

U.P. Power Transmission Corporation Limited
उ० प्र० पावर ट्रान्समिशन कार्पोरेशन लिमिटेड
(उ० प्र० सरकार का उपक्रम)

कार्यालय ::
निदेशक (वाणिज्य)
11 वां तल, शक्ति भवन विस्तार,
14-अशोक मार्ग, लखनऊ-226001
रेक्स-8689 फोन नं०-0522 2288530



CIN No.- U40101UP2004SGC028687

Office of the
Director (Commercial)
11th floor, Shakti Bhawan Extn.,
14- Ashok Marg, Lucknow-226001
Phone- 0522 2218689
Email-Director_comm @upptcl.org

No. 93 /Dir(Comm)/UPPTCL/2017/DC-2

Date: 13 February, 2017

To,

The Secretary
U.P. Electricity Regulatory Commission,
2nd Floor, Kisan Mandi Bhawan,
Gomti Nagar, Vibhuti Khand,
Lucknow-226010

Sub: Application of Business Plan of UPPTCL for first control period from FY 2017-18 to FY 2019-20.

Dear Sir,

This application is filed in accordance with the provisions of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Transmission Tariff) Regulations, 2014. This application is being submitted in six (5+1) copies along with soft copy of the same in CD (Compact Disk), for kind approval of Hon'ble Commission. The Petitioner is also enclosing the application fee of Rs. 10000/- vide Bankers Cheque (Cheque No.-"591816" dated 25.01.2017).

Thanking you,

Encl.: As above.

Yours faithfully,

(A.P. Singh)

Director (Commercial)

No. /Dir(Comm)/UPPTCL/2017/DC-2 Date: February, 2017

Copy forwarded for kind information of:

1. Chairman, UPPTCL
2. Managing Director, UPPTCL
3. Director (Finance), UPPTCL
4. Director (SLDC), UPPTCL

(A. P. Singh)

Director (Commercial)

FORM-1

BEFORE THE HON'BLE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION, KISAN
MANDI BHAWAN, GOMTINAGAR, LUCKNOW

Receipt Register No.: _____

Application No.: _____

IN THE MATTER OF

MULTI YEAR TARIFF BUSINESS PLAN FOR TRANSMISSION BUSINESS OF UTTAR PRADESH POWER
TRANSMISSION CORPORATION LIMITED (UPPTCL) FOR FIRST CONTROL PERIOD FROM FY 2017-18 TO
FY 2019-20

AND

IN THE MATTER OF

UTTAR PRADESH POWER TRANSMISSION CORPORATION LIMITED (UPPTCL)
SHAKTI BHAWAN, 14-ASHOK MARG, LUCKNOW

Vs

DAKSHINACHAL VIDYUT VITRAN NIGAM LIMITED (DVVNL),
GALINA ROAD, AGRA

MADHYANCHAL VIDYUT VITRAN NIGAM LIMITED (MVVNL),
GOKHALE MARG, LUCKNOW

PASCHIMANCHAL VIDYUT VITRAN NIGAM LIMITED (PVVNL),
VICTORIA PARK, MEERUT

PURVANCHAL VIDYUT VITRAN NIGAM LIMITED (PuVVNL),
VIDYUT NAGAR, VARANASI

KANPUR ELECTRICITY SUPPLY COMPANY LIMITED (KESCO),
KESA HOUSE, 14/71 CIVIL LINES, KANPUR

NOIDA POWER COMPANY LIMITED (NPCL),
ALPHA - II SECTOR, GREATER NOIDA CITY


APPLICANT
निदेशक (वाणिज्य)
उत्तर प्रदेश विद्युत नियंत्रण आयोग

RESPONDENT



भारतीय गैर न्यायिक

तम

TEN
RUPEES

Rs.10

INDIA NON JUDICIAL

उत्तर प्रदेश UTTAR PRADESH

23AD 719090

AFFIDAVIT

BEFORE THE HON'BLE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION, KISAN
MANDI BHAWAN, GOMTINAGAR, LUCKNOW

Receipt Register No.: _____

Application No.: _____

IN THE MATTER OF

MULTI YEAR TARIFF BUSINESS PLAN FOR TRANSMISSION BUSINESS OF UTTAR PRADESH POWER
TRANSMISSION CORPORATION LIMITED (UPPTCL) FOR FIRST CONTROL PERIOD FROM FY 2017-18 TO
FY 2019-20

AND

IN THE MATTER OF

UTTAR PRADESH POWER TRANSMISSION CORPORATION LIMITED (UPPTCL)
SHAKTI BHAWAN, 14-ASHOK MARG, LUCKNOW

Vs

APPLICANT

निदेशक (वाणिज्य)
उत्तर प्रदेश विद्युत निगम लि.

DAKSHINACHAL VIDYUT VITRAN NIGAM LIMITED (DVVNL),
SALWA ROAD, AGRA

MADHYANCHAL VIDYUT VITRAN NIGAM LIMITED (MVVNL),
GOKHALE MARG, LUCKNOW

RESPONDENT

PASCHIMANCHAL VIDYUT VITRAN NIGAM LIMITED (PVVNL),
VICTORIA PARK, MEERUT

PURVANCHAL VIDYUT VITARAN NIGAM LIMITED (PuVVNL),
VIDYUT NAGAR, VARANASI

KANPUR ELECTRICITY SUPPLY COMPANY LIMITED (KESCO),
KESA HOUSE, 14/71 CIVIL LINES, KANPUR

NOIDA POWER COMPANY LIMITED (NPCL),
ALPHA - II SECTOR, GREATER NOIDA CITY

RESPONDENT

AFFIDAVIT

I Arun Pratap Singh son of Shree Udayveer Singh, aged 58 years resident of B1/88, Shanker Enclave, Nirala Nagar, Lucknow do solemnly affirm and declare as under;

1. That I am Director (Commercial) of UPPTCL, the petitioner in the matter and am duly empowered and authorized to make this affidavit on its behalf.
2. That I am filing the enclosed Multi Year Tariff Business Plan for Transmission Business of Uttar Pradesh Power Transmission Corporation Limited (UPPTCL) for First Control Period from FY 2017-18 To FY 2019-20.
3. That the contents of the petition filed by the petitioner are based on the information available with Petitioner in the normal course of business and believed by me to true.
4. I say that the Text, Appendixes and Annexure to the Petition are the true and correct copies of their original.

DEPONENT

निदेशक (वाणिज्य)
उ०प्र०प०ट्रा०क०लि०

VERIFICATION

I, the deponent above named, do hereby verify the contents of the above affidavit to be true to the best of my knowledge, no part of it is false and nothing material has been concealed therefrom.

Verified at Lucknow on _____ Day of February, Two Thousand and Seventeen.

निदेशक (वाणिज्य)
उ०प्र०प०ट्रा०क०लि०

DEPONENT

निदेशक (वाणिज्य)
उ०प्र०प०ट्रा०क०लि०

जारी करने वाली शाखा भारतीय स्टेट बैंक
Issuing Branch: ASHOK MARG (LUCKNOW)
कोड नं./CODE No: 03347
Tel No. 522-4159816

बैंकर्स चेक
BANKERS CHEQUE

Key WULBUY
Sr No: 227185

2	5	0	1	2	0	1	7
D	D	M	M	Y	Y	Y	Y

PAY SECRETARY UP ELECTRICITY REGULATORY COMMISSION LUCKNOW*****

को या उनके आदेश पर

Ten Thousand Only

OR ORDER

रुपये RUPEES

अदा करें ₹

10000.00

IOI 000425591816

Key WULBUY Sr No: 227185

AMOUNT BELOW 10001(1/5)

कुछ भारतीय स्टेट बैंक
For STATE BANK OF INDIA

अहस्तांतरणीय / NOT TRANSFERABLE

अधिकृत हस्ताक्षर
AUTHORISED SIGNATORY

ब्रांच मैनेजर
BRANCH MANAGER

कम्प्यूटर द्वारा मुद्रित होने पर ही वैध
VALID ONLY IF COMPUTER PRINTED

वैधता 3 महीने के लिए वैध
VALID FOR 3 MONTHS ONLY

₹ 1,50,000- एवं अधिक के निशुद्ध हो अतिरिक्त दो अधिकारियों द्वारा हस्ताक्षर होने पर ही वैध है।
INSTRUMENTS FOR ₹ 1,50,000- & ABOVE ARE NOT VALID UNLESS SIGNED BY TWO OFFICERS

⑈ 591816 ⑈ 0000020001: 000425 ⑈ 16

[Handwritten Signature]

[Handwritten Signature]
निदेशक (वाणिज्य)
उपप्रबंधक

UPPTCL BUSINESS PLAN FOR FY 2017- 18 TO 2019-20

January 2017



**Uttar Pradesh Power Transmission Corporation
Limited**

निदेशक (वाणिज्य)
उत्तर प्रदेश विद्युत निगम लि.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	4
1. INTRODUCTION.....	4
2. OBJECTIVES	4
3. OPERATIONAL PERFORMANCE	5
4. OPERATIONAL PLAN.....	5
5. PROPOSED CAPITAL EXPENDITURE FOR FY 2017-18 TO 2019-20	6
6. AGGREGATE REVENUE REQUIREMENT.....	8
1. INTRODUCTION.....	10
1.1. BACKGROUND	10
1.2. DUTIES OF AN STU.....	11
1.3. OBJECTIVES OF UPPTCL	11
1.4. CORPORATE MISSION.....	12
1.5. CORPORATE VISION.....	12
1.6. CORE ACTIVITIES.....	12
1.7. POWER MAP OF UTTAR PRADESH.....	13
1.8. KEY OBJECTIVES OF THE BUSINESS PLAN	14
2. BUSINESS OVERVIEW: OPERATIONAL.....	15
2.1. ROLE OF UPPTCL AS A TRANSMISSION UTILITY.....	15
2.2. CURRENT INFRASTRUCTURE DETAILS	15
2.3. GROWTH IN SUB STATION LEVEL	16
2.4. GROWTH IN NETWORK LEVEL	17
2.5. OPERATIONAL PERFORMANCE.....	17
2.6. TRANSMISSION LOSSES	18
2.7. ENERGY CATERED	18
3. REGULATORY FRAMEWORK	19
3.1. BACKGROUND.....	19
3.2. ENABLING PROVISIONS IN ELECTRICITY ACT, 2003.....	19
3.3. LEGAL STRUCTURE OF POWER TRANSMISSION IN INDIA	20
3.4. NATIONAL ELECTRICITY POLICY	21
3.5. NATIONAL TARIFF POLICY	22
3.6. SERC REGULATIONS	23
4. OPERATIONAL PLAN.....	24
4.1. PROPOSED CAPITAL EXPENDITURE FOR FY 2017-18 TO 2019-20	24
4.2. ONGOING AND NEW CAPITAL WORKS.....	26
5. YEAR WISE CAPITAL INVESTMENT AND FINANCING PLAN.....	58
6. ARR PROJECTIONS FOR FY 2017-18 TO FY 2019-20.....	59
6.1. COMPONENTS OF THE ANNUAL REVENUE REQUIREMENT	59
6.2. ESCALATION INDEX/INFLATION RATE.....	60
6.3. OPERATION & MAINTENANCE EXPENSES	62
6.3.1 EMPLOYEE EXPENSES FOR FY 2017-18 TO 2019-20	63
6.3.2 ADMINISTRATIVE AND GENERAL EXPENSES FOR FY 2017-18 TO 2019-20	64
6.3.3 REPAIR & MAINTENANCE EXPENSES FOR FY 2017-18 TO 2019-20.....	64
6.3.4 OPERATION AND MAINTENANCE EXPENSES FOR FY 2017-18 TO 2019-20.....	65
6.4. GROSS FIXED ASSETS BALANCES AND CAPITAL FORMATION.....	65



 निदेशक (वित्तिय)

 उत्तर प्रदेश विद्युत बोर्ड

6.5.	FINANCING OF THE CAPITAL INVESTMENT	66
6.6.	DEPRECIATION EXPENSE	67
6.7.	INTEREST ON LONG TERM LOANS.....	69
6.8.	FINANCE CHARGES.....	70
6.9.	INTEREST ON WORKING CAPITAL	70
6.10.	OTHER INCOME	71
6.11.	REASONABLE RETURN/ RETURN ON EQUITY.....	71
6.12.	SERVICE TAX.....	72
7.	SUMMARY OF ANNUAL REVENUE REQUIREMENT FOR MYT CONTROL PERIOD	73
8.	ENERGY HANDLED AND DEMAND.....	74
9.	PROPOSED TRANSMISSION TARIFF FOR THE MYT PERIOD	76
10.	COST OF SLDC OPERATIONS.....	78
11.	PRAYERS	81




 (Signature)
 30/06/2017

EXECUTIVE SUMMARY

1. INTRODUCTION

The Uttar Pradesh Power Transmission Corporation Limited (herein after referred to as 'UPPTCL' or the 'Petitioner') is a company incorporated under the Companies Act, 1956 by making amendment in the Object and Name clause of Uttar Pradesh Vidyut Vyapar Nigam Ltd and having duly passed Special Resolution on 7th June 2006 in terms of Section 21 of the Companies Act, 1956. UPPTCL started functioning with effect from 26th July, 2006 and is entrusted with the business of transmission of electrical energy to various utilities with the help of its transmission lines and substations within the geographical area of Uttar Pradesh. Before the incorporation of UPPTCL, transmission work was entrusted with UPPCL. Government of Uttar Pradesh (herein after referred to as the 'GoUP' or the 'State Govt.') in exercise of powers under section 30 of the Electricity Act, 2003, vide notification No: 122/U.N.N.P/24-07 dated 18th July 2007, notified Uttar Pradesh Power Transmission Corporation Limited as the State Transmission Utility of Uttar Pradesh. The UPPTCL now deals with the transmission of electricity for catering to the power requirements of four distribution companies viz. Madhayanchal Vidyut Vitran Nigam Ltd, Dakshinanchal Vidyut Vitran Nigam Ltd, Paschimanchal Vidyut Vitran Nigam Ltd and Poorvanchal Vidyut Vitran Nigam Ltd in addition to two other distribution companies serving Kanpur Electricity Supply Company Limited (herein after referred to as the 'KESCO'), Kanpur and Noida Power Company Limited (herein after referred to as the 'NPCL'), Noida.

In exercise of powers conferred under sub section (4) of section 131 of Electricity Act, 2003 and in partial modification of the scheme made under section 23 of the Uttar Pradesh Electricity Reforms Act, 1999 the Government of Uttar Pradesh (herein after referred to as 'GoUP') on 23rd December, 2010 issued Transfer Scheme for the purpose of transfer of the transmission activities including the assets, liabilities and related proceedings from Uttar Pradesh Power Corporation Limited, to the Uttar Pradesh Power Transmission Corporation Limited (hereinafter referred to as 'UPPTCL').

2. OBJECTIVES

The key objectives of this business plan are:

- Providing a tool for strategic planning - The primary objective of the Business Plan is to analyse and anticipate the future requirements in advance and strategically plan for the capital investments, related means of financing and various associated costs and document them which would serve as an effective tool for monitoring and execution of future works. It is a key to project the growth in transmission network infrastructure commensurate with the energy demand required for fuelling the economic growth targets of the State.
- Meeting the regulatory compliance of submission of a business plan as mandated by the Uttar Pradesh Electricity Regulatory Commission (Multi Year Transmission Tariff) Regulations, 2014 (hereinafter referred to as 'MYT Transmission Regulations')
- Aid in decision making leading to better Operational Efficiency: The Business Plan is prepared so as to be useful for the Managing Board, associated stakeholders, the Uttar Pradesh

Electricity Regulatory Commission (herein after referred to as 'Hon'ble Commission') and various government bodies. The future projections in the Plan would help the transmission utility in decision making and taking proactive actions, and thus improving the overall operational efficiency of the transmission network infrastructure.

3. OPERATIONAL PERFORMANCE

Operational parameters and performance provide a basis for determining the financial viability and strategies for the company. Some of the operational performance parameters have been analysed in this section.

The availability factor of the transmission network for the year 2015-16 was 99.75% which has improved as compared to the availability factor of 99.64% in FY 2014-15.

The transmission losses of UPPTCL in FY 2015-16 were 3.59% which has also improved as compared to the transmission losses of 3.67% in FY 2014-15.

4. OPERATIONAL PLAN

UPPTCL has prepared the Business/Operational Plan taking into consideration all the factors which would affect the operations of the company. It is submitted that the Business plan being a dynamic document may need to be updated at periodic intervals taking into account the changes in the internal and external environment and these changes would be intimated to the Hon'ble Commission from time to time. The operational plans include the estimates of each capital expenditure scheme of UPPTCL from FY 2017-18 to FY 2019-20.

The list of generating stations which are at the planning stage/under construction whose evacuation is proposed through UPPTCL system is provided in the table below:

Table 1: List of Generating Stations whose evacuation is proposed through UPPTCL system

S. No.	Name of the Project	Name of the Developer	Capacity In MW
1.	Obra C TPS	UPRVUNL	1320
2.	Ghatampur TPS	UPRVUNL & NLC	1980
3.	Harduajn Ext. TPS	UPRVUNL	660
4.	Panki Extension	UPRVUNL	660
5.	Karchana TPS	UPRVUNL	1320
6.	Jawaharpur TPS	UPRVUNL	1320

निदेशक (सिगिन्ज)
उपपदाधिकारी

5. PROPOSED CAPITAL EXPENDITURE FOR FY 2017-18 TO 2019-20

After taking up the Transmission Projects for the MYT period of 2017-18 to 2019-20, the UPPTCL Transmission Network will be capable of handling over 21,792 MW of power requirement of the State Discoms (assuming 6.81% annual growth) as well as evacuation of power from new generation projects to be added in the 1st Control period. The following table summarises the physical targets during FY 2017-18 to 2019-20 period:

Table 2: Physical Targets for the Business Plan Period (FY 2017-18 to 2019-20)

VOLTAGE LEVEL	S/S or Line	Unit	FY 2017-18			FY 2018-19			FY 2019-20
			Ongoing	New	Prog. Total	Ongoing	New	Prog. Total	New
765kV	S/S	Nos.	0	0	1	1	2	4	0
	New T/F	MVA	0	0	3000	3000	6000	12500	0
	Augm. T/F	MVA	0	1000		0	500		0
	Sub-total	MVA	0	1000	3000	3000	6500	12500	0
	Total Line	CKM	518	0	1503	0	200	1703	940
400kV	S/S	Nos.	2	1	23	2	3	28	5
	New T/F	MVA	1630	1000	17740	1400	2630	22085	3890
	Augm. T/F	MVA	0	500		0	315		370
	Sub-total	MVA	1630	1500	17740	1400	2945	22085	4260
	Total Line	CKM	482	186	6177	130	1415	7722	965
220kV	S/S	Nos.	3	1	114	24	9	147	14
	New T/F	MVA	900	320	35757	6480	2880	46117	4340
	Augm. T/F	MVA	0	1000		0	1000		1000
	Sub-total	MVA	900	1320	35757	6480	3880	46117	5340
	Total Line	CKM	2602	426	13565	494	970	15029	1039
132kV	S/S	Nos.	38	2	428	2	26	456	21

VOLTAGE LEVEL	S/S or Line	Unit	FY 2017-18			FY 2018-19			FY 2019-20
			Ongoing	New	Prog. Total	Ongoing	New	Prog. Total	New
	New T/F	MVA	3350	160		160	2080		1680
	Augm. T/F	MVA	0	1000		0	1000		1000
	Sub-total	MVA	3350	1160	44051	160	3080	47291	2680
	Total Line	CKM	4634	248	23373	130	1243	24746	793
TOTAL	S/S	Nos.	43	4	566	29	40	635	40
	New T/F	MVA	5880	1480		11040	13590		9910
	Augm. T/F	MVA	0	3500		0	2815		2370
	Sub-total	MVA	5880	4980	100548	11040	16405	127993	12280
	Total Line	CKM	8236	860	44618	754	3828	49200	3737

6. AGGREGATE REVENUE REQUIREMENT

Presented below is the ARR of UPPTCL for the 1st control period i.e. from FY 2017-18 to 2019-20 in respect of intra-state transmission of electricity to be recovered from the state discoms. The table also provides the indicative transmission charge per unit which has been calculated based on the expected energy to be wheeled during the MYT period:

Table 3: ARR for the Business Plan Period

Particulars	2017-18	2018-19	2019-20
Employee cost	668.88	702.84	693.89
A&G expenses	31.68	31.96	32.24
R&M expenses	342.80	431.21	534.03
Interest on Loan Capital	1,511.56	1,901.91	2,294.04
Interest on Working Capital	72.68	88.02	103.82
Finance Charges	1.35	1.40	1.45
Depreciation	902.05	1,150.37	1,433.36
Gross Expenditure	3,531.00	4,307.71	5,092.85
<i>Less: Employee cost capitalized</i>	167.25	175.74	173.51
<i>Less: A&G Capitalisation</i>	6.42	6.48	6.53
<i>Less: Interest Capitalisation</i>	897.80	1,129.65	1,362.56
Net Expenditure	2,459.53	2,995.84	3,550.25
Prior Period Items, Debits, write-offs & other Expenses	-	-	-
Net Expenditure with provisions	2,459.53	2,995.84	3,550.25
Add: Return on Equity	124.82	153.36	186.54
Less: Non Tariff Income	52.73	54.70	56.75
Annual Revenue Requirement (ARR)	2,531.63	3,094.50	3,680.04

Table 4: Transmission Tariff for Business Plan Period

Particulars	Unit	FY 2017-18	FY 2018-19	FY 2019-20
Annual Revenue Requirement	Rs Crore	2,531.63	3,094.50	3,680.04
Energy delivered to Discoms	MU	1,22,241	1,30,855	1,40,358
Transmission Charges	Rs./kWh	0.2071	0.2365	0.2622

The estimated transmission charges in the year 2017-18 are comparable with the neighbouring states as depicted in the table below:

Table 5: Transmission Charges in Neighbouring States in FY 2016-17

State	Unit	Charges
Rajasthan	Rs./kWh	0.30

State	Unit	Charges
Madhya Pradesh	Rs./kWh	0.36
Punjab	Rs./kWh	0.23



निदेशक (मिनिस्ट्र)
उत्प्रेषण/प्राप्ति

1. INTRODUCTION

1.1. BACKGROUND

UP Power Transmission Corporation Limited, incorporated under the Companies Act 1956, was incorporated in 2006 with the main objective to acquire, establish, construct, take over, erect, lay, operate, run, manage, hire, lease, buy, sell, maintain, enlarge, alter, renovate, modernize, work and use electrical transmission lines and/or network through extra high voltage, high voltage and associated sub-stations, cables, wires, connected with transmission ancillary services, telecommunication and telemetering equipment in the State of U.P. and elsewhere.

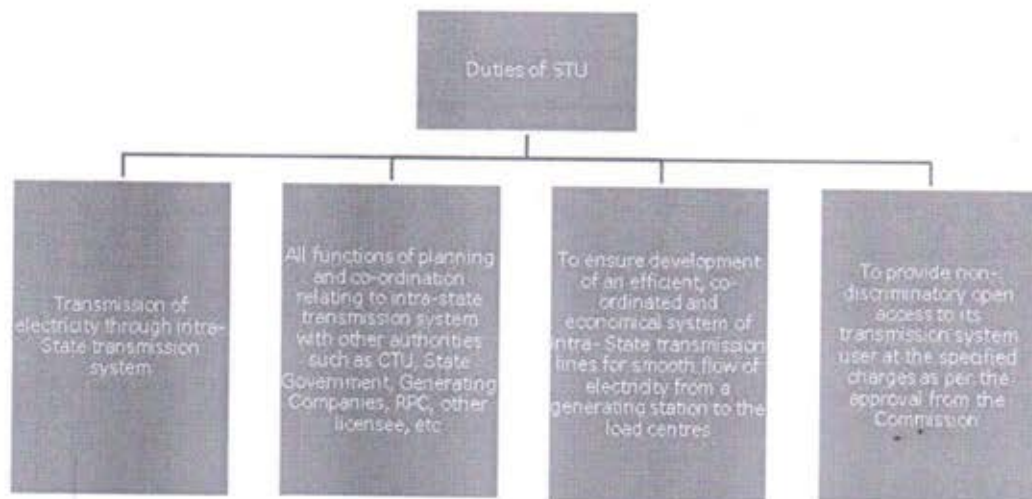
The Uttar Pradesh Power Transmission Corporation Limited as the State Transmission Utility (STU) is responsible for undertaking, amongst others, the following main functions:

- a) To undertake transmission of electricity through intra-state transmission system.
- b) To discharge all functions of planning and co-ordination relating to intra-state transmission system.
- c) To ensure development of an efficient, co-ordinated and economical system of intra-state transmission lines.
- d) To provide open access.

Transmission network serves as an important link between the Generation and Distribution segments of electricity supply business. The issues and challenges pertaining to the Transmission business are mostly in terms of keeping up with the growth needs of the other two segments. While the growth in the demand along with increasing electrification end drive the need to meet the peak demand and energy requirement by arranging supply from internal and external generation sources, the transmission system has to be strengthened adequately and timely for maintaining grid stability and supply quality.

 
निदेशक (वित्तिय) 
उपप्रबंधक (वित्तिय)

1.2. DUTIES OF AN STU



1.3. OBJECTIVES OF UPPTCL

To plan and develop a well coordinated intra- state transmission system:

- To acquire, establish, construct, take over, erect, lay, operate, run, manage, hire, lease, buy, sell, maintain, enlarge, alter, renovate, modernize, work and use electrical transmission lines and/or network through extra high voltage, high voltage and associated sub-stations, cables, wires, connected with transmission ancillary services, telecommunication and telemetering equipment in the State of U.P. and elsewhere.
- To undertake, for and on behalf of others the erection, operation, maintenance, management of extra high voltage, high voltage transmission lines and associated sub-stations, equipment, apparatus, cables and wires.
- To execute agreements for transmission of power to distribution companies and other persons and to coordinate, aid and advise on the activities of other companies and concerns, including subsidiaries, associates and affiliates engaged in transmission and wheeling of electrical energy.
- To undertake the functioning of State Load Dispatch Centre in terms of Electricity Act, 2003.
- To schedule and dispatch generation of all units connected to the State power system including the centrally owned generating stations, in respect of the share assigned to the State and electricity purchased from other States undertakings.
- To study, investigate, collect information and data, review operations, plan, research, design, prepare project reports, diagnose operational difficulties and weaknesses, and advise on the remedial measures to improve and modernize existing EHV, HV lines and sub-stations.
- To undertake planning and coordination activities of the power system and the works connected with among other Generation, Transmission, Distribution the electricity requirements in the state and NRPC region, Load-Dispatch functions and such other functions as may be assigned to the Company by law or otherwise by Government Govt./SERC/CERC.

निदेशक (ग्रामिण्य)
उपग्राम विकास

1.4. CORPORATE MISSION

- Adopt best practices of Project and Operations & Maintenance Management leading to system efficiency, reliability and commercial viability.
- Create a work environment which motivates & enhances employee performance, value systems and reward contribution.
- Develop and train employees towards upgrading their skills at work, enrich work content to make it more substantive and responsive to company goals.
- Imbibe transparency and accountability in all operational areas, be it procurement, construction, operations and maintenance.
- Expand horizons of activities in to contracting and others by leveraging the Company's available technical and project expertise.
- Build, in essence UPPTCL to a Company geared to high standards of management capabilities and professional performance.

1.5. CORPORATE VISION

UPPTCL endeavours to be among the best of Power Transmission utilities in India in operating efficiency, system reliability standards and commercially viable operations.

1.6. CORE ACTIVITIES

Project - All the activity streams, comprising of planning execution and control of engineering design, procurement and construction of EHV Transmission lines (TL) Substation (S/S) and other utilities.

Operation & Maintenance (O&M) - All the objectives comprising of planning, implementation and control of;

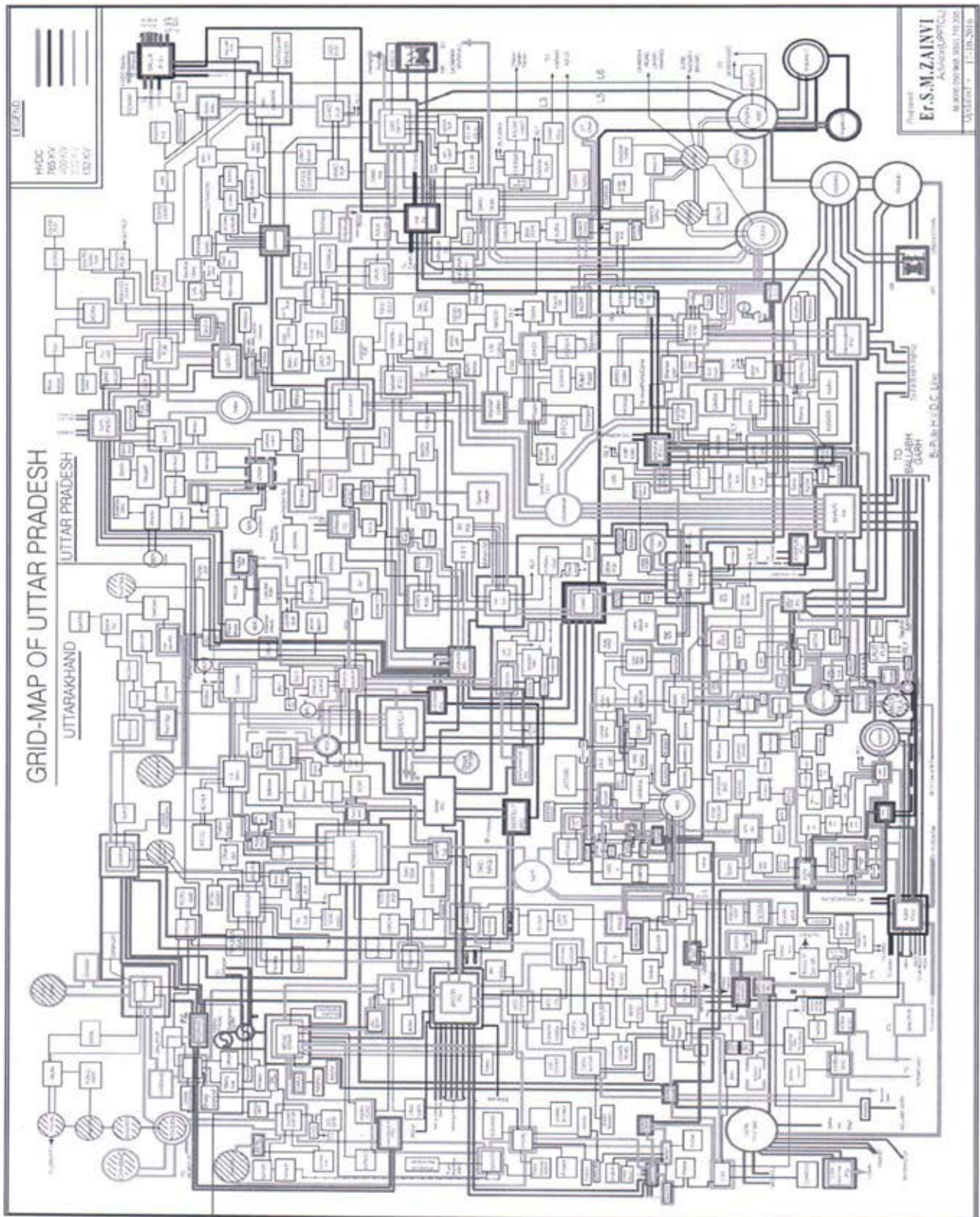
- Operational activities of EHVTLS and S/S and other utilities as per Grid standards.
- Maintenance activities to ensure their efficient and reliable working.
- Asset management activities of the Transmission work to ensure commercial viability.

Load Dispatch (LD) - All the activities comprising of;

- Scheduling and dispatch of electricity within the state
- Monitoring grid operations
- Accounting for the quantity of electrical energy transmitted through the State Grid
- Supervising and controlling inter-state transmission system
- Carrying out real time operations for grid control and dispatch of electricity within the State

Amul
h
निदेशक (परिचालन)
उपप्रबंधन कक्षा

1.7. POWER MAP OF UTTAR PRADESH



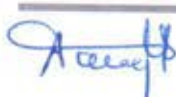
[Signature]

निदेशक (सिगिन्टो)
उपप्रबंधन कार्यालय

1.8. KEY OBJECTIVES OF THE BUSINESS PLAN

The key objectives of this business plan have been listed below:

- Providing a tool for strategic planning - The primary objective of the Business Plan is to analyse and anticipate the future requirements in advance and strategically plan for the capital investments, related means of financing and various associated costs and document them which would serve as an effective tool for monitoring and execution of future works. It is important to project the growth in transmission network infrastructure commensurate with the energy demand required for fuelling the economic growth targets of the State.
- Meeting the regulatory compliance of submission of a business plan as mandated by the Uttar Pradesh Electricity Regulatory Commission (Multi Year Transmission Tariff) Regulations, 2014 (hereinafter referred to as 'MYT Transmission Regulations').
- Aid in decision making leading to better Operational Efficiency - The Business Plan is prepared so as to be useful for the Managing Board, associated stakeholders, the Hon'ble Commission and various government bodies. The future projections in the Plan would help the transmission utility in decision making and taking proactive actions, and thus improving the overall operational efficiency of the transmission network infrastructure.



निदेशक (वाणिज्य)
उत्तर प्रदेश विद्युत निगम लि.

2. BUSINESS OVERVIEW: OPERATIONAL

UPPTCL is one of the efficient Transmission Utility in India with availability of over 99% and low transmission loss of around 3.59%.

The major strengths of UPPTCL are:

- High system availability- planned shutdown for maintenance being done;
- Low transmission losses

For an efficient power transmission operation, factors such as ageing equipments - failure rate, Quality of Power, Grid Discipline, Network planning commensurate with generation & distribution, strengthening network to cope up with quality of power, Renovation and Modernization etc. have to be considered in unison.

2.1. ROLE OF UPPTCL AS A TRANSMISSION UTILITY

UPPTCL handles the load from various generating stations including:

- State generating stations;
- Allocation from central generating stations;
- Independent Power Producers (IPPs);
- Captive power plant;
- Renewable power integration

2.2. CURRENT INFRASTRUCTURE DETAILS

UPPTCL has a network which is spread over 30150 Ckt kms. of transmission line and has an installed a total of 445 substations as on 31.3.2016. UPPTCL is in the process of rapidly increasing its network capacity and the substations to handle the new generation capacities coming up in the next five years.

UPPTCL is divided into 4 zonal offices and circles alongside large number of O&M divisions & Civil divisions for construction of new substations and lines and for operation and maintenance of the existing sub-stations and lines respectively.



 निदेशक (वाणिज्य)
 उ०प्र०प०ट्रा०क०सि०

2.3. GROWTH IN SUB STATION LEVEL

The growth in the number of sub-stations in the last ten years along with the projected growth in the plan period is depicted below:

Figure 2.1: No of Sub-stations

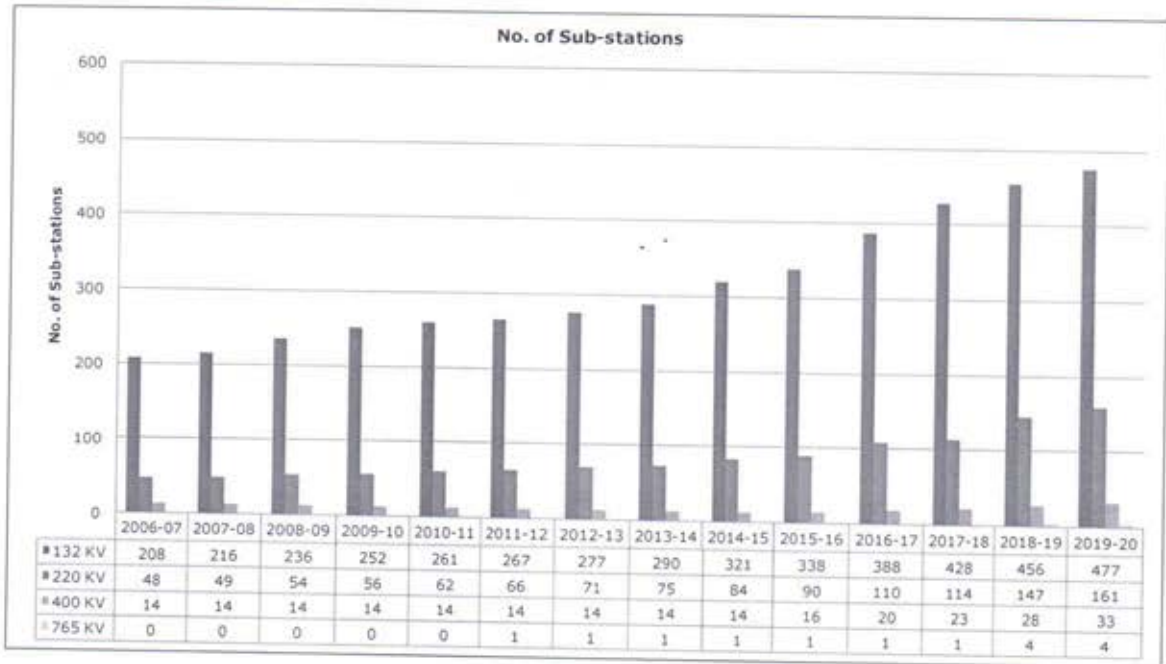
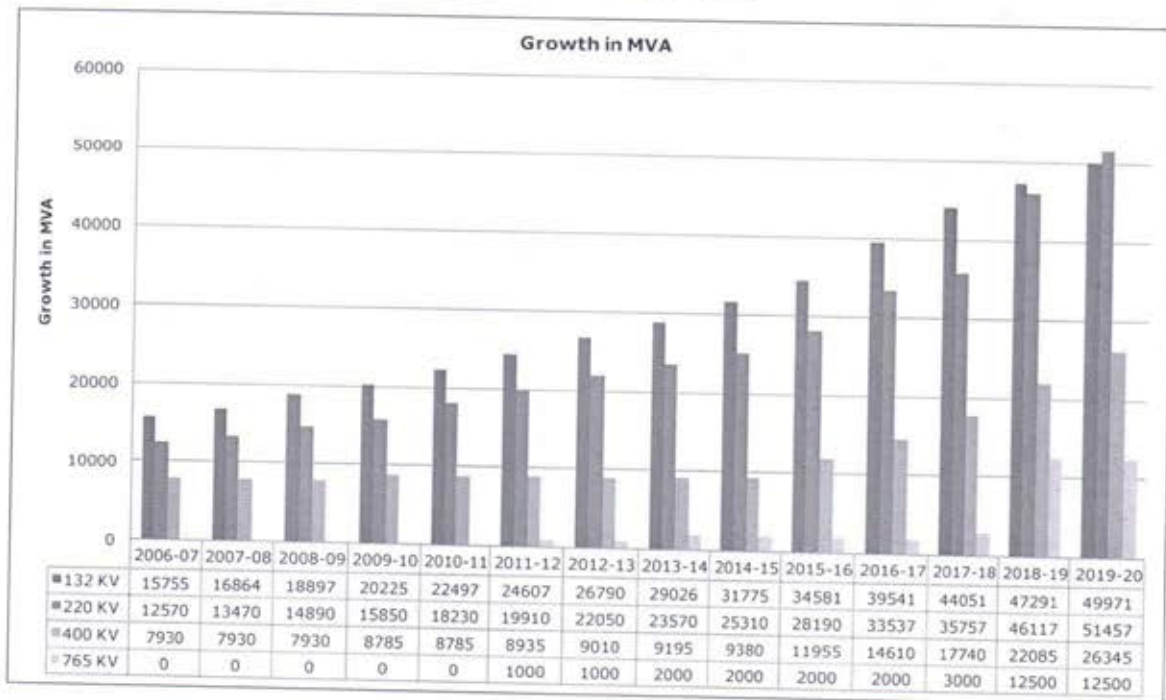


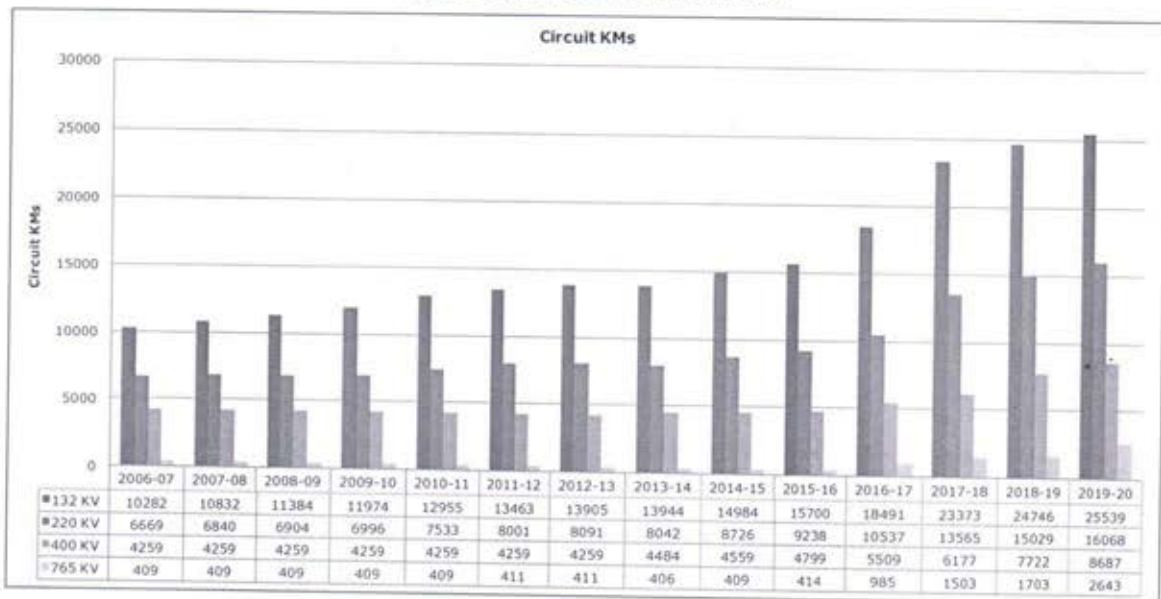
Figure 2.2: Growth in MVA



2.4. GROWTH IN NETWORK LEVEL

The growth in the network level is shown below:

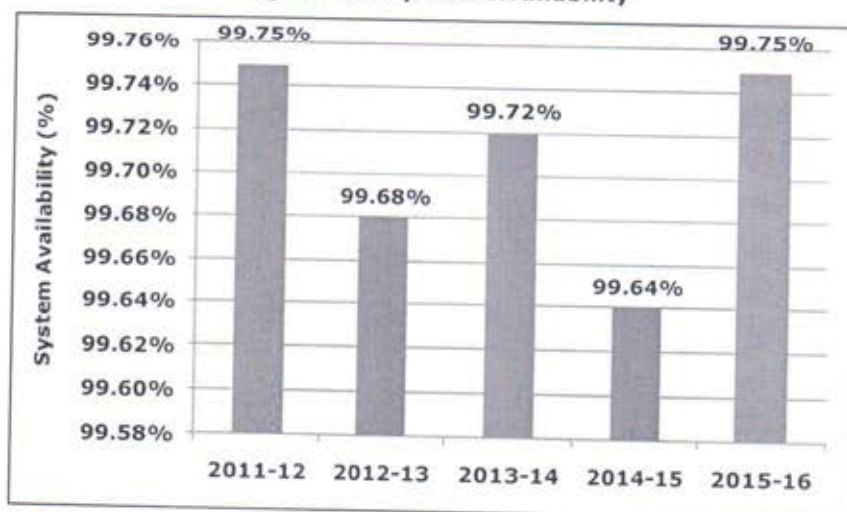
Figure 2.3: Growth in Network



2.5. OPERATIONAL PERFORMANCE

Operational parameters and performance provide a basis for determining the financial viability and strategies for the company. Some of the operational performance parameters have been analysed in this section. The availability factor of the transmission network for the year 2015-16 was 99.75%. UPPTCL's transmission network availability level has been one of the most efficient among utilities in the country. The availability level for 2015-16 has increased over the previous year.

Figure 2.4: System Availability



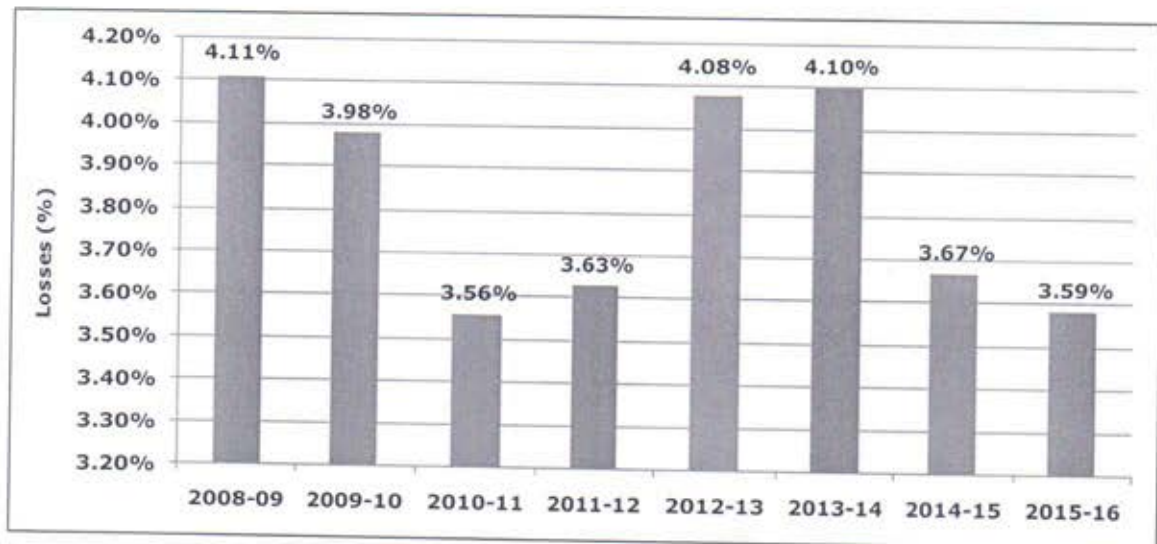
(Signature)

निदेशक (वाणिज्य)
उपग्रह-प्रकाशित

2.6. TRANSMISSION LOSSES

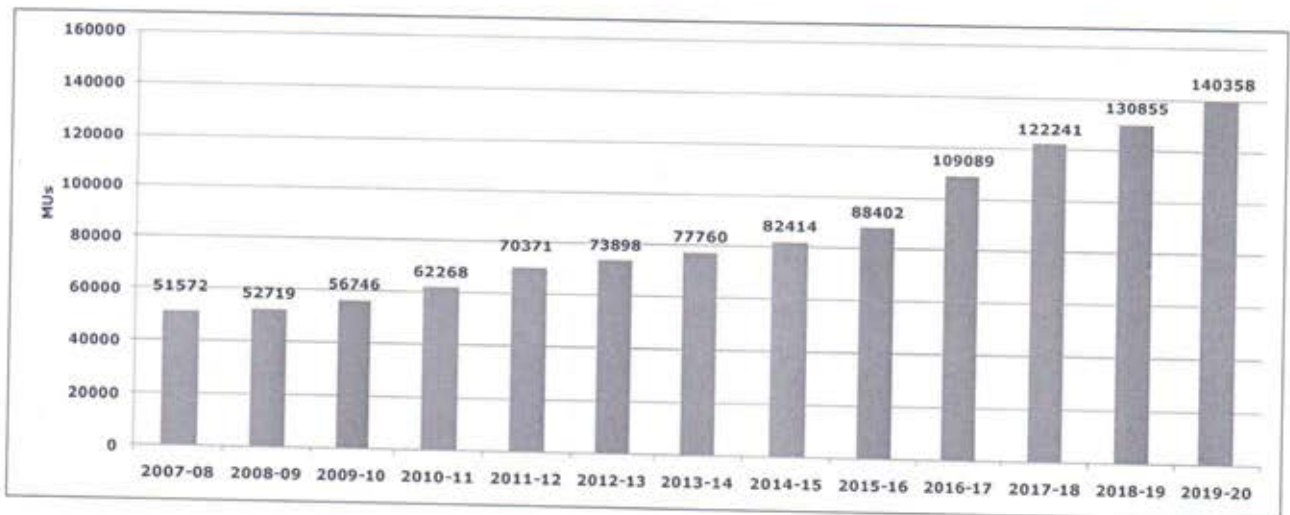
UPPTCL is one of the most efficient transmission utilities in the country. This fact has been reaffirmed time and again by the continual reduction in the level of transmission losses. The loss level over the past few years have brought down and sustained below 4%.

Figure 2.5: Transmission losses



2.7. ENERGY CATERED

Figure 2.6: Energy Catered



[Signature]

निदेशक (सिगिप)
उपप्रमुख कार्यालय

3. REGULATORY FRAMEWORK

3.1. BACKGROUND

As per the Constitution, the power sector in India was the combined responsibility of Central and State Government. Over the years, reforms in Indian power sector have been driven by the Union Government in an endeavour to achieve sustainable growth & improvement in operational efficiencies. One of the hallmarks of this reform Agenda is the Electricity Act, 2003 (hereinafter referred as EA, 2003 or simply the "Act" unless specified otherwise).

The Electricity Act 2003 attempts to induce competition in electricity sector for creating an environment conducive to supply of good quality of electricity to all categories of consumers at affordable/reasonable prices. The access to electricity markets for captive generators, open access participants and parallel licensees has led to evolution of multi buyer market mechanism. Adequate investment in Intra-state and Inter-state transmission infrastructure would also be required for supporting power generation. This vibrant power market would facilitate competitive merchant power plants to be set up pursuant to the promotional policies like mega power plants etc, and incentives offered by the Government such as availability of state specific resources like land, water, rebate in local taxes, etc.

3.2. ENABLING PROVISIONS IN ELECTRICITY ACT, 2003

The Government of India has notified the Electricity Act, 2003 with effect from 10th June 2003 which requires the State Governments to initiate major changes in the Industry Structure and Operations of the state power sector. The broad objectives of the Electricity Act, 2003 as incorporated in its preamble is to consolidate the laws relating to generation, transmission, distribution, trading and use of electricity and for taking measures conducive to development of electricity industry through way of reforms and restructuring, promoting competition therein, protecting interest of consumers and supply of electricity to all areas, rationalisation of electricity tariff, ensuring transparent policies regarding subsidies, promotion of efficient and environmentally benign policies, constitution of Central Electricity Authority, Regulatory Commissions and establishment of Appellate Tribunal and for matters connected therewith or incidental thereto.

It has introduced a number of innovative concepts like de-licensing of generation, power trading, Open Access, Appellate Tribunal, etc., and special provisions for the rural areas. The Act has made it mandatory for all the States to restructure their SEBs.

The major provisions of the Electricity Act 2003 related to Transmission are:

- As per Section 3 of the Electricity Act 2003, the CEA has been entrusted with the responsibility of preparing the National Electricity Plan in accordance with the National Electricity Policy and notify such plans once in five years.
- Preparation, publication and notification of National Electricity Plan by the Central Electricity Authority. (Section 4)
- Private sector participation in transmission through grant of license by the appropriate Regulatory Commission. (Sections 12,13,14,15)

- CTU (Central Transmission Utility) / STU (State Transmission utility) to be deemed transmission licensee. (Section 14)
- Planning, coordination, development and undertaking transmission of electricity through inter-state system by the Central Transmission Utility. (Section 38)
- Planning, coordination, development and undertaking transmission of electricity through intra-state system by the State Transmission Utilities. (Section 39)
- Licensee to provide non-discriminatory open access to any licensee or generating company and to any consumer as and when open access is provided by SERC in Transmission. (Section 40)
- Open access to be provided against payment of transmission charges as determined by CERC/SERC.
- Advise to the Central Government on matters relating to the national electricity policy, formulate short-term and perspective plans for development of electricity system and coordinate the activities of the planning agencies.
- Governments, licensees or the generating companies for improved and coordinated operation of electricity system under their ownership, and advise the Appropriate Governments and Appropriate Commissions on technical matters relating to generation, transmission and distribution of electricity by the Central Electricity Authority. (Section 73)
- Regulation and tariff determination for inter-state transmission by the Central Electricity Regulatory Commission. (Section 79)
- Facilitation and tariff determination for intra-state transmission by the State Electricity Regulatory Commissions. (Section 86)

Also, the Electricity Act has envisaged competition in transmission and has provisions for grant of transmission licenses by the Central Electricity Regulatory Commission (CERC) as well as State Electricity Regulatory Commissions (SERCs). Further, the Act has created a conducive environment for investments in all segments of the industry, both for public sector and private sector, by removing barrier to entry in different segments.

CTUs and STUs functions as specified in the Act are:

- Transmission;
- Planning & co-ordination of transmission system;
- Development of efficient and economical transmission lines from generating stations to load centres;
- Providing non-discriminatory open access to the system

3.3. LEGAL STRUCTURE OF POWER TRANSMISSION IN INDIA

The Ministry of Power of the Government of India (GoI) is at the helm of Indian Power Industry, providing policy guidance to the sector. The Central Electricity Authority (CEA) constituted under Electricity Supply Act 1948, is a body for advising GoI on technical matters and is responsible for preparing National Electricity Plan in accordance with the National Electricity Policy.

The Central Electricity Regulatory Commission established as per the Electricity Regulatory Commission Act, 1998, regulates the power sector at national level including functioning of central

निदेशक (सिगिज्वा)
उपप्रबंधक (कालि)

At the state level, state governments control the sector through the erstwhile state electricity boards (SEBs) and electricity departments (EDs). In many states the SEBs are now unbundled or corporatized as per the EA 2003. Separate utilities are responsible for generation, transmission, and distribution, usually within their own states and territories. Intra-state transmission is exclusive domain of SEBs and State Transmission Utilities (STUs) formed out of unbundled SEBs.

	Inter State & Inter Region Transmission	Intra State Transmission
Policy	Ministry of Power, Govt of India	Energy Department of State Govt
Planning & Standards	Central Electricity Authority	
Regulation	Central Electricity Regulatory Commission	State Electricity Regulatory Commission
Asset Creation, Operations	Central Transmission Utility (PGCIL)	State Transmission Utility

The National Electricity Policy was notified by GoI as per provisions of the Act on February 12, 2005. This Policy aims at accelerated development of the power sector, providing supply of electricity to all areas and protecting interests of consumers and other stakeholders keeping in view availability of energy resources, technology available to exploit these resources, economics of generation using different resources and energy security issues.

The development of the National Grid is an important feature of the Policy. The Policy states that the Transmission System requires adequate and timely investments and also efficient and coordinated action to develop a robust and integrated power system for the country. It further recognizes that there is need for adequately augmenting transmission capacity in view of the massive increase planned in generation and also for development of power market.

The Policy notes that in view of the required magnitude of the expansion of the sector, a sizeable part of the investment requirement will need to be brought in from the private sector. In keeping with this, it specifies that special mechanisms would be created to encourage private investment in the transmission sector so that sufficient investments are made for achieving the objective of demand to be fully met by 2012.

The National Electricity Policy notified on 12th February, 2005 inter-alia states that –

"5.3.1 The Transmission System requires adequate and timely investments and also efficient and coordinated action to develop a robust and integrated power system for the country."

5.3.2 Keeping in view the massive increase planned in generation and also for development of power market, there is need for adequately augmenting transmission capacity.....

[Signature]

5.3.10 Special mechanisms would be created to encourage private investment in transmission sector so that sufficient investments are made for achieving the objective of demand to be fully met by 2012.

5.8.1 Considering the magnitude of the expansion of the sector required, a sizeable part of the investments will also need to be brought in from the private sector. The Act creates a conducive environment for investments in all segments of the industry, both for public sector and private sector, by removing barrier to entry in different segments. Section 63 of the Act provides for participation of suppliers on competitive basis in different segments which will further encourage private sector investment."

In order to facilitate the smooth and rapid development of transmission capacity in the country as envisaged in the National Electricity Policy, some transmission projects will be identified for tariff based competitive bidding, in which Private Investors and Transmission Utilities, both Central and State, can participate.

3.5. NATIONAL TARIFF POLICY

Some of transmission related provisions of National Tariff Policy which have implication with regard to the National Electricity Plan are:

- Adequate and timely investments and also efficient and coordinated action to develop a robust and integrated power system for the country.
- Augmenting transmission capacity keeping in view the massive increase planned in generation and also for development of power market.
- While planning new generation capacities, requirement of associated transmission capacity would need to be worked out simultaneously in order to avoid mismatch between generation capacity and transmission facilities.
 - The Central Government would facilitate the continued development of the National Grid for providing adequate infrastructure for inter-state transmission of power and to ensure that underutilized generation capacity is facilitated to generate electricity for its transmission from surplus regions to deficit regions.
 - The Central Transmission Utility (CTU) and State Transmission Utility (STU) have the key responsibility of network planning and development based on the National Electricity Plan in coordination with all concerned agencies as provided in the Act. The CTU would need to coordinate with the STUs for achievement of the shared objective of eliminating transmission constraints in cost effective manner.
 - Network expansion should be planned and implemented keeping in view the anticipated transmission needs that would be incident on the system in the open access regime. Prior agreement with the beneficiaries would not be a pre-condition for network expansion.
 - Structured information dissemination and disclosure procedures should be developed by the CTU and STUs to ensure that all stakeholders are aware of the status of generation and transmission projects and plans.

निदेशक (सांख्यिकी)
उपमहानिदेशक

- Open access in transmission has been introduced to promote competition amongst the generating companies. This should lead to availability of cheaper power. The Act mandates non discriminatory open access in transmission.
- To facilitate orderly growth and development of the power sector and also for secure and reliable operation of the grid, adequate margins in transmission system should be created. The transmission capacity would be planned and built to cater to both the redundancy levels and margins keeping in view international standards and practices.
- Special mechanisms would be created to encourage private investment in transmission sector so that sufficient investments are made for achieving the objective of demand to be fully met by 2012.

3.6. SERC REGULATIONS

Regulations were enacted by the Regulatory Commission in compliance with the provisions of the EA 2003 and as guided by the National Tariff Policy and National Electricity Policy. Some of the key regulations which were enacted by the Uttar Pradesh Electricity Regulatory Commission as outlined below:

Table 3.1: Regulations

S.No.	Name of the Regulation
1.	Uttar Pradesh Electricity Supply Code – 2005
2.	Uttar Pradesh Electricity Regulatory Commission (Multi Year Transmission Tariff) Regulations 2014
3.	Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Open Access) Regulations, 2004
4.	Uttar Pradesh Electricity Regulatory Commission (Grant of Connectivity to Intra-State Transmission System) Regulations, 2010
5.	Uttar Pradesh Electricity Regulatory Commission (Fees and Fines) Regulations, 2010
6.	Uttar Pradesh Electricity Regulatory Commission (Procedure, Terms & Conditions for payment of Fee and Charges to State Load Despatch Centre and other related provisions) Regulations, 2004

4. OPERATIONAL PLAN

UPPTCL has prepared the Business/Operational Plan taking into consideration all the factors which would affect the operations of the company. It is submitted that the Business plan being a dynamic document may need to be updated at periodic intervals taking into account the changes in the internal and external environment and these changes would be intimated to the State Commission from time to time. The operational plans include the estimates of each capital expenditure scheme of UPPTCL from FY 2017-18 to FY 2019-20.

The list of generating stations which are at the planning stage/under construction whose evacuation is proposed through UPPTCL system is provided in the table below:

Table 4: List of Generating Stations whose evacuation is proposed through UPPTCL system

S. No.	Name of the Project	Name of the Developer	Capacity In MW
1.	Obra C TPS	UPRVUNL	1320
2.	Ghatampur TPS	UPRVUNL & NLC	1980
3.	Harduagnaj Ext. TPS	UPRVUNL	660
4.	Panki Extension	UPRVUNL	660
5.	Karchana TPS	UPRVUNL	1320
6.	Jawaharpur TPS	UPRVUNL	1320

4.1. PROPOSED CAPITAL EXPENDITURE FOR FY 2017-18 TO 2019-20

UPPTCL is in the process of strengthening its Transmission System (132KV & above) to meet the load growth requirement of Uttar Pradesh & also for evacuation of power from various generators i.e. Thermal, Hydro as well as gas based, which are coming up in Uttar Pradesh. The outlay in the current year is mostly against ongoing works considering physical progress of those schemes. For new schemes pre-project activities are initiated like feasibility study, financial sanction from TWC, BOD and ETF. Where tenders are issued and evaluated based on the financial sanction, the work orders are placed for project executions. On commencement of project execution, schemes are shifted from the database of new schemes to ongoing schemes during a quarterly project review. The following table summarises the physical targets during 2017-20 period:

Table 4.2: Physical Targets for the Plan Period FY 2017-18 to 2019-20

S. No	Item	Unit	Annual Plan (2017-20) targets		
			Annual Plan 2017-18	Annual Plan 2018-19	Annual Plan 2019-20
1	132 KV Substation	No/MVA	428/44051	456/47291	477/49971
2	220 KV Substation	No/MVA	114/35757	147/46117	161/51457
3	400 KV Substation	No/MVA	23/17740	28/22085	33/26345
4	765 KV Substation	No/MVA	1/3000	4/12500	4/12500
5	132 KV Line	Ckt Km	23373	24746	25539



निदेशक (वाणिज्य)
उपप्रबंधक (वाणिज्य)

S. No	Item	Unit	Annual Plan (2017-20) targets		
			Annual Plan 2017-18	Annual Plan 2018-19	Annual Plan 2019-20
6	220 KV Line	Ckt Km	13565	15029	16068
7	400 KV Line	Ckt Km	6177	7722	8687
8	765 KV Line	Ckt Km	1503	1703	2643
Total No./MVA			566/100548	635/127993	675/140273
Total Ckt Km			44618	49200	52937

Kanup

Ar
निदेशक (पाणिज्य)
उपसंचालकालय

4.2. ONGOING AND NEW CAPITAL WORKS

Ongoing and New Capital Works record has been consolidated in four parts under different Voltage level by UPPTCL. The Ongoing work has been shown in the table given below. The table below presents the name of substations, their zones, capacities, agencies, costs and their date of energization.

Table 4.3: Ongoing Sub-station works (in MVA)

S. No.	Zone	Name of the Project	MVA	Estimated Cost (Rs. Crore)	Expected Energisation
765 kV Sub-station					
1	TS	765/400 kV Agra UP	3,000.00	428.00	2017-18
400 kV Sub-station					
1	TS	400 kV s/s Aligarh	1,000.00	102.50	2016-17
2	TS	400 kV s/s Banda	630.00	92.70	2017-18
3	TS	400 kV s/s Orai	630.00	98.08	Nov-16
4	TW	400kV s/s Muradnagar II	480.00	60.15	2016-17
6	TS	400/132 kV Agra(South) GIS	600.00	165.20	2016-17
7	TS	400/220 kV Mathura (Manth)	630.00	99.36	2016-17
8	TE	400/132kV Masauli (Allahabad) (2x200)	400.00	130.00	2018-19
9	TC	400/220/132 kV Jehta Hardoi Road GIS (2x500+2x160)	1,000.00	158.00	2018-19
220 kV Sub-station					
1	TC	220 kV s/s Nighasan (RNNSAS)	200.00	31.37	Apr-16
2	TE	220 kV s/s Bhelupur (Dept)	120.00	34.90	May-16
3	TS	220 kV S/S Boner (Aligarh)	320.00	48.00	2014-15
4	TW	220/132/33kV Partapur Jagriti Vihar (Meerut) (2x160+2x40)	320.00	32.74	2017-18
5	TC	220/132 kV Jehta Hardoi Road GIS @ 400 Jehta Hardoi road (2x500+2x160)	320.00	41.00	2018-19
6	TE	220/132/33kV Gola (Gorakhpur) (2x160+2x40)	320.00	43.82	2018-19
7	TS	220/33kV GIS Phoolbagh Lower Ganga Canal (Kanpur)	120.00	66.22	2018-19
8	TW	220/33kV Botanical Garden (Noida) (Deposit)	180.00	54.00	2018-19
9	TW	220/132/33kV Noida-45(GIS) (Deposit) (2x160+2x40)	320.00	41.00	2018-19
10	TW	220/132/33 kV Badaikala (Muzaffarnagar-II) (2x160+2x40)	320.00	37.00	2018-19
11	TW	220/33kV Shani Mandir (Noida)(Deposit) (3x60)	180.00	54.00	2018-19
12	TS	220/132kV Neebkarori (Farrukhabad)	200.00	21.19	2018-19
13	TC	220 kV s/s Kanpur Road(GIS)	180.00	46.60	2016-17
14	TC	220 kV s/s Bahraich	200.00	40.00	Jun-16

S. No.	Zone	Name of the Project	MVA	Estimated Cost (Rs. Crore)	Expected Energisation
15	TC	220 kV s/s Pilibhit	200.00	40.00	2016-7
16	TE	220 kV s/s Bansi (TKSAS)	200.00	72.89	2016-17
17	TE	220 kV s/s Harhua	120.00	24.19	2015-16
18	TE	220 kV s/s Bhadaura(2X100+2X40)	280.00	35.00	2016-17
19	TS	220 kV s/s Bah	200.00	81.33	2016-17
20	TS	220 kV S/S Chhata (Mathura)	320.00	33.05	2016-17
21	TS	220 kV S/S Mahoba (Mahoba) (2X100)	200.00	32.73	Jun-16
22	TS	220 kV S/S Sikandra (Kanpur Dehat) (2X100)	200.00	63.80	2016-17
23	TW	220 kV s/s Baghpat	200.00	20.14	Apr-16
24	TC	220/33kV Lucknow Awas Vikas (Sultanpur Road) -(Deposit) (5x60)	300.00	54.00	2018-19
25	TC	220/132/33kV Barabanki (2x160+2x40)	400.00	25.00	2018-19
26	TE	220/132/33kV Raja ka Talab (2x160+2x40)	320.00	38.00	2018-19
27	TE	220/132/33kV Azamgarh-II (2x160+2x40)	400.00	29.00	Mar'17
28	TS	220/132,220/33kV Sikandra rau (Hathras) (2x160+2x40)	320.00	36.50	Jun-16
29	TS	220/132/33kV Rania (Kanpur Dehat) (2x100+2x40)	200.00	44.00	Jan'17
30	TS	220/132/33kV Mant (Mathura)	200.00	43.83	2018-19
31	TW	220/132/33kV Amroha (Muradnagar-II) (2x160+2x40)	320.00	30.80	2017-18
32	TW	220/132/33kV Chandausi (2x160+2x40)	320.00	37.00	Jan'17
33	TW	220/132/33kV Hapur (Hybrid) (2x160+2x60)	400.00	54.00	2017-18
34	TW	220/33kV Morti	340.00	61.77	Feb'17
35	TC	220/132/33kV Bachrawan (Raebareilly) (2x160+2x40)	400.00	64.12	2018-19
36	TS	220/132/33kV Saahr (Kanpur) (2x100+2x40)	200.00	20.00	Mar'17
37	TE	220/132/33kV Haata (Kushinagar) (2x100+2x40)	280.00	60.83	2018-19
38	TE	220/132/33kV Saangipur (Pratapgarh) (2x160+2x40)	400.00	62.75	2018-19
39	TW	220/132/33 kV Sarshawana Saharanpur(2X160+2X40)	320.00	45.76	2018-19
40	TS	220/132/33 Kv Pahari Chitrakut s/s (2X160+2X40)	320.00	20.00	2018-19
41	TW	220/132/33 kV s/s Pratap Vihar Gaziabad (Hybrid)	340.00	70.98	2018-19
42	TW	220/33 Kv Mandola Vihar Gaziabad(3X60)	180.00	49.00	2018-19
43	TC	220Kv CG City S/s	180.00	62.02	2017-18
44	TW	220/132 kV GIS Bapudham	180.00	55.00	2018-19
132 kV Sub-station					
1	TC	132 kV s/s Nindura	40.00	8.03	Aug-16
2	TS	132 kV s/s Gabana(Aligarh)	80.00	17.00	Feb'17
3	TC	132 kV s/s Salon (Amethi) (2x40)	80.00	17.00	Jan'17
4	TS	132 kV s/s Gwalior Road GIS (Agra)	80.00	25.88	Feb'17
5	TS	132 kV s/s Bichpuri (Agra)	80.00	16.50	Jan'17
6	TC	132 kV s/s Colonelganj (Gonda) (2x40)	80.00	17.00	2016-17

S. No.	Zone	Name of the Project	MVA	Estimated Cost (Rs. Crore)	Expected Energisation
7	TE	132/33 kV s/s Salai Khurd (Allahabad) (2x40)	80.00	17.00	Oct-16
8	TS	132 kV s/s Nidholi Kalan (Etah) (2x40)	80.00	17.00	Mar'17
9	TS	132 kV s/s Mirehchi(Etah) (2x40)	80.00	17.00	Aug-16
10	TS	220S/S:132/33kV Sikandra rau	320.00	12.00	Sept'16
11	TS	220:132/33kV Rania(Kanpur Dehat)	80.00	10.23	2017-18
12	TC	132 kV Mahmoodabad (Sitapur)	20.00	22.99	Jan'17
13	TC	132 kV s/s Tilhar	40.00	13.23	Oct'16
14	TC	132 kV S/S Haidergarh (Barabanki)	40.00	14.51	Oct-16
15	TC	132 kV S/S Aalapur (Ambedkar Nagar)	40.00	14.50	Jun'16
16	TC	132 kV S/S Sareni (Raebareilly)	40.00	14.50	Jan'17
17	TS	132 kV s/s Auraiyya (TKSAS)	40.00	14.68	April'16
18	TS	132 kV s/s Tundla	80.00	12.57	Oct'16
19	TS	132 kV s/s Konch	40.00	12.50	April'16
20	TS	132 kV s/s Gurusarai	40.00	33.41	Jan'17
21	TS	132 kV s/s Sarila (Hamirpur)	80.00	18.54	Jan'17
22	TS	132 kV s/s Hamirpur (Hamirpur)	40.00	14.50	Mar'17
23	TC	132 kV S/S Bisalpur (Pilibhit)	40.00	32.87	Mar'17
24	TE	132 kV s/s Rudrapur (Deoria) (TKSAS)	40.00	15.22	May-17
25	TE	132 kV S/S Lalganj (Mirzapur)	40.00	24.90	Mar'17
26	TE	132 kV s/s Allahabad Old PH (GIS)	126.00	25.75	May-16
27	TE	132 kV S/S Mubarakpur (Azamgarh)	40.00	18.76	2017-18
28	TE	132 kV S/S Bharwari (Kaushambhi)	40.00	14.52	Apr-16
29	TE	132 kV s/s Chitbargaon (Ballia)	80.00	14.47	Aug-16
30	TE	132 kV S/S Poorna Chaapar (Deoria)	40.00	14.50	2017-18
31	TC	132 kV S/S Bandaa (Shahjahanpur)	40.00	9.46	2017-18
32	TE	132 kV s/s Jari (Allahabad) (2x40)	80.00	17.00	Mar-17
33	TE	132/33 kV s/s Kursato (Varanasi) (2x40)	80.00	17.00	Nov'16
34	TE	132kV s/s Rani ki Sarai (Azamgarh)(2x20)	40.00	13.87	Oct-16
35	TW	132kV S/S Sultanganj Bhogaon,(Mainpuri)	40.00	13.41	Jan'17
36	TW	132kV s/s Sarshwana (Saharanpur)(2x40)	80.00	17.00	TWC-24.02.2016
37	TC	132kV S/S Payaagpur (Bahraich) (2x40)	80.00	21.66	2017-18
38	TC	132 KV S/S Mehtab Bagh(Neebu Park) GIS(3X63)	189.00	75.00	Oct'16
39	TE	132kV S/S Itawa (Siddharth Nagar) (1x40)	40.00	15.69	2017-18
40	TW	132kV S/S Lalpur (Rampur) (2x40)	80.00	21.66	2017-18
41	TW	132kV S/S Bindwal Jairajpur (Rampur) (2x40)	80.00	21.60	Mar'17
42	TC	132kV S/S Jalalabad (Shahjahanpur) (2x40)	80.00	21.16	Mar'17
43	TC	132kV S/S Begumpur (Bahraich) (2x40)	80.00	17.00	Jan'17

निदेशक (वाणिज्य)
उ.प्र.प.दा.का.म.लि.

S. No.	Zone	Name of the Project	MVA	Estimated Cost (Rs. Crore)	Expected Energisation
44	TE	220S/S:132/33kV Gola (Gorakhpur)	80.00	17.00	2017-18
45	TE	132 kV s/s Bhatahat (Gorakhpur)	80.00	17.00	Mar'17
46	TW	132 kV s/s Behjoi (Sambhal)	80.00	17.00	2017-18
47	TW	132 kV s/s Harsia (Baghpat) (2x40)	80.00	17.00	Mar'17
48	TW	132 kV s/s Noida (Sector-67) (2x40) (Deposit)	126.00	18.00	2017-18
49	TW	132 kV s/s Noida (Sector-63) (2x63) (Deposit)	126.00	18.00	2017-18
50	TW	132 kV s/s Noida (Sector-79) (2x40) (Deposit)	126.00	18.00	2017-18
51	TW	132 kV s/s Bhopa (Muzaffarnagar)	80.00	17.00	Feb'17
52	TW	132 kV s/s Bannat (Shamli)	80.00	21.66	2017-18
53	TW	132 kV s/s Asmoli (Sambhal)	80.00	17.00	Feb'17
54	TW	132 kV s/s Garh Mukteshwar (Hapur)	80.00	21.66	Jan'17
55	TW	220S/S: 132/33kV Badaikala (Muzaffarnagar II)	80.00	17.00	2018-19
56	TW	220S/S:132/33kV Noida-45(GIS) (Deposit)	80.00	17.00	2017-18
57	TE	132 kV s/s Pasahi (Sonbhadra) (2x40)	80.00	19.72	2017-18
58	TE	132/33 kV s/s Rudauli (Basti) (2x20)	40.00	18.01	2017-18
59	TE	132/33 kV s/s Nawabganj (Gonda) (2x40)	80.00	21.16	2017-18
60	TW	132 kV s/s Hapur by pass (2x40)	80.00	17.00	2017-18
61	TW	132 kV s/s Mawana Road (Hastinapur-Meerut) (2x40)	80.00	17.00	Jan'17
62	TW	132 kV s/s Kankarkhera-II (Meerut) (2x40)	80.00	10.74	Feb'17
63	TC	132 kV s/s Hanuman Setu Lucknow GIS	126.00	28.36	2017-18
64	TC	132/33kV s/s Barabanki @220 KV Barabanki	80.00	17.00	2017-18
65	TC	132 kV s/s Musafirkhana(Amethi)	80.00	21.66	2017-18
66	TE	220S/S:132/33kV Raja ka Talab	80.00	16.00	2017-18
67	TE	220S/S:132/33kV Azamgarh-II	80.00	15.00	2017-18
68	TW	132 kV s/s Morna (Bijnor) (2x40)	80.00	10.66	2017-18
69	TW	132 kV s/s Agwanpur (Moradabad) (2x40)	80.00	10.85	2017-18
70	TW	220S/S: 132/33kV Hapur (Hybrid)	120.00	22.00	2017-18
71	TW	220S/S:132/33kV Amroha	400.00	10.00	Feb'17
72	TW	220S/S:132/33kV Partapur Jagriti Vihar (Meerut)	80.00	10.00	2017-18
73	TW	220S/S: 132/33kV Chandausi	400.00	17.00	2017-18
74	TW	132/33 kV S/S Ganganagar ,Partapur	126.00	36.24	2017-18
75	TW	132 kV s/s Kaniyan (Muzaffarnagar)	80.00	15.18	Oct-16
76	TW	132 kV s/s Shahbad (Rampur)	40.00	24.79	Mar-17
77	TC	132/33 kV s/s Nawabganj (Bareilly) (2x40)	80.00	17.00	2017-18
78	TS	132/33 kV s/s Tirwa Kanauj(2X40)	80.00	21.57	2017-18
79	TS	132/33kV s/s Barhan,Agra	80.00	17.00	2017-18
80	TW	132/33kV s/s Sherkot,Bijnor	40.00	16.56	2017-18

Amulya

निदेशक (वाणिज्य)
उपग्राम विकास विभाग

S. No.	Zone	Name of the Project	MVA	Estimated Cost (Rs. Crore)	Expected Energisation
81	TW	132/33kV s/s Dankaur, Gautam Budha Nagar	80.00	19.72	Jan'17
82	TS	132/33 kV s/s Bhoor-II, Bulandshar(2X40)	80.00	21.57	2017-18
83	TS	132/33 kV s/s @ 220/132 kV Jahgirabad(2X40)	80.00	17.00	2017-18
84	TS	132/33kV s/s @220/132 kv Saarh (Kanpur) (2x100+2x40)	80.00	10.00	2017-18
85	TS	220/132/33 Kv Pahari Chitrakut s/s (2X100+2X40)	80.00	10.00	2018-19
86	TS	220/132/33kV Mant (Mathura)	80.00	17.00	2018-19

Table 4.4: Ongoing Transmission Line works (in CKM)

S. No.	Zone	Name of Project	CKM	Estimated Cost (Rs. Crore)	Expected Energisation
1	TE	765 kV s/s Anpara D			
	TE	765 kV Anpara D-Unnao (upto Jhusi)	182.00	751.61	May-17
	TE	765 kV Anpara D-Unnao (Jhusi onwards)	234.00	538.20	Mar-17
2	TS	765/400 kV Agra UP with FSC			
	TS	Agra UP (765)- Lalitpur 765 kV, 2xSC line Ckt-2	336.00	469.00	Jan-17
3	TC	400/220kV Hardoi Road			
	TC	LILO of Unnao - Sarojininagar 400 kV SC line at Hardoi Road	70.00	39.00	Nov-18
4	TE	400/132kV Masauli (Allahabad)			
	TE	LILO of one ckt of Meja - Rewa Road 400 kV DC line (Q) at Masauli	80.00	83.40	Oct-17
	TE	LILO of 132kV Karchana-Naini at Masauli	70.00	15.75	Jun-17
5	TS	400 kV s/s Aligarh			
	TS	400 kV dc Aligarh-Sikandarabad Line	190.00	145.20	Nov-16
	TS	220 kV dc Aligarh400-Atrauli	79.00	15.90	Jun-17
6	TS	400 kV s/s Banda			
	TS	400 kV dc q Orai-Banda	108.00	265.00	May-17
	TS	400 kV dc q Allahabad-Banda	177.00	530.00	May-17
7	TS	400 kV s/s Orai			
	TS	220 kV LILO Orai-Bhauti@Orai400	8.00	10.00	Jan-17
8	TW	400kVs/s Muradnagar II			
	TW	Shifting of 400kV SC Dadri-Muradnagar to Muradnagar-II	1.50	2.50	Oct-17
	TW	LILO of 1ckt of Muradnagar(400)-Sahibabad(220)@ Pratap vihar(Monopole)	8.00	8.27	Dec-17
	TW	Shifting of 220kV SC Muradnagar-Baraut to Muradnagar-II	1.00	1.50	Oct-17

[Signature]

निदेशक (वाणिज्य)
उपग्रहोपकरणविभाग

S. No.	Zone	Name of Project	CKM	Estimated Cost (Rs. Crore)	Expected Energisation
	TW	Shifting of 220kV SC Muradnagar-Shamli to Muradnagar-II			
9	TS	400/132 kV Agra(South)	1.00	1.50	Oct-17
	TS	Agra UP (765) - Agra (South) DC Line			
10	TS	400/220 kV Mathura	139.38	110.00	Jan-17
	TS	i. LILO of Agra - Muradnagar 400 kV SC line at Math			
	TS	ii. Agra UP (765) - Mathura SC Line	64.00	3.00	Jun-17
11	TC	400/220/132 kV Jehta Hardoi Road GIS (2x500+2x200)	142.00	142.00	Mar-17
	TC	400kV DC Kursi Road(PGCIL)-Unnao Line Ckt-I			
	TC	400kV DC Kursi Road(PGCIL)-Unnao Line Ckt-II	30.00	25.50	2018-19
	TC	220kV DC Jehta Hardoi Road(400)-Hardoi Road (220) Line	30.00	25.50	2018-19
	TC	LILO of 132kV SC Rahimabad-Sandila Line	20.00	16.00	2018-19
12		Other 400kV Lines	70.00	28.70	2018-19
	TW	765 kV Gr. Noida to 400 kV Gr. Noida Line			
	TE	400 kV dc q Anpara B-Anpara D Line	43.72	122.42	Jun-17
13	TC	220 kV s/s Tanda (RNNSAS)	10.00	8.50	Jun-16
	TC	220 kV dc Sohawal400-Tanda Line			
14	TC	220 kV s/s Nighasan (RNNSAS)	226.00	50.05	Aug-17
	TC	220 kV sc Sitapur-Nighasan Line			
	TC	132 kV sc Nanpara-Dhaurahra Line	110.00	40.70	Dec-16
	TC	132 kV sc Nighasan-Gola Line	51.00	17.88	Jun-17
15	TC	220 kV s/s Kanpur Road(GIS)	50.00	14.64	Jun-17
	TC	LILO of 220 kV DC Sarjningr-Unnao Line @220 kV GIS Kanpur Road.			
16	TC	220 kV s/s Bahraich	70.00	71.53	Mar-17
	TC	220 kV dc Gonda400-Bahraich Line			
	TC	132 kV dc Bahraich220-Nanpara Line	36.00	35.03	Oct-17
	TC	132 kV LILO Gonda-Bahraich@Bahraich220kV Line	82.00	16.00	Nov-17
17	TC	220 kV s/s Pilibhit	65.00	8.40	May-17
	TC	LILO of 220 kV sc (on dc tower) Baikunthpur (Bareilly) (400) Line - Pilibhit			
18	TC	400S/S: 220/132kV Hardoi Road	80.00	32.60	Jan-17
	TC	Hardoi Road (400)-Hardoi Road (220) -DC Interconnector Line			
19	TC	220/33kV Sultanpur Road (Awass Vikas) -(Deposit)	20.00	6.75	Oct-18
	TC	Sultanpur Road (400)-Awass Vikas (Lucknow) 220 kV-DC Line			
20	TC	220/132kV Barabanki	98.00	1.00	Dec-17
	TC	Sohawal (400) - Barabanki (220) -DC Line			
21	TE	220 kV s/s Rasra (Ballia) (TKSAS)	138.00	50.37	Oct-17
	TE	220 kV sc Deoria-Rasra Line			
	TE	132 kV sc Rasra220-Dighar Line	83.00	56.14	Dec-16
			65.86	24.83	Dec-16

Amey

निदेशक (वित्तिय)
उपप्रबंधक

S. No.	Zone	Name of Project	CKM	Estimated Cost (Rs. Crore)	Expected Energisation
22	TE	220 kV s/s Sirathu (TKSAS)			
	TE	132 kV sc Sirathu220-Khaga Line	34.00	8.87	Dec-16
23	TE	220 kV s/s Bansi (TKSAS)			
	TE	220 kV LILO GorakhpurPG-Basti Line @Bansi	100.00	13.96	Mar-17
	TE	132 kV sc Bansi-Dumariaganj Line	36.00	13.12	Mar-17
	TE	132 kV sc Bansi-Mehdawal Line	32.00	12.41	Mar-17
24	TE	220 kV s/s Bhadaura			
	TE	LILO of 220 kV Sarnath (400)- Sahupuri line @ Bhadaura	152.00	51.00	Dec-16
	TE	LILO of 132 kV Jamania - Gazipur line @ Bhadaura	42.00	10.25	Oct-16
	TE	132 kV sc Bhadaura - Kundesar line	20.00	8.00	Mar-17
25	TE	220/132kV Raja ka Talab			
	TE	i. Lilo of 132 Kv SC Raja ka talab 220-Aurai (400) DC Line	12.00	6.00	Aug-17
	TE	ii. Raja ka talab (220)-Sahupuri (220) Line	61.00	25.65	Aug-17
26	TE	220/132kV Azamgarh (new)			
	TE	220 KV SC Sarnath(400)-Azamgarh-II	53.00	21.60	Mar-17
	TE	132kv SC Azamgarh-II to Azamgarh	48.00	16.56	Mar-17
	TE	132kv SC Azamgarh-II to Kerakat	20.00	12.60	Mar-17
	TE	132kv SC Azamgarh-II to Phoolpur	36.00	16.20	Mar-17
27	TE	220/132kV Gola (Gorakhpur)			
	TE	Gorakhpur PGCIL - Gola (220) DC Line	80.00	44.00	Dec-17
28	TS	220 kV s/s Sirsaganj			
	TS	LILO of ckt-1 of Bhogaon-mainpuri @Sirsaganj	34.00	24.00	Sep-16
29	TS	220 kV S/S Boner (Aligarh)			
	TS	220 kV DC boner - Aligarh (400) Line	18.00	15.50	Oct-17
30	TS	220 kV S/S Chhatta (Mathura)			
	TS	220kV DC Chata-Mathura 400kV Line	62.00	9.94	Jan-17
31	TS	220 kV S/S Sikandra (Ramabai Nagar)			
	TS	220 kV LILO Bhauti - orai @ Sikandara	62.00	22.44	Oct-17
	TS	132 kV LILO of Pukhrayan - Jainpur@ Sikandra	54.00	32.14	Oct-17
32	TS	220/132,220/33kV Sikandrarao			
	TS	i. 220 kV DC Sikandrarao - Aligarh (400) Line	35.70	13.03	Oct-16
	TS	iv. LILO of Mirehchi-Kasgunj section of 132KV Etah-Kasgunj Sc line at 220 Kv S/s Sikandra Rao	55.64	10.02	Dec-16
33	TS	220/33kV Phoolbagh (Kanpur)			
	TS	220 kV DC Unnao(400)-Phoolbagh Kanpur Line	100.00	40.00	Nov-17
34	TS	220/132kV Rania(Kanpur Dehat)			
	TS	Panki-Bhauti-Kanpur(400kV Power Grid) 220kV DC Line with 1 ckt. LILO at Rania	16.32	15.60	Aug-17

निदेशक (निर्माण)
उपप्रबंधन कार्यालय

S. No.	Zone	Name of Project	CKM	Estimated Cost (Rs. Crore)	Expected Energisation
		s/s			
	TS	LILO of 132 kV SC Panki-Jaunpur @ Rania	22.00	6.46	Aug-17
35	TW	220 kV s/s Rampur (RNNSAS)			
	TW	132kV Tanda-Rampur (220kV) SC Line	12.00	0.81	Jan-18
36	TW	220 kV s/s Behat (RNNSAS)			
	TW	132 kV sc Behat220-Pilkhani Line	23.30	6.86	Dec-17
37	TW	400S/S: 220/132kV Shamli			
	TW	132kV DC Badaikala (Muzaffarpur-II) - Bannat Shamli DC Line	40.00	9.20	Jun-18
38	TW	220/33kV Botanical Garden (Noida)			
	TW	Noida (148) - Botanical Garden (Noida) DC Line	54.00	11.00	Dec-17
	TW	LILO Noida-Gajipur 220kV SC Line	2.00	1.80	Dec-17
39	TW	220/132kV Amroha (Muradnagar-II)			
	TW	132 Kv SC Amroha(220)-Bachraun line on DC Tower	17.00	8.50	Jan-17
	TW	LILO of Moradabad (220) - Nehtaur (220) Line at Muradnagar-II (220)	124.00	13.50	Jan-17
40	TW	220/132kV Jagriti Vihar Partapur (Meerut)			
	TW	Partapur-220 (Meerut)-Hapur (765) DC Line	52.00	31.30	Oct-17
	TW	Partapur-Meerut 400 PGCIL 220kV SC Line on DC Tower	28.00	15.50	Oct-17
41	TW	220/132kV Chandausi			
	TW	LILO 220 kV SC from Badaun - Sambhal at Chandausi	32.00	11.00	Jan-17
42	TW	220/132kV Noida-45(GIS)			
	TW	Noida (148) - Noida -45 - DC Line	40.00	15.00	Mar-18
43	TW	220/132kV Hapur (Hybrid)			
	TW	i. 220kV SC Hapur(220)-Hapur(765) Line	7.00	17.16	Oct-17
	TW	ii. LILO of Simbholi -Shatabdinagar at Hapur 220 KV	24.00	36.94	Nov-17
45	TW	220/33kV Morti			
	TW	132kV Morti-Kanha Upwan Line	2.00	1.64	Jan-17
	TW	220kV SC Attaur-220kV Morti Line	6.00	4.85	Jan-17
46	TW	220/132 kV Badaikala (Muzaffarnagar-II)			
	TW	i.220kV DC Badaikala(220)(Muzaffarnagar)-Shamli(400) Line	80.00	30.00	2017-18
	TW	ii. LILO of Muzaffarnagar(New)-Nanauta(220) at Badaikala(220)	20.00	7.40	2018-19
47	TW	220/33kV Shani Mandir (Noida)-(Deposit)			
	TW	220kV DC Noida (148) -Shani Mandir (Noida) Line	20.00	7.00	2017-18
	TW	220kV DC Botanical Garden-Shani Mandir Line	6.00	2.10	2017-18
48	TS	220/132kV Neebkarori (Farrukhabad)			
	TS	220kV DC Neebkarori-Bhogaon-Mainpuri(400kV PG) Line	70.00	27.00	Jan-18
	TS	132kV SC Neebkarori-Kayamganj Line	28.38	12.00	Jan-18
	TS	132kV SC Neebkarori-Kannauj Line	62.62	27.00	Jan-18

निदेशक (वाणिज्य)
उत्तर प्रदेश विद्युत निगम

S. No.	Zone	Name of Project	CKM	Estimated Cost (Rs. Crore)	Expected Energisation
49	TC	220/33kV Lower Ganga Canal (GIS)			
	TC	220 kV DC Unnao(400) - Phoolbagh(Kanpur) line	100.00	48.00	Jan-19
50	TS	400S/S: 220 kV Mathura (Manth)			
	TS	LILO of Manth(400kV)-Mitaai(Hathras)(220kV) SC line at Mathura (Manth)	40.00	15.20	Jan-17
	TS	LILO of 132 KV SC Manth-Bamoli Line @ 220KV Manth	110.00	20.62	Mar-18
51	TC	220/132/33kV Bachrawan (Raebareilly) (2x160+2x40)			
	TC	LILO of 220 kV Amawan(PGCIL)Raebareilly-Sarojni Nagar Line	46.00	27.37	Dec-17
	TC	132kV DC Bachrawan(220)-Bachrawan Line	30.00	11.46	Dec-17
	TC	132kV DC Bachrawan(220)-Sareni Line	70.00	29.79	Mar-17
52	TS	220/132/33kV Saarth (Kanpur) (2x100+2x40)			
	TS	220kV DC Fatehpur(765)-Saarth (Kanpur) Line	150.00	46.92	Mar-17
53	TE	220/132/33kV Haata (Kushinagar) (2x100+2x40)			
	TE	220kV DC Moti ram Adda-Haata(220) Line	48.00	25.21	Dec-18
	TE	220kV DC Deoria(220)-Haata(220) Line	76.00	33.63	Dec-18
	TE	132kV DC Kasiya(132)-Haata(220) Line	48.00	11.46	Mar-18
54	TE	220/132/33kV Saangipur (Pratapgarh) (2x160+2x40)			
		220kV DC Sultanpur-Saangipur Line	110.00	31.28	Dec-18
		220kV DC RaebareillyPGCIL-Saangipur Line	100.00	46.92	Dec-18
		132kV DC Kunda-Saangipur Line	92.00	46.45	Mar-18
		132kV SC Lalganj-Saangipur Line	36.00	14.76	Mar-18
55	TS	220/132kV Bhardekhi(Urai) S/S @ 400/220 KV Bhardekhi (Urai) (2X160)			
		220 kV SC Bhardekhi(Urai)-Baah(Agra) Line	48.00	47.79	Jul-17
		220 kV SC Bhardekhi(Urai)-Sikandara(Kanpur Dehat) Line	60.00	19.12	Mar-18
		220 kV SC Baah(Agra)-Sirsaganj(Firozabad) Line	10.00	9.56	Jan-17
56	TW	220 kV Sarshawa s/s			
		220kV DC Mohanpur Gadda(400)PGCIL-Sarshawa Line	22.00	20.70	May-17
		LILO of 220kV DC Saharanpur- Khodari (ckt-I) Line @ Sarshawa S/s	28.00	14.90	May-17
57	TS	220/132/33 Kv Pahari Chitrakut s/s (2X100+2X40)			
		220 kV DC Rewa Road- Chitrakut Line	180.00	95.00	Jul-17
		220 kV DC Banda - Chitrakut Line	221.00	32.20	Jul-17
58	TW	220/33 kV s/s Mandola Vihar Gaziabad (3X60)			
		220 kV DC Attaur(400) Gaziabad-Mandola Vihar(220)Line	34.00	20.70	May-17
		220 kV DC Muradnagar(400) -Mandola Vihar(220)Line	70.00	29.00	2017-18
59	TW	220/132/33 kV s/s Pratap Vihar(1X160+3X60)			
		220kV SC Greater Noida(400)-JPSK Sports(O/H)	23.00	8.27	Aug-17
		220kv DC Indrapuram-Pratap Vihar Line	18.00	8.89	Aug-17
60	TW	220/132KV GIS Bapudham			

निदेशक (सांख्यिक)
उत्तर प्रदेश विद्युत बोर्ड

S. No.	Zone	Name of Project	CKM	Estimated Cost (Rs. Crore)	Expected Energisation
		220 KV DC Dasna-Madhuban Bapudham Line	70.00	26.60	Jan-18
61	TW	220 KV DC Aaur-Madhuban Bapudham Line	70.00	26.60	Jan-18
		220/132KV CG CITY			
		LILO of 220kv Chinhath-Raibareilly@ CG City	8.00	TBA	2017-18
62		Other 220kV Lines			
	TC	220 kV Dohna-CB ganj Line	24.00	12.35	Dec-17
	TE	220 kV sc Aurai 400-Phoolpur Line	71.00	38.02	Apr-17
	TE	220 kV sc Aurai 400-Mirzapur Line	42.00	36.49	Apr-17
	TS	220 kV sc Gokul-Hathras Line	122.00	19.78	Oct-17
	TS	LILO of Gokul-Hathras at Mathura(400) Line	30.00	10.95	Jun-17
	TS	220 kV DC Mathura (400) - Chatta Line	66.00	11.00	Oct-17
63	TC	132 kV s/s Jalalpur			
	TC	132 kV sc Kadipur-Jalalpur Line	46.40	14.00	Dec-17
64	TC	132 kV s/s Bhinga			
	TC	132 kV sc Nanpara-Bhinga Line	50.05	17.74	Dec-17
65	TC	132 kV s/s Utraula (Dept)			
	TC	132 kV sc Dumariaganj-Utraula Line	40.00	14.90	Oct-16
66	TC	132 kV s/s Bikapur			
	TC	132 kV sc Bikapur-Sohawal Line	23.15	8.19	Aug-17
67	TC	132 kV s/s Laharpur (TK NKG)			
	TC	132 kV Lakhimpur-Laharpur Line	32.23	13.72	Aug-17
68	TC	132 kV s/s Tilhar			
	TC	LILO of Shahjahanpur-Badaun @ Tilhar	18.00	3.42	Mar-17
69	TC	132 kV s/s Neebu Park GIS			
	TC	132 kV Hanuman setu cable incoming from 220kV Hardoi Road s/s & 132 kV Neebu park s/s	108.00	148.15	Feb-17
70	TC	132 kV S/S Aalapur (Ambedkar Nagar)			
	TC	132 kV sc New Tanda 220 - Aalapur Line	35.00	11.20	Oct-17
71	TC	132 kV S/S Bisalpur (Pilibhit)			
	TC	132 kV sc Pilibhit - Bisalpur Line	45.00	11.20	Mar-17
	TC	132 kV sc Bareilly II- Bisalpur Line	32.00	12.80	Mar-17
72	TC	132 kV S/S Haidergarh (Barabanki)			
	TC	132 kV dc Sultanpur Road Lko (400)- Haidergarh Line	30.00	9.89	Oct-17
73	TC	132 kV Mahmoodabad (Sitapur)			
	TC	132 kV sc (on dc tower) Sidhauri- Mahmoodabad Line	32.00	19.89	Jan-17
74	TC	132 kV S/S Sareni (Raebareilly)			
	TC	132 kV Dalmau (Raebareilly)-Sareni Line	20.00	10.05	Jan-17

निदेशक (वाणिज्य)
उपप्रबंधक

S. No.	Zone	Name of Project	CKM	Estimated Cost (Rs. Crore)	Expected Energisation
	TC	132 kV Bighapur (Unnao)- Sareni Line			
75	TC	132 kV Maurawan (Unnao) s/s	38.60	13.34	Jan-17
	TC	132 kV Bighapur - Maurawan Line			
76	TC	132 kV s/s Salon (Amethi)	35.00	11.67	Mar-17
	TC	Amawan (Raebareilly)-Salon DC Line			
77	TC	132 kV s/s Colonelganj (Gonda)	78.00	14.70	Jan-17
	TC	132kV DC Gonda (400) -Colonelganj (132) Line			
78	TC	132 kV s/s Musafirkhana (Amethi)	60.00	13.66	Nov-16
	TC	132 kV SC Sultanpur-Jadishpur line @ Musafirkhana (Amethi)			
79	TC	132 kV S/S Bandaa (Shahjahanpur)	10.50	5.52	Aug-17
	TC	132 kV SC Puwayan- Banda Line			
	TC	132 kV SC Gola - Banda Line	29.00	8.20	Apr-17
	TC	132 kV SC Pooranpur - Banda (Shahjahanpur) Line	48.00	18.90	Jun-17
80	TE	132 kV s/s Mughalsarai (Jeonathpur)	30.00	11.00	Jun-17
	TE	132 kV LILO Sahupuri-Robertsganj ckt-I Line @ 132kv Mughalsarai by underground cable			
	TE		1.50	0.48	Dec-17
81	TE	132 kV s/s Rudrapur (Deoria) (TKSAS)			
	TE	132 kV sc Deoria220-Rudrapur Line			
82	TE	132 kV s/s Allahabad Old PH (GIS)	13.40	7.09	Oct-16
	TE	132 kV LILO RewaRd-cantt@ Ald Ph (u/g)			
83	TE	132 kV S/S Lalganj (Mirzapur)	64.00	109.00	Apr-17
	TE	132 kV LILO Mirzapur- Jigna II @ Lalganj			
	TE	132 kV SC Lalganj- Kerakat Line	62.00	16.14	Feb-17
84	TE	132 kV S/S Poorna Chaapar (Deoria)	10.00	4.00	Feb-17
	TE	132 kV SC Deoria (220)-Purnachhapar (Bhatni) Line			
85	TE	132 kV s/s Jari (Allahabad)	25.00	12.80	Nov-17
	TE	132kV DC Masauli(400)-Jari line			
	TE	132kV SC Jari- Shankargarh Line on DC Tower	110.00	24.75	Jan-17
86	TE	132 kV s/s Salai Khurd (Allahabad)	28.00	16.20	Jan-17
	TE	132kV DC Masauli (400)- Sarai Khurd			
	TE	Lilo of 132 kV Masauli- Sarai Khurd Line @ jari	50.66	11.40	Aug-17
87	TE	132 kV s/s Kursato (Varanasi)	50.00	2.00	Apr-17
	TE	Kursato 132 kv -Raja ka talab (220) SC Line on DC Tower			
88	TE	132 kV s/s Raja ka Talab 220S/S: 132/33kV	25.00	12.60	Nov-16
	TE	Raja ka talab -Manduadih DC Line			
89	TE	132 kV s/s Bhatahat (Gorakhpur)	40.00	9.00	2017-18
	TE	132 kV DC Gorakhpur FCI- Bhatahat Line			
			24.00	13.75	Feb-17

निदेशक (वाणिज्य)
उपप्रबंधन

S. No.	Zone	Name of Project	CKM	Estimated Cost (Rs. Crore)	Expected Energisation
90	TS	132 kV s/s Atarra (RNNSAS)			
	TS	132 kVSC Banda-Attara Line			
91	TS	132 kV s/s Tundla	42.10	16.49	Apr-17
	TS	132 kV Etmadpur-Tundla Line			
92	TS	132 kV s/s Mehrauni (TKSAS)	20.42	6.30	Feb-17
	TS	132 kV sc Hasari-Lalitpur Line			
93	TS	132 kV s/s Hasayan (DEPT)	93.80	28.38	Sep-16
	TS	132 kV LILO Hathras-Jalesar@Hasayan			
94	TS	132 kV s/s Panwari	48.00	13.34	Nov-16
	TS	132 kV sc Mahoba-Panwari Line			
95	TS	132 kV s/s Gurusarai	46.37	16.46	Dec-17
	TS	132 kV sc Moth-Gurusarai Line			
96	TS	132 kV s/s Sarila (Hamirpur)	27.00	18.90	Mar-17
	TS	132 kV SC Panwai- Sarila Line			
97	TS	132 kV s/s Hamirpur (Hamirpur)	45.00	18.90	Jun-17
	TS	132 kV LILO Jahanabad- Bharwa Sumerpur @ Hamirpur.			
98	TS	132 kV s/s Shamshabad	52.00	11.52	Mar-17
	TS	132 kV SC Shamshabad Road (220)- Shamshabad Line			
99	TS	132 kV s/s Gwalior Road (Agra)	12.00	2.35	Aug-17
	TS	LILO of Shamshabad- Khairagarh line @ 400 kV S/S Agra South (Proposed)			
	TS	LILO of Shamshabad- Agra south (proposed) line @ 132 kV S/S Gwalior Rd. Agra	12.00	9.22	Jan-17
100	TS	132 kV s/s Bichpuri (Agra)	18.00	4.19	Jan-17
	TS	LILO of 132 kV Sikandara (220) - Cantt Line @ Bichpuri			
101	TS	132 kV s/s Nidholi Kalan (Etah)	18.00	4.20	Jan-17
	TS	LILO of 132kV Etah-Sikandrara SC line @ Nidholi Kalan			
102	TS	132 kV s/s Mirehchi(Etah)	68.00	1.80	Feb-17
	TS	Sikandrara-II (220) - Mirehchi 132 kV DC Line			
103	TS	132 kV s/s Gabana(Aligarh)	70.00	16.00	Aug-17
	TS	Gabana - Khair (220) 132 kV DC Line			
104	TS	132 kV s/s Sultanganj Bhogaon(Mainpuri)	28.00	9.16	Jan-17
	TS	LILO of 132KV Mainpuri-Neebkarori(Chhibramau) at Sultanganj			
105	TS	220S/S: 132/33kV Sikandrara	14.00	4.50	Jan-17
	TS	Sikandrara-II (220) - Nidholi Kalan 132 kV DC Line			
106	TW	132 kV s/s Jahangirpur (RNN III)	60.00	14.00	Oct-17
	TW	132 kV sc Sikandara220-Jehangirpur Line (39.34 Ckm)			
107	TW	132 kV s/s UPSIDC Masuri (TKSAS)	39.34	12.20	Mar-17
	TW	132 kV lilo Dasna400-Dasna132@UPSIDC			
			10.00	8.73	Oct-17

Amul

निदेशक (वाणिज्य)
उपप्रबंधन

S. No.	Zone	Name of Project	CKM	Estimated Cost (Rs. Crore)	Expected Energisation
108	TW	132 kV s/s Govindpuram			
	TW	132 kV sc Bapudham-Govindpur Line	5.00	1.70	Oct-16
	TW	132 kV sc Madhuvan-Govindpur Line	8.00	2.60	Oct-16
109	TW	132 kV s/s Ramraj (Dept)			
	TW	132 kV sc Jansath220-Ramraj Line	18.42	8.16	Mar-17
110	TW	132 kV s/s Pura (TK NKG)			
	TW	132 sc Khatauli-Pura Line	16.64	3.89	Oct-16
111	TW	132 kV s/s Shamli Shyamla			
	TW	132kV sc Nanauta220- Shamli Shyamla Line	25.94	8.87	Oct-16
112	TW	132 kV s/s Milak			
	TW	132 kV sc Rampur220-Milak Line	30.00	6.75	Oct-16
113	TW	132 kV s/s Kaniyan (Muzzaffarnagar)			
	TW	LILLO of 132 kV SC Jasala -Nirpura @Kaniyan	10.00	8.40	Oct-16
114	TW	132 kV s/s Shahbad (Rampur)			
	TW	132 kV (sc on dc towers) Shahbad-Rampur Line	25.00	12.80	Oct-16
115	TW	132 kV s/s Behjoi (Moradabad)			
	TW	Babral - Behjoi 132 kV DC Line	50.00	14.00	Oct-17
116	TW	132 kV s/s Morna (Bijnor)			
	TW	Nehtaur (400) - Morna 132 kV DC Line	12.00	11.25	Apr-17
	TW	Nehtaur (400) - Bijnor 132 kV SC Line	2.00	3.60	Mar-17
	TW	132KV SC Nehtaur-Chandpur Line	11.00	18.00	Apr-17
	TW	132KV SC Nehtaur-Najibabad Line	26.00	12.60	Apr-17
117	TW	132 kV s/s Ved Vyasपुरी (Hapur by pass)			
	TW	LILLO of 132 kV Partapur (220) -Kankankhera-II Line@ 220kv modipuram	15.00	9.16	Jan-17
118	TW	132 kV s/s Agwanpur (Moradabad)			
	TW	Amroha-Agwanpur 132KV DC Line	82.00	20.25	Jun-17
119	TW	132 kV s/s Harsia (Baghpat)			
	TW	132 kV SC Baghpat - Harsia Line(on DC Tower)	13.00	7.92	Mar-17
	TW	133 Kv SC Singhawali - Harsia Line(on DC Tower)	13.00	6.48	Mar-17
120	TW	132 kV s/s Mawana Road (Hastinapur-Meerut)			
	TW	Stringing work of 132kv Charla-Mawana-Hastinapur	14.00	5.00	Jan-17
	TW	Stringing work of 132kv Jansath(220)-Ramraj-Hastinapur 132kv Line	32.00	3.00	Jan-17
	TW	132kv SC Charla-Mawana road line	15.00	2.72	Jan-17
121	TW	132 kV s/s Noida Sector-67			
	TW	GNoida (400)-Noida (67) 132 kV DC Line	40.00	10.00	2017-18
122	TW	132 kV s/s Noida Sector-63			
	TW	GNoida (67)-Noida (63) 132 kV DC Line	40.00	10.00	2017-18

निदेशक (वाणिज्य)
उत्प्रेषण विभाग

S. No.	Zone	Name of Project	CKM	Estimated Cost (Rs. Crore)	Expected Energisation
123	TW	132 kV s/s Noida Sector-79			
	TW	Noida (123)-Noida (79) 132 kV DC Line	40.00	10.00	2017-18
124	TW	132 kV s/s Kankankhera II (Meerut)			
	TW	Modipuram (220)- Kankankhera (II) 132 kV DC Line	40.00	21.90	Feb-17
125	TW	132 kV s/s Bhopa (Muzaffarnagar)			
	TW	132 kV Badaikala(Muzaffarnagar II)(220) - Bhopa Line	60.00	13.50	Feb-17
	TW	LILo of 132 kV Muaffarnagar(400)-Jansath @ Bhopa	20.00	4.58	Feb-17
126	TW	132 kV s/s Asmoli (Sambhal)			
	TW	i. 132 kv DC Bahjoi Sambhal-Chandausi	160.00	14.00	Feb-17
	TW	ii. Sambhal - Asmoli DC Line	32.00	7.20	Feb-17
	TW	iii. Chandausi (220) - Asmoli 132 kV DC Line	74.00	18.00	Feb-17
127	TW	132 kV s/s Garh Mukteshwar (Ghaziabad)			
	TW	i. Garh Mukteshwar- Simbholi (220) 132 kV SC Line	22.00	8.33	Jan-17
	TW	ii. LILo of Simbholi (220) - Gajrola 132 kV line	40.00	9.20	Jan-17
128	TW	132 kV s/s Vijay Nagar (Dadri)			
	TW	Vijay Nagar - Partap Vihar 132 kV DC Line	20.00	5.00	Oct-17
129	TW	220S/S: 132/33kV Shamli			
	TW	Shamli (II) - Baghra 132 kV DC Line	80.00	18.00	Oct-17
130	TW	220S/S: 132/33kV Hapur			
	TW	i. Hapur -II (220)- Pilkhua 132 kV SC Line	25.00	9.12	Dec-17
	TW	ii. Hapur-II(220)-Babugarh 132kV SC Line	20.00	7.20	Apr-17
	TW	iii. 132 kV SC Hapur(220)-Hapur(765) Line	7.00	5.40	Oct-17
131	TW	220S/S: 132/33kV Badaikala (Muzaffarnagar II)			
	TW	i. 132 kV SC Badaikala (220) - Purkazi Line	40.00	10.00	Dec-17
132	TW	220S/S: 132/33kV Partapur (Meerut)			
	TW	i. Partapur-220 -Hapur By Pass 132 kV DC line	52.00	10.80	Oct-17
	TW	ii. Partapur-220 -Ganganagar (132) DC Line	30.00	6.87	Dec-17
133	TW	220S/S: 132/33kV Chandausi			
	TW	i. Chandausi (220) - Saidnagli 132 kV DC Line	60.00	14.00	Mar-18
	TW	ii. Chandausi (220) - Babrala 132 kV DC Line	40.00	9.00	Mar-18
134	TW	220S/S: 132/33kV Noida-45 (GIS)			
	TW	Noida (45) - Noida (45) 132 kV (existing)DC Line	40.00	9.00	Mar-18
135	TW	220S/S: 132/33kV Jagriti Vihar (Partapur)			
	TW	LILo of 132 kV SC Naglikikithor- Mundali Line @ Partapur(Jagriti Vihar)	20.00	6.75	Oct-17
	TW	133 kV DC Jagriti Vihar - Lohiya Nagar Line	4.00	2.25	Aug-17
136	TE	132kV Rani ki Sarai (Azamgarh)			
	TE	LILo of 132 kV Azamgarh(220)-II - Lalganj Line @ Rani ki sarai	40.00	4.28	Nov-16


 निदेशक (वाणिज्य)
 उपप्रबंधन कार्यालय

S. No.	Zone	Name of Project	CKM	Estimated Cost (Rs. Crore)	Expected Energisation
137	TE	132 kV s/s Pasahee (Sonbhadra)			
	TE	132kV DC Robertsganj-Pasahee Line	26.00	7.30	May-17
138	TC	133 kV s/s Nawabganj (Bareilly) (2x40)			
	TC	LILo of 132kV Dohna(220)-Barkhera Ckt-I Line @Nawabganj, Bareilly	1.50	1.37	Feb-17
139	TE	132/33 kV s/s Nawabganj (Gonda) (2x40)			
	TE	LILo of 132kV SC Gonda(220)- Darshannagar @ Nawabganj(Gonda)	24.00	2.75	Feb-17
140	TW	132kV s/s Ambala Road-II (Saharanpur) (2x40)			
	TW	LILo of 132kV SC Saharanpur-Ambala Road Line @ Ambala road	4.00	4.58	Mar-17
141	TC	132kV S/S Payaagpur (Bahraich) (2x40)			
	TC	LILo of 132kV SC Gonda-Bahraich Line@ Payaagpur	2.50	9.00	Feb-17
142	TE	132kV S/S Itawa (Siddharth Nagar)(2x20)			
	TE	LILo of 132kV SC Bansi(220)-Dumariyaganj Line	26.00	6.87	May-17
143	TW	132kV S/S Lalpur (Rampur) (2x40)			
	TW	LILo of 132kV SC Rampur-C.B.Ganj Line	60.00		Aug-17
144	TW	132kV S/S Bindwal Jai Rajpur (Rampur) (2x40)			
	TW	LILo of 132kV DC Azamgarh-Bindwal Jai Rajpur Line	22.00	9.17	Mar-17
145	TC	132kV S/S Jalalabad (Shahjahanpur) (2x40)			
	TC	LILo of 132kV SC Shahjahanpur-Usawan Line	36.00	15.75	Mar-17
	TC	132kV DC Krabhapko-Jalalabad line	35.00	11.58	Mar-17
146	TS	220/132kV Bhardekhi(Urai) S/S @ 400/220 KV Bhardekhi (Urai) (2X160)			
		132kV DC Parsna(Solar Plant) -Bhardehi(Urai) Line	36.00	3.90	Jan-17
		132kV DC Gurhar(Solar Plant)-Bhardekhi(Urai) Line	52.00	4.34	Jan-17
		132kV DC Dakaur(Solar Plant)-Bhardekhi(Urai) Line	56.00	6.07	Jan-17
		132kV DC Makrecha(Solar Plant)-Bhardekhi (Urai) Line	60.00	6.50	Jan-17
		LILo of 132kV DC Makrecha(Solar Plant)-Bhardekhi(Urai) Line	4.00	0.43	Jan-17
		132kV SC Bhadreki(Urai)-Jalaun	5.00	4.81	Jan-17
147	TC	220/132/33 kV Amethi s/s (2X160)			
		132kV DC Amethi(220)-Jagdispur Line	90.00	22.70	Feb-17
		132kV DC Amethi(220)-Musafir Khana Line	60.00	10.50	Apr-17
		132kV DC Amethi(220)-Gauriganj Line	46.00	7.70	Apr-17
148	TW	220/132/33 kV Sarshawa Saharanpur(2X160+2X40)			
		132kV DC Sarshawa-Rampur Maniharan Line	52.00	13.13	May-17
		LILo of 132kV SC Saharanpur-Nakur Line @ Sarshawa	6.00	5.05	May-17
149	TS	132/33kV s/s Tirwa,Kannauj			
		132 kV DC Chibramau(220)-Tirwa(132)	90.00	15.75	Oct-17
		LILo of Ckt-1 of Chibramau(220)-Tirwa(132)@Kannauj	40.00	7.00	Oct-17
150	TW	132/33kV s/s Bulandshar(2X40)			

निदेशक (वाणिज्य)
उपप्रबंधन

S. No.	Zone	Name of Project	CKM	Estimated Cost (Rs. Crore)	Expected Energisation
	TW	132 kV sc Nanauta-Gangoh Line	22.00	2.93	Mar-17
	TW	132 sc Moradabad-Bilari Line	24.50	6.25	Mar-17
	TS	132 kV DC Agra (South)- Agra cantt Line	24.80	5.58	Apr-17
	TS	LILO of Kirawali- Mathura at Agra South Line	11.50	2.59	Apr-17
	TS	LILO of Khairagarh - Bodla at 400kV Agra (South) Line	12.00	9.22	Apr-17
	TS	132 kV DC Ghatampur TPS - Ghatampur Line	40.00	9.00	Jun-17
	TS	132 kV DC Ghatampur TPS - Pukhrayan Line	50.00	12.00	Jun-17
	TS	LILO of Naubasta-Malwa Line at Ghatampur	58.00	18.00	Jun-17
	TE	132kV SC Chunar-Mirzapur Line	48.00	9.80	Jun-17
	TE	LILO of 132kV Azamgarh-Lalganj Line to Azamgarh S/S	2.00	0.23	Aug-17
	TE	132kV DC Azamgarh(220)-Lalganj Line	40.00	10.00	Dec-17
	TW	132kV DC Rampur(220)-Thakurdwara Line	12.00	26.25	Jan-18
	TE	132kV DC Meja(132)-Kosda kala(132) Line	58.00	13.05	Oct-17
	TE	132kV DC Jigna(132)-Dadar Vijaypur(132) Line	17.00	3.83	Oct-17
	TE	132kV DC Gujrai(solar plant)-Pukhraya	44.00	34.88	Apr-17
	TE	132 kV sc Bharthana-Chakarnagar Line@ DC Tower	13.00	4.50	Apr-17
	TS	132 kV SC Aurai-Kachwa TSS Line	15.00	3.04	Mar-17
	TW	132 kV SC Badhoi tower-2 to Bhadoi TSS U/G Line	1.70	6.46	Aug-17
	TC	132 Kv DC Barabanki(220)-Haidergarh(132) Line	56.00	6.26	Oct-17
	TC	LILO of 132kV SC Kauriram-Dohrighat at Gola 220 KV	20.00	10.00	2019-20
	TC	LILO of 132 Kv Dhampur-kalagarh @132kv Sherakot,Bijnour	20.00	10.10	Aug-17

(Signature)

(Signature)
निदेशक (वाणिज्य)
संयोजन विभाग

Table 4.5: New Sub-stations (in MVA)

Sl. No.	Zone	Name Of Project	MVA	Estimated Cost (Rs. Crore)	Sources of Capital
765kV SUBSTATION					
1	TW	Modipuram(Meerut) 765 kV S/S	3000	404	W.B.
2	TW	Moradabad(UP) 765kV S/S	3000	404	REC/PFC
		FINAL TOTAL (A)	6000	808	
400kV SUBSTATION					
1	TW	Modipuram(Meerut) 400/220 kV @ 765 Kv S/S	1000	146.14	W.B.
2	TW	Moradabad(UP) 400/220 kV S/S @ 765 kV S/S	1000	146.14	REC/PFC
3	TW	Shamli-400/220 kV S/S	1000	165.68	W.B.
4	TE	Jaunpur-400/220 kV S/S	630	136.13	REC/PFC
5	TW	Lalu kheri (400) - 400/220 kV S/S	630	136.13	REC/PFC
6	TW	Bhopa Road (400) - 400/220 kV S/S	630	136.13	REC/PFC
7	TW	Simbholi (400) - 400/220 kV S/S	1000	146.14	W.B.
8	TS	Firozabad (400) - 400/220 kV S/S	1000	146.14	W.B.
9	TC	Badaun(400) - 400/220 kV S/S	630	136.13	REC/PFC
10	TW	Sambhal(400) - 400/220 kV S/S	630	136.13	REC/PFC
11	TE	Rasra (400) - 400/220 kV S/S	630	136.13	W.B.
12	TC	Raebareli(400)-400/220 kV S/S	630	136.13	REC/PFC
		TOTAL (B)	9410	1703	
220kV SUBSTATIONS					
1	TW	Shamli-220/132 kV @ 400 Kv S/S	320	43.79	W.B.
2	TE	Jaunpur-220/132 kV @ 400 Kv S/S	320	43.79	REC/PFC
3	TW	Lalu kheri (400) - 220/132 kV @ 400 Kv S/S	320	43.79	REC/PFC
4	TW	Bhopa Road (400) -220/132 kV @ 400 Kv S/S	320	43.79	REC/PFC
5	TW	Simbholi (400) - 220/132 kV @ 400 Kv S/S	320	43.79	W.B.
6	TS	Firozabad (400) - 220/132 kV @ 400 Kv S/S	320	43.79	W.B.
7	TC	Badaun(400) - 220/132 kV @ 400 Kv S/S	320	43.79	REC/PFC
8	TW	Sambhal(400) - 220/132 kV @ 400 Kv S/S	320	43.79	REC/PFC
9	TE	Rasra (400) - 220/132 kV @ 400 Kv S/S	320	43.79	W.B.
10	TC	Raebareli(400)-220/132 kV @ 400 Kv S/S	320	43.79	REC/PFC
11	TW	Sardhana 220/132 kV S/S	320	43.79	REC/PFC
12	TW	Mawana 220/132 kV S/S	320	43.79	REC/PFC
13	TW	Chhaprauli 220/132 kV S/S	320	43.79	REC/PFC
14	TW	Singhauli 220/132 kV S/S	320	43.79	REC/PFC
15	TW	BB Nagar 220/132 kV S/S	320	43.79	REC/PFC
16	TW	Khatauli 220/132 kV S/S	320	43.79	REC/PFC
17	TW	Sarsawa(Saharanpur) 220/132 kV S/S	320	43.79	REC/PFC
18	TC	Hardoi (New) 220/132 kV S/S	320	43.79	REC/PFC
19	TW	Moradabad-II (Kath) 220/132 kV S/S	320	43.79	REC/PFC
20	TW	Nehtaur New 220/132 kV S/S	320	43.79	REC/PFC
21	TW	Bulandshahar Road 220/132 kV S/S	320	43.79	REC/PFC
22	TW	Morta 220/132 kV S/S	320	43.79	W.B.

निदेशक (विनिर्माण)
उत्तर प्रदेश विद्युत निगम

Sl. No.	Zone	Name Of Project	MVA	Estimated Cost (Rs. Crore)	Sources of Capital
23	TW	Vasundhara 220/33 kV S/S	180	51.65	REC/PFC
24	TW	Awas Vikas Loni 220/132 kV S/S	320	43.79	REC/PFC
25	TS	Fatehgarh or Kannauj 220/132 kV S/S	320	43.79	REC/PFC
26	TS	Hamirpur 220/132 kV S/S	320	43.79	W.B.
27	TC	Pilibhit Bypass 220/132 kV S/S	320	43.79	REC/PFC
28	TC	Badaun Road 220/132 kV S/S	320	43.79	REC/PFC
29	TW	Tajpur 220/132 kV S/S	320	43.79	W.B.
30	TE	Fatehpur New 220/132 kV S/S	320	43.79	REC/PFC
31	TE	Ballia 220/132 kV S/S	320	43.79	REC/PFC
32	TE	Anandnagar (Gorakhpur) 220/132 kV S/S	320	43.79	REC/PFC
33	TE	Maharajganj (Siddarthnagar) 220/132 kV S/S	320	43.79	REC/PFC
34	TE	Khalilabad (Basti) 220/132 kV S/S	320	43.79	REC/PFC
35	TE	Khaga 220/132 kV S/S	320	43.79	REC/PFC
36	TC	SGPGI Road 220/132 kV S/S	320	43.79	REC/PFC
37	TC	Sandila 220/132 kV S/S	320	43.79	REC/PFC
38	TC	Faridpur(bareilly) 220/132 kV S/S	320	43.79	W.B.
39	TS	Tundla 220/132 kV S/S	320	43.79	W.B.
40	TS	Kasganj 220/132 kV S/S	320	43.79	REC/PFC
41	TS	Kiraowli 220/132 kV S/S	320	43.79	REC/PFC
42	TC	Amethi 220/132 kV S/S	320	43.79	REC/PFC
43	TS	Pahari(Chitrakoot) 220/132 kV S/S	320	43.79	REC/PFC
44	TW	Saharanpur New 220/132 kV S/S	320	43.79	REC/PFC
45	TW	G.Noida (II) (220/33 kV) S/S	180	51.65	REC/PFC
46	TS	Kidwainagar (220/33 kV) S/S	180	51.65	REC/PFC
47	TE	Allahabad (220/33 kV) S/S	180	51.65	REC/PFC
48	TE	Varanasi Cantt. (220/33 kV) S/S	180	51.65	REC/PFC
49	TC	Lucknow Hardoi Road(220/33 kV) S/S	180	51.65	REC/PFC
50	TC	Lucknow (220/33 kV) (Canal Road) S/S	180	51.65	REC/PFC
51	TC	Unnao (220/33 kV)(Dahi Chowki) S/S	180	51.65	W.B.
52	TS	Agra Dayalbagh (220/33 kV) S/S	180	51.65	REC/PFC
53	TW	Meerut By Pass (220/33 kV) S/S	180	51.65	REC/PFC
54	TW	Sidharth Nagar/Ind. Area Ghaziabad(220/132kV S/S) 1x160, 3x60 MVA	340	51.65	REC/PFC
55	TW	Modipuram-II (220/132 kV) S/S	320	43.79	W.B.
56	TC	Lakhimpur(220/132 kV) S/S	320	43.79	REC/PFC
57	TC	220/132/33 kV Vrindavan, Mathura S/S	320	43.79	REC/PFC
132kV SUBSTATIONS					
1	TW	Sardhana 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
2	TW	Mawana 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
3	TW	Chhaprauli 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
4	TW	Singhauli 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
5	TW	BB Nagar 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
6	TW	Khatauli 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
7	TW	Sarsawa(Saharanpur) 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC

[Signature]

[Signature]
निदेशक (सांख्यिक)
राज्यीय विकास बोर्ड

Sl. No.	Zone	Name Of Project	MVA	Estimated Cost (Rs. Crore)	Sources of Capital
8	TC	Hardoi (New) 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
9	TW	Moradabad-II (Kath) 132/33 kV @ 220 Kv S/S	80	19.54	
10	TW	Nehtaur New 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
11	TW	Bulandshahar Road 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
12	TW	Morta 132/33 kV @ 220 Kv S/S	80	19.54	W.B.
13	TW	Awass Vikas Loni 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
14	TS	Fatehgarh or Kannauj 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
15	TS	Hamirpur 132/33 kV @ 220 Kv S/S	80	19.54	W.B.
16	TC	Pilibhit Bypass 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
17	TC	Badaun Road 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
18	TW	Tajpur 132/33 kV @ 220 Kv S/S	80	19.54	W.B.
19	TE	Fatehpur New 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
20	TE	Ballia 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
21	TE	Anandnagar (Gorakhpur) 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
22	TE	Maharajganj (Siddarthnagar) 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
23	TE	Khalilabad (Basti) 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
24	TE	Khaga 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
25	TC	SGPGI Road 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
26	TC	Sandila 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
27	TC	Faridpur(bareilly) 132/33 kV @ 220 Kv S/S	80	19.54	W.B.
28	TS	Tundla 132/33 kV @ 220 Kv S/S	80	19.54	W.B.
29	TS	Kasganj 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
30	TS	Kiraowli 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
31	TC	Amethi 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
32	TS	Pahari(Chitrakoot) 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
33	TW	Saharanpur New 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
34	TW	Sidharth Nagar/Ind. Area Ghaziabad 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
35	TW	Modipuram-II 132/33 kV @ 220 Kv S/S	80	19.54	W.B.
36	TC	Lakhimpur 132/33 kV @ 220 Kv S/S	80	19.54	REC/PFC
37	TW	Daurala(Meerut) 132/33 Kv S/S	80	19.54	W.B.
38	TW	Baghra(Muzaffarnagar) 132/33 Kv S/S	80	19.54	W.B.
39	TW	Dudhali(Saharanpur) 132/33 Kv S/S	80	19.54	W.B.
40	TW	Kandhala(Shamli) 132/33 Kv S/S	80	19.54	W.B.
41	TW	Tana(Shamli) 132/33 Kv S/S	80	19.54	W.B.
42	TE	Sahjanwa(Gorakhpur) 132/33 Kv S/S	80	19.54	W.B.
43	TE	Khajni(Gorakhpur) 132/33 Kv S/S	80	19.54	W.B.
44	TW	Karera(Ghaziabad) 132/33 Kv S/S	80	19.54	W.B.
45	TW	Kanauja(Ghaziabad) 132/33 Kv S/S	80	19.54	REC/PFC
46	TC	Meerganj Bareilly III(Bareilly) 132/33 Kv S/S	80	19.54	W.B.
47	TS	Narkhi (Firozabad) 132/33 Kv S/S	80	19.54	W.B.
48	TW	Shahpur (Muzaffarnagar) 132/33 Kv S/S	80	19.54	W.B.
49	TC	Tulsiapur (Balrampur) 132/33 Kv S/S	80	19.54	W.B.
50	TS	Amritpur (Farrukhabad) 132/33 Kv S/S	80	19.54	W.B.




 निदेशक (विनिर्माण)

 उद्योग विभाग

Sl. No.	Zone	Name Of Project	MVA	Estimated Cost (Rs. Crore)	Sources of Capital
51	TS	Baldeo (Mathura) 132/33 Kv S/S	80	19.54	W.B.
52	TE	Sadat (Ghazipur) 132/33 Kv S/S	80	19.54	W.B.
53	TW	Dhanaura 132/33 Kv S/S	80	19.54	REC/PFC
54	TW	Hasanpur 132/33 Kv S/S	80	19.54	REC/PFC
55	TW	Saur 132/33 Kv S/S	80	19.54	REC/PFC
56	TW	Jarcha 132/33 Kv S/S	80	19.54	REC/PFC
57	TW	Jewar 132/33 Kv S/S	80	19.54	REC/PFC
58	TW	Loni New 132/33 Kv S/S	80	19.54	REC/PFC
59	TW	Rasulpur 132/33 Kv S/S	80	19.54	REC/PFC
60	TW	Parichhatgarh 132/33 Kv S/S	80	19.54	REC/PFC
61	TW	Kharkhanda 132/33 Kv S/S	80	19.54	REC/PFC
62	TW	Tanda 132/33 Kv S/S	80	19.54	REC/PFC
63	TW	Mamdaur 132/33 Kv S/S	80	19.54	REC/PFC
64	TW	Dhaulana 132/33 Kv S/S	80	19.54	REC/PFC
65	TW	Jalalbad 132/33 Kv S/S	80	19.54	REC/PFC
66	TW	Chausna 132/33 Kv S/S	80	19.54	REC/PFC
67	TW	Budhana 132/33 Kv S/S	80	19.54	REC/PFC
68	TW	Mansurpur 132/33 Kv S/S	80	19.54	REC/PFC
69	TW	Peetal Nagri 132/33 Kv S/S	80	19.54	REC/PFC
70	TW	Roshannagar 132/33 Kv S/S	80	19.54	REC/PFC
71	TW	Bahjoi 132/33 Kv S/S	80	19.54	REC/PFC
72	TW	Chilkana 132/33 Kv S/S	80	19.54	REC/PFC
73	TW	Muzaffarabad 132/33 Kv S/S	80	19.54	REC/PFC
74	TW	Amia 132/33 Kv S/S	80	19.54	REC/PFC
75	TC	Sahaswan 132/33 Kv S/S	80	19.54	REC/PFC
76	TC	Dataganj 132/33 Kv S/S	80	19.54	REC/PFC
77	TC	Kiyara 132/33 Kv S/S	80	19.54	REC/PFC
78	TC	Shishgarh 132/33 Kv S/S	80	19.54	REC/PFC
79	TC	Misrikh 132/33 Kv S/S	80	19.54	REC/PFC
80	TC	Mohanlalganj 132/33 Kv S/S	80	19.54	REC/PFC
81	TC	Nigohan 132/33 Kv S/S	80	19.54	REC/PFC
82	TC	Gauriganj 132/33 Kv S/S	80	19.54	REC/PFC
83	TC	Malihabad 132/33 Kv S/S	80	19.54	REC/PFC
84	TC	Itaunja 132/33 Kv S/S	80	19.54	REC/PFC
85	TC	Ramnagar 132/33 Kv S/S	80	19.54	REC/PFC
86	TC	Fatehpur 132/33 Kv S/S	80	19.54	REC/PFC
87	TC	Mahsi 132/33 Kv S/S	80	19.54	REC/PFC
88	TC	Kaisarganj 132/33 Kv S/S	80	19.54	REC/PFC
89	TC	Ikauna 132/33 Kv S/S	80	19.54	REC/PFC
90	TC	Sawayajpur 132/33 Kv S/S	80	19.54	REC/PFC
91	TC	Belegam 132/33 Kv S/S	80	19.54	REC/PFC
92	TC	Maharaj Ganj 132/33 Kv S/S	80	19.54	REC/PFC
93	TC	Tiloi 132/33 Kv S/S	80	19.54	REC/PFC
94	TC	Purwa 132/33 Kv S/S	80	19.54	REC/PFC
95	TC	Safipur 132/33 Kv S/S	80	19.54	REC/PFC

[Signature]

निदेशक (सिगिज्वा)
उपमंडल प्रशासक

Sl. No.	Zone	Name Of Project	MVA	Estimated Cost (Rs. Crore)	Sources of Capital
96	TC	Hasanganj 132/33 Kv S/S	80	19.54	REC/PFC
97	TC	Kumarganj 132/33 Kv S/S	80	19.54	REC/PFC
98	TC	Rudauli 132/33 Kv S/S	80	19.54	REC/PFC
99	TC	Dostpur 132/33 Kv S/S	80	19.54	REC/PFC
100	TC	Lambhua 132/33 Kv S/S	80	19.54	REC/PFC
101	TS	Achnera 132/33 Kv S/S	80	19.54	REC/PFC
102	TS	Fatehpur Sikri 132/33 Kv S/S	80	19.54	REC/PFC
103	TS	Pariha 132/33 Kv S/S	80	19.54	REC/PFC
104	TS	Uresar 132/33 Kv S/S	80	19.54	REC/PFC
105	TS	Pataili 132/33 Kv S/S	80	19.54	REC/PFC
106	TS	Saron 132/33 Kv S/S	80	19.54	REC/PFC
107	TS	Derapur 132/33 Kv S/S	80	19.54	REC/PFC
108	TS	MAU 132/33 Kv S/S	80	19.54	REC/PFC
109	TS	Madhogarh 132/33 Kv S/S	80	19.54	REC/PFC
110	TS	Baberu 132/33 Kv S/S	80	19.54	REC/PFC
111	TS	Naraini 132/33 Kv S/S	80	19.54	REC/PFC
112	TS	Charkhari 132/33 Kv S/S	80	19.54	REC/PFC
113	TS	Tahrauli 132/33 Kv S/S	80	19.54	REC/PFC
114	TS	Karhal 132/33 Kv S/S	80	19.54	REC/PFC
115	TS	Khair Nagar (Tirwa) 132/33 Kv S/S	80	19.54	REC/PFC
116	TS	Govardhan 132/33 Kv S/S	80	19.54	REC/PFC
117	TS	Ichauli (Maudaha) 132/33 Kv S/S	80	19.54	REC/PFC
118	TS	Talbahat 132/33 Kv S/S	80	19.54	REC/PFC
119	TE	Nauatnwa 132/33 Kv S/S	80	19.54	REC/PFC
120	TE	Nichlaul 132/33 Kv S/S	80	19.54	REC/PFC
121	TE	Tamkuhiraj 132/33 Kv S/S	80	19.54	REC/PFC
122	TE	Ramkola 132/33 Kv S/S	80	19.54	REC/PFC
123	TE	Barhaj 132/33 Kv S/S	80	19.54	REC/PFC
124	TE	Batpatrani 132/33 Kv S/S	80	19.54	REC/PFC
125	TE	Kora 132/33 Kv S/S	80	19.54	REC/PFC
126	TE	Dhatu 132/33 Kv S/S	80	19.54	REC/PFC
127	TE	Aung 132/33 Kv S/S	80	19.54	REC/PFC
128	TE	Ghosi 132/33 Kv S/S	80	19.54	REC/PFC
129	TE	Madhuban 132/33 Kv S/S	80	19.54	REC/PFC
130	TE	Balthera Road 132/33 Kv S/S	80	19.54	REC/PFC
131	TE	Bansdih 132/33 Kv S/S	80	19.54	REC/PFC
132	TE	Bairia 132/33 Kv S/S	80	19.54	REC/PFC
133	TE	Camperganj 132/33 Kv S/S	80	19.54	REC/PFC
134	TE	Gida 132/33 Kv S/S	80	19.54	REC/PFC
135	TE	Semeriaon 132/33 Kv S/S	80	19.54	REC/PFC
136	TE	Maghar 132/33 Kv S/S	80	19.54	REC/PFC
137	TE	Raniganj 132/33 Kv S/S	80	19.54	REC/PFC
138	TE	Dulahpur/Jakhania 132/33 Kv S/S	80	19.54	REC/PFC
139	TE	Jainpur 132/33 Kv S/S	80	19.54	REC/PFC
140	TE	Barda 132/33 Kv S/S	80	19.54	REC/PFC

(Signature)

निदेशक (वाणिज्य)
उपभोक्ता विकास विभाग

Sl. No.	Zone	Name Of Project	MVA	Estimated Cost (Rs. Crore)	Sources of Capital
141	TE	Sindhora 132/33 Kv S/S	80	19.54	REC/PFC
142	TE	Chail 132/33 Kv S/S	80	19.54	REC/PFC
143	TE	132/33 kv Badagaon, Mau	80	19.54	REC/PFC
144	TE	132/33 kv Kachwa, Mirzapur	80	19.54	REC/PFC
145	TE	220/132/33 kv Vrindavan, Mathura S/S	80	19.54	REC/PFC

New Transmission Lines (in CKM)

S. No.	Zone	Name of the Project	CKM	Estimated Cost (Rs. Crore)	Source of Capital
		765 kV Lines			
		Modipuram(Meerut) 765/400/220 kV S/S			
1	TW	LILO of Gr. Noida(UP)-Hapur 765 kV-2x30 Km.	60.00	81.00	W.B.
		Moradabad(UP) 765/400/220 kV S/S			
2	TW	LILO of Ghatampur-Hapur SC line-2x50 Km.	100.00	135.00	REC/PFC
		Other 765 kV Lines			
3	TE	LILO of Anpara D- Unnao 765kV SC line at Obra c-40km	80.00	108.00	REC/PFC
4	TW	LILO of Mainpuri-G.Noida 765kV SC line(M/s Cobra Line at Jawaharpur TPS-30km	60.00	81.00	REC/PFC
5	TS	Ghatampur TPS-AgraUP 765kV SC Line 240km	240.00	648.00	REC/PFC
6	TS	AgraUP-G.Noida 765kV SC Line 200km	200.00	540.00	REC/PFC
7	TW	Ghatampur TPS- Hapur 765kV SC line- 400km	400.00	1,080.00	REC/PFC
		400 kV Lines			
		Modipuram(Meerut) 765/400/220 kV S/S			
1	TW	Modipuram(765)-Baghat(PGCIL) 400 kV DC Line	120.00	102.86	W.B.
		Moradabad(UP) 765/400/220 kV S/S			
2	TW	Moradabad(765)-Sambhal 400 kV DC Line	50.00	85.72	REC/PFC
3	TW	Moradabad(765)-Moradabad(400) DC Line	25.00	42.86	REC/PFC
		Shamli-400/220/132 kV			
4	TW	Modipuram (765)-Shamli DC Line.	120.00	102.86	W.B.
5	TW	Aligarh (400)-Shamli DC Line.	360.00	308.59	W.B.
		Jaunpur-400/220/132 kV			
6	TE	Obra-C -Jaunpur 400 kV DC Line.	380.00	325.74	REC/PFC
7	TE	Varanasi (PG)-Janpur (400kV) DC Line.	230.00	197.16	REC/PFC
		Lalu kheri (400) - 400/220/132 kV			
8	TW	Lalu kheri-Shamli 400 kv DC line.	40.00	34.29	REC/PFC
9	TW	Lalu Kheri-Bhopa Road 400 kv DC line	40.00	34.29	REC/PFC
		Bhopa Road (400) - 400/220/132 kV			
10	TW	Lilo of 400kv Vishnu Prayag-Srinagar - Muzaffarnagar	40.00	34.29	REC/PFC
11	TW	Bhopa Road-Nehtaur 400 kv SC line.	100.00	85.72	REC/PFC
		Simbholi (400) - 400/200/132 kV			
12	TW	Simbholi-Meerut(UP) 400 kV DC line.	80.00	68.58	W.B.
13	TW	400kv SC Simbholi-Muradnagar-II line.	100.00	85.72	W.B.
		Firozabad (400) - 400/220/132 kV			
14	TS	Jawahapur TPS-Firozabad 400 kV DC line.	80.00	68.58	W.B.
15	TS	Agra(South)-Firozabad 400kv DC line.	100.00	85.72	W.B.
		Badaun(400) - 400/220/132 kV			
16	TC	Roza-Badaun 400kv DC Line.	260.00	222.87	REC/PFC
		Sambhal(400) - 400/220/132 kV			
17	TW	Sambhal-Badaun DC line.	134.00	114.86	REC/PFC
18	TW	Sambhal-Moradabad(765) DC line.	70.00	60.00	REC/PFC
		Rasra (400) - 400/220/132 kV			

S. No.	Zone	Name of the Project	CKM	Estimated Cost (Rs. Crore)	Source of Capital
19	TE	LILo One Ckt Ballia (PG)-Mau or Ballia - Sohawal PG-15 Km.	30.00	25.72	W.B.
20	TE	Ballia (PG)-Rasra 400 kV SC Line - 35 Km.	70.00	33.37	W.B.
		Raebareli(400)-400/220/132 kV			
21	TC	LILo of Unchahar(400)-Fatehpur Line- 50 Km.	100.00	85.72	REC/PFC
		Lines for evacuation			
23	TS	Jawahapur TPS-Firozabad 400 kV DC line .	80.00	68.58	REC/PFC
24	TC	Panki TPS-Panki(400)-DC Line.	6.00	5.14	REC/PFC
25	TS	LILo of one ckt of Aligarh-Sikandrabad 400kV DC line(Isolux line) at Harduaganj TPS.	25.00	21.43	REC/PFC
26	TE	Obra C- Jaunpur 400kV DC line .	380.00	325.74	REC/PFC
27	TE	LILo of one ckt of Obra-Jaunpur 400kV DC line at Obra(Existing).	30.00	25.72	REC/PFC
28	TC	Ghatampur TPS-KanpurPG 400kV DC line.	120.00	102.86	REC/PFC
		220 kV Lines			
		Modipuram(Meerut) 765/400/220 kV S/S			
1	TW	Modipuram(765)-Gajraula 220 kV DC Line.	130.00	53.84	W.B.
2	TW	Modipuram(765)-Jansath 220 kV DC Line.	90.00	37.27	W.B.
3	TW	Amroha-Gajraula 220 kV DC Line.	50.00	20.71	W.B.
		Simbholi (400) - 400/200/132 kV			
4	TW	Simbholi(400)-Simbhaoli(220)220 kV DC Line.	30.00	12.42	W.B.
		Firozabad (400) - 400/220/132 kV			
5	TS	Firozabad(400)Firozabad 220 kV DC Line.	40.00	16.57	W.B.
		Rasra (400) - 400/220/132 kV			
6	TE	Rasra (400) - Bhadaura 220 kV DC Line.	100.00	41.42	W.B.
7	TE	Rasra (400) - Rasra 220 kV DC Line.	20.00	8.28	W.B.
		Sardhana 220/132/33 kV			
8	TW	Sardhana-Modipuram DC line.	40.00	16.57	REC/PFC
		Mawana 220/132/33 kV			
9	TW	Mawana-Modipuram New DC line.	40.00	16.57	REC/PFC
		Chhaprauli 220/132/33 kV			
10	TW	Bagpat(400)-Chhaprauli DC line.	50.00	20.71	REC/PFC
		Singhauli 220/132/33 kV			
11	TW	Chhaprauli-Singhauli DC line-30 Km.	60.00	24.85	REC/PFC
		BB Nagar 220/132/33 kV			
12	TW	Simbholi(400)-Bibinagar DC line.	50.00	20.71	REC/PFC
		Khatauli 220/132/33 kV			
13	TW	Shamli-Khatauli DC line.	50.00	20.71	REC/PFC
14	TW	Bhopa Road(400)-Khatauli line.	60.00	24.85	REC/PFC
		Sarsawa(Saharanpur) 220/132/33 kV			
15	TW	220 KV DC line Mohangadda (400) PGCIL-Sarsawa.	50.00	20.71	REC/PFC
16	TW	LILo of one ckt. Of 220 KV DC line Saharanpur-Khodari.	36.00	14.91	REC/PFC
		Hardoi (New) 220/132/33 kV			
17	TC	Hardoi (New)-ShahjahanpurPG(400) DC line.	120.00	49.70	REC/PFC
		Moradabad-II (Kath)			
18	TW	Moradabad-II-Moradabad(765) 220kv SC Line.	25.00	20.71	REC/PFC
		Nehtaur New 220/132/33 kV			
19	TW	Bhopa Road-Nehtaur(New) 220 Kv SC Line.	50.00	41.42	REC/PFC
		Bulandshahar Road 220/132/33 kV			
20	TW	Muradnagar(400)-II-Bulandshahar Road DC line	70.00	28.99	REC/PFC
		Morta 220/132/33 kV			
21	TW	Morta-Muradnagar A & MuradnagarII(400)DC line	70.00	28.99	W.B.
		Vasundhara 220/33 kV			
22	TW	Vasundhara-Indirapuram(400) DC line.	10.00	4.14	REC/PFC
		Awass Vikas Loni 220/132/33 kV			
23	TW	Awass Vikas Loni-Ataur(400) & Moradabad I(400) line.	60.00	49.70	REC/PFC

S. No.	Zone	Name of the Project	CKM	Estimated Cost (Rs. Crore)	Source of Capital
24	TS	Fatehgarh or Kannauj 220/132/33 kV LILO of Nibkarori-Mainpuri PG Fatehgarh DC line.	60.00	24.85	REC/PFC
		Hamirpur 220/132/33 kV			
25	TS	Hamirpur-Banda(400) DC line.	140.00	57.98	W.B.
26	TS	Hamirpur-Sarh 220 kV DC line.	140.00	57.98	W.B.
		Pilibhit Bypass 220/132/33 kV			
27	TC	Bareilly(UP)400 kV-Pilibhit Bypass DC line.	40.00	16.57	REC/PFC
		Badaun Road 220/132/33 kV			
28	TC	Badaun (400)-Badaun Road DC line.	50.00	20.71	REC/PFC
		Tajpur 220/132/33 kV			
29	TW	Muradabad(400)-Tajpur -DC Line.	60.00	24.85	W.B.
30	TW	Nehtaur(400)-Tajpur -DC Line.	100.00	41.42	W.B.
		Fatehpur New 220/132/33 kV			
31	TE	Fatehpur Power Grid-Fatehpur(New) Line.	40.00	16.57	REC/PFC
		Ballia 220/132/33 kV			
32	TE	Rasra(400)-Ballia(220) DC Line.	70.00	28.99	REC/PFC
		Anandnagar (Gorakhpur) 220/132/33 kV			
33	TE	Gorakhpur(400)-Anandnagar DC Line.	100.00	41.42	REC/PFC
		Maharajganj (Siddarthnagar) 220/132/33 kV			
34	TE	Anandnagar-Maharajganj DC Line.	50.00	20.71	REC/PFC
		Khalilabad (Basti) 220/132/33 kV			
35	TE	Gorakhpur(400)-Khalilabad DC Line.	100.00	41.42	REC/PFC
		Khaga 220/132/33 kV			
36	TE	Fatehpur PG-Khaga(220)DC Line.	100.00	41.42	REC/PFC
		SGPGI Road 220/132/33 kV			
37	TC	Sarojninagar-Gomtinagar LILO Line.	40.00	16.57	REC/PFC
		Sandila 220/132/33 kV			
38	TC	Hardoi Road(400)-Sandila DC Line.	60.00	24.85	REC/PFC
		Faridpur(bareilly) 220/132/33 kV			
39	TC	LILO of Rosa-Dohna Line.	80.00	33.13	W.B.
		Tundla 220/132/33 kV			
40	TS	Firozabad(400) - Tundla 220 kV DC Line .	50.00	20.71	W.B.
		Kasganj 220/132/33			
41	TS	220 kV Aligarh(400)-Kasganj DC - 40 Km.	80.00	33.13	REC/PFC
		Kiraowli 220/132/33			
42	TS	220 kV Math400-Kiraoli DC Line.	80.00	33.13	REC/PFC
43	TS	Lilo of Agra-Bharatpur Line.	20.00	8.28	REC/PFC
		Amethi 220/132/33 kV			
44	TC	RAEBARELI (400)-Amethi DC Line.	160.00	33.13	REC/PFC
45	TC	LILO of one ckt 220 kV Sultanpur-Sangipur DC Line.	20.00	8.30	REC/PFC
		Saharanpur New 220/132/33 kV			
48	TW	Lalukheri (400) - Saharanpur New DC Line.	110.00	45.56	REC/PFC
		G.Noida (II) (220/33 kV)			
49	TW	Meerut UP(765)-G.Noida(II) DC Line.	200.00	82.83	REC/PFC
		Kidwainagar (220/33 kV)			
50	TS	Kanpur(South)-Kidwainagar Line.	20.00	16.57	REC/PFC
		Allahabad (220/33 kV)			
51	TE	Rewa Road (400)-Allahabad (220/33 kV) Line.	20.00	16.57	REC/PFC
		Varanasi Cantt. (220/33 kV)			
52	TE	Varanasi (400) - Varanasi Line.	20.00	16.57	REC/PFC
		Lucknow Hardoi Road(220/33 kV)			
53	TC	Hardoi Road (400) -Lucknow(220) Line.	10.00	8.28	REC/PFC
		Lucknow (220/33 kV) (Canal Road)			
54	TC	Sultanpur Road (400) - Lucknow(220/33 kV) Line.	10.00	8.28	REC/PFC
		Unnao (220/33 kV)(Dahi Chowki)			
55	TC	Unnao (400) - Unnao Dahi Chowki (220) - DC	50.00	20.71	W.B.

S. No.	Zone	Name of the Project	CKM	Estimated Cost (Rs. Crore)	Source of Capital
		25 Km.			
		Agra Dayalbagh (220/33 kV)			
56	TS	Dayalbagh - Math (400) -Agra Dayalbagh DC - 50 Km.	100.00	41.42	REC/PFC
		Meerut By Pass (220/33 kV)			
57	TW	Meerut by Pass -Modipuram(765/400) 35 Km.	35.00	28.99	REC/PFC
		Sidharth Nagar/Ind. Area Ghaziabad(220/132/33)			
58	TW	Ghaziabad Aaur(400)-Ind. Area 20 Km. DC	40.00	16.57	REC/PFC
		Modipuram-II (220/132/33 kV) S/S			
59	TW	Modipuram-II-Modipuram(765kV) 220 kV DC Line.	60.00	24.85	W.B.
60	TW	Modipuram-II-Shamli(400) 220 kV DC Line.	120.00	47.00	W.B.
61	TW	Modipuram-II-Bagpat PG(400) 220 kV DC Line.	70.00	27.40	W.B.
		Lakhimpur(220/132/33 kV)			
62	TC	Shahjahanpur PG(400)-Lakhimpur 220 kV DC Line.	160.00	66.26	W.B.
63	TC	Nighasan(220)-Lakhimpur220 kV DC Line.	120.00	49.70	W.B.
		Other 220 kV Lines			
64	TS	Etah(220)- Jawaharpur TPS 220kV DC Line.	40.00	16.57	REC/PFC
65	TS	Jawaharpur TPS-Sirsaganj 220kV DC Line.	80.00	33.13	REC/PFC
66	TE	LILo of Azamgarh- Sarnath 220kV SC line at Jaunpur.	120.00	21.31	REC/PFC
		132 kV Lines			
		Sarsawa(Saharanpur) 220/132/33 kV			
1	TS	i) LILo of 132 KV SC line saharanpur (220)-Nakur Line.	20.00	5.05	REC/PFC
2	TS	ii) 132 KV DC line Sarsawa (220) - Rampur Maniharan 132 KV Line.	52.00	13.13	REC/PFC
		Modipuram-II (220/132/33 kV) S/S			
4	TW	LILo of Modipuram-Mawana 132 kV SC Line-15Km.	30.00	7.57	W.B.
		Daurala(Meerut) 132/33 Kv			
5	TW	Dhaurala - Meerut Partapur / Charla (220) 132 kV DC line (2x30 Kms)	60.00	15.15	W.B.
		Baghra(Muzaffarnagar) 132/33 kV			
6	TW	Badaikala(220)-Baghra 132 kV DC line (2x25 Kms.)	50.00	12.62	W.B.
		Dudhali(Saharanpur) 132/33 Kv			
7	TW	Dudhali-Badaikala(220) 132 KV DC line (2x25 Kms.)	50.00	12.62	W.B.
		Kandhala(Shamli) 132/33 Kv			
8	TW	Kandhala-Shamli(400/220) 132 KV DC line (2x25 Kms.)	50.00	12.62	W.B.
		Tana(Shamli) 132/33 Kv			
9	TW	Tana-Shamli(400/220) 132 KV DC line (2x25 Kms.)	50.00	12.62	W.B.
		Sahjanwa(Gorakhpur) 132/33 Kv			
10	TE	Sahjanwa-Gola(220) 132 KV DC line (2x15 Kms.)	30.00	7.57	W.B.
		Khajni(Gorakhpur) 132/33 Kv			
11	TE	Khajni-Gola(220) 132 KV DC line (2x15 Kms.)	30.00	7.57	W.B.
		Karera(Ghaziabad) 132/33 Kv			
12	TW	Karera-Ghaziabad Meerut Rd. Merta(220) 132 KV DC line (2x15 Kms.)	30.00	7.57	W.B.
		Kanauja(Ghaziabad) 132/33 Kv			
13	TW	Kanauja-Ghaziabad Mrt. Rd. Merta (220) 132 KV DC line (2x30 Kms.)	60.00	15.15	W.B.
		Meerganj Bareilly III(Bareilly) 132/33 Kv			
14	TC	Bareilly III - Faridpur(220) 132 KV DC line	50.00	12.62	W.B.

S. No.	Zone	Name of the Project	CKM	Estimated Cost (Rs. Crore)	Source of Capital
		(2x25 Kms.)			
15	TC	BareillyIII-CBganj 132 Kv DC line (2x12.5 Kms.)	25.00	6.31	W.B.
		Narkhi (Firozabad) 132/33 Kv			
16	TS	LILO of 132 kv DC Firozabad-Tundla at Narkhi (2x25 Kms.)	50.00	12.62	W.B.
17	TS	Tundla(220)-Narkhi 132 kv DC line (2x25 Kms.)	50.00	12.62	W.B.
		Shahpur (Muzaffarnagar) 132/33 Kv			
18	TW	Badaikala(220)-Shahpur 132 kv DC line (2x20 Kms.)	40.00	10.10	W.B.
		Tulsipur (Balrampur) 132/33 Kv			
19	TC	Utraulla-Tulsipur 132 kv DC line (2x45 Kms.)	90.00	22.72	W.B.
		Amritpur (Farrukhabad) 132/33 Kv			
20	TS	Neebkarori-Amritpur 132 kv DC line (2x40 Kms.)	80.00	20.20	W.B.
		Baldeo (Mathura) 132/33 Kv			
21	TS	LILO of Agra(400)-Sadabad 132 kv SC line (2x30 Kms.)	60.00	15.15	W.B.
		Sadat (Ghazipur) 132/33 Kv			
22	TE	LILO of Rasara(400)-Rasra(220) 132 kv SC line at Sadat (2x20)	40.00	10.10	W.B.
		Dhanaura (132/33 kv)			
23	TW	132 kv Amroha(220) U/C - Dhanaura DC - 20.7	41.40	10.45	REC/PFC
		Hasanpur (132/33 kv)			
24	TW	132 kv Amroha(220)U/C-Hasanpur DC- 27.6	55.20	13.94	REC/PFC
		Saur (132/33 kv)			
25	TW	132 kv Moradabad-II(220)Proposed -Saur DC - 41.4 Km.	82.80	20.90	REC/PFC
		Jarcha (132/33 kv)			
26	TW	132 kv Bulandshahar Rd.(220)-JarchaDC - 28.75 Km.	57.50	14.52	REC/PFC
		Jewar (132/33 kv)			
27	TW	132 kv G.Noida(765/400/220) U/C -Jewar DC - 10 Km.	20.00	5.05	REC/PFC
		Loni New (132/33 kv)			
28	TW	132 kv Awas Vikas Loni(220)Proposed-Loni New DC - 5.75 Km.	11.50	2.90	REC/PFC
		Rasulpur (132/33 kv)			
29	TW	132 kv Sardhana(220) Proposed - Rasulpur DC -13.8 Km.	27.60	6.97	REC/PFC
		Parichhatgarh (132/33 kv)			
30	TW	132 kv Sardhana(220) Proposed -Parichhatgarh DC -36.8 Km.	73.60	18.58	REC/PFC
		Kharkhanda (132/33 kv)			
31	TW	132 kv Mawana(220) Proposed - Kharkhanda DC -32.2 Km.	64.40	16.26	REC/PFC
		Tanda (132/33 kv)			
32	TW	132 kv Nehtaur New (220) Proposed -Tanda DC -29.9 Km.	59.80	15.10	REC/PFC
		Mamdaur (132/33 kv)			
33	TW	132 kv Nehtaur New(220) Proposed- Mamdaur DC -31.05 Km.	62.10	15.68	REC/PFC
		Dhaulana (132/33 kv)			
34	TW	132 kv Hapur (220) U/C - Dhaulana DC 20 Km.	40.00	10.10	REC/PFC
		Jalalbad (132/33 kv)			
35	TW	132 kv Shamli (400/220) U/C -Jalalbad DC - 17.25 Km.	34.50	8.71	REC/PFC
		Chausna (132/33 kv)			

S. No.	Zone	Name of the Project	CKM	Estimated Cost (Rs. Crore)	Source of Capital
36	TW	132 kV Shamli (400/220) U/C Chausna DC - 25.3 Km. Budhana (132/33 kV)	50.60	12.77	REC/PFC
37	TW	132 kV khatauli(220) Proposed - Budhana DC - 28 Km. Mansurpur (132/33 kV)	56.00	14.14	REC/PFC
38	TW	132 kV Khatauli(220) Proposed-Mansurpur DC - 6.9 Km. Peetal Nagri (132/33 kV)	13.80	3.48	REC/PFC
39	TW	132 kV Moradabad-II (400) Prop-Peetal Nagri DC -29.9 Km. Roshannagar (132/33 kV)	59.80	15.10	REC/PFC
40	TW	132 kV Moradabad-II (400) Prop-Roshannagar DC - 23 Km. Bahjoi (132/33 kV)	46.00	11.61	REC/PFC
41	TW	132 kV Chandausi (220) U/C - Bahjoi DC 15 Km. Chilkana (132/33 kV)	30.00	7.57	REC/PFC
42	TW	132 kV Shaharanpur New (220) Pro-Chilkana DC -21 Km. Muzaffarabad (132/33 kV)	42.00	10.60	REC/PFC
43	TW	132 kV Shaharanpur New (220) Pro - Muzaffarabad DC -25 Km. Amia (132/33 kV)	50.00	12.62	REC/PFC
44	TW	132 kV Bulandshahar Road (220)Pro-Amia DC 35 Km. Sahaswan (132/33 kV)	70.00	17.67	REC/PFC
45	TC	132 kV Badaun Rd. (220) Pro- Sahaswan DC - 36.8 Km. Dataganj (132/33 kV)	73.60	18.58	REC/PFC
47	TC	132 kV Badaun Road (220) Proposed -Dataganj DC -36.8 Km. Kiyara (132/33 kV)	73.60	18.58	REC/PFC
48	TC	132 kV Pilibhit Bypass (220) Proposed -Kiyara DC - 9.2 Km. Shishgarh (132/33 kV)	18.40	4.65	REC/PFC
49	TC	132 kV Pilibhit Bypass (220) Pro-Shishgarh DC - 41.4 Km. Misrikh (132/33 kV)	82.80	20.90	REC/PFC
50	TC	132 kVSitapur (220) Existing - Misrikh DC - 21.85 Km. Mohanlalganj (132/33 kV)	43.70	11.03	REC/PFC
51	TC	132 kV SGPGI Rd.(220) Proposed - Mohanlalganj DC - 15 Km. Nigohan (132/33 kV)	30.00	7.57	REC/PFC
52	TC	132 kV SGPGI Rd.(220) Proposed - Nigohan DC -30 Km. Gauriganj (132/33 kV)	60.00	15.15	REC/PFC
53	TC	132 kV Sultanpur Rd.(400/220) U/C Gauriganj DC - 25 Km. Malihabad (132/33 kV)	50.00	12.62	REC/PFC
54	TC	132 kV Hardoi Rd.(400/220) U/C-Malihabad DC - 10 Km. Itaunja (132/33 kV)	20.00	5.05	REC/PFC
55	TC	132 kV Hardoi Rd (400/220) U/C - Itaunja DC - 29 Km. Ramnagar (132/33 kV)	58.00	14.64	REC/PFC
56	TC	132 kV Barabanki (220) U/C - Ramnagar DC - 29 Km. Fatehpur (132/33 kV)	58.00	14.64	REC/PFC

S. No.	Zone	Name of the Project	CKM	Estimated Cost (Rs. Crore)	Source of Capital
57	TC	132 kV Barabanki (220) U/C - Fatehpur DC - 30 Km. Mahsi (132/33 kV)	60.00	15.15	REC/PFC
58	TC	132 kV Bahraich (220) U/C - Mahsi DC - 23 Km. Kaisarganj (132/33 kV)	46.00	11.61	REC/PFC
59	TC	132 kV Colonelganj-Kaisarganj - DC - 25 Km. Ikauna (132/33 kV)	50.00	12.62	REC/PFC
60	TC	132 kV Bahraich (220) U/C - Ikauna DC - 37.95 Km. Sawayajpur (132/33 kV)	75.90	19.16	REC/PFC
61	TC	132 kV Hardoi New (220) Proposed - Sawayajpur - 31 Km. Belegam (132/33 kV)	31.00	15.65	REC/PFC
62	TC	132 kV Kannauj (220) Proposed-Belgram DC - 18.4 Km. Maharaj Ganj (132/33 kV)	36.80	9.29	REC/PFC
63	TC	132 kVBachhrawan (220) U/C - Maharajganj DC - 18.4 Km. Tiloi (132/33 kV)	36.80	9.29	REC/PFC
64	TC	132 kV Bachhrawan (220) U/C - Tiloi DC - 39.1 Km. Purwa (132/33 kV)	78.20	19.74	REC/PFC
65	TC	132 kV Unnao (New) Proposed (220) - Purwa DC - 29.9 Km. Safipur (132/33 kV)	59.80	15.10	REC/PFC
66	TC	132 kV Unnao (New) Pro(220) - Safipur DC - 29.9 Km. Hasanganj (132/33 kV)	59.80	15.10	REC/PFC
67	TC	i) 132 kV Unnao New(220) Pro- Hasanganj DC - 31.05 Km.	62.10	15.68	REC/PFC
68	TC	ii) LILO of 132 kV Sarojininagar-Unnao (K.Road) - 15 Km. Kumarganj (132/33 kV)	30.00	7.57	REC/PFC
69	TC	i) 132 kV Sohawal (220) - Kumarganj DC - 34 Km.	68.00	17.17	REC/PFC
70	TC	ii) LILO of 132 kV Sultanpur-Milkipur - 10 Km. Rudauli (132/33 kV)	20.00	5.05	REC/PFC
71	TC	132 kV Sohawal (220) - Rudauli DC - 23 Km. Dostpur (132/33 kV)	46.00	11.61	REC/PFC
72	TC	i) 132 kV Shahganj (400) Proposed - Dostpur DC -30 Km.	60.00	15.15	REC/PFC
73	TC	ii) LILO of 132 kV Sultanpur - Akbarpur - 10 Km. Lambhua (132/33 kV)	20.00	5.05	REC/PFC
74	TC	132 kV Shahganj (400) Proposed - Lambhua DC - 38 Km. Achnera (132/33 kV)	76.00	19.19	REC/PFC
75	TS	132 kV "Kiroli Proposed - Achnera DC - 26 Km. Fatehpur Sikri (132/33 kV)	26.00	6.56	REC/PFC
76	TS	132 kV "Kiroli(220) Proposed - Fatehpur Sikri DC - 15 Km. Pariha (132/33 kV)	30.00	7.57	REC/PFC
77	TS	132 kV Firozabad(400/220/132) - Pariha DC - 35 Km. Uresar (132/33 kV)	70.00	17.67	REC/PFC
78	TS	132 kV Firozabad (400/220/132) - Uresae DC - 35 Km. Pataili (132/33 kV)	70.00	17.67	REC/PFC
79	TS	132 kV "Kasganj (220) Proposed - Pataili DC -	70.00	17.67	REC/PFC

निदेशक (समिन्धु)
उपनिदेशक (समिन्धु)

S. No.	Zone	Name of the Project	CKM	Estimated Cost (Rs. Crore)	Source of Capital
		35 Km.			
		Saron (132/33 kV)			
80	TS	132 kV Kasganj (220) Proposed - Saron DC - 12 Km.	24.00	6.06	REC/PFC
		Derapur (132/33 kV)			
81	TS	132 kV Sikandra (220) U/C - Derapur DC - 17.25 Km.	34.50	8.71	REC/PFC
		MAU (132/33 kV)			
82	TS	LILo of 132 kV Sirathu - Karwi Line at Mau	25.00	6.31	REC/PFC
		Madhogarh (132/33 kV)			
83	TS	132 kV Jalaun (132) - Madhogarh DC - 25 Km.	50.00	12.62	REC/PFC
		Baberu (132/33 kV)			
84	TS	132 kV Banda (400/220) - Baberu DC - 36.8 Km.	73.60	18.58	REC/PFC
		Naraini (132/33 kV)			
85	TS	132 kV Banda (400/220) U/C - Naraini DC - 36.6 Km.	73.20	18.48	REC/PFC
		Charkhari (132/33 kV)			
86	TS	i) 132 kV Mahoba (220) Proposed - Charkhari DC - 20.7 Km.	41.40	10.45	REC/PFC
87	TS	ii) LILo of 132 kV Rath-Mahoba - 15 Km.	30.00	7.57	REC/PFC
		Tahrauli (132/33 kV)			
88	TS	132 kV "Moth (132) Existing - Tahrauli DC - 23Km.	46.00	11.61	REC/PFC
		Karhal (132/33 kV)			
89	TS	132 kV Safai New (220)Existing - Karhal DC - 6.9 Km.	13.80	3.48	REC/PFC
		Khair Nagar (Tirwa) (132/33 kV)			
90	TS	132 kV Kannauj(220) Proposed-Khair Nagar(Tirwa)DC-23 Km.	46.00	11.61	REC/PFC
		Govardhan (132/33 kV)			
91	TS	132 kV Chhata (220) U/C - Govardhan DC - 30 Km.	60.00	15.15	REC/PFC
		Ichauli (Maudaha) (132/33 kV)			
92	TS	132 kV Mahoba (220) U/C-Ichauli Maudaha DC - 37.9 Km.	75.80	19.14	REC/PFC
		Talbahat (132/33 kV)			
93	TS	i) 132 kV Lalitpur (220) Talbhari DC - 36.8 Km.	73.60	18.58	REC/PFC
94	TS	ii) LILo of 132 kV Jhansi - Lalitpur - 15 Km.	30.00	7.57	REC/PFC
		Nauatnwa (132/33 kV)			
95	TE	Proposed-Nautanwa DC - 34.5 Km.	69.00	17.42	REC/PFC
		Nichlaul (132/33 kV)			
96	TE	132kV Mahrajganj(Siddarth Nagar)(220)Prop-Nichlaul DC-30Km.	60.00	15.15	REC/PFC
		Tamkuhiraj (132/33 kV)			
97	TE	132 kV Kasia-Tumkuhiraj DC - 30 Km.	60.00	15.15	REC/PFC
		Ramkola (132/33 kV)			
98	TE	132 kV Hata (220) U/C - Ramkola DC - 23 Km.	46.00	11.61	REC/PFC
		Barhaj (132/33 kV)			
99	TE	132 kV Deoria (220) Existing Barhaj DC - 30 Km.	60.00	15.15	REC/PFC
		Batpatrani (132/33 kV)			
100	TE	132 kVDeoria (220) Existing - Batpatrani DC - 33.35 Km.	66.70	16.84	REC/PFC
		Kora (132/33 kV)			
101	TE	132 kV Fatehpur (New) (220) Proposed - Kora DC - 48.3 Km.	96.60	24.39	REC/PFC
		Dhatu(132/33 kV)			
102	TE	132 kV Khaga (220) Proposed - Dhatu DC -	57.50	14.52	REC/PFC

Accept

निदेशक (वाणिज्य)
उत्तमप्रदेशकांसि

S. No.	Zone	Name of the Project	CKM	Estimated Cost (Rs. Crore)	Source of Capital
		28.75 Km.			
		Aung (132/33 kV)			
103	TE	i) 132 kV Fatehpur (New) (220) Pro -Aung DC - 40.25 Km.	80.50	20.32	REC/PFC
104	TE	ii) LILO of 132 kV Nanubasta -Malwan -10 Km.	20.00	5.05	REC/PFC
		Ghosi (132/33 kV)			
105	TE	132 kV Mau (400/132) - Ghosi DC - 18 Km.	36.00	9.09	REC/PFC
		Madhuban (132/33 kV)			
106	TE	132 kV Mau(400/132) - Madhuban DC - 25 Km.	50.00	12.62	REC/PFC
		Balthera Road (132/33 kV)			
107	TE	132 kV Rasra (220) Existing - Belthera Rd. DC - 31.5 Km.	63.00	15.90	REC/PFC
		Bansdih (132/33 kV)			
108	TE	132 kV DC Ibrahimipatti - Balia (PGCIL) - Bansdih	124.00	31.30	REC/PFC
		Bairia (132/33 kV)			
109	TE	132 kV Ballia (220) Proposed - Bairia DC - 30 Km.	60.00	15.15	REC/PFC
		Camperganj (132/33 kV)			
110	TE	132 kV Anandnagar (220) Proposed - Camperganj DC - 33.35 Km.	66.70	16.84	REC/PFC
		Gida (132/33 kV)			
111	TE	132 kV Anandnagar (220) Proposed - Gida DC - 1.15 Km.	2.30	0.58	REC/PFC
		Semeriaon (132/33 kV)			
112	TE	132 kV Khalilabad (220) Proposed -Semeriaon DC - 17.25 Km.	34.50	8.71	REC/PFC
		Maghar (132/33 kV)			
113	TE	132 kV Khalilabad (220) Proposed -Maghar DC 11 Km.	22.00	5.55	REC/PFC
		Raniganj (132/33 kV)			
114	TE	132 kV Pratapgarh (220) U/C - Raniganj DC - 15 Km.	30.00	7.57	REC/PFC
115	TE	LILO of 132kV SC Gadwara-Pratapgarh Line-10 Km.	20.00	5.05	REC/PFC
		Dulahpur/Jakhania (132/33 kV)			
116	TE	132 kV Ghazipur (220) - Dulahpur/Jakhania DC - 28.75 Km.	57.50	14.52	REC/PFC
		Jainpur (132/33 kV)			
117	TE	132 kV Azamgarh (220) New U/C - Jainpur DC - 21 Km.	42.00	10.60	REC/PFC
		Barda (132/33 kV)			
118	TE	132 kV Jaunpur (400/220/132) Proposed - Barda DC - 23 Km.	46.00	11.61	REC/PFC
		Sindhora (132/33 kV)			
119	TE	132 kV Gajokhar (220) - Sindhora DC - 25	50.00	12.62	REC/PFC
		132/33 kV Kachwa, Mirzapur			
120	TE	132 kV DC Raja ka Talab - Kachwa	20.00	5.00	REC/PFC
		132/33 kV Badagaon, Mau			
121		Rasra(400)-Badagaon(132) DC Line.	100.00	20.00	REC/PFC
122		LILO of 132 kV Mahmoodabad - Mau	1.50	1.00	REC/PFC
		Chail (132/33 kV)			
123	TE	132 kV Sirathu (220) - Chail - 35 Km.	70.00	17.67	REC/PFC
	TW	220/132/33 kV Vrindavan, Mathura S/S			
124		220 kV DC Chhata-Manth	54.00	22.36	REC/PFC
125		LILO of 132 kV SC Vrindavan - Mathura	22.00	6.71	REC/PFC
		Other 132 kV Lines			
126	TE	LILO of 132KV SC Shahganj-Siddiqipur line @ Jaunpur(400)	88.00	3.32	REC/PFC
127	TE	LILO of 132KV SC Shahganj-Qadipur line	8.00	1.33	REC/PFC

S. No.	Zone	Name of the Project	CKM	Estimated Cost (Rs. Crore)	Source of Capital
		@Jaunpur(400)			
128	TW	132 kV DC Rasoolabad - Bilhaur	60.00	20.00	REC/PFC
129	TE	132KV DC Jaunpur(400)-Kerakat line	80.00	8.84	REC/PFC




 निदेशक (वाणिज्य)
 प्रशासनिक विभाग

5. YEAR WISE CAPITAL INVESTMENT AND FINANCING PLAN

The year wise phasing of the capital investment is provided in the table below.

Table 5: Year wise Phasing of the Capital Investment

(Figures in Rs Crore)

VOLTAGE LEVEL	S/S or Line	FY 2017-18 (BE)			FY 2018-19 (BE)			FY 2019-20 (BE)	Total
		Ongoing	New	Total	Ongoing	New	Total	New	Ongoing + New
765kV	S/S	148	267	415	25	595	620	35	1070
	Line	114	79	193	0	915	915	1755	2863
400kV	S/S	223	437	661	136	545	681	617	1958
	Line	298	576	874	61	1173	1234	766	2874
220kV	S/S	398	318	716	455	659	1114	1128	2958
	Line	930	288	1218	71	511	583	566	2367
132kV	S/S	348	457	805	34	730	764	1151	2720
	Line	641	277	917	20	325	345	583	1845
TOTAL	S/S	1117	1480	2597	649	2529	3178	2931	8706
	Line	1983	1220	3203	152	2924	3077	3669	9949
Overall Total (S/S + Line)		3100	2700	5800	802	5453	6255	6600	18655

Note: The figures provided are in respect of capital investment proposed to be undertaken in each financial year. In case of certain schemes, the capital expenditure as well as the capitalisation would spill over beyond the plan period. Similarly at the start of the plan period, there are opening CWIP balance in respect of certain schemes which would get completed in the plan period.

The capital expenditure during the plan period would be funded through a debt equity mix of 70:30. The debt would be arranged from financial institution such as PFC, REC etc. The counter part equity funding would be provided by GoUP through budgetary resources.

 
 निदेशक (वित्तिय)
 उपसंचालक

6. ARR PROJECTIONS FOR FY 2017-18 to FY 2019-20

6.1. COMPONENTS OF THE ANNUAL REVENUE REQUIREMENT

The MYT Transmission Regulations prescribe that Aggregate Revenue Requirement for the transmission business of the transmission licensee for each year of the control period shall comprise of the following components:

- Operation & Maintenance expenses comprising of:
 - Employee Expenses
 - Repair and Maintenance Expenses
 - Administrative & General Expenses
- Depreciation
- Interest & Financing Costs
 - Interest on Long Term Loans
 - Finance Charges
 - Interest on Working Capital
- Return on Equity
- Taxes on Income
- Contribution to Contingency Reserve
- Non-Tariff Incomes
- Income from Other Business

The Petitioner in the current petition is filing the ARR for the 1st Control Period i.e. FY 2017-18 to FY 2019-20 for the kind approval by the Hon'ble Commission. In estimating the ARR the main objective of the Petitioner is to reduce or at least contain the expenses to the extent possible thereby reducing the cost burden on the beneficiaries. In FY 2014-15 and 2015-16, the Petitioner has endeavored to limit most of the expenses within the budget approved by Hon'ble Commission in the respective Tariff Orders with some exceptions which were totally beyond the control of the Petitioner.

In the MYT period, the Petitioner has taken up the challenge of controlling most of the operating expenses within the current year level with moderate hike only to offset the impact of inflation. The Petitioner is making concerted efforts to improve the quality of supply. The Petitioner has made plan for capital investment matching with the system requirement. In spite of the Petitioner's effort to control expenses the total Revenue Requirement has risen mainly due to increased capex which is needed due to system requirements and evacuation facilities that need to be created for seamless evacuation of power from upcoming generating stations.

The detailed analysis & estimate of all the elements of ARR for the 1st Control Period have been presented in the subsequent sections with appropriate explanations. The cost elements of ARR have been estimated based on the provisional un-audited accounts of FY 2015-16 and revised estimates for FY 2016-17.



निदेशक (वाणिज्य)
उपसंचालकालय

The Uttar Pradesh Electricity Regulatory Commission (Multi Year Transmission Tariff) Regulations, 2014, suggest for formulation of an escalation index linked with appropriate indices/rates like Consumer Price Index (CPI) and Wholesale Price Index (WPI) as notified by Central Government for different years. As per the MYT Transmission Tariff Regulations for determination of Employee Cost as a part of Operation & Maintenance expenses the years under consideration, the Employee Cost of the base year shall be escalated by consumer price index (CPI), adjusted by provisions for expenses beyond the control of the Licensee and one time expected expenses, such as recovery/adjustment of terminal benefits, implications of pay commission, arrears, Interim Relief etc. Norms for calculating CPI inflation would be the average increase in the Consumer Price Index (CPI) for immediately preceding three financial years. Further for determination of A&G Expenses as a part of Operation & Maintenance expenses the years under consideration, the A&G expenses shall be escalated by wholesale price index (WPI) and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by the Distribution Licensee and validated by the Commission) or other expected one-time expenses. The norms for calculating WPI inflation would be the average increase in the Wholesale Price Index (WPI) for immediately preceding three financial years.

Other than above, wherever the MYT Transmission Regulations are silent over the methodology for working out the escalation factor, the Petitioner in the instant Petition has worked out the inflation rate as the weighted average of Wholesale Price Index and Consumer Price Index in the ratio of 60:40.

Therefore it is imperative to first calculate an Escalation index based on the guidelines provided in the MYT Transmission Regulations.

6.2. ESCALATION INDEX/INFLATION RATE

The MYT Transmission Regulations issued by Hon'ble Commission provides that expenses of the base year shall be escalated at Inflation/Escalation rate notified by Central Government for different years. The inflation rate for Employee Expense shall be the average increase in the Consumer Price index (CPI) for immediately preceding three financial year and the inflation rate for A&G Expense shall be the average increase in the Wholesale Price index (WPI) for immediately preceding three financial year. Therefore for the purpose of this MYT, the Petitioner has used this methodology in arriving at Escalation Index for Employee Expenses were 5.44% and Escalation Index for the A&G Expenses were 0.88% for the control period. Further the inflation rate of 3.74%, worked out as the weighted average of Wholesale Price Index and Consumer Price Index in the ratio of 60:40 for FY 2016-17, has been considered for the MYT Period. The calculation of Escalation/ Inflation Index is given in following table:

Table 6-1: Weighted Average Inflation Rate FY 2017-18 to FY 2019-20

Month	Wholesale Price Index		Consumer Price Index		Consolidated Index	
	FY 16	FY 17	FY 16	FY 17	FY 16	FY 17
April	176.4	178	256	271	208	215
May	178.0	180	258	275	210	218

Accept

निदेशक (सांख्यिकी)
उत्तर प्रदेश विद्युत नियामक आयोग

Month	Wholesale Price Index		Consumer Price Index		Consolidated Index	
	FY 16	FY 17	FY 16	FY 17	FY 16	FY 17
June	179.1	183	261	277	212	221
July	177.6	184	263	280	212	223
August	176.5	183	264	278	212	221
September	176.5	183	266	277	212	220
October	176.9	183	269	278	214	221
November	177.5	183	270	277	215	
December	176.8	183	269		214	
January	175.4		269		213	
February	174.1		267		211	
March	175.3		268		212	
Average	177	182	265	277	212	220
Weighted Average of Inflation (60% *WPI+40%*CPI)					1.41%	3.74%

Table 6-2: Consumer Price Index for FY 2017-18 to FY 2019-20

Month	Consumer Price Index		
	FY 15	FY 16	FY 17
April	242	256	271
May	244	258	275
June	246	261	277
July	252	263	280
August	253	264	278
September	253	266	277
October	253	269	278
November	253	270	277
December	253	269	
January	254	269	
February	253	267	
March	254	268	
Average	251	265	277
Hike (%)	6.29%	5.65%	4.39%
Weighted Average of Inflation			5.44%

CPI-<http://labourbureau.nic.in/intab.html>

Table 6-3: Wholesale price Index for FY 2017-18 to FY 2019-20

Month	Wholesale Price Index		
	FY 15	FY 16	FY 17
April	181	176	178
May	182	178	180
June	183	179	183
July	185	178	184
August	186	177	183

Month	Wholesale Price Index		
	FY 15	FY 16	FY 17
September	185	177	183
October	184	177	183
November	181	178	183
December	179	177	183
January	177	175	
February	176	174	
March	176	175	
Average	181	177	182
Hike (%)	2.00%	-2.49%	3.14%
Weighted Average of Inflation			0.88%

WPI-<http://eaindustry.nic.in>

6.3. OPERATION & MAINTENANCE EXPENSES

Operation & Maintenance expenses comprise of Employee costs, Administrative & General (A&G) Expenses and Repair & Maintenance (R&M) expenses. The Regulation 21 of the MYT Transmission Regulations issued by the Hon'ble Commission stipulates:

"21. Operation & Maintenance Expense

- Operation & Maintenance expenses comprise of Employee Costs, Administrative & General Expenses, and Repair & Maintenance expenses. The regulation 21 of the MYT Transmission Regulations issued by the Hon'ble Commission stipulates:
- The Commission shall stipulate a separate trajectory of norms for each of the components of O&M expenses viz., employee cost, repairs and maintenance (R&M) expense and Administrative and General Expense (A&G expense). Provided that such norms may be specified for a specific Transmission Licensee or a class of Transmission Licensees.
- Norms shall be defined in terms of combination of number of personnel per ckt/km (for different categories of transmission lines for e.g. HVDC, 765 KV, 400 KV, > 66 KV & 400 KV, etc. lines) and number of personnel per bay (for different categories of bay for e.g. 765 KV, 400 KV, > 66 KV & 400 KV, etc bays) along with annual expenses per personnel for Employee expenses; combination of A&G expense per personnel and A&G expense per ckt/km and bay for A&G expenses and R&M expense as percentage of gross fixed assets for estimation of R&M expenses.
- One-time expenses such as expense due to change in accounting policy, arrears paid due to pay commissions etc., shall be excluded from the norms in the trajectory.
- The expenses beyond the control of the Transmission Licensee such as dearness allowance, terminal benefits etc. in Employee cost etc., shall be excluded from the norms in the trajectory.
- The One-time expenses and the expenses beyond the control of the Transmission Licensee shall be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check.
- The norms in the trajectory shall be specified over the control period with due consideration to productivity improvements.
- The norms shall be determined at constant prices of base year and escalation on account of - inflation shall be over and above the baseline.


निदेशक (आगमिष्य)
उपमहोदय

- i) *The Transmission Licensee specific trajectory of norms shall be identified by the Commission on the basis of simple average of previous five years audited figures, duly normalized for any abnormal variation....."*

6.3.1 EMPLOYEE EXPENSES FOR FY 2017-18 TO 2019-20

The Petitioner has computed the Employee expenses for the control period FY 2017-18 to FY 2019-20 as per the Regulation 25.1 of the MYT Transmission Regulations as below:-

"Employee cost shall be computed as per the approved norm escalated by consumer price index (CPI), adjusted by provisions for expenses beyond the control of the Licensee and one time expected expenses, such as recovery/adjustment of terminal benefits, implications of pay commission, arrears, Interim Relief etc., governed by the following formula:

$$EMP_n = (EMP_b * CPI \text{ inflation}) + Provision$$

Where:

EMP_n: Employee expense for the year n. EMP_b: Employee expense as per the norm CPI inflation: is the average increase in the Consumer Price Index (CPI) for immediately preceding three financial years. Provision: Provision for expenses beyond control of the Transmission Licensee and expected one-time expenses as specified above."

The Petitioner has considered the normative employee expenses of FY 2016-17 as the base and escalated the same with 5.44% i.e. the inflation rate of the CPI index for the last three years to arrive at the employee expenses for FY 2017-18. Similarly the employee expenses for the FY 2018-19 have been derived by the escalating the head-wise employee expenses for FY 2017-18 and FY 2018-19 for deriving the expenses of FY 2019-20 with an inflation rate of 5.44%.

The Petitioner further submits that the 7th pay is expected to be implemented in the state by next financial year i.e. FY 2017-18. Thus in addition to the above the Petitioner has also claimed arrears and implications of the 7th pay commission which are expected to be discharged in FY 2017-18 and subsequent years. Since the 7th pay is effective from 1st January 2016, hence the impact of the 7th pay over the employee expenses is computed for different years starting from FY 2015-16 (last quarter of FY 2015-16). The overall increase in the employee expenses due to implementation of the 7th pay is estimated to be approximately 15%. The Petitioner has computed the yearly impact of the 7th pay by escalating the employees expenses for FY 2015-16 at 15% and the expenses thus arrived are further escalated by the applicable escalation rate of each year to derive the 7th pay impact of subsequent years.

The impact of the 7th pay for FY 2015-16 and FY 2016-17 are expected to be discharged in FY 2017-18 and FY 2019-20 in two equal instalments. Based on the above the employee expenses are worked out as follows:

Table 6-3: Employee Expenses for the MYT Control Period

Particulars	2017-18	2018-19	2019-20
Gross Employee Costs and Provisions	668.88	702.84	693.89

Employee expenses capitalized	167.25	175.74	173.51
Net Employee Expenses	501.63	527.09	520.39

6.3.2 ADMINISTRATIVE AND GENERAL EXPENSES FOR FY 2017-18 TO 2019-20

The Petitioner has computed the administrative and general expenses for the control period FY 2017-18 to FY 2019-20 as per the Regulation 21.3 of the MYT Transmission Regulations as below:-

"A&G expense shall be computed as per the norm escalated by wholesale price index (WPI) and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by the Transmission Licensee and validated by the Commission) or other expected one-time expenses, and shall be governed by following formula:-

$$A\&G_n = (A\&G_b * WPI \text{ inflation}) + Provision$$

Where:

A&G_n: A&G expense for the year n A&G_b: A&G expense as per the norm WPI inflation: is the average increase in the Wholesale Price Index (WPI) for immediately preceding three financial years Provision: Cost for initiatives or other one-time expenses as proposed by the Transmission Licensee and validated by the Commission."

Table 6-4: A&G Expenses for the MYT Control Period

Particulars	2017-18	2018-19	2019-20
Gross A&G Expenses and Provisions	31.68	31.96	32.24
A&G expenses capitalized	6.42	6.48	6.53
Net A&G Expenses	25.26	25.48	25.71

6.3.3 REPAIR & MAINTENANCE EXPENSES FOR FY 2017-18 TO 2019-20

The Petitioner has computed the Repair & Maintenance expenses for the control period FY 2017-18 to FY 2019-20 as per the Regulation 21.2 of the MYT Transmission Regulations as below:-

"Repairs and Maintenance expense shall be calculated as percentage (as per the norm defined) of Average Gross Fixed Assets for the year governed by following formula:

$$R\&M_n = K_b * GFAn$$

Where: R&M_n: Repairs & Maintenance expense for nth year GFAn: Average Gross Fixed Assets for nth year K_b: Percentage point as per the norm."

Table 6-5: R&M Expenses for the MYT Control Period

Particulars	2017-18	2018-19	2019-20
R&M Expenses	342.80	431.21	534.03

[Handwritten signature]

निदेशक (संनिधि)
उपमंडलाधिकारी

6.3.4 OPERATION AND MAINTENANCE EXPENSES FOR FY 2017-18 TO 2019-20

The Petitioner has computed the allowable O&M expenses for FY 2017-18 to FY 2019-20 are depicted in the table below:

Table 6-6: Allowable O&M Expenses for MYT control period

(All Figures in Rs Crore)

Particulars	2017-18	2018-19	2019-20
Employee Expenses			
Gross Employee Costs and Provisions	668.88	702.84	693.89
Employee expenses capitalized	167.25	175.74	173.51
Net Employee Expenses	501.63	527.09	520.39
A&G Expenses			
Gross A&G Expenses	31.68	31.96	32.24
A&G expenses capitalized	6.42	6.48	6.53
Net A&G Expenses	25.26	25.48	25.71
R&M Expenses			
Repair & Maintenance Expenditure	342.80	431.21	534.03
Total O&M Expenses Allowable as per Regulations	869.69	983.79	1,080.12

6.4. GROSS FIXED ASSETS BALANCES AND CAPITAL FORMATION

The assumptions used for projecting gross fixed asset (GFA) and capital work in progress (CWIP) are as follows:

- The capital investment for FY 2017-18 has been estimated at Rs. 5,800 crore, Rs. 6,255 crore for FY 2018-19 and Rs. 6,600 crore for FY 2019-20 out of which works through deposit works have been envisaged at Rs. 100 crore each year during the control period.
- Investment through "deposit work" has been taken for capital formation. However depreciation thereon has not been charged to the ARR in line with the policy adopted by Hon'ble Commission in its last Tariff Orders.
- The procedure prescribed by the MYT Transmission Regulations towards claiming the capital investment plan has been strictly complied in the current Petition.
- 25% the opening CWIP and 25% of investment made during the year, expenses capitalised & interest capitalised (25% of total investment) has been assumed to be capitalised during the years 2015-16 and 2016-17 respectively.
- The capital investment plan (net of deposit works) has been projected to be funded in the ratio of 70:30 (debt to equity).

Considering the aforementioned submissions, the projected capital formation and capital work in progress for FY 2017-18, 2018-19 and 2019-20 are presented below:

निदेशक (वित्तिय)
 उपनिर्देशक

Table 6-7: Projections of Capitalisation & WIP of Investment during the Control Period

(All figures in Rs Crore)

Particulars	Derivation	2017-18	2018-19	2019-20
Opening WIP as on 1st April	A	10544.05	13061.64	15471.38
Investments	B	5800.00	6255.00	6600.00
Employee Expenses Capitalisation	C	167.25	175.74	173.51
A&G Expenses Capitalisation	D	6.42	6.48	6.53
Interest Capitalisation on Interest on long term loans	E	897.80	1129.65	1362.56
Total Investments	F= A+B+C+D+E	17415.53	20628.51	23613.99
Transferred to GFA (Total Capitalisation)	G	4353.88	5157.13	5903.50
Closing WIP	H= F-G	13061.64	15471.38	17710.49

Notes: Capitalized expenses are from Emp. cost & A&G cost, Transfer from WIP to GFA=25% of beginning WIP+25% of total investment, capitalized interest, Capitalized employee cost, capitalized A&G expenses.

Table 6-8: Projections of Gross Fixed Assets for the control period

(All figures in Rs Crore)

Particulars	Derivation	2017-18	2018-19	2019-20
Opening GFA	A	16261.69	20615.57	25772.70
Additional to GFA during the year	B	4353.88	5157.13	5903.50
Closing GFA	C=A+B	20615.57	25772.70	31676.19

6.5. FINANCING OF THE CAPITAL INVESTMENT

The Petitioner has considered a normative gearing of 70:30. Considering this approach, 70% of the capital expenditure undertaken in any year has been considered to be financed through loan and balance 30% has been considered to be financed through equity contributions. The portion of capital expenditure financed through consumer contribution, capital subsidies and grants has been separated as the depreciation and interest thereon would not be charged to the beneficiaries.

The amounts received as consumer contributions, capital subsidies and grants are traced from the provisional accounts for FY 2015-16. Further, the consumer contributions, capital subsidies and grants for the control period are considered to be in the same ratio to the total investments, as received by it in FY 2014-15.

The table below summarises the amounts considered towards consumer contributions, capital grants and subsidies for the MYT control period:

Table 6-9: Consumer Contribution, Capital Grants & Subsidies considered

(All figures in Rs Crore)

Particulars	2017-18	2018-19	2019-20
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	601.41	666.33	727.47
Additions during the year	100.00	100.00	100.00
Less: Amortisation	35.08	38.87	42.43
Closing Balance	666.33	727.47	785.03

निदेशक (वित्तिय)
 उपसंचालक

Thus, the financing of the capital investment is depicted in the table below:

Table 6-10: Financing of the Capital Investment for the MYT control period

(All figures in Rs Crore)

Particulars	Derivation	2017-18	2018-19	2019-20
Investment	A	5800.00	6255.00	6600.00
Less:				
Consumer Contribution	B	100.00	100.00	100.00
Investment funded by debt and equity	C=A-B	5700.00	6155.00	6500.00
Debt Funded	70%	3990.00	4308.50	4550.00
Equity Funded	30%	1710.00	1846.50	1950.00

Thus, the Petitioner submits that out of the capital investment of Rs. 5,800 crore in FY 2017-18, Rs. 6,255 crore in FY 2018-19 and Rs. 6,600 crore in FY 2019-20, the capital investment through deposit works has been considered as Rs. 100 crore each year of the control period. The balance amount is considered to be funded through debt and equity. The debt equity ratio considered for during the control period is 70:30.

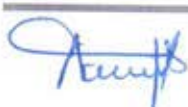
6.6. DEPRECIATION EXPENSE

Regulation 22 of the MYT Transmission Regulations provide for the basis of charging depreciation. The relevant excerpt is reproduced below:

"22 treatment of Depreciation:

- a) Depreciation shall be calculated for each year of the control period on the written down value of the fixed assets of the corresponding year.
- b) Depreciation shall not be allowed on assets funded by consumer contributions or subsidies / grants.
-
- d) The residual value of assets shall be considered as 10% and depreciation shall be allowed to a maximum of 90% of the original cost of the asset.
- e) Depreciation shall be charged from the first year of operation of the asset.
- "

The new MYT Transmission Regulations provides for calculating depreciation based on the written down value of the fixed assets of the corresponding year, whereas the previous Transmission Tariff Regulations, 2006 provides for calculation of depreciation on Straight Line Method basis. The Hon'ble Commission has revised the rate of depreciation for respective asset category.




निदेशक (साधित्व)
प्रादेशिक विकास

For the purpose of computing the allowable depreciation, the Petitioner has considered normative closing gross fixed asset base for FY 2016-17 and have subsequently added the yearly capitalizations for the control period from FY 2017-18 to FY 2019-20. Further the Petitioner has computed the weighted average rate of depreciation as 6.54% based on the normative closing gross fixed asset base for FY 2016-17 and the rate of depreciation as per the Depreciation Schedule of the MYT transmission Regulation as mentioned below:

Table 6-11: Weighted Average Rate of Depreciation for MYT Control Period

(Amount in Rs. Crore)

Particulars	Rate of Depreciation (%) as per MYT Reg.	Normative GFA Opening 2017-18	Depreciation
Land & Land Rights			
i) Unclassified	0.00%	50.35	-
ii) Freehold Land	0.00%	0.07	-
Buildings	3.02%	769.82	23.25
Other Civil Works	3.02%	86.46	2.61
Plants & Machinery	7.81%	8612.88	672.67
Lines, Cable Network etc.	5.27%	6607.78	348.23
Vehicles	12.77%	4.33	0.55
Furniture & Fixtures	12.77%	5.30	0.68
Office Equipments	12.77%	7.83	1.00
Jeep & Motor Car	12.77%	0.00	-
Intangible Assets	12.77%	2.46	0.31
Assets taken over from Licensees pending final Valuation	12.77%	114.40	14.61
Total		16261.69	1,063.91
Weighted Average rate of Depreciation (%)			6.54%

MYT Transmission Regulations provide that the depreciation shall be calculated on written down value method at the rates specified in the Depreciation Schedule of the regulations. Considering this, the Petitioner has considered a weighted average depreciation rate of 6.54% as computed above. The Petitioner has computed the depreciation only on the depreciable asset base and has excluded the non-depreciable assets such as land, land rights, etc.

Considering this philosophy, the gross entitlement towards depreciation has been computed as depicted in the table below:

Table 6-12: Gross Allowable Depreciation for MYT control period

(All figures in Rs Crore)

Particulars	Derivation	2017-18	2018-19	2019-20
Opening GFA	A	16,261.69	20,615.57	25,772.70
Additions to GFA	B	4,353.88	5,157.13	5,903.50
Deductions to GFA	C	-	-	-



निदेशक (वित्तिय) 

Particulars	Derivation	2017-18	2018-19	2019-20
Closing GFA	D	20,615.57	25,772.70	31,676.19
Cumulative Depreciation	E	4,114.73	5,016.78	6,167.16
Rate of Depreciation (%)	F	6.54%	6.54%	6.54%
Gross Allowable Depreciation	(A-E+B/2)*F	937.13	1,189.24	1,475.80

The Petitioner has projected the depreciation on assets created out of consumer contributions, capital grants and subsidies for the MYT control period FY 2017-18 to FY 2019-20 in the same ratio as per provisional accounts of FY 2015-16. The Petitioner has reduced the equivalent depreciation amounting to Rs. 35.08 crore, Rs. 38.87 crore and Rs. 42.43 crore in FY 2017-18, FY 2018-19 and 2019-20 respectively in respect of depreciation on assets created out of consumer contributions, capital grants and subsidies.

Thus, the allowable depreciation for the MYT control period FY 2017-18 to FY 2019-20 has been depicted in the table below:

Table 6-13: Net Allowable Depreciation for MYT Control Period

(All figures in Rs Crore)

Particulars	2017-18	2018-19	2019-20
Gross Allowable Depreciation	937.13	1,189.24	1,475.80
Less: Equivalent amount of depreciation on assets acquired out of the Consumer Contribution and GoUP Subsidy	35.08	38.87	42.43
Net Allowable Depreciation	902.05	1,150.37	1,433.36

6.7. INTEREST ON LONG TERM LOANS

It is reiterated that the Petitioner has considered a normative tariff approach with a gearing of 70:30. In this approach, 70% of the capital expenditure undertaken in any year has been considered to be financed through loan and balance 30% has been considered to be funded through equity contributions. The portion of capital expenditure financed through consumer contributions, capital subsidies and grants has been separated as the depreciation and interest thereon has not been charged to the beneficiaries.

Allowable depreciation for the year has been considered as normative loan repayment. The weighted average rate of interest of overall long term loan portfolio for FY 2015-16 has been considered for the MYT control period FY 2017-18 to 2019-20, as it seems to be fair and equitable. The interest capitalisation has been considered at a rate of 59.40% which is the actual rate of interest capitalization as per the provisional accounts of FY 2015-16.

The computations for interest on long term loan are depicted below:

Table 6-14: Allowable Interest on Long Term Loans for MYT Control Period

(All figures in Rs Crore)

Particulars	2017-18	2018-19	2019-20
Opening Loan	10549.53	13637.48	16795.61
Loan Additions (70% of Investments)	3990.00	4308.50	4550.00
Less: Repayments (Depreciation allowable for the year)	902.05	1150.37	1433.36
Closing Loan Balance	13637.48	16795.61	19912.24
Weighted Average Rate of Interest (%)	12.50%	12.50%	12.50%
Interest on long term loan	1511.56	1901.91	2294.04
Interest Capitalisation Rate (%)	59.40%	59.40%	59.40%
Less: Interest Capitalized	897.80	1129.65	1362.56
Net Interest Charged	613.76	772.26	931.48

6.8. FINANCE CHARGES

The Petitioner has projected finance charges towards expenses such as guarantee fees and bank charges to the tune of Rs. 1.35 crore, Rs. 1.40 crore and Rs. 1.45 crore in FY 2017-18, FY 2018-19 and 2019-20 respectively. The same have been computed by extrapolating the guarantee fees and bank charges derived for FY 2016-17 by using the Inflation Index of 3.74%.

6.9. INTEREST ON WORKING CAPITAL

MYT Transmission Regulations provides for normative interest on working Capital based on the methodology outlined in the Regulations. The interest on working capital has been computed based on the methodology specified in the Regulation 24 as provided below:

"The Transmission Licensee shall be allowed interest on estimated level of working capital for the financial year, computed as follows:

- O&M expenses for one month.*
- Two months equivalent of expected revenue.*
- Maintenance spares @ 40% of R&M expenses for two month.*

Less:

Security deposits from consumers, if any-

Provided that the interest on working capital shall be on normative basis and rate of interest shall be equal to the State Bank Advance Rate (SBAR) as of the date on which petition for determination of tariff is accepted by the Commission;"

In accordance with the MYT Transmission Regulations, the interest on the working capital requirement is considered as the current State Bank Advance Rate i.e. 14.05%. The Petitioner has, in accordance with the above mentioned MYT Transmission Regulations, considered the interest on working capital which is shown in the table below:

[Signature]

निदेशक (वित्तिय)
 उपनिदेशाधिकारी

Table 6-15: Interest on Working Capital for MYT Control Period

(All figures in Rs Crore)

Particulars	2017-18	2018-19	2019-20
One Month of O&M Expenses	72.47	81.98	90.01
Maintenance spares @ 40% of R&M expenses for two month	22.85	28.75	35.60
Receivable equivalent to 60 days average billing of consumers	421.94	515.75	613.34
Less: Security deposits from consumers	-	-	-
Total Working Capital Requirement	517.27	626.48	738.95
Interest rate (%)	14.05%	14.05%	14.05%
Interest on working capital	72.68	88.02	103.82

6.10. OTHER INCOME

Other Income includes only non-tariff income, which comprises interest on loans and advances to employees, income from fixed rate investment deposits and interest on loans and advances to Licensees. It is estimated that other income will increase by inflation index of 3.60% for the MYT control period from the levels of the non-tariff incomes for FY 2015-16. Thus, the Petitioner projects its non tariff incomes to be Rs. 52.73 crore, Rs. 54.70 crore and Rs. 56.75 crore in FY 2017-18, FY 2018-19 and 2019-20 respectively.

6.11.REASONABLE RETURN/ RETURN ON EQUITY

Under provisions of the MYT Transmission Regulations, the Petitioner is eligible to a return of @ 15.5% on equity base; for equity base calculation debt equity ratio shall be 70:30. Where equity involved is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30%. Equity amounting to more than 30% shall be considered as loan. In case of actual equity employed being less than 30%, actual debt and equity shall be considered for determination of tariff. In this Petition, the return on equity has been computed as per methodology adopted by Hon'ble Commission in the previous Tariff Orders.

In view of the huge gap in the recovery of cost of supply at the DisComs' level, Petitioner is of the view that return on equity would only result in increase in arrears and accumulation of receivables. As such, the Petitioner has been claiming the return on equity @ 2% since the financial year 2009-10 onwards. Return on equity has been computed on the normative equity portion (30%) of capitalised assets.

The Petitioner has computed the eligible return on equity by considering the opening level of equity for FY 2015-16 based on the closing regulatory equity based on the true up for FY 2014-15. Subsequently, it has considered the yearly normative equity based on the capital additions for the MYT control period i.e. from FY 2017-18 to FY 2019-20 depicted in aforementioned sections.

Thus, the claimed return on equity for the MYT control period has been depicted in the table below:

निदेशक (वाणिज्य)
उत्पादन/वित्त/कार्गो

Table 6-16: Allowable Return on Equity for MYT Control Period

(All figures in Rs Crore)

Particulars	Derivation	2017-18	2018-19	2019-20
Equity at the beginning of the year	A	5,588.04	6,894.20	8,441.34
Assets Capitalised	B	4,353.88	5,157.13	5,903.50
Addition to Equity	C = 30% of B	1,306.16	1,547.14	1,771.05
Closing Equity	D = A + C	6,894.20	8,441.34	10,212.39
Average Equity	E = Average of A & D	6,241.12	7,667.77	9,326.87
Rate of Return (%)	F	2.00%	2.00%	2.00%
Return on Equity	G = E x F	124.82	153.36	186.54

6.12.SERVICE TAX

Regulation 27 of the MYT Transmission Regulations provide-

"27. Income Tax-

Income Tax if any on the Licensed business of the Transmission Licensee shall be treated as expense and shall be recoverable from consumers through tariff. However, tax on any income other than its licensed business shall not be a pass through, and it shall be payable by the Transmission Licensee itself.

The income tax actually payable or paid shall be included in the ARR. The actual assessment of income tax should take into account benefits or tax holiday, and the credit for carry forward losses applicable as per the provisions of the Income Tax Act, 1961 shall be passed on to the consumers."

The Petitioner submits that Service tax liability is imposed on the service provider which would be UPPTCL in this case. Service tax would be chargeable on actual energy wheeled during a financial year and at the rates as notified & amended by the Govt from time to time. The Petitioner seeks allowance of such statutory liability on the service provider UPPTCL as pass through in tariff.

Also such liability may be imposed on UPPTCL retrospectively like it was done in the case of PGCIL. In such an event the Petitioner would approach the Commission for allowance of such liability in its ARR accordingly.

7. SUMMARY OF ANNUAL REVENUE REQUIREMENT FOR MYT CONTROL PERIOD

The ARR for the 1st control period is summarized in the table below:

Table 7: Annual Revenue Requirement for the MYT Control Period

(All figures in Rs Crore)

Particulars	2017-18	2018-19	2019-20
Employee cost	668.88	702.84	693.89
A&G expenses	31.68	31.96	32.24
R&M expenses	342.80	431.21	534.03
Interest on Loan Capital	1,511.56	1,901.91	2,294.04
Interest on Working Capital	72.68	88.02	103.82
Finance Charges	1.35	1.40	1.45
Depreciation	902.05	1,150.37	1,433.36
Gross Expenditure	3,531.00	4,307.71	5,092.85
<i>Less: Employee cost capitalized</i>	167.25	175.74	173.51
<i>Less: A&G Capitalisation</i>	6.42	6.48	6.53
<i>Less: Interest Capitalisation</i>	897.80	1,129.65	1,362.56
Net Expenditure	2,459.53	2,995.84	3,550.25
Prior Period Items, Debits, write-offs & other Expenses	-	-	-
Net Expenditure with provisions	2,459.53	2,995.84	3,550.25
Add: Return on Equity	124.82	153.36	186.54
Less: Non Tariff Income	52.73	54.70	56.75
Annual Revenue Requirement (ARR)	2,531.63	3,094.50	3,680.04




 निदेशक (वित्तिय)

 उपाध्यक्ष

8. ENERGY HANDLED AND DEMAND

The Petitioner is performing the business of transmission of electricity. Energy received at UP periphery from various central generating stations, as well as those within the State and dispatching this energy to the long term transmission customer (including distribution licensee) as required, using "Transmission system" of UPPTCL. In transmission of electricity from various generating stations outside the State, losses outside the U.P. transmission system also come into effect. However UPPTCL is responsible for maintaining the intra-state transmission system and therefore is accountable for intra-state system losses, which is calculated on the basis of net injection in periphery of the state transmission system & net intra-state drawl from the periphery of the state transmission system through long term transmission customer (including distribution licensee).

The Petitioner submits that while considering losses to meet the requirement of various distribution licensees, losses external to UPPTCL system, i.e., in the Northern Region, PGCIL system need to be accounted for. The availability of power from various sources of outside the state gets reduced to the extent of these losses. Further the UPPTCL losses considered for the MYT control period are 3.79%, the same has been worked as the average of the actual UPPTCL losses for the period from FY 2013-14 to FY 2015-16.

On the basis of Power requirement provided by DisComs and UPPCL a detailed energy balance is worked out for Distribution Licensees of the State using Transmission system of UPPTCL. The projected dispatch of energy is worked out by considering the past trend of procurement of power in the state. The Petitioner has observed that in the past years, out of the total energy purchase made by the DisComs around 50% of the energy is procured from the generating stations within the state and remaining from generating stations from outside the state.

Based on the above observations the Petitioner has assumed that the out of the overall energy purchase made during the MYT period by the DisComs, 50% of the energy is procured from within the state and remaining 50% outside the state. Based on these assumptions and the Power requirement of DisComs a detailed energy balance is summarized for Distribution Licensees of the State using Transmission system of UPPTCL for dispatching the energy in the table below:

Table 8: Energy Profile for the MYT Control Period

Particulars	FY 2017-18	FY 2018-19	FY 2019-20
Total Energy Purchase (MU)	1,29,239.00	1,37,951.00	1,47,570.00
Inter-state Purchase by Discoms (MU)	64,619.50	68,975.50	73,785.00
Intra-state Purchase by Discoms (MU)	64,619.50	68,975.50	73,785.00
Inter-state transmission Losses (%)	3.38%	2.81%	2.28%
Intra-state transmission Losses (%)	3.79%	3.79%	3.79%
Inter State Energy Available at STU End (MU)	62,436.94	67,034.27	72,102.12




Accept

निदेशक (बाणिज्य)
उत्तर प्रदेश विद्युत नियंत्रण बोर्ड

Particulars	FY 2017-18	FY 2018-19	FY 2019-20
Inter State Energy Available at Discom End (MU)	60,070.58	64,493.67	69,369.45
Intra State Energy Available at Discom End (MU)	62,170.42	66,361.33	70,988.55
Total Energy Available at Discom End (MU)	1,22,241.00	1,30,855.00	1,40,358.00

The Petitioner further submits that under the extant mechanism of power purchase, all the power purchase is made centrally at UPPCL level and based on the demand of various state owned Discoms and considering supply restrictions, if any, the demand of various Discoms is fed. The generators raise their energy bills to UPPCL who in turn pays them. UPPCL bills the various Discoms at the pooled power purchase cost. Thus, the Petitioner is dependent on the UPPCL towards details of the power procurement plan. The UPPCL is in the process of finalisation of the power procurement plan and it is expected that the same would be concluded in the next few weeks. As the multi-year tariff is being implemented for the first time, there has been delay in finalising the Discom wise power procurement plan.

Thus in the absence of Discom wise data of power purchase and energy sales, the Petitioner has considered the overall power purchase requirement and energy sales of the Discoms and prepared the Power Procurement Plan and worked out the interstate losses as mentioned in the table above.



निदेशक (वित्तिय) 

9. PROPOSED TRANSMISSION TARIFF FOR THE MYT PERIOD

The proposed transmission tariff is in accordance with the methodology provided in MYT Transmission Regulations. It provides that in case of more than one long-term customers of the Transmission system (distribution licensee/long term open access customers), utilizing transmission system, the wheeling charges leviable on such customers shall be computed as per the following formula:

Transmission / wheeling charges payable by the long term of customer of Transmission system for use of transmission system for a month

$$= (\text{Net ARR}/12) \times (\text{CL}/\text{SCL})$$

CL = Allotted Transmission Capacity in MW of particular long term customer.

SCL = Sum of the Allotted Transmission Capacities (in MW) to all long-term customers.

Presently, the distribution companies have not been allotted transmission capacity; as such, the transmission tariff has been calculated on the basis of numbers of units wheeled by the transmission licensee for distribution licensees'. This is based on the same approach adopted by the Commission in its previous Tariff Orders.

Based on the above mentioned methodology, the transmission charges payable by all the licensees in the state is computed below:

Table 9: Derivation of Transmission Tariff for MYT Control Period

Particulars	Unit	FY 2017-18	FY 2018-19	FY 2019-20
Annual Revenue Requirement	Rs Crore	2,531.63	3,094.50	3,680.04
Energy delivered to Discoms	MU	1,22,241	1,30,855	1,40,358
Transmission Charges	Rs./kWh	0.2071	0.2365	0.2622

The Petitioner submits that the billing in respect of intra-state transmission charges is being done on postage stamp tariff method till the time the Allotted Transmission Capacity of Long Term Transmission System Customers (the Distribution Licensees & Bulk Customer) is not finalized. Suitable steps in this regard have been initiated at the Petitioner's end to finalise the allotted transmission capacities and once it is done the intra-state transmission charges would be claimed and paid linked with contracted transmission capacity rather than on postage stamp tariff method. The postage stamp tariff based billing poses the risk of unjust enrichment to the licensee as it is possible for it to recover fixed costs in excess of the costs approved by the Hon'ble Commission in its ARR order. In the interim, till the contracted capacities are finalised, it is humbly prayed with the Hon'ble Commission that an internal adjustment bill may be allowed to be raised within the

निदेशक (वाणिज्य)
उपप्रमुख, वित्त विभाग

subsidiary companies at the year end so that the licensee recovers only its costs and no unjust enrichment is allowed to it on account of postage stamp tariff method based billing.

[Signature]

[Signature]
निदेशक (वित्तिय)
राष्ट्रिय प्रसारण निगम

10. COST OF SLDC OPERATIONS

As per the Regulation 14(1) of Uttar Pradesh Electricity Regulatory Commission (Procedure, Terms & Conditions for payment of Fee and Charges to State Load Despatch Centre and other related provisions) Regulations, 2004 and Regulation 12.5 of the MYT Transmission Regulation, the petitioner is submitting the ARR or budget of SLDC operations for the 1st control period i.e. from FY 2017-18 to FY 2019-20 for approval of the Hon'ble Commission. As on date separate accounting group code has been allowed by UPPTCL to manage entire SLDC functions separately, however the SLDC is yet to form a separate entity and UPPTCL is still operating the SLDC. The SLDC budget projected in this section is embedded in the ARR of the UPPTCL as determined in section 6.

Load Despatch Centres have been termed as apex bodies in the electricity industry. They have true independence in financial terms as well as decision making. This has been done in accordance with the recommendations given by a Committee on "Manpower Certification and Incentives for System Operation and Ring Fencing Load Despatch Centres" constituted by Ministry of Power, Government of India. This has been achieved in great extent in first phase through independent governance structure and sanction of man power who have undertaken adequate level of training from NPTI, Bangalore. The manpower is having skills in operations of power system with high ethical standards and altruistic values.

As on date adequate logistics / infrastructure exist for operations of SLDC. The existing IT systems are being updated on dynamic web-base solutions to comprehensively manage SLDC functions.

Further as mandated in clause 2.14 of U.P. Electricity Grid Code, 2007, "State Power Committee" has been constituted under the chairmanship of Chief Engineer (SLDC). The Hon'ble Commission had approved SLDC Charges for FY 2015-16 which shall be payable by UPPTCL and which will be recovered through transmission tariff as per the Clause 8 (2) of the SLDC Regulations.

The estimated costs of running UPPTCL central load despatch centre in Lucknow and four regional load despatch centres at Panki, Sahupuri, Modipuram and Moradabad are currently embedded in the ARR claimed in Section 6 for the MYT period i.e. from FY 2017-18 to FY 2019-20.

The activities being performed by the SLDC have been categorised in three parts as depicted below:


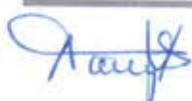
1. Operations and Control

- a) Control Room round the clock operations in 3 shifts
- b) Scheduling and outage Planning
- c) Data Management
- d) System Studies

2. SCADA and Communication

- a) SCADA and EMS
- b) IT

3. Energy Accounting and settlement



निदेशक (वित्तिय)
उपप्रमुख (वित्तिय)

- a) Energy Accounting & Commercial
- b) Balancing and Settlement System
- c) Open Access (Short term)

4. Finance and HR functions

- a) Financial Accounting and Audit, Annual Budget
- b) HR including Training

Special emphasis is being placed on the capacity building and imparting training to the employees to gear them to independently manage the SLDC function and the dynamic IT-enabled environment. NPTI has started Basic Level Certification training courses for LDCs as per the recommendations given by the Satnam Singh Committee formed by MoP and SLDC is deputing the employees for the same and some employees have already completed the training successfully. The Petitioner is regularly deputing its personnel to the basic level training and certification conducted by NPTI, Bangalore.

The Petitioner is planning to impart the training to every engineer working in SLDC. Remaining employees, who require basic level training, will be deputed to NPTI, Bangalore for the next year training courses as per program notified by NPTI, Bangalore. Subsequently advanced level training and certification programme will be introduced by NPTI.

As per the directives of the Hon'ble Commission, the Petitioner has projected the Budget for SLDC for the control period from FY 2017-18 to FY 2019-20. The Petitioner has estimated the total expenses of the SLDC at Rs. 53.42 crore, Rs. 53.92 crore and Rs. 57.69 crore for FY 2017-18, FY 2018-19 and FY 2019-20 respectively. The Budget of SLDC for the MYT control period is as follows:

Table 10: SLDC Budget for MYT Control Period

(All figures in Rs Crore)

S. No.	Particulars	FY 2017-18	FY 2018-19	FY 2019-20
		Projected	Projected	Projected
A	Operating Cost Budget			
1	Employee Expenses			
	SLDC, Lucknow (Including Sub-LDCs Sarnath, Panki, Moradabad & Modipuram)	31.62	36.32	41.77
	Total Employee Expenses	31.62	36.32	41.77
2	A&G Expenses			
	SLDC, Lucknow (Including Sub-LDCs Sarnath, Panki, Moradabad & Modipuram)	6.40	7.50	8.61
	Total A&G Expenses	6.40	7.50	8.61
3	R&M Expenses			
	SLDC, Lucknow (Including Sub-LDCs Sarnath, Panki, Moradabad & Modipuram)	5.20	6.00	6.30
	Total R&M Expenses	5.20	6.00	6.30

S. No.	Particulars	FY 2017-18 Projected	FY 2018-19 Projected	FY 2019-20 Projected
4	Interest on Working Capital	0.00	0.00	0.00
5	RLDC Fee & NRPC Charges	0.00	0.00	0.00
6	Sub-Total (Operating Cost Budget)	43.22	49.82	56.68
B	Capital Charge Budget			
1	Dynamic Website Development, Present SCADA & IT System Enhancement & Development	1.70	1.95	2.24
2	SLDC Building / Capital Works	12.00	6.00	3.00
3	Depreciation	0.00	0.00	0.00
4	Interest & Finance Charges	0.00	0.00	0.00
5	Return on Equity	0.00	0.00	0.00
	Sub-Total (Capital Charge Budget)	13.70	7.95	5.24
C	Less: SLDC Income	3.50	3.85	4.23
D	Total UP-SLDC Budget	53.42	53.92	57.69

The Budget of SLDC for the MYT control period as projected above is currently embedded in the ARR claimed in Section



निदेशक (वित्त) /
उपनिदेशक (वित्त)

11. PRAYERS

The Petitioner prays that the Hon'ble Commission may be pleased to:

- Admit this petition for approval of Business Plan for the MYT Control period from FY 2017-18 to FY 2019-20 submitted herewith;
- Approve the capital expenditure plan along with the physical targets and financing plan provided therein for the MYT Control period as proposed in the instant petition;
- Pass suitable orders with respect to the Business Plan for the MYT Control Period from FY 2017-18 to FY 2019-20 as proposed by the Petitioner in this petition along with the relevant operational and financial parameters as proposed in the petition;
- Allow the petitioner to add/change / alter / modify this application at a future date.


निदेशक (वित्त) /
उपनिदेशक (वित्त)