300.68%	
Sub-total			**26383**	**76.71**	**263.91**	**101.26**	**162.65**	**61.63%**	**40.31**	**47.76**	**118.50%**	**54.53%**
Total		Residential	963036	1488	10841.30	3508.76	5635.75	51.98%	1029.92	920.76	89.40%	
		Agricultural	1462	70		81.86			60.19	329.05	546.65%	
		Commercial/Industrial-LT	188423	571		668.62			386.67	432.22	111.78%	
		Commercial/Industrial-HT	435	178		422.73			222.64	216.22	97.12%	
		Others	7652	253		523.59			415.12	715.60	172.38%	
At company level			**1161008.00**	**2560.45**	**10841.30**	**5205.55**	**5635.75**	**51.98%**	**2114.55**	**2613.86**	123.61%	**40.65%**

5. High loss divisions

Operations & Maintenance Division Budgam has the highest T&D loss quantum of 795.93 MU and "Budgam" Division had the highest AT&C loss percentage of 67.86%. Further, the circles with high loss that needs to be prioritized can be identified from the below chart:

Figure 8: Division wise T&D losses (MUs) Vs AT&C losses (%)



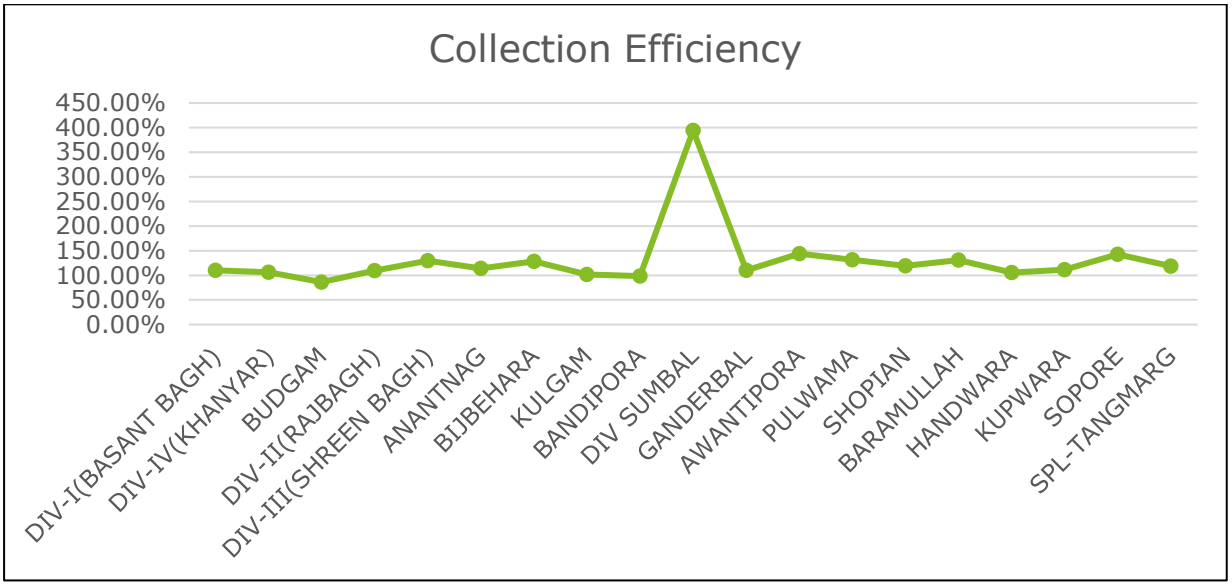
The list of top 10 Divisions with higher AT&C losses (%) & T&D losses (%) identified from the above chart are tabulated below:

Table 28: Top 10 Divisions with higher AT&C losses (%) & T&D losses (%)

S.No.	Division	T&D loss (%)	AT&C loss (%)
1	BUDGAM	62.70%	67.86%
2	GANDERBAL	62.16%	58.35%
3	DIV-III(SHREEN BAGH)	61.83%	50.42%
4	SPL-TANGMARG	61.63%	54.53%
5	DIV-IV(KHANYAR)	58.79%	56.09%
6	SOPORE	56.92%	38.50%
7	HANDWARA	55.84%	53.50%
8	SHOPIAN	54.97%	46.34%
9	KUPWARA	51.79%	46.33%
10	ANANTNAG	51.11%	44.26%

Further, it was observed that the Collection Efficiency is more than 100% across all the Divisions as shown below:

Figure 9: Division wise Collection efficiency (%)



4.5.5. Feeder wise T&D losses analysis

1. Feeder wise T&D losses

Sample attched

Feeder Name	Type of Feeder	Type of feeder meter	Received at Feeder (MU)	Feeder Consumption (MU)	T&D losses
F1 NAI SARAK	Mixed	AMR	13.91	4.68	9.91
F5 EXCHANGE	Mixed	AMR	6.42	5.44	1.29
BASANT BAGH FEEDER-I (ganpathayar)	Mixed	AMR	12.07	4.57	8.08
F3 MAISUMA	Mixed	AMR	5.44	2.40	3.30
BRANE FD1	Mixed	AMR	12.04	4.04	8.58
F-2 Tulip Garden/Karpora	Mixed	AMR	3.43	1.96	1.64
BRANE 3	Mixed	AMR	18.96	6.53	13.34
BUCHWARA FD1 (NEHRU PARK)	Mixed	AMR	9.78	7.11	3.14
BUCHWARA FD2 (DALGATE)	Mixed	AMR	21.04	8.07	13.98
CENTURE FD1 Zabarwan Park	Mixed	AMR	1.25	1.02	0.29
CENTURE FD2 Raj Bhawan	Mixed	AMR	2.18	3.36	0.00
CENTURE FD3 Centaur Hotel	Mixed	AMR	0.66	0.68	0.02
K.K.Mohalla F1	Mixed	AMR	12.06	4.03	8.60
Nawpora F3	Mixed	AMR	19.40	6.13	14.21
Bohri Kadal F4 part-b	Mixed	AMR	7.03	2.61	4.76
Bohri Kadal F4 part-a	Mixed	AMR	7.62	2.73	5.25
Gosia Hospital F5 part-b	Mixed	AMR	0.09	0.09	0.01
Gosia Hospital F5 part-a	Mixed	AMR	1.17	1.17	0.06
Theed F1	Mixed	AMR	16.16	3.64	13.30
Harwan F2	Mixed	AMR	17.13	6.54	11.41
Dara F3	Mixed	AMR	18.32	4.72	14.48

Feeder Name	Type of Feeder	Type of feeder meter	Received at Feeder (MU)	Feeder Consumption (MU)	T&D losses
BODAGEER, Kawadara : F2	Mixed	AMR	16.97	4.49	13.30
Nawakadal: F3	Mixed	AMR	12.98	4.51	9.10
Rajouri Kadal: F4, JAMIA MASJID part-c	Mixed	AMR	1.24	0.39	0.91
Rajouri Kadal: F4, JAMIA MASJID part-b	Mixed	AMR	4.67	1.81	3.08
Rajouri Kadal: F4, JAMIA MASJID part-a	Mixed	AMR	9.65	2.67	7.44
Naqash Pora, Satho Barbar Shah: F1	Mixed	AMR	13.05	4.40	9.29
Babademb, Fateh Kadal: F2	Mixed	AMR	13.36	4.97	9.04
Bishamber Nagar & Khayam Chowk : F3	Mixed	AMR	12.41	8.04	4.97
Dy. CM's residence, Arthocare Hospital & STP (Sewrage Tretment Plane): F4 part-b	Mixed	AMR	5.41	5.29	0.39
Dy. CM's residence, Arthocare Hospital & STP (Sewrage Tretment Plane): F4 part-a	Mixed	AMR	0.38	0.18	0.22
Rajouri Kadal-F2 part-b	Mixed	AMR	2.52	0.86	1.77
Rajouri Kadal-F2 part-a	Mixed	AMR	1.98	0.96	1.12
Zadibal-F3 part-b	Mixed	AMR	2.23	0.66	1.68
Zadibal-F3 part-a	Mixed	AMR	14.91	3.83	11.80
NARWARA, Firdous Coloney-F4	Mixed	AMR	15.36	5.52	10.58
Mughal Masjid-F5 part-b	Mixed	AMR	10.30	2.63	8.17
Mughal Masjid-F5 part-a	Mixed	AMR	2.11	0.55	1.66
Jamia Masjid, ICSC-F6 part-b	Mixed	Metered	0.40	0.34	0.08
Jamia Masjid, ICSC-F6 part-a	Mixed	Metered	0.29	0.28	0.02
Bachi Darwaza, MAKHDOOM SAHIB-F1 part-b	Mixed	AMR	1.69	0.51	1.26
Bachi Darwaza, MAKHDOOM SAHIB-F1 part-a	Mixed	AMR	8.85	2.76	6.51
MA road, regal chowk: F2	Mixed	AMR	7.02	6.75	0.61
MLA hostel, deputy CM, Bankat Hall: F1	Mixed	AMR	4.10	4.14	0.16
Bsnl exchange,Nishat F1	Mixed	Metered	9.46	2.74	7.17
Nishat F2	Mixed	AMR	11.03	3.09	8.47
Foreshore Road Nishat F3 part-b	Mixed	AMR	16.63	6.51	10.92
Foreshore Road Nishat F3 part-a	Mixed	AMR	1.85	0.91	1.02
Pathan Bagh F4	Mixed	AMR	10.50	4.32	6.69
Filtration Plant F5	Mixed	AMR	0.60	0.54	0.09
SKUAST F1	Mixed	AMR	2.55	2.55	0.13
Local Shalimar, TAILBAL F2	Mixed	AMR	21.40	6.99	15.44
Arbal F3	Mixed	Metered	22.17	8.37	14.87
CD Hospital F1	Mixed	AMR	2.91	3.67	0.00
Lal Chowk F2	Mixed	AMR	16.23	10.98	6.04
JK Bank F3	Mixed	AMR	1.46	1.46	0.07
CM Residence F4 part-b	Mixed	AMR	5.27	5.11	0.41
CM Residence F4 part-a	Mixed	AMR	5.06	3.77	1.53
Dalgate part-b	Mixed	Metered	17.35	6.30	11.89
Dalgate part-a	Mixed	Metered	0.44	0.18	0.29
Radio Kashmir	Mixed	AMR	7.25	6.62	0.98

Feeder Name	Type of Feeder	Type of feeder meter	Received at Feeder (MU)	Feeder Consumption (MU)	T&D losses
BADAMI BAGH F01 (pandrethan)	Mixed	AMR	3.95	3.67	0.47
BADAMI BAGH F2 (PHE)	Mixed	Metered	0.16	0.15	0.02
BADAMI BAGH F3 BUND	Mixed	AMR	0.21	0.13	0.08
BADAMI BAGH F04 (pantha Chowk)	Mixed	AMR	3.93	2.41	1.70
F3 AMDAKADAL	Mixed	AMR	12.73	2.80	10.54
Baghwanpora, F2	Mixed	AMR	14.67	6.17	9.21
F1 BOTAKADAL	Mixed	AMR	12.90	4.00	9.52
Zafran Colony F1	Mixed	AMR	6.42	4.03	2.70
Befina F2 part-b	Mixed	AMR	3.34	1.28	2.22
Befina part-a	Mixed	AMR	2.23	0.97	1.36
Balhama F3	Mixed	AMR	7.30	2.73	4.92
CRPF + IOC F4	Mixed	AMR	1.36	1.35	0.07
Saida Kadal, F1	Mixed	AMR	15.05	4.12	11.65
Dalkawpora, F2	Mixed	AMR	15.82	4.52	12.06
Central Jail, F3 part-b	Mixed	AMR	0.65	0.55	0.14
Central Jail, F3 part-a	Mixed	AMR	5.87	5.13	1.02
DAL LAKE F5	Mixed	AMR	18.84	4.61	15.14
Khunmoh Town: F2	Mixed	AMR	15.75	5.65	10.86
JK Armed Police: F3	Mixed	AMR	2.53	2.49	0.16
Upper Khunmoh , Chak Sangri F1	Mixed	AMR	12.29	5.88	7.00
F1: Jan Mohalla, Main Lalbazar, Botshah Mohallah	Mixed	AMR	7.81	6.18	2.00
F2: Zari Mohalla and Sikh Bagh	Mixed	AMR	10.06	4.03	6.51
F3: Bota Kadal	Mixed	AMR	8.52	4.44	4.48
Samarbugh F1	Mixed	AMR	6.58	2.77	4.13
Shalina F2	Mixed	AMR	5.43	8.67	0.00
Indra Nagar, F1	Mixed	AMR	11.49	9.61	2.43
Batwara F2	Mixed	AMR	5.96	2.52	3.73
Shivpora F3	Mixed	AMR	10.86	6.92	4.46
Sonwar F4	Mixed	AMR	11.01	6.73	4.81
IE PHASE-I FOODPARK F1	Mixed	AMR	7.82	6.75	1.44
IE PHASE-II FOODPARK F2	Mixed	AMR	2.45	2.02	0.54
Pandach	Mixed	Metered	14.90	5.83	9.79
Khalmulla	Mixed	Metered	8.14	3.57	4.96
Industrial Estate F1	Mixed	AMR	3.23	3.16	0.23
Nowshera F2	Mixed	AMR	7.59	3.73	4.23
Alamgari Bazar F3	Mixed	AMR	14.89	4.90	10.70
Bota Kadal, F4	Mixed	AMR	10.60	4.87	6.24
Hari Parbat Exchange F6	Mixed	AMR	1.23	1.16	0.12
Telbal, F3 part-b	Mixed	AMR	3.32	0.86	2.63
Telbal, F3 part-a	Mixed	AMR	4.40	1.08	3.54
Dhanihama F1	Mixed	AMR	12.09	3.83	8.85
Burzehama,Gassu F4	Mixed	AMR	13.97	4.85	9.78

Feeder Name	Type of Feeder	Type of feeder meter	Received at Feeder (MU)	Feeder Consumption (MU)	T&D losses
khimber,chaterhama F2 part-b	Mixed	AMR	17.26	4.79	13.31
khimber,chaterhama part-a	Mixed	AMR	0.35	0.13	0.24
Ellahibagh, F1	Mixed	AMR	0.00	0.04	0.00
Owanthabhawan F2 part-b	Mixed	AMR	2.41	1.29	1.24
Owanthabhawan F2 part-a	Mixed	AMR	10.99	3.92	7.60
Umar Colony B	Mixed	AMR	17.94	7.89	10.91

4.5.6. Identify overloaded segments/ infrastructure

KPDCL has identified Overloaded segments for substations at 33/11kV and 11/0.433kV levels and chalked out a plan for system improvement which includes new creations. Besides, the health of transmission and distribution lines is also being improved by way of augmentation of line conductor, bifurcation of feeders and laying of cables of appropriate size. Smart metering is also being under taken specially to cover non metered areas and the step will further reduce load on the power system. The complete action plan forms part of the audit report. The works are proposed to be undertaken under Revamped Distribution Sector Scheme (RDSS) and are targeted for completion by 2025.

4.6. Subsidy computation and analysis (based on quarterly data)

The quarter wise subsidy details during FY 2023-24 are shown in the table below:

Table 29: Quarter wise – Division wise subsidy details

Annexure -1: Proforma for Quarterly Consumer Category-wise Subsidy Billed/Received/Due for period April 2023 to December 2023

Consumer Category (Separate for each subsidised consumer category)	Consumer Count			Billed Energy			Subsidised Billed Energy			Applicable rate of Subsidy as notified by State govt.		Subsidy Due from State Govt.			Subsidy Actually Billed / Claimed from State Govt. (As against col.12)	Subsidy Received from State Govt. (As against col.13)	Balance Subsidy yet to be Received from State Govt.
	Metered	Un-metered*	Total	Metered	Un-metered*	Total	Metered (out of col.2)	Un-metered* (out of col.3)	Total	Metered Energy**	Un-metered Energy**	Metered Energy	Un-metered Energy	Total			
				(in kWh)			(in kWh)			(in Rs/kWh)		(in Rs. Cr.)			(in Rs. Cr.)	(in Rs. Cr.)	(in Rs. Cr.)
1				2	3	4=2+3	5	6	7=5+6	8	9	10=5x8	11=6x9	12=10+11	13	14	15=13-14
Residential	290046	672990	963036	743085619	1675036806	2418122425	743085618.8	1675036806	2418122425	2.59	2.59	192.54	434.02	626.57			
Agricultural	1343	119	1462	69632983	6323319	75956302	69632983.3	6323318.945	75956302.24	1.71	1.71	11.91	1.08	12.99			
Commercial/Industrial-LT (Commercial)	150693	26490	177183	280164820	124813706	404978526	280164819.7	124813706	404978525.7	2.38	2.38	66.54	29.65	96.19			
Commercial/Industrial-LT (Industrial)	10425	615	11040	85999128	242636	86241764	85999128.17	242635.8624	86241763.97	4.05	4.05	34.83	0.10	34.93			
Commercial/Industrial-HT (HT Industry)	203	0	203	262372003	0	262372003	262372003.4	0	262372003.4	3.88	3.88	101.80	0.00	101.80			
Commercial/Industrial-HT (Power Intensive)	3	0	3	1305687	0	1305687	1305687	0	1305687	3.55	3.55	0.46	0.00	0.46			
Commercial/Industrial-HT (Bulk Supply)	136	3	139	52522063	489612	53011675	52522062.81	489612.2467	53011675.06	3.19	3.19	16.76	0.16	16.91			
Others (State/Central)	6050	993	6043	260776416	3464606	264241022	260776416.1	3464606.175	264241022.3	1.75	1.75	45.51	0.60	46.12			
Others (Street Lights)	155	89	244	8138909	3812409	11951318	8138908.913	3812409.162	11951318.07	0.50	0.50	0.41	0.19	0.60			
Others (LT PHE)	327	113	440	20189738	4205775	24395513	20189738.42	4205774.894	24395513.31	0.50	0.50	1.01	0.21	1.22			
Others (HT PHE)	254	67	321	47846234	2417882	50264116	47846233.68	2417882.331	50264116.01	0.90	0.90	4.31	0.22	4.53			
Others (EV)	1	0	1	914580	0	914580	914580	0	914580	0.00	0.00	0.00	0.00	0.00			
Others (Traction)	3	0	3	4358073	0	4358073	4358073	0	4358073	3.50	3.50	0.37	0.00	0.37			
Total	**459738**	**701179**	**1161008**	**1837306253**	**1820806752**	**3658113005**	**1837306253**	**1820806752**	**3658113005**			**476.45**	**466.23**	**942.68**			

Note:
1. The Subsidy rate for sub categories of commercial/Industrial-LT , Commercial/Industrial-HT and Others are different. So mentioned separately in above proforma
2. Subsidy rates are as per New Tariff order in vogue.

The Account for Subsidy has been evaluated from Approved Tariff for JPDCL and KPDCL FY2022-23 (Page No viii to xii) and Full Cost Tariff (Page No 116 to Page No 121) defined in the Tariff Order 2022-23

Chief Engineer (D)
Chief Engineer (Distribution) KPDCL

Energy Manager (KPDCL)

Annexure -1: Proforma for Quarterly Consumer Category-wise Subsidy Billed/Received/Due for period January 2024 to March 2024

Consumer Category (Separate for each subsidized consumer category)	Consumer Count			Billed Energy (in kWh)			Subsidised Billed Energy (in kWh)			Applicable rate of Subsidy as notified by State govt (in Rs/kWh)		Subsidy Due from State Govt. (in Rs. Cr.)			Subsidy Actually Billed / claimed from State Govt. (in Rs. Cr.)	Subsidy Received from State Govt. (in Rs. Cr.)	Balance Subsidy yet to be Received from State Govt. (in Rs. Cr.)
	Metered	Un-metered*	Total	Metered	Un-metered*	Total	Metered (out of col.2)	Un-metered* (out of col.3)	Total	Metered Energy**	Un-metered Energy**	Metered Energy	Un-metered Energy	Total			
1				2	3	4=2+3	5	6	7=5+6	8	9	10=5X8	11=6X9	12=10+11	13	14	15=13-14
Residential	290046	672990	963036	340452381	750180751	1090633132	340452381	750180750.9	1090633132	3.09	3.09	105.10	231.58	336.68			
Agricultural	1343	119	1462	2570693	3330210	5900904	2570693.471	3330210.138	5900903.613	2.97	2.97	0.76	0.99	1.75			
Commercial/Industrial-LT (Commercial)	150693	26630	177383	99429990	37736745	137166735	99429990.14	37736744.97	137166735.1	2.63	2.63	26.18	15.13	41.31			
Commercial/Industrial-LT (Industrial)	10425	615	11040	20172412	61037	20233449	20172412.38	61036.73626	20233449.11	3.50	3.50	7.06	0.02	7.08			
Commercial/Industrial-HT (HT Industry)	293	0	293	83059045	0	83059045	83059044.74	0	83059044.74	3.52	3.52	29.23	0.00	29.23			
Commercial/Industrial-HT (Power Intensive)	3	0	3	520900	0	520900	520900	0	520900	4.17	4.17	0.22	0.00	0.22			
Commercial/Industrial-HT (Bulk Supply)	136	3	139	22274693	182190	22456883	22274692.87	182190	22456882.87	3.51	3.51	7.82	0.06	7.88			
Others (State/Central)	6050	593	6643	125100965	3823746	128924711	125100964.9	3823746.014	128924710.9	1.03	1.03	12.84	0.39	13.23			
Others (Street Lights)	155	89	244	4563886	1925697	6489584	4563887.83	1925696.658	6489584.488	0.37	0.37	0.17	0.07	0.24			
Others (LT PHE)	327	113	440	9425483	2162163	11587646	9425483.035	2162162.613	11587645.65	0.37	0.37	0.35	0.08	0.43			
Others (HT PHE)	254	67	321	16698461	1727849	18426311	16698461.4	1727849.276	18426310.68	0.05	0.05	0.08	0.01	0.09			
Others (EV)	1	0	1	988650	0	988650	988650	0	988650	0.00	0.00	0.00	0.00	0.00			
Others (Traction)	3	0	3	1053420	0	1053420	1053420	0	1053420	3.50	3.50	0.37	0.00	0.37			
Total	**459726**	**701279**	**1161006**	**726310981**	**821130387**	**1547441368**	**726310981.8**	**821130387.3**	**1547441369**			**190.14**	**248.39**	**438.54**			

Note:
1. The Subsidy rate for sub categories of commercial/Industrial-LT , Commercial/Industrial-HT and Others are different. So mentioned separately in above proforma
2. Subsidy rates are as per New Tariff order in vogue.
The Account for Subsidy has been evaluated from Approved Tariff for JPDCL and KPDCL FY2023-24 (Page No 8 to 13) and Full Cost Tariff (Page No 162 to Page No 167 defined in the Tariff Order 2023-24

Chief Engineer (Distribution) KPDCL

Energy Manager (KPDCL)

4.7. Trend analysis and identification of key exceptions

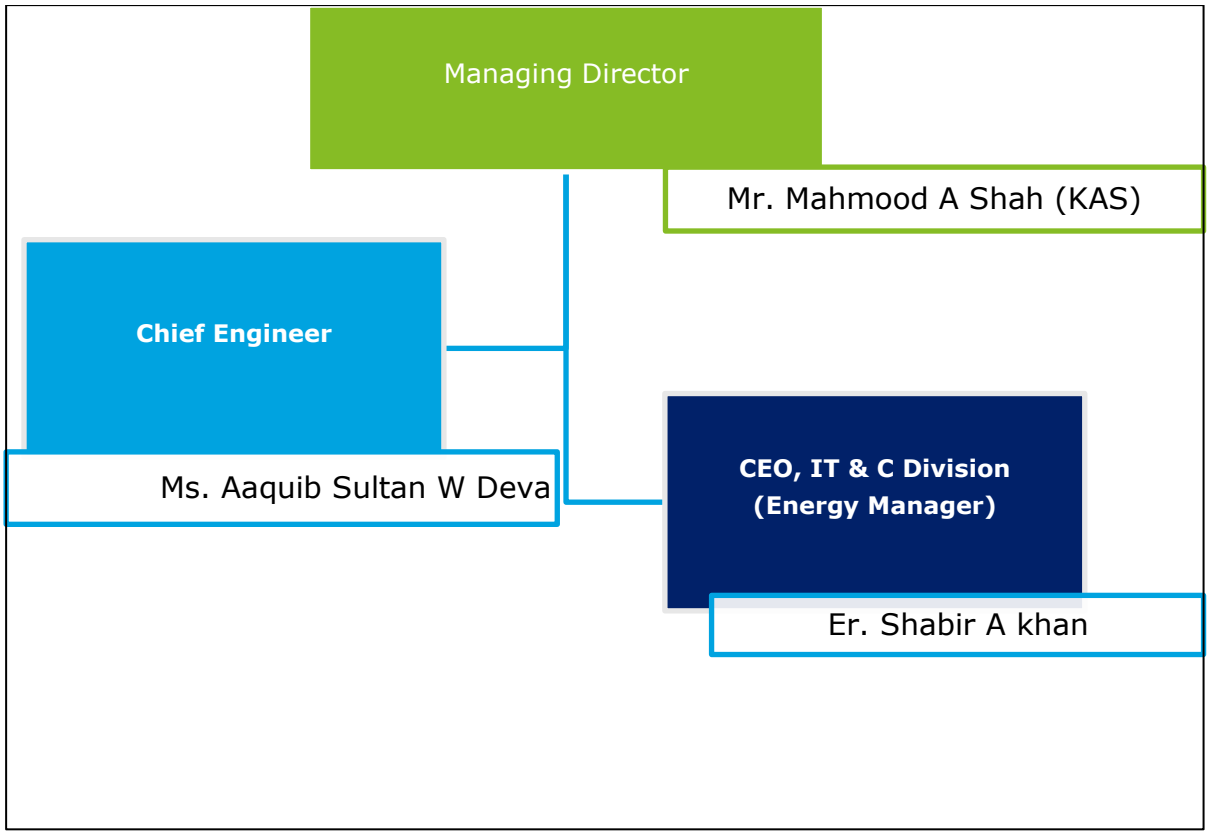
The performance of Discom in FY 2021-22 Vs FY 2022-23 Vs FY 2023-24 comparison are shown below table, it was observed that the AT&C for the FY 2021-22 is 65.61%, AT&C for FY 2022-23 is 53.35% and AT&C for FY 2023-24 is 40.65%, which is lower than the previous year. The collection in FY 2021-22 is 93.61%, FY 2022-23 is 115.45% and the collection in FY 2023-24 is 123.61%, which is higher as compared to FY 2022-23. The T&D for the FY 2021-22 is 63.26%, T&D for FY 2022-23 is 59.59% and T&D for FY 2023-24 is 51.987%, which is lower side as compared to last two years. The AT&C for the FY 2023-24 is 40.65% at collection 123.61%.

Table 30: Summary of AT&C & T& D Trends or Last three years

Energy Input Details	UoM	FY 2021-22	FY 2022-23	FY 2023-24
Input Energy Purchase (From Generation Source)*	Million kWh	10854.84	10991.62	11124.05
Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	Million kWh	10466.13	10661.88	10841.30
Total Energy billed (is the Net energy billed, adjusted for energy traded))	Million kWh	3845.29	4308.55	5205.55
Transmission and Distribution (T&D) loss Details	Million kWh	6620.84	6353.33	5635.75
	%	63.26%	59.59%	51.98%
Collection Efficiency	%	93.61%	115.45%	123.61%
Aggregate Technical & Commercial Loss	%	65.61%	53.35%	40.65%

5. Energy Audit findings

5.1. Review of capacity of DISCOM's energy accounting and audit wing



Designation	No. of Officers
Managing Director	Mr. Mahmood A Shah (KAS)
Chief Engineer	Ms. Aaquib Sultan W Deva
Energy Manager	Er. Shabir A khan

5.2. Critical Analysis

KPDCL, headquartered at Jehangir Chowk, Srinagar, functions with 06 Circles, 19 Divisions and 67 Sub-divisions. KPDCL has a unique mix of consumers i.e. on one hand it caters to industrial consumers alongside urban areas and on the other it caters to agricultural consumers, scattered tribal & forest area consumers

- The Input Energy purchase, Net Input energy at DISCOM Periphery and Energy billed for the customer is 11124.05 MU, 10841.30 MU and 5205.55 MU, the monthly consumption per customer stands at 373.64 KWH/Month. KPDCL caters to area spread in 6 circles, 19 Division.

- Verified transmission losses, distribution (T&D) losses, collection efficiency & aggregate technical & commercial losses of KPDCL for FY 2023-2024, i.e., 1st April'2023 to 31st March'2024 is 2.54%, 51.98%, 123.61% & 40.65 % respectively.
- The Purchased energy by KPDCL for the consumers is 11124.5 MU, the monthly consumption per Consumers stands at 373.64 KWH/Month
- KPDCL served 11.61 Lakh Consumers with connected load of 2560.45 MW in FY-2023-24. The energy sales during the Period were recorded at 5205.55 MU.
- KPDCL has 100 % metering available at 33/11 kV system. However, there is almost 39.60 % metering at consumer end and 0.0% metering available at DT.
- 119 Nos. Agriculture consumers are still unmetered which need to be provided meter as per government guidelines.
- "Circle-2nd" Circle had the highest T&D loss quantum of 1506.84 MUs and "Circle-2nd" Circle had the highest T&D loss percentage of 56.29%. "Circle-Pulwama" Circle had the lowest T&D loss percentage of 47.36%.
- Transmission loss is 2.54 % as per the divisional database 2023-2024.
- The document verification and reports submitted by the KPDCL provided the insights to the energy consumption pattern. It can be seen that 64.90% of its energy is consumed by Residential then followed by Commercial/Industrial-HT Consumer.
- KPDCL has provided the Feeder wise input energy, Feeder wise billed energy furnished after completion of mapping at each feeder.
- KPDCL has provided details of received source data for FY 2023-24 with the monthly breakup.
- At the time of field visit it was found that at maximum substation the average power factor is above >0.95, which is satisfactory.
- Capacitor banks are installed in only some substations.

5.2.1. Substation Loss Analysis

KPDCL 33/11KV substation loss analysis monthly generate report

Table 31: Substation loss analysis

Name of Sub Station	Sub Division-II, Karan Nagar	Sub Division-II, Karan Nagar	Sub Division 1-ST, Rajbagh	Sub Division 1-ST, Rajbagh
Name of 33/11 KV Substation	Safakadal	S H Pora	Danderkah	Peerbagh
Month	Mar-24	Mar-24	Mar-24	Mar-24
Total Unit Received on 33KV line	8054200	2749600	37.134	52.404
Total Unit Dispatched on 11KV Feeders	8030000	2730800	36.584	52.084
Difference (kWh)	24200	18800	0.55	0.32
Loss%	0.30%	0.68%	1.48%	0.61%

NAME OF SUB DIVISION	SUB DIVISION-II, Karan Nagar.					
NAME OF 33/11 KV SUB STATION	Safakadal					
PERIOD /MONTH	Mar-24					
INCOMING FEEDER DETAILS						
NAME OF 33 KV LINE	METER S. NO	INITIAIAL READING (KWH)	FINAL READING (KWH)	Diff.	MF	UNITS RECEIVED (KWH)
Safakadal	SS17047424	15896.5	18449.8	2553.3	1000	2553300.00000
	SS17047423	17175.4	19929.4	2754.0	1000	2754000.00000
	SS17047422	17137.8	19884.7	2746.9	1000	2746900.00000
						8054200.00000
OUTGOING FEEDER DETAILS						
NAME OF 11 KV FEEDER	METER S. NO	INITIAIAL READING (KWH)	FINAL READING (KWH)	Diff.	MF	UNITS DISPATCHED (KWH)
STATION AUXILIARY						
FEEDER 1	SS17042588 /secure	7400.1	8247.8	847.7	2000	1695400.00000
FEEDER 2	S17042586 /secure	7100.2	7935.7	835.5	2000	1671000.00000
FEEDER 3	SS17042585 /secure	6924.8	7754.5	829.7	2000	1659400.00000
FEEDER 4	S17042584 /secure	7151.4	7960.1	808.7	2000	1617400.00000
FEEDER 5	SS17042481 /secure	5810.5	6503.9	693.4	2000	1386800.00000
TOTAL UNITS DISPATCHED						8030000.00000
TOTAL UNITS RECEIVED ON 33 KV LINE	8054200.00000					
TOTAL UNITS DISPATCHED ON 11 KV FEEDERS	8030000.00000					
DIFFERENCE (KWH)	24200.00000					
LOSS PERCENTAGE (%)	0.300%					

ASSISTANT EXECUTIVE ENGINEER
SUB TRANSMISSION SUB DIVISION II

Sub Division-II,Karan Nagar
STD-II

NAME OF SUB DIVISION	SUB DIVISION-II, Karan Nagar.					
	S H Pora					
PERIOD /MONTH	Mar-24					
INCOMING FEEDER DETAILS						
NAME OF 33 KV LINE	METER S. NO	INITIAIAL READING (KWH)	FINAL READING (KWH)	Diff	MF	UNITS RECEIVED (KWH)
S H Pora	JKB15796	4356702.0	4384172.0	27470.0	40	1098800.00000
	JKB15783	3147879.0	3180895.0	33016.0	50	1650800.00000
						0.00000
						2749600.00000
OUTGOING FEEDER DETAILS						
NAME OF 11 KV FEEDER	METER S. NO	INITIAIAL READING (KWH)	FINAL READING (KWH)	DIFFERENCE	MF	UNITS DISPATCHED (KWH)
STATION AUXILIARY						
FEEDER 2	1829175 /secure	5951.2	6203.2	252.0	2000	504000.00000
FEEDER 4	X1829173 /secure	11003.3	11573.4	570.1	2000	1140200.00000
FEEDER 5	X1829143 /secure	10660.1	11203.4	543.3	2000	1086600.00000
TOTAL UNITS DISPATCHED						2730800.00000
TOTAL UNITS RECEIVED ON 33 KV LINE	2749600.00000					
TOTAL UNITS DISPATCHED ON 11 KV FEEDERS	2730800.00000					
DIFFERENCE (KWH)	18800.00000					
LOSS PERCENTAGE (%)	0.684%					

ASSISTANT EXECUTIVE ENGINEER
SUB TRANSMISSION SUB DIVISION II

Sub Division-II,Karan Nagar
STD-II

NAME OF SUB DIVISION	SUB DIVISION 1-ST RAJBAGH					
NAME OF 33/11 KV SUB STATION	DANDERKAH					
PERIOD /MONTH	Mar-24					
INCOMING FEEDER DETAILS						
NAME OF 33 KV LINE	METER S. NO	INITIAIAL READING	FINAL READING (KWH)	DIFFERENCE	MF	UNITS RECEIVED (KWH)
GIS TANGPORA DANDERKAH	JKB 32650 SECURE	77391.1	79235.5	1844.4	1	18.44400
	JKB 32611 SECURE	78847.5	80716.5	1869.0	1	18.69000
						37.13400
OUTGOING FEEDER DETAILS						
NAME OF 11 KV FEEDER	METER S. NO	INITIAIAL READING	FINAL READING (KWH)	DIFFERENCE	MF	UNITS DISPATCHED (KWH)
STATION AUXILIARY						
FEEDER 1	X 1291366 SECURE	36861.2	37709.1	847.9	2	16.95800
FEEDER 2	X 1291350 SECURE	31962.5	32642.5	680.0	2	13.60000
FEEDER 3	X 1291381 SECURE	17446.7	17932.0	485.3	1	4.85300
FEEDER 4	X 1291267 SECURE	2869.3	2986.6	117.3	1	1.17300
TOTAL UNITS DISPATCHED						36.58400
TOTAL UNITS RECEIVED ON 33 KV LINE	37.13400					
TOTAL UNITS DISPATCHED ON 11 KV FEEDERS	36.58400					
DIFFERENCE (KWH)	0.55000					
LOSS PERCENTAGE (%)						

ASSISTANT EXECUTIVE ENGINEER
SUB TRANSMISSION SUB DIVISION

AEE,Sub Division-I,Rajbagh
STD-II

5.2.2. Status and progress in compliance to pre-requisites to energy accounting

This Energy Audit report is being issued within the time line stipulated in Regulations and hence the Energy Auditor has no further comments to offer with regards to this aspect.

It was observed that there has been delay in submission of Quarterly Accounts during first two Quarters (i.e., Q1 and Q2 of FY 2023-23) however, the accounts for Quarter 3 and Quarter 4 of FY 2023-24 were submitted timely. DISCOM needs to submit the Quarterly accounts within the timeframe stipulated in the Regulations. Further, the compliance with regards to Regulations and Pre-requisites are tabulated in the table below:

Table 32: Compliance status w.r.t Timelines and Pre-requisites

Clause	Details	Sub-Clause	Criteria	Compliance Status
3	Intervals of time for conduct of annual energy audit	a	Conducted an annual energy audit for every financial year and submitted the annual energy audit report to the Bureau and respective State. Designated Agency and also made available on the website of the electricity distribution company within a period of four months from the expiry of the relevant financial year	Yes
4	Intervals of time for conduct of periodic energy accounting.	a	All feeder wise, circle wise and division wise periodic energy accounting is conducted by the energy manager of the electricity distribution company for each quarter of the financial year.	Yes
		b	All feeder wise, circle wise and division wise periodic energy accounting is conducted by the energy manager of the electricity distribution company for each quarter of the financial year.	Yes
		c	Electricity distribution company conducted its first periodic energy accounting, for the last quarter of the financial year immediately preceding the date of such commencement (i.e., 6thOctober 2021)	Yes
		d	Electricity distribution company conducted its subsequent periodic energy accounting for each quarter of the financial year for a period of two financial years from the date of such commencement and submit the periodic energy accounting report within sixty days from the date of periodic energy accounting.	Yes
5	Pre-requisites for annual energy audit and periodic energy accounting	a	Pre-requisites for annual energy audit and periodic energy accounting	Yes
		b	Identification and mapping of high tension and low-tension consumers	Yes
		c	Development and implementation of information technology enabled energy accounting and audit system, including associated software	
		d	Electricity distribution company ensures the installation of functional meters for all consumers, transformers and feeders. Meter installation is done in a phased manner within a period of three financial	Covered under RDSS. More than 2.5 lakh smart meters (consumer meters) have already been installed. Smart

Clause	Details	Sub-Clause	Criteria	Compliance Status
			years from the date of the commencement of these regulations in accordance with the trajectory set out in the First Schedule d.1. 100% Communicable Feeder Metering integrated with AMI, by 31st December 2022 along with replacement of existing non-communicable feeder meters.	feeder meters and DT Meters to be installed in FY 2024-25
			d.2. All Distribution Transformers (other than HVDS DT up to 25kVA and other DTs below 25 kVA) shall be metered with communicable meters. Communicable DT Metering for the following areas/ consumers to be completed by December 2023 and in balance areas by December 2025:	YES. Covered under RDSS. The work to commence from FY 2024-25
			d.2.1. All Electricity Divisions of 500 AMRUT cities, with AT&C Losses > 15%	
			d.2.2. All Union Territories (for areas with technical difficulty, non-communicable meters may be installed)	Will be acted upon if required once metering is taken up in far flung areas
			d.2.3. All Industrial and Commercial consumers	Yes
			d.2.4. All Government offices at Block level and above	Yes
			d.2.5. Other high loss areas i.e., rural areas with losses more than 25% and urban areas with losses more than 15%	Yes
			d.3. Prepaid Smart Consumer Metering to be completed for all directly connected meters and AMR in case of other meters, by December 2023 in the following areas: d.3.1. All Electricity Divisions of 500 AMRUT cities, with AT&C Losses > 15%;	Proposed for implementation in FY 2023-24. More than 54000 meters working in prepaid mode.
			d.3.2. All Union Territories (for areas with technical difficulty, prepaid meters to be installed);	Yes
			d.3.3. All Industrial and Commercial consumers;	Yes
			d.3.4. All Government offices at Block level and above;	Yes
			d.3.5. Other high loss areas i.e., rural areas with losses more than 25% and urban areas with losses more than 15%.	Yes
			d.4. Consumer Metering: 98% by FY 2022-23 99% by FY 2023-24	Yes To be achieved by end of FY2025-26
			d.5. Targets for functional meters - Meter FY 22-23 FY 23-24 FY24-25 Feeder metering 98.5% 99.5% 99.5% DT metering 90% 95% 98% Consumer metering 93% 96% 98	Target under RDSS
		e	e.1. All distribution transformers (other than high voltage distribution system up to 25kVA and other distribution system below 25 kVA) is metered with communicable meters.	Yes. LoA issued and work to commence in FY2024-25

Clause	Details	Sub-Clause	Criteria	Compliance Status
			e.2. And existing non communicable distribution transformer meters is replaced with communicable meters and integrated with advanced metering infrastructure.	Yes, under RDSS. LoA issued
		f	Electricity distribution company has established an information technology enabled system to create energy accounting reports without any manual interference and such systems may be within a period of three years from the date of the commencement of these regulations in case of urban and priority area consumers; and within five years from the date of the commencement of these regulations in case of rural consumers	Yes
		g	Electricity distribution company has a centralized energy accounting and audit cell comprising of (i) a nodal officer, an energy manager and an information technology manager, having professional experience of not less than five years; and (ii) a financial manager having professional experience of not less than five years	Chief Engineer is the Nodal Officer for Energy Accounting
6	Reporting requirements for annual energy audit and periodic energy accounting	a	Electricity distribution company has a nodal officer, who is a full time employee of the electricity distribution company in the rank of the Chief Engineer or above, for the purpose of reporting of the annual energy audit and periodic energy accounting and communicate the same to the Bureau	Yes Chief Engineer (Distribution) is the Nodal Officer
		b	Electricity distribution company ensures that the energy accounting data is generated from a metering system or till such time the metering system is not in place, by an agreed method of assumption as may be prescribed by the State Commission.	Yes 100% metering is in place at 33kV and 11kV feeder level.
		c	Metering of distribution transformers at High Voltage Distribution System up to 25KVA is done on cluster meter installed by the electricity distribution company	Partially in place. Balance is proposed under RDSS
		d	The energy accounting and audit system and software is developed to create monthly, quarterly and yearly energy accounting reports.	Yes, a system is in place. Will be further revamped under UBS / RDSS
		c	Electricity distribution company has provided the details of the information technology system in place as specified in clause (f) of regulation 5 that ensures minimal manual intervention in creating the energy accounting reports and any manual intervention of any nature, in respect of the period specified therein, shall be clearly indicated in the periodic energy accounting report	Yes

5.2.3. Data gaps

The Audit firm has raised the data gaps to the DISCOM. The summary of data gaps raised and response from DISCOM is summarized in the table below:

Table 33: Summary of Data gaps

S. No.	Data gaps raised by Energy Auditor	Response shared by DISCOM	Status of data submission by DISCOM
	Received at Feeder (Final in MU) not matching with Total Input Energy	Total Input Energy =10841.30 MU, and received at feeders=10342.35MU	Efforts to reduce the energy gap are being taken by way of ensuring proper feeder mapping including mapping of newly created feeders
	DT wise losses is not in account.	DT metering is not available	100% DT Metering proposed under RDSS

5.2.4. Summary of key responses of DISCOM management on Comments by Energy Auditor

The Auditor has identified the key issued with regards to Energy Accounting/Audit and DISCOM's management has responded to the same as summarized in the table below:

Table 34: Comments by Energy Auditor and responses of DISCOM management

S. No.	Comments by Energy Auditor	Response of DISCOM's management
1	Kindly provide the filled in format as per BEE.	Provided by KPDCL
2	Quarterly format as per BEE	Provided by KPDCL
3	Kindly provide the Feeder wise Losses	Provided by KPDCL
4	DT Wise losses not in account	DT Wise metering to be under taken under RDSS to enable energy accounting at DT level
5	Energy (Electrical) Purchase report for the year 2023-24	Provided by KPDCL
6	Open access consumer and their details	No Open access consumers.
7	Energy sold outside the DISCOM	NA
8	Energy Conservational Schemes implemented	Being under taken by KPDCL especially installation of smart meters for flat rate consumers
9	Energy conservational Schemes to be implemented	Various Energy Conservation Measures being adopted like installation of Solar Roof Tops
10	Quarter wise report	Provided by KPDCL
11	Energy (Electrical) Purchase report for the year 2023-24	Provided by KPDCL
12	Open access consumer and their details	No Open access consumers.

5.3. Revised findings based on data validation and field verification

KPDCL officials responded to the data gaps and the plan for the site visit with Accredited Energy Auditor was prepared. The field visits were conducted in the month of July 2024 to verify the metering at KPDCL input points and in 33/11 kV substations. Details along with Photographs of site visit are annexed in the report.

1. Network diagram of the few feeders with high loss was checked and it was observed that some feeders are very lengthy and need bifurcation.
2. The condition of the conductor and the reason for the loss were discussed.
3. The input point meter serial number validation was carried out.
4. The energy accounting process validated for each circle.
5. Input energy data cross verification was carried out.
6. 11kV Feeder Meters readings were cross checked with AMR available in Data Center and found correct.
7. Check list submitted to the KPDCL and data gaps of the submitted data explained.
8. Feeder meter data validation, CT &PT working status of substations visited checked and found ok.
9. In substations it was observed that 100% feeder metering at 33kV and 11kV level is in place.
10. At the time of field visit it was found that at maximum substation the average power factor is above >0.95, which is satisfactory.

5.4. Inclusions and Exclusions

Particulars	2022-2023	2023-2024
Number of circles	6	6
Number of divisions	19	19
Number of sub-divisions	67	67
Number of feeders	1283	1398
Number of DTs	40779	40779
Number of consumers	1115545	1161008

6. Conclusion and Action Plan

6.1. Summary of critical analysis and way forward proposed by Energy Auditor

The primary energy-consuming areas are the domestic consumers followed by HT and LT Industrial and Commercial Installations.

6.1.1. Areas of Inefficiencies:

- **Distribution Network:** The energy consumption of the distribution network is higher than industry standards. The primary reasons for this are the aging infrastructure and lack of modern technology.
- **AT&C Loss:** It very high (40.65%) as compared to national average of 15.0%. The main reason of high AT&C losses is billing efficiency, which is around 48.02%.
- **LT/HT Ratio:** Increasing HT lines can help in reducing both line losses and voltage drops. Efforts should be made to achieve a low LT/HT ratio, which would be very beneficial for improving efficiency of power distribution in the KPDCL.

6.1.2. Recommendations:

- 100% DT Metering & Monitoring
- Creation of High Voltage Distribution System to cut down on losses at Distribution Level.
- Segregation / Bifurcation of Lengthy / Overloaded 11kV Feeders.
- Replacement of Overhead bare conductors by HT ABC and LT ABC cables to prevent illegal pilferage.
- Improvement in HT / LT Ratio by way of creation of new 33/11kV and 11/0.433 kV Substations.
- Installation of Energy Meters for all categories of consumers.
- Testing of Consumer Meters in KPDCL meter testing lab for any tampering.
- Constituting of Special Enforcement teams to check power theft.
- Procuring only Star Rated Distribution Transformers for new creations and to replace old / damaged ones.
- Encouraging Consumers to replace old conventional bulbs with energy efficient LED bulbs and to use star rated heating and cooling devices.
- Promoting use of Solar Roof Top (SRT) system at domestic, commercial and government installations.

6.1.3. Cost-Benefit Analysis:

To determine the cost-effectiveness of the recommended measures, a cost-benefit analysis should be conducted. The cost of implementing the measures should be compared to the potential energy savings to determine the return on investment. This analysis will help the company prioritize the implementation of the recommended measures.

In conclusion, the energy audit of the electricity distribution company revealed several areas of inefficiencies in energy consumption. The recommended measures, including upgrading the infrastructure, shifting to energy efficient devices, promoting employee awareness, and promoting use of solar energy will help to improve energy efficiency and reduce energy consumption. Conducting a cost-benefit analysis will help the company to prioritize the implementation of these measures. Overall, the implementation of these measures will improve the company's energy efficiency, reduce energy consumption, and lower energy costs.

6.2. Summary of key findings – energy balance and losses

The Energy balance and losses of KPDCL for FY 2023-24 are as shown in the table below:

Table 35: Energy balance and losses

Energy Input Details	Formula	UoM	Value
Input Energy Purchase (From Generation Source)	A	MU	11,124.05
Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	B	MU	10,841.30
Total Energy billed (is the Net energy billed, adjusted for energy traded))	C	MU	5,205.55
Transmission and Distribution (T&D) loss Details	D	MU	5635.75
	E = D/B x 100	%	51.98%
Collection Efficiency	F	%	123.61%
Aggregate Technical & Commercial Loss	G = 1-{(1-E) x Min(F,100%)}	%	40.65%

6.3. Recommendations and best practices

a) Energy accounting

There is Energy accounting cell to account all the annual audit data as per BEE regulation. Quarterly energy audit is done by internal energy manager and send to BEE as per guidelines, Annual audit is done by accredited energy auditor. Energy Accounting is the first step towards identifying areas that need improvement. This will involve reviewing the current processes, systems, and data management practices.

Remedial Measures
• Maintaining Proper Feeder metering, • Uploading Meter reading data by AMR. • Ensuring correct DTs and consumer mapping • 100% Consumer metering for all categories of consumers • The old conventional meters are being replaced by Smart Meters so as to remove any human intervention and ensure correct and transparent billing. • Proper energy audit

b) Loss reduction

Loss reduction is another important and Challenging task which KPDCL has taken up in an aggressive manner. Over the past Five years, KDCL has been able to bring down the AT&C losses from 75% to 40% with the aim of bringing them down to the National level / below 15% in coming 3 Years. The steps being taken include:

i) 100% Consumer Metering at all levels.
ii) Creation of High Voltage Distribution System to cut down on losses at Distribution Level.
iii) Segregation / Bifurcation of Lengthy / Overloaded 11kV Feeders.

i) Replacement of Overhead bare conductors by HT ABC and LT ABC cables to prevent illegal pilferage.
iv) Improvement in HT / LT Ratio by way of creation of new 33/11kV and 11/0.433 kV Substations.
v) Installation of Smart Energy Meters for all categories of consumers.
vi) Testing of Consumer Meters in KPDCL meter testing lab for any tampering.
vii) Constituting of Special Enforcement teams to check power theft.

c) Energy conservation

KPDCL is promoting Energy Conservation by way of education consumers on the subject. The various steps being taken in this regard include:

i) Procuring only Star Rated Distribution Transformers for new creations and to replace old/damaged ones.
ii) Encouraging Consumers to replace old conventional bulbs with energy efficient LED bulbs and to use star rated heating and cooling devices.
iii) Promoting use of Solar Roof Top (SRT) system at domestic, commercial and government installations.

6.4. Action plan for line loss reduction

➢ Loss Reduction Works & Smart Metering

Kashmir Power Distribution Corporation Limited (KPDCL) is implementing the Revamped Distribution Sector Scheme (RDSS) a flagship program of Government of India, in the Kashmir Valley. The scheme is aimed at improving the operational efficiency and financial sustainability of the DISCOOM. It focuses on reducing technical and commercial losses, strengthening distribution infrastructure and promoting smart metering. In this Context, KPDCL prepared an Action Plan & DPR of Rs. 6701.93 Cr. in consultation with RECPDCL and submitted the same to Nodal Agency after the approval of DRC. However, the Monitoring Committee has sanctioned a total of Rs. 2826.717 Cr. for Metering & Loss Reduction Component vide Sanction Letter No.: **REC/ RDSS / Kashmir / KPDCL /2022-2023/10 Dated: 14.07.2022**, **REC/RDSS/Kashmir/KPDCL/2022-2023/30 Dated: 17.10.2022** & **REC/RDSS/KPDCL/2022-2023/341 Dated: 26.11.2022**. The breakup is given below:

Works	**Sanctioned Date**	**Sanctioned Cost (In Cr.)**
Metering (Revised)	17.10.2022	504.96
Loss Reduction (Revised)	17.10.2022	2315.52
Feeder Metering	26.11.2022	6.237
Total		**2826.717**

➢ Loss Reduction Works

Loss reduction is a critical component of RDSS, targeting AT&C losses which include Technical losses and Commercial Losses. The key loss reduction initiatives comprise of:

- Strengthening Distribution Infrastructure by way of upgradation of substations, transformers and feeders, use of HVDS, replacement of old conductors with efficient alternatives.
- Feeder Segregation to improve supply quality and monitoring.
- Energy Auditing and Accounting by way of installing energy meters at feeders, DTs and consumer levels for accurate loss assessment.

- Smart Metering to improve billing efficiency and revenue collection.
- Prepaid metering for better cash flow management and improve demand side management by providing real time consumption data to consumers.

Execution of works is being done by respective Turnkey Contractor in all packages. The overall progress is given below:

Status of Progress

RDSS KPDCL											
Table of Content											
S. No.	Components	Packages/Division	Sanctioned Cost	Award Cost			Physical Progress			Supplied Material	
				Awarded Supply Cost	Awarded Erection Cost	Total Awarded Cost	Supply Cost of material Erected	Erection Cost of material Erected	Physical Progress Percentage	Value of Material Received at TKC Store	Supplied Material Percentage
0	Table of Content	KPDCL									
1	Physical Progress	ED-1st Srinagar (LR Works)	129.72	114.12	21.45	135.57	10.34	1.58	8.8%	23.88	20.9%
2	Physical Progress	ED-2nd Srinagar (LR Works)	237.62	164.48	70.31	234.79	11.69	7.42	8.1%	23.97	14.6%
3	Physical Progress	ED-3rd Srinagar (LR Works)	71.02	49.25	20.42	69.67	6.75	4.26	15.8%	9.40	19.1%
4	Physical Progress	Budgam (LR Works)	144.88	140.74	4.13	144.87	9.92	0.68	7.3%	28.74	20.4%
5	Physical Progress	Baramulla (LR Works)	233.45	208.73	23.16	231.89	28.17	4.63	14.1%	56.00	26.8%
6	Physical Progress	DISCOM (LR Works) (KPDCL-All 5 Packages)	816.69	677.32	139.47	816.79	66.87	18.57	10.5%	141.99	21.0%

Physical Progress in Loss Reduction Works under RDSS								
S No	Components	Unit	ED1	ED2	ED3	Budgam	Baramulla	Cumu;ative KPDCL
A	Poles							
1	8 Mtr STP	Nos.	1851	2360	1530	2996	4641	13378
2	9 Mtr STP	Nos.	653	1750	861	385	2499	6148
3	11 Mtr STP	Nos.	0	9	11	17	21	58
	Total Poles	Nos.	2504	4119	2402	3398	7161	19584
B	AB Cable							
1	35Sqmm	Kms	21.63	6.72	15.48	26.61	129.81	200.25
2	50Sqmm	Kms	2.72	13.39	2.54	10.78	12.35	41.78
3	70Sqmm	Kms	13.21	26.42	26.7	46.54	81.66	194.53
4	120Sqmm (LT)	Kms	19.89	17.5	15.84	15.96	33.07	102.26
5	120Sqmm (HT)	Kms	1.26	0.63	0.6	0	0.2	2.69
	Total AB Cable	Kms	58.71	64.66	61.16	99.89	257.09	541.51
C	ACSR Conductor							
1	50Sqmm Rabbit	Ckms	0	8.94	2.34	0.08	6.47	17.828
2	100Sqmm Dog	Ckms	0.44	1.13	0.05	4.02	8.6	14.24
	Total Conductors	Ckms	0.44	10.07	2.39	4.10	15.07	32.068
D	DTRs							
1	63KVA	Nos.	10	0	0	1	25	36
2	100KVA	Nos.	32	63	31	0	10	136
3	200KVA	Nos.	30	53	0	2	47	132
	Total DTR	Nos.	72	116	31	3	82	304
F	Consumers Shifted on AB Cable	Nos.	1055	160	600	0	2242	4057

➢ Smart Metering Works

The Smart metering works have been have already commenced and the work is targeted for completion in August 2026. The progress as on 31.03.2024 is given below

Progress of Smart Meter Installation ending March 2024						
S No	Component	PIA wise Amount (Cr.)	LoA Cost (Rs in Cr.)	Sanctioned Quantity (Nos)	Awarded Quantity (Nos)	Progress Quantity (Nos)
1	1-Ph Consumer Meter	511.19	818.85	664292	664293	249420
2	3-Ph Consumer Meter			18513	18513	3715
3	LT CT Consumer Meter			2894	2894	1601
4	DT Meter			40670	40670	0
5	Feeder Meter			1485	1485	0

The Loss reduction work coupled with the smart metering are aimed to bring in improvement in power reliability and boost billing and collection efficiency of the utility. This in turn will reduce the revenue gap of the DISCOM. The results in this regards have already begun to show in the form of decreasing T&D and AT&C Loss figures. Once the works are completed, the aim of proper energy accounting and consumer satisfaction will be achieved.

➢ Electrification of UN Electrified Households of Kupwara & Bandipora

Kashmir Power Distribution Corporation Limited (KPDCL) is in the process of securing Electrification of Un-electrified HHs of Kupwara, Banadipora and On-Grid Connectivity for Gurez, Bandipora. In this regard, KPDCL has formulated a Detailed Project Report (DPR) with an estimated cost of Rs. 66.38 Cr for aforementioned works. The matter has been taken up with the Ministry of Power, Government of India for its sanction and funding. The abstract of the DPR is provided below:

Abstract of DPR Cost		
Sl. No.	**Name of Work**	**DPR Cost (Rs. In Cr.)**
1	Electrification of Un-Electrified Households (UE) of Kupwara District under Revamped Distribution Sector Scheme (RDSS) (1936 Households)	14.84
2	Construction of New 33/11 KV, 1x6.3 MVA Substation in Tulail along with 33 KV & 11 KV Line under Revamped Distribution Sector Scheme (RDSS)	30.80
3	Electrification of Un-Electrified Households (UE) for Tulail & Kalzalwan of Bandipora District under Revamped Distribution Sector Scheme (RDSS) (2619 Households)	20.74
	Grand Total:	**66.38**

➢ **IT/OT Works**

1. Unified Billing System

Unified Billing System is being implemented in KPDCL wherein the billing of sub divisions in island mode is being discontinued and all SDOs are being brought on a single billing platform. This will ensure more transparency and accountability in the billing system. The work has been awarded on 23.03.2023 the rollout of the billing solution is scheduled for FY2024-25

2. Enterprise Resource Planning (ERP)

KPDCL has undertaken implementation of ERP under RDSS. It focuses on integrating various business functions such as finance, human resources, asset management, and customer services into a unified system. The process for engaging the Project Implementing Agency has been initiated and the roll out of the same has been targeted for FY 2024-25. The expected benefits include:

- Improved operational efficiency
- Enhanced customer satisfaction
- Cost Savings

6.5. Action plan for monitoring and reporting

KPDCL is taking special steps to put in place a robust monitoring and reporting system. At present, through Meter Data Acquisition System Data AMR facility for 315 11kV outgoing feeder meters is available. Besides, through SCADA and RT-DAS status of 400 Feeders is available at SCADA and RTDAS Control Centers. The data is used for Energy Accounting and other MIS Reports which help in identifying areas that need improvement.

Under RDSS the following works are proposed to be undertaken to strengthen the monitoring and reporting system:

i) Implementing full SCADA in Anantnag Town which will cover 10 substations / 36 Feeders.
ii) Implementing Partial SCADA in Sopore, Baramulla and Ganderbal Towns covering 16 Substations / 61 Feeders
iii) Implementing Real Time Data Acquisition System (RT-DAS) in 55 substations Covering 255 Feeders.
iv) Replacement of all 11kV Feeder Meters with Smart Meters for on boarding them on National Feeder Monitoring System (NFMS).
v) Installation of more than 7lakh communicable meters at consumer, DT and Feeder level.

Once rolled out, the system will be continuously monitored to identify any issues and improve the system's performance.

6.6. Action plan for automated energy accounting

Automated energy accounting is a critical component of modern electricity distribution systems. It allows for accurate and efficient tracking of energy usage, which helps identify energy waste, reduce energy consumption, and improve billing accuracy.

Presently AMR facility is available for 315 11kV Feeder Meters where in Meter Data is being captured and relayed to Data Center at Bemina. On the consumer level more than 250000 smart meters are sending data through HES to MDM for analysis and billing.

Under RDSS, the action plan for Automated Energy Accounting Includes:

i) Replacement of all 11kV Feeder Meters with Smart Meters and relaying the data to Master Control Room / National Feeder Monitoring Scheme (NFMS) System.
ii) Providing of Smart Meters on all Distribution Transformers and relaying data to Master Control Room.
iii) Replacement of all Consumer Meters with Smart meters and relaying the data to Master Control Room without any manual intervention.

While the Feeder metering and DT metering is scheduled to be completed by March 2025, the consumer metering works is targeted for completion August 2026 and the entire process will be on AMI platform. Once implemented, it will improve billing accuracy, reduce energy loss and enhance data management capabilities. The action plan outlined above provides a framework for implementing an automated energy accounting system in KPDCL. By following this plan, the company will be successfully achieving its goals of energy accounting and consumer satisfaction.

Automated energy accounting is a critical component of modern electricity distribution systems. It allows for accurate and efficient tracking of energy usage, which helps identify energy waste, reduce energy consumption, and improve billing accuracy. In this report, we will outline an action plan for implementing automated energy accounting in an electricity distribution company.

Step 1: Evaluate Current Energy Accounting System

The first step is to evaluate the current energy accounting system to identify areas that need improvement. This will involve reviewing the current processes, systems, and data management practices. The evaluation should consider the following factors:

- Accuracy of metering and billing
- Timelines of bill generation
- Data management practices
- Energy usage tracking capabilities
- Customer feedback and complaints

Step 2: Identify Automated Energy Accounting System Requirements

After evaluating the current energy accounting system, the next step is to identify the requirements for an automated energy accounting system. This will involve considering the following factors:

- Energy usage tracking capabilities
- Billing accuracy and timeliness
- Integration with existing systems
- Data management capabilities
- Scalability and flexibility

Step 3: Research and Select an Automated Energy Accounting System

Once the requirements are identified, the next step is to research and select an automated energy accounting system. This will involve reviewing available options and selecting a system that meets the identified requirements. The selected system should have the following features:

- Real-time energy usage tracking

- Automated billing and metering
- Data management and analysis capabilities
- Integration with existing systems
- User-friendly interface

Step 4: Develop Implementation Plan

After selecting an automated energy accounting system, the next step is to develop an implementation plan. This will involve determining the following:

- Timeline for implementation
- Resource requirements
- Roles and responsibilities
- Training requirements
- Data migration plan

Step 5: Implementation and Testing

Once the implementation plan is developed, the next step is to implement and test the automated energy accounting system. This will involve the following:

- Installation and configuration of the system
- Data migration from the old system to the new system
- User training
- System testing

Step 6: Rollout and Monitoring

After successful testing, the next step is to rollout the automated energy accounting system to all customers. This will involve communicating the changes to customers and ensuring a smooth transition. Once rolled out, the system should be continuously monitored to identify any issues and improve the system's performance.

In conclusion, implementing an automated energy accounting system can help the KPDCL improve billing accuracy, reduce energy waste, and enhance data management capabilities. The action plan outlined above provides a framework for implementing an automated energy accounting system in an electricity distribution company and the same is being actively worked upon for its implementation in KPDCL in order achieve the energy accounting goals.

Annexures

Annexure I - Introduction of Verification Firm

We A-Z Energy Engineers Pvt. Ltd. provides consultancy services in the areas of energy management while conducting Energy Audits in all segments of energy input. For conducting Detailed Energy Audits, Energy Audits under PAT (Mandatory and M&V), we have a pool of experienced BEE Accredited & Certified Energy Auditors, Electrical Engineers, Mechanical Engineers and Technicians having experience of more than 30 years. The Energy Audits is being carried out with sophisticated instruments namely Power-Analyzer, Flue Gas Analyzer, Ultra-sonic flow meter, Techo-meter, Anemometer, Hego-Meter, Digital Thermometer, Thermographic Camera's, Lux Meter, Leak detectors. Laser gun etc. etc.

Objective

- To carry out and take ahead the business of Energy Efficiency and climate change including promotion and dissemination of energy efficient product and services.
- To disseminate the culture of safe manufacturing and Services through safety audits and trainings.
- To facilitate implementation of energy efficiency projects for Demand Side Measures including optimization of energy mix for industries, railways, building sector, lighting, HVAC etc.
- To facilitate implementation of schemes, programs and policies of central and state governments or its agencies applicable for enhancing energy efficiency.
- To provide consultancy services in the field of Clean Development Mechanism and Renewable Energy Certificate projects, Carbon Markets, Demand Side Management, Energy Efficiency, Climate change and other related areas.
- To identify and impart training to build the capacity of stakeholders in the field of Energy Efficiency and safe practices in Industry.
- To act as a resource center in the field of Energy Efficiency and take up the activities of Capacity Building Training and other related activities.

Vision

- To make use of energy sustainable.
- To create and sustain markets for energy efficiency in India
- To facilitate energy efficiency improvement through private sector investments in energy efficiency.

Mission

- To assist all stakeholders in implementing energy efficiency and realizing savings.
- To create awareness regarding merits of improvement of energy efficiency and safety practices in private and public sector.

We are Accredited Energy Auditor from BEE, also empaneled by BEE for PAT M & V Audits and Mandatory Energy Audit Projects. A-Z Energy Engineers Pvt. Ltd. has been short listed by Bureau of Energy Efficiency as an Energy Service Company (ESCO), it is an ISO 9001:2015 certified company. We have completed more than 1800 nos. projects, including 80 PAT projects.

Dr. P.P. Mittal the Founder Director of A-Z Energy Engineers Pvt. Ltd. was awarded by Govt. of India in National Energy Conservation Award 2013, 2015 & 2016. MSME Ministry Govt. of India awarded "Best Services Providing Company" it was awarded by Hon'ble Prime Minister of India.

a) Name of the Firm

Nameof AccreditedFirm	Accredited Energy Auditor
A-Z energy Engineers Private Limted	Dr P.P Mittal (AEA 011)

b) Composition of Team

Sr.No.	Name	Qualification	Registration No	Experience (InYears)/Sector
1	Dr. P.P Mittal	Ph.D, MBA	AEA	+45 Years
2	Mr. Vipon Chanda	DISCOM Sector		30
3	Mr. V.P Sharma	B. Tech	EA	32 Years
4	Mr. Alok Kumar Tiwari	B. Tech	EA	6 Years
5	Mr. Pankaj Chauhan	Team Member		8 Years

c) Registration No.

EmAEA 0024.

d) Undertaking

We A-Z Energy Engineers Pvt. Ltd. hereby confirm that our AEA and any of the audit team member mentioned in this report has conduct mandatory annual energy audit (Accounting) for KPDCL, Jammu & Kashmir (hereafter called as DC).

We also confirm that none of our team member was in the employment of the DC within the previous four years, and was not involved in undertaking energy audit of the DC within the previous four years.

Authorized Signatory

Dr. P.P Mittal

M/s A-Z Energy Engineers Pvt. Ltd. Dr. P. P. MITTAL Accredited Energy Auditor AEA-011 Faridabad

Annexure II - Minutes of Meeting with the DISCOM team

Minutes of meeting between Kashmir Power Distribution Corporation Limited (KPDCL) & A-Z Energy Engineers Pvt. Ltd., New Delhi

AZ Energy Engineers audit team visited the site (KPDCL) during July 2024 to conduct the energy audit accounting with reference to the KPDCL work order dated 16 February 2023 and notification from the Bureau of Energy Efficiency dated 6th October 2021 for Conduct of Energy Audit (Accounting) in Electricity Distribution Companies.

Following are the key observations during audit.

- Filled in Proforma for FY 2023-24 was available with Kashmir Power Distribution Corporation Limited, Srinagar. Audit team verified the filled proforma.
- Verified T&D losses, AT&C losses & Collection Efficiency is 51.98%, 40.65% & 123.61% respectively based on the filled in proforma and verified source documents.
- Client has provided the documents for purchase power, Input/Billed energy, No. of consumers, Nos. of DT's, Nos. of Circles on the basis of Internal Departmental Report, Energy Account & Sub Divisional Database.
- Client has provided details for Action Plan to reduce the losses.
- Substation (DT) wise losses are not included.
- KPDCL has provided power map, SLD, Organization chart and substation audit reports.
- KPDCL has provided Amount Billed & Collection Details; both Quarter wise & Month wise.

Kashmir Power Distribution Corporation Limited

M/s A-Z Energy Engineers Pvt. Ltd. Dr. P. P. MITTAL Accredited Energy Auditor AEA-011 Faridabad

A-Z Energy Engineers Pvt. Ltd.

Annexure III - Check List prepared by auditing Firm

Check list evidence for T & D and AT&C and supporting documents energy input data, sale data, feeder wise loss data, collection efficiency etc.

List of documents required:

- Data details in BEE format for Quarter 1,2,3,4 and Total separately
- Quarter wise Filled Proforma
- Month wise Purchase energy
- Month wise input and billed energy.
- T&D losses computation approach.
- Un-metered energy consumption approach.
- Internal field audit report of input and billed energy.
- Performance of dicsom on distribution losses.
- Outcome of internal filed audit.
- Measures taken to reduce losses and improve losses.
- Zone/circle/Division/Sub-division wise loss computation.
- Reduction achieved, measures adopted for energy conservation and quantity of energy saved.
- Report on distribution losses.
- List of measuring equipment's and calibration certificates and frequency of calibration.
- Write up on energy scenario.
- Net Input Energy Computation Details.
- Category wise consumer's details.
- Category wise consumers connected load and % load
- Bifurcation of Billed Energy (metered billed energy and unmetered billed energy).
- Disconnected consumers details
- Loss Analysis report
- Write up on procedure followed Technical loss analysis.

Annexure IV - Brief Approach, Scope & Methodology for audit

Scope of annual energy accounting is as per guidelines and notification from Bureau of Energy Efficiency, New Delhi dated 6th October, 2021

Annexure V - Infrastructure Details

The infrastructure details of the DISCOM are as shown in the table below:

Table 36: Infrastructure details

Parameters	Total	Covered during in audit	Verified by Auditor in Sample Check	Remarks (Source of data)
Number of circles	6	6	6	
Number of divisions	19	19	19	
Number of sub-divisions	67	67	67	
Number of feeders	1398	1398	1398	
Number of DTs	40779	40779	40779	
Number of consumers	1161008	1161008	1161008	

Table 37: Metering details

Parameters	66kV and above	33kV	11/22kV	LT
Number of conventional metered consumers	0	380	19654	130632
Number of consumers with 'smart' meters	0	0	o	254736
Number of consumers with 'smart prepaid' meters	0	0	o	54327
Number of consumers with 'AMR' meters		0	0	0
Number of consumers with 'non-smart prepaid' Meters	0	0	0	0
Number of unmetered consumers	0	0	0	701279
Number of total consumers	0	380	19654	1140974
Number of conventionally metered Distribution Transformers	0	0	0	0
Number of DTs swith communicable meters	0	0	0	0
Number of unmetered DTs		0	40779	0
Number of total Transformers	0	0	40779	0
Number of metered feeders	0	180	878	
Number of feeders with communicable meters	0	0	340	0
Number of unmetered feeders	0	0	0	0
Number of total feeders	0	180	1218	0
Line length (ctkm)	0	2366.69	20265	47689
Length of Aerial Bunched Cables	6038			
Length of Underground Cables	137.25			

Annexure VI - Power Purchase Details

a) Input Purchase Power for FY 2023-24

Source wise/generating station wise power purchase, contracted capacity, RPO obligation met by the DISCOM, etc.

S.No.	Name of Generation Station	Generation Capacity (In MW)	Type of Station Generation	Type of Contract	Type of Grid	Voltage Level (At input)
1	SINGRAULI	2000	Coal	shall remian operative as per policy of GoI	ISGS	
2	RIHAND-1	1000	Coal	25 years	ISGS	132
3	RIHAND-2	1000	Coal	25 years	ISGS	132
4	RIHAND-3	1000	Coal	25 years	ISGS	132
5	UNCHAR-I	420	Coal	25 years	ISGS	
6	UNCHAR-II	420	Coal	25 years	ISGS	
7	UNCHAR-III	210	Coal	25 years	ISGS	
8	UNCHAR-IV	500	Coal	25 years	ISGS	
9	ANTA (G)	419	Gas	15 years	ISGS	
10	AURIYA (G)	663	Gas	15 years	ISGS	
11	DADRI (G)	830	Gas	35734	ISGS	
12	JHAJJAR	1500	Coal	shall remain operative as per policy of GoI	ISGS	
13	DADRI STAGE-II	980	Coal	shall remain operative as per policy of GoI	ISGS	
14	KOLDAM	800	Hydro	35 years	ISGS	
15	SINGRAULI SHP	8	Hydro	shall remain operative as per policy of GoI	ISGS	
16	TandaTPS	1320	Coal	25 years	ISGS	
17	MEJA	1320	Coal	25 years	ISGS	
18	SALAL	690	Hydro	Extended for 35 yrs from COD (01-04-1995)	ISGS	220
19	T.PUR	94	Hydro	Extended for 35 yrs from COD (01-04-1993)	ISGS	
20	CHEMERA 1	540	Hydro	Extended for 35 yrs from COD (01-05-1994)	ISGS	
21	CHEMERA 2	300	Hydro	Extended for 35 yrs from COD (31-03-2004)	ISGS	
22	CHEMERA 3	231	Hydro	Extended upto 5 yrs from COD (03-07-2012) upto 03-07-2017	ISGS	
23	URI 1	480	Hydro	Extended for 35 yrs from COD (01-06-1997)	State	
24	URI2	240	Hydro	Extended for 5 yrs up to 29-02-2024	State	
25	DHAULIGANGA	280	Hydro	35 years	ISGS	
26	DUL HASTI	390	Hydro	Extended for 35 yrs from COD (07-04-2007)	State	
27	SEWA-2	120	Hydro	Extended for 35 yrs from COD (24-07-2010)	State	
28	PARBATI-III	520	Hydro	Extended upto 5 yrs from COD (05-06-2014) upto 05-06-2019	ISGS	
29	KISHANGANGA	330	Hydro	5 years	ISGS	

S.No.	Name of Generation Station	Generation Capacity (In MW)	Type of Station Generation	Type of Contract	Type of Grid	Voltage Level (At input)
30	Nimmo Bazgo	45	Hydro	35 years	State	
31	Chutak	44	Hydro	35 years	State	
32	NAPS	440	Nuclear	15 years	ISGS	
33	RAPS-B	440	Nuclear	15 years	ISGS	
34	RAPS-C # 5&6	440	Nuclear	15 years	ISGs	
35	N-JHAKHARI	1500	Hydro	first signed on 27.11.2010 (came into force w.e.f 18.05.2009, Extended on 16.11.2013 (came into force 18.05.2014 again got extended on 17.05.2019 (came into force on 18.05.2019) 17/05/2024	ISGS	
36	RAMPUR	412.02	Hydro	35 years	ISGS	
37	FRKKA	1600	Coal	01 year	ISGS	
38	KHLGN-1	840	Coal	25 years	ISGS	
39	KHLGN-2	1500	Coal	25 years	ISGS	
40	TLCHR	1000	Coal	01 year	ISGS	
41	MEJIA-6	250	Coal		ISGS	
42	TEHRI	1000	Hydro	35 years	ISGS	
43	KOTESHWAR	400	Hydro	35 years	ISGS	
44	TALA	1020	Hydro		ISGS	
45	Baghliar HEP-I	450	Hydro	20 years	State	220
46	Baghliar HEP-II	450	Hydro	35 years	State	220
47	LJHP	105	Hydro	15 years	State	132
48	USHP-I	22.5	Hydro	15 years	State	132
49	USHP-II	105	Hydro	15 years	State	132

Jammu and Kashmir power corporation limited (JKPCL) is authorised to procure power purchase from long term, short term and other alternative sources of erstwhile JKPDD to meet day to day energy required of KPDCL and Jammu power distribution limited (JPDCL). The month wise purchase units are shown in below table:

Table 38: Month wise power purchase

Sr. No.	Months	Energy (in Mus)
1	Apr-23	1120.13
2	May-23	1040.59
3	Jun-23	990.41
4	Jul-23	766.51
5	Aug-23	715.78
6	Sep-23	693.83
7	Oct-23	689.35

Sr. No.	Months	Energy (in Mus)
8	Nov-23	874.09
9	Dec-23	987.41
10	Jan-24	1097.00
11	Feb-24	1149.43
12	Mar-24	999.53
	Total	**11124.05**

b) Circle wise monthly Input Energy for FY 2023-24

The Month wise break up of input energy (MUs) parameter for all the circle is given below:

Table 39: Circle wise monthly input & Billed energy (MU)

Circle Name	Circle-1st	Circle-2nd	Circle-Bijbehara	Circle-Ganderbal	Circle-Pulwama	Circle-Sopore	Total
APR-23	160.13	272.43	177.02	103.06	160.15	203.76	**1076.56**
MAY-23	155.30	252.43	167.49	98.58	146.68	201.11	**1021.59**
JUN-23	148.28	235.94	160.42	92.40	135.75	194.03	**966.82**
JUL-23	112.18	180.52	122.67	68.58	107.75	149.64	**741.34**
AUG-23	108.87	169.20	116.71	61.07	105.47	136.71	**698.03**
SEP-23	107.20	166.02	113.90	56.42	103.13	131.87	**678.54**
OCT-23	102.78	161.30	113.33	56.31	102.22	130.98	**666.91**
NOV-23	127.21	207.33	141.88	85.62	132.49	169.32	**863.85**
DEC-23	141.00	236.07	160.48	88.68	149.76	185.68	**961.68**
JAN-24	157.71	267.94	174.43	102.40	168.74	198.00	**1069.22**
FEB-24	162.88	279.85	186.97	107.70	177.61	206.32	**1121.33**
MAR-24	147.43	247.71	154.28	91.47	153.86	180.67	**975.42**
TOTAL	**1630.98**	**2676.75**	**1789.60**	**1012.28**	**1643.61**	**2088.09**	**10841.30**

c) Circle wise monthly Billed Energy for FY 2023-24

The Month wise break up of Billed energy (MUs) parameter for all the circle is given below:

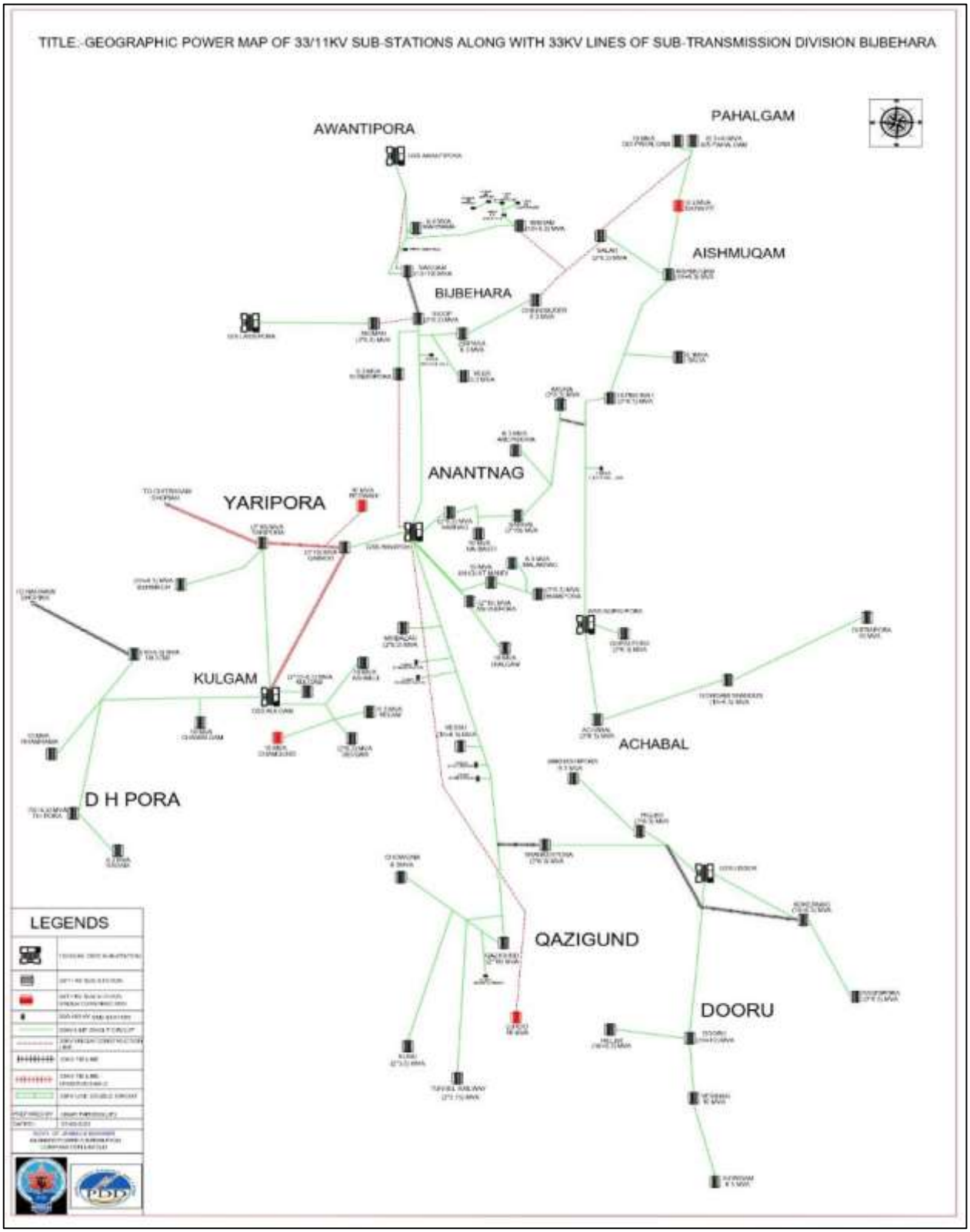
Circle Name	Circle-1st	Circle-2nd	Circle-Bijbehara	Circle-Ganderbal	Circle-Pulwama	Circle-Sopore	Total
APR-23	60.38	88.08	68.58	32.96	66.20	75.77	**391.97**
MAY-23	55.20	88.36	73.80	35.44	66.72	77.21	**396.73**
JUN-23	60.85	75.66	74.96	38.72	67.01	78.50	**395.70**
JUL-23	65.85	95.29	72.54	36.60	69.23	76.87	**416.38**
AUG-23	58.66	84.72	74.16	36.05	69.61	75.11	**398.32**
SEP-23	58.62	87.32	73.65	36.04	78.92	76.89	**411.43**
OCT-23	62.13	82.70	72.74	34.99	71.96	77.09	**401.61**
NOV-23	62.45	88.41	72.15	33.98	69.37	80.25	**406.60**

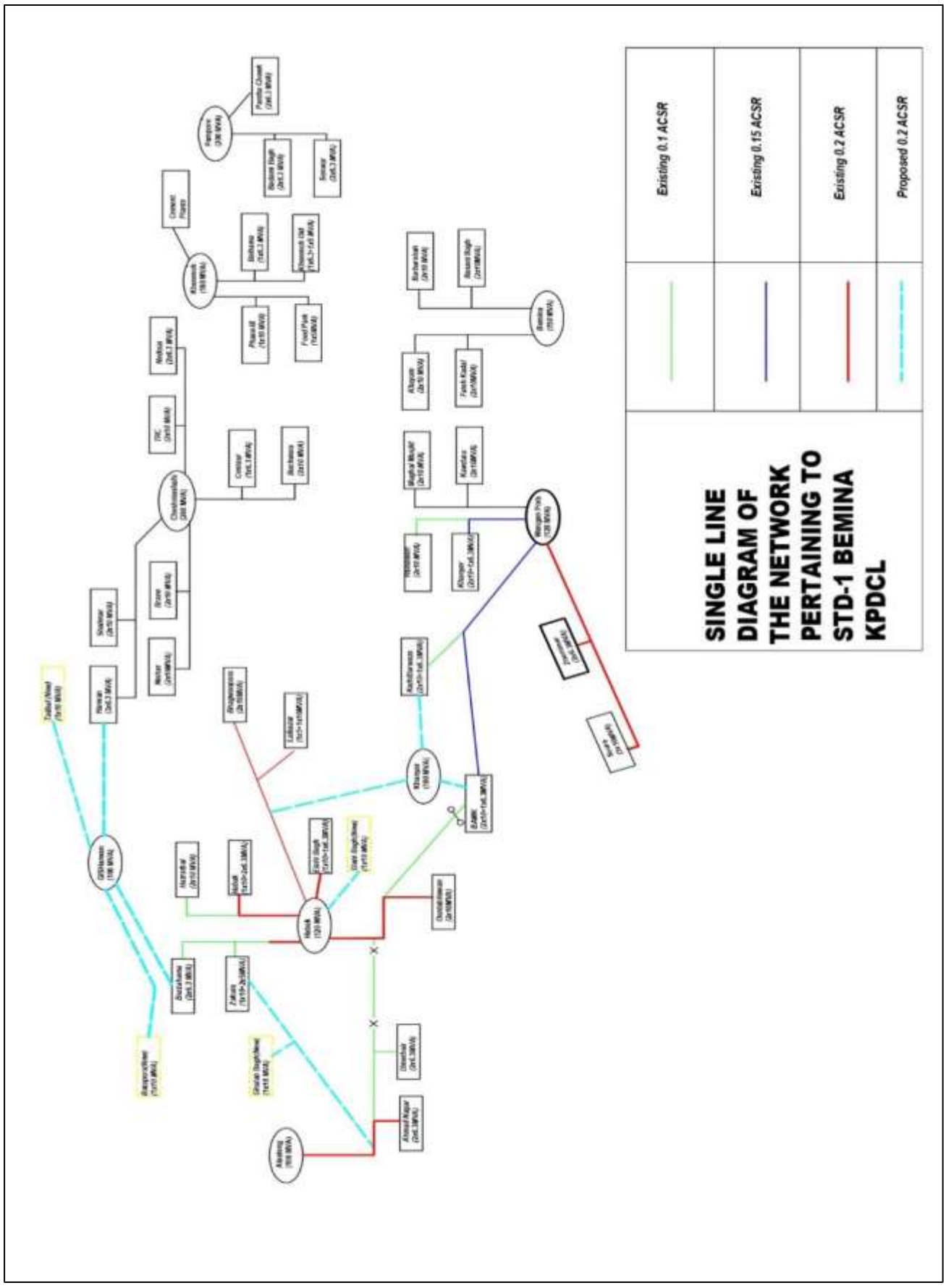
Circle Name	Circle-1st	Circle-2nd	Circle-Bijbehara	Circle-Ganderbal	Circle-Pulwama	Circle-Sopore	Total
DEC-23	73.40	108.07	75.21	35.90	68.27	78.51	**439.36**
JAN-24	84.75	119.01	87.49	42.35	75.72	91.76	**501.07**
FEB-24	87.64	122.47	90.58	42.04	79.34	93.58	**515.65**
MAR-24	89.85	129.83	89.40	44.90	82.86	93.88	**530.72**
TOTAL	**819.80**	**1169.90**	**925.24**	**449.97**	**865.21**	**975.43**	**5205.55**

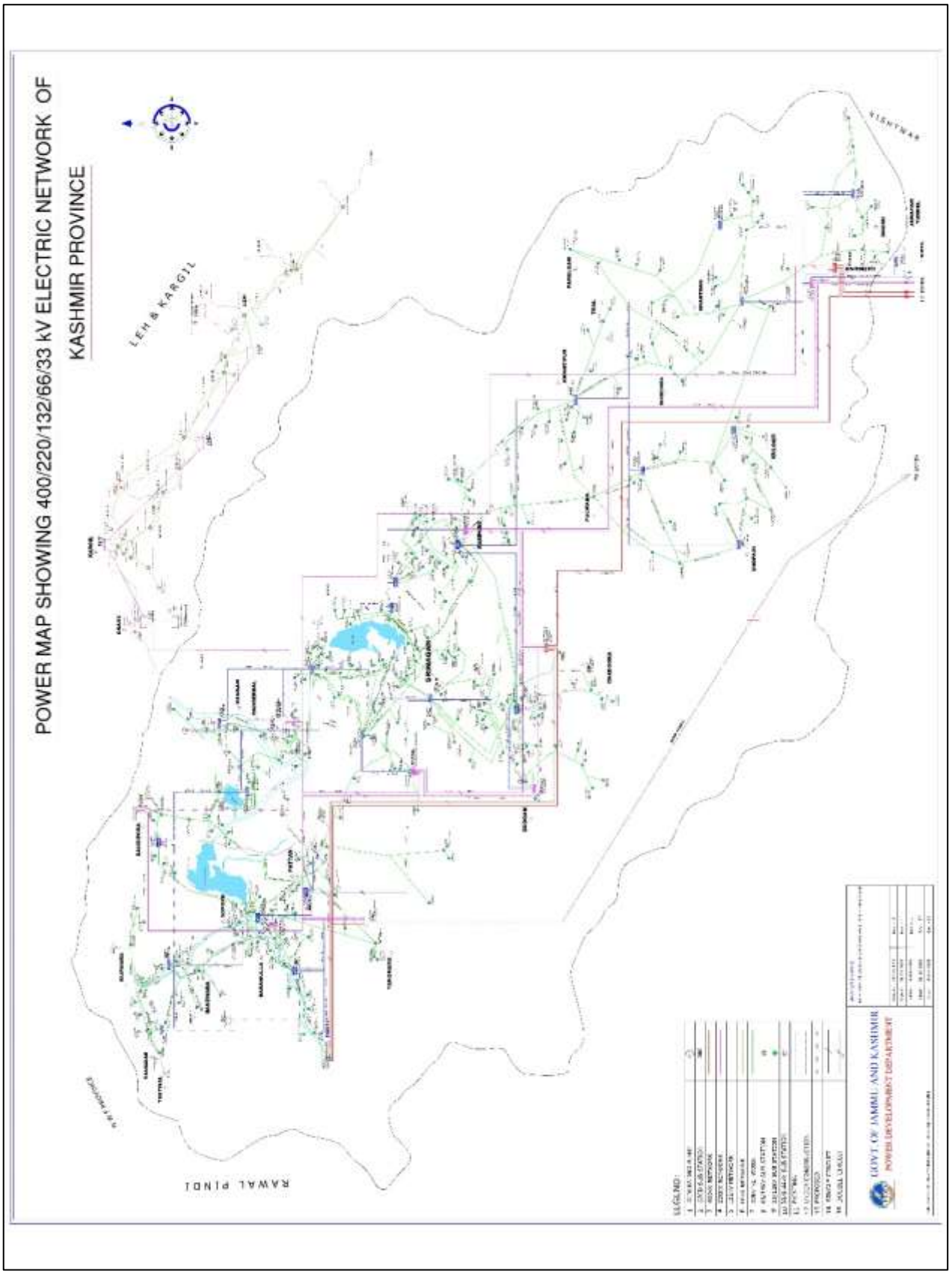
Annexure VII - Single Line Diagram (SLD)

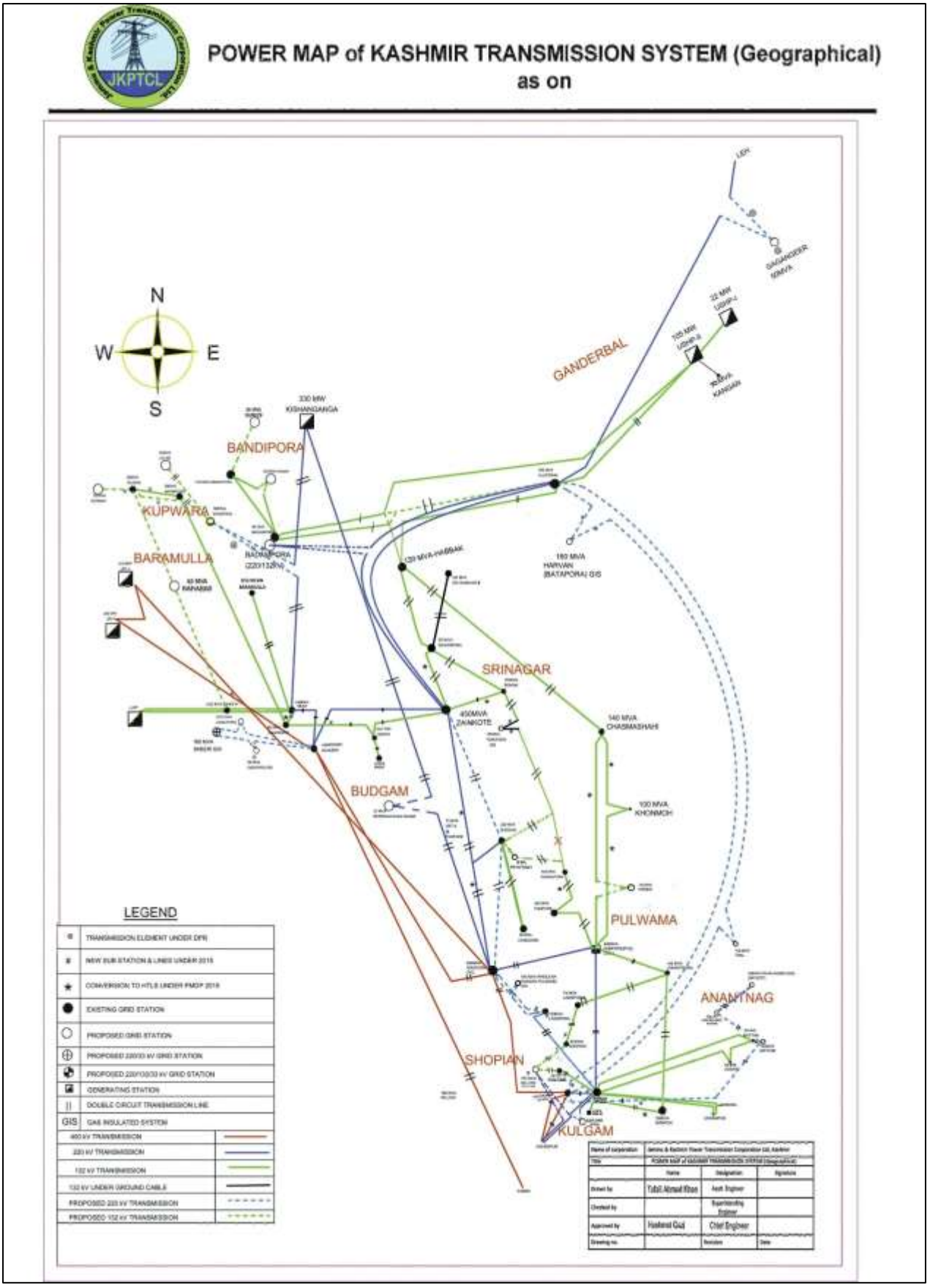
The SLD of the DISCOM is as shown below:

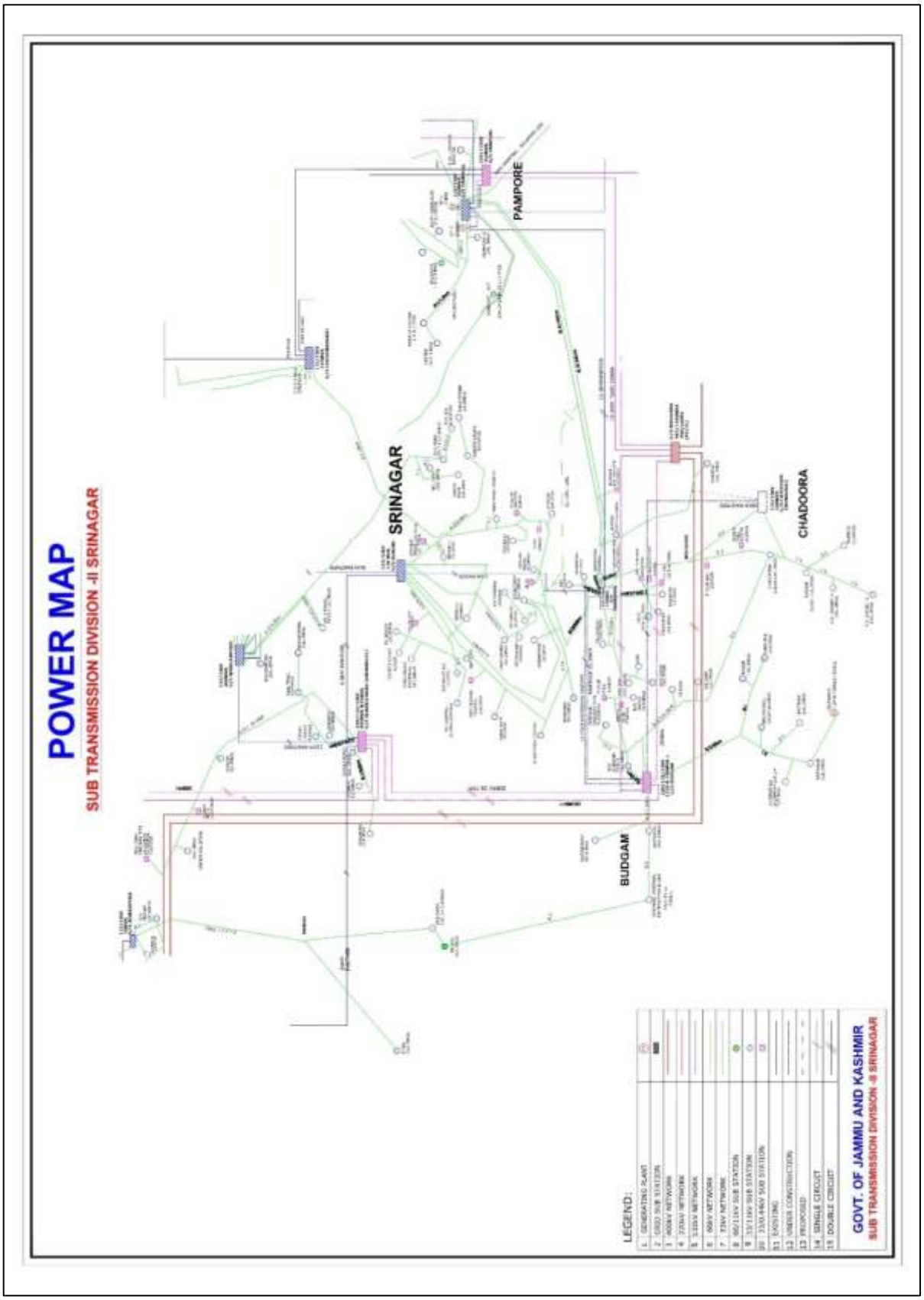
Figure 10: Single Line Diagram (SLD) of KPDCL




SINGLE LINE DIAGRAM OF THE NETWORK PERTAINING TO STD-1 BEMINA KPDCL
Existing 0.1 ACSR
Existing 0.15 ACSR
Existing 0.2 ACSR
Proposed 0.2 ACSR


POWER MAP SHOWING 400/220/132/66/33 kV ELECTRIC NETWORK OF
KASHMIR PROVINCE
LEH & KARGIL
KISHTWAR
RAWAL PINDI
LEGEND:
GOVT OF JAMMU AND KASHMIR
POWER DEVELOPMENT DEPARTMENT


POWER MAP of KASHMIR TRANSMISSION SYSTEM (Geographical)
as on
JKPTCL
N
W
E
S
GANDERBAL
BANDIPORA
KUPWARA
BARAMULLA
SRINAGAR
BUDGAM
PULWAMA
ANANTNAG
SHOPIAN
KULGAM
LEGEND


POWER MAP
SUB TRANSMISSION DIVISION -II SRINAGAR
PAMPORE
SRINAGAR
CHADOORA
BUDGAM
LEGEND:
GOVT. OF JAMMU AND KASHMIR
SUB TRANSMISSION DIVISION -II SRINAGAR

Annexure VIII - Category of service details (With Consumer and voltage-wise)

Type of consumers with different type of voltage & number of consumers are shown in below table:

Table 40: Category of service details

Typeof Consumers	Category of Consumers	Voltage Level	No ofConsumers	Total Consumption (InMU)
Residential	LT	LT	963036	3508.76
Agricultural	LT	LT	633	4.10
Agricultural	HT	11KV	805	45.68
Agricultural	EHT	33KV	24	32.07
Commercial/Industrial-LT	LT	LT	174153	297.04
Commercial/Industrial-LT	HT	11KV	14146	365.59
Commercial/Industrial-LT	EHT	33KV	124	5.99
Commercial/Industrial-HT	HT	11KV	360	145.92
Commercial/Industrial-HT	EHT	33KV	75	276.80
Others	LT	LT	3152	88.34
Others	HT	11KV	4343	276.81
Others	EHT	33KV	157	158.44
TOTAL			**1161008**	**5205.55**

Annexure IX - Field Verification data and reports

The field inspection details are shown in the below table:

Table 41: Field inspection details

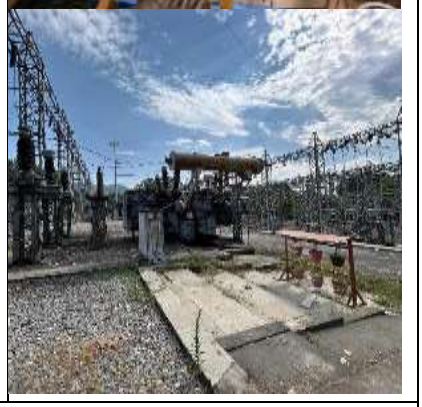
Photographs taken during field verification are shown below:

132/33KV Chasmashahi Grid Susbstation (TR 2 x 50MVA and 2 x 20MVA)







Meters of all the feeders are working properly.

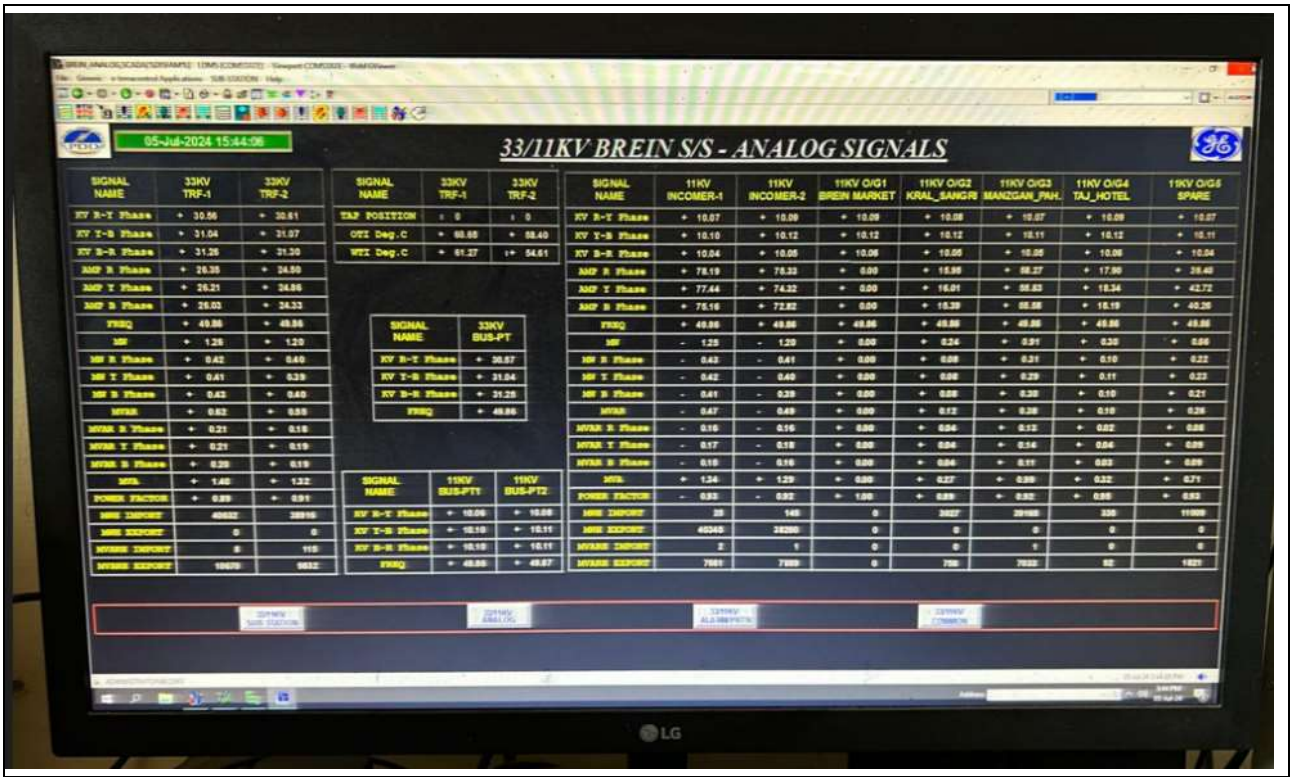
All feeders are under loaded.

Two Capacitor Banks Installed (5MVAR Each)

P.F is 0.901 to 0.968

Transformer oil level ok, silica gel ok, temperature ok

33/11KV Brein S/S - (2 x 10MVA)



Meters of all the feeders are working properly.

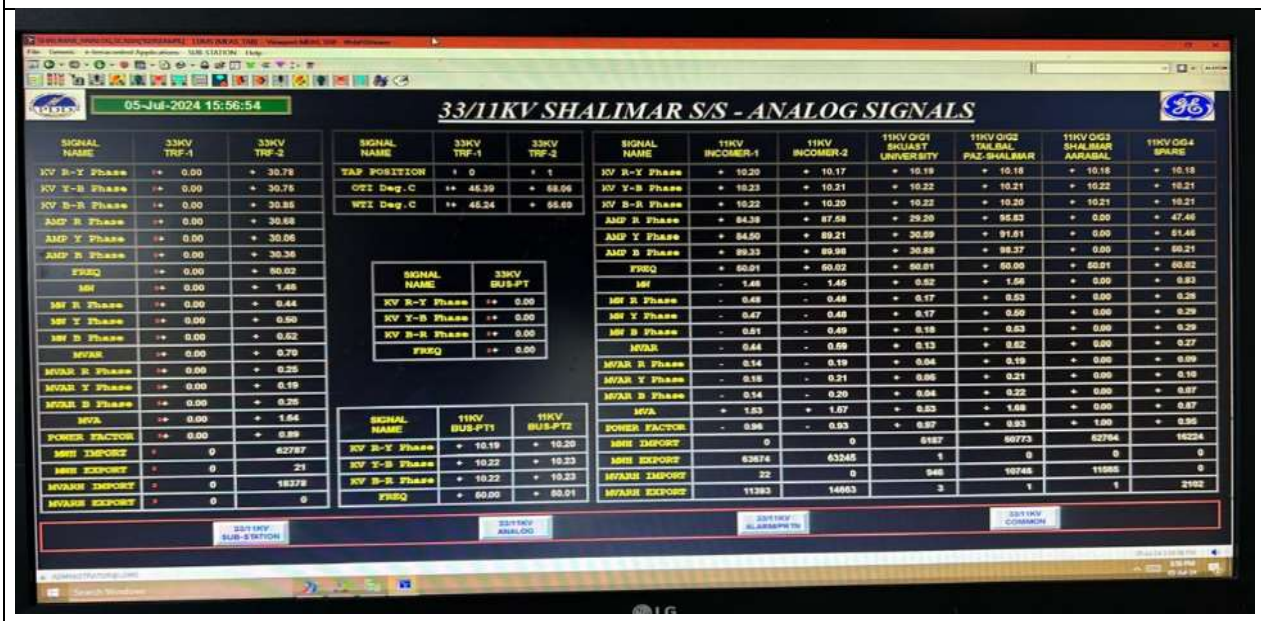
All feeders are under load.

P.F is 0.89 & 0.91

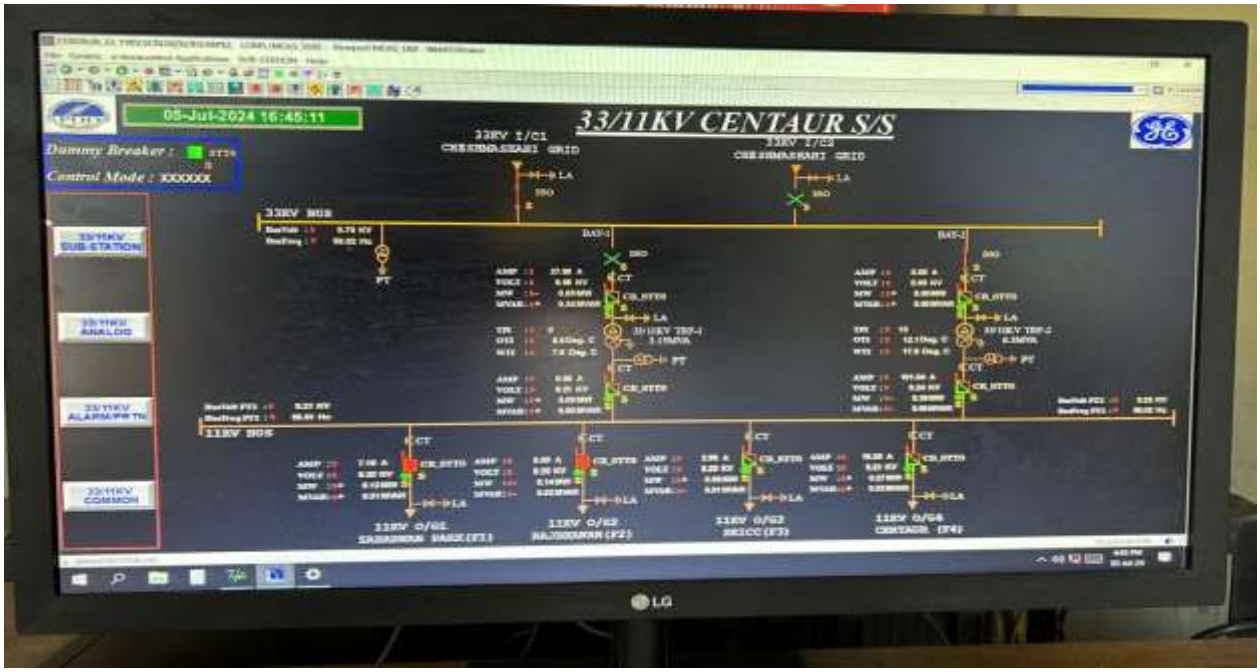
Transformer oil level ok, silica gel ok, temperature ok

33/11KV Shalimar S/S - (2 x 10MVA)


SUB TRANSMISSION DIVISION 1st KPDCL BEMINA, SRINAGAR
DAILY LOG SHEET OF Shalimar RECEIVING STATION
NIGHT SHIFT
MORNING SHIFT
AFTERNOON SHIFT


05-Jul-2024 15:56:54
33/11KV SHALIMAR S/S - ANALOG SIGNALS

33/11KV Centaur S/S - (2 x 6.3MVA)


05-Jul-2024 16:45:11
33/11KV CENTAUR S/S
Dummy Breaker :
Control Mode : XXXXXX
33KV BUS
11KV BUS
33/11KV SUB-STATION
33/11KV ANALOG
33/11KV ALARM/PRTN
33/11KV COMMON
LG


SUB TRANSMISSION DIVISION 1st KPDCL BEMINA, SRINAGAR
DAILY LOG SHEET OF
CAPACITY
RECEIVING STATION
NIGHT SHIFT
MORNING SHIFT
AFTERNOON SHIFT

Annexure X - List of documents verified with each parameter

The documents verified are listed in the below table:

Table 42: List of documents verified with each parameter

S. No	Data Required for Annual Energy Audit as per BEE regulation	Status	Remark
1	Complete filled in Proforma for the year 2023-2024 (Annually)	Provided	Data Attached
2	Supporting Data with Month wise breakup	Provided Month wise breakup	Data Attached
A	Purchase Energy		
B	Net Input in Discom		
C	Billed Energy		
D	Revenue Demand		
E	Revenue Collected		
F	Energy Export to other		
G	Transmission loss calculation Methodology	NA	NA
3	Feeder wise input ,Billed Energy, T&D & AT&C losses	Provided	Data Attached
4	Action plan to reduce the T&D and AT&C losses	Provided The various schemes	Action plan to reduce AT&C losses & payback of RDSS Schemes
5	Assets details matched with the proforma infrastructure sheets	Provided	Data Attached
6	Verified T&D and AT&C losses (Approved With Petition)	Petition provided	Data Attached
7	Energy Flow Diagram	Data Attached	Data Attached
8	Subsidy category Wise (BEE Guideline proforma)	Format Provided	Data Attached in BEE Guideline proforma
9	Verified T&D and AT&C losses	Provided	Data Attached
10	High Loss area T&D & AT&C action plan to reduce losses	Provided	Data Attached
11	Power Map	Provided	Data Attached
12	Current status of Metering status at Various Voltage level of Discom	Functional & Non Functional meter details provided	100 % metered (operational)
13	Status of default meter (non-functional meters)	Provided	Data Attached
14	Quarter Wise report	Provided	Data Attached
15	High Loss area T&D & AT&C action plan to reduce losses	Provided	Data Attached

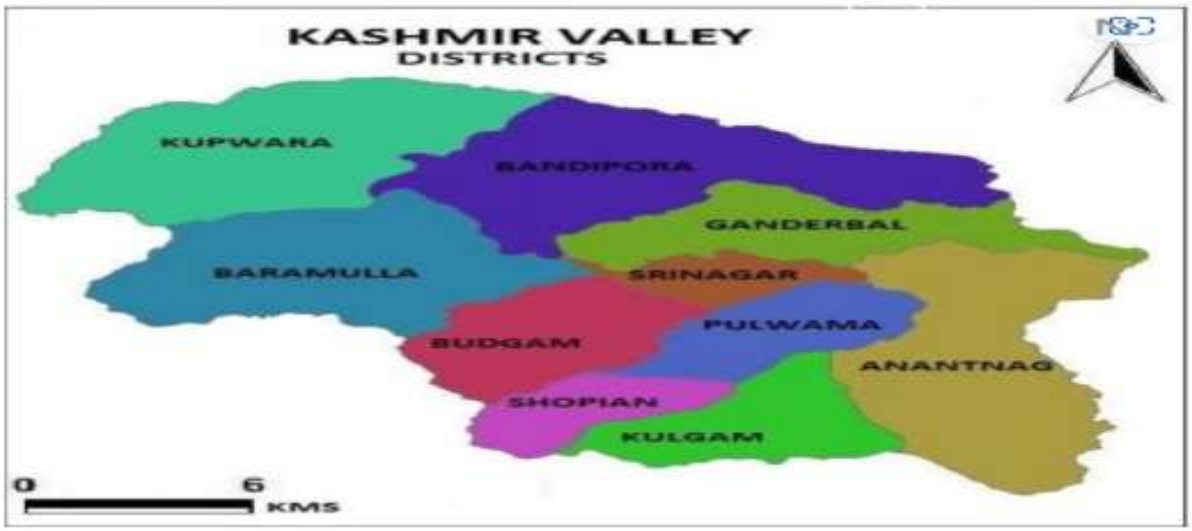
Annexure XI - Brief Description of Unit

Kashmir Power Distribution Corporation Limited (KPDCL) – a state-owned Power Distribution Utility. KPDCL has the privilege of empowering millions of people by supplying electricity in their homes as well as to places where they do all kinds of activities – agricultural (or allied), commercial, industrial & other. KPDCL has a consumer base of more than Eleven Lakh consumers spread over 10 districts of Kashmir region. The Company, headquartered at Jehangir Chowk, Srinagar, functions with 06 Circles, 19 Divisions and 67 Sub-divisions. KPDCL has a unique mix of consumers i.e. on one hand it caters to industrial consumers alongside urban areas and on the other it caters to agricultural consumers, scattered tribal & forest area consumers. Thus the expansive operational area and motley consumer mix sets KPDCL apart from private utilities which usually cater only to urban landscapes. In a bid to provide its valued consumers with quality power supply, the Company undertakes various infrastructure revamping and technical upgradation programs on continual basis like laying of underground cables and installations of RMUs, creation of new feeders and bifurcation of existing feeders, erection of new sub-stations, creation of new transformer centres, etc. The consumer centric initiatives include dedicated fault restoration centers at every sub-division, 24 x 7 centralized Customer Care Centre at Bemina, Srinagar and a range of services available online on KPDCL Website and Mobile Application. In addition, KPDCL also hears and redresses consumer grievances through public fora regularly.

The Purchase energy by KPDCL for the customer is **11124.05 MU**, the monthly consumption per customer stands at **373.64 KWH/Month**. KPDCL caters to area spread in 6 circles, 19 Division.

Pursuant to direction from Government of J&K for reorganization of the power sector in the state, J&K Power Development Department was unbundled into separate Companies with functional responsibilities for generation, transmission, distribution and trading of electricity with complete autonomous operations.

Accordingly, the Distribution undertakings and functions of the Kashmir region of the erstwhile JKPDD stand transferred to and vested in Kashmir Power Distribution Corporation Limited. The corporation was incorporated on 30th October, 2019, primarily to carry out distribution of electricity to retail and bulk consumers. The Company is engaged in distribution of electricity in 10 districts namely Srinagar, Ganderbal, Baramulla, Anantnag, Budgam, Pulwama, Shopian, Kupwara, Kulgam & Bandipora.



List of Parameters arrived through calculation or formulae with list of documents as source of data

Ideally, reduction of technical and commercial losses should be the parameter for evaluation of performance of Discom sector. However, the technical losses of the Discoms are not available and it involves a cumbersome process to calculate the technical losses, which varies based on various factors like loading pattern etc.

Now, only the T&D losses and AT&C losses are available as the performance parameter for achieving energy efficiency by DISCOMs.

It was decided that out of the two parameters, T&D loss parameter seems to be appropriate parameter which reflects energy savings to a greater extent as compared to AT&C losses

Table 43: Formulas used to derive the parameters

Parameter	Formula	Data Source
AT&C Losses	{1- (Billing Efficiency x Collection Efficiency)} x 100	
T& D Losses	{1- (Total energy Billed/ Total energy Input in the system)} x 100	
Billing efficiency	Total unit Billed/ Total unit Inputs Collection efficiency	
Collection efficiency	Revenue collected / Amount Billed	

Annexure XII - Detailed Formats

General Information

General Information					
1	Name of the DISCOM	KASHMIR POWER DISTRIBUTION LIMITED			
2	i) Year of Establishment	2020			
	ii) Government/Public/Private	Government			
3	DISCOM's Contact details & Address				
i	City/Town/Village	Exhibition Ground Opposite High Court, Jehnagir Chowk			
ii	District	Srinagar			
iii	State	J&K		Pin	190001
iv	Telephone	0194-2479836		Fax	0194-2452173
4	Registered Office				
i	Company's Chief Executive Name	Mr. Mahmood A Shah (KAS)			
ii	Designation	Managing Director			
iii	Address	Exhibition Ground Opposite High Court, Jehnagir Chowk			
iv	City/Town/Village	Srinagar		P.O.	
v	District	Srinagar			
vi	State	J&K		Pin	190001
vii	Telephone	0194-2479836		Fax	0194-2452173
5	Nodal Officer Details*				
i	Nodal Officer Name (Designated at DISCOM's)	Ms. Aaquib Sultan W Deva			
ii	Designation	Chief Engineer (D), KPDCL			
iii	Address	Exhibition Ground Opposite High Court, Jehnagir Chowk			
iv	City/Town/Village	Srinagar		P.O.	
v	District				
vi	State	J&K		Pin	190001
vii	Telephone	0194-2452001		Fax	0194-2453863
6	Energy Manager Details*				
i	Name	Er. Shabir A Khan			
ii	Designation	CEO, IT&C Division, KPDCL		Whether EA or EM	
iii	EA/EM Registration No.				
iv	Telephone			Fax	
v	Mobile	9419424639	E-mail ID	shabirkhanik@gmail.com	
7	Period of Information				
	Year of (FY) information including Date and Month (Start & End)	April 2023 - March 2024			

Summery Sheet

Performance Summary of Electricity Distribution Companies			
1	Period of Information Year of (FY) information including Date and Month (Start & End)	April 2023 - March 2024	
2	**Technical Details**		
(a)	**Energy Input Details**		
(i)	Input Energy Purchase (From Generation Source)	Million kwh	11124.05
(ii)	Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	Million kwh	10841.30
(iii)	Total Energy billed (is the Net energy billed, adjusted for energy traded))	Million kwh	5205.55
(b)	Transmission and Distribution (T&D) loss Details	Million kwh	5635.75
		%	51.98%
	Collection Efficiency	%	123.61%
(c)	Aggregate Technical & Commercial Loss	%	40.65%

I/We undertake that the information supplied in this Document and Pro-forma is accurate to the best of 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

Name of Authorised Signatory
Name of the DISCOM:
Full Address:-

Chief Engineer
(Distribution) KPDCL

Seal

Signature:-

Name of Energy Manager*:
Registration Number:

Infrastructure Details

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	8			
ii	Number of divisions	19			
iii	Number of sub-divisions	67			
iv	Number of feeders	1398			
v	Number of DTs	40779			
vi	Number of consumers	1161008			
2	Parameters	66kV and above	33kV	11/22kV	LT
a. i.	Number of conventional metered consumers	11	380	19654	130632
ii	Number of consumers with 'smart' meters	0	0	0	254736
iii	Number of consumers with 'smart prepaid' meters	0	0	0	54327
iv	Number of consumers with 'AMR' meters		0	0	0
v	Number of consumers with 'non-smart prepaid' meters	0	0	0	0
vi	Number of unmetered consumers	0	0	0	701279
vii	**Number of total consumers**	0	380	19654	1140974
b.i.	Number of conventionally metered Distribution Transformers	0	0	0	0
ii	Number of DTs with communicable meters	0	0	0	0
iii	Number of unmetered DTs		0	40779	0
iv	**Number of total Transformers**	0	0	40779	0
c.i.	Number of metered feeders	0	180	878	
ii	Number of feeders with communicable meters	0	0	340	0
iii	Number of unmetered feeders	0	0	0	0
iv	**Number of total feeders**	0	180	1218	0
d.	Line length (ckt km)	0	2366.69	20265	47689
e.	Length of Aerial Bunched Cables		6038		
f.	Length of Underground Cables		137.25		

3	Voltage level	Particulars	MU	Reference	Remarks (Source of data)
i	66kV and above	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	
		Captive, open access input		Any power wheeled for any purchase other than sale to DISCOM. Does not include input for franchisee.	
		Sale of surplus power			
		Quantum of inter-state transmission loss		As confirmed by SLDC, RLDC etc	
		Power procured from inter-state sources	0	Based on data from Form 5	
		Power at state transmission boundary	0		
ii	33kV	Long-Term Conventional			
		Medium Conventional			
		Short Term Conventional			
		Banking			
		Long-Term Renewable energy	10704.83		
		Medium and Short-Term RE			
		Captive, open access input			
		Sale of surplus power			
		Quantum of intra-state transmission loss	0.00		
iii		**Power procured from intra-state sources**	10704.83		
iv	33 kV	**Input in DISCOM wires network**	10704.83		
		Renewable Energy Procurement			
		Small capacity conventional/ biomass/ hydro plants Procurement	136.47		
		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**	136.47		
viii		**Total Energy Available/ Input**	10,841.30		

4	Voltage level	Energy Sales Particulars	MU	Reference	
i	LT Level	DISCOM' consumers	3898.24	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	3898.24		
		Quantum of LT level losses	5594.05		
		Energy Input at LT level	9492.29		
ii	11 kV Level	DISCOM' consumers	834.01	Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive		Non DISCOM's sales	
		Embedded generation at 11 kV level used		Demand from embedded generation at 11kV level	
		Sales at 11 kV level	834.01		
		Quantum of Losses at 11 kV	41.70		
		Energy input at 11 kV level	875.71		
iii	33 kV Level	DISCOM' consumers	473.31	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	136.47	This is DISCOM and OA demand met via energy generated at same voltage level	
		Sales at 33 kV level	473.31		
		Quantum of Losses at 33 kV	0.00		
		Energy input at 33kV Level	473.31		
iv	> 33 kV	DISCOM' consumers		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			
		Sales at 66kV and above (EHV)	0.00		
		Total Energy Requirement	**10841.30**		
		Total Energy Sales	**5205.55**		

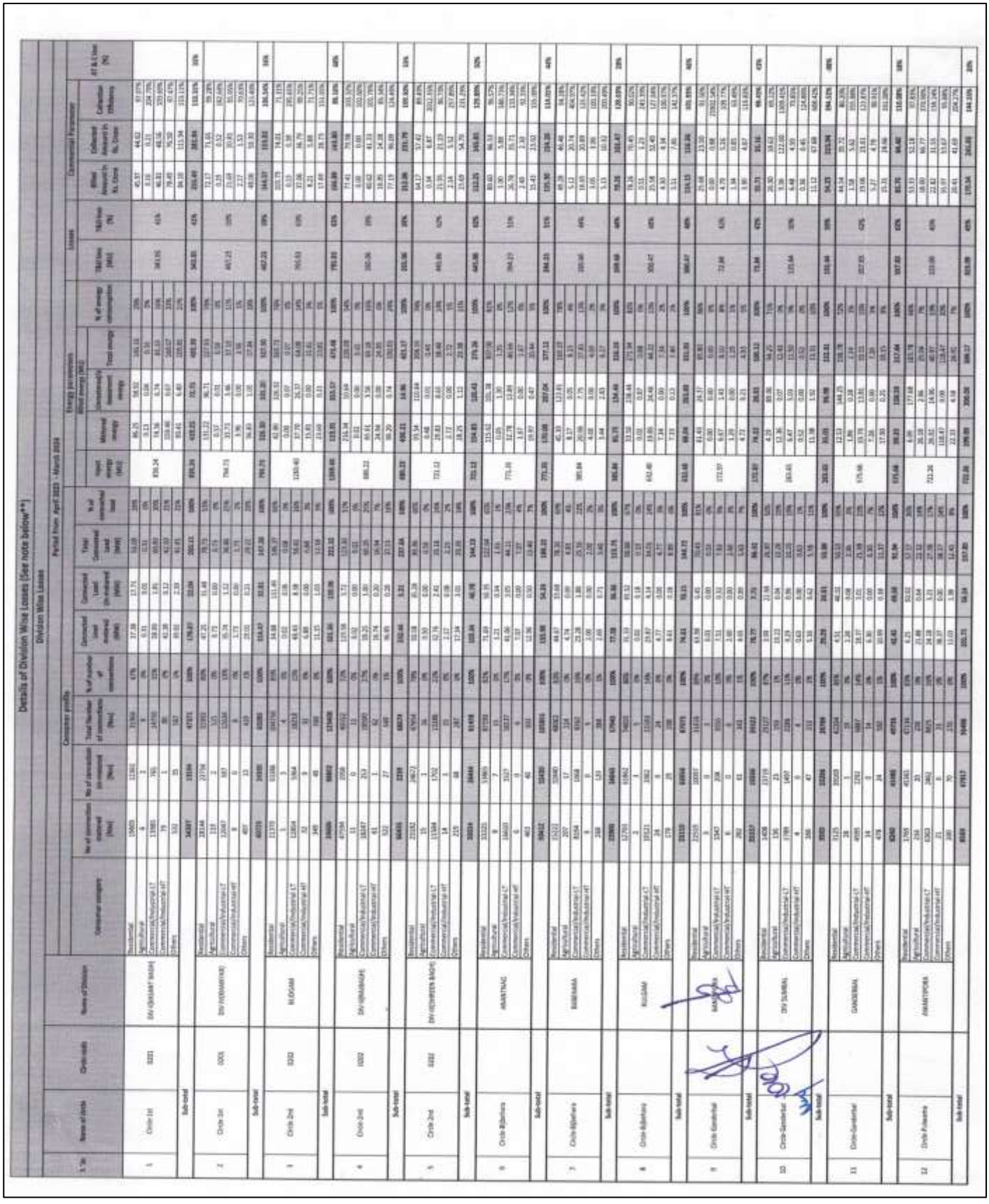
Energy Accounting Summary

S	DISCOM	Input (In MU)	Sale (In MU)	Loss (In MU)	Loss %
i	LT	9492.29	3898.24	5594.05	58.93%
ii	11 Kv	875.71	834.01	41.70	4.76%
iii	33 kv	473.31	473.31	0.00	0.00%
iv	> 33 kv				
S	**Open Access, Captive**	**Input (In MU)**	**Sale (In MU)**	**Loss (In MU)**	
i	LT				
ii	11 Kv				
iii	33 kv				
iv	> 33 kv				

Loss Estimation for DISCOM	
T&D loss	5,636
D loss	5,636
T&D loss (%)	51.98%
D loss (%)	51.98%

Energy Manager
(KPDCL)

Division wise losses



S.No	Name of circle	Circle code	Name of Division	Consumer profile									Energy parameters					Losses		Commercial Parameter			AT & C loss (%)
				Consumer category	No of connection metered (Nos)	No of connection Un-metered (Nos)	Total Number of connections (Nos)	% of number of connections	Connected Load metered (MW)	Connected Load Un-metered (MW)	Total Connected Load (MW)	% of connected load	Input energy (MU)	Billed energy (MU) Metered energy	Unmetered/Assessment energy	Total energy	% of energy consumption	T&D loss (MU)	T&D loss (%)	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	
13	Circle-Pulwama		PULWAMA	Residential	30564	31012	61576	41%	46.90	41.04	87.95	32%	501.40	34.07	134.72	168.79	51%	224.47	45%	50.69	50.65	99.91%	
				Agricultural	212	19	231	0%	8.45	0.77	9.22	3%		5.69	3.24	8.93	3%			6.11	24.57	402.39%	
				Commercial/Industrial-LT	8714	692	9406	18%	37.77	2.02	39.79	15%		32.07	9.19	41.27	15%			23.00	27.42	119.19%	
				Commercial/Industrial-HT	112	0	112	0%	33.41	0.00	33.41	13%		49.93	0.00	49.93	18%			27.70	28.51	102.94%	
				Others	320	7	327	1%	4.43	0.08	4.51	2%		7.81	0.20	8.01	3%			6.99	19.46	278.52%	
	Sub-total				39922	32730	72652	100%	130.87	43.91	174.77	100%	501.40	129.58	147.35	276.93	100%	224.47	45%	114.49	150.61	131.55%	27%
14	Circle-Pulwama		SHOPIAN	Residential	8520	36508	45028	87%	35.66	40.74	76.40	73%	419.95	28.15	129.87	158.02	84%	230.84	55%	45.36	44.36	97.79%	
				Agricultural	221	12	233	0%	2.79	0.18	2.97	3%		0.31	0.53	0.84	0%			0.53	6.58	1252.25%	
				Commercial/Industrial-LT	5357	555	5912	11%	16.43	1.25	17.68	17%		11.50	6.12	17.62	9%			10.73	10.34	96.36%	
				Commercial/Industrial-HT	9	0	9	0%	2.68	0.00	2.68	3%		8.33	0.00	8.33	4%			3.96	4.16	104.90%	
				Others	381	88	469	1%	4.29	0.57	4.86	5%		3.40	0.91	4.31	2%			2.95	11.46	256.08%	
	Sub-total				14488	37163	51651	100%	61.85	42.73	104.59	100%	419.95	51.68	137.43	189.12	100%	230.84	55%	64.54	76.90	119.16%	46%
15	Circle-Sopore		BARAMULLAH	Residential	20743	42246	62989	81%	85.34	39.09	124.43	75%	570.10	77.91	143.13	221.04	71%	257.86	45%	63.88	53.58	83.87%	
				Agricultural	33	3	36	0%	8.35	0.04	8.38	4%		13.31	0.13	13.44	4%			10.69	37.42	350.03%	
				Commercial/Industrial-LT	8241	1964	10205	14%	22.39	1.52	23.91	13%		18.33	8.28	26.61	9%			15.03	13.55	90.44%	
				Commercial/Industrial-HT	4	0	4	0%	1.46	0.00	1.46	1%		1.95	0.00	1.95	1%			1.05	1.03	97.96%	
				Others	948	82	1030	1%	20.53	0.23	20.77	11%		49.12	0.08	49.20	16%			39.41	64.94	164.78%	
	Sub-total				29967	44295	74262	100%	148.06	40.88	188.95	100%	570.10	160.62	151.62	312.24	100%	257.86	45%	130.06	170.56	131.14%	28%
16	Circle-Sopore		HANDWARA	Residential	2691	34401	37092	93%	5.81	25.79	31.60	66%	304.14	7.75	106.29	114.04	65%	169.83	56%	29.94	22.46	75.03%	
				Agricultural	30	0	30	0%	1.53	0.00	1.53	3%		0.28	0.00	0.28	0%			1.40	7.33	522.77%	
				Commercial/Industrial-LT	3019	1106	4125	10%	9.68	1.63	11.31	24%		7.73	7.82	15.56	12%			8.82	12.07	136.92%	
				Commercial/Industrial-HT	1	0	1	0%	0.39	0.00	0.39	1%		0.46	0.00	0.46	0%			0.26	0.26	100.00%	
				Others	174	13	187	0%	2.68	0.03	2.71	6%		3.97	0.00	3.97	3%			3.22	3.84	119.18%	
	Sub-total				5915	35520	41435	100%	20.09	27.46	47.55	100%	304.14	20.20	114.11	134.31	100%	169.83	56%	43.64	45.96	105.30%	53%
17	Circle-Sopore		KUPWARA	Residential	2410	48099	50509	92%	6.18	27.38	33.56	60%	358.52	6.16	126.63	132.79	77%	185.66	52%	32.73	28.66	87.57%	
				Agricultural	0	0	0	0%	0.00	0.00	0.00	0%		0.00	0.00	0.00	0%			0.00	0.00	0.00%	
				Commercial/Industrial-LT	3744	1435	5179	9%	12.56	3.13	15.69	28%		10.48	13.93	24.42	14%			14.52	24.79	170.74%	
				Commercial/Industrial-HT	1	0	1	0%	0.32	0.00	0.32	1%		0.06	0.00	0.06	0%			0.13	0.00	0.00%	
				Others	286	44	330	1%	5.26	1.05	6.30	11%		15.29	0.30	15.59	9%			11.18	11.73	104.93%	
	Sub-total				6441	49578	56019	100%	24.32	31.56	55.87	100%	358.52	32.00	140.86	172.86	100%	185.66	52%	58.55	65.18	111.32%	46%
18	Circle-Sopore		SOPORE	Residential	16442	43316	59758	84%	43.41	36.61	80.02	65%	581.43	57.15	144.68	201.83	79%	336.66	57%	57.18	44.06	77.05%	
				Agricultural	69	4	73	0%	4.22	0.13	4.35	4%		2.74	0.20	2.93	1%			5.03	21.52	428.01%	
				Commercial/Industrial-LT	9542	1467	11009	15%	27.68	1.58	29.26	24%		19.24	6.46	25.69	10%			15.34	12.56	81.90%	
				Commercial/Industrial-HT	9	0	9	0%	2.42	0.00	2.42	2%		2.76	0.00	2.76	1%			1.88	1.73	91.82%	
				Others	334	32	366	1%	7.45	0.12	7.62	6%		21.30	0.24	21.54	8%			17.50	58.52	334.50%	
	Sub-total				26396	44819	71215	100%	85.22	38.44	123.66	100%	581.43	103.18	151.57	254.76	100%	336.66	57%	96.93	138.39	142.77%	38%
19	Circle-Sopore		SPL-TANGMARG	Residential	9622	13356	22978	87%	38.57	14.03	52.59	69%	263.91	23.33	46.19	69.52	69%	162.65	62%	19.02	15.85	83.30%	
				Agricultural	26	2	28	0%	0.09	0.01	0.10	0%		0.03	0.00	0.04	0%			0.03	0.00	77.11%	
				Commercial/Industrial-LT	2765	299	3064	12%	13.55	0.23	13.78	18%		13.61	0.94	14.55	14%			8.97	8.69	96.88%	
				Commercial/Industrial-HT	18	0	18	0%	4.90	0.00	4.90	6%		10.48	0.00	10.48	10%			6.99	7.23	103.39%	
				Others	282	13	295	1%	5.16	0.17	5.34	7%		4.73	1.93	6.66	7%			5.32	16.00	300.68%	
	Sub-total				12713	13670	26383	100%	62.27	14.43	76.71	100%	263.91	52.19	49.06	101.26	100%	162.65	62%	40.31	47.76	118.50%	55%
76	Total			Residential	290046	672990	963036	83%	787.88	700.26	1488.14	58%	10841.30	1083.54	2425.22	3508.76	67%	5635.75	52%	1029.92	920.76	89.40%	
				Agricultural	1343	119	1462	0%	67.36	2.56	69.92	3%		72.29	9.65	81.86	2%			60.19	329.05	546.69%	
				Commercial/Industrial-LT	161118	27305	188423	16%	528.77	42.66	571.43	22%		485.77	182.85	668.62	13%			386.67	432.22	111.78%	
				Commercial/Industrial-HT	432	3	435	0%	177.22	0.40	177.62	7%		422.05	0.67	422.73	8%			222.64	216.22	97.12%	
				Others	6790	862	7652	1%	239.32	14.01	253.34	10%		500.05	23.54	523.59	10%			415.12	715.60	172.38%	
77	At company level				459729	701279	1161008	100%	1800.56	759.89	2560.45	100%	10841.30	2563.62	2641.94	5205.55	100%	5635.75	52%	2114.55	2613.86	123.61%	40.65%

** Note - It shall be mandatory to record the energy supplied separately for each category of consumers which is being provided a separate rate of subsidy in the tariff, by the state government, so that the subsidy due for the electricity distribution company is quarterly calculated by multiplying the energy supplied to each of such category of consumers by the applicable rate of subsidy notifie by the state government.

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I/We undertake that the information supplied in this Document and Pro-forma is accurate to the best of 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.

Authorized Signatory and Seal

Name of the Authorized Signatory:

Name of the DISCOM:

Full Address:

Chief Engineer
(Distribution) KPDCL

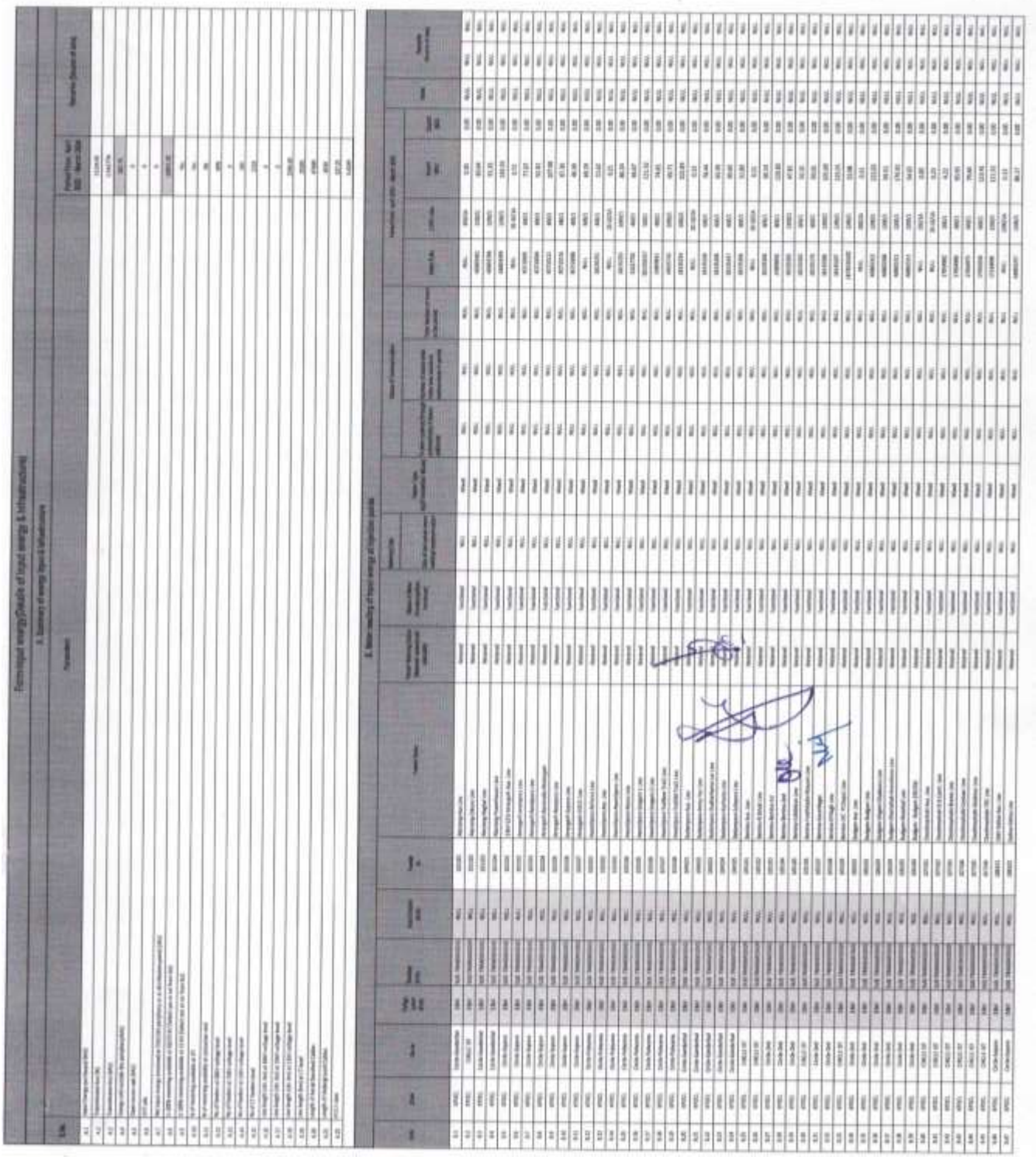
Seal

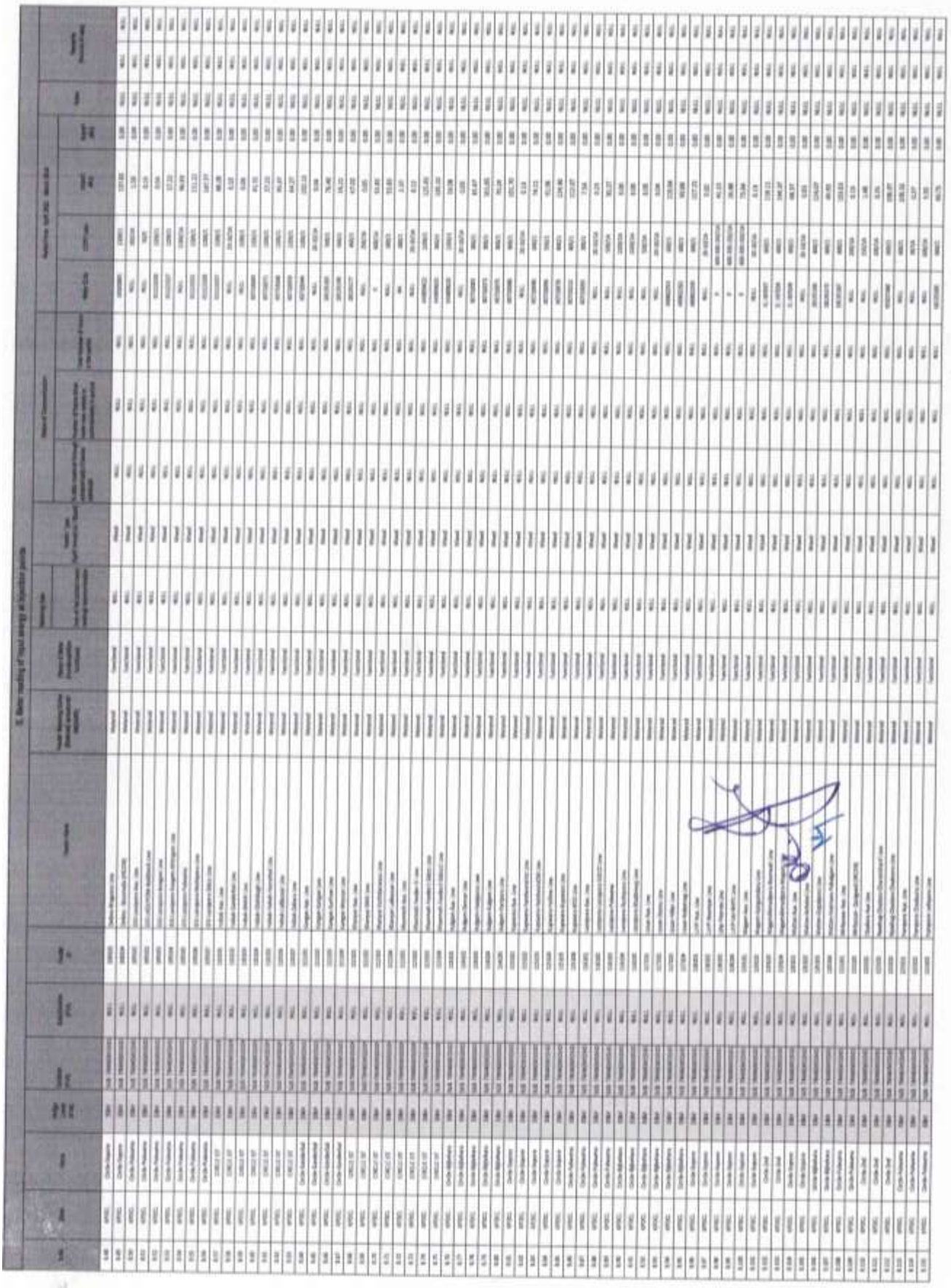
Signature:-

Name of Energy Manager:

Registration Number:

Form Input Energy





Energy Manager
(KPDCL)

Details of Received Sources

Details of Input Energy Sources

Period From April 2023 - March 2024

A. Generation at Transmission Periphery (Details)

S.No.	Name of Generation 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 Grid (Intra-state/Inter-state)	Point of Connection (POC) Loss MU	Voltage Level (At input)	Remarks (Source of data)
1	SINGRAULI	2000	Coal	short version operative as per policy of GoI	ISGS			
2	RIHAND-1	1000	Coal	25 years	ISGS		132	18-02-2025
3	RIHAND-2	1000	Coal	25 years	ISGS		132	18-02-2025
4	RIHAND-3	1000	Coal	25 years	ISGS		132	18-02-2025
5	UNCHAR-I	420	Coal	25 years	ISGS			18-02-2025
6	UNCHAR-II	420	Coal	25 years	ISGS			18-02-2025
7	UNCHAR-III	210	Coal	25 years	ISGS			26-05-2028
8	UNCHAR-IV	500	Coal	25 years	ISGS			16-05-2037
9	ANTA (G)	419	Gas	15 years	ISGS			17-02-2015
10	AURIYA (G)	663	Gas	15 years	ISGS			17-02-2015
11	DADRI (G)	830	Gas	35734	ISGS			
12	JHAJJAR	1500	Coal	policy of GoI	ISGS			
13	DADRI STAGE-II	980	Coal	policy of GoI	ISGS			
14	KOLDAM	800	Hydro	35 years	ISGS			11-11-2036
15	SINGRAULI SHP	8	Hydro	policy of GoI	ISGS			
16	TandaTPS	1320	Coal	25 years	ISGS			26-11-2035
17	MEJA	1320	Coal	25 years	ISGS			30-11-2035
18	SALAL	690	Hydro	COD (01-04-1995)	ISGS		220	31.03.2030
19	T.PUR	94	Hydro	COD (01-04-1993)	ISGS			31.03.2028
20	CHEMERA 1	540	Hydro	COD (01-05-1994)	ISGS			30.04.2029
21	CHEMERA 2	300	Hydro	COD (31-03-2004)	ISGS			30.03.2039
22	CHEMERA 3	231	Hydro	COD (03-07-2012) upto 03-07	ISGS			
23	URI 1	480	Hydro	COD (01-06-1997)	State			31.05.2032
24	URI2	240	Hydro	02-2024	State			
25	DHAULIGANGA	280	Hydro	35 years	ISGS			16.10.2036
26	DUL HASTI	390	Hydro	COD (07-04-2007)	State			06.04.2042

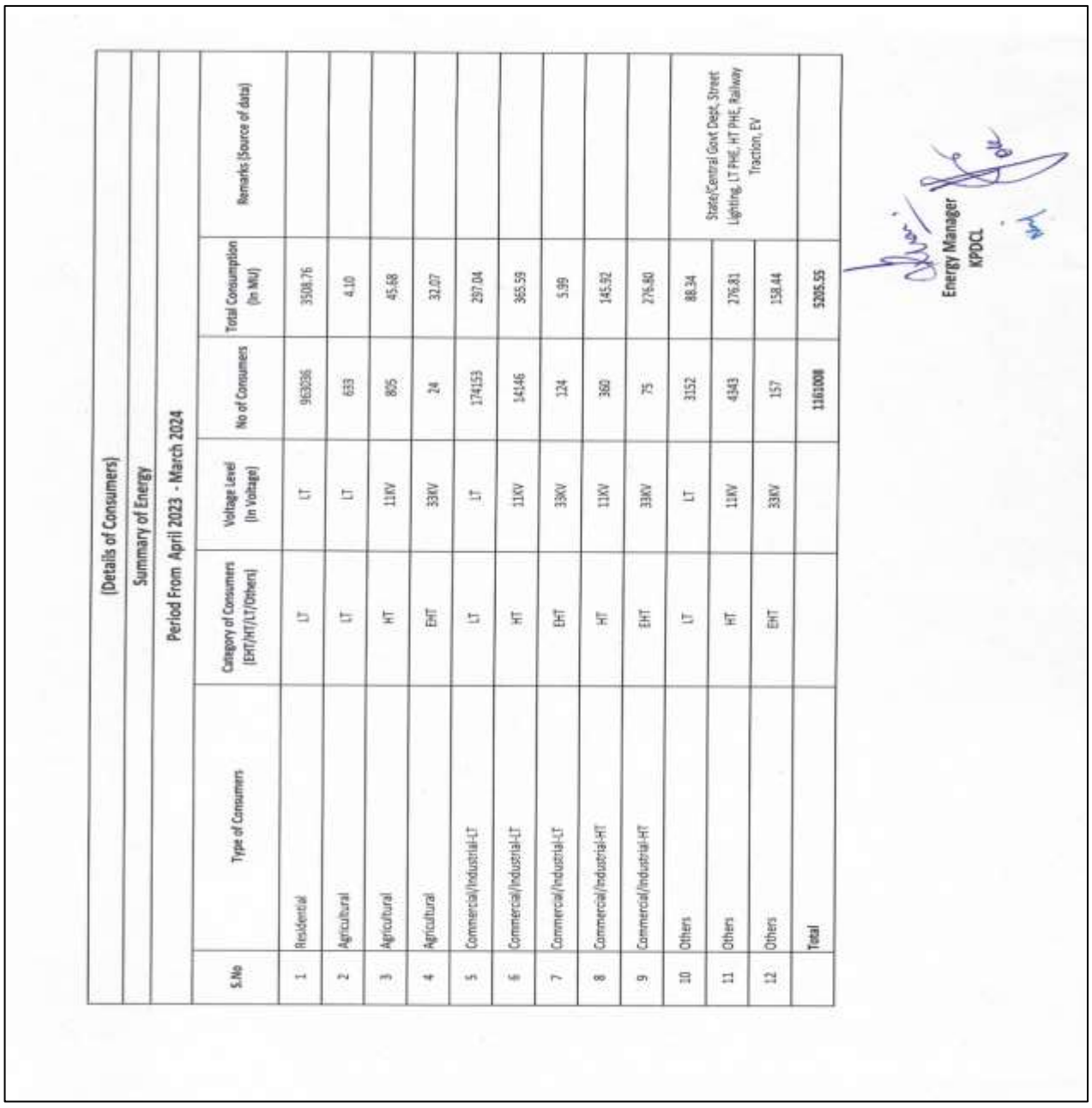
S.No.	Name of Generation Station	Generation Capacity (in MW)	Type of Station Generation (Based- Solid (Coal /Lignite)/Liquid/Gas/Renewable (biomass-bagasse)/Others)	Type of Contract (in years/months/days)	Type of Grid (Intra-state/Inter-state)	Point of Connection (POC) Loss MU	Voltage Level (At input)	Remarks (Source of data)
27	SEWA-2	120	Hydro	COD (24-07-2010)	State			23.07.2045
28	PARBATI-III	520	Hydro	COD (05-06-2014) upto 05-06	ISGS			
29	KISHANGANGA	330	Hydro	5 years	ISGS			11-04-2010
30	Nimmo Bazgo	45	Hydro	35 years	State			25-10-2040
31	Chutak	44	Hydro	35 years	State			25-10-2040
32	NAPS	440	Nuclear	15 years	ISGS			04-08-2020
33	RAPS-B	440	Nuclear	15 years	ISGS			04-08-2020
34	RAPS-C # 5&6	440	Nuclear	15 years	ISGs			27-06-2022
35	V-HAKHARI	1500	Hydro	came into force w.e.f	ISGS			17.05.2004
36	SAMPUR	412.02	Hydro	35 years	ISGS			18-02-2049
37	RIHA	1600	Coal	01 year	ISGS			Sept.1998
38	EHLGN-1	840	Coal	25 years	ISGS			26-05-2028
39	EHLGN-2	1500	Coal	25 years	ISGS			14-10-2028
40	LOHR	1000	Coal	01 year	ISGS			01-09-1998
41	MEJA-6	250	Coal		ISGS			
42	EHRI	1000	Hydro	35 years	ISGS			25-08-2039
43	OTESHWAR	400	Hydro	35 years	ISGS			24-11-2045
44	ALA	1020	Hydro		ISGS			
45	Baghliar HEP-I	450	Hydro	20 years	State		220	12-12-2020
46	Baghliar HEP-II	450	Hydro	35 years	State		220	26-08-2047
47	UHP	105	Hydro	15 years	State		132	25-04-2015
48	RSHP-I	22.5	Hydro	15 years	State		132	25-04-2015
49	RSHP-II	105	Hydro	15 years	State		132	18-01-2016

B. Embedded Generation in DISCOM Area

S.No	Name of Generation Station	Generation Capacity (In MW)	Tytpe of Station (Generation Based-Solid/Liquid/Gas/Renewable/Others)	Type of Contract	Type of Grid	Voltage Level (KVA)	Circle Load (MW)	Received at Circle (KVA)	Received at Circle (In MU)	Division Level Load (MW)	Received at Division Level (KVA)	Received at Division Level (In MU)	Sub-Division Level Load (MW)	Received at Sub-Division Level (KVA)	Received at Sub-Division Level (In MU)	Remarks (Source of data)
200001	Athwatoo PH 10MW	10	Renewable	25 years contract	Renewable Source	33KV	NULL	Circle-Ganderbal	37.25	NULL	SUB TRANSMISSION DIVISION GANDERBAL	37.25	NULL	NULL	37.25	SLDC
200002	Baltykulan PH 5MW	5	Renewable	25 years contract	Renewable Source	33KV	NULL	Circle-Ganderbal	9.66	NULL	SUB TRANSMISSION DIVISION GANDERBAL	9.66	NULL	NULL	9.66	SLDC
200003	Brenwar PH 7.5MW	7.5	Renewable	25 years contract	Renewable Source	33KV	NULL	Circle-2nd	20.21	NULL	SUB TRANSMISSION DIVISION 2ND	20.21	NULL	NULL	20.21	SLDC
200004	Drung Tangmarg 10MW	10	Renewable	25 years contract	Renewable Source	33KV	NULL	Circle-Sopore	20.76	NULL	SUB TRANSMISSION DIVISION SOPORE	20.76	NULL	NULL	20.76	SLDC
200005	GANDERBAL PH 10MW	10	Renewable	25 years contract	Renewable Source	33KV	NULL	Circle-Ganderbal	19.75	NULL	SUB TRANSMISSION DIVISION GANDERBAL	19.75	NULL	NULL	19.75	SLDC
200006	Ichloo Kokernag 5MW	5	Renewable	25 years contract	Renewable Source	33KV	NULL	Circle-Bijbehara	13.12	NULL	SUB TRANSMISSION DIVISION BIJBEHARA	13.12	NULL	NULL	13.12	SLDC
200007	Kernah PH 2MW	2	Renewable	25 years contract	Renewable Source	33KV	NULL	Circle-Sopore	7.36	NULL	SUB TRANSMISSION DIVISION SOPORE	7.36	NULL	NULL	7.36	SLDC
200008	Pahalgam PH 4.5MW	4.5	Renewable	25 years contract	Renewable Source	33KV	NULL	Circle-Bijbehara	3.52	NULL	SUB TRANSMISSION DIVISION BIJBEHARA	3.52	NULL	NULL	3.52	SLDC
200009	Rayil 2MW	2	Renewable	25 years contract	Renewable Source	33KV	NULL	Circle-Ganderbal	4.84	NULL	SUB TRANSMISSION DIVISION GANDERBAL	4.84	NULL	NULL	4.84	SLDC

Energy Manager
(KPDCL)

Details of Consumers



(Details of Consumers)

Summary of Energy

Period From April 2023 - March 2024

S.No	Type of Consumers	Category of Consumers (EHT/HT/LT/Others)	Voltage Level (In Voltage)	No of Consumers	Total Consumption (In MU)	Remarks (Source of data)
1	Residential	LT	LT	963036	3508.76	
2	Agricultural	LT	LT	633	4.10	
3	Agricultural	HT	11KV	805	45.68	
4	Agricultural	EHT	33KV	24	32.07	
5	Commercial/Industrial-LT	LT	LT	174153	297.04	
6	Commercial/Industrial-LT	HT	11KV	14146	365.59	
7	Commercial/Industrial-LT	EHT	33KV	124	5.99	
8	Commercial/Industrial-HT	HT	11KV	360	145.92	
9	Commercial/Industrial-HT	EHT	33KV	75	276.80	
10	Others	LT	LT	3152	88.34	State/Central Govt Dept, Street Lighting, LT PHE, HT PHE, Railway Traction, EV
11	Others	HT	11KV	4343	276.81	
12	Others	EHT	33KV	157	158.44	
	Total			1161008	5205.55	

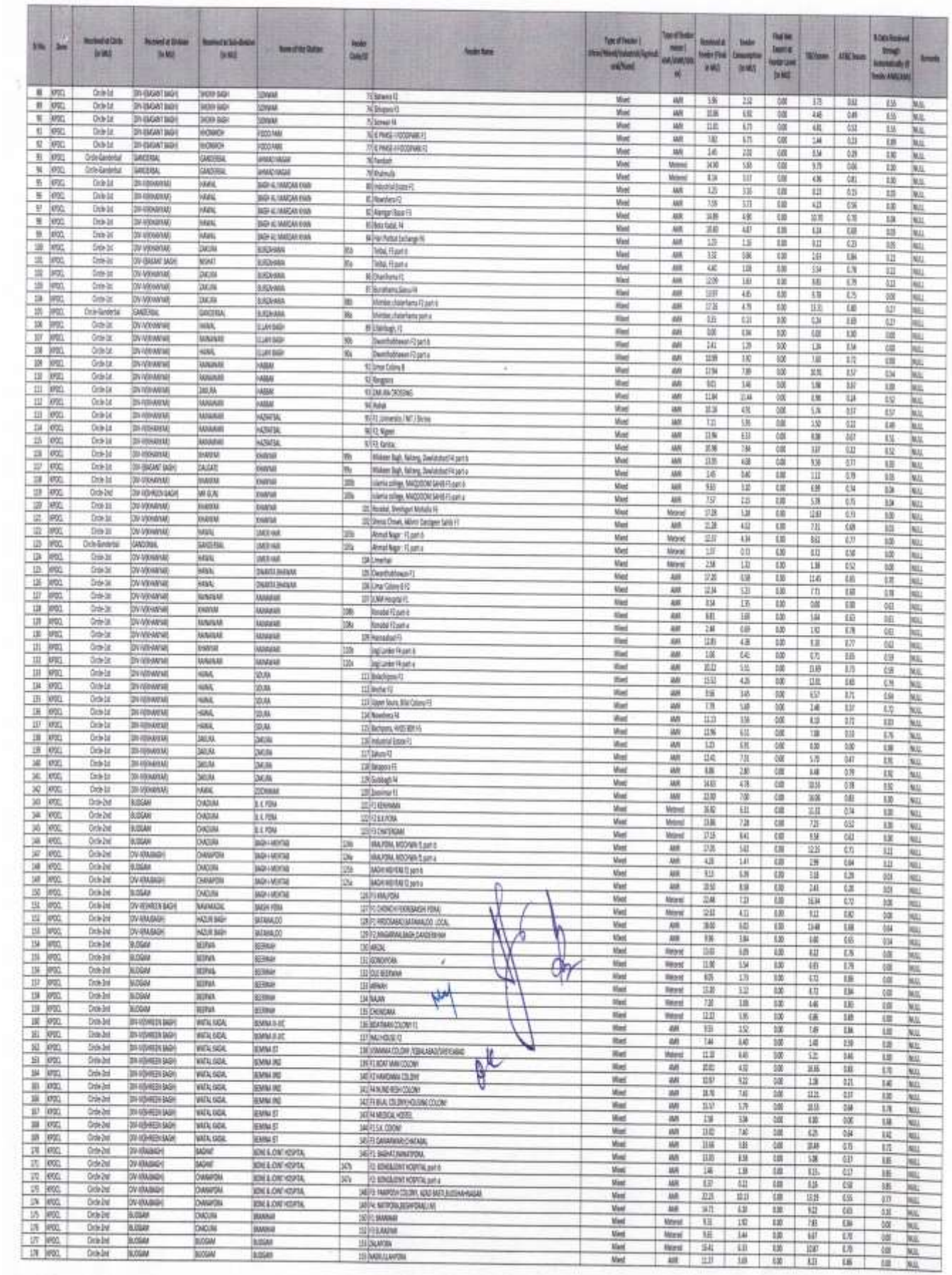
Energy Manager
KPDCL

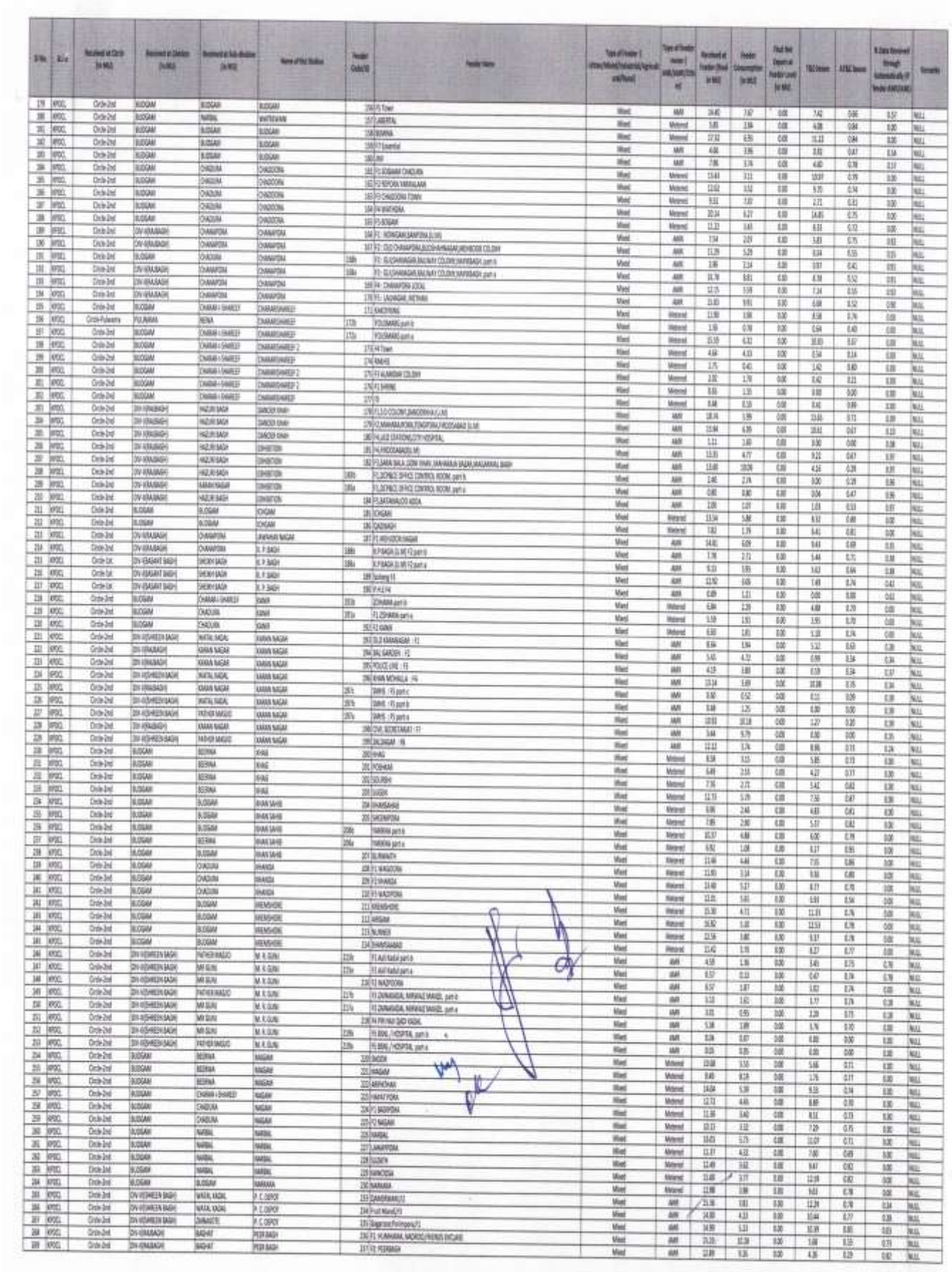
Details of Feeder Levels

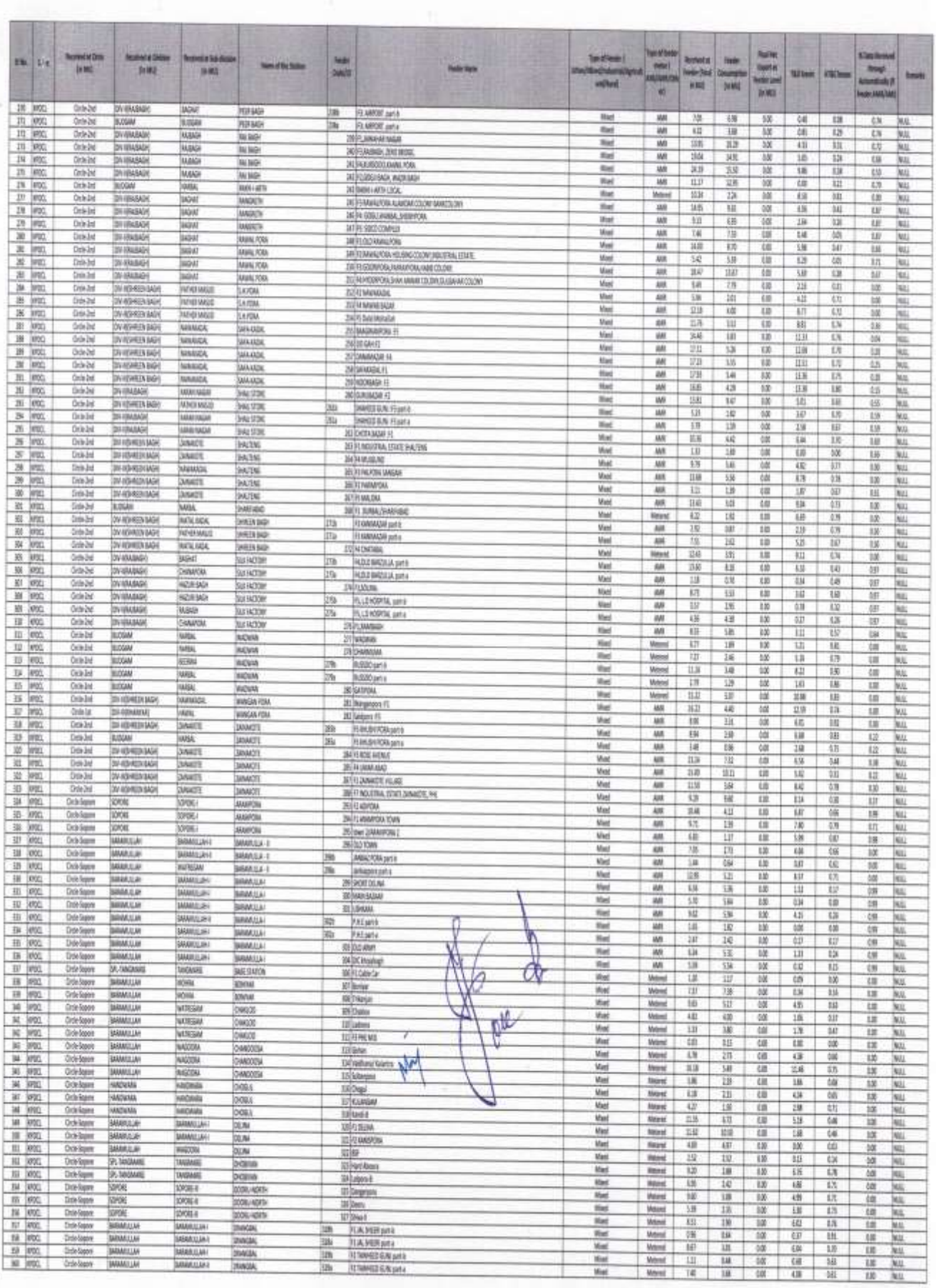
(Details of Feeder-wise losses)

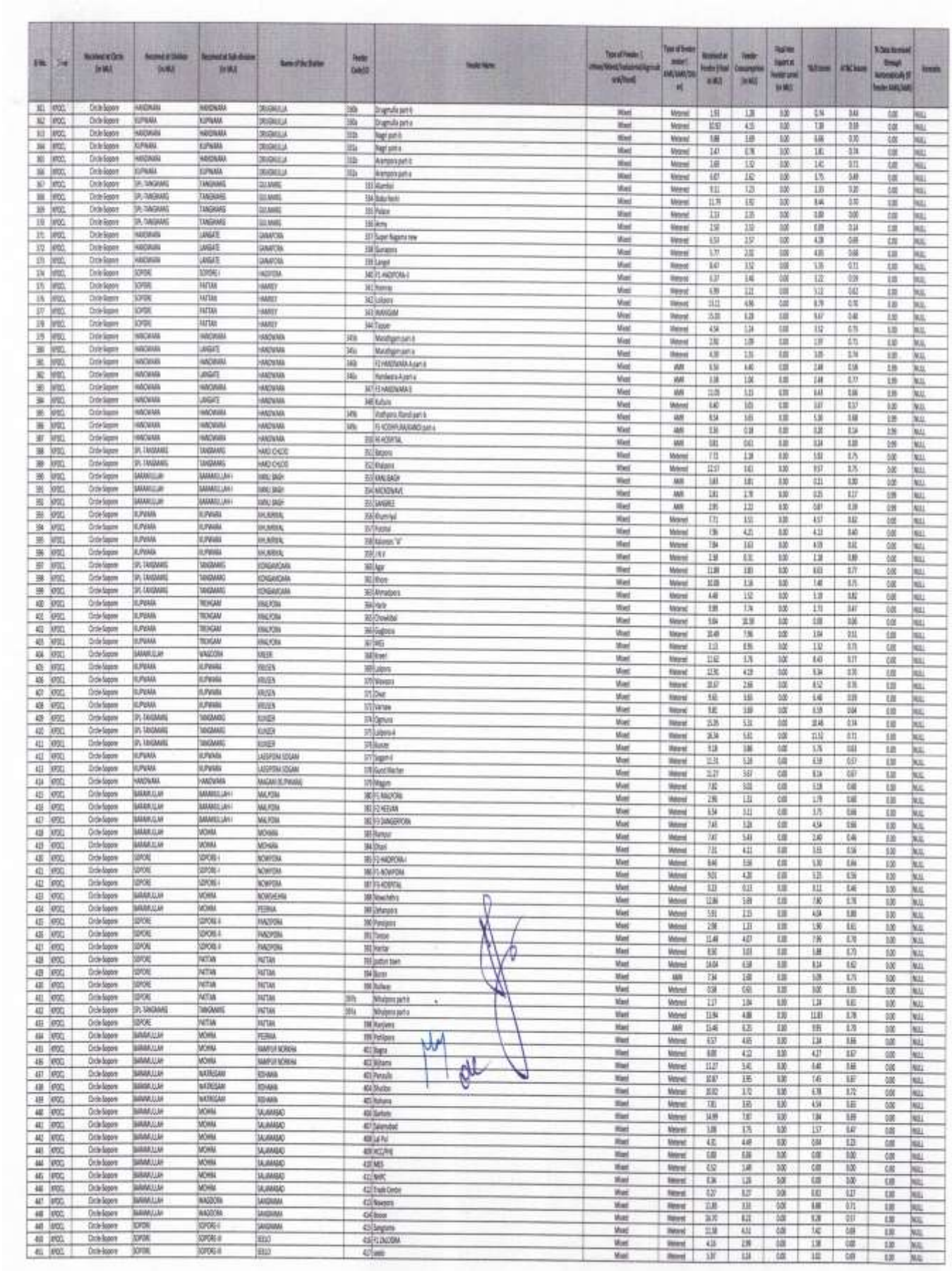
Period From April 2023 - March 2024

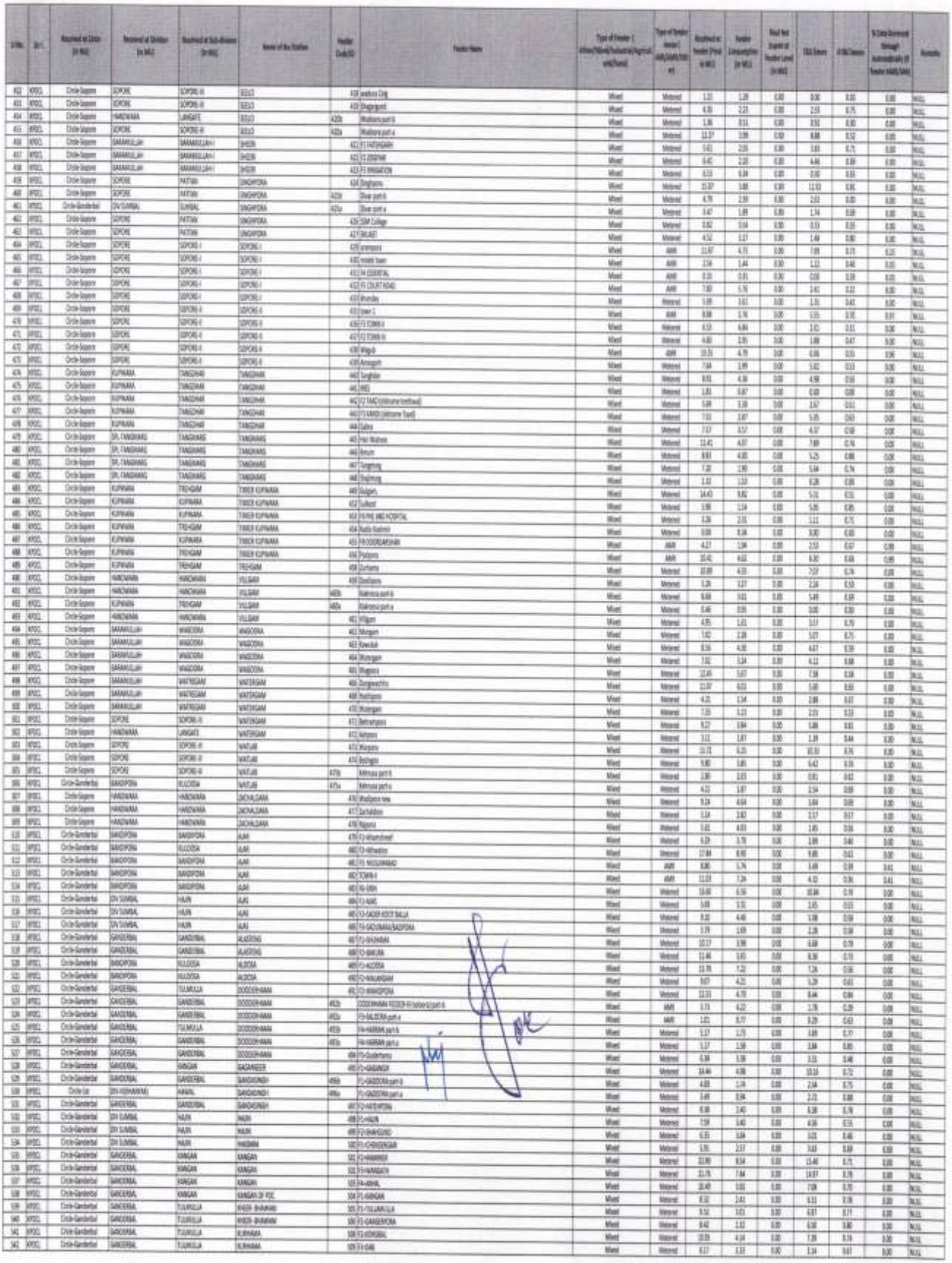
S.No.	Zone	Network at Circle (in MU)	Network at Division (in MU)	Network at Sub-division (in MU)	Name of the Station	Feeder Code/ID	Feeder Name	Type of Feeder (Urban/Mixed/Industrial/Agricultural/Rural)	Type of feeder meter (AMR/AMI/Others)	Received at Feeder (Total in MU)	Feeder Consumption (in MU)	Total Net Export at Feeder Level (in MU)	T&D losses	AT&C losses	% Data Received through Automatically (if Feeder AMR/AMI)	Remarks
1	KPDCL	Circle 1st	DIV-BASANT BAGH	HABBA KADAL	BARBAR SHAH	1	F1 NAI SARAK	Mixed	AMR	11.81	4.08	0.00	9.91	0.89	0.86	NULL
2	KPDCL	Circle 1st	DIV-BASANT BAGH	SHEIKH BAGH	BARBAR SHAH	2	F5 EXCHANGE	Mixed	AMR	6.41	3.44	0.00	1.29	0.35	0.86	NULL
3	KPDCL	Circle 1st	DIV-BASANT BAGH	HABBA KADAL	BASANT BAGH	3	BASANT BAGH FEEDER (Igniteheart)	Mixed	AMR	11.07	4.37	0.00	6.08	0.75	0.54	NULL
4	KPDCL	Circle 1st	DIV-BASANT BAGH	SHEIKH BAGH	BASANT BAGH	4	F3 MAISUMA	Mixed	AMR	5.44	3.46	0.00	1.30	0.71	0.51	NULL
5	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	BRINE	5	BRANE F01	Mixed	AMR	11.04	4.04	0.00	6.58	0.68	0.80	NULL
6	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	BRINE	6	F-1 Tulip Garden/Karpora	Mixed	AMR	3.41	1.96	0.00	1.44	0.69	0.51	NULL
7	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	BRINE	7	BRANE 3	Mixed	AMR	18.96	6.53	0.00	11.34	0.86	0.87	NULL
8	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	BUCHWARA	8	BUCHWARA F01 (NEHRU PARK)	Mixed	AMR	9.78	7.12	0.00	1.24	0.38	0.73	NULL
9	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	BUCHWARA	9	BUCHWARA F02 (DALGATE)	Mixed	AMR	11.04	8.07	0.00	13.98	0.65	0.77	NULL
10	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	CENTAUR	10	CENTAUR F01 Zabarwan Park	Mixed	AMR	1.35	1.02	0.00	0.29	0.56	0.34	NULL
11	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	CENTAUR	11	CENTAUR F02 Raj Bhawan	Mixed	AMR	2.18	3.36	0.00	0.00	0.09	0.53	NULL
12	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	CENTAUR	12	CENTAUR F03 Centaur Hotel	Mixed	AMR	0.64	0.68	0.00	0.02	0.00	0.53	NULL
13	KPDCL	Circle 3rd	DIV-KHANYAR	KHANYAR MOLLA	FATEH KADAL	13	K.K.Mohalla F1	Mixed	AMR	12.98	4.05	0.00	8.80	0.79	0.75	NULL
14	KPDCL	Circle 3rd	DIV-KHANYAR	KHANYAR	FATEH KADAL	14	Naarpora F3	Mixed	AMR	19.40	6.15	0.00	14.23	0.76	0.75	NULL
15	KPDCL	Circle 3rd	DIV-KHANYAR	KHANYAR MOLLA	FATEH KADAL	15b	Bohri Kadal F4 part-b	Mixed	AMR	7.05	2.61	0.00	4.79	0.67	0.79	NULL
16	KPDCL	Circle 3rd	DIV-KHANYAR	KHANYAR	FATEH KADAL	15a	Bohri Kadal F4 part-a	Mixed	AMR	7.62	2.75	0.00	3.25	0.76	0.79	NULL
17	KPDCL	Circle 3rd	DIV-KHANYAR	KHANYAR	FATEH KADAL	16b	Bana Hospital F5 part-b	Mixed	AMR	6.09	5.09	0.00	0.01	0.22	0.82	NULL
18	KPDCL	Circle 3rd	DIV-KHANYAR	KHANYAR MOLLA	FATEH KADAL	16a	Bana Hospital F5 part-a	Mixed	AMR	1.17	1.17	0.00	0.06	0.09	0.82	NULL
19	KPDCL	Circle 1st	DIV-BASANT BAGH	NISHAT	HARWAN	17	Theed F1	Mixed	AMR	16.16	3.64	0.00	13.30	0.80	0.98	NULL
20	KPDCL	Circle 1st	DIV-BASANT BAGH	NISHAT	HARWAN	18	Harwan F2	Mixed	AMR	17.13	6.34	0.00	11.41	0.64	0.98	NULL
21	KPDCL	Circle 1st	DIV-BASANT BAGH	NISHAT	HARWAN	19	Dara F3	Mixed	AMR	18.12	4.72	0.00	14.48	0.81	0.98	NULL
22	KPDCL	Circle 2nd	DIV-NOWSHERA BAGH	NAWAKADAL	KANIDARA	20	NOWGAM, Kawadara F2	Mixed	AMR	16.07	4.49	0.00	13.10	0.77	0.80	NULL
23	KPDCL	Circle 2nd	DIV-NOWSHERA BAGH	NAWAKADAL	KANIDARA	21	Nowakadal F1	Mixed	AMR	12.98	4.51	0.00	9.10	0.72	0.00	NULL
24	KPDCL	Circle 1st	DIV-KHANYAR	KHANYAR	KANIDARA	22c	Rajouri Kadal F4, JAMIA MASJID part-c	Mixed	AMR	1.14	0.59	0.00	0.91	0.51	0.00	NULL
25	KPDCL	Circle 2nd	DIV-NOWSHERA BAGH	NAWAKADAL	KANIDARA	22b	Rajouri Kadal F4, JAMIA MASJID part-b	Mixed	AMR	4.07	1.81	0.00	1.08	0.68	0.00	NULL
26	KPDCL	Circle 2nd	DIV-NOWSHERA BAGH	MR GUNJ	KANIDARA	22a	Rajouri Kadal F4, JAMIA MASJID part-a	Mixed	AMR	9.65	3.07	0.00	1.44	0.76	0.00	NULL
27	KPDCL	Circle 1st	DIV-BASANT BAGH	HABBA KADAL	KHAYAM	23	Mapani Pora, Sallo Barbar Shah F1	Mixed	AMR	11.65	4.48	0.00	5.29	0.64	0.06	NULL
28	KPDCL	Circle 3rd	DIV-KHANYAR	KHANYAR MOLLA	KHAYAM	24	Bulbulbagh, Fateh Kadal F2	Mixed	AMR	11.56	4.97	0.00	8.64	0.67	0.61	NULL
29	KPDCL	Circle 1st	DIV-BASANT BAGH	HABBA KADAL	KHAYAM	25	Bishamber Nagar & Khayam Chowk F3	Mixed	AMR	11.41	8.84	0.00	4.07	0.41	0.64	NULL
30	KPDCL	Circle 1st	DIV-BASANT BAGH	HABBA KADAL	KHAYAM	26b	Dr. CM's residence, Arthocare Hospital & STP (Sewage Treatment Plant) F4 part-b	Mixed	AMR	5.41	5.29	0.00	0.39	0.25	0.57	NULL
31	KPDCL	Circle 1st	DIV-BASANT BAGH	SHEIKH BAGH	KHAYAM	26a	Dr. CM's residence, Arthocare Hospital & STP (Sewage Treatment Plant) F4 part-a	Mixed	AMR	0.38	0.28	0.00	0.22	0.82	0.37	NULL
32	KPDCL	Circle 2nd	DIV-NOWSHERA BAGH	MR GUNJ	MUGHAL MASJID	27b	Rajouri Kadal F2 part-b	Mixed	AMR	3.52	1.86	0.00	1.77	0.78	0.48	NULL
33	KPDCL	Circle 2nd	DIV-NOWSHERA BAGH	NAWAKADAL	MUGHAL MASJID	27a	Rajouri Kadal F2 part-a	Mixed	AMR	1.98	0.86	0.00	1.12	0.58	0.48	NULL
34	KPDCL	Circle 2nd	DIV-NOWSHERA BAGH	NAWAKADAL	MUGHAL MASJID	28b	Zaldagar F3 part-b	Mixed	AMR	2.23	0.68	0.00	1.68	0.79	0.48	NULL
35	KPDCL	Circle 3rd	DIV-KHANYAR	HAWAL	MUGHAL MASJID	28a	Zaldagar F3 part-a	Mixed	AMR	34.91	5.80	0.00	31.80	0.81	0.48	NULL
36	KPDCL	Circle 2nd	DIV-NOWSHERA BAGH	NAWAKADAL	MUGHAL MASJID	29	NAWAKADAL, Firdous Colonies F4	Mixed	AMR	21.06	3.52	0.00	18.58	0.67	0.46	NULL
37	KPDCL	Circle 2nd	DIV-NOWSHERA BAGH	NAWAKADAL	MUGHAL MASJID	30b	Mughal Masjid F5 part-b	Mixed	AMR	10.20	2.60	0.00	8.17	0.76	0.48	NULL
38	KPDCL	Circle 3rd	DIV-KHANYAR	HAWAL	MUGHAL MASJID	30a	Mughal Masjid F5 part-a	Mixed	AMR	2.11	0.55	0.00	1.68	0.87	0.48	NULL
39	KPDCL	Circle 2nd	DIV-NOWSHERA BAGH	MR GUNJ	MUGHAL MASJID	31b	Jamia Masjid, ICSC F6 part-b	Mixed	Metered	6.40	0.34	0.00	0.38	0.22	0.00	NULL
40	KPDCL	Circle 3rd	DIV-KHANYAR	HAWAL	MUGHAL MASJID	31a	Jamia Masjid, ICSC F6 part-a	Mixed	Metered	0.29	0.28	0.00	0.02	0.17	0.00	NULL
41	KPDCL	Circle 2nd	DIV-NOWSHERA BAGH	MR GUNJ	MUGHAL MASJID	32b	Bachi Darwaza, MAKHDOOM SAHIB F1 part-b	Mixed	AMR	1.89	0.11	0.00	1.26	0.75	0.46	NULL
42	KPDCL	Circle 1st	DIV-KHANYAR	HAWAL	MUGHAL MASJID	32a	Bachi Darwaza, MAKHDOOM SAHIB F1 part-a	Mixed	AMR	8.85	2.78	0.00	6.51	0.81	0.46	NULL
43	KPDCL	Circle 1st	DIV-BASANT BAGH	SHEIKH BAGH	NOORBAGH	33	MA road, regal chowk F2	Mixed	AMR	7.02	5.75	0.00	0.81	0.06	0.00	NULL
44	KPDCL	Circle 1st	DIV-BASANT BAGH	SHEIKH BAGH	NOORBAGH	34	MLA hostel, deputy CM, Barbar Hall F1	Mixed	AMR	4.10	4.14	0.00	0.14	0.37	0.00	NULL
45	KPDCL	Circle 1st	DIV-BASANT BAGH	NISHAT	NISHAT	35	Brein-Ishbar/Nishat F1	Mixed	Metered	9.46	2.14	0.00	7.17	0.79	0.00	NULL
46	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	NISHAT	36	Nishat F3	Mixed	AMR	11.03	3.09	0.00	8.47	0.35	0.89	NULL
47	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	NISHAT	37b	Foreshore Road Nishat F3 part-b	Mixed	AMR	10.63	6.51	0.00	10.92	0.77	0.88	NULL
48	KPDCL	Circle 1st	DIV-BASANT BAGH	NISHAT	NISHAT	37a	Foreshore Road Nishat F3 part-a	Mixed	AMR	1.85	0.91	0.00	1.03	0.53	0.88	NULL
49	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	NISHAT	38	Pathan Bagh F4	Mixed	AMR	10.58	4.32	0.00	6.69	0.61	0.86	NULL
50	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	NISHAT	39	Filtration Plant F5	Mixed	AMR	0.68	0.54	0.00	0.09	0.71	0.04	NULL
51	KPDCL	Circle 1st	DIV-BASANT BAGH	NISHAT	SHALIMAR	40	MUGHAT F1	Mixed	AMR	3.05	1.55	0.00	0.13	0.08	0.00	NULL
52	KPDCL	Circle 1st	DIV-BASANT BAGH	NISHAT	SHALIMAR	41	Local Shalimar, TAILBAL F2	Mixed	AMR	11.40	4.99	0.00	11.44	0.74	0.00	NULL
53	KPDCL	Circle 1st	DIV-BASANT BAGH	NISHAT	SHALIMAR	42	Ishbar F3	Mixed	Metered	12.17	8.37	0.00	14.87	0.66	0.00	NULL
54	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	TRC	43	CD Hospital F1	Mixed	AMR	3.01	3.67	0.00	0.03	0.03	0.89	NULL
55	KPDCL	Circle 1st	DIV-BASANT BAGH	SHEIKH BAGH	TRC	44	Lal Chowk F2	Mixed	AMR	16.23	10.98	0.00	6.04	0.33	0.84	NULL
56	KPDCL	Circle 1st	DIV-BASANT BAGH	SHEIKH BAGH	TRC	45	Bund F3	Mixed	AMR	1.46	1.46	0.00	0.07	0.05	0.84	NULL
57	KPDCL	Circle 1st	DIV-BASANT BAGH	SHEIKH BAGH	TRC	46b	CM Residence F4 part-b	Mixed	AMR	5.27	5.11	0.00	0.41	0.48	0.88	NULL
58	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	TRC	46a	CM Residence F4 part-a	Mixed	AMR	5.06	3.77	0.00	1.53	0.44	0.88	NULL
59	KPDCL	Circle 1st	DIV-BASANT BAGH	DALGATE	TRC	47b	Dalgate part-b	Mixed	Metered	17.05	6.30	0.00	11.89	0.67	0.88	NULL
60	KPDCL	Circle 1st	DIV-KHANYAR	KHANYAR	TRC	47a	Dalgate part-a	Mixed	Metered	0.64	0.18	0.00	0.29	0.67	0.88	NULL
61	KPDCL	Circle 1st	DIV-BASANT BAGH	SHEIKH BAGH	TRC	48	Radio Kashmir	Mixed	AMR	7.25	6.62	0.00	0.98	0.58	0.62	NULL
62	KPDCL	Circle 1st	DIV-BASANT BAGH	KHONMOH	BADAMIBAGH	49	BADAMI BAGH F01 (pantha chowk)	Mixed	AMR	3.90	3.67	0.00	0.47	0.34	0.38	NULL
63	KPDCL	Circle 1st	DIV-BASANT BAGH	SHEIKH BAGH	BADAMIBAGH	50	BADAMI BAGH F2 (PHE)	Mixed	Metered	0.16	0.15	0.00	0.02	0.38	0.38	NULL
64	KPDCL	Circle 1st	DIV-BASANT BAGH	SHEIKH BAGH	BADAMIBAGH	51	BADAMI BAGH F3 (LINK)	Mixed	AMR	0.21	0.13	0.00	0.08	0.00	0.38	NULL
65	KPDCL	Circle 1st	DIV-BASANT BAGH	KHONMOH	BADAMIBAGH	52	BADAMI BAGH F04 (pantha Chowk)	Mixed	AMR	3.92	2.41	0.00	1.70	0.42	0.38	NULL
66	KPDCL	Circle 1st	DIV-KHANYAR	HAWAL	BAGHWANPORA	53	F1 AMDAKADAL	Mixed	AMR	12.75	2.80	0.00	10.54	0.84	0.37	NULL
67	KPDCL	Circle 1st	DIV-KHANYAR	HAWAL	BAGHWANPORA	54	Baghwanpora, F2	Mixed	AMR	14.67	6.17	0.00	9.21	0.67	0.38	NULL
68	KPDCL	Circle 1st	DIV-KHANYAR	HAWAL	BAGHWANPORA	55	F3 BOTAKADAL	Mixed	AMR	12.90	4.30	0.00	9.52	0.71	0.07	NULL
69	KPDCL	Circle 1st	DIV-BASANT BAGH	KHONMOH	BALHAMA	56	Zafran Colony F1	Mixed	AMR	6.42	4.08	0.00	2.70	0.56	0.37	NULL
70	KPDCL	Circle 1st	DIV-BASANT BAGH	KHONMOH	BALHAMA	57b	Belina F2 part-b	Mixed	AMR	3.14	1.28	0.00	2.22	0.75	0.36	NULL
71	KPDCL	Circle Pulwama	AWANTIPORA	PAMPORE	BALHAMA	57a	Belina part-a	Mixed	AMR	2.11	0.97	0.00	1.36	0.64	0.56	NULL
72	KPDCL	Circle 1st	DIV-BASANT BAGH	KHONMOH	BALHAMA	58	Balhama F3	Mixed	AMR	7.30	2.73	0.00	6.01	0.79	0.34	NULL
73	KPDCL	Circle 1st	DIV-BASANT BAGH	KHONMOH	BALHAMA	59	CRPF + IOCL F4	Mixed	AMR	1.16	1.16	0.00	0.07	0.03	0.17	NULL
74	KPDCL	Circle 3rd	DIV-KHANYAR	NAWAKADAL	KATHI DARWAZA	60	Saida Kadal, F1	Mixed	AMR	11.05	4.12	0.00	11.60	0.81	0.77	NULL
75	KPDCL	Circle 3rd	DIV-KHANYAR	NAWAKADAL	KATHI DARWAZA	61	Dalhasanyar, F2	Mixed	AMR	13.83	4.52	0.00	11.08	0.81	0.80	NULL
76	KPDCL	Circle 3rd	DIV-KHANYAR	HAWAL	KATHI DARWAZA	62b	Central Jail, F3 part-b	Mixed	AMR	0.65	0.55	0.00	0.14	0.00	0.06	NULL
77	KPDCL	Circle 3rd	DIV-KHANYAR	NAWAKADAL	KATHI DARWAZA	62a	Central Jail, F3 part-a	Mixed	AMR	5.87	5.13	0.00	1.02	0.33	0.08	NULL
78	KPDCL	Circle 3rd	DIV-KHANYAR	NAWAKADAL	KATHI DARWAZA	63	DAL LAKE F4	Mixed	AMR	18.84	4.61	0.00	11.34	0.89	0.77	NULL
79	KPDCL	Circle 1st	DIV-BASANT BAGH	KHONMOH	KHUNMOH	64	Khunmoh Tower F2	Mixed	AMR	15.75	3.85	0.00	10.86	0.78	0.43	NULL
80	KPDCL	Circle 1st	DIV-BASANT BAGH	KHONMOH	KHUNMOH	65	JK Armed Police F3	Mixed	AMR	2.53	1.49	0.00	0.26	0.09	0.37	NULL
81	KPDCL	Circle 1st	DIV-BASANT BAGH	KHONMOH	KHUNMOH	66	Upper Khunmoh, Chak Sangri F1	Mixed	AMR	12.29	5.88	0.00	7.88	0.77	0.43	NULL
82	KPDCL	Circle 3rd	DIV-KHANYAR	HAWAL	LAL BAZAR	67	F1 Jan Mohalla, Main Lalbazar, Batmar Mohallah	Mixed	AMR	7.81	6.18	0.00	1.88	0.28	0.88	NULL
83	KPDCL	Circle 3rd	DIV-KHANYAR	HAWAL	LAL BAZAR	68	F2 Zar Mohalla and Shah Bagh	Mixed	AMR	10.86	4.03	0.00	6.51	0.84	0.88	NULL
84	KPDCL	Circle 3rd	DIV-KHANYAR	HAWAL	LAL BAZAR	69	F3 Bota Kadal	Mixed	AMR	8.52	4.44	0.00	4.48	0.57	0.00	NULL
85	KPDCL	Circle 1st	DIV-BASANT BAGH	KHONMOH	PANTHA CHOWK	70	Samadbagh F1	Mixed	AMR	6.58	2.77	0.00	4.23	0.80	0.07	NULL
86	KPDCL	Circle 1st	DIV-BASANT BAGH	KHONMOH	PANTHA CHOWK	71	Shalina F2	Mixed	AMR	5.45	8.67	0.00	0.00	0.00	0.07	NULL
87	KPDCL	Circle 1st	DIV-BASANT BAGH	SHEIKH BAGH	SONWAR	72	Indira Nagar, F1	Mixed	AMR	11.48	9.61	0.00	2.48	0.22	0.80	NULL

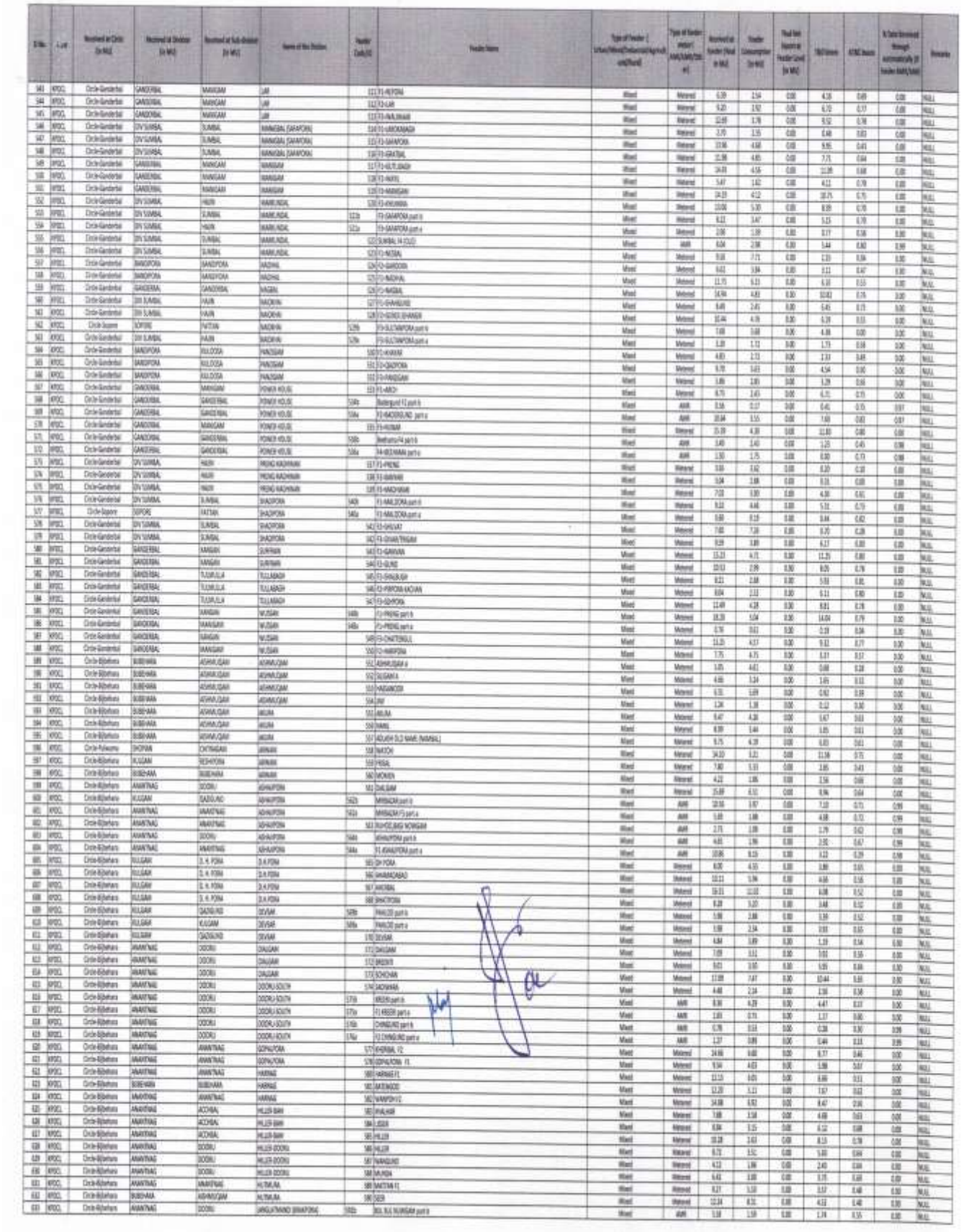


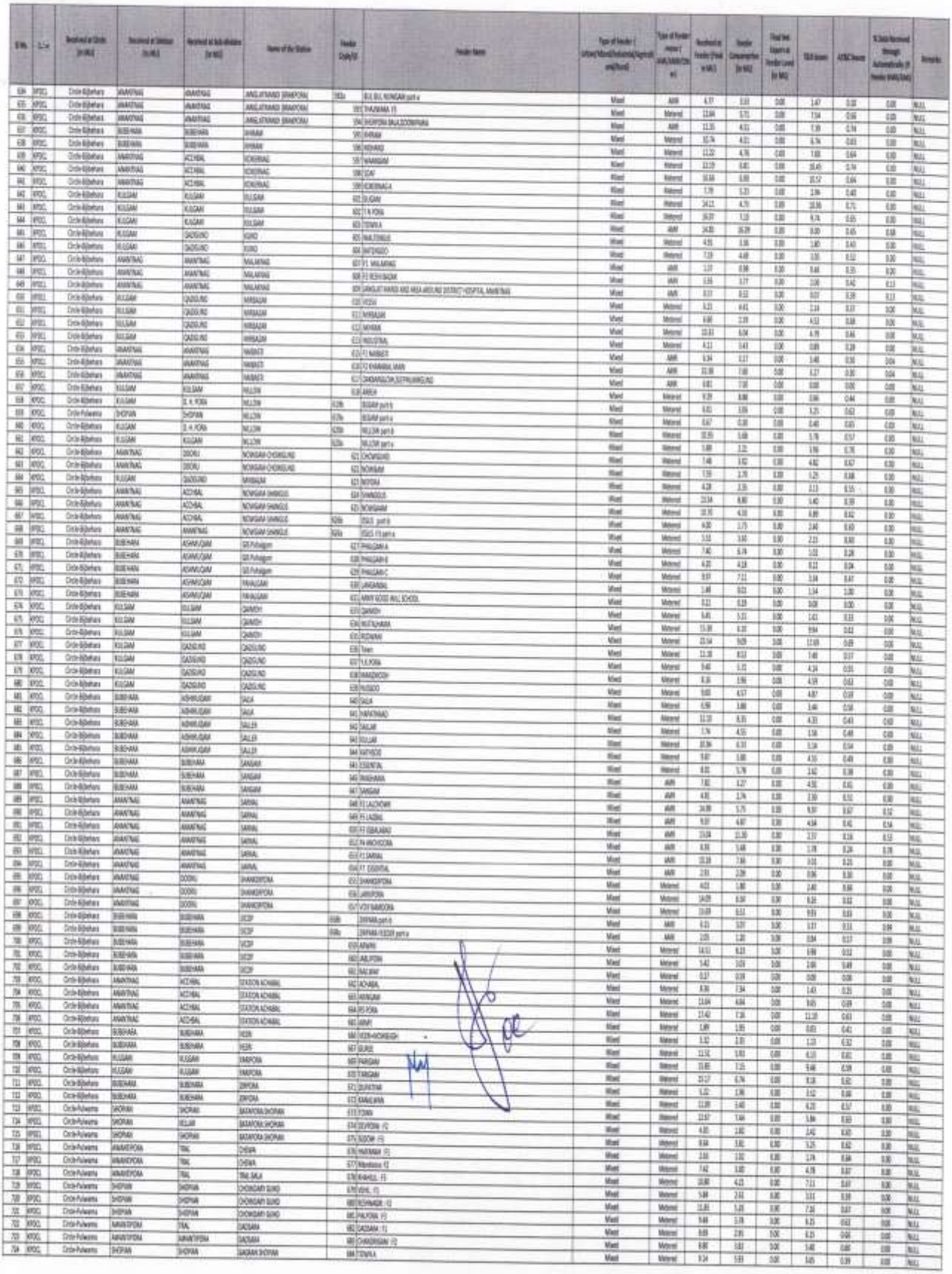


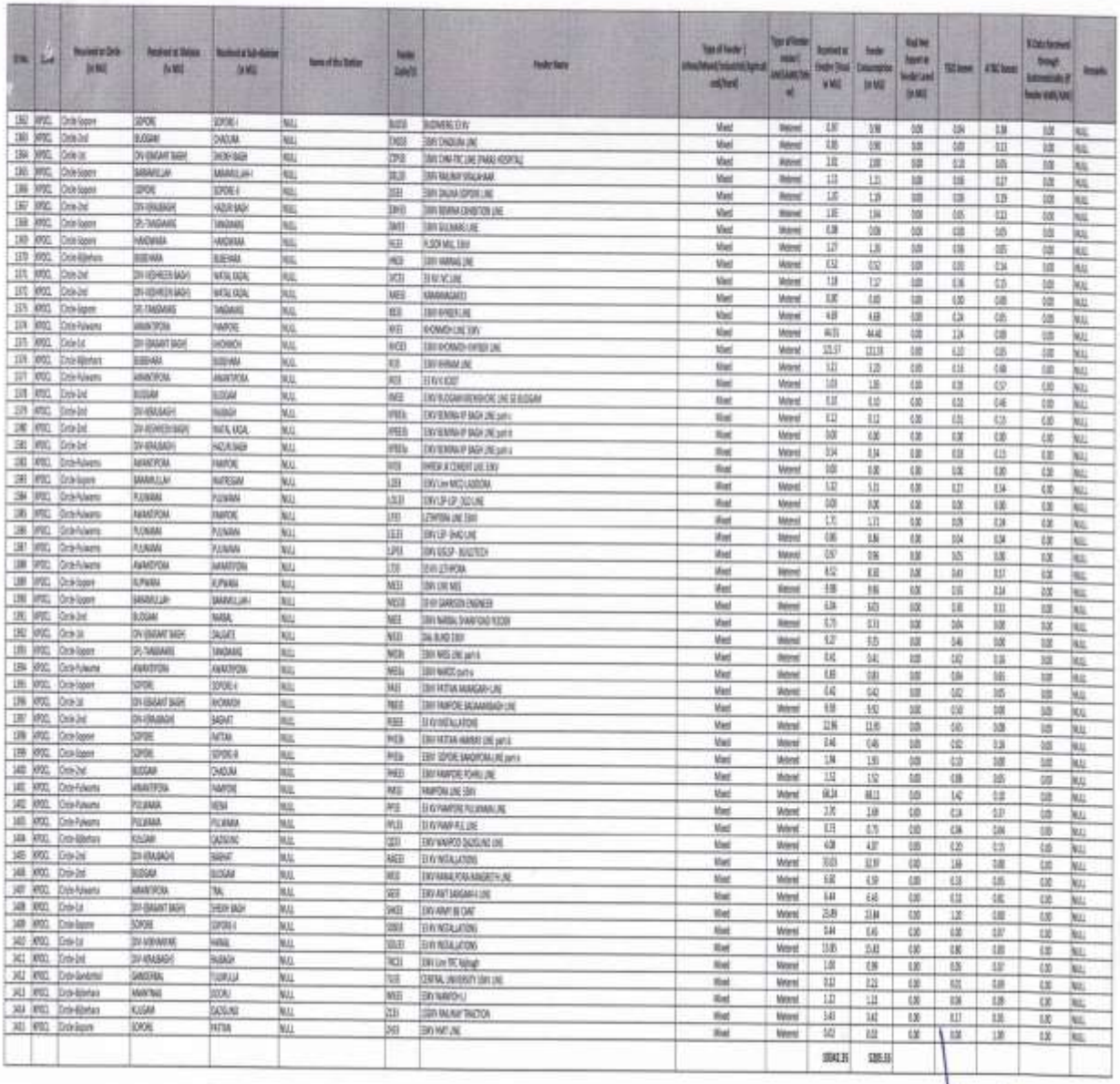












Energy Manager
(KPDCL)

DT level Information

A. Details of Distribution Transformer (DT) Level information

a. Division-wise status of DT level metering (please add more rows as per requirement)
(Please fill the data for each division during reporting period)

Zone name	Circle name	Division name	Feeder name	Total no of DT on Feeder	No. of unmetered DTs	No of metered DTs			No. of DTs with functional meters	
						AMR metered (communicable)	AMI metered (communicable)	Non-AMR / AMI metered (non-communicable)	Communicating (Total no. out of 7 and 8)	Non-Communicating (Total no. out of 7,8 and 9)
1	2	3	4	5	6	7	8	9	10	11
100% DT Metering proposed under RDSS										

b. Details of DT-wise losses (Please add more rows as per requirement)

Sub-station ID	Feeder ID	Feeder Name	DT Id no.	DT Capacity (kVA)	Predominant consumer type of DT (Domestic/Industrial/Agriculture/Mixed)	Type of metering(Unmetered/AMI/AMR/Others)	Status of meter(Functional/non-functional)	% of data received automatically (If AMI/AMR)	No. of connected consumers	Input Energy (MU)	Billed Energy (MU)	Loss of Energy (MU)	% Loss
		1	2						3	4	5	6=4-5	7=(6/4)*100
100% DT Metering proposed under RDSS													

Note:-DT wise losses is not in account. 100% DT Metering proposed under RDSS

Subsidy details

B. Details of Consumer Category-wise Subsidy Billed/Received/Due for period: from April 2023 to March 2024.

Annexure -1: Proforma for Quarterly Consumer Category-wise Subsidy Billed/Received/Due for period April 2023 to December 2023

Consumer Category (Seperate for each subsidized consumer category)	Consumer Count			Billed Energy			Subsidized Billed Energy			Applicable rate of Subsidy as notified by State govt.		Subsidy Due from State Govt.			Subsidy Actually Billed / Claimed from State Govt. (As against col.12)	Subsidy Received from State Govt. (As against col.13)	Balance Subsidy yet to be Received from State Govt.
	Metered	Un-metered*	Total	Metered	Un-metered*	Total	Metered (out of col.2)	Un-metered* (out of col.2)	Total	Metered Energy**	Un-metered Energy**	Metered Energy	Un-metered Energy	Total			
				(in kWh)			(in kWh)			(in Rs/kWh)		(in Rs. Cr.)			(in Rs. Cr.)	(in Rs. Cr.)	(in Rs. Cr.)
1				2	3	4=2+3	5	6	7=5+6	8	9	10=2X8	11=6x9	12=10+11	13	14	15=13-14
Residential	260046	672990	963036	743085618	1675036806	2418122425	743085618.6	1675036806	2418122425	2.59	2.59	192.54	434.02	626.57			
Agricultural	1343	119	1462	49632983	6223319	75956302	49632983.3	6223318.945	75956302.24	1.71	1.71	11.91	1.08	12.99			
Commercial/Industrial-LT (commercial)	150693	26690	177383	280164820	124813706	404978526	280164819.7	124813706	404978525.7	2.38	2.38	66.54	29.65	96.19			
Commercial/Industrial-LT (Industrial)	10425	615	11040	85999128	242636	86241764	85999128.17	242635.8024	86241763.97	4.05	4.05	34.83	0.10	34.93			
Commercial/Industrial-HT (HT Industry)	293	0	293	262372003	0	262372003	262372003.4	0	262372003.4	3.88	3.88	101.80	0.00	101.80			
Commercial/Industrial-HT (Power Intensive)	3	0	3	1305687	0	1305687	1305687	0	1305687	3.55	3.55	0.46	0.00	0.46			
Commercial/Industrial-HT (Bulk Supply	136	3	139	52522063	489612	53011675	52522062.81	489612.2467	53011675.06	3.19	3.19	16.76	0.16	16.91			
Others (State/Centre)	6050	593	6643	260776416	3464606	264241022	260776416.1	3464606.175	264241022.3	1.75	1.75	45.51	0.60	46.12			
Others (Street Lights)	155	89	244	8138909	3812409	11951318	8138908.913	3812409.162	11951318.07	0.50	0.50	0.41	0.19	0.60			
Others (LT PHE)	327	113	440	20189738	4205775	24395513	20189738.42	4205774.894	24395513.31	0.50	0.50	1.01	0.21	1.22			
Others (HT PHE)	254	67	321	47846234	2417882	50264116	47846233.68	2417882.331	50264116.01	0.90	0.90	4.31	0.22	4.52			
Others (EV)	1	0	1	914580	0	914580	914580	0	914580	0.00	0.00	0.00	0.00	0.00			
Others (Traction)	3	0	3	4358073	0	4358073	4358073	0	4358073	3.50	3.50	0.37	0.00	0.37			
Total	**429729**	**701279**	**1131008**	**1837306283**	**1820806752**	**3658113035**	**1837306283**	**1820806752**	**3658113035**			**476.45**	**466.23**	**942.68**			

Note:

1. The Subsidy rate for sub categories of commercial/Industrial-LT , Commercial/Industrial-HT and Others are different. So mentioned separately in above proforma
2. Subsidy rates are as per New Tariff order in vogue.

The Account for Subsidy has been evaluated from Approved Tariff for JPDCL and KPDCL FY2022-23 (Page No viii to xii) and Full Cost Tariff (Page No 116 to Page No 121) defined in the Tariff Order 2022-23

Chief Engineer (Distribution) KPDCL

Energy Manager (KPDCL)

Annexure -1: Proforma for Quarterly Consumer Category-wise Subsidy Billed/Received/Due for period January 2024 to March 2024

Consumer Category (Separate for each subsidized consumer category)	ConsumerCount			Billed Energy			Subsidized Billed Energy			Applicable rate of Subsidy as notified by State govt.		Subsidy Due from State Govt.			Subsidy Actually Billed / claimed from State Govt. (As against col.12)	Subsidy Received from State Govt. (As against col.13)	Balance Subsidy yet to be Received from State Govt.
	Metered	Un-metered*	Total	Metered	Un-metered*	Total	Metered (out of col.1)	Un-metered* (out of col.3)	Total	Metered Energy**	Un-metered Energy**	Metered Energy	Un-metered Energy	Total			
				(in kWh)			(in kWh)			(in Rs/kWh)		(in Rs. Cr.)			(in Rs. Cr.)	(in Rs. Cr.)	(in Rs. Cr.)
1				2	3	4=2+3	5	6	7=5+6	8	9	10=8X8	11=6x9	12=10+11	13	14	15=13-14
Residential	290046	672990	963036	340452381	750180751	1090633132	340452381	750180750.9	1090633132	3.09	3.09	105.10	231.58	336.68			
Agricultural	1343	119	1462	2570693	3330210	5900904	2570693.475	3330210.138	5900903.613	2.97	2.97	0.76	0.99	1.75			
Commercial/Industrial-LT (commercial)	150693	26690	177383	99429990	57736745	157166735	99429990.14	57736744.97	157166735.1	2.63	2.63	26.16	15.19	41.35			
Commercial/Industrial-LT (Industrial)	10425	615	11040	20172412	61037	20233449	20172412.38	61036.73626	20233449.11	3.50	3.50	7.06	0.02	7.08			
Commercial/Industrial-HT (HT Industry)	293	0	293	83059045	0	83059045	83059044.74	0	83059044.74	3.52	3.52	29.22	0.00	29.22			
Commercial/Industrial-HT (Power Intensive)	3	0	3	520900	0	520900	520900	0	520900	4.17	4.17	0.22	0.00	0.22			
Commercial/Industrial-HT (Bulk Supply	136	3	139	22274693	182190	22456883	22274692.87	182190	22456882.87	3.51	3.51	7.82	0.06	7.89			
Others (State/Central)	6050	593	6643	125100965	3823746	128924711	125100964.9	3823746.014	128924710.9	1.03	1.03	12.84	0.39	13.23			
Others (Street Lights)	155	89	244	4563888	1925697	6489584	4563887.83	1925696.658	6489584.488	0.37	0.37	0.17	0.07	0.24			
Others (LT PHE)	327	113	440	9425483	2162163	11587646	9425483.035	2162162.613	11587645.65	0.37	0.37	0.35	0.08	0.43			
Others (HT PHE)	254	67	321	16698461	1727849	18426311	16698461.4	1727849.274	18426310.68	0.05	0.05	0.08	0.01	0.09			
Others (EV)	1	0	1	988650	0	988650	988650	0	988650	0.00	0.00	0.00	0.00	0.00			
Others (Traction)	3	0	3	1053420	0	1053420	1053420	0	1053420	3.50	3.50	0.37	0.00	0.37			
Total	**459729**	**701279**	**1161008**	**726310982**	**821130387**	**1547441369**	**726310981.8**	**821130387.3**	**1547441369**			**190.14**	**248.39**	**438.54**			

Note:

1. The Subsidy rate for sub categories of commercial/Industrial-LT , Commercial/Industrial-HT and Others are different. So mentioned separately in above proforma
2. Subsidy rates are as per New Tariff order in vogue.

The Account for Subsidy has been evaluated from Approved Tariff for JPDCL and KPDCL FY2023-24 (Page No 8 to 13) and Full Cost Tariff (Page No 162 to Page No 167 defined in the Tariff Order 2023-24

Chief Engineer (P&C)
Chief Engineer
(Distribution) KPDCL

Energy Manager
(KPDCL)