ANNUAL ENERGY AUDIT REPORT

Designated Consumer

Uttar Haryana Bijli Vitran Nigam Limited

(UHBVNL)
C-16.Vidyut Sadan, Sector-6 PKL,
Panchkula – 134109
(Haryana)

FY 2021-2022

Conducted by

A-Z Energy Engineers Private Limited

PLOT NO. 12, 4860-62, HARBANS SINGH STREET, KOTHI NO. -24, WARD NO.-II, DARYA GANJ,

NEW DELHI-110002, Tel: 0129-4046120, Mob. 9811402040,

Email: pp_mittal@yahoo.com

ACKNOWLEDGEMENT

A-Z Energy Engineers Pvt. Ltd., is grateful to the Uttar Haryana Bijli Nigam Limited, Panchkula for giving us an opportunity to conduct the Energy Audit Accounting of their DISCOM, under the Bureau of Energy efficiency 2021 Scheme.

We also express sincere thanks to the management of UHBVNL, Panchkula, which is a Designated Consumers in the DISCOM sector for extending necessary co-operation and providing relevant information to us for the successful completion of the audit. Our sincere thanks to the entire plant working group comprising of:

- Sh. Deepak Popli - SE/EA
- Sh. Bhupinder Singh - XEN/EA
- Sh. Ravi Kajal - AE/EA

A-Z Energy Engineers Pvt. Ltd., looks forward to their continued support in all future endeavours as well.

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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

Executive Summary & Critical Analysis

Uttar Haryana Bijli Vitran Nigam Limited (UHBVNL), a Govt. of Haryana undertaking undertakes the Power Distribution and Retail Supply Business in the Northern Parts of Haryana. UHBVNL is registered under the Companies Act-1956 and has commenced its operations on dated July, 1999. UHBVNL. Inherited the distribution business of erstwhile Haryana state Electricity Board in pursuance to second transfer scheme notified by the Govt. of Haryana on July 1,1999. The Power is procured through Haryana Power Purchase Center (HPPC), which is a joint forum of UHBVN & DHBVN. The Power is wheeled through the entire network through the State Transmission Utility (HVPNL) on the payment of transmissions charges approved by HERC.

UHBVNL provides services to approx. 34,22,373 consumers of various categories of consumers. The consumer base of UHBVNL consists of Domestic, Non-Domestic, Agricultural and Industrial consumers as major categories.

While the energy billed by UHBVNL for the customer is 19066.31 MU, the monthly consumption per customer stands at 464.26 KWH/Month. UHBNL caters to area spread in 10 circles, 30Division.

The following districts of the State of Haryana lie under the jurisdiction area of UHBVNL:

Panchkula, Ambala, Yamunanagar, Kurukhsetra, Kaithal, Karnal, Panipat, Sonipat, Rohtak and Jhajjar.

➢ Power Purchase by UHBVN for FY-2021-2022

UHBVN purchase power from the Haryana Power Purchase Center (HPPC), total power purchase by the UHBVN in FY 2021-2022 is 23708.97 MU units. Month wise purchased power for FY 2021-22 is shown in the below table:

Sr. No	Months	Total Gross Unit Purchased (MUs)
1	Apr-21	1699.441
2	May-21	1726.63
3	Jun-21	2521.325
4	Jul-21	2900.364
5	Aug-21	2861.952
6	Sep-21	2105.602
7	Oct-21	1948.285
8	Nov-21	1470.177
9	Dec-21	1634.622
10	Jan-22	1528.536
11	Feb-22	1343.29
12	Mar-22	1968.746
	Total	**23708.97**

Note: Details Sheet Attached in Annexure

- **Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)**

Months	Total Gross Unit Purchased (MUs) -A	Transmission Losses (MUs) -B	Other State Sales (MUs) -C	Units available for sale (MUs) D=(A-(B+C))
Apr-21	1699.441	95.62	118.94	1484.89
May-21	1726.63	55.70	39.42	1631.51
Jun-21	2521.325	89.31	15.30	2416.72
Jul-21	2900.364	95.79	15.19	2789.39
Aug-21	2861.952	118.70	17.56	2725.69
Sep-21	2105.602	75.48	8.62	2021.50
Oct-21	1948.285	64.37	3.30	1880.61
Nov-21	1470.177	66.17	46.73	1357.27
Dec-21	1634.622	70.89	63.25	1500.48
Jan-22	1528.536	56.39	83.97	1388.18
Feb-22	1343.29	14.33	79.11	1249.85
Mar-22	1968.746	64.54	191.60	1712.61
Total	**23708.97**	**867.28**	**682.99**	**22158.70**

The technical losses and AT&C losses for FY 2021-2022 are estimated and presented below:

Total Losses	T & D Loss		AT & C Loss (%)
	T & D Loss (MU)	T & D Loss (%)	12.70%
	3092.40	13.96%	

- **Source of Generation Station**

The Generation at Transmission Periphery of UHBVNL for FY-2021-22

Type of Generation Station	Generation Capacity (MW)	% Share
Thermal	15820.00	71.4%
Thermal - Gas	2344.27	10.6%
Hydro	3718.73	16.8%
Small Hydro	73.20	0.3%
Sugar Mill	82.00	0.4%
Solar	95.80	0.4%
Biomass	37.53	0.2%
Total	**22171.53**	100%

The Embedded Generation in Discom Area of UHBVNL for FY-2021-22

Name of Generation Station	Generation Capacity (MW)	% Share
Thermal	25280	50%
Thermal - Gas	3283.27	6%
Hydro	14399.95	28%
Nuclear	1320	3%
Solar	2292.5	5%
Wind	4000	8%
Total	**50575.72**	**100.00%**

➢ Circle wise Input Energy & Billed energy for FY 2021-22

The Circle wise input energy & billed energy of the Discom periphery is shown in below table

Sr. No	Circle	Input Energy (MU)	Billed Energy (MU)
1	Panchkula	1040.07	942.32
2	Ambala	1780.31	1654.92
3	Yamunanagar	2010.83	1711.71
4	Kurukshetra	1742.91	1456.62
5	Kaithal	1886.80	1587.97
6	Karnal	2741.87	2575.03
7	Panipat	3354.70	3003.21
8	Sonipat	3547.83	2979.41
9	Rohtak	2020.50	1530.24
10	Jhajjar	2032.90	1624.87
	Total	**22158.70**	**19066.31**

➢ Circle wise connections & energy consumptions for FY 2021-22

The circle wise connections, load, input energy & Billed energy with percentage share in different circle is given below the Karnal circle & Sonipat circle having maximum numbers of consumers and Sonipat & Panipat have maximum input energy as well as billed units as shown in table:

Name of circle	Total Number of connections (Nos)	% Share	Total Connected Load (MW)	% Share	Input energy (MU)	% Share	Total energy	% Share
Panchkula	179114	5%	928.00	6%	1040.07	5%	942.32	5%
Ambala	352016	10%	1230.92	9%	1780.31	8%	1654.92	9%
Yamunanagar	392215	11%	1283.81	9%	2010.83	9%	1711.71	9%
Kurukshetra	303914	9%	1267.74	9%	1742.91	8%	1456.62	8%
Kaithal	329795	10%	1539.69	11%	1886.80	9%	1587.97	8%
Karnal	480127	14%	2031.98	14%	2741.87	12%	2575.03	14%
Panipat	349601	10%	1835.31	13%	3354.70	15%	3003.21	16%
Sonipat	429747	13%	2083.82	15%	3547.83	16%	2979.41	16%
Rohtak	339576	10%	1014.19	7%	2020.50	9%	1530.24	8%
Jhajjar	266268	8%	1129.09	8%	2032.90	9%	1624.87	9%
Total	**3422373**	**100%**	**14344.56**	**100%**	**22158.70**	**100%**	**19066.31**	**100%**

➢ Customer Profile of UHBVN for FY 2021-22

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

Category	Total Number of connections(Nos)	% of number of connections	Total Connected Load (MW)	% of connected load	Total energy	% of energy consumption	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore
Residential	2650411	77%	4596.52	32%	5869.06	31%	2675.39	2813.97
Agricultural	332332	10%	3733.06	26%	3528.29	19%	3214.34	3203.33
Commercial/ Industrial-LT	45504	1%	1025.62	7%	1991.17	10%	1468.17	1524.26
Commercial/ Industrial-HT	9211	0%	3280.65	23%	6632.51	35%	5199.51	5213.11
Others	384915	11%	1708.72	12%	1045.27	5%	836.59	835.40
Total	**3422373**	**100%**	**14344.56**	**100%**	**19066.31**	**100%**	**13394.01**	**13590.07**

➢ Goals and Objectives

UHBVN is a designated consumer in Discom sector. Being a designated Consumer UHBVN 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 Annual Energy Audit (Accounting) at UHBVN is conducted with the following Objectives:

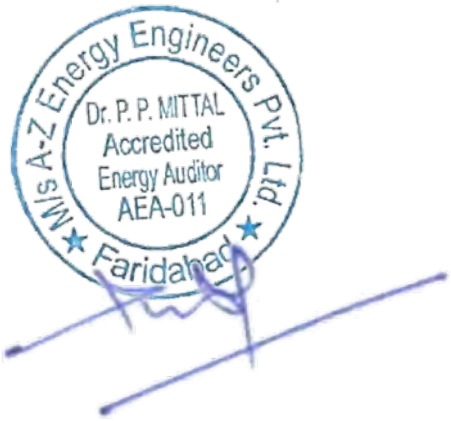
- Verification of existing pattern of energy distribution across periphery of electricity Distribution Company.
- Verification of accounted energy flow submitted by electricity Distribution Company at all applicable voltage levels of the distribution network.
- Verification of the accuracy of the data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

➢ Energy Input, Output & Losses For FY 2021-22

UHBVN, Panchkula supply to Uttar Haryana, It is divided into 10 circles, 30 divisions & the overall purchased Energy, consumptions & AT &C losses for the FY 2021-2022 is shown in table below the AT&C losses for FY 2021-2022 is 12.70% & the T&D losses of the sector is 13.96%.

Technical Details (FY 2021-22)		
Energy Input Details	**UoM**	**Value**
Input Energy Purchase (From Generation Source)	Million kwh	23708.97
Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	Million kwh	22158.70
Total Energy billed (is the Net energy billed, adjusted for energy traded))	Million kwh	19066.31
Transmission and Distribution (T&D) loss Details	Million kwh	3092.40
	%	13.96%

Technical Details (FY 2021-22)		
Energy Input Details	**UoM**	**Value**
Collection Efficiency	%	101%
Aggregate Technical & Commercial Loss	%	12.70%



➢ Energy Conservation measures already taken

UHBVN has done various energy conservation measures to reduce the energy consumption in FY 2021-22. Some of them are mentioned below:

1. Replacement of the old inefficient ACs with energy efficient AC's
2. Replacement of non-conventional light with energy efficient light (LED's

DSM Program	FY	Quantity (Nos)	Load reduction (MW)	Energy Saving (MU)	CO2 reduction (Ton)
AC Replacement Program	2021-22	1659	1.194	1.29	1264.24

Apart from the above-mentioned Demand Side Management related measures, some critical initiatives adopted for technical loss reduction are mentioned below:

3. Thermo-scanning of assets for hotspot detection to perform conditional-based monitoring for sustainable energy conservation to ensure efficiency and effectiveness of equipment and systems.
4. Using Wedge connectors for Jumpers to prevent degradation and achieves significantly lower resistance values to reduce heating losses.
5. Implementation of HVDS (High Voltage Distribution System) for distribution of electricity. High voltage distribution system has been envisaged for all existing tube well connections with the objective of mitigating the problem of length and loss-ridden LT lines.
6. Replacement of bare conductor with armoured cable in Rural area in MGJG scheme.
7. Replacement of 2 core X 6 sq. mm service cable with 2 core X 10/25 sq. mm cable.
8. Replacement of old inefficient tube well motor with energy efficient motors.
9. Replacement of inefficient T/F with Star Level 2 rating efficient T/Fs.
10. Replacement of bare conductor with Aerial Bunched Cables (ABC).
11. System Augmentation and Strengthening works like bifurcation of feeders and creation of new and augmentation of existing substations.
12. Replacement of static electronic meters with digital smart meters at the consumers.

➢ Energy Conservation proposed for Future

UHBVN has various energy conservation measures to reduce the energy consumption in FY 2022-23. Some of them are mentioned below:

RDSS is aimed to improve the Operational Efficiencies and Financial Sustainability, by providing financial assistance to DISCOM for strengthening the electrical / Distribution infrastructure, measures for loss reduction and using modern IT /OT techniques for modernisation of distribution system. The major milestones envisaged are:

1. Reduction of AT&C losses to pan-India levels of 12-15% by 2024-25.
2. Reduction of ACS-ARR gap to zero by 2024-25.
3. Developing Institutional Capabilities for Modern DISCOMs
4. Improvement in the quality, reliability, and affordability of power supply to consumers through a financially sustainable and operationally efficient Distribution Sector.
5. The RDSS will have an outlay of Rs.3,03,758 Crore with an estimated Government Budgetary Support (GBS) from Central Government of Rs.97,631 Crore.

Critical Analysis:-

- UHBVNL provides services to approx. 34,22,373 consumers of various categories of consumers. The consumer base of UHBVNL consists of Domestic, Non-Domestic, Agricultural and Industrial consumers as major categories.
- While the energy billed by UHBVNL for the customer is 19066.31 MU, the monthly consumption per customer stands at 464.26 KWH/Month. UHBNL caters to area spread in 10 circles, 30 Division.
- Verified Distribution (T&D) losses, collection efficiency & aggregate technical & commercial losses of UHBVN for FY20-21, i.e., 1st April'2021 to 31st March'2022 is 13.96%, 101.46% & 12.70% respectively.
- The electrical energy which is supplied by various interstate Purchase power agreement at 220 KV, 132KV, 33 KV and same is supplied to customers at 220 KV , 132 KV, 33 KV, 11 KV, 400V and 230 V single phase.
- UHBVN has 100 % metering available at 11/33/66 KV system.
- UHBVN is a very vast distribution network having 10 numbers of circles, 30 numbers of divisions, 119 numbers of sub-division, 6014 number of feeders, 316150 number of DTs and 3422373 numbers of consumers.

II. Background

2.1 Extant Regulation & Role of BEE

The Objectives of BEE

- To develop policies and programmes on efficient use of energy and its conservation with the involvement of stakeholders.
- To plan, manage and implement energy conservation programmes as envisaged in the EC Act.
- To assume leadership and provide policy framework and direction to national energy efficiency and conservation efforts and programmes.
- 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 programmes and projects on efficient use of energy and its conservation.
- To promote awareness of energy savings and energy conservation.

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.

The main amendments made to the original Act are given below:

- The Central Government may issue the energy savings certificate to the designated consumer whose energy consumption is less than the prescribed norms and standards in accordance with the procedure as may be prescribed.
- The designated consumer whose energy consumption is more than the prescribed norms and standards shall be entitled to purchase the energy savings certificate to comply with the prescribed norms and standards

- The Central Government may, in consultation with the Bureau, prescribe the value of per metric ton of oil equivalent of energy consumed
- Commercial buildings which are having a connected load of 100 kW or contract demand of 120 kVA and above brought under the purview under the EC Act.

Promotional Role

The major Promotional Role of BEE includes:

- 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.

2.2 Purpose of Audit & Accounting Report

UHBVN is a designated consumer in Discom sector. Being a designated Consumer UHBVN 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.

Sensing the need of the hour Government of India initiated a mechanism for all energy intensive large industries and facilities (designated consumer) known as PAT Scheme which is “A market based mechanism to enhance cost effectiveness of improvements in energy efficiency in designated consumers, through certification of energy savings that could be traded.”

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 scheme for reduction of technical and commercial loss in the DISCOM thus leading to sustainable energy cost reductions.

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- Access the past performance of the establishment.
- Quantification of Energy Losses, and Energy Saving Potential.

2.3 Period of Energy Audit& Accounting

Energy audit activity was started with a meeting at Head Office of UHBVN in the month of Aug 2022. Based on the requirement visit was made to Division, Subdivision, Grid etc. for data collection and technical discussion. The period of study was from April 2021 to March 2022.

III. Introduction of Designated Consumer

3.1 Sector

Uttar Haryana BijliVitaran Nigam Limited. Belongs to the DISCOMSector.

3.2 Name and Address of Designated Consumer

PARTICULARS	DETAILS
Name of DC	Uttar Haryana BijliVitaran Nigam Limited.
Address	C-16 VidyutSadan, Sector-6PKL, Panchkula – 134109 (Haryana)

3.3 Name and details of energy manager and Authorised signatory of DC

PARTICULARS	DETAILS
Energy Manager	Er. Anish Kumar (XEN) EA-12150 Ph: 0172-2584350 Mobile: 9812201236 Email: seenergyaudit@uhbvn.org.in
Authorized Signatory	Er. B. S. Ranga Chief Engineer Commerical Ph: 0172-2583722

3.4 Summary profile of DC's

Uttar Haryana Bijli Vitran Nigam Limited (UHBVNL), a Govt. of Haryana undertaking undertakes the Power Distribution and Retail Supply Business in the Northern Parts of Haryana. UHBVNL is registered under the Companies Act-1956 and has commenced its operations on dated July, 1999. UHBVNL. Inherited the distribution business of erstwhile Haryana state Electricity Board in pursuance to second transfer scheme notified by the Govt. of Haryana on July 1, 1999.The Power is procured through Haryana Power Purchase Center (HPPC), which is a joint forum of UHBVN & DHBVN.The Power is wheeled through the entire network through the State Transmission Utility (HVPNL) on the payment of transmissions charges approved by HERC.

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VISION

To ensure reliable and quality power at reasonable and competitive tariffs to our consumers so as to boost agricultural, industrial and overall economic development of the state and thus become the best distribution utility of India.

MISSION

1. To ensure a balanced all-round development of power infrastructure in all circles of operation.
2. To achieve high standards of consumer satisfaction by committing to Honesty, Transparency and Integrity in all of our actions.
3. To achieve technological excellence and financial turnaround for the overall benefit of the consumers.
4. To become a self-learning organization focusing on continuous improvement.

- Name of Circle & Division for FY 2021-22

The name of circle & Division UHBVN for the year 2021-22 is shown in following table

S. No	Name of Circle	Total no of Division
1	Panchkula	2
1	Ambala	3
2	Yamunanagar	3
3	Kurukshetra	3
4	Kaithal	3
5	Karnal	4
6	Panipat	3
7	Sonipat	3
8	Rohtak	3
9	Jhajjar	3

- Infrastructure Details of UHBVN

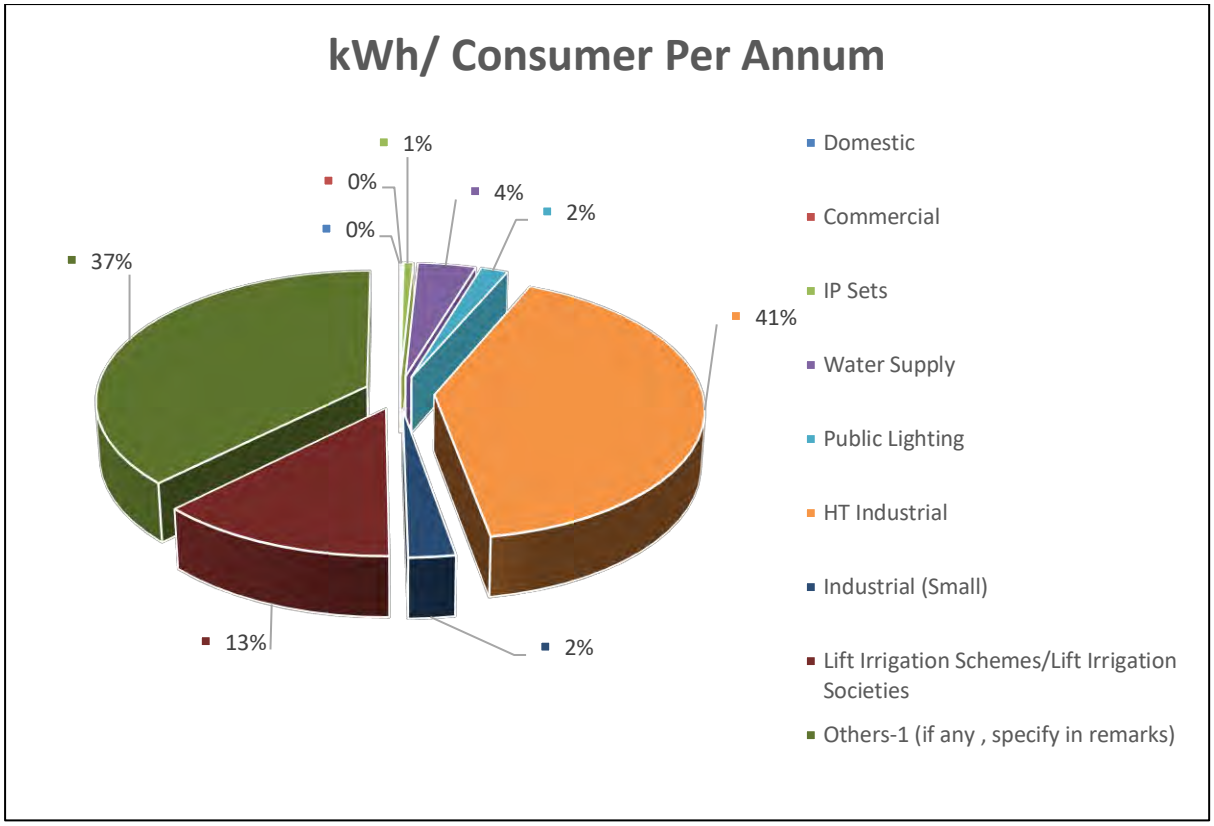
The total number of circles, Divisions, Feeders & DT's of UHBVN is given in the below table:

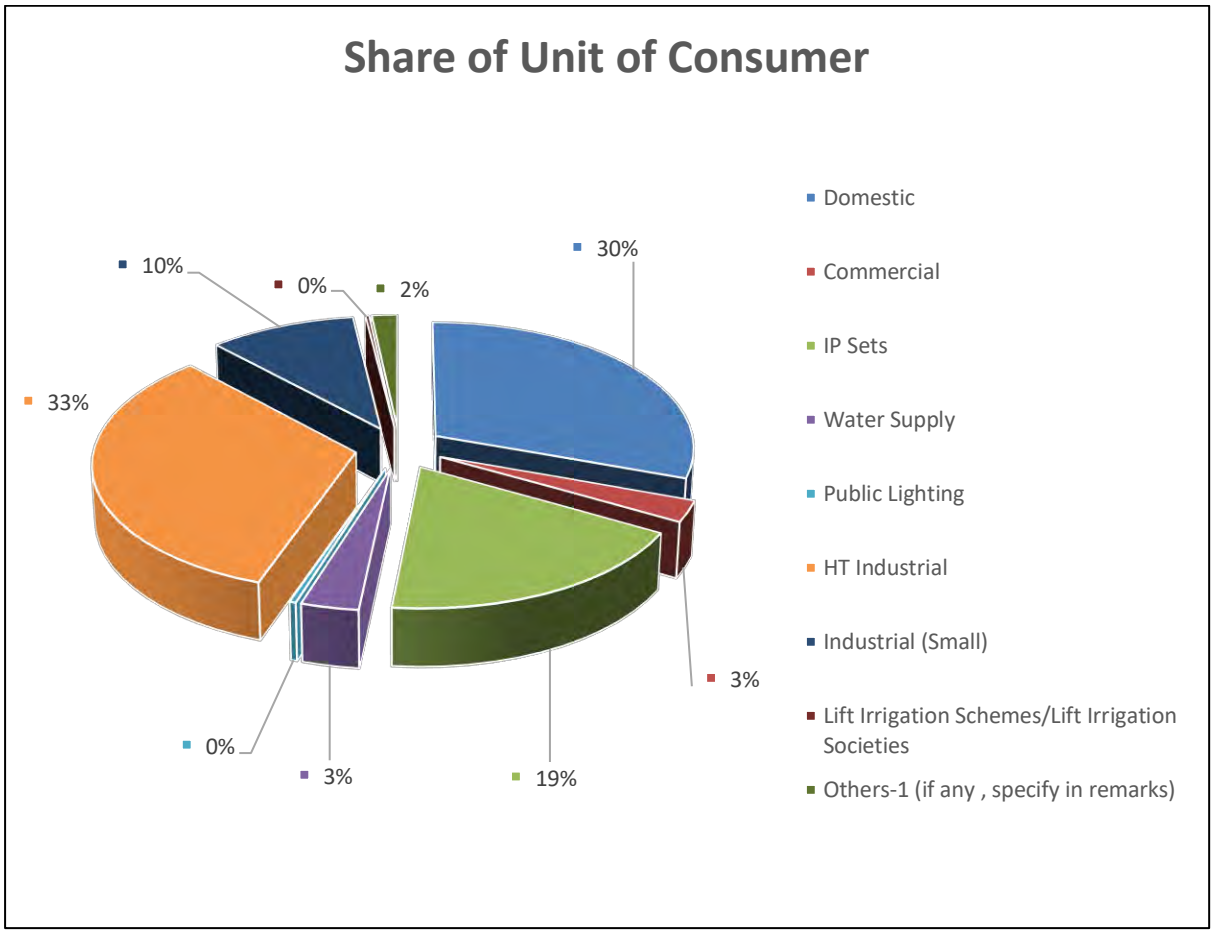
Parameters	Total
Number of circles	10
Number of divisions	30
Number of sub-divisions	119
Number of feeders	6014
Number of DTs	316150
Number of consumers	3422373

- UHBVN Customer wise connections & energy consumptions for FY 2021-22

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

Type of Consumers	Category of Consumers	No of Consumers	Total Consumption (In MU)	Kwh/ Consumer Per Annum
Domestic	LT	2650411	5805.43	2190.39
Commercial	LT	372223	519.03	1394.40
IP Sets	LT	332332	3527.44	10614.20
Water Supply	LT	9627	618.43	64238.72
Public Lighting	LT	2316	69.44	29980.88
HT Industrial	HT	9211	6251.89	678741.44
Industrial (Small)	HT	45504	1899.21	41737.15
Lift Irrigation Schemes/Lift Irrigation Societies	LT	224	47.74	213134.65
Others-1 (if any , specify in remarks)	LT	525	327.71	624215.03


kWh/ Consumer Per Annum
1%
0%
4%
2%
0%
37%
41%
13%
2%
Domestic
Commercial
IP Sets
Water Supply
Public Lighting
HT Industrial
Industrial (Small)
Lift Irrigation Schemes/Lift Irrigation Societies
Others-1 (if any , specify in remarks)


Share of Unit of Consumer
30%
10%
0%
2%
33%
3%
0%
3%
19%
Domestic
Commercial
IP Sets
Water Supply
Public Lighting
HT Industrial
Industrial (Small)
Lift Irrigation Schemes/Lift Irrigation Societies
Others-1 (if any , specify in remarks)

- Voltage wise Meter Consumers

The voltage wise meter types of meter values given table:

Parameters	66kV and above	33kV	11/22kV	LT
Number of conventional metered consumers				3256889
Number of consumers with 'smart' meters				19202
Number of consumers with 'smart prepaid' meters				114
Number of consumers with 'AMR' meters			10373	
Number of consumers with 'non-smart prepaid' meters				
Number of unmetered consumers	135795			
Number of total consumers	135795	0	10373	3276205

- Numbers of Distribution Transformers

Parameters	66kV and above	33kV	11/22kV
Number of conventionally metered Distribution Transformers	-	-	12767
Number of DTs with communicable meters	-	-	1787
Number of unmetered DTs	-	-	301596
Number of total Transformers			316150

- Numbers of Feeders

Parameters	66kV and above	33kV	11/22kV
Number of metered feeders	12	36	5966

Parameters	66kV and above	33kV	11/22kV
Number of feeders with communicable meters	12	36	5966
Number of unmetered feeders			
Number of total feeders	12	36	5966

- Length of Cables

Particulars	Value (kM)
Line length (ct km)	121349
Length of Aerial Bunched Cables	-

IV. Discussions & Analysis

4.1 Energy Accounts for Previous Year 2021-2022

Previous cycle of audit of energy accounting base on the notification no. No. 18/1/BEE/DISCOM/2021 from **BUREAU OF ENERGY EFFICIENCY** dated 6th October, 2021.

- Power Purchase from HPPC for FY -2021-22

S. No	Type of Fuel	UHBVN	% Share
1	Thermal	15759.71	69.8%
2	Hydro	3576.48	15.9%
3	Power Exchange	1145.39	5.1%
4	Gas	546.81	2.4%
5	Banking	549.89	2.4%
6	Renewable	456.47	2.0%
7	Nuclear	311.42	1.4%
8	Other	217.56	1.0%
	Total	**22563.73**	**100.0%**

- Summary Sheet of AT& C losses

The energy input, billed & AT&C Losses of the UHBVN is given below:

Technical Details (FY 2021-22)		
Energy Input Details	**UoM**	**Value**
Input Energy Purchase (From Generation Source)	Million kwh	22563.73
Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	Million kwh	21208.99
Total Energy billed (is the Net energy billed, adjusted for energy traded))	Million kwh	17559.92
Transmission and Distribution (T&D) loss Details	Million kwh	3649.07
	%	17.21%
Collection Efficiency	%	101%
Aggregate Technical & Commercial Loss	%	16.55%

- Circle wise T & D & AT & C Losses

The circle wise connected load & input energy & metered energy with transmission & distribution losses is given in following table:

Circle	Total Number of connections (Nos)	Input energy (MU)	Total energy	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore
Ambala	440302	2428.260	2232.678	1434.895	1383.329
Yamunanagar	458189	2139.412	1910.833	1259.048	1266.527
Kurukshetra	295137	1741.114	1360.701	882.364	924.322
Kaithal	321821	2023.387	1644.302	1124.677	1095.817
Karnal	472019	2736.251	2419.477	1705.793	1928.640
Panipat	333350	3001.922	2541.359	1732.096	1715.799
Sonipat	409135	3441.178	2692.098	1961.230	1883.232
Rohtak	326290	1904.785	1329.193	873.389	876.448
Jhajjar	253486	1792.681	1429.281	938.717	932.684
At company level	**3309729**	**21208.989**	**17559.922**	**11912.21**	**12006.8**

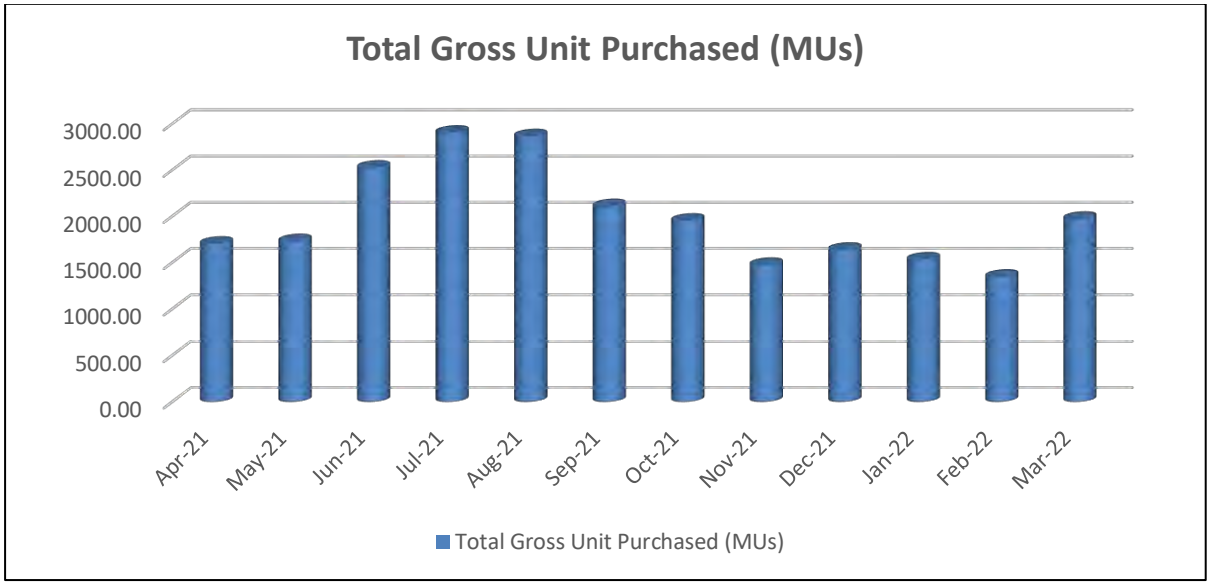
4.2 Energy Accounts & Performance in current year (2021-22)

- Power Purchase from HPPC for FY 2021-22

UHBVN, Panchkula purchase the power from the HPPC (Haryana Power Purchase Center) Month wise purchased power are shown in below table:

S. No	Month	Total Gross Unit Purchased (MUs)
1	Apr-21	1699.44
2	May-21	1726.63
3	Jun-21	2521.33
4	Jul-21	2900.36
5	Aug-21	2861.95
6	Sep-21	2105.60
7	Oct-21	1948.29
8	Nov-21	1470.18
9	Dec-21	1634.62
10	Jan-22	1528.54

S. No	Month	Total Gross Unit Purchased (MUs)
11	Feb-22	1343.29
12	Mar-22	1968.75
	Total	**23708.97**

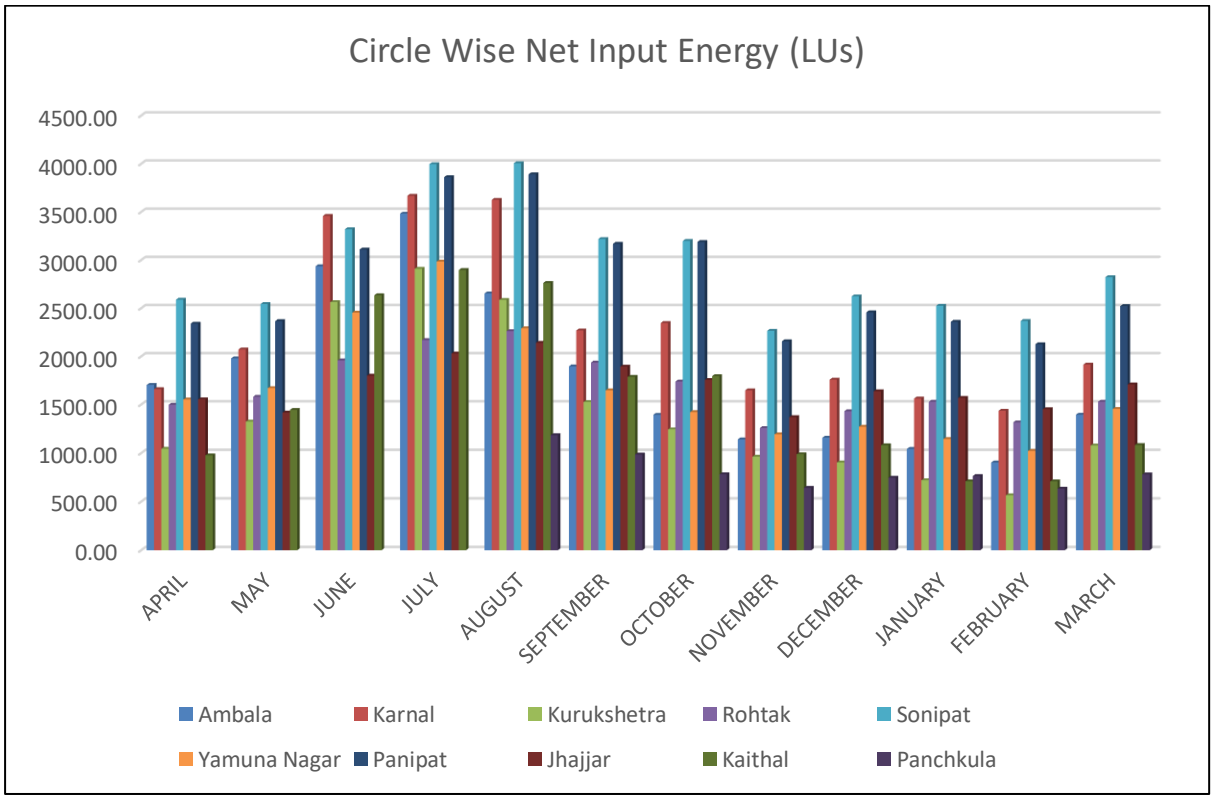


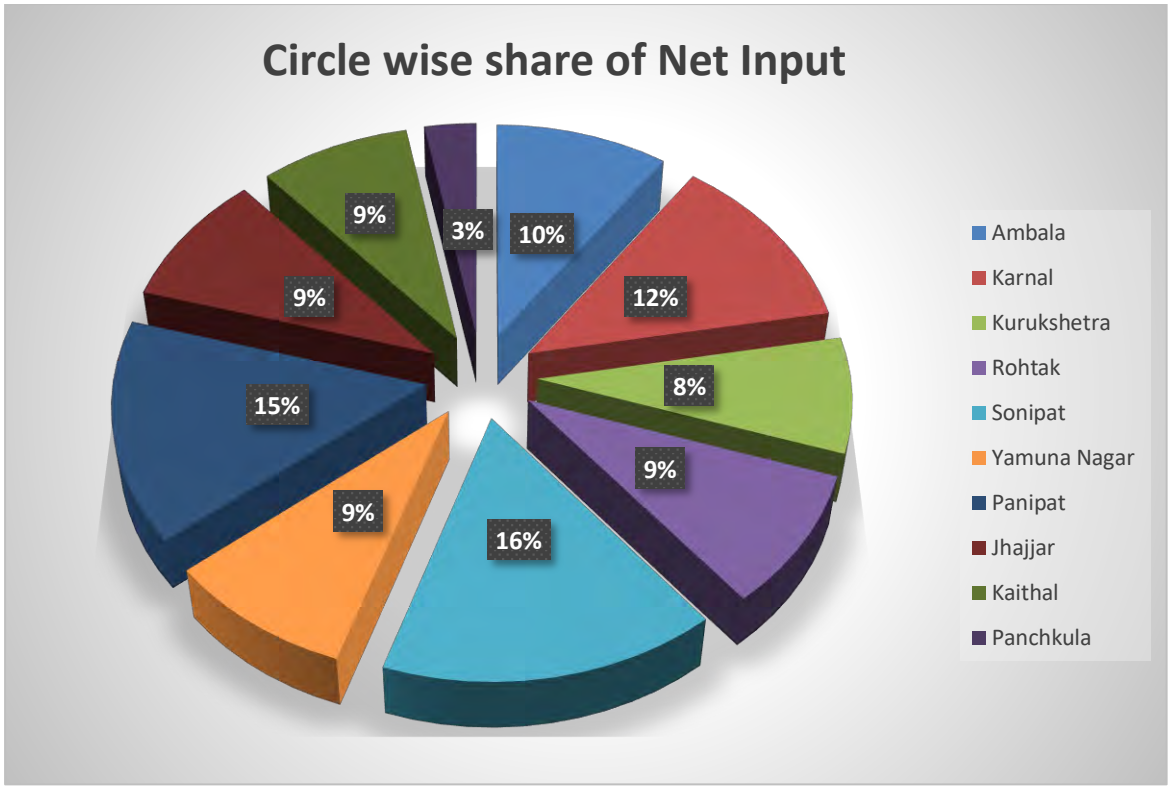
- Month wise Input Energy for FY 2021-22

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

Circle Name	Ambala	Karnal	Kurukshetra	Rohtak	Sonipat
APRIL	1703.70	1659.97	1044.61	1497.34	2588.85
MAY	1979.49	2071.71	1324.10	1580.81	2543.80
JUNE	2935.52	3458.66	2563.69	1957.94	3320.63
JULY	3482.11	3667.93	2909.67	2169.85	3996.31
AUGUST	2653.43	3625.71	2586.27	2261.90	4005.52
SEPTEMBER	1895.71	2269.10	1525.87	1935.99	3218.74
OCTOBER	1394.09	2346.55	1244.45	1739.18	3199.25
NOVEMBER	1141.57	1647.22	963.13	1257.91	2265.84
DECEMBER	1157.94	1758.24	903.01	1430.71	2623.22
JANUARY	1042.75	1563.11	720.32	1528.55	2525.25
FEBRUARY	903.84	1435.97	565.51	1316.12	2368.24
MARCH	1395.30	1914.50	1078.52	1528.68	2822.65
TOTAL	21685.44	27418.66	17429.14	20204.98	35478.30

Circle Name	Y. Nagar	Panipat	Jhajjar	Kaithal	Panchkula	Total
APRIL	1552.37	2339.75	1554.57	976.07	-	14917.25
MAY	1670.60	2366.15	1416.87	1444.44	-	16397.96
JUNE	2454.48	3109.33	1800.14	2635.20	-	24235.59
JULY	2984.13	3861.42	2029.75	2896.99	-	27998.16
AUGUST	2291.42	3890.59	2140.86	2762.88	1184.79	27403.38
SEPTEMBER	1647.20	3169.01	1894.14	1787.19	984.79	20327.73
OCTOBER	1422.32	3188.49	1755.62	1794.82	781.99	18866.74
NOVEMBER	1192.96	2156.88	1369.94	988.26	642.22	13625.92
DECEMBER	1271.27	2457.41	1637.59	1080.34	746.71	15066.45
JANUARY	1145.27	2359.61	1568.82	709.39	763.36	13926.43
FEBRUARY	1021.82	2126.06	1452.05	708.91	633.40	12531.92
MARCH	1454.46	2522.25	1708.62	1083.51	781.02	16289.52
TOTAL	20108.33	33546.96	20328.97	18867.99	6518.28	221587.05





- Summary Sheet of AT& C losses

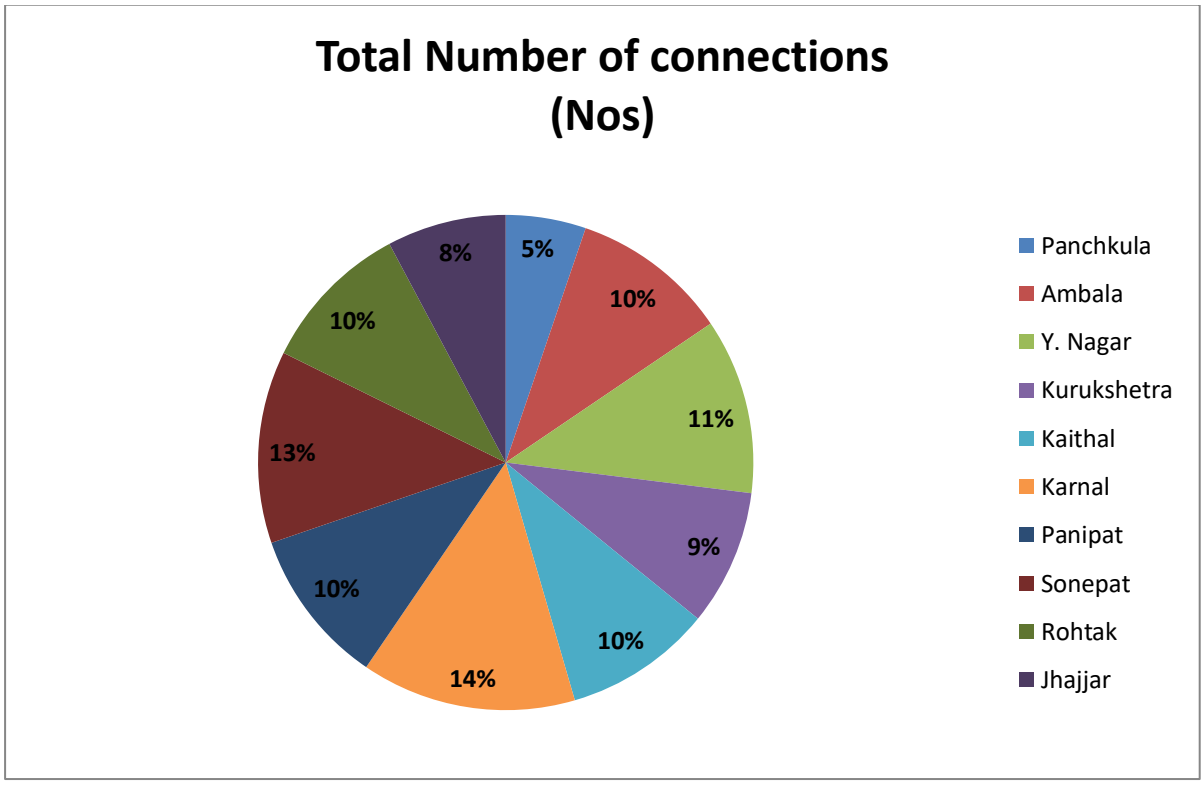
The energy input, billed & AT&C Losses of the UHBVN is given below:

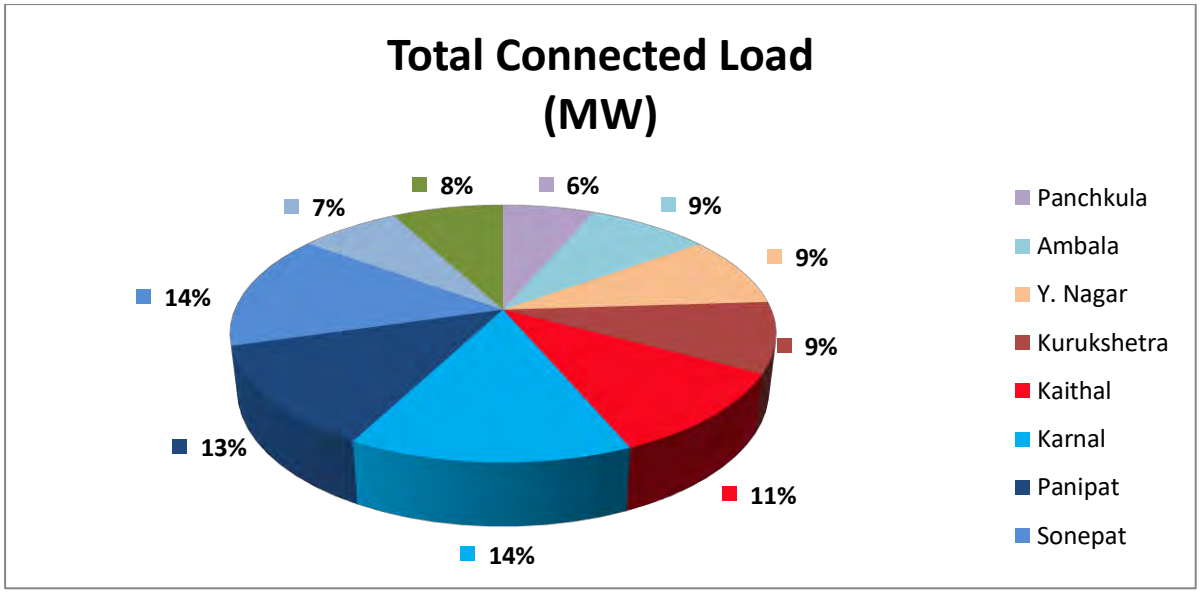
Technical Details (FY2021-22)		
Energy Input Details	**UoM**	**Value**
Input Energy Purchase (From Generation Source)	Million kwh	23708.97
Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	Million kwh	22158.70
Total Energy billed (is the Net energy billed, adjusted for energy traded))	Million kwh	19066.31
Transmission and Distribution (T&D) loss Details	Million kwh	3092.40
	%	13.96%
Collection Efficiency	%	101%
Aggregate Technical & Commercial Loss	%	12.70%

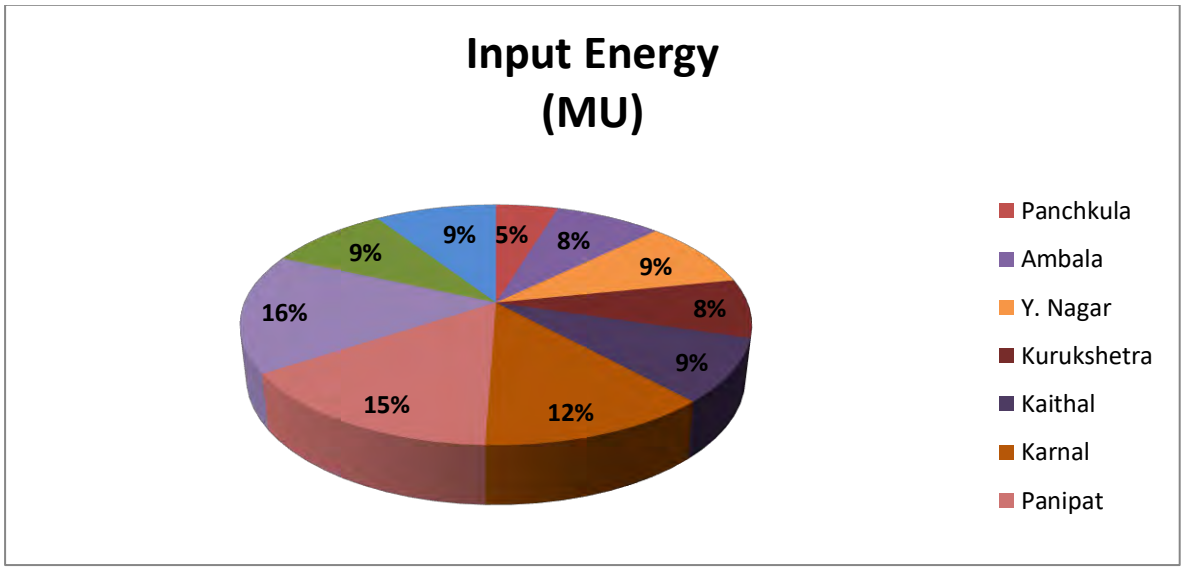
➢ Circle wise Connections & Input Energy

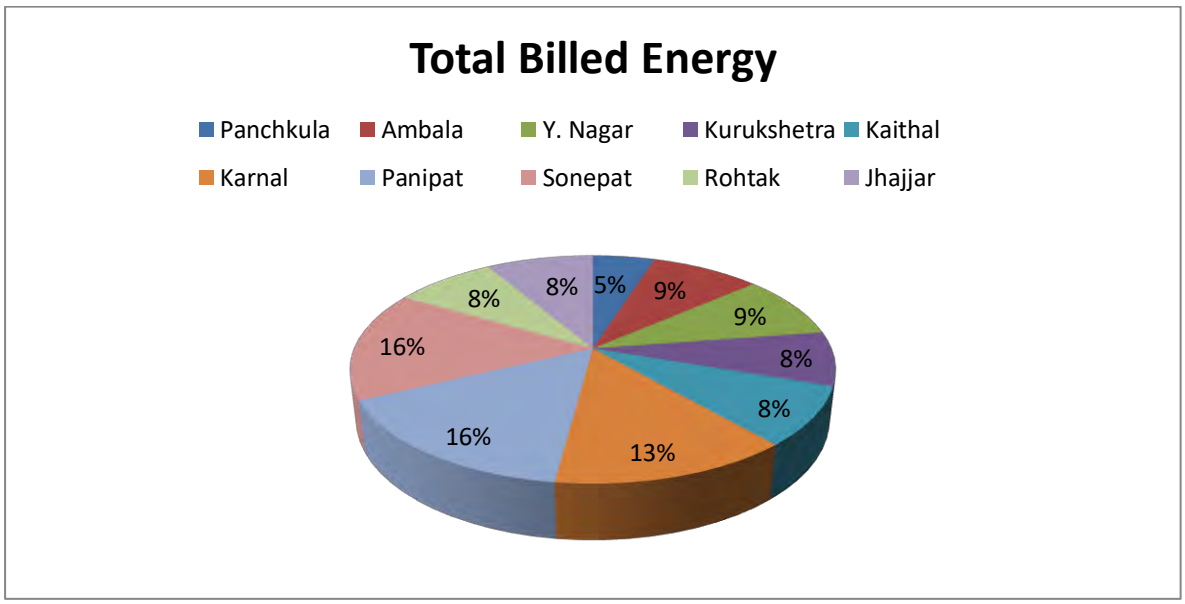
UHBVN, Panchkula having 10 circles and 30 numbers of division & 119 numbers of sub division, the circle wise total numbers of connections, connected load (MW), Total input energy (MU)is given in the table:

Circle	Total Number of connections (Nos)	Total Connected Load (MW)	Input energy (MU)	Total energy (MU)
Panchkula	179114	928.00	1040.07	942.32
Ambala	352016	1230.92	1780.31	1654.92
Yamunanagar	392215	1283.81	2010.83	1711.71
Kurukshetra	303914	1267.74	1742.91	1456.62
Kaithal	329795	1539.69	1886.80	1587.97
Karnal	480127	2031.98	2741.87	2575.03
Panipat	349601	1835.31	3354.70	3003.21
Sonipat	429747	2083.82	3547.83	2979.41
Rohtak	339576	1014.19	2020.50	1530.24
Jhajjar	266268	1129.09	2032.90	1624.87
At company level	**3422373**	**14344.56**	**22158.70**	**19066.31**




Total Connected Load
(MW)
8%
6%
9%
9%
9%
11%
14%
13%
14%
7%
Panchkula
Ambala
Y. Nagar
Kurukshetra
Kaithal
Karnal
Panipat
Sonepat


Input Energy
(MU)
9%
5%
8%
9%
8%
9%
12%
15%
16%
9%
Panchkula
Ambala
Y. Nagar
Kurukshetra
Kaithal
Karnal
Panipat

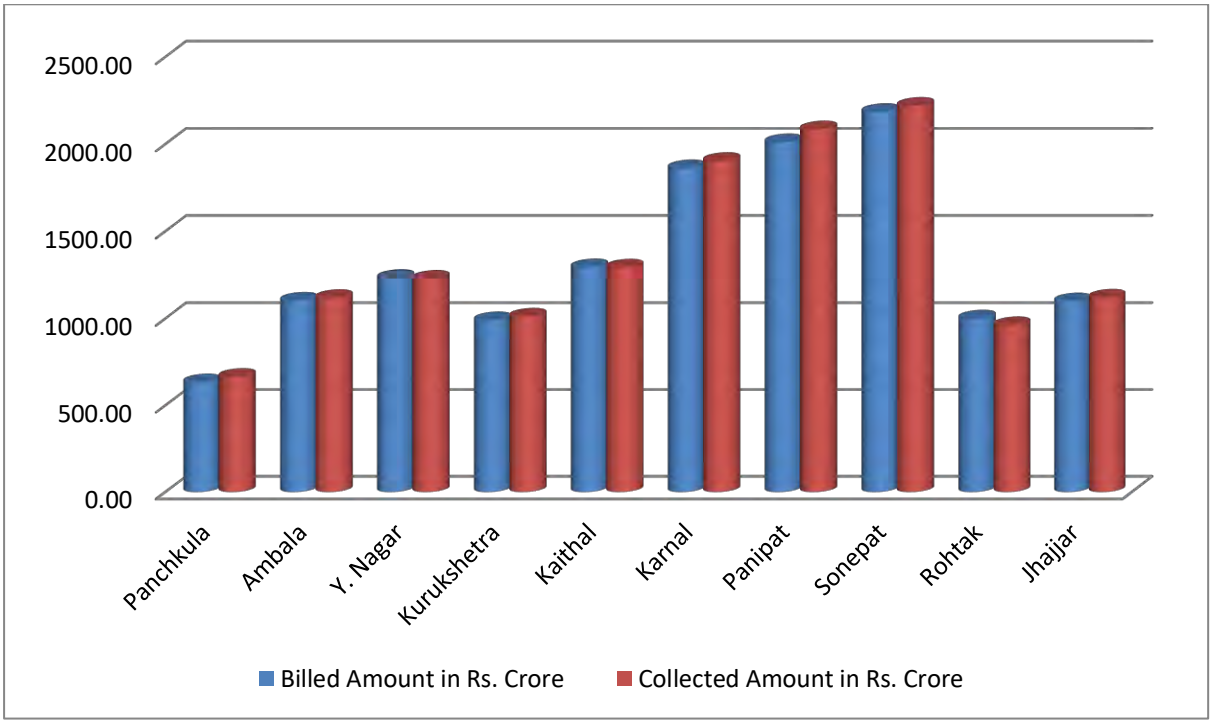

Total Billed Energy
Panchkula
Ambala
Y. Nagar
Kurukshetra
Kaithal
Karnal
Panipat
Sonepat
Rohtak
Jhajjar
5%
9%
9%
8%
8%
13%
16%
16%
8%
8%

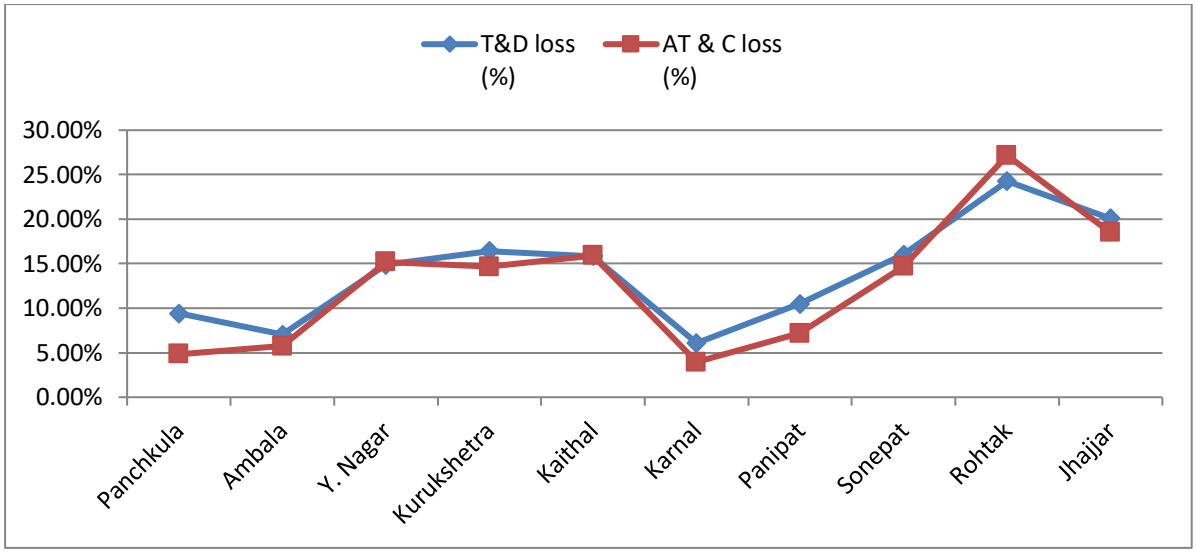
- Circle wise Billed Energy& Collection efficiency

The collection efficiency of the UHBVN Discom as per the data provided is given in the following table:

Collection efficiency = Collected Amount/ (Billed Amount*100)

Circle	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	T&Dloss (%)	AT & C loss (%)
Panchkula	631.52	663.20	105.02%	9.40%	4.85%
Ambala	1101.26	1116.52	101.39%	7.04%	5.75%
Yamunanagar	1231.06	1226.52	99.63%	14.88%	15.19%
Kurukshetra	988.81	1009.56	102.10%	16.43%	14.67%
Kaithal	1292.17	1290.85	99.90%	15.84%	15.92%
Karnal	1860.31	1902.42	102.26%	6.08%	3.96%
Panipat	2009.37	2083.28	103.68%	10.48%	7.18%
Sonipat	2183.46	2218.40	101.60%	16.02%	14.68%
Rohtak	998.85	960.73	96.18%	24.26%	27.15%
Jhajjar	1097.19	1118.58	101.95%	20.07%	18.51%
At company level	**13394.01**	**13590.07**	**101.46%**	**13.96%**	**12.70%**





- Division wise energy parameters& Losses

The total 30 of divisions, the energy parameter input energy, metered energy& T & D Losses of division wise is shown in below table:

Sr No	Division	Total Number of connections	Total Connected Load (MW)	Input energy (MU)	Total energy	T&D loss (%)	Collection Efficiency	AT& C loss (%)
1	Pinjore	0	0.000	426.52	258.35	39.43%	105.68%	35.99%
2	Panchkula	179114	927.996	613.55	683.97	-11.48%	104.79%	-16.82%
3	A/Cantt.	154977	562.646	906.58	871.67	3.85%	100.34%	3.52%
4	A/city	117736	404.362	496.39	453.42	8.66%	105.60%	3.54%
5	Naraingarh	79303	263.915	377.34	329.84	12.59%	98.55%	13.85%
6	Y. Nagar	189694	622.514	1018.26	876.89	13.88%	99.54%	14.28%
7	Jagadhri	131054	445.030	650.92	650.90	0.00%	99.23%	0.77%
8	Bilaspur	71467	216.268	341.66	183.92	46.17%	101.26%	45.49%
9	Kurukshetra	140007	581.410	752.15	641.24	14.75%	103.62%	11.66%
10	Pehowa	84702	363.044	530.54	430.57	18.84%	101.35%	17.74%
11	Shahabad	79205	323.290	460.23	384.81	16.39%	100.57%	15.91%
12	Kaithal	140091	537.836	751.48	626.45	16.64%	100.01%	16.63%
13	Pundri	113416	597.329	618.54	516.37	16.52%	100.92%	15.75%
14	Guhla	76288	404.530	516.77	445.16	13.86%	98.88%	14.82%
15	City, Karnal	164570	632.394	795.47	764.08	3.95%	102.39%	1.65%
16	Sub Urban No-I	128934	495.039	684.39	635.41	7.16%	102.41%	4.92%
17	Sub Urban	99652	484.420	736.57	693.92	5.79%	103.05%	2.92%

Sr No	Division	Total Number of connections	Total Connected Load (MW)	Input energy (MU)	Total energy	T&D loss (%)	Collection Efficiency	AT& C loss (%)
	No-II							
18	AssandhDivn.	86971	420.123	525.43	481.62	8.34%	100.90%	7.52%
19	Samalkha	112854	503.707	957.12	828.88	13.40%	101.13%	12.42%
20	S/Urban, PNP	121330	660.528	1420.20	1260.59	11.24%	104.18%	7.53%
21	City Panipat	115417	671.078	977.37	913.74	6.51%	105.03%	1.80%
22	City Sonipat	159420	1093.812	1794.10	1652.46	7.89%	102.95%	5.18%
23	S/Urban, SNP	163086	732.317	1286.57	1005.34	21.86%	99.85%	21.98%
24	Gohana	107241	257.693	467.16	321.61	31.16%	100.09%	31.10%
25	SU-I Rohtak	114609	203.583	551.25	367.78	33.28%	92.40%	38.35%
26	City Rohtak	140676	573.646	880.15	782.01	11.15%	97.51%	13.36%
27	SU-II Rohtak	84291	236.962	589.10	380.44	35.42%	96.31%	37.80%
28	Jhajjar	88322	234.371	408.73	286.80	29.83%	101.38%	28.86%
29	Bahadurgarh	109300	697.905	1175.50	962.43	18.13%	102.49%	16.09%
30	Beri	68646	196.815	448.66	375.65	16.27%	100.91%	15.52%
	Total	**3422373**	**14344.56**	**22158.70**	**19066.31**	**13.96%**	**101.46%**	**12.70%**

➢ Analysis on T&D loss and AT&C loss:

- **% Losses – Aggregate**:

The overall Technical Loss (T&D Loss) is 13.96% and overall AT&C Loss is 12.70% for FY 2021-2022. This reflects an overall collection efficiency of 101.46%.

- **% Losses – Division Wise:**

The range of T&D losses, collection efficiency and AT&C losses among the divisions is tabulated below:

Description	Data
T&D loss	13.96%
T&D loss Range	0.003% to 46.17%
Division With highest T&D loss	Bilaspur
Division With lowest T&D loss	Jagadhri
Collection Efficiency	101.46%
Collection Efficiency Range	92.40% to 105.68%

Description	Data
AT & C loss (%)	12.70%
AT & C loss Range	0.77% to 45.49%
Division With highest AT&C loss	Bilaspur
Division With lowest AT&C loss	Jagadhri

The following divisions of the DISCOM are having T&D losses more than the average value and requires special attention

Sr No.	Average T&D Loss	Divisions with More than Average T&D loss	T&D Loss %
1	13.96%	Pinjore	39.43%
2		Bilaspur	46.17%
3		Kurukshetra	14.75%
4		Pehowa	18.84%
5		Shahabad	16.39%
6		Kaithal	16.64%
7		Pundri	16.52%
8		S/Urban, SNP	21.86%
9		Gohana	31.16%
10		SU-I Rohtak	33.28%
11		SU-II Rohtak	35.42%
12		Jhajjar	29.83%
13		Bahadurgarh	18.13%
14		Beri	16.27%

The following divisions of the DISCOM are having Collection Efficiency less than the average value and requires special attention:

Sr No.	Average Collection Efficiency	Divisions with Less than Average Collection Efficiency	Collection Efficiency %
1	101.46%	Panchkula	105.68%
2		Panchkula	104.79%
3		Ambala	105.60%
4		Kurukshetra	103.62%
5		Karnal	103.05%
6		Panipat	104.18%
7		Panipat	105.03%
8		Sonipat	102.95%
9		Jhajjar	102.49%

- Generation station & Its Capacity

UHBVN have different type of fuel sources station, the generation station with its installed generating capacity is given in below table:

Generation at Transmission Periphery

S.No.	Name of Generation Station	Generation Capacity (In MW)	Type of Station Generation	Type of Contract	Type of Grid	Voltage Level (At input)	Remarks (Source of data)
1	Panipat Thermal Power Plant	710	Thermal	25 Years	Intra-state	220 kV	Ce-HPPC
2	Solar plant at PTPS, PANIPAT	10	Solar	25 Years	Intra-state	33 kV	Ce-HPPC
3	Rajiv GandiTPP,Hissar (RGTPP)	1200	Thermal	25 Years	Intra-state	400 kV	Ce-HPPC
4	DCRTPP Yamuna Nagar	600	Thermal	25 Years	Intra-state	220 kV	Ce-HPPC
5	WYCHydel Project, Yamuna Nagar	62.4	Small Hydro	Life time of the project	Intra-state	66 kV	Ce-HPPC
6	Faridabad Gas	432	Thermal - Gas	25 Years	Intra-state	400 kV	Ce-HPPC
7	Indira Gandhi Super Thermal Power Station (IGSTPS), Jhajjar M/s Aravali (Subsidary of NTPC)	1500	Thermal	25 Years	Intra-state	400 kV	Ce-HPPC
8	Mahatama Gandhi Super Thermal Power Station (MGSTPS), Jhajjar (CLP)	1320	Thermal	25 Years	Intra-state	400 kV	Ce-HPPC
9	P&RGogripur, Karnal	2	Small Hydro	25 Years	Intra-state	11 kV	Ce-HPPC
10	Puri Oil Mills, Mussapur	1.4	Small Hydro	25 Years	Intra-state	11 kV	Ce-HPPC
11	Puri Oil Mills, Khukni	1.4	Small Hydro	25 Years	Intra-state	11 kV	Ce-HPPC
12	Bhoruka HEP Yamunanagar	6	Small Hydro	35 Years	Intra-state	33 kV	Ce-HPPC
13	M/s SDS Solar Pvt. Ltd.,	1	Solar	25 Years	Intra-state	33 kV	Ce-HPPC
14	M/s C&S Electric Ltd.	1	Solar	25 Years	Intra-state	33 kV	Ce-HPPC
15	M/s Chandraleela Power Energy (P) Ltd.	0.8	Solar	25 Years	Intra-state	33 kV	Ce-HPPC
16	SUKHBIR SOLAR DH	1	Solar	25 Years	Intra-state	33 kV	Ce-HPPC
17	M/s Zamil New Delhi Infra Structure (P) Ltd	1	Solar	25 Years	Intra-state	33 kV	Ce-HPPC
18	SIWANA SOLAR POWER DH	5	Solar	25 Years	Intra-state	33 kV	Ce-HPPC
19	M/s H R Minerals & Alloys Pvt. Ltd.,	1	Solar	25 Years	Intra-state	132 kV	Ce-HPPC
20	M/s Tayal& Co.,	1	Solar	25 Years	Intra-state	66 kV	Ce-HPPC
21	M/s VKG Energy Pvt. Ltd.	1	Solar	25 Years	Intra-state	66 kV	Ce-HPPC
22	JBM Solar	20	Solar	25 Years	Intra-state	132 kV	Ce-HPPC

S.No.	Name of Generation Station	Generation Capacity (In MW)	Type of Station Generation	Type of Contract	Type of Grid	Voltage Level (At input)	Remarks (Source of data)
23	Utrecht Solar Pvt Ltd	1	Solar	25 Years	Intra-state	33 kV	Ce-HPPC
24	SubhashInfraengineers Pvt Ltd	1	Solar	25 Years	Intra-state	33 kV	Ce-HPPC
25	Balarch Renewable Energy Pvt Ltd	1	Solar	25 Years	Intra-state	132 kV	Ce-HPPC
26	GEMCO biomass, Vill. Dinod, Distt. Bhiwani.	8	Biomass	25 Years	Intra-state	132 kV	Ce-HPPC
27	Starwire Biomass Power Project Mahendergarh	9.9	Biomass	25 Years	Intra-state	33 kV	Ce-HPPC
28	A.B.Grains	8.93	Biomass	25 Years	Intra-state	33 kV	Ce-HPPC
29	Sri Jyoti	9.5	Biomass	25 Years	Intra-state	132 kV	Ce-HPPC
30	SHAHBAD SUGAR MILL	24	Sugarmill	20 Years	Intra-state	66 kV	Ce-HPPC
31	CH. DEVI LAL SUGAR MILL	6	Sugarmill	20 Years	Intra-state	11 kV	Ce-HPPC
32	Haryana Co. Sugar Mill.	16	Sugarmill	20 Years	Intra-state	33 kV	Ce-HPPC
33	Hafed Sugar Mill	6	Sugarmill	20 Years	Intra-state	11 kV	Ce-HPPC
34	Meham Sugar Mill	5	Sugarmill	20 Years	Intra-state	11 kV	Ce-HPPC
35	Naraingarh Sugar Mill Ltd	25	Sugarmill	20 Years	Intra-state	66 kV	Ce-HPPC
36	M/s Mor Bio Energy Pvt. Ltd. Jind (Biogas)	1.2	Biomass	20 Years	Intra-state	11 kV	Ce-HPPC
37	Amplus Sun Solutions Pvt. Ltd.	50	Solar	25 Years	Intra-state	33 kV	Ce-HPPC
38	Bhakra-Nagal Complex BHPP-I(Left Bank) BHPP-II (Right Bank) GANGUWAL KOTLA	1532.73	Hydro	Life time of the project	Inter-state		Ce-HPPC
39	Dehar Power Plant	990	Hydro	Life time of the project	Inter-state		Ce-HPPC
40	Pong Power Plant	396	Hydro	Life time of the project	Inter-state		Ce-HPPC
41	Singrauli Super Thermal Project Stage-I & II	2000	Thermal	25 Years	Inter-state		Ce-HPPC
42	Rihand Super Thermal Project-I	1000	Thermal	25 Years	Inter-state		Ce-HPPC
43	Rihand Super Thermal Project-II	1000	Thermal	25 Years	Inter-state		Ce-HPPC
44	Rihand Super Thermal Project-III	1000	Thermal	25 Years	Inter-state		Ce-HPPC
45	Feroze Gandhi Unchahar Super Thermal Stage-I	420	Thermal	25 Years	Inter-state		Ce-HPPC
46	Feroze Gandhi Unchahar Super Thermal Stage-II	420	Thermal	25 Years	Inter-state		Ce-HPPC
47	Feroze Gandhi Unchahar Super Thermal Stage-III	210	Thermal	25 Years	Inter-state		Ce-HPPC
48	Feroze Gandhi Unchahar Super Thermal Stage-IV	500	Thermal	25 Years	Inter-state		Ce-HPPC
49	Farakha Stage- I,II and	1600	Thermal	25 Years	Inter-state		Ce-HPPC

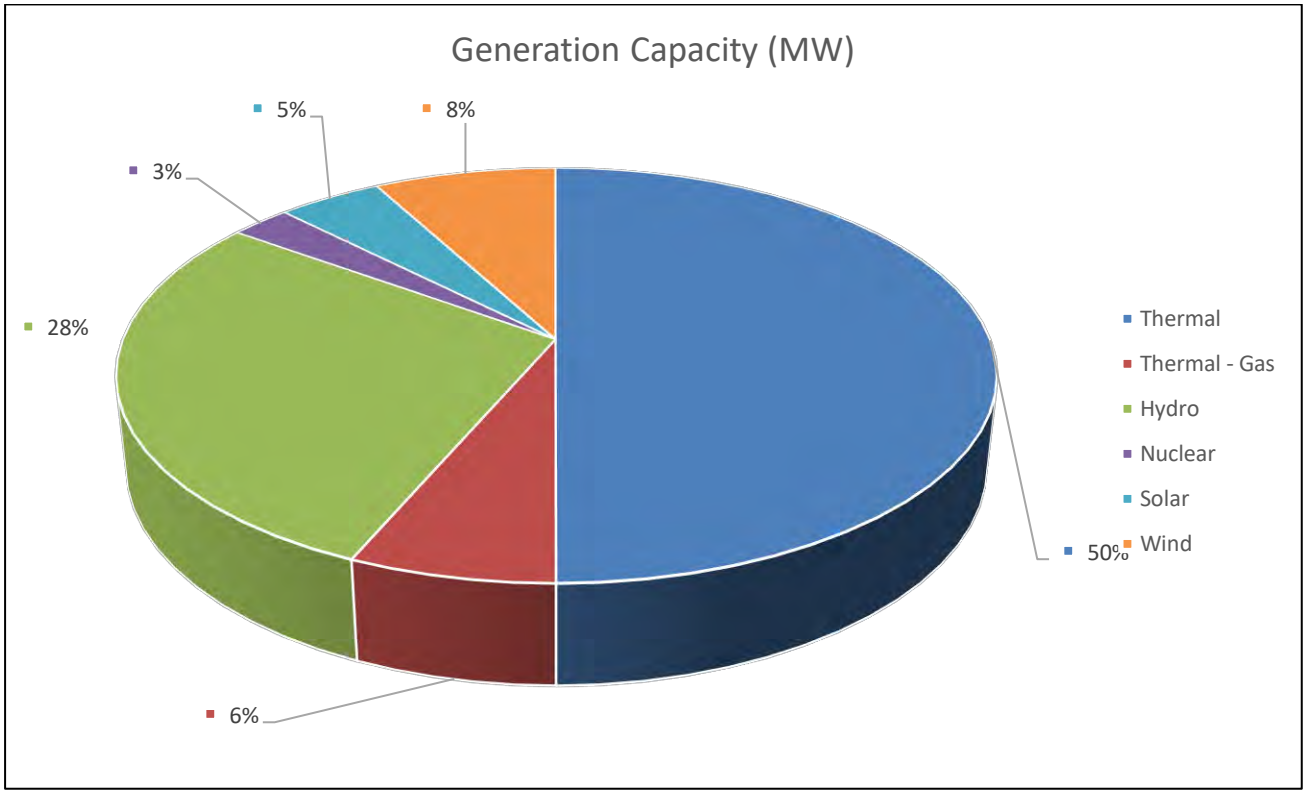
S.No.	Name of Generation Station	Generation Capacity (In MW)	Type of Station Generation	Type of Contract	Type of Grid	Voltage Level (At input)	Remarks (Source of data)
	III						
50	Kahalgaon-I (Bihar)	840	Thermal	25 Years	Inter-state		Ce-HPPC
51	Kahalgaon-II (Bihar)	1500	Thermal	25 Years	Inter-state		Ce-HPPC
52	Koldam HEP NTPC (H.P.)	800	Hydro	40 Years	Inter-state		Ce-HPPC
53	Anta Gas	419.33	Thermal - Gas	25 Years	Inter-state		Ce-HPPC
54	Auriya Gas	663.36	Thermal - Gas	25 Years	Inter-state		Ce-HPPC
55	Dadri Gas	829.58	Thermal - Gas	25 Years	Inter-state		Ce-HPPC

Embedded Generation in Discom Area

S.No	Name of Generation Station	Capacity MW	Type of Station	Type of Contract	Type of Grid
1	Bhakra-Nagal Complex BHPP-I(Left Bank) BHPP-II (Right Bank) GANGUWAL KOTLA	1532.73	Hydro	Life time of the project	Inter-state
2	Dehar Power Plant	990	Hydro	Life time of the project	Inter-state
3	Pong Power Plant	396	Hydro	Life time of the project	Inter-state
4	Singrauli Super Thermal Project Stage-I & II	2000	Thermal	25 Years	Inter-state
5	Rihand Super Thermal Project-I	1000	Thermal	25 Years	Inter-state
6	Rihand Super Thermal Project-II	1000	Thermal	47908	Inter-state
7	Rihand Super Thermal Project-III	1000	Thermal	25 Years	Inter-state
8	Feroze Gandhi Unchahar Super Thermal Stage-I	420	Thermal	25 Years	Inter-state
9	Feroze Gandhi Unchahar Super Thermal Stage-II	420	Thermal	25 Years	Inter-state
10	Feroze Gandhi Unchahar Super Thermal Stage-III	210	Thermal	25 Years	Inter-state
11	Feroze Gandhi Unchahar Super Thermal Stage-IV	500	Thermal	25 Years	Inter-state
12	Farakha Stage- I,II and III	1600	Thermal	25 Years	Inter-state
13	Kahalgaon-I (Bihar)	840	Thermal	25 Years	Inter-state
14	Kahalgaon-II (Bihar)	1500	Thermal	25 Years	Inter-state
15	Koldam HEP NTPC (H.P.)	800	Hydro	40 Years	Inter-state
16	Anta Gas	419.33	Thermal - Gas	25 Years	Inter-state
17	Auriya Gas	663.36	Thermal - Gas	25 Years	Inter-state
18	Dadri Gas	829.58	Thermal	25 Years	Inter-state

S.No	Name of Generation Station	Capacity MW	Type of Station	Type of Contract	Type of Grid
			- Gas		
19	RagunathpurTPS (DVC)	1200	Thermal	25 Years	Inter-state
20	KodermaTPP (DVC)	1000	Thermal	25 Years	Inter-state
21	Mejia B TPS (DVC)	1000	Thermal	25 Years	Inter-state
22	Pragati Gas Power Station (Delhi)	1371	Thermal - Gas	15 Years	Inter-state
23	Baira-SuilHydel Project (NHPC)	180	Hydro	35 Years (aditional 25 years after R&M)	Inter-state
24	Salal Hydro -Elect. Project Stage-I & II (NHPC)	690	Hydro	35 Years	Inter-state
25	TanakpurHydel	120	Hydro	35 Years	Inter-state
26	ChameraHydel	540	Hydro	35 Years	Inter-state
27	Chamera-III HEP(HP)	231	Hydro	35 Years	Inter-state
28	Chamera II	300	Hydro	35 Years	Inter-state
29	Uri Hydel	480	Hydro	35 Years	Inter-state
30	Uri - II (Hydel)	240	Hydro	40 Years	Inter-state
31	Dhauli Ganga	280	Hydro	35 Years	Inter-state
32	Dhulhasti	390	Hydro	35 Years	Inter-state
33	SEWA-II	120	Hydro	35 Years	Inter-state
34	Parwati III	520	Hydro	40 Years	Inter-state
35	TehriHydel (THDC)	1000	Hydro	35 Years	Inter-state
36	Koteshwar (Uttranachal) (THDC)	400	Hydro	35 Years	Inter-state
37	Rampur Hydel (SJVNL)	410.22	Hydro	35 Years	Inter-state
38	NJPC (SJVNL)	1500	Hydro	35 Years	Inter-state
39	Tala Hydro	1020	Hydro	35 Years	Inter-state
40	Narora Atomic Power Station (NAPS)	440	Nuclear	15 Years	Inter-state
41	RAPP stage-3 & 4	440	Nuclear	15 Years	Inter-state
42	RAPP 5 & 6	440	Nuclear	15 Years	Inter-state
43	Kameng HEP - NEEPCO Unit - I & II	600	Hydro	5 Years	Inter-state
44	MundraUMPP (Gujarat) (CGPL)	4000	Thermal	25 Years	Inter-state
45	Adani-Case-1 bidding (IPP) (Gujarat)	1980	Thermal	25Years	Inter-state
46	LancoAmarkantak/ PTC	600	Thermal	25 Years	Inter-state
47	Sasan Power Ltd.of Reliance in Madhya Pradesh	3960	Thermal	25 Years	Inter-state
48	PTCGMR Thermal	1050	Thermal	25 Years	Inter-state
49	KarchamWangtoo (Hydro) (PTC)	1000	Hydro	35 Years	Inter-state
50	Baglihar (PTCJ&K)	450	Hydro	12 Years	Inter-state
51	Chuzachain HEP Sikkim	110	Hydro	35 Years	Inter-state
52	Solar through SECI	80	Solar	25 Years	Inter-state
53	Wind Power from 2nd phase of	1000	Wind	25 Years	Inter-state

S.No	Name of Generation Station	Capacity MW	Type of Station	Type of Contract	Type of Grid
	1000 MW ISTS Wind Projects				
54	Wind Power from 3rd phase of 2000 MW (T-III) ISTS Wind Projects from SECI	2000	Wind	25 Years	Inter-state
55	Baglihar HEP Stage-I	100	Hydro	10 Years	Inter-state
56	Solar Power through competitive bidding from SECI under 2000MWISTS scheme	2000	Solar	25 Years	Inter-state
57	Hybrid Power through competitive bidding from SECI (Solar Component)	75	Solar	25 Years	Inter-state
58	Solar Power through competitive bidding by HPPC (Total 241 MW: 240 + 1 MW) AvaadaRJHN	112.5	Solar	25 Years	Inter-state
59	Hybrid Power through competitive bidding from SECI (wind Component)	25	Solar	25 Years	Inter-state
60	Wind Power from 2nd phase of 1000 MW ISTS Wind Projects	1000	Wind	25 Years	Inter-state



4.3 Unit wise Performance

The UHBVN Discom have total 10 circles, 30 division & there are following category in which the energy consumption is divided Residential, agriculture, Commercial & others. The performance of all the division is shown in below table:

Sr No	Name of Circle	Division	Consumer category	Total Number of connections (Nos)	Total Connected Load (MW)	Input energy (MU)	Total energy	T&D loss (MU)	T&Dloss (%)	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	AT& C loss (%)
1	Panchkula	Pinjore	Residential	0	0	426.52	90.87	168.17	39%	37.09	46.49	125.35%	
			Agricultural	0	0		55.68			34.48	34.32	99.53%	
			Commercial/Industrial-LT	0	0		37.81			28.20	30.47	108.02%	
			Commercial/Industrial-HT	0	0		42.71			35.35	33.52	94.80%	
			Others	0	0		31.28			25.27	24.73	97.84%	
	Sub-total			**0**	**0.00**	**426.52**	**258.35**	**168.17**	**39%**	**160.40**	**169.52**	**105.68%**	**36%**
2	Panchkula	Panchkula	Residential	153054	488	613.55	319.59	-70.42	-11%	167.72	179.04	106.75%	
			Agricultural	5283	69		32.19			31.33	31.05	99.09%	
			Commercial/Industrial-LT	2077	53		84.53			71.01	75.62	106.49%	
			Commercial/Industrial-HT	401	89		114.92			103.20	106.82	103.51%	
			Others	18299	230		132.75			97.85	101.15	103.37%	
-	**Sub-total**			**179114**	**928.00**	**613.55**	**683.97**	**-70.42**	**-11%**	**471.12**	**493.68**	**104.79%**	**-17%**
3	Ambala	A/Cantt.	Residential	117431	223	906.58	298.90	34.92	4%	135.49	152.01	112.20%	
			Agricultural	11007	150		180.98			143.56	141.23	98.37%	
			Commercial/Indu	2035	34		98.75			70.96	75.90	106.97%	

Sr No	Name of Circle	Division	Consumer category	Total Number of connections (Nos)	Total Connected Load (MW)	Input energy (MU)	Total energy	T&D loss (MU)	T&Dloss (%)	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	AT& C loss (%)
			strial-LT										
			Commercial/Industrial-HT	207	60		165.46			123.01	110.42	89.77%	
			Others	24297	94		127.58			85.20	80.57	94.57%	
	Sub-total			**154977**	**562.65**	**906.58**	**871.67**	**34.92**	**4%**	**558.22**	**560.14**	**100.34%**	**4%**
4	Ambala	A/city	Residential	87390	200	496.39	229.44	42.97	9%	111.48	126.67	113.63%	
			Agricultural	5684	71		57.53			56.44	56.17	99.53%	
			Commercial/Industrial-LT	1775	32		77.37			58.50	61.58	105.26%	
			Commercial/Industrial-HT	117	25		56.68			46.30	46.52	100.47%	
			Others	22770	77		32.40			28.31	26.94	95.17%	
	Sub-total			**117736**	**404.36**	**496.39**	**453.42**	**42.97**	**9%**	**301.02**	**317.88**	**105.60%**	**4%**
5	Ambala	Naraingarh	Residential	58996	83	377.34	102.87	47.49	13%	41.10	40.80	99.27%	
			Agricultural	10898	122		143.74			132.51	131.00	98.86%	
			Commercial/Industrial-LT	844	14		26.25			23.80	22.64	95.13%	
			Commercial/Industrial-HT	110	19		33.47			27.14	29.96	110.39%	
			Others	8455	26		23.52			17.45	14.10	80.80%	
	Sub-total			**79303**	**263.92**	**377.34**	**329.84**	**47.49**	**13%**	**242.01**	**238.50**	**98.55%**	**14%**
6	Y. Nagar	Y. Nagar	Residential	142929	193	1018.26	296.53	141.37	14%	142.81	147.90	103.56%	
			Agricultural	16663	148		156.98			133.67	132.76	99.32%	
			Commercial/Industrial-LT	2555	57		91.69			71.01	66.18	93.21%	
			Commercial/Indu	431	139		300.18			241.02	240.67	99.85%	

Sr No	Name of Circle	Division	Consumer category	Total Number of connections (Nos)	Total Connected Load (MW)	Input energy (MU)	Total energy	T&D loss (MU)	T&Dloss (%)	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	AT& C loss (%)
			strial-HT										
			Others	27116	85		31.50			26.40	24.55	93.01%	
	Sub-total			**189694**	**622.51**	**1018.26**	**876.89**	**141.37**	**14%**	**614.91**	**612.06**	**99.54%**	**14%**
7	Y. Nagar	Jagadhri	Residential	101860	135	650.92	221.63	0.02	0%	109.36	102.28	93.53%	
			Agricultural	8791	58		102.78			88.18	87.44	99.16%	
			Commercial/Industrial-LT	3695	83		78.29			76.26	79.30	103.99%	
			Commercial/Industrial-HT	550	125		209.05			159.76	161.88	101.33%	
			Others	16158	44		39.15			32.58	31.66	97.18%	
	Sub-total			**131054**	**445.03**	**650.92**	**650.90**	**0.02**	**0%**	**466.14**	**462.56**	**99.23%**	**1%**
8	Y. Nagar	Bilaspur	Residential	53017	50	341.66	66.05	157.73	46%	29.80	36.02	120.87%	
			Agricultural	10951	111		67.81			81.14	79.98	98.56%	
			Commercial/Industrial-LT	769	12		16.78			11.24	7.71	68.54%	
			Commercial/Industrial-HT	109	27		20.97			18.31	19.52	106.64%	
			Others	6621	17		12.31			9.52	8.68	91.22%	
	Sub-total			**71467**	**216.27**	**341.66**	**183.92**	**157.73**	**46%**	**150.01**	**151.91**	**101.26%**	**45%**
9	Kurukshetra	Kurukshetra	Residential	103376	229	752.15	263.06	110.91	15%	109.64	142.94	130.38%	
			Agricultural	14204	222		178.11			160.86	158.84	98.74%	
			Commercial/Industrial-LT	1184	19		83.85			30.99	43.73	141.10%	
			Commercial/Industrial-HT	161	34		64.65			69.22	55.42	80.06%	
			Others	21082	78		51.58			45.74	30.62	66.93%	

Sr No	Name of Circle	Division	Consumer category	Total Number of connections (Nos)	Total Connected Load (MW)	Input energy (MU)	Total energy	T&D loss (MU)	T&Dloss (%)	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	AT& C loss (%)
	Sub-total			**140007**	**581.41**	**752.15**	**641.24**	**110.91**	**15%**	**416.45**	**431.55**	**103.62%**	**12%**
10	Kurukshetra	Pehowa	Residential	59989	88	530.54	134.66	99.97	19%	61.01	64.06	105.01%	
			Agricultural	15451	215		211.02			173.29	172.92	99.79%	
			Commercial/Industrial-LT	662	12		29.50			20.78	20.71	99.65%	
			Commercial/Industrial-HT	112	26		42.89			37.09	37.86	102.09%	
			Others	8488	22		12.51			10.78	11.50	106.63%	
	Sub-total			**84702**	**363.04**	**530.54**	**430.57**	**99.97**	**19%**	**302.94**	**307.05**	**101.35%**	**18%**
11	Kurukshetra	Shahabad	Residential	57077	82	460.23	122.18	75.42	16%	54.67	56.74	103.80%	
			Agricultural	12194	187		190.36			154.66	154.83	100.11%	
			Commercial/Industrial-LT	668	11		34.82			21.46	21.67	100.94%	
			Commercial/Industrial-HT	104	17		22.71			27.54	27.02	98.11%	
			Others	9162	26		14.74			11.09	10.71	96.58%	
	Sub-total			**79205**	**323.29**	**460.23**	**384.81**	**75.42**	**16%**	**269.42**	**270.96**	**100.57%**	**16%**
12	Kaithal	Kaithal	Residential	103974	169	751.48	221.99	125.04	17%	103.32	104.33	100.98%	
			Agricultural	17691	258		238.54			222.67	223.08	100.19%	
			Commercial/Industrial-LT	1449	22		60.24			42.55	43.90	103.18%	
			Commercial/Industrial-HT	159	43		85.10			74.88	71.28	95.19%	
			Others	16818	46		20.58			19.17	20.05	104.57%	
	Sub-total			**140091**	**537.84**	**751.48**	**626.45**	**125.04**	**17%**	**462.59**	**462.64**	**100.01%**	**17%**
13	Kaithal	Pundri	Residential	81890	132	618.54069	161.40	102.18	17%	64.94	79.16	121.89%	

Sr No	Name of Circle	Division	Consumer category	Total Number of connections (Nos)	Total Connected Load (MW)	Input energy (MU)	Total energy	T&D loss (MU)	T&Dloss (%)	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	AT& C loss (%)
			Agricultural	23726	427	36	299.61			283.81	283.71	99.97%	
			Commercial/Industrial-LT	334	5		28.97			17.86	11.07	62.00%	
			Commercial/Industrial-HT	47	10		13.04			10.39	9.20	88.59%	
			Others	7419	23		13.35			11.79	9.20	78.04%	
	Sub-total			**113416**	**597.33**	**618.54**	**516.37**	**102.18**	**17%**	**388.79**	**392.35**	**100.92%**	**16%**
14	Kaithal	Guhla	Residential	53692	87	516.7734839	121.32	71.61	14%	54.75	54.59	99.72%	
			Agricultural	16369	257		231.52			311.44	309.17	99.27%	
			Commercial/Industrial-LT	521	8		18.42			16.06	13.54	84.29%	
			Commercial/Industrial-HT	129	34		64.53			50.10	50.93	101.67%	
			Others	5577	18		9.37			8.45	7.63	90.33%	
	Sub-total			**76288**	**404.53**	**516.77**	**445.16**	**71.61**	**14%**	**440.79**	**435.86**	**98.88%**	**15%**
15	Karnal	City, Karnal	Residential	124716	269	795.4729257	338.60	31.39	4%	166.46	167.30	100.51%	
			Agricultural	11526	99		86.19			88.24	89.15	101.03%	
			Commercial/Industrial-LT	2243	51		129.14			86.97	92.47	106.32%	
			Commercial/Industrial-HT	333	86		154.13			137.25	130.08	94.78%	
			Others	25752	128		56.03			38.80	51.10	131.71%	
	Sub-total			**164570**	**632.39**	**795.47**	**764.08**	**31.39**	**4%**	**517.72**	**530.10**	**102.39%**	**2%**
16	Karnal	Sub Urban No-I	Residential	91081	130	684.3878419	193.96	48.97	7%	79.26	83.99	105.97%	
			Agricultural	25348	233		219.08			167.80	168.46	100.40%	
			Commercial/Indu	927	14		38.34			27.21	28.85	106.01%	

Sr No	Name of Circle	Division	Consumer category	Total Number of connections (Nos)	Total Connected Load (MW)	Input energy (MU)	Total energy	T&D loss (MU)	T&Dloss (%)	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	AT& C loss (%)
			strial-LT										
			Commercial/Industrial-HT	200	79		159.92			126.95	130.58	102.86%	
			Others	11378	39		24.11			20.52	20.04	97.65%	
	Sub-total			**128934**	**495.04**	**684.39**	**635.41**	**48.97**	**7%**	**421.74**	**431.92**	**102.41%**	**5%**
17	Karnal	Sub Urban No-II	Residential	71952	100	736.5739819	149.36	42.65	6%	59.97	67.23	112.10%	
			Agricultural	18932	201		175.73			181.16	180.58	99.68%	
			Commercial/Industrial-LT	894	17		28.11			20.92	22.33	106.76%	
			Commercial/Industrial-HT	316	142		328.22			250.98	259.08	103.23%	
			Others	7558	25		12.50			11.32	11.12	98.18%	
	Sub-total			**99652**	**484.42**	**736.57**	**693.92**	**42.65**	**6%**	**524.35**	**540.33**	**103.05%**	**3%**
18	Karnal	AssandhDivn.	Residential	61784	96	525.4317477	131.55	43.81	8%	58.60	61.10	104.26%	
			Agricultural	17590	241		207.80			225.20	226.37	100.52%	
			Commercial/Industrial-LT	511	9		21.24			17.99	16.67	92.67%	
			Commercial/Industrial-HT	123	53		110.06			84.53	86.12	101.87%	
			Others	6963	22		10.96			10.19	9.82	96.34%	
	Sub-total			**86971**	**420.12**	**525.43**	**481.62**	**43.81**	**8%**	**396.51**	**400.07**	**100.90%**	**8%**
19	Panipat	Samalkha	Residential	87262	133	957.1238973	184.42	128.25	13%	78.86	87.58	111.06%	
			Agricultural	15023	122		163.66			82.68	82.64	99.95%	
			Commercial/Industrial-LT	2341	60		92.01			62.49	65.65	105.06%	
			Commercial/Indu	467	162		375.23			276.34	272.99	98.79%	

Sr No	Name of Circle	Division	Consumer category	Total Number of connections (Nos)	Total Connected Load (MW)	Input energy (MU)	Total energy	T&D loss (MU)	T&Dloss (%)	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	AT& C loss (%)
			strial-HT										
			Others	7761	27		13.56			12.16	9.48	77.99%	
	Sub-total			**112854**	**503.71**	**957.12**	**828.88**	**128.25**	**13%**	**512.53**	**518.34**	**101.13%**	**12%**
20	Panipat	S/Urban, PNP	Residential	93145	152	1420.204546	208.56	159.61	11%	77.92	100.61	129.12%	
			Agricultural	18363	139		166.31			112.26	112.59	100.29%	
			Commercial/Industrial-LT	1592	42		74.27			47.27	67.01	141.74%	
			Commercial/Industrial-HT	559	285		778.92			581.76	567.63	97.57%	
			Others	7671	43		32.53			27.27	34.01	124.74%	
	Sub-total			**121330**	**660.53**	**1420.20**	**1260.59**	**159.61**	**11%**	**846.47**	**881.84**	**104.18%**	**8%**
21	Panipat	City Panipat	Residential	82624	215	977.3674904	269.63	63.63	7%	143.38	149.87	104.52%	
			Agricultural	590	6		3.13			3.43	3.45	100.50%	
			Commercial/Industrial-LT	5106	130		184.09			129.91	136.12	104.78%	
			Commercial/Industrial-HT	596	215		431.18			351.55	373.76	106.32%	
			Others	26501	105		25.71			22.09	19.92	90.14%	
	Sub-total			**115417**	**671.08**	**977.37**	**913.74**	**63.63**	**7%**	**650.37**	**683.11**	**105.03%**	**2%**
22	Sonipat	City Sonipat	Residential	130482	240	1794.095831	322.66	141.64	8%	151.53	148.36	97.91%	
			Agricultural	5401	37		31.88			38.63	38.35	99.27%	
			Commercial/Industrial-LT	3567	97		152.04			118.57	123.50	104.16%	
			Commercial/Industrial-HT	1489	623		1081.68			860.99	890.44	103.42%	
			Others	18481	97		64.20			46.18	51.14	110.74%	

Sr No	Name of Circle	Division	Consumer category	Total Number of connections (Nos)	Total Connected Load (MW)	Input energy (MU)	Total energy	T&D loss (MU)	T&Dloss (%)	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	AT& C loss (%)
	Sub-total			**159420**	**1093.81**	**1794.10**	**1652.46**	**141.64**	**8%**	**1215.90**	**1251.79**	**102.95%**	**5%**
23	Sonipat	S/Urban, SNP	Residential	130474	183	1286.570194	226.83	281.23	22%	99.47	90.04	90.53%	
			Agricultural	18959	164		146.47			140.76	139.64	99.20%	
			Commercial/Industrial-LT	1975	47		107.39			73.94	71.65	96.90%	
			Commercial/Industrial-HT	722	275		494.84			402.14	412.06	102.47%	
			Others	10956	63		29.82			25.04	26.82	107.11%	
	Sub-total			**163086**	**732.32**	**1286.57**	**1005.34**	**281.23**	**22%**	**741.35**	**740.21**	**99.85%**	**22%**
24	Sonipat	Gohana	Residential	86762	106	467.1643045	148.46	145.56	31%	63.89	63.72	99.73%	
			Agricultural	12022	89		69.22			73.44	73.54	100.13%	
			Commercial/Industrial-LT	441	7		24.43			60.10	60.49	100.66%	
			Commercial/Industrial-HT	58	18		65.08			10.78	11.19	103.80%	
			Others	7958	39		14.42			18.00	17.47	97.02%	
	Sub-total			**107241**	**257.69**	**467.16**	**321.61**	**145.56**	**31%**	**226.21**	**226.40**	**100.09%**	**31%**
25	Rohtak	SU-I Rohtak	Residential	101855	116	551.2451246	181.45	183.46	33%	80.13	60.32	75.28%	
			Agricultural	3978	21		23.11			11.16	11.23	100.60%	
			Commercial/Industrial-LT	565	9		41.32			28.28	18.78	66.41%	
			Commercial/Industrial-HT	80	28		65.26			45.43	45.49	100.12%	
			Others	8131	30		56.65			34.34	48.38	140.90%	
	Sub-total			**114609**	**203.58**	**551.25**	**367.78**	**183.46**	**33%**	**199.35**	**184.20**	**92.40%**	**38%**
26	Rohtak	City	Residential	110515	285	880.15156	328.90	98.14	11%	155.96	166.37	106.67%	

Sr No	Name of Circle	Division	Consumer category	Total Number of connections (Nos)	Total Connected Load (MW)	Input energy (MU)	Total energy	T&D loss (MU)	T&Dloss (%)	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	AT& C loss (%)
		Rohtak	Agricultural	30	0	48	0.16			0.17	0.17	97.96%	
			Commercial/Industrial-LT	2463	53		160.78			111.90	129.78	115.98%	
			Commercial/Industrial-HT	184	108		253.12			229.35	196.02	85.47%	
			Others	27484	128		39.05			43.98	35.57	80.88%	
	Sub-total			**140676**	**573.65**	**880.15**	**782.01**	**98.14**	**11%**	**541.37**	**527.91**	**97.51%**	**13%**
27	Rohtak	SU-II Rohtak	Residential	76691	76	589.1010274	105.04	208.66	35%	56.96	44.32	77.81%	
			Agricultural	3302	25		15.48			9.42	9.47	100.48%	
			Commercial/Industrial-LT	470	15		23.16			16.49	14.48	87.84%	
			Commercial/Industrial-HT	226	102		224.01			162.65	165.89	101.99%	
			Others	3602	18		12.74			12.62	14.46	114.61%	
	Sub-total			**84291**	**236.96**	**589.10**	**380.44**	**208.66**	**35%**	**258.14**	**248.62**	**96.31%**	**38%**
28	Jhajjar	Jhajjar	Residential	74109	97	408.7287329	130.79	121.93	30%	49.20	56.35	114.53%	
			Agricultural	5972	31		31.90			43.36	42.81	98.72%	
			Commercial/Industrial-LT	240	4		39.32			23.46	20.57	87.70%	
			Commercial/Industrial-HT	81	35		71.21			64.81	63.72	98.31%	
			Others	7920	68		13.59			14.28	14.36	100.56%	
	Sub-total			**88322**	**234.37**	**408.73**	**286.80**	**121.93**	**30%**	**195.12**	**197.81**	**101.38%**	**29%**
29	Jhajjar	Bahadurgarh	Residential	92945	154	1175.504672	197.74	213.08	18%	86.87	93.02	107.08%	
			Agricultural	919	5		2.65			2.80	2.81	100.20%	
			Commercial/Indu	3422	107		92.05			68.75	72.27	105.12%	

Sr No	Name of Circle	Division	Consumer category	Total Number of connections (Nos)	Total Connected Load (MW)	Input energy (MU)	Total energy	T&D loss (MU)	T&Dloss (%)	Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	AT& C loss (%)
			strial-LT										
			Commercial/Industrial-HT	1108	373		628.98			472.70	485.51	102.71%	
			Others	10906	59		41.02			32.99	27.06	82.00%	
	Sub-total			**109300**	**697.91**	**1175.50**	**962.43**	**213.08**	**18%**	**664.11**	**680.65**	**102.49%**	**16%**
30	Jhajjar	Beri	Residential	59339	87	448.6631464	100.64	73.02	16%	43.76	40.77	93.17%	
			Agricultural	5465	26		38.70			25.77	25.59	99.33%	
			Commercial/Industrial-LT	179	2		16.20			13.24	9.62	72.65%	
			Commercial/Industrial-HT	32	48		174.33			117.99	121.55	103.02%	
			Others	3631	34		45.78			37.22	42.58	114.41%	
	Sub-total			**68646**	**196.82**	**448.66**	**375.65**	**73.02**	**16%**	**237.96**	**240.12**	**100.91%**	**16%**
	Total												
			Residential	**2650411**	**4596.52**	**22158.705**	**5869.06**	**3092.40**	**13.96%**	**2675.39**	**2813.97**	**105.18%**	
			Agricultural	**332332**	**3733.06**		**3528.29**			**3214.34**	**3203.33**	**99.66%**	
			Commercial/Industrial-LT	**45504**	**1025.62**		**1991.17**			**1468.17**	**1524.26**	**103.82%**	
			Commercial/Industrial-HT	**9211**	**3280.65**		**6632.51**			**5199.51**	**5213.11**	**100.26%**	
			Others	**384915**	**1708.72**		**1045.27**			**836.59**	**835.40**	**99.86%**	
	At company level			**3422373**	**14344.56**	**22158.70**	**19066.31**	**3092.40**	**13.96%**	**13394.01**	**13590.07**	**101.46%**	**12.70**

4.4 Energy Conservation measures already taken & proposed for Future

➢ Energy Conservation measures already taken

UHBVN has done various energy conservation measures to reduce the energy consumption in FY 2021-22. Some of them are mentioned below:

1. Replacement of the old inefficient ACs with energy efficient AC's
2. Replacement of non-conventional light with energy efficient light (LED's

DSM Program	FY	Quantity (Nos)	Load reduction (MW)	Energy Saving (MU)	CO2 reduction (Ton)
AC Replacement Program	2021-22	1659	1.194	1.29	1264.24

Apart from the above-mentioned Demand Side Management related measures, some critical initiatives adopted for technical loss reduction are mentioned below:

1. Thermo-scanning of assets for hotspot detection to perform conditional-based monitoring for sustainable energy conservation to ensure efficiency and effectiveness of equipment and systems.
2. Using Wedge connectors for Jumpers to prevent degradation and achieves significantly lower resistance values to reduce heating losses.
3. Implementation of HVDS (High Voltage Distribution System) for distribution of electricity. High voltage distribution system has been envisaged for all existing tube well connections with the objective of mitigating the problem of length and loss-ridden LT lines.
4. Replacement of bare conductor with armoured cable in Rural area in MGJG scheme.
5. Replacement of 2 core X 6 sq. mm service cable with 2 core X 10/25 sq. mm cable.
6. Replacement of old inefficient tube well motor with energy efficient motors.
7. Replacement of inefficient T/F with Star Level 2 rating efficient T/Fs.
8. Replacement of bare conductor with Aerial Bunched Cables (ABC).
9. System Augmentation and Strengthening works like bifurcation of feeders and creation of new and augmentation of existing substations.
10. Replacement of static electronic meters with digital smart meters at the consumers.

➢ Energy Conservation proposed for Future

UHBVN has various energy conservation measures to reduce the energy consumption in FY 2022-23. Some of them are mentioned below:

RDSS is aimed to improve the Operational Efficiencies and Financial Sustainability, by providing financial assistance to DISCOM for strengthening the electrical / Distribution infrastructure, measures for loss reduction and using modern IT /OT techniques for modernisation of distribution system. The major milestones envisaged are:

1. Reduction of AT&C losses to pan-India levels of 12-15% by 2024-25.
2. Reduction of ACS-ARR gap to zero by 2024-25.
3. Developing Institutional Capabilities for Modern DISCOMs
4. Improvement in the quality, reliability, and affordability of power supply to consumers through a financially sustainable and operationally efficient Distribution Sector.
5. The RDSS will have an outlay of Rs.3,03,758 Crore with an estimated Government Budgetary Support (GBS) from Central Government of Rs.97,631 Crore.

4.5 Critical Analysis

I. Discom Parameter for evaluation of performance

- Ideally, reduction of technical losses should be the parameter for evaluation of performance of Discoms sector.
- However, the technical losses of the discoms are notavailable and also 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.

Transmission & Distribution losses (T&D losses)

T& D Losses = {1- (Total energy Billed/ Total energy Input in the system)} x 100

Aggregate technical and commercial losses (AT&C losses)

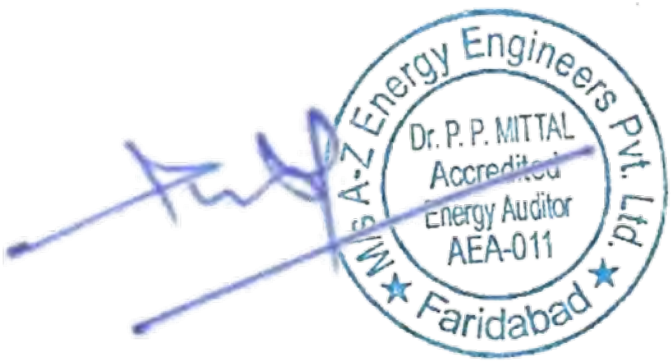
AT&C Losses = {1- (Billing Efficiency x Collection Efficiency)} x 100

Where,

Billing efficiency= Total unit Billed/ Total unit Inputs

Collection efficiency = Revenue collected / Amount Billed

The overall averaged T & D Losses & AT & C Losses of the UHBVN Discom, Panchkula is 13.96% & 12.70%.



4.6 Inclusion & Exclusions

UHBVN inclusion in FY 2021-22 addition of one circle i.e Panchkula and there is two division i.e Pinjore & Panchkula.

4.7 Detailed Formats to be annexed

- 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 DISCOM 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.
- Generation via solar, DG and any other source and share of energy consumption.
- 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.

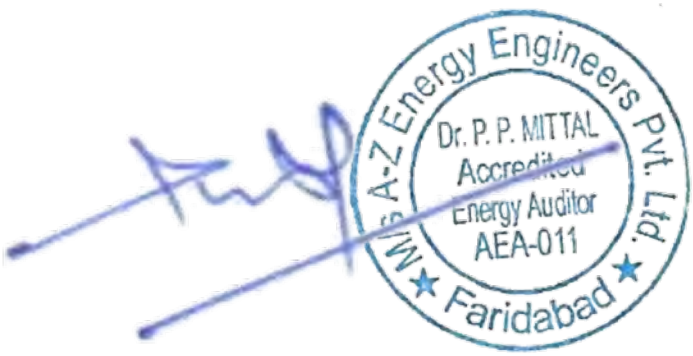
V. Note of the EA/EM along with queries & replies to data gaps

DC has T&D losses 13.96% which is slightly higher. AT & C losses 12.70% which is slightly higher side for DISCOM sector. Various schemes have been implemented by DC to reduce losses which are shown in annual report and attached in the annexure of report.

DC is having the internal report, True up Petition which is provided for verification. Also supporting documents for the same has been provided which is attached in annexure of report.

1. There is the gap between Division & Feeder wise net Input energy i.e 22158.70

Division	Feeder wise	Gap
22158.70	22239.95	-81.25



VI. Annexures

I. Introduction to 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 1260 nos. projects, including 52 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. Dr. P.P. Mittal, also received the "Energy Engineer" of South-East Asia Sub-continent award 2016 & 2018 at Washington DC & Charlotte USA respectively. Haryana Govt. also recognized the services of Dr. P.P. Mittal, Ph.D, MBA, Post Graduate Diploma in Power Districution, Chartered Engineer, Leed Auditor - Indian Green Building Council Hyderabad, Accrediated Energy Auditor (AEA-011).

Accolades

- Stand first in MSME Micro Services Award 2013 and award received from **Hon;ble Prime Minister of India on 18/10/2016 at Ludhaiana.** This award consist Trophy, Certifiate & cash prize of Rs. 3 lacs.
- Reveived prestigious "**Legend in Energy**" Award for Asian Sub-contitnet from AEE, Atlanta at Wahington, DC on 20/09/2016.
- Received Award from AEE Atlanta at Washington citing as "Energy Engineer–2016 & 2018" of South-East Aisa sub-continent
- Received Letter of appreciateion from **Chief Minister of Haryana**
- Winner Haryana State Energy Conservation Award 2012 with Certificate & Rs. 50,000/-
- National Energy Conservation Award 2013
- National Energy Conservation Award 2015
- National Energy Conservation Award 2016
- Appreciation from Sh. Kalraj Misra, Hon'ble Minister of State for MSME.
- Recevied Appreciation from Sh. Haribahi Parathibhai Chaudhary, Minister of State for MSME, Govt. of India

- Recevied Appreciation from Sh. K.K. Jalan, IAS Seecretary, MSME
- Received appcreciation from Sh. Devender Singh, IAS, Secretary Power, Haryana
- Recevied Appreciation from Institute of Engineers on Energy Day
- Received Appreciation from HAREDA, Chandigarh

Received feedback & appreciation from 400 units including CERC, UNDP & CAG

II. Name of the Firm

Name of Accredited Firm	Accredited Energy Auditor
A-Z Energy Engineers Pvt. Ltd. Darya Ganj New Delhi-110002	Dr. P P Mittal :– AEA 0011 Registration Number:– EmAEA-0024

III. Composition of Team

Sr. No.	Name	Qualification	EM/EA/AEA/EmAEA Registration No	Experience (In Years)/ Sector
Team Head				
1	Dr. P.P Mittal	Ph.D, MBA	AEA-011	+45 Years
Sector Expert				
2	Mr.Vipon Chanda	DISCOM Sector	-	30
Team Members				
3	Mr. V.P Sharma	B. Tech	EA- 10061	32 Years
4	Mr. Alok Kumar Tiwari	Team Member	EM-300137	6 Years
5	Mr. Pankaj Chauhan	Team Member	-	8 Years

IV. Registration No.

EmAEA – 0024

V. Undertaking from EmAEA

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 UHBVN Panchkula (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.

For A-Z Energy Engineers Private Limited

Director

Authorised Signatory

(Dr. P.P. MITTAL)

Director

II. Minutes of Meeting with the Discom Firm.

Minutes of Meeting with Uttar Haryana BijliVitran Nigam Limited., Haryana & A-Z Energy Engineers Pvt. Ltd., New Delhi

Uttar Haryana Bijli Vitran Nigam Limited A-Z Energy Engineers Pvt. Ltd.

AZ Energy Engineers audit team visited the site on 10thAugust&11thAug2022 and conduct the energy audit accounting with reference to the Uttar Haryana Bijli Vitran Nigam Ltd (UHBVNL) work order dated 13th June 2022 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 2021-22was available with UHBVNL, Haryana. Audit team verified the filled in proforma.
- Client has provided the following documents for purchase power, Input/Billed energy, No. of consumers, Nos. of DT's Nos. of Circle i.e. Internal Departmental Report, &Fact sheet.
- Verified T&D losses, AT&C losses & Collection Efficiency is 13.96 %, 12.70% &101.46% respectively based on the filled in proforma and verified source documents.
- Client has provided the category wise consumers billed energy.
- Client has provided the feeder wise billed energy, export energy, T & D Losses & AT& C losses.

Uttar Haryana Bijli Vitran Nigam Limited

For A-Z Energy Engineers Private Limited

Director

A-Z Energy Engineers Pvt. Ltd.

XEN/Energy Audit
UHBVN, Panchkula

III. Check List prepared by EmAEA

List of documents required are:

- 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.
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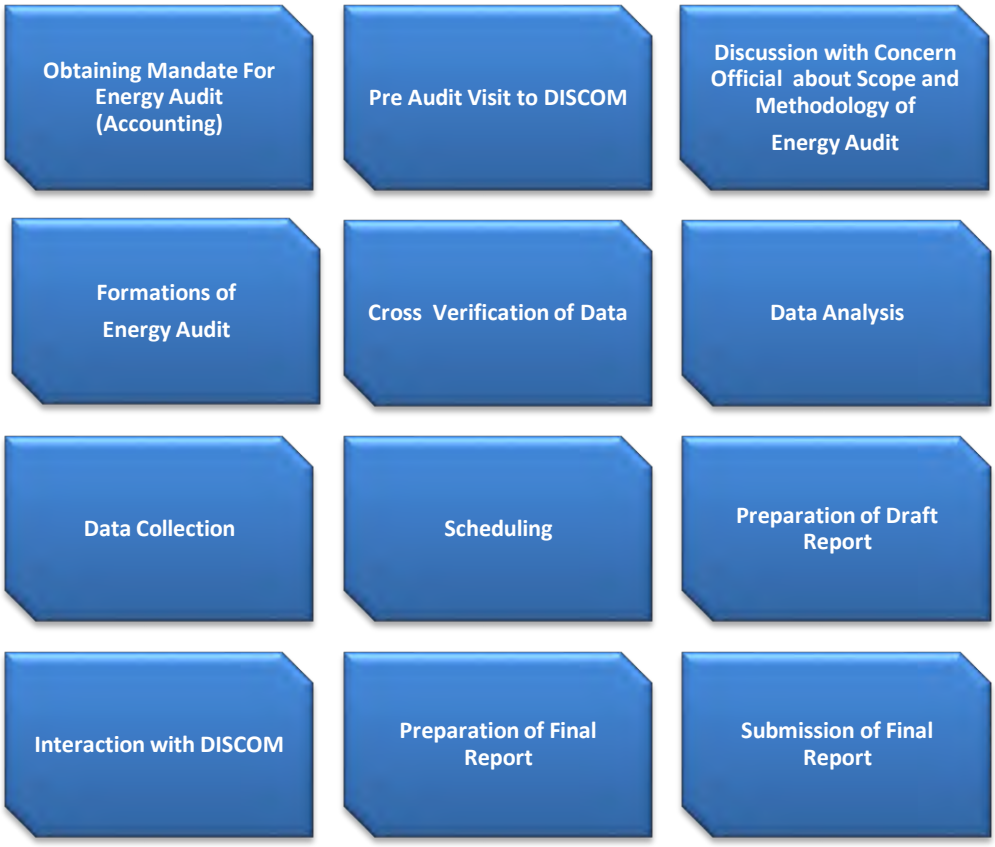
- Net Input Energy Computation Details.
- Category wise consumer's details.
- Category wise consumers connected load and % load
- Bifurcation of Billed Energy (metered billed energy and unmetered billed energy).
- Disconnected consumers details
- Loss Analysis report
- Write up on procedure followed Technical loss analysis.

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



V. Infrastructure Details

1	Parameters	Total	Covered during in audit	Verified by Auditor in Sample Check	Remarks (Source of data)
i	Number of circles	10	10		
ii	Number of divisions	30	30		
iii	Number of sub-divisions	119	119		
iv	Number of feeders	6014	6014		
v	Number of DTs	316150	316150		
vi	Number of consumers	3422373	3422373		
2	**Parameters**	**66kV and above**	**33kV**	**11/22kV**	**LT**
a. i.	Number of conventional metered consumers				3256889
ii	Number of consumers with 'smart' meters				19202
iii	Number of consumers with 'smart prepaid' meters				114
iv	Number of consumers with 'AMR' meters			10373	
v	Number of consumers with 'non-smart prepaid' meters				
vi	Number of unmetered consumers	135795			
vii	**Number of total consumers**	135795	0	10373	3276205
b.i.	Number of conventionally metered Distribution Transformers			12767	
ii	Number of DTs with communicable meters			1787	
iii	Number of unmetered DTs			301596	
iv	**Number of total Transformers**			316150	
c.i.	Number of metered feeders	12	36	5966	

ii	Number of feeders with communicable meters	12	36	5966	
iii	Number of unmetered feeders				
iv	**Number of total feeders**	12	36	5966	
d.	Line length (ct km)	121349			
e.	Length of Aerial Bunched Cables				
f.	Length of Underground Cables				
3	**Voltage level**	**Particulars**	**MU**	**Reference**	**Remarks (Source of data)**
i	66kV and above	Long-Term Conventional	15,089	Includes input energy for franchisees	
		Medium Conventional	533.7102705		
		Short Term Conventional	3399.028235		
		Banking	618.6577545		
		Long-Term Renewable energy	654.0048582		
		Medium and Short-Term RE		Includes power from bilateral/ PX/ DEEP	
		Captive, open access input	41	Any power wheeled for any purchase other than sale to DISCOM. Does not include input for franchisee.	
		Sale of surplus power	-682.99		
		Quantum of inter-state transmission loss		As confirmed by SLDC, RLDCetc	
		Power procured	19,653	Based on data from	

		from inter-state sources		Form 5	
		Power at state transmission boundary	19,653		
ii	33kV	Long-Term Conventional	3,127		33 KV & Above
		Medium Conventional			
		Short Term Conventional			
		Banking			
		Long-Term Renewable energy	288		
		Medium and Short-Term RE			
		Captive, open access input	59		
		Sale of surplus power			
		Quantum of intra-state transmission loss	0		
		Power procured from intra-state sources	3,473		
iii		**Input in DISCOM wires network**	23,126		
iv	33 kV	Renewable Energy Procurement			
		Small capacity conventional/			

		biomass/ hydro plants Procurement			
		Captive, open access input			
v	11 kV	Renewable Energy Procurement			
		Small capacity conventional/ biomass/ hydro plants Procurement			
		Sales Migration Input			
vi	LT	Renewable Energy Procurement			
		Sales Migration Input			
vii		**Energy Embedded within DISCOM wires network**	0		
viii		**Total Energy Available/ Input**	23,126		
4	**Voltage level**	**Energy Sales Particulars**	**MU**	**Reference**	
i	LT Level	DISCOM' consumers		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	0		
		Quantum of LT level losses	0		
		Energy Input at LT level			
ii	11 kV Level	DISCOM' consumers	18,107	Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive	37	Non DISCOM's sales	
		Embedded generation at 11 kV level used		Demand from embedded generation at 11kV level	
		Sales at 11 kV level	18,145		
		Quantum of Losses at 11 kV	3,092		
		Energy input at 11 kV level	21,237		
iii	33 kV Level	DISCOM' consumers	650	Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive	21	Non DISCOM's sales	
		Embedded generation at 33 kV or below level		This is DISCOM and OA demand met via energy generated at same	

				voltage level	
		Sales at 33 kV level	672		
		Quantum of Losses at 33 kV	0		
		Energy input at 33kV Level	672		
iv	> 33 kV	DISCOM' consumers	208	Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive	41	Non DISCOM's sales	
		Cross border sale of energy			
		Sale to other DISCOMs			
		Banking			
		Energy input at >33kV Level	250		
		Sales at 66kV and above (EHV)	250		
			Total Energy Requirement	**22,159**	
			Total Energy Sales	**19,066**	

Energy Accounting Summary

5	DISCOM	Input (in MU)	Sale (in MU)	Loss (in MU)	Loss %
i	LT				
ii	11 Kv	21,237	18,145	3092.398996	14.56126208
iii	33 kv	672	672	0	0

iv	> 33 kv	250	250	0	0
6	**Open Access, Captive**	**Input (in MU)**	**Sale (in MU)**	**Loss (in MU)**	
i	LT				
ii	11 Kv				
iii	33 kv	58.62543829	58.62543829		11 KV & Above
iv	> 33 kv	41.490119	41.490119		

Loss Estimation for DISCOM	
T&D loss	3,092
D loss	3,092
T&D loss (%)	13.96%
D loss (%)	13.96%

VI. Power Purchase details

UHBVN, Panchkula purchase the power from the HPPC (Haryana Power Purchase Center) Month wise Purchase Power for FY 2021-22 units are shown in below table:

Sr. No	Months	Total Gross Unit Purchased (MUs)
1	Apr-21	1699.441
2	May-21	1726.63
3	Jun-21	2521.325
4	Jul-21	2900.364
5	Aug-21	2861.952
6	Sep-21	2105.602
7	Oct-21	1948.285
8	Nov-21	1470.177
9	Dec-21	1634.622
10	Jan-22	1528.536
11	Feb-22	1343.29
12	Mar-22	1968.746
	Total	**23708.97**

VII. Category of service details

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

Type of Consumers	No of Consumers	Total Consumption (In MU)
Domestic	2650411	5805.43
Commercial	372223	519.03
IP Sets	332332	3527.44
Water Supply	9627	618.43
Public Lighting	2316	69.44
HT Industrial	9211	6251.89
Industrial (Small)	45504	1899.21
Lift Irrigation Schemes/Lift Irrigation Societies	224	47.74
Others-1 (if any , specify in remarks)	525	327.71

VIII. Annual Energy Audit Pro-forma

General Information					
1	**Name of the DISCOM**	UHBVN			
2	**i) Year of Establishment**	1999			
	ii) Government/Public/Private	Government			
3	**DISCOM's Contact details & Address**				
i	City/Town/Village	Panchkula			
ii	District	Panchkula			
iii	State	Haryana	Pin	134109	
iv	Telephone	0172-2584350	Fax	0172-2584350	
4	**Registered Office**				
i	Company's Chief Executive Name	Sh. Saket Kumar			
ii	Designation	MD			
iii	Address	C-16, Vidyut Sadan, Sec-6			
iv	City/Town/Village	Panchkula	P.O.	Panchkula	
v	District	Panchkula			
vi	State	Haryana	Pin	134109	
vii	Telephone	0172-2572535	Fax	0172-2572535	
5	**Nodal Officer Details***				
i	Nodal Officer Name (Designated at DISCOM's)	SH. B. S. Ranga			
ii	Designation	Chief Engineer Commerical			
iii	Address	R. No. 205 1st floor Shakti Bhawan Sec. 6 PKL			
iv	City/Town/Village	Panchkula	P.O.	Panchkula	
v	District	Panchkula			
vi	State	Haryana	Pin	134109	
vii	Telephone	0172-2583722	Fax	-	
6	**Energy Manager Details***				
i	Name	Sh. Anish Kumar			
ii	Designation	XEN	Whether EA or EM	EA	
iii	EA/EM Registration No.	EA12150			
iv	Telephone	0172-2584350	Fax		
v	Mobile	8591212228	E-mail ID	seenergyaudit@uhbvn.org.in	
7	**Period of Information**				
	Year of (FY) information including Date and Month (Start & End)	1st Apr, 2021 - 31st March, 2022			

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Performance Summary of Electricity Distribution Companies			
1	Period of Information Year of (FY) information including Date and Month (Start & End)	1st Apr, 2021 - 31st March, 2022	
2	**Technical Details**		
(a)	**Energy Input Details**		
(i)	Input Energy Purchase (From Generation Source)	Million kwh	23708.97
(ii)	Net input energy (at DISCOM Periphery after adjusting the transmission losses and energy traded)	Million kwh	22158.70
(iii)	Total Energy billed (is the Net energy billed, adjusted for energy traded))	Million kwh	19066.31
(b)	Transmission and Distribution (T&D) loss Details	Million kwh	3092.40
		%	13.96%
	Collection Efficiency	%	101%
(c)	Aggregate Technical & Commercial Loss	%	12.70%

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

Signature:-
Name of Energy Manager*:
Registration Number:

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

Seal

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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	10			
ii	Number of divisions	30			
iii	Number of sub-divisions	119			
iv	Number of feeders	6014			
v	Number of DTs	316150			
vi	Number of consumers	3422373			
2	**Parameters**	**66kV and above**	**33kV**	**11/22kV**	**LT**
a. i.	Number of conventional metered consumers				3256889
ii	Number of consumers with 'smart' meters				19202
iii	Number of consumers with 'smart prepaid' meters				114
iv	Number of consumers with 'AMR' meters			10373	
v	Number of consumers with 'non-smart prepaid' meters				
vi	Number of unmetered consumers	135795			
vii	**Number of total consumers**	135795	0	10373	3276205
b.i.	Number of conventionally metered Distribution Transformers			12767	
ii	Number of DTs with communicable meters			1787	
iii	Number of unmetered DTs			301596	
iv	**Number of total Transformers**			316150	
c.i.	Number of metered feeders	12	36	5966	
ii	Number of feeders with communicable meters	12	36	5966	
iii	Number of unmetered feeders				
iv	**Number of total feeders**	12	36	5966	
d.	Line length (ct km)		121349		
e.	Length of Aerial Bunched Cables				
f.	Length of Underground Cables				

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3	Voltage level	Particulars	MU	Reference	Remarks (Source of data)
i	66kV and above	Long-Term Conventional	15,089	Includes input energy for franchisees	
		Medium Conventional	533.7102705		
		Short Term Conventional	3399.028235		
		Banking	618.6577545		
		Long-Term Renewable energy	654.0048582		
		Medium and Short-Term RE		Includes power from bilateral/ PX/ DEEP	
		Captive, open access input	41	Any power wheeled for any purchase other than sale to DISCOM. Does not include input for franchisee.	
		Sale of surplus power	-682.99		
		Quantum of inter-state transmission loss		As confirmed by SLDC, RLDC etc	
		Power procured from inter-state sources	19,653	Based on data from Form 5	
		Power at state transmission boundary	19,653		
ii	33kV	Long-Term Conventional	3,127		33 KV & Above
		Medium Conventional			
		Short Term Conventional			
		Banking			
		Long-Term Renewable energy	288		
		Medium and Short-Term RE			
		Captive, open access input	59		
		Sale of surplus power			
		Quantum of intra-state transmission loss	0		
		Power procured from intra-state sources	3,473		
iii		**Input in DISCOM wires network**	23,126		
iv	33 kV	Renewable Energy Procurement			
		Small capacity conventional/ biomass/ hydro plants Procurement			
		Captive, open access input			
v	11 kV	Renewable Energy Procurement			
		Small capacity conventional/ biomass/ hydro plants Procurement			
		Sales Migration Input			
vi	LT	Renewable Energy Procurement			
		Sales Migration Input			
vii		**Energy Embedded within DISCOM wires network**	0		
viii		**Total Energy Available/ Input**	23,126		

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4	Voltage level	Energy Sales Particulars	MU	Reference	
i	LT Level	DISCOM' consumers		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	0		
		Quantum of LT level losses	0		
		Energy Input at LT level			
ii	11 kV Level	DISCOM' consumers	18,107	Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive	37	Non DISCOM's sales	
		Embedded generation at 11 kV level used		Demand from embedded generation at 11kV level	
		Sales at 11 kV level	18,145		
		Quantum of Losses at 11 kV	3,092		
		Energy input at 11 kV level	21,237		
iii	33 kV Level	DISCOM' consumers	650	Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive	21	Non DISCOM's sales	
		Embedded generation at 33 kV or below level		This is DISCOM and OA demand met via energy generated at same voltage level	
		Sales at 33 kV level	672		
		Quantum of Losses at 33 kV	0		
		Energy input at 33kV Level	672		
iv	> 33 kV	DISCOM' consumers	208	Include sales to consumers in franchisee areas, unmetered consumers	
		Demand from open access, captive	41	Non DISCOM's sales	
		Cross border sale of energy			
		Sale to other DISCOMs			
		Banking			
		Energy input at > 33kV Level	250		
		Sales at 66kV and above (EHV)	250		
		Total Energy Requirement	**22,159**		
		Total Energy Sales	**19,066**		

Energy Accounting Summary

5	DISCOM	Input (in MU)	Sale (in MU)	Loss (in MU)	Loss %
i	LT				
ii	11 Kv	21,237	18,145	3092.398996	14.56126208
iii	33 kv	672	672	0	0
iv	> 33 kv	250	250	0	0

6	Open Access, Captive	Input (in MU)	Sale (in MU)	Loss (in MU)	
i	LT				
ii	11 Kv				
iii	33 kv	58.62543829	58.62543829		11 KV & Above
iv	> 33 kv	41.490119	41.490119		

Loss Estimation for DISCOM	
T&D loss	3,092
D loss	3,092
T&D loss (%)	13.96%
D loss (%)	13.96%

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Details of Division Wise Losses (See note below**)

Division Wise Losses

Period From....To....

S.No	Name of circle	Circle code	Name of Division	Consumer profile: 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	Energy parameters: Input energy (MU)	Billed energy (MU): Metered energy	Billed energy (MU): Unmetered/ assessment energy	Billed energy (MU): Total energy	% of energy consumption	Losses: T&D loss (MU)	Losses: T&D loss (%)	Commercial Parameter: Billed Amount in Rs. Crore	Collected Amount in Rs. Crore	Collection Efficiency	AT & C loss (%)
1	Panchkula		Pinjore	Residential			0	0%			0	0%	426.5208	90.867		90.867	35%	168.1748	39%	37.0866181	46.4864447	125.35%	
				Agricultural			0	0%			0	0%		45.835	9.843	55.678	22%			34.4833828	34.3225568	99.53%	
				Commercial/Industrial-LT			0	0%			0	0%		37.81		37.81	15%			28.2044399	30.4665256	108.02%	
				Commercial/Industrial-HT			0	0%			0	0%		42.707		42.707	17%			35.3539765	33.5171578	94.80%	
				Others			0	0%			0	0%		31.284		31.284	12%			25.272118	24.7258466	97.84%	
Sub-total					**0**	**0**	**0**	**100%**	**0**	**0**	**0**	**100%**	**426.5208**	**248.503**	**9.843**	**258.346**	**100%**	**168.1748**	**39%**	**160.400535**	**169.518531**	**105.68%**	**36%**
2	Panchkula		Panchkula	Residential	153054	0	153054	85%	487.926	0	487.926	53%	613.5451	319.593		319.593	47%	-70.4249	-11%	167.721352	179.036146	106.75%	
				Agricultural	4602	681	5283	3%	63.972	5.418	69.39	7%		27.777	4.41	32.187	5%			31.3348249	31.0498117	99.09%	
				Commercial/Industrial-LT	2077	0	2077	1%	52.546	0	52.546	6%		84.528		84.528	12%			71.0132648	75.623022	106.49%	
				Commercial/Industrial-HT	401	0	401	0%	88.542	0	88.542	10%		114.916		114.916	17%			103.200391	106.823267	103.51%	
				Others	18299	0	18299	10%	229.592	0	229.592	25%		132.746		132.746	19%			97.8482555	101.150441	103.37%	
Sub-total					**178433**	**681**	**179114**	**100%**	**922.578**	**5.418**	**927.996**	**100%**	**613.5451**	**679.56**	**4.41**	**683.97**	**100%**	**-70.4249**	**-11%**	**471.118088**	**493.682687**	**104.79%**	**-17%**
3	Ambala		A/Cantt.	Residential	117431	0	117431	76%	223.282	0	223.282	40%	906.5838	298.899		298.899	34%	34.91783	4%	135.490943	152.014549	112.20%	
				Agricultural	5974	5033	11007	7%	83.584	66.885	150.469	27%		93.344	87.631	180.975	21%			143.564137	141.229873	98.37%	
				Commercial/Industrial-LT	2035	0	2035	1%	34.1749	0	34.1749	6%		98.747		98.747	11%			70.9567232	75.9007635	106.97%	
				Commercial/Industrial-HT	207	0	207	0%	60.42	0	60.42	11%		165.461		165.461	19%			123.009758	110.42239	89.77%	
				Others	24297	0	24297	16%	94.3	0	94.3	17%		127.584		127.584	15%			85.2002199	80.5737365	94.57%	
Sub-total					**149944**	**5033**	**154977**	**100%**	**495.7609**	**66.885**	**562.6459**	**100%**	**906.5838**	**784.035**	**87.631**	**871.666**	**100%**	**34.91783**	**4%**	**558.221781**	**560.141312**	**100.34%**	**4%**
4	Ambala		A/city	Residential	87390	0	87390	74%	199.763	0	199.763	49%	496.3865	229.439		229.439	51%	42.97054	9%	111.477293	126.668778	113.63%	
				Agricultural	3557	2127	5684	5%	42.168	29.156	71.324	18%		56.887	0.646	57.533	13%			56.4355855	56.168979	99.53%	
				Commercial/Industrial-LT	1775	0	1775	2%	31.589	0	31.589	8%		77.37		77.37	17%			58.4973765	61.5766777	105.26%	
				Commercial/Industrial-HT	117	0	117	0%	25.005	0	25.005	6%		56.679		56.679	13%			46.3036889	46.5227233	100.47%	
				Others	22770	0	22770	19%	76.681	0	76.681	19%		32.395		32.395	7%			28.3082983	26.9423915	95.17%	
Sub-total					**115609**	**2127**	**117736**	**100%**	**375.206**	**29.156**	**404.362**	**100%**	**496.3865**	**452.77**	**0.646**	**453.416**	**100%**	**42.97054**	**9%**	**301.022243**	**317.87955**	**105.60%**	**4%**
5	Ambala		Naraingarh	Residential	58996	0	58996	74%	83.134	0	83.134	32%	377.3363	102.869		102.869	31%	47.49428	13%	41.1012629	40.7999067	99.27%	
				Agricultural	8092	2806	10898	14%	91.502	30.482	121.984	46%		94.734	49.006	143.74	44%			132.514867	130.997741	98.86%	
				Commercial/Industrial-LT	844	0	844	1%	14.1163	0	14.1163	5%		26.246		26.246	8%			23.8036409	22.6441485	95.13%	
				Commercial/Industrial-HT	110	0	110	0%	18.865	0	18.865	7%		33.468		33.468	10%			27.1403738	29.9593651	110.39%	
				Others	8455	0	8455	11%	25.816	0	25.816	10%		23.519		23.519	7%			17.4535968	14.1022782	80.80%	
Sub-total					**76497**	**2806**	**79303**	**100%**	**233.4333**	**30.482**	**263.9153**	**100%**	**377.3363**	**280.836**	**49.006**	**329.842**	**100%**	**47.49428**	**13%**	**242.013742**	**238.503439**	**98.55%**	**14%**
6	Y. Nagar		Y. Nagar	Residential	142929	0	142929	75%	192.609	0	192.609	31%	1018.259	296.534		296.534	34%	141.3728	14%	142.812635	147.898117	103.56%	
				Agricultural	6436	10227	16663	9%	42.77574	105.61	148.38574	24%		79.154	77.826	156.98	18%			133.6737	132.758878	99.32%	
				Commercial/Industrial-LT	2555	0	2555	1%	57.198	0	57.198	9%		91.694		91.694	10%			71.006375	66.1833839	93.21%	
				Commercial/Industrial-HT	431	0	431	0%	139.011	0	139.011	22%		300.18		300.18	34%			241.018872	240.666821	99.85%	
				Others	27116	0	27116	14%	85.31	0	85.31	14%		31.498		31.498	4%			26.3978712	24.5521355	93.01%	
Sub-total					**179467**	**10227**	**189694**	**100%**	**516.90374**	**105.61**	**622.51374**	**100%**	**1018.259**	**799.06**	**77.826**	**876.886**	**100%**	**141.3728**	**14%**	**614.909454**	**612.059335**	**99.54%**	**14%**
7	Y. Nagar		Jagadhri	Residential	101860	0	101860	78%	135.378	0	135.378	30%	650.9179	221.629		221.629	34%	0.01692	0%	109.356384	102.277695	93.53%	
				Agricultural	5880	2911	8791	7%	38.406	19.305	57.711	13%		75.155	27.625	102.78	16%			88.1835505	87.4441675	99.16%	
				Commercial/Industrial-LT	3695	0	3695	3%	82.759	0	82.759	19%		78.293		78.293	12%			76.2567158	79.2963217	103.99%	
				Commercial/Industrial-HT	550	0	550	0%	125.359	0	125.359	28%		209.054		209.054	32%			159.762738	161.879664	101.33%	
				Others	16158	0	16158	12%	43.823	0	43.823	10%		39.145		39.145	6%			32.5798378	31.6597591	97.18%	
Sub-total					**128143**	**2911**	**131054**	**100%**	**425.725**	**19.305**	**445.03**	**100%**	**650.9179**	**623.276**	**27.625**	**650.901**	**100%**	**0.01692**	**0%**	**466.139227**	**462.557607**	**99.23%**	**1%**
8	Y. Nagar		Bilaspur	Residential	53017	0	53017	74%	50.457	0	50.457	23%	341.6562	66.054		66.054	36%	157.7342	46%	29.7976382	36.0176212	120.87%	
				Agricultural	7978	2973	10951	15%	84.148	26.405	110.553	51%		53.453	14.36	67.813	37%			81.1441574	79.9750752	98.56%	
				Commercial/Industrial-LT	769	0	769	1%	11.98	0	11.98	6%		16.779		16.779	9%			11.2425901	7.70556898	68.54%	
				Commercial/Industrial-HT	109	0	109	0%	26.635	0	26.635	12%		20.971		20.971	11%			18.3090678	19.5239811	106.64%	
				Others	6621	0	6621	9%	16.643	0	16.643	8%		12.305		12.305	7%			9.52107571	8.68465982	91.22%	
Sub-total					**68494**	**2973**	**71467**	**100%**	**189.863**	**26.405**	**216.268**	**100%**	**341.6562**	**169.562**	**14.36**	**183.922**	**100%**	**157.7342**	**46%**	**150.014529**	**151.906906**	**101.26%**	**45%**
9	urukshetr		Kurukshetra	Residential	103376	0	103376	74%	228.947	0	228.947	39%	752.1505	263.058		263.058	41%	110.9085	15%	109.640559	142.94443	130.38%	
				Agricultural	5500	8704	14204	10%	93.777	127.744	221.521	38%		78.759	99.348	178.107	28%			160.86212	158.838844	98.74%	
				Commercial/Industrial-LT	1184	0	1184	1%	19.1438	0	19.1438	3%		83.851		83.851	13%			30.9905398	43.7277611	141.10%	
				Commercial/Industrial-HT	161	0	161	0%	33.8	0	33.8	6%		64.646		64.646	10%			69.2178712	55.4192633	80.06%	
				Others	21082	0	21082	15%	77.998	0	77.998	13%		51.58		51.58	8%			45.7404273	30.6155747	66.93%	
Sub-total					**131303**	**8704**	**140007**	**100%**	**453.6658**	**127.744**	**581.4098**	**100%**	**752.1505**	**541.894**	**99.348**	**641.242**	**100%**	**110.9085**	**15%**	**416.451518**	**431.545873**	**103.62%**	**12%**
				Residential	59989	0	59989	71%	88.4628	0	88.4628	24%		134.655		134.655	31%			61.0076162	64.0633984	105.01%	
				Agricultural	4231	11220	15451	18%	58.696	156.136	214.832	59%		84.132	126.884	211.016	49%			173.288048	172.919656	99.79%	

XEN/Energy Audit
UHBVN, Panchkula

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Name of circle	Circle code	Name of Division	Period From....To....																			
			Consumer profile								Energy parameters					Losses		Commercial Parameter			AT & C loss (%)
												Billed energy (MU)									
			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)	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	
urukshetr		Pehowa	Commercial/Industrial-LT	662	0	662	1%	11.961	0	11.961	3%	530.5357	29.499		29.499	7%	99.9687	19%	20.7792577	20.7073855	99.65%	
			Commercial/Industrial-HT	112	0	112	0%	26.104	0	26.104	7%		42.886		42.886	10%			37.0861688	37.8600175	102.09%	
			Others	8488	0	8488	10%	21.6838	0	21.6838	6%		12.511		12.511	3%			10.7815225	11.4958215	106.63%	
Sub-total				73482	11220	84702	100%	206.9076	156.136	363.0436	100%	530.5357	303.683	126.884	430.567	100%	99.9687	19%	302.942613	307.046278	101.35%	18%
urukshetr		Shahabad	Residential	57077	0	57077	72%	82.0684	0	82.0684	25%	460.2274	122.182		122.182	32%	75.41538	16%	54.6656055	56.7415043	103.80%	
			Agricultural	5113	7081	12194	15%	87.473	99.861	187.334	58%		105.122	85.238	190.36	49%			154.663918	154.832099	100.11%	
			Commercial/Industrial-LT	668	0	668	1%	10.927	0	10.927	3%		34.822		34.822	9%			21.4627945	21.6655843	100.94%	
			Commercial/Industrial-HT	104	0	104	0%	17.456	0	17.456	5%		22.707		22.707	6%			27.5376474	27.0182976	98.11%	
			Others	9162	0	9162	12%	25.5047	0	25.5047	8%		14.741		14.741	4%			11.0853623	10.7067477	96.58%	
Sub-total				72124	7081	79205	100%	223.4291	99.861	323.2901	100%	460.2274	299.574	85.238	384.812	100%	75.41538	16%	269.415328	270.964232	100.57%	16%
Kaithal		Kaithal	Residential	103974	0	103974	74%	168.6155	0	168.6155	31%	751.4847	221.988		221.988	35%	125.0397	17%	103.317864	104.328717	100.98%	
			Agricultural	14254	3437	17691	13%	207.734	49.994	257.728	48%		163.836	74.699	238.535	38%			222.665848	223.082522	100.19%	
			Commercial/Industrial-LT	1449	0	1449	1%	22.19739	0	22.19739	4%		60.241		60.241	10%			42.5517297	43.904833	103.18%	
			Commercial/Industrial-HT	159	0	159	0%	43.4411	0	43.4411	8%		85.103		85.103	14%			74.8811874	71.2789056	95.19%	
			Others	16818	0	16818	12%	45.854	0	45.854	9%		20.578		20.578	3%			19.1716711	20.0487246	104.57%	
Sub-total				136654	3437	140091	100%	487.84199	49.994	537.83599	100%	751.4847	551.746	74.699	626.445	100%	125.0397	17%	462.5883	462.643703	100.01%	17%
Kaithal		Pundri	Residential	81890	0	81890	72%	131.685	0	131.685	22%	618.5407	161.4		161.4	31%	102.1757	17%	64.9409195	79.1576463	121.89%	
			Agricultural	14736	8990	23726	21%	276.272	151.048	427.32	72%		27.995	271.612	299.607	58%			283.806778	283.712765	99.97%	
			Commercial/Industrial-LT	334	0	334	0%	4.996	0	4.996	1%		28.968		28.968	6%			17.862917	11.0742241	62.00%	
			Commercial/Industrial-HT	47	0	47	0%	10.237	0	10.237	2%		13.037		13.037	3%			10.3851237	9.2005767	88.59%	
			Others	7419	0	7419	7%	23.091	0	23.091	4%		13.353		13.353	3%			11.7932187	9.20304255	78.04%	
Sub-total				104426	8990	113416	100%	446.281	151.048	597.329	100%	618.5407	244.753	271.612	516.365	100%	102.1757	17%	388.788957	392.348255	100.92%	16%
Kaithal		Guhla	Residential	53692	0	53692	70%	86.997	0	86.997	22%	516.7735	121.321		121.321	27%	71.61148	14%	54.7458708	54.5929614	99.72%	
			Agricultural	7097	9272	16369	21%	124.107	132.93	257.037	64%		102.244	129.271	231.515	52%			311.440772	309.168809	99.27%	
			Commercial/Industrial-LT	521	0	521	1%	8.359	0	8.359	2%		18.423		18.423	4%			16.062579	13.5392958	84.29%	
			Commercial/Industrial-HT	129	0	129	0%	34.328	0	34.328	8%		64.533		64.533	14%			50.0955972	50.9310036	101.67%	
			Others	5577	0	5577	7%	17.809	0	17.809	4%		9.37		9.37	2%			8.44666948	7.62966333	90.33%	
Sub-total				67016	9272	76288	100%	271.6	132.93	404.53	100%	516.7735	315.891	129.271	445.162	100%	71.61148	14%	440.791488	435.861733	98.88%	15%
Karnal		City, Karnal	Residential	124716	0	124716	76%	268.527	0	268.527	42%	795.4729	338.601		338.601	44%	31.38893	4%	166.458598	167.300348	100.51%	
			Agricultural	5129	6397	11526	7%	34.689	64.146	98.835	16%		33.134	53.055	86.189	11%			88.2436637	89.1535802	101.03%	
			Commercial/Industrial-LT	2243	0	2243	1%	50.998	0	50.998	8%		129.136		129.136	17%			86.9727321	92.4680618	106.32%	
			Commercial/Industrial-HT	333	0	333	0%	85.737	0	85.737	14%		154.127		154.127	20%			137.246536	130.076067	94.78%	
			Others	25752	0	25752	16%	128.297	0	128.297	20%		56.031		56.031	7%			38.7973898	51.0999407	131.71%	
Sub-total				158173	6397	164570	100%	568.248	64.146	632.394	100%	795.4729	711.029	53.055	764.084	100%	31.38893	4%	517.718919	530.097998	102.39%	2%
Karnal		ub Urban No	Residential	91081	0	91081	71%	130.245	0	130.245	26%	684.3878	193.962		193.962	31%	48.97484	7%	79.2630731	83.9945136	105.97%	
			Agricultural	9631	15717	25348	20%	90.85188	141.949	232.80088	47%		69.606	149.469	219.075	34%			167.797055	168.461431	100.40%	
			Commercial/Industrial-LT	927	0	927	1%	13.7669	0	13.7669	3%		38.342		38.342	6%			27.2096544	28.846277	106.01%	
			Commercial/Industrial-HT	200	0	200	0%	78.838	0	78.838	16%		159.922		159.922	25%			126.947723	130.575976	102.86%	
			Others	11378	0	11378	9%	39.388	0	39.388	8%		24.112		24.112	4%			20.5186927	20.0373631	97.65%	
Sub-total				113217	15717	128934	100%	353.08978	141.949	495.03878	100%	684.3878	485.944	149.469	635.413	100%	48.97484	7%	421.736198	431.915561	102.41%	5%
Karnal		ub Urban No	Residential	71952	0	71952	72%	100.033	0	100.033	21%	736.574	149.359		149.359	22%	42.65498	6%	59.9699992	67.2290888	112.10%	
			Agricultural	15564	3368	18932	19%	174.0647	26.458	200.5227	41%		80.08	95.651	175.731	25%			181.159761	180.578494	99.68%	
			Commercial/Industrial-LT	894	0	894	1%	16.6393	0	16.6393	3%		28.112		28.112	4%			20.9169607	22.3305398	106.76%	
			Commercial/Industrial-HT	316	0	316	0%	141.764	0	141.764	29%		328.22		328.22	47%			250.977965	259.07902	103.23%	
			Others	7558	0	7558	8%	25.4605	0	25.4605	5%		12.497		12.497	2%			11.3238367	11.1174009	98.18%	
Sub-total				96284	3368	99652	100%	457.9615	26.458	484.4195	100%	736.574	598.268	95.651	693.919	100%	42.65498	6%	524.348523	540.334543	103.05%	3%
Karnal		ssandh Divn	Residential	61784	0	61784	71%	95.584	0	95.584	23%	525.4317	131.553		131.553	27%	43.81475	8%	58.5987646	61.095493	104.26%	
			Agricultural	11853	5737	17590	20%	154.949	85.749	240.698	57%		102.902	104.895	207.797	43%			225.196805	226.367316	100.52%	
			Commercial/Industrial-LT	511	0	511	1%	8.945	0	8.945	2%		21.244		21.244	4%			17.9868948	16.669237	92.67%	
			Commercial/Industrial-HT	123	0	123	0%	53.068	0	53.068	13%		110.062		110.062	23%			84.5347608	86.1194097	101.87%	
			Others	6963	0	6963	8%	21.828	0	21.828	5%		10.961		10.961	2%			10.1890196	9.81570465	96.34%	
Sub-total				81234	5737	86971	100%	334.374	85.749	420.123	100%	525.4317	376.722	104.895	481.617	100%	43.81475	8%	396.506245	400.06716	100.90%	8%
Panipat		Samalkha	Residential	87262	0	87262	77%	133.024	0	133.024	26%	957.1239	184.418		184.418	22%	128.2459	13%	78.860129	87.5789677	111.06%	
			Agricultural	6609	8414	15023	13%	54.981	66.613	121.594	24%		161.354	2.307	163.661	20%			82.6816309	82.637126	99.95%	
			Commercial/Industrial-LT	2341	0	2341	2%	59.772	0	59.772	12%		92.007		92.007	11%			62.4859141	65.6495441	105.06%	
			Commercial/Industrial-HT	467	0	467	0%	162.065	0	162.065	32%		375.234		375.234	45%			276.342515	272.985347	98.79%	
			Others	7761	0	7761	7%	27.252	0	27.252	5%		13.558		13.558	2%			12.1608908	9.48420343	77.99%	
Sub-total				104440	8414	112854	100%	437.094	66.613	503.707	100%	957.1239	826.571	2.307	828.878	100%	128.2459	13%	512.53108	518.335188	101.13%	12%

Energy Audit
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Period From....To....

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	
Panipat		/Urban, PN	Residential	93145	0	93145	77%	152.095	0	152.095	23%	1420.205	208.563		208.563	17%	159.6105	11%	77.9183072	100.605968	129.12%	
			Agricultural	8374	9989	18363	15%	65.107	73.685	138.792	21%		166.313		166.313	13%			112.257245	112.586227	100.29%	
			Commercial/Industrial-LT	1592	0	1592	1%	42.046	0	42.046	6%		74.27		74.27	6%			47.2731998	67.006582	141.74%	
			Commercial/Industrial-HT	559	0	559	0%	284.525	0	284.525	43%		778.919		778.919	62%			581.755292	567.631507	97.57%	
			Others	7671	0	7671	6%	43.07	0	43.07	7%		32.529		32.529	3%			27.2656907	34.0098792	124.74%	
Sub-total				**111341**	**9989**	**121330**	**100%**	**586.843**	**73.685**	**660.528**	**100%**	**1420.205**	**1260.594**	**0**	**1260.594**	**100%**	**159.6105**	**11%**	**846.469735**	**881.840164**	**104.18%**	**8%**
Panipat		City Panipat	Residential	82624	0	82624	72%	215.4276	0	215.4276	32%	977.3675	269.63		269.63	30%	63.62849	7%	143.384644	149.871376	104.52%	
			Agricultural	219	371	590	1%	1.407	4.309	5.716	1%		2.622	0.509	3.131	0%			3.42793765	3.44502057	100.50%	
			Commercial/Industrial-LT	5106	0	5106	4%	129.6466	0	129.6466	19%		184.092		184.092	20%			129.914958	136.121445	104.78%	
			Commercial/Industrial-HT	596	0	596	1%	215.403	0	215.403	32%		431.176		431.176	47%			351.551514	373.755388	106.32%	
			Others	26501	0	26501	23%	104.8845	0	104.8845	16%		25.71		25.71	3%			22.094082	19.915544	90.14%	
Sub-total				**115046**	**371**	**115417**	**100%**	**666.7687**	**4.309**	**671.0777**	**100%**	**977.3675**	**913.23**	**0.509**	**913.739**	**100%**	**63.62849**	**7%**	**650.373135**	**683.108774**	**105.03%**	**2%**
Sonepat		City Sonepat	Residential	130482	0	130482	82%	239.685	0	239.685	22%	1794.096	322.661		322.661	20%	141.6398	8%	151.527555	148.357624	97.91%	
			Agricultural	4225	1176	5401	3%	30.266	6.791	37.057	3%		26.611	5.271	31.882	2%			38.6333097	38.3529613	99.27%	
			Commercial/Industrial-LT	3567	0	3567	2%	97.136	0	97.136	9%		152.04		152.04	9%			118.568575	123.501027	104.16%	
			Commercial/Industrial-HT	1489	0	1489	1%	623.248	0	623.248	57%		1081.678		1081.678	65%			860.989289	890.438364	103.42%	
			Others	18481	0	18481	12%	96.686	0	96.686	9%		64.195		64.195	4%			46.1810629	51.1408229	110.74%	
Sub-total				**158244**	**1176**	**159420**	**100%**	**1087.021**	**6.791**	**1093.812**	**100%**	**1794.096**	**1647.185**	**5.271**	**1652.456**	**100%**	**141.6398**	**8%**	**1215.89979**	**1251.7908**	**102.95%**	**5%**
Sonepat		/Urban, SN	Residential	130474	0	130474	80%	182.744	0	182.744	25%	1286.57	226.825		226.825	23%	281.2272	22%	99.4681746	90.0438975	90.53%	
			Agricultural	13603	5356	18959	12%	119.064	45	164.064	22%		122.828	23.637	146.465	15%			140.758265	139.638141	99.20%	
			Commercial/Industrial-LT	1975	0	1975	1%	47.193	0	47.193	6%		107.392		107.392	11%			73.9399649	71.6478003	96.90%	
			Commercial/Industrial-HT	722	0	722	0%	275.315	0	275.315	38%		494.841		494.841	49%			402.144358	412.059453	102.47%	
			Others	10956	0	10956	7%	63.001	0	63.001	9%		29.82		29.82	3%			25.0390218	26.8184292	107.11%	
Sub-total				**157730**	**5356**	**163086**	**100%**	**687.317**	**45**	**732.317**	**100%**	**1286.57**	**981.706**	**23.637**	**1005.343**	**100%**	**281.2272**	**22%**	**741.349784**	**740.207721**	**99.85%**	**22%**
Sonepat		Gohana	Residential	86762	0	86762	81%	105.65	0	105.65	41%	467.1643	148.456		148.456	46%	145.5553	31%	63.8936924	63.718895	99.73%	
			Agricultural	10668	1354	12022	11%	80.8368	8.186	89.0228	35%		61.013	8.206	69.219	22%			73.4375168	73.5358283	100.13%	
			Commercial/Industrial-LT	441	0	441	0%	6.824	0	6.824	3%		24.43		24.43	8%			60.0959577	60.4937221	100.66%	
			Commercial/Industrial-HT	58	0	58	0%	17.547	0	17.547	7%		65.083		65.083	20%			10.7781539	11.1872925	103.80%	
			Others	7958	0	7958	7%	38.6495	0	38.6495	15%		14.421		14.421	4%			18.0028479	17.4661346	97.02%	
Sub-total				**105887**	**1354**	**107241**	**100%**	**249.5073**	**8.186**	**257.6933**	**100%**	**467.1643**	**313.403**	**8.206**	**321.609**	**100%**	**145.5553**	**31%**	**226.208169**	**226.401873**	**100.09%**	**31%**
Rohtak		SU-I Rohtak	Residential	101855	0	101855	89%	115.673	0	115.673	57%	551.2451	181.448		181.448	49%	183.4641	33%	80.1311957	60.3210222	75.28%	
			Agricultural	3950	28	3978	3%	20.896	0.148	21.044	10%		22.916	0.194	23.11	6%			11.1619977	11.2290509	100.60%	
			Commercial/Industrial-LT	565	0	565	0%	9.403	0	9.403	5%		41.321		41.321	11%			28.2832258	18.7837347	66.41%	
			Commercial/Industrial-HT	80	0	80	0%	27.902	0	27.902	14%		65.255		65.255	18%			45.4341807	45.4877359	100.12%	
			Others	8131	0	8131	7%	29.561	0	29.561	15%		56.647		56.647	15%			34.3370084	48.3814466	140.90%	
Sub-total				**114581**	**28**	**114609**	**100%**	**203.435**	**0.148**	**203.583**	**100%**	**551.2451**	**367.587**	**0.194**	**367.781**	**100%**	**183.4641**	**33%**	**199.347608**	**184.20299**	**92.40%**	**38%**
Rohtak		City Rohtak	Residential	110515	0	110515	79%	284.921	0	284.921	50%	880.1516	328.899		328.899	42%	98.13856	11%	155.961215	166.366027	106.67%	
			Agricultural	30	0	30	0%	0.166	0	0.166	0%		0.16		0.16	0%			0.17410799	0.17055833	97.96%	
			Commercial/Industrial-LT	2463	0	2463	2%	53.015	0	53.015	9%		160.783		160.783	21%			111.900596	129.783549	115.98%	
			Commercial/Industrial-HT	184	0	184	0%	107.601	0	107.601	19%		253.119		253.119	32%			229.350628	196.021293	85.47%	
			Others	27484	0	27484	20%	127.943	0	127.943	22%		39.052		39.052	5%			43.9784716	35.5683977	80.88%	
Sub-total				**140676**	**0**	**140676**	**100%**	**573.646**	**0**	**573.646**	**100%**	**880.1516**	**782.013**	**0**	**782.013**	**100%**	**98.13856**	**11%**	**541.365018**	**527.909825**	**97.51%**	**13%**
Rohtak		SU-II Rohtak	Residential	76691	0	76691	91%	76.443	0	76.443	32%	589.101	105.042		105.042	28%	208.657	35%	56.9572077	44.3196819	77.81%	
			Agricultural	3302	0	3302	4%	24.937	0	24.937	11%		15.481		15.481	4%			9.42036969	9.4657811	100.48%	
			Commercial/Industrial-LT	470	0	470	1%	15.02	0	15.02	6%		23.164		23.164	6%			16.4889731	14.4838429	87.84%	
			Commercial/Industrial-HT	226	0	226	0%	102.494	0	102.494	43%		224.013		224.013	59%			162.654483	165.888725	101.99%	
			Others	3602	0	3602	4%	18.068	0	18.068	8%		12.744		12.744	3%			12.6175603	14.46061	114.61%	
Sub-total				**84291**	**0**	**84291**	**100%**	**236.962**	**0**	**236.962**	**100%**	**589.101**	**380.444**	**0**	**380.444**	**100%**	**208.657**	**35%**	**258.138594**	**248.618641**	**96.31%**	**38%**
Jhajjar		Jhajjar	Residential	74109	0	74109	84%	96.785	0	96.785	41%	408.7287	130.788		130.788	46%	121.9267	30%	49.204116	56.3538604	114.53%	
			Agricultural	4959	1013	5972	7%	27.034	3.938	30.972	13%		28.097	3.801	31.898	11%			43.363553	42.8104423	98.72%	
			Commercial/Industrial-LT	240	0	240	0%	3.578	0	3.578	2%		39.317		39.317	14%			23.4589388	20.5731136	87.70%	
			Commercial/Industrial-HT	81	0	81	0%	35.109	0	35.109	15%		71.207		71.207	25%			64.8146694	63.7183255	98.31%	
			Others	7920	0	7920	9%	67.927	0	67.927	29%		13.592		13.592	5%			14.2757741	14.3556078	100.56%	
Sub-total				**87309**	**1013**	**88322**	**100%**	**230.433**	**3.938**	**234.371**	**100%**	**408.7287**	**283.001**	**3.801**	**286.802**	**100%**	**121.9267**	**30%**	**195.117051**	**197.81135**	**101.38%**	**29%**
Jhajjar		Bahadurgarh	Residential	92945	0	92945	85%	153.772	0	153.772	22%	1175.505	197.735		197.735	21%	218.9787	18%	86.8697451	93.0173597	107.08%	
			Agricultural	866	53	919	1%	4.786	0.244	5.03	1%		2.067	0.585	2.652	0%			2.80004757	2.805554	100.20%	
			Commercial/Industrial-LT	3422	0	3422	3%	107.422	0	107.422	15%		92.045		92.045	10%			68.7456591	72.2664434	105.12%	
			Commercial/Industrial-HT	1108	0	1108	1%	372.648	0	372.648	53%		[illegible]		628.976	65%			472.703757	485.507251	102.71%	

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Name of circle	Circle code	Name of Division	Period From....To....																		
			Consumer profile									Energy parameters					Losses		Commercial Parameter			AT & C loss (%)
													Billed energy (MU)									
			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)	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	
			Others	10906	0	10906	10%	59.033	0	59.033	8%		41.018		41.018	4%			32.9937014	27.055502	82.00%	
Sub-total				**109247**	**53**	**109300**	**100%**	**697.661**	**0.244**	**697.905**	**100%**	**1175.505**	**961.841**	**0.585**	**962.426**	**100%**	**213.0787**	**18%**	**664.11291**	**680.65211**	**102.49%**	**16%**
Jhajjar		Beri	Residential	59339	0	59339	86%	86.587	0	86.587	44%	448.6631	100.636		100.636	27%	73.01715	16%	43.7595986	40.7718423	93.17%	
			Agricultural	4105	1360	5465	8%	19.995	6.22	26.215	13%		23.863	14.835	38.698	10%			25.7663154	25.5935412	99.33%	
			Commercial/Industrial-LT	179	0	179	0%	2.263	0	2.263	1%		16.201		16.201	4%			13.2350227	9.61550058	72.65%	
			Commercial/Industrial-HT	32	0	32	0%	48.185	0	48.185	24%		174.334		174.334	46%			117.98554	121.554521	103.02%	
			Others	3631	0	3631	5%	33.565	0	33.565	17%		45.777		45.777	12%			37.2182655	42.582982	114.41%	
Sub-total				**67286**	**1360**	**68646**	**100%**	**190.595**	**6.22**	**196.815**	**100%**	**448.6631**	**360.811**	**14.835**	**375.646**	**100%**	**73.01715**	**16%**	**237.964742**	**240.118387**	**100.91%**	**16%**

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Name of circle	Circle code	Name of Division	Period From....To....																		
			Consumer profile								Energy parameters					Losses		Commercial Parameter			AT & C loss (%)
												Billed energy (MU)									
			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)	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	
Total			Residential	2650411	0	2650411	77%	4596.5203	0	4596.5203	32%	22158.7	5869.064	0	5869.064	31%	3092.399	14%	2675.38858	2813.97388	105.18%	
			Agricultural	196537	135795	332332	10%	2198.6451	1534.41	3733.05512	26%		2007.474	1520.814	3528.288	19%			3214.34127	3203.33283	99.66%	
			Commercial/Industrial-LT	45504	0	45504	1%	1025.6152	0	1025.61519	7%		1991.167	0	1991.167	10%			1468.16817	1524.25592	103.82%	
			Commercial/Industrial-HT	9211	0	9211	0%	3280.6521	0	3280.6521	23%		6632.514	0	6632.514	35%			5199.51383	5213.10911	100.26%	
			Others	384915	0	384915	11%	1708.719	0	1708.719	12%		1045.273	0	1045.273	5%			836.593461	835.400791	99.86%	
At company level				3286578	135795	3422373	100%	12810.152	1534.41	14344.56171	100%	22158.7	17545.49	1520.814	19066.306	100%	3092.399	14%	13394.0053	13590.0725	101.46%	13%

- 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 ners by the applicable rate of subsidy notified by the state government.

Parameter
lease enter name of circle
lease enter circle code
lease enter numeric value or 0
ormula protected

ndertake 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 n affected, I/we undertake to indemnify such loss.

ised Signatory and Seal

Signature:-
Name of Energy Manager:
Registration Number:

of Authorised Signatory:

of the DISCOM:
ldress:-

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Form-Input energy(Details of Input energy & Infrastructure)

A. Summary of energy input & Infrastructure

S.No	Parameters	Period From....To....	Remarks (Source of data)
A.1	Input Energy purchased (MU)	23708.97	
A.2	Transmission loss (%)	3.66%	
A.3	Transmission loss (MU)	867.28	
A.4	Energy sold outside the periphery(MU)		
A.5	Open access sale (MU)		
A.6	EHT sale		
A.7	Net input energy (received at DISCOM periphery or at distribution point)-(MU)	22239.95	
A.8	Is 100% metering available at 66/33 kV (Select yes or no from list)	Yes	
A.9	Is 100% metering available at 11 kV (Select yes or no from list)	Yes	
A.10	% of metering available at DT	5%	
A.11	% of metering available at consumer end	100%	
A.12	No of feeders at 66kV voltage level	12	
A.13	No of feeders at 33kV voltage level	36	
A.14	No of feeders at 11kV voltage level	5966	
A.15	No of LT feeders level		
A.16	Line length (ckt. km) at 66kV voltage level		
A.17	Line length (ckt. km) at 33kV voltage level		
A.18	Line length (ckt. km) at 11kV voltage level		
A.19	Line length (km) at LT level		
A.20	Length of Aerial Bunched Cables		
A.21	Length of Underground Cables		
A.22	HT/LT ratio		

B. Meter reading of Input energy at injection points

S.No	Zone	Cirde	Voltge Level (KVA)	Division (KVA)	Sub-Division (KVA)	Feeder ID	Feeder Name	Feeder Metering Status (Metered/ unmetered/ AMI/AMR)	Status of Meter (Functional/Non-functional)	Metering Date	Feeder Type (Agri/ Industrial/Mixed)	Status of Communication			Period from...to...				Sales	Remarks (Source of data)
										Date of last actual meter reading/ communication		% data received through automatically if feeder AMR/AMI	Number of hours when meter was unable to communicate in period	Total Number of hours in the period	Meter S.No	CT/PT ratio	Import (MU)	Export (MU)		
B.1	ZONE-I	Kaithal	11 KV	Kaithal	City-II, Kaithal	212221041OTY3	City-3 - 45%	AMR	Functional		AP				573821	200/5	4.34	0.00	3.79	
B.2	ZONE-I	Kaithal	11 KV	Kaithal	Sub Urban-II, Kaithal	212251041OTY3	City-3 - 55%	AMR	Functional		AP				573821	200/5	4.63	0.00	3.07	
B.3	ZONE-I	Kurukshetra	11 KV	Pehowa	Sub Urban Pehowa	212221041ITIKT	MAHADEV Foam	AMR	Functional		AP				573822	200/5	0.25	0.00	0.25	
B.4	ZONE-I	Kaithal	11 KV	Kaithal	City-II, Kaithal	212221041OTY4	City-4 - 96%	AMR	Functional		AP				573824	200/5	5.58	0.00	5.22	
B.5	ZONE-I	Kaithal	11 KV	Kaithal	City-II, Kaithal	212221041MTWNK	M.Town	AMR	Functional		AP				573825	300/5	6.58	0.00	5.63	
B.6	ZONE-I	Kaithal	11 KV	Kaithal	City-II, Kaithal	212221041OTY5	City-5 - 90%	AMR	Functional		AP				573830	300/5	11.27	0.00	9.62	
B.7	ZONE-I	Kaithal	11 KV	Kaithal	City-I, Kaithal	212211087ARJUN	Arjun Nagar	AMR	Functional		AP				573852	400/5	9.17	0.00	7.67	
B.8	ZONE-I	Panchkula	11 KV	Panchkula	Sub Urban Panchkula	211371479OGTIN	DLF	AMR	Functional		AP				573961	300/5	7.04	0.00	7.04	
B.9	ZONE-I	Kaithal	11 KV	Pundri	Pundri-I	212121047STPIN	WTP	AMR	Functional		AP				574079	400/5	0.13	0.00	0.13	
B.10	ZONE-I	Sonepat	33 KV	City, Sonepat	City Sonepat	225121426PHEAL	33 KV Lohiya Alloys	AMR	Functional		AP				574103	150/5	12.83	0.00	12.83	
B.11	ZONE-I	Sonepat	11 KV	City, Sonepat	M/Town, SNP	225141439SHVUR	Shanti Vihar	AMR	Functional		AP				574104	300/5	14.49	0.00	13.79	
B.12	ZONE-I	Sonepat	11 KV	Gohana	City Gohana	225211535MNSEC	Mini Sect.	AMR	Functional		AP				574106	400/5	0.95	0.00	0.88	
B.13	ZONE-I	Kaithal	11 KV	Kaithal	City-I, Kaithal	212211087CHAND	Chandana Gate - 73%	AMR	Functional		AP				574134	400/5	9.92	0.00	8.59	
B.14	ZONE-I	Kaithal	11 KV	Kaithal	Sub Urban-I, Kaithal	212241087CHAND	Chandana Gate - 27%	AMR	Functional		AP				574134	400/5	3.67	0.00	3.23	
B.15	ZONE-I	Kaithal	11 KV	Kaithal	City-I, Kaithal	212211087PARTA	Partap Gate	AMR	Functional		AP				574137	400/5	8.80	0.00	7.60	
B.16	ZONE-I	Sonepat	11 KV	City, Sonepat	M/Town, SNP	225141439SEC12	Sector- 12 Part- 1	AMR	Functional		AP				574173	400/5	4.77	0.00	4.57	
B.17	ZONE-I	Sonepat	11 KV	City, Sonepat	M/Town, SNP	225141439SHIUR	Shiv Mandir	AMR	Functional		AP				574174	300/5	3.15	0.00	3.06	
B.18	ZONE-I	Sonepat	11 KV	City, Sonepat	M/Town, SNP	225141438SE15R	Sector-15 Ring Road	AMR	Functional		AP				574176	300/5	5.97	0.00	5.56	
B.19	ZONE-I	Sonepat	11 KV	City, Sonepat	M/Town, SNP	225141438SE15B	Sector-15 BSNL	AMR	Functional		AP				574177	300/5	6.63	0.00	6.15	
B.20	ZONE-I	Sonepat	11 KV	City, Sonepat	M/Town, SNP	225141439SE14M	Sector-14	AMR	Functional		AP				574178	400/5	5.64	0.00	5.40	
B.21	ZONE-I	Sonepat	11 KV	City, Sonepat	M/Town, SNP	225141438SE15H	Sector-15 HBC	AMR	Functional		AP				574179	300/5	7.60	0.00	7.17	
B.22	ZONE-I	Sonepat	11 KV	City, Sonepat	Kundli	225141415DISPO	I.T.B.P	AMR	Functional		AP				574180	60/5	1.06	0.00	1.06	

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B.6094	ZONE-II	Rohtak	11 KV	S/u No.1 Rohtak	S/u S/D Rohtak	224321378STJND	Ritoli S/Stn.	AMR	Functional		S/Stn.						0.00	0.00	0.00		
B.6095	ZONE-II	Rohtak	11 KV	S/u No.1 Rohtak	S/u S/D Rohtak	224321448SANST	Chandi S/Stn.	AMR	Functional		S/Stn.						0.02	0.00	0.02		
B.6096	ZONE-II	Rohtak	11 KV	S/u No.1 Rohtak	S/u S/D Rohtak	224331365STSMP	Nidana	AMR	Functional		S/Stn.						0.01	0.00	0.01		
B.6097	ZONE-II	Rohtak	11 KV	S/u No.1 Rohtak	S/u S/D Rohtak	224331365STNRO	Bahu Jamal Pur STN	AMR	Functional		S/Stn.						0.01	0.00	0.01		
B.6098	ZONE-II	Rohtak	11 KV	S/u No.1 Rohtak	S/u S/D Rohtak	224331556SAMST	S/Stn.	AMR	Functional		S/Stn.						0.02	0.00	0.02		
B.6099	ZONE-II	Rohtak	11 KV	S/u No.1 Rohtak	S/u S/D Rohtak	224331538STNCR	& Lakhan Majra Water V	AMR	Functional		S/Stn.						0.11	0.00	0.11		
B.6100	ZONE-II	Rohtak	11 KV	S/u No.2 Rohtak	Bhallout	224331374STHSG	Bhallout	AMR	Functional		S/Stn.						0.01	0.00	0.01		
B.6101	ZONE-II	Rohtak	11 KV	S/u No.2 Rohtak	Bhallout	224331389STRND	S/Stn.	AMR	Functional		S/Stn.						0.00	0.00	0.00		
B.6102	ZONE-II	Rohtak	11 KV	S/u No.2 Rohtak	Bhallout	221111262STBPN	Kansala	AMR	Functional		S/Stn.						0.01	0.00	0.01		
B.6103	ZONE-II	Rohtak	11 KV	S/u No.2 Rohtak	Sampla	221131588STNTN	Charra	AMR	Functional		S/Stn.						0.01	0.00	0.01		
B.6104	ZONE-II	Rohtak	11 KV	S/u No.2 Rohtak	Sampla	221141261STBMN	Rohad	AMR	Functional		S/Stn.						0.02	0.00	0.03		
B.6105	ZONE-II	Jhajjar	11 KV	Bahadurgarh	Bupania	221141251ASSTN	11 KV S/Substation	AMR	Functional		S/Stn.						0.02	0.00	0.02		
B.6106	ZONE-II	Jhajjar	11 KV	Bahadurgarh	Line Par Bahadurgarh	221141447STNBH	11 KV S/Substation	AMR	Functional		S/Stn.						0.00	0.00	0.00		
B.6107	ZONE-II	Jhajjar	11 KV	Bahadurgarh	City No I	221141255STJRB	S/Substation	AMR	Functional		S/Stn.						0.04	0.00	0.04		
B.6108	ZONE-II	Jhajjar	11 KV	Bahadurgarh	City No I	221141702SUBSN	11 KV S/Substation	AMR	Functional		S/Stn.						0.18	0.00	0.18		
B.6109	ZONE-II	Jhajjar	11 KV	Bahadurgarh	Line Par Bahadurgarh	221141585STNMN	11 KV S/Stn	AMR	Functional		S/Stn.						0.01	0.00	0.01		
B.6110	ZONE-II	Jhajjar	11 KV	Bahadurgarh	City No II	221141280STNRS	11 KV S/Substation	AMR	Functional		S/Stn.						0.02	0.00	0.02		
B.6111	ZONE-II	Jhajjar	11 KV	Bahadurgarh	City No II	221141266STNJK	11 KV S/Substation	AMR	Functional		S/Stn.						0.32	0.00	0.32		
B.6112	ZONE-II	Jhajjar	11 KV	Bahadurgarh	City No II	221141259SRNMJ	11 KV S/Stn	AMR	Functional		S/Stn.						0.01	0.00	0.01		
B.6113	ZONE-II	Jhajjar	11 KV	Bahadurgarh	City No II	221211485STSHL	11 KV S/Substation	AMR	Functional		S/Stn.						0.02	0.00	0.02		
B.6114	ZONE-II	Jhajjar	11 KV	Bahadurgarh	Line Par Bahadurgarh	221211278STNSA	11 KV S/Substation	AMR	Functional		S/Stn.						0.00	0.00	0.00		
B.6115	ZONE-II	Jhajjar	11 KV	Bahadurgarh	S/U B/garh	221211253STNBA	substation	AMR	Functional		S/Stn.						0.07	0.00	0.07		
B.6116	ZONE-II	Jhajjar	11 KV	Bahadurgarh	S/U B/garh	221221254STBRI	S/Substation	AMR	Functional		S/Stn.						0.05	0.00	0.05		
B.6117	ZONE-II	Jhajjar	11 KV	Bahadurgarh	S/U B/garh	221221119STNDB	11 KV S/Substation	AMR	Functional		S/Stn.						0.04	0.00	0.04		
B.6118	ZONE-II	Jhajjar	11 KV	Bahadurgarh	S/U B/garh	221221703SUBTN	substation	AMR	Functional		S/Stn.						0.00	0.00	0.00		
B.6119	ZONE-II	Jhajjar	11 KV	Bahadurgarh	S/U B/garh	221221263STNDN	11 KV S/Stn	AMR	Functional		S/Stn.						0.02	0.00	0.02		
B.6120	ZONE-II	Jhajjar	11 KV	Bahadurgarh	S/U B/garh	221321265STNJG	S/Substation	AMR	Functional		S/Stn.						0.00	0.00	0.00		
B.6121	ZONE-II	Jhajjar	11 KV	Bahadurgarh	S/U B/garh	221231256STMHL	substation	AMR	Functional		S/Stn.						0.01	0.00	0.00		
B.6122	ZONE-II	Jhajjar	11 KV	Bahadurgarh	S/U B/garh	221231539STNML	11 KV S/Substation	AMR	Functional		S/Stn.						0.10	0.00	0.10		
B.6123	ZONE-II	Jhajjar	11 KV	Beri	Bahu	221231511STNCH	Sub-Station	AMR	Functional		S/Stn.						0.00	0.00	0.00		
B.6124	ZONE-II	Jhajjar	11 KV	Beri	Bahu	221231267STNLD	substation	AMR	Functional		S/Stn.						0.01	0.00	0.01		
B.6125	ZONE-II	Jhajjar	11 KV	Beri	Bahu	221311562STNBA	Sub Station	AMR	Functional		S/Stn.						0.00	0.00	0.00		
B.6126	ZONE-II	Jhajjar	11 KV	Beri	Beri	221311704SUBEV	S/Substation	AMR	Functional		S/Stn.						0.07	0.00	0.07		
B.6127	ZONE-II	Jhajjar	11 KV	Beri	Beri	Badli stn	S/Substation	AMR	Functional		S/Stn.						0.00	0.00	0.00		
B.6128	ZONE-II	Jhajjar	11 KV	Beri	Beri	221311273STNBD	S/Substation	AMR	Functional		S/Stn.						0.01	0.00	0.01		
B.6129	ZONE-II	Jhajjar	11 KV	Beri	M/hail	221321459STBDN	Sub-Station	AMR	Functional		S/Stn.						0.01	0.00	0.01		
B.6130	ZONE-II	Jhajjar	11 KV	Beri	M/hail	221331560STNKU	Sub-Station	AMR	Functional		S/Stn.						0.04	0.00	0.04		
B.6131	ZONE-II	Jhajjar	11 KV	Beri	M/hail	221331561STNGI	S/Substation	AMR	Functional		S/Stn.						0.01	0.00	0.01		
B.6132	ZONE-II	Jhajjar	11 KV	Jhajjar	Badli	221331272STMCH	11 KV S/Substation	AMR	Functional		S/Stn.						0.01	0.00	0.01		
B.6133	ZONE-II	Jhajjar	11 KV	Jhajjar	Badli	221341271STBBP	11 KV S/Substation	AMR	Functional		S/Stn.						0.00	0.00	0.00		
B.6134	ZONE-II	Jhajjar	11 KV	Jhajjar	Badli	221341464KLSTN	11 KV S/Substation	AMR	Functional		S/Stn.						0.02	0.00	0.02		
B.6135	ZONE-II	Jhajjar	11 KV	Jhajjar	Badli	221341275STKUN	33 KV S/Substation.	AMR	Functional		S/Stn.						0.01	0.00	0.01		
B.6136		Jhajjar	11 KV	Jhajjar	City Jhajjar		132 KV S/Substation. JJR		Functional		S/Stn.						0.01	0.00	0.01		
B.6137		Jhajjar	11 KV	Jhajjar	City Jhajjar		33 KV old S/Substation.		Functional		S/Stn.						0.05	0.00	0.05		
B.6138		Jhajjar	11 KV	Jhajjar	City Jhajjar		33 KV S/road S/Substation.		Functional		S/Stn.						0.02	0.00	0.02		
B.6139		Jhajjar	11 KV	Jhajjar	City Jhajjar		S/Substation		Functional		S/Stn.						0.18	0.00	0.18		
B.6140		Jhajjar	11 KV	Jhajjar	Machhroli		S/Stn.		Functional		S/Stn.						0.01	0.00	0.01		
B.6141		Jhajjar	11 KV	Jhajjar	Machhroli		S/Stn.		Functional		S/Stn.						0.01	0.00	0.01		
B.6142		Jhajjar	11 KV	Jhajjar	Machhroli		Sub Station		Functional		S/Stn.						0.02	0.00	0.02		
B.6143		Jhajjar	11 KV	Jhajjar	S/U Jhajjar		S/Substation.		Functional		S/Stn.						0.00	0.00	0.00		
B.6144		Jhajjar	11 KV	Jhajjar	S/U Jhajjar		substation		Functional		S/Stn.						0.03	0.00	0.03		
B.6145		Jhajjar	11 KV	Jhajjar	S/U Jhajjar		S/Substation.		Functional		S/Stn.						0.01	0.00	0.01		
B.6146			11 KV																		
B.6147																					
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B.7033																						
B.7034																						
B.7035	Total (MU)																	22239.95	0.00			
B.7036	Net input energy at DISCOM periphery (MU)																	22239.95				

Color code			Parameter
			Please enter voltage level or leave blank
			Please enter feeder id and name or leave blank
			Enter meter no or leave blank
			Enter CT/PT ratio or leave blank
0			Please enter numeric value or 0
			Please select yes or no from list
			Formula protected

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:-

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AEE/EA
UHBVN, PKL.

Seal

Signature:-
Name of Energy Manager*:
Registration Number:

Details of Input Energy Sources

Period From....To....

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	Plant	710	Thermal	25 Years	Intra-state		220 kV	Ce-HPPC
2	PANIPAT	10	Solar	25 Years	Intra-state		33 kV	Ce-HPPC
3	(RGTPP)	1200	Thermal	25 Years	Intra-state		400 kV	Ce-HPPC
4	DCRTPP Yamuna Nagar	600	Thermal	25 Years	Intra-state		220 kV	Ce-HPPC
5	Yamuna Nagar	62.4	Small Hydro	Life time of the project	Intra-state		66 kV	Ce-HPPC
6	Faridabad Gas	432	Thermal - Gas	25 Years	Intra-state		400 kV	Ce-HPPC
7	Thermal Power Station	1500	Thermal	25 Years	Intra-state		400 kV	Ce-HPPC
8	Thermal Power Station	1320	Thermal	25 Years	Intra-state		400 kV	Ce-HPPC
9	P&R Gogripur, Karnal	2	Small Hydro	25 Years	Intra-state		11 kV	Ce-HPPC
10	Puri Oil Mills, Mussapur	1.4	Small Hydro	25 Years	Intra-state		11 kV	Ce-HPPC
11	Puri Oil Mills, Khukni	1.4	Small Hydro	25 Years	Intra-state		11 kV	Ce-HPPC
12	Yamunanagar	6	Small Hydro	35 Years	Intra-state		33 kV	Ce-HPPC
13	M/s SDS Solar Pvt. Ltd.,	1	Solar	25 Years	Intra-state		33 kV	Ce-HPPC
14	M/s C&S Electric Ltd.	1	Solar	25 Years	Intra-state		33 kV	Ce-HPPC
15	Energy (P) Ltd.	0.8	Solar	25 Years	Intra-state		33 kV	Ce-HPPC
16	SUKHBIR SOLAR DH	1	Solar	25 Years	Intra-state		33 kV	Ce-HPPC
17	Structure (P) Ltd	1	Solar	25 Years	Intra-state		33 kV	Ce-HPPC
18	DH	5	Solar	25 Years	Intra-state		33 kV	Ce-HPPC
19	Pvt. Ltd.,	1	Solar	25 Years	Intra-state		132 kV	Ce-HPPC
20	M/s Tayal& Co.,	1	Solar	25 Years	Intra-state		66 kV	Ce-HPPC
21	M/s VKG Energy Pvt. Ltd.	1	Solar	25 Years	Intra-state		66 kV	Ce-HPPC
22	JBM Solar	20	Solar	25 Years	Intra-state		132 kV	Ce-HPPC
23	Utrecht Solar Pvt Ltd	1	Solar	25 Years	Intra-state		33 kV	Ce-HPPC
24	Pvt Ltd	1	Solar	25 Years	Intra-state		33 kV	Ce-HPPC
25	Pvt Ltd	1	Solar	25 Years	Intra-state		132 kV	Ce-HPPC
26	Dinod, Distt. Bhiwani.	8	Biomass	25 Years	Intra-state		132 kV	Ce-HPPC
27	Project Mahendergarh	9.9	Biomass	25 Years	Intra-state		33 kV	Ce-HPPC
28	A.B.Grains	8.93	Biomass	25 Years	Intra-state		33 kV	Ce-HPPC
29	Sri Jyoti	9.5	Biomass	25 Years	Intra-state		132 kV	Ce-HPPC
30	SHAHBAD SUGAR MILL	24	Sugarmill	20 Years	Intra-state		66 kV	Ce-HPPC
31	CH. DEVI LAL SUGAR MILL	6	Sugarmill	20 Years	Intra-state		11 kV	Ce-HPPC
32	Haryana Co. Sugar Mill.	16	Sugarmill	20 Years	Intra-state		33 kV	Ce-HPPC
33	Hafed Sugar Mill	6	Sugarmill	20 Years	Intra-state		11 kV	Ce-HPPC
34	Meham Sugar Mill	5	Sugarmill	20 Years	Intra-state		11 kV	Ce-HPPC
35	Naraingarh Sugar Mill Ltd	25	Sugarmill	20 Years	Intra-state		66 kV	Ce-HPPC
36	Ltd. Jind (Biogas)	1.2	Biomass	20 Years	Intra-state		11 kV	Ce-HPPC
37	Ltd.	50	Solar	25 Years	Intra-state		33 kV	Ce-HPPC
38	BHPP-I(Left Bank)	1532.73	Hydro	Life time of the project	Inter-state			Ce-HPPC
39	Dehar Power Plant	990	Hydro	Life time of the project	Inter-state			Ce-HPPC
40	Pong Power Plant	396	Hydro	Life time of the project	Inter-state			Ce-HPPC
41	Project Stage-I & II	2000	Thermal	25 Years	Inter-state			Ce-HPPC
42	Project-I	1000	Thermal	25 Years	Inter-state			Ce-HPPC
43	Project-II	1000	Thermal	25 Years	Inter-state			Ce-HPPC
44	Project-III	1000	Thermal	25 Years	Inter-state			Ce-HPPC
45	Super Thermal Stage-I	420	Thermal	25 Years	Inter-state			Ce-HPPC
46	Super Thermal Stage-II	420	Thermal	25 Years	Inter-state			Ce-HPPC
47	Super Thermal Stage-III	210	Thermal	25 Years	Inter-state			Ce-HPPC
48	Super Thermal Stage-IV	500	Thermal	25 Years	Inter-state			Ce-HPPC
49	Farakha Stage- I,II and III	1600	Thermal	25 Years	Inter-state			Ce-HPPC
50	Kahalgaon-I (Bihar)	840	Thermal	25 Years	Inter-state			Ce-HPPC
51	Kahalgaon-II (Bihar)	1500	Thermal	25 Years	Inter-state			Ce-HPPC
52	Koldam HEP NTPC (H.P.)	800	Hydro	40 Years	Inter-state			Ce-HPPC
53	Anta Gas	419.33	Thermal - Gas	25 Years	Inter-state			Ce-HPPC
54	Auriya Gas	663.36	Thermal - Gas	25 Years	Inter-state			Ce-HPPC
55	Dadri Gas	829.58	Thermal - Gas	25 Years	Inter-state			Ce-HPPC

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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)
1	Bhakra-Nagal Complex	1532.73	Hydro	Life time of the project	Inter-state	_	_	_								
2	Dehar Power Plant	990	Hydro	Life time of the project	Inter-state	_	_	_								
3	Pong Power Plant	396	Hydro	Life time of the project	Inter-state	_	_	_								
4	Singrauli Super Thermal Pr	2000	Thermal	25 Years	Inter-state	_	_	_								
5	Rihand Super Thermal Proj	1000	Thermal	25 Years	Inter-state	_	_	_								
6	Rihand Super Thermal Proj	1000	Thermal	47908	Inter-state	_	_	_								
7	Rihand Super Thermal Proj	1000	Thermal	25 Years	Inter-state	_	_	_								
8	Feroze Gandhi Unchahar St	420	Thermal	25 Years	Inter-state	_	_	_								
9	Feroze Gandhi Unchahar St	420	Thermal	25 Years	Inter-state	_	_	_								
10	Feroze Gandhi Unchahar St	210	Thermal	25 Years	Inter-state	_	_	_								
11	Feroze Gandhi Unchahar St	500	Thermal	25 Years	Inter-state	_	_	_								
12	Farakha Stage-I,II and III	1600	Thermal	25 Years	Inter-state	_	_	_								
13	Kahalgaon-I (Bihar)	840	Thermal	25 Years	Inter-state	_	_	_								
14	Kahalgaon-II (Bihar)	1500	Thermal	25 Years	Inter-state	_	_	_								
15	Koldam HEP NTPC (H.P.)	800	Hydro	40 Years	Inter-state	_	_	_								
16	Anta Gas	419.33	Thermal - Gas	25 Years	Inter-state	_	_	_								
17	Auriya Gas	663.36	Thermal - Gas	25 Years	Inter-state	_	_	_								
18	Dadri Gas	829.58	Thermal - Gas	25 Years	Inter-state	_	_	_								
19	Ragunathpur TPS (DVC)	1200	Thermal	25 Years	Inter-state	_	_	_								
20	Koderma TPP (DVC)	1000	Thermal	25 Years	Inter-state	_	_	_								
21	Mejia B TPS (DVC)	1000	Thermal	25 Years	Inter-state	_	_	_								
22	Pragati Gas Power Station	1371	Thermal - Gas	15 Years	Inter-state	_	_	_								
23	Baira-Suil Hydel Project (NH	180	Hydro	35 Years (aditional 25 years	Inter-state	_	_	_								
24	Salal Hydro -Elect. Project S	690	Hydro	35 Years	Inter-state	_	_	_								
25	Tanakpur Hydel	120	Hydro	35 Years	Inter-state	_	_	_								
26	Chamera Hydel	540	Hydro	35 Years	Inter-state	_	_	_								
27	Chamera-III HEP(HP)	231	Hydro	35 Years	Inter-state	_	_	_								
28	Chamera II	300	Hydro	35 Years	Inter-state	_	_	_								
29	Uri Hydel	480	Hydro	35 Years	Inter-state	_	_	_								
30	Uri - II (Hydel)	240	Hydro	40 Years	Inter-state	_	_	_								
31	Dhauli Ganga	280	Hydro	35 Years	Inter-state	_	_	_								
32	Dhulhasti	390	Hydro	35 Years	Inter-state	_	_	_								
33	SEWA-II	120	Hydro	35 Years	Inter-state	_	_	_								
34	Parwati III	520	Hydro	40 Years	Inter-state	_	_	_								
35	Tehri Hydel (THDC)	1000	Hydro	35 Years	Inter-state	_	_	_								
36	Koteshwar (Uttranachal) (T	400	Hydro	35 Years	Inter-state	_	_	_								
37	Rampur Hydel (SJVNL)	410.22	Hydro	35 Years	Inter-state	_	_	_								
38	NJPC (SJVNL)	1500	Hydro	35 Years	Inter-state	_	_	_								
39	Tala Hydro	1020	Hydro	35 Years	Inter-state	_	_	_								
40	Narora Atomic Power Stati	440	Nuclear	15 Years	Inter-state	_	_	_								
41	RAPP stage-3 & 4	440	Nuclear	15 Years	Inter-state	_	_	_								
42	RAPP 5 & 6	440	Nuclear	15 Years	Inter-state	_	_	_								
43	Kameng HEP - NEEPCO Uni	600	Hydro	5 Years	Inter-state	_	_	_								
44	Mundra UMPP (Gujarat) (C	4000	Thermal	25 Years	Inter-state	_	_	_								
45	Adani-Case-1 bidding (IPP)	1980	Thermal	25Years	Inter-state	_	_	_								
46	Lanco Amarkantak/ PTC	600	Thermal	25 Years	Inter-state	_	_	_								
47	Sasan Power Ltd.of Relianc	3960	Thermal	25 Years	Inter-state	_	_	_								
48	PTC GMR Thermal	1050	Thermal	25 Years	Inter-state	_	_	_								
49	Karcham Wangtoo (Hydro	1000	Hydro	35 Years	Inter-state	_	_	_								
50	Baglihar (PTC J&K)	450	Hydro	12 Years	Inter-state	_	_	_								
51	Chuzachain HEP Sikkim	110	Hydro	35 Years	Inter-state	_	_	_								
52	Solar through SECI	80	Solar	25 Years	Inter-state	_	_	_								
53	Wind Power from 2nd phas	1000	Wind	25 Years	Inter-state	_	_	_								
54	Wind Power from 3rd phas	2000	Wind	25 Years	Inter-state	_	_	_								
55	Baglihar HEP Stage-I	100	Hydro	10 Years	Inter-state	_	_	_								
56	Solar Power through comp	2000	Solar	25 Years	Inter-state	_	_	_								
57	Hybrid Power through com	75	Solar	25 Years	Inter-state	_	_	_								
58	Solar Power through comp	112.5	Solar	25 Years	Inter-state	_	_	_								
59	Hybrid Power through com	25	Solar	25 Years	Inter-state	_	_	_								
60	Wind Power from 2nd phas	1000	Wind	25 Years	Inter-state	_	_	_								

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(Details of Consumers)

Summary of Energy

Period From....To....

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	Domestic	LT	240 V/440 V	2650411	5805.426987	
2	Commercial	LT	240 V/440 V	372223	519.0275834	
3	IP Sets	LT	440 V	332332	3527.439905	
4	Hor. & Nur. & Coffee/Tea & Rubber (Metered)					
5	Hor. & Nur. & Coffee/Tea & Rubber (Flat)					
6	Heating and Motive Power					
7	Water Supply	LT	440 V	9627	618.4261775	
8	Public Lighting	LT	440 V	2316	69.43570857	
9	HT Water Supply					
10	HT Industrial	HT	11 KV	9211	6251.887444	
11	Industrial (Small)	HT	11 KV	45504	1899.207144	
12	Industrial (Medium)					
13	HT Commercial					
14	Applicable to Government Hospitals & Hospitals					
15	Lift Irrigation Schemes/Lift Irrigation Societies	LT	440 V	224	47.74216063	
16	HT Res. Apartments Applicable to all areas					
17	Mixed Load					
18	Government offices and department					
19	Others-1 (if any , specify in remarks)	LT	240 V/440 V	525	327.7128893	
20	Others-2 (if any , specify in remarks)					
21	Others-3 (if any , specify in remarks)					
22	Others-4 (if any , specify in remarks)					
23	Others-5 (if any , specify in remarks)					
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			Total	3422373	19066.31	

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IX. List of Document Verified with each parameters

Sr No.	Sub Category	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Total 21-22
1	Domestic	3,197.91	3,745.60	4,790.31	6,478.80	6,930.49	7,327.12	6,680.54	5,421.05	3,885.98	3,490.19	3,581.58	3,161.07	58,690.64
2	NDS	-	-	-										-
3	HT	5,762.91	5,142.42	3,935.76	5,011.98	5,732.74	5,848.76	5,632.84	6,156.81	5,347.22	6,138.80	6,156.82	5,458.08	66,325.14
4	LT	1,392.87	1,525.50	1,372.95	1,824.92	2,056.11	2,000.18	1,974.67	1,738.61	1,592.01	1,459.63	1,534.70	1,439.52	19,911.67
5	Agriculture	1,993.99	1,571.08	2,206.07	5,638.39	7,166.49	6,337.40	2,734.68	2,882.87	1,668.32	1,901.91	448.99	732.69	35,282.88
6	Lift Irrigation	-	-	-								-		-
7	Bulk Supply	170.65	189.93	233.07	299.99	342.14	325.65	295.96	243.50	188.18	249.74	278.34	228.85	3,046.00
8	Railway Traction	-	-	-										-
9	Street Light	19.03	18.51	26.13	58.11	48.07	90.96	61.54	63.78	65.46	62.52	65.48	63.98	643.57
10	MITC	-	-	-										-
11	Public water works	474.60	541.90	555.73	526.38	624.67	609.54	599.94	626.54	524.02	585.07	531.98	508.87	6,709.24
12	Independent Hoarding	-	-	-										-
13	Temporary	-	-	-										-
14	DMRC	-	-	-										-
15	Agro Industries/FPO	30.61	0.53	1.37	2.35	2.52	4.26	1.93	0.72	1.08	3.43	2.08	3.04	53.92
16	Electric Charging Station	-	-	-										-
17	Electric Crematorium	-	-	-										-

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Total Unit Sold (LUs)	**13,042.57**	**12,735.47**	**13,121.39**	**19,840.92**	**22,903.23**	**22,543.87**	**17,982.10**	**17,133.88**	**13,272.27**	**13,891.29**	**12,599.97**	**11,596.10**	**190,663.06**
Gross Unit Purchased (LUs)	16994.41	17266.30	25213.25	29003.64	28619.52	21056.02	19482.85	14701.77	16346.22	15285.36	13432.9	19687.46	237,089.70
Transmission Losses (LUs)	956.15	556.96	893.09	957.92	1187.04	754.78	643.7	661.7	708.91	563.88	143.29	645.38	8,672.80
Other State Sales (LUs)	1189.36	394.24	153.01	151.86	175.56	86.2	33.01	467.33	632.5	839.71	791.08	1916	6,829.86
Units available for sale (LUs)	14848.90	16315.10	24167.15	27893.86	27256.92	20215.04	18806.14	13572.74	15004.81	13881.77	12498.53	17126.08	221,587.04
Distribution Losses (LUs)	1806.33	3579.63	11045.76	8052.94	4353.69	-2328.83	824.04	-3561.14	1732.54	-9.52	-101.44	5529.98	30,923.98
Distribution Losses in %	12.16	21.94	45.71	28.87	15.97	-11.52	4.38	-26.24	11.55	-0.07	-0.81	32.29	13.96
Assessment (Crore)													
SOP	704.66	733.55	681.32	850.70	916.99	1,033.90	932.77	891.03	751.19	811.59	795.96	746.93	9,850.59
FSA	40.14	41.41	41.49	50.95	62.86	24.07	4.43	1.54	0.61	0.03	0.03	0.01	267.57
Subsidy	-	-	233.33	290.83	-	-	466.66	233.34	5.57	371.37	-	1,674.74	3,275.84
Realization (Crore)													
SOP	659.48	655.52	654.44	818.79	928.09	986.53	928.60	940.25	903.30	879.14	859.07	860.08	10,073.29
FSA	34.01	33.61	35.10	40.41	46.95	28.73	8.96	5.48	3.44	1.79	1.18	1.29	240.94
Subsidy	-	-	233.33	290.83	-	-	466.66	233.34	5.57	371.37	-	1,674.74	3,275.84
Collection Efficency	93.11	88.92	96.52	96.44	99.51	95.96	100.03	104.72	120.46	105.86	108.07	104.73	101.46
AT&C Losses	18.22	30.59	47.60	31.40	16.39	-7.02	4.36	-32.20	-6.55	-5.93	-8.95	29.09	12.70

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Circle Wise Consumpion in respect of UHBVN for the FY 2021-22

Circle Name	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	TOTAL
Ambala	1682.9734	1963.84982	2929.09973	3471.01339	2639.7262	1887.850146	1387.46159	1119.754833	1140.769284	1036.27891	899.368809	1381.45636	21539.60246
Karnal	1649.01778	2064.76679	3458.87823	3668.15204	3614.98217	2257.93229	2341.52292	1642.598095	1751.889436	1548.30665	1424.06562	1901.36099	27323.47302
Kurukshetra	1044.6147	1324.09741	2563.68858	2909.67223	2586.27439	1525.869054	1244.44589	963.125462	903.007249	720.317179	565.507411	1078.51607	17429.13561
Rohtak	1471.42313	1559.94577	1956.97317	2168.87766	2260.74699	1934.987345	1737.69478	1226.261526	1374.626555	1485.73863	1279.18227	1484.67649	19941.13431
Sonipat	2587.46014	2543.26741	3322.25786	4000.70618	3974.44262	3187.169642	3159.93793	2227.322985	2571.848717	2495.73427	2338.10456	2772.46496	35180.71727
Yamunanagar	1546.93476	1660.13187	2442.82835	2977.08512	2288.49905	1642.59969	1412.30287	1187.851456	1265.667842	1140.46051	1019.97252	1451.11215	20035.44618
Panipat	2323.74373	2368.09311	3162.66792	3889.79285	3894.23558	3162.038656	3174.02905	2154.032187	2464.145513	2367.19457	2117.97871	2505.38289	33583.33476
Jhajjar	1574.71625	1454.45015	1845.45935	2067.74315	2157.4721	1909.969231	1765.4934	1404.676647	1669.959412	1609.54	1475.65709	1710.22056	20645.35734
Kaithal	976.072938	1444.43541	2635.20268	2896.98956	2762.87739	1787.186926	1794.81651	988.2560873	1080.344149	709.394117	708.907432	1083.50591	18867.98910
Panchkula	0	0	0	0	1184.79126	984.792191	781.990012	642.216264	746.714415	763.853661	636.134679	781.021448	6521.51393
	14856.9568	**16383.0377**	**24317.0559**	**28050.0322**	**27364.0477**	**20280.39517**	**18799.6949**	**13556.09554**	**14968.97257**	**13876.8185**	**12464.8791**	**16149.7178**	**221067.704**

ACTUAL POWER PURCHASE BY INDUSTRIAL CONSUMERS THROUGH OPEN ACCESS:-

Circle Name	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	TOTAL
Ambala	0.000	2.429	9.044	5.367	1.781	0.451	0.000	0.686	5.251	7.117	1.740	0.000	33.86585
Karnal	0.000	0.000	0.173	0.318	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.49102
Kurukshetra	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000
Rohtak	0.000	0.000	0.254	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.25373
Sonipat	3.552	0.579	1.624	4.395	2.708	3.029	1.666	3.656	3.263	7.175	4.806	1.532	37.98686
Yamuna Nagar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000
Panipat	0.806	16.710	69.233	40.583	16.634	4.065	0.000	8.371	16.549	14.197	5.024	0.000	192.17322
Jhajjar	20.143	37.584	45.321	37.997	16.609	15.833	9.872	34.739	32.369	40.718	23.608	1.600	316.39183
Kaithal	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00000
Panchkula	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.497	2.734	0.000	3.23038
	24.50136	**57.30180**	**125.64850**	**88.65998**	**37.73269**	**23.37877**	**11.53817**	**47.45147**	**57.43197**	**69.70256**	**37.91319**	**3.13243**	**584.39289**

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Net Power Purchase By UHBVN after Deducting Industrial Through Open Access.													
Circle Name	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	TOTAL
Ambala	1682.9734	1961.4210	2920.0556	3465.6464	2637.9452	1887.3989	1387.4616	1119.0690	1135.5180	1029.1624	897.6287	1381.4564	21505.7366
Karnal	1649.0178	2064.7668	3458.7052	3667.8341	3614.9822	2257.9323	2341.5229	1642.5981	1751.8894	1548.3066	1424.0656	1901.3610	27322.9820
Kurukshetra	1044.6147	1324.0974	2563.6886	2909.6722	2586.2744	1525.8691	1244.4459	963.1255	903.0072	720.3172	565.5074	1078.5161	17429.1356
Rohtak	1471.4231	1559.9458	1956.7194	2168.8777	2260.7470	1934.9873	1737.6948	1226.2615	1374.6266	1485.7386	1279.1823	1484.6765	19940.8806
Sonipat	2583.9078	2542.6882	3320.6341	3996.3116	3971.7343	3184.1404	3158.2714	2223.6670	2568.5855	2488.5592	2333.2981	2770.9327	35142.7304
Yamuna Nagar	1546.9348	1660.1319	2442.8284	2977.0851	2288.4990	1642.5997	1412.3029	1187.8515	1265.6678	1140.4605	1019.9725	1451.1122	20035.4462
Panipat	2322.9375	2351.3830	3093.4348	3849.2096	3877.6013	3157.9732	3174.0291	2145.6611	2447.5969	2352.9980	2112.9542	2505.3829	33391.1615
Jhajjar	1554.5735	1416.8664	1800.1387	2029.7460	2140.8630	1894.1364	1755.6217	1369.9381	1637.5905	1568.8222	1452.0487	1708.6204	20328.9655
Kaithal	976.0729	1444.4354	2635.2027	2896.9896	2762.8774	1787.1869	1794.8165	988.2561	1080.3441	709.3941	708.9074	1083.5059	18867.9891
Panchkula					1184.7913	984.7922	781.9900	642.2163	746.7144	763.3570	633.4010	781.0214	6518.2836
	14832.4555	**16325.7359**	**24191.4074**	**27961.3722**	**27326.3150**	**20257.0164**	**18788.1568**	**13508.6441**	**14911.5406**	**13807.1159**	**12426.9659**	**16146.5854**	**220483.3111**

33kv Unit	April	May	June	July	August	September	October	November	December	January	February	March	Total
Ambala (VKG, Tay	20.73042	18.06609	15.46149	16.46155	15.48674	8.31234	6.623796	22.49847	22.41925	13.58546	6.213102	13.85	179.71
Karnal (Puri p&R &	10.95557	6.94279	-0.04160	0.09320	10.72601	11.16816	5.02274	4.61840	6.35080	14.80360	11.90140	13.14190	95.68
Kurukshetra													0.00
Rohtak (HR HCSM	25.91606	20.86663	1.21637	0.97375	1.14969	1.00176	1.485745	31.65288	56.08230	42.81017	36.93479	44.00647	264.10
Sonipat (JBM & D	4.94438	1.11351	0.00000		33.78630	34.60080	40.97868	42.17436	54.63023	36.68709	34.94007	51.71747	335.57
Yamuna Nagar (BF	5.43900	10.47200	11.65500	7.04800	2.92500	4.60000	10.013	5.10900	5.60700	4.81400	1.85100	3.35000	72.88
Panipat (HPGCL)	16.81098	14.76276	15.89244	12.21342	12.99120	11.03550	14.46168	11.22222	9.81660	6.60996	13.10922	16.87182	155.80
Jhajjar													
Kaithal													
Panchkula													
Total	**84.79641**	**72.22378**	**44.18370**	**36.78992**	**77.06493**	**70.71855**	**78.58564**	**117.27533**	**154.90618**	**119.31027**	**104.94958**	**142.93457**	**1103.73886**

Net Power Purchase By UHBVN after Deducting Industrial Through Open Access.													
Circle Name	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	TOTAL
Ambala	1703.70	1979.49	2935.52	3482.11	2653.43	1895.71	1394.09	1141.57	1157.94	1042.75	903.84	1395.30	21685.44
Karnal	1659.97	2071.71	3458.66	3667.93	3625.71	2269.10	2346.55	1647.22	1758.24	1563.11	1435.97	1914.50	27418.66
Kurukshetra	1044.61	1324.10	2563.69	2909.67	2586.27	1525.87	1244.45	963.13	903.01	720.32	565.51	1078.52	17429.14
Rohtak	1497.34	1580.81	1957.94	2169.85	2261.90	1935.99	1739.18	1257.91	1430.71	1528.55	1316.12	1528.68	20204.98
Sonipat	2588.85	2543.80	3320.63	3996.31	4005.52	3218.74	3199.25	2265.84	2623.22	2525.25	2368.24	2822.65	35478.30
Yamuna Nagar	1552.37	1670.60	2454.48	2984.13	2291.42	1647.20	1422.32	1192.96	1271.27	1145.27	1021.82	1454.46	20108.33
Panipat	2339.75	2366.15	3109.33	3861.42	3890.59	3169.01	3188.49	2156.88	2457.41	2359.61	2126.06	2522.25	33546.96
Jhajjar	1554.57	1416.87	1800.14	2029.75	2140.86	1894.14	1755.62	1369.94	1637.59	1568.82	1452.05	1708.62	20328.97
Kaithal	976.07	1444.44	2635.20	2896.99	2762.88	1787.19	1794.82	988.26	1080.34	709.39	708.91	1083.51	18867.99
Panchkula					1184.79	984.79	781.99	642.22	746.71	763.36	633.40	781.02	6518.28
Total	**14917.25**	**16397.96**	**24235.59**	**27998.16**	**27403.38**	**20327.73**	**18866.74**	**13625.92**	**15066.45**	**13926.43**	**12531.92**	**16289.52**	**221587.05**

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Month wise Assessment

LC		Category	Final	
			Billed Amount in Rs. Crore	Collected Amount in Rs. Crore
401	Pinjore	Agri Metered	37.09	46.49
401		Agri Unmetered	34.48	34.32
401		Domestic	28.20	30.47
401		HT	35.35	33.52
401		LT	25.27	24.73
401		Others	**160.40**	**169.52**
401 Total				
402	**Xen 'OP', Division, Panchkula**	Agri Metered	167.72	179.04
402		Agri Unmetered	31.33	31.05
402		Domestic	71.01	75.62
402		HT	103.20	106.82
402		LT	97.85	101.15
402		Others	**471.12**	**493.68**
402 Total				
403	**Xen 'OP', Division, Ambala Cantt**	Agri Metered	135.49	152.01
403		Agri Unmetered	143.56	141.23
403		Domestic	70.96	75.90
403		HT	123.01	110.42
403		LT	85.20	80.57
403		Others	**558.22**	**560.14**
403 Total				
404	**Xen 'OP', Division, Ambala City**	Agri Metered	111.48	126.67
404		Agri Unmetered	56.44	56.17
404		Domestic	58.50	61.58
404		HT	46.30	46.52
404		LT	28.31	26.94
404		Others	**301.02**	**317.88**
404 Total				
405	**Xen 'OP', Divn, Sub Urban Jagadhri**	Agri Metered	109.36	102.28
405		Agri Unmetered	88.18	87.44
405		Domestic	76.26	79.30
405		HT	159.76	161.88
405		LT	32.58	31.66
405		Others	**466.14**	**462.56**
405 Total				
406	**Xen 'OP', Division, Y.Nagar**	Agri Metered	142.81	147.90
406		Agri Unmetered	133.67	132.76
406		Domestic	71.01	66.18
406		HT		

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406		LT	241.02	240.67
406		Others	26.40	24.55
406 Total			**614.91**	**612.06**
407	**Xen 'OP', Division, Nargaingarh**	Agri Metered		
407		Agri Unmetered	41.10	40.80
407		Domestic	132.51	131.00
407		HT	23.80	22.64
407		LT	27.14	29.96
407		Others	17.45	14.10
407 Total			**242.01**	**238.50**
408	Bilaspur	Agri Metered		
408		Agri Unmetered	29.80	36.02
408		Domestic	81.14	79.98
408		HT	11.24	7.71
408		LT	18.31	19.52
408		Others	9.52	8.68
408 Total			**150.01**	**151.91**
416	**Xen City 'OP', Division, Sonepat**	Agri Metered		
416		Agri Unmetered	151.53	148.36
416		Domestic	38.63	38.35
416		HT	118.57	123.50
416		LT	860.99	890.44
416		Others	46.18	51.14
416 Total			**1215.90**	**1251.79**
417	**Xen S/U, Division, Sonepat**	Agri Metered		
417		Agri Unmetered	99.47	90.04
417		Domestic	140.76	139.64
417		HT	73.94	71.65
417		LT	402.14	412.06
417		Others	25.04	26.82
417 Total			**741.35**	**740.21**
418	**Xen 'OP', Division, Gohana**	Agri Metered		
418		Agri Unmetered	63.89	63.72
418		Domestic	73.44	73.54
418		HT	60.10	60.49
418		LT	10.78	11.19
418		Others	18.00	17.47
418 Total			**226.21**	**226.40**
443	**Asandh Dvision Karnal**	Agri Metered		
443		Agri Unmetered	58.60	61.10
443		Domestic	225.20	226.37
443		HT	17.99	16.67
443		LT	84.53	86.12

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443		Others	10.19	9.82
443 Total			**396.51**	**400.07**
444	**Xen 'OP', Division, Karnal**	Agri Metered		
444		Agri Unmetered	166.46	167.30
444		Domestic	88.24	89.15
444		HT	86.97	92.47
444		LT	137.25	130.08
444		Others	38.80	51.10
444 Total			**517.72**	**530.10**
445	**Xen S/U-1, Division, Karnal**	Agri Metered		
445		Agri Unmetered	79.26	83.99
445		Domestic	167.80	168.46
445		HT	27.21	28.85
445		LT	126.95	130.58
445		Others	20.52	20.04
445 Total			**421.74**	**431.92**
446	**Xen 'OP', City Division, Panipat**	Agri Metered		
446		Agri Unmetered	143.38	149.87
446		Domestic	3.43	3.45
446		HT	129.91	136.12
446		LT	351.55	373.76
446		Others	22.09	19.92
446 Total			**650.37**	**683.11**
447	**Xen S/U, Division, Panipat**	Agri Metered		
447		Agri Unmetered	77.92	100.61
447		Domestic	112.26	112.59
447		HT	47.27	67.01
447		LT	581.76	567.63
447		Others	27.27	34.01
447 Total			**846.47**	**881.84**
448	**Xen S/U No. II, Karnal**	Agri Metered		
448		Agri Unmetered	59.97	67.23
448		Domestic	181.16	180.58
448		HT	20.92	22.33
448		LT	250.98	259.08
448		Others	11.32	11.12
448 Total			**524.35**	**540.33**
451	**Xen 'OP', Division, Smalkha**	Agri Metered		
451		Agri Unmetered	78.86	87.58
451		Domestic	82.68	82.64
451		HT	62.49	65.65
451		LT	276.34	272.99
451		Others	12.16	9.48
451 Total			**512.53**	**518.34**

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452	**Xen 'OP', Division, Kurukshetra**	Agri Metered		
452		Agri Unmetered	109.64	142.94
452		Domestic	160.86	158.84
452		HT	30.99	43.73
452		LT	69.22	55.42
452		Others	45.74	30.62
452 Total			**416.45**	**431.55**
453	**Xen 'OP', Division, Shahabad**	Agri Metered		
453		Agri Unmetered	54.67	56.74
453		Domestic	154.66	154.83
453		HT	21.46	21.67
453		LT	27.54	27.02
453		Others	11.09	10.71
453 Total			**269.42**	**270.96**
454	**Xen 'OP', Division, Pehowa**	Agri Metered		
454		Agri Unmetered	61.01	64.06
454		Domestic	173.29	172.92
454		HT	20.78	20.71
454		LT	37.09	37.86
454		Others	10.78	11.50
454 Total			**302.94**	**307.05**
455	**Xen 'OP', Division, Kaithal**	Agri Metered		
455		Agri Unmetered	103.32	104.33
455		Domestic	222.67	223.08
455		HT	42.55	43.90
455		LT	74.88	71.28
455		Others	19.17	20.05
455 Total			**462.59**	**462.64**
456	**Xen 'OP', Division, Pundri**	Agri Metered		
456		Agri Unmetered	64.94	79.16
456		Domestic	283.81	283.71
456		HT	17.86	11.07
456		LT	10.39	9.20
456		Others	11.79	9.20
456 Total			**388.79**	**392.35**
457	**Xen 'OP' Division Gulha**	Agri Metered		
457		Agri Unmetered	54.75	54.59
457		Domestic	311.44	309.17
457		HT	16.06	13.54
457		LT	50.10	50.93
457		Others	8.45	7.63
457 Total			**440.79**	**435.86**
458	**Xen S/U-1,Rohtak**	Agri Metered		
458		Agri Unmetered	80.13	60.32

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458		Domestic	11.16	11.23
458		HT	28.28	18.78
458		LT	45.43	45.49
458		Others	34.34	48.38
458 Total			**199.35**	**184.20**
459	**Xen 'OP', City Division, Rohtak**	Agri Metered	155.96	166.37
459		Domestic	0.17	0.17
459		HT	111.90	129.78
459		LT	229.35	196.02
459		Others	43.98	35.57
459 Total			**541.37**	**527.91**
460	**Xen S/U-II,Rohtak**	Agri Metered	56.96	44.32
460		Domestic	9.42	9.47
460		HT	16.49	14.48
460		LT	162.65	165.89
460		Others	12.62	14.46
460 Total			**258.14**	**248.62**
461	Xen 'OP', Division, Jhajjar	Agri Metered		
461		Agri Unmetered	49.20	56.35
461		Domestic	43.36	42.81
461		HT	23.46	20.57
461		LT	64.81	63.72
461		Others	14.28	14.36
461 Total			**195.12**	**197.81**
462	Xen 'OP', Division, Bahadurgarh	Agri Metered		
462		Agri Unmetered	86.87	93.02
462		Domestic	2.80	2.81
462		HT	68.75	72.27
462		LT	472.70	485.51
462		Others	32.99	27.06
462 Total			**664.11**	**680.65**
463	Xen 'OP' Division, Beri	Agri Metered		
463		Agri Unmetered	43.76	40.77
463		Domestic	25.77	25.59
463		HT	13.24	9.62
463		LT	117.99	121.55
463		Others	37.22	42.58
463 Total			**237.96**	**240.12**
Grand Total				
			13,394.01	**13,590.07**

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UNIT SOLD FOR FY 2021-22 (in LUs)				
LC				
401	Xen 'OP', Division, Pinjore	Residential	90.87	
401		Agricultural	45.84	9.84
401		Commercial/Industrial-LT	37.81	
401		Commercial/Industrial-HT	42.71	
401		Others	31.28	
401				
401 Total				
402	Xen 'OP', Division, Panchkula	Residential	319.59	
402		Agricultural	27.78	4.41
402		Commercial/Industrial-LT	84.53	
402		Commercial/Industrial-HT	114.92	
402		Others	132.75	
402				
402 Total				
403	Xen 'OP', Division, Ambala Cantt	Residential	298.90	
403		Agricultural	93.34	87.63
403		Commercial/Industrial-LT	98.75	
403		Commercial/Industrial-HT	165.46	
403		Others	127.58	
403				
403 Total				
404	Xen 'OP', Division, Ambala City	Residential	229.44	
404		Agricultural	56.89	0.65
404		Commercial/Industrial-LT	77.37	
404		Commercial/Industrial-HT	56.68	
404		Others	32.40	
404				
404 Total				
405	Xen 'OP', Divn, Sub Urban Jagadhri	Residential	221.63	
405		Agricultural	75.16	27.63
405		Commercial/Industrial-LT	78.29	
405		Commercial/Industrial-HT	209.05	
405		Others	39.15	
405				
405 Total				
406	Xen 'OP', Division, Y.Nagar	Residential	296.53	
406		Agricultural	79.15	77.83
406		Commercial/Industrial-LT	91.69	
406		Commercial/Industrial-HT	300.18	
406		Others	31.50	
406				
406 Total				
407	Xen 'OP', Division, Nargaingarh	Residential	102.87	
407		Agricultural	94.73	49.01
407		Commercial/Industrial-LT	26.25	
407		Commercial/Industrial-HT	33.47	
407		Others	23.52	
407				
407 Total				
408	Xen 'OP', Division, Bilaspur	Residential	66.05	
408		Agricultural	53.45	14.36
408		Commercial/Industrial-LT	16.78	
408		Commercial/Industrial-HT	20.97	
408		Others	12.31	
408				
408 Total				
416	Xen City 'OP', Division, Sonepat	Residential	322.66	
416		Agricultural	26.61	5.27
416		Commercial/Industrial-LT	152.04	
416		Commercial/Industrial-HT	1,081.68	
416		Others	64.20	
416				

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416 Total				
417	Xen S/U, Division, Sonepat	Residential	226.83	
417		Agricultural	122.83	23.64
417		Commercial/Industrial-LT	107.39	
417		Commercial/Industrial-HT	494.84	
417		Others	29.82	
417				
417 Total				
418	Xen 'OP', Division, Gohana	Residential	148.46	
418		Agricultural	61.01	8.21
418		Commercial/Industrial-LT	24.43	
418		Commercial/Industrial-HT	65.08	
418		Others	14.42	
418				
418 Total				
443	Asandh Dvision Karnal	Residential	131.55	
443		Agricultural	102.90	104.90
443		Commercial/Industrial-LT	21.24	
443		Commercial/Industrial-HT	110.06	
443		Others	10.96	
443				
443 Total				
444	Xen 'OP', Division, Karnal	Residential	338.60	
444		Agricultural	33.13	53.06
444		Commercial/Industrial-LT	129.14	
444		Commercial/Industrial-HT	154.13	
444		Others	56.03	
444				
444 Total				
445	Xen S/U-1, Division, Karnal	Residential	193.96	
445		Agricultural	69.61	149.47
445		Commercial/Industrial-LT	38.34	
445		Commercial/Industrial-HT	159.92	
445		Others	24.11	
445				
445 Total				
446	Xen 'OP', Division, Panipat	Residential	269.63	
446		Agricultural	2.62	0.51
446		Commercial/Industrial-LT	184.09	
446		Commercial/Industrial-HT	431.18	
446		Others	25.71	
446				
446 Total				
447	Xen S/U, Division, Panipat	Residential	208.56	
447		Agricultural	166.31	
447		Commercial/Industrial-LT	74.27	
447		Commercial/Industrial-HT	778.92	
447		Others	32.53	
447 Total				
448	Xen S/U-II, Division, Karnal	Residential	149.36	
448		Agricultural	80.08	95.65
448		Commercial/Industrial-LT	28.11	
448		Commercial/Industrial-HT	328.22	
448		Others	12.50	
448				
448 Total				
451	Xen 'OP', Division, Smalkha	Residential	184.42	
451		Agricultural	161.35	2.31
451		Commercial/Industrial-LT	92.01	
451		Commercial/Industrial-HT	375.23	
451		Others	13.56	
451				

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451 Total				
452	Xen 'OP', Division, Kurukshetra	Residential	263.06	
452		Agricultural	78.76	99.35
452		Commercial/Industrial-LT	83.85	
452		Commercial/Industrial-HT	64.65	
452		Others	51.58	
452				
452 Total				
453	Xen 'OP', Division, Shahabad	Residential	122.18	
453		Agricultural	105.12	85.24
453		Commercial/Industrial-LT	34.82	
453		Commercial/Industrial-HT	22.71	
453		Others	14.74	
453				
453 Total				
454	Xen 'OP', Division, Pehowa	Residential	134.66	
454		Agricultural	84.13	126.88
454		Commercial/Industrial-LT	29.50	
454		Commercial/Industrial-HT	42.89	
454		Others	12.51	
454				
454 Total				
455	Xen 'OP', Division, Kaithal	Residential	221.99	
455		Agricultural	163.84	74.70
455		Commercial/Industrial-LT	60.24	
455		Commercial/Industrial-HT	85.10	
455		Others	20.58	
455				
455 Total				
456	Xen 'OP', Division, Pundri	Residential	161.40	
456		Agricultural	28.00	271.61
456		Commercial/Industrial-LT	28.97	
456		Commercial/Industrial-HT	13.04	
456		Others	13.35	
456				
456 Total				
457	Xen 'OP' Division Gulha	Residential	121.32	
457		Agricultural	102.24	129.27
457		Commercial/Industrial-LT	18.42	
457		Commercial/Industrial-HT	64.53	
457		Others	9.37	
457				
457 Total				
458	Xen S/U-1,Rohtak	Residential	181.45	
458		Agricultural	22.92	0.19
458		Commercial/Industrial-LT	41.32	
458		Commercial/Industrial-HT	65.26	
458		Others	56.65	
458				
458 Total				
459	Xen 'OP', City Division, Rohtak	Residential	328.90	
459		Agricultural	0.16	
459		Commercial/Industrial-LT	160.78	
459		Commercial/Industrial-HT	253.12	
459		Others	39.05	
459 Total				
460	Xen S/U-II, Division, Rohtak	Residential	105.04	
460		Agricultural	15.48	
460		Commercial/Industrial-LT	23.16	
460		Commercial/Industrial-HT	224.01	
460		Others	12.74	

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460 Total				
461	Xen 'OP', Division, Jhajjar	Residential	130.79	
461		Agricultural	28.10	3.80
461		Commercial/Industrial-LT	39.32	
461		Commercial/Industrial-HT	71.21	
461		Others	13.59	
461				
461 Total				
462	Xen 'OP', Division, Bahadurgarh	Residential	197.74	
462		Agricultural	2.07	0.59
462		Commercial/Industrial-LT	92.05	
462		Commercial/Industrial-HT	628.98	
462		Others	41.02	
462				
462 Total				
463	Xen 'OP' Division, Beri	Residential	100.64	
463		Agricultural	23.86	14.84
463		Commercial/Industrial-LT	16.20	
463		Commercial/Industrial-HT	174.33	
463		Others	45.78	
463				
463 Total				
Grand Total			17,545.49	1,520.81

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X. Brief description of Unit

General Information				
1	**Name of the DISCOM**	UHBVN		
2	**i) Year of Establishment**	1999		
	ii) Government/Public/Private	Government		
3	**DISCOM's Contact details & Address**			
i	City/Town/Village	Panchkula		
ii	District	Panchkula		
iii	State	Haryana	Pin	134109
iv	Telephone	0172-2584350	Fax	0172-2584350
4	**Registered Office**			
i	Company's Chief Executive Name	Sh. Saket Kumar		
ii	Designation	MD		
iii	Address	C-16, VidyutSadan, Sec-6		
iv	City/Town/Village	Panchkula	P.O.	Panchkula
v	District	Panchkula		
vi	State	Haryana	Pin	134109
vii	Telephone	0172-2572535	Fax	0172-2572535
5	**Nodal Officer Details***			
i	Nodal Officer Name (Designated at DISCOM's)	SH. B. S. Ranga		
ii	Designation	Chief Engineer Commerical		
iii	Address	R. No. 205 1st floor Shakti Bhawan Sec. 6 PKL		
iv	City/Town/Village	Panchkula	P.O.	Panchkula
v	District	Panchkula		
vi	State	Haryana	Pin	134109
vii	Telephone	0172-2583722	Fax	-
6	**Energy Manager Details***			
i	Name	Sh. Anish Kumar		
ii	Designation	XEN	Whether EA or EM	EA

General Information					
iii	EA/EM Registration No.	EA12150			
iv	Telephone	0172-2584350	Fax		
v	Mobile	8591212228	E-mail ID	seenergyaudit@uhbvn.org.in	
7	**Period of Information**				
	Year of (FY) information including Date and Month (Start & End)	1st Apr, 2021 - 31st March, 2022			

XI. List of parameters arrived through calculation or Formulae with list of source of data

➢ Transmission and Distribution Losses (T&D Losses)

- Energy losses occur in the process of supplying electricity to consumers due to technical and commercial reasons.
- The technical losses are due to energy dissipated in the conductors, transformers and other equipment used for transmission, transformation, sub-transmission and distribution of power.
- These technical losses are inherent in a system and can be reduced to a certain level.
- Pilferage by hooking, bypassing meters, defective meters, errors in meter reading and in estimating un-metered supply of energy are the main sources of the commercial losses.
- There is another component of commercial losses, which is attributable to non-recovery of the billed amount, which is reflected in collection efficiency.
- T&D losses together with loss in collection give us Aggregate Technical &Commercial (AT&C) losses.

Calculation of transmission losses:

Transmission losses = Total Energy Purchased –Open access Sale - Total Input

Transmission losses (MU)	Value
Total Energy Purchased	23708.97
Open access sale (MU)	-
Transmission losses	867.28
Total Input	22158.70
Transmission losses (%)	3.66%

XII. Recommendation to improved technical losses& commercial losses

1. Ensure Installation of Smart Meter/ Functional Meter in all consumers. DTR& Feeder.
2. Installation of Capacitor bank in S/s for power factor improvement.
3. GIS based mapping of all 33/11 KV Substations, 11KV Lines, DTR and all Consumers both HT & LT.
4. Development & Implementation of technology based energy accounting system including associated software as per guideline of BEE.