UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

LUCKNOW

Petition No. 1572/ 2020

BUSINESS PLAN ORDER FOR THE MYT CONTROL PERIOD (FINANCIAL YEAR 2020-21 TO FINANCIAL YEAR 2024-25)

OF

UTTAR PRADESH TRANSMISSION CORPORATION LIMITED, LUCKNOW (UPPTCL) – (Petition No. – 1572/2020)

ORDER UNDER SECTION 62 & 64 OF

THE ELECTRICITY ACT, 2003

October 15, 2020

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Before

UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

Petition No.: 1572/2020

IN THE MATTER OF:

BUSINESS PLAN FOR MYT CONTROL PERIOD FROM FY 2020-21 TO FY 2024-25.

And

IN THE MATTER OF:

UTTAR PRADESH POWER TRANSMISSION CORPORATION LIMITED, LUCKNOW (UPPTCL)…….. PETITIONER

ORDER

The Commission, having deliberated upon the above Petition and also the subsequent filings by the Petitioner, and the Petition thereafter being admitted, in exercise of powers vested under Sections 86 of the Electricity Act, 2003 (herein referred to as 'the Act'), hereby passes this Order signed, dated and issued on October 15, 2020. The Commission may issue clarification / corrigendum / addendum to this Order as it deems fit from time to time with the reasons to be recorded in writing.

1 BACKGROUND

1.1 BACKGROUND

1.1.1 The Uttar Pradesh Electricity Regulatory Commission (hereinafter referred to as the 'UPERC' or 'the Commission') was formed under U.P. Electricity Reform Act, 1999 by the Government of Uttar Pradesh (GoUP) in one of the first steps of reforms and restructuring process of the power sector in the State. Thereafter, in pursuance of the reforms and restructuring process, the erstwhile Uttar Pradesh State Electricity Board (UPSEB) was unbundled into the following three separate entities through the first reforms Transfer Scheme dated January 14, 2000:

- Uttar Pradesh Power Corporation Limited (UPPCL): vested with the function of Transmission and Distribution within the State.
- Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL): vested with the function of Thermal Generation within the State.
- Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL): vested with the function of Hydro Generation within the State.

1.1.2 Through another Transfer Scheme dated January 15, 2000, assets, liabilities and personnel of Kanpur Electricity Supply Authority (KESA) under UPSEB were transferred to Kanpur Electricity Supply Company Limited (KESCO), a Company registered under the Companies Act, 1956.

1.1.3 After the enactment of the Electricity Act, 2003 (EA 2003), the need was felt for further unbundling of UPPCL (responsible for both Transmission and Distribution functions) along functional lines. Therefore, the following five new Distribution Companies (hereinafter collectively referred to as 'Discoms') were created vide Uttar Pradesh Transfer of Distribution Undertaking Scheme, 2003 dated August 12, 2003, to undertake distribution and supply of electricity in the areas under their respective zones specified in the Scheme:

- Dakshinanchal Vidyut Vitran Nigam Limited (Agra Discom or DVVNL)
- Madhyanchal Vidyut Vitran Nigam Limited (Lucknow Discom or MVVNL)
- Pashchimanchal Vidyut Vitran Nigam Limited (Meerut Discom or PVVNL)
- Purvanchal Vidyut Vitran Nigam Limited (Varanasi Discom or PuVVNL)
- Kanpur Electricity Supply Company (Kanpur Discom or KESCO)

1.1.4 Under this Scheme, the role of UPPCL was specified as "Bulk Supply Licensee" as per the Licensee granted by the Commission and as "State Transmission Utility" under sub-section (1) of Section 27-B of the Indian Electricity Act, 1910.

1.1.5 Subsequently, the Uttar Pradesh Power Transmission Corporation Ltd. (hereinafter referred to as 'Petitioner', 'Licensee' or 'UPPTCL') a Transmission Company (TRANSCO), was incorporated under the Companies Act, 1956 by an amendment in the 'Object and Name' clause of the Uttar Pradesh Vidyut Vyapar Nigam Limited. The TRANSCO started functioning with effect from July 26, 2006 and is entrusted with the business of transmission of electricity to various Utilities within the State of Uttar Pradesh. This function was earlier vested with UPPCL. Further, Government of Uttar Pradesh (GoUP), in exercise of powers vested under Section 30 of the Electricity Act, 2003, vide notification No. 122/U.N.N.P/24-07 dated July, 18, 2007 notified Uttar Pradesh Power Transmission Corporation Limited as the "State Transmission Utility" (STU) of Uttar Pradesh. Subsequently, on December 23, 2010, the Government of Uttar Pradesh notified the Uttar Pradesh Electricity Reforms (Transfer of Transmission and Related Activities Including the Assets, Liabilities and Related Proceedings) Scheme, 2010, which provided for the transfer of assets and liabilities from UPPCL to UPPTCL with effect from April 1, 2007.

1.1.6 Thereafter, on January 21, 2010, as the successor Distribution Companies of UPPCL (a Deemed Licensee), the Discoms created through the notification of the UP Power Sector Reforms (Transfer of Distribution Undertakings) Scheme, 2003 were issued fresh Distribution Licenses, which replaced the UP Power Corporation Ltd (UPPCL) Distribution, Retail & Bulk Supply Licensee, 2000.

1.1.7 UPPTCL is entrusted with the responsibilities of planning and development of an efficient and economic intra-State transmission system, providing connectivity and allowing open access for use of the intra-State transmission system in coordination, among others, Licensees and Generating Companies. In doing so, it is guided by the provisions of the UP-Electricity Grid Code, 2007, UPERC (Terms and Conditions for Open Access) Regulations, 2019, and UPERC (Grant of Connectivity to intra-State Transmission System) Regulations, 2010 as amended from time to time.

1.1.8 The Government of Uttar Pradesh (GoUP), in exercise of the powers vested under Section 31 of the Electricity Act, 2003, vide Notification No. 78/24-U.N.N.P.-11-525/08 dated January 24, 2011 notified the "Power System Unit" as the "State Load Dispatch Centre" of Uttar Pradesh for the purpose of exercising the powers and discharging the functions under Part V of the Electricity Act, 2003. SLDC is operating as a part of the Uttar Pradesh

Power Transmission Corporation Ltd., in its capacity as the State Transmission Utility. SLDC is the apex body to ensure integrated operation of the power system in the State.

1.2 TRANSMISSION TARIFF REGULATIONS

1.2.1 The Uttar Pradesh Electricity Regulatory Commission (Multi Year Transmission Tariff) Regulations, 2014 (hereinafter referred to as the "Transmission MYT Regulations, 2014") were notified on May 12, 2014. These Regulations were applicable for determination of ARR and Tariff from FY 2017-18 to FY 2019-20. Embarking upon the MYT framework, the Commission had divided the period of five years (i.e. April 1, 2015 to March 31, 2020) into two periods namely a) Transition period (April 1, 2015 to March 31, 2017) and b) Control Period (April 1, 2017 to March 31, 2020)

1.2.2 The transition period of two years ended in FY 2016-17. The Transmission Tariff Regulations, 2006 were made applicable for the Truing Up of ARR for the transition period (FY 2015-16 to FY 2016-17), whereas the first Control Period of the MYT Period (FY 2017-18 to FY 2019-20), was governed in accordance with the Transmission MYT Regulations, 2014.

1.2.3 Subsequently, the Commission notified the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution and Transmission) Regulations, 2019 (hereinafter referred to as "MYT Regulations 2019") applicable for determination of tariff from April 1, 2020 onwards up to FY 2024-25 [i.e., till March 31, 2025] unless extended by the Commission. These Regulations were finalized by the Commission on 23rd September 2019 and were finally uploaded on the Commission's website on 22nd November 2019, after gazette notification. These Regulations are applicable for the purpose of submission of Multi Year Tariff Petition for Business Plan, True-up, Annual Performance Review (APR), determination of Annual Revenue Requirement (ARR) and Tariff of all the distribution and transmission licensees within the State of Uttar Pradesh for the Control Period FY 2020-21 to FY 2024-25.

2 PROCEDURAL HISTORY

2.1 BUSINESS PLAN MYT CONTROL PERIOD FROM FY 2017-18 TO FY 2019-20

2.1.1 The Commission, vide its Tariff Order dated November 30, 2017, approved the Business Plan for MYT Control Period (FY 2017-18, FY 2018-19 and FY 2019-20) for UPPTCL along

with the ARR / Tariff for FY 2017-18. In the said Order, the Commission also approved the True Up for FY 2014-15.

2.2 SUO-MOTO PROCEEDINGS ON ANNUAL PERFORMANCE REVIEW (APR) FOR FY 2016-17 AND FY 2017-18 AND AGGREGATE REVENUE REQUIREMENT (ARR) FOR FY 2018-19 AND PETITION FOR TRUE UP OF ARR FOR FY 2015-16 FILED BY THE PETITIONER

2.2.1 The Commission, vide its Order dated January 08, 2019, approved the ARR / Tariff for FY 2018-19 for UPPTCL and the Annual Performance Review (APR) for FY 2016-17 and FY 2017-18. In the said Order, the Commission also approved the true up for FY 2015-16.

2.3 DETERMINATION OF ANNUAL PERFORMANCE REVIEW (APR) FOR FY 2017-18 AND FY 2018-19 AND AGGREGATE REVENUE REQUIREMENT (ARR) FOR FY 2019-20 AND PETITION FOR TRUE UP OF ARR FOR FY 2016-17 FILED BY THE PETITIONER

2.3.1 The Commission, vide its Order dated August 27, 2019, approved the ARR and Transmission Tariff for FY 2019-20 for UPPTCL and the Annual Performance Review (APR) for FY 2017-18 and FY 2018-19. In the said Order, the Commission also approved the true up for FY 2016-17.

2.4 BUSINESS PLAN MYT CONTROL PERIOD FROM FY 2020-21 TO FY 2024-25

2.4.1 The Regulation 4 of Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Transmission & Distribution) Regulations, 2019 stipulates the detailed principles, procedures and timelines for determination of tariff. The relevant extract of the same is reproduced below:

Quote

4. Petitions to be filed in the Control Period

4.1 The Petitions to be filed in the Control Period under these Regulations will comprise of the following:

Filing date	***True- Up***	***APR***	***ARR / Tariff***
15.10.2019	***Business Plan for FY 2020-21 to FY 2024-25***		

Filing date	True- Up	APR	ARR / Tariff
30.11.2019	FY 2018-19 (as per MYT Regulations, 2014)*	FY 2019-20 (as per MYT Regulations, 2014)*	FY 2020-21
30.11.2020	FY 2019-20 (as per MYT Regulations, 2014)*	FY 2020-21	FY 2021-22
30.11.2021	FY 2020-21	FY 2021-22	FY 2022-23
30.11.2022	FY 2021-22	FY 2022-23	FY 2023-24
30.11.2023	FY 2022-23	FY 2023-24	FY 2024-25

**The filings shall be as per Multi-Year Distribution Tariff Regulations, 2014 and Multi-Year Transmission Tariff Regulations, 2014, however, filings have to be made on 30th November of the respective year as per these Regulations.*

4.2 The Licensee shall submit the data regarding the above as per Guidelines and Format prescribed and added/ amended from time to time by the Commission.

Unquote

2.4.2 The Regulation 5.2 of Uttar Pradesh Electricity Regulatory Commission (Multi Year Distribution and Transmission Tariff) Regulations, 2019, provides that the Licensee shall file a Petition for Business Plan for the MYT Control Period i.e. FY 2020-21 to FY 2024-25 complete in all respect on or before October 15, 2019 in the Commission.

2.4.3 The Commission, vide its letter No. UPERC/Secy/D(Tariff)/19-1238 dated September 24, 2019, conveyed the Petitioner to immediately initiate the process of filling of Petition for Business Plan and determination of ARR / Tariff in order to adhere with the timelines as stipulated under the Regulations.

2.4.4 The UPPTCL, vide its letter No. 862/Dir (Comm. & Plg)/UPPTCL/2019/Business Plan dated October 23, 2019, requested the Commission to allow time extension for submission of Business Plan upto 15.12.2019.

2.4.5 The Commission observed that even though all the formats required to be submitted by the UPPTCL along with the Petition were shared with them, yet UPPTCL did not file the respective Petition despite strict directions being issued by the Commission in the matter. Accordingly, the Commission vide its letter No. UPERC/Secy/D(Tariff)/20-1868 dated

January 10, 2020 expressed its displeasure that the Petitioner has not adhered to the timelines as specified in the MYT Regulations 2019 for filing the Business Plan Petition. The Commission further took cognizance of the Hon'ble APTEL judgment dated 11.11.2011 in OP No. 1/2011 (Suo-moto proceedings on the basis of the letter received from Ministry of Power, Government of India), wherein it is stated that the review of annual performance, the truing up of past expenses and the determination of annual revenue requirements and tariff are conducted on year to year basis as per the time schedule specified in the Tariff Regulations and that in the event of delay, in filing the application for the approval of ARR, for the truing up of accounts and for the review of annual performance, of one month beyond the scheduled date of submission of the application, the State Commission must initiate suo-moto proceedings for tariff determination in accordance with Section 64 of the Act read with clause 8.1 (7) of the National Tariff Policy 2006. Accordingly, the Commission issued a show cause notice stating why Suo-moto proceedings for tariff determination should not be initiated against the Licensee and directed UPPTCL to submit its response within 7 days in this regard.

2.4.6 UPPTCL, vide it's letter No. 23 / Dir (Comm.& Plg) / UPPTCL / 2020 / Business Plan dated January 17, 2020, submitted that extensive data collection is taking time, and requested the Commission to allow extension of time upto 15.02.2020 for filing the Petition.

2.4.7 The Commission after considering the submissions made by the Petitioner, did not find any merit in the submission of the Petitioner and observed that it was a sad state of affair that the Petitions for True Up of FY 2018-19, Annual Performance Review (APR) for FY 2019-20, Business Plan for MYT Period FY 2020-25 and ARR / Tariff for FY 2020-21 were not filed on time in accordance with the extent Regulations before the Commission, therefore decided to initiate Suo-moto proceedings on 27 February, 2020, for Truing Up of FY 2018-19, Annual Performance Review (APR) for FY 2019-20, Business Plan for the MYT Period FY 2020-25 and ARR/Tariff for FY 2020-21 for the State DISCOMs (DVVNL, MVVNL, PVVNL, PuVVNL, KESCO) and UPPTCL immediately. However, in order to carry out the exercise transparently and prudently, the Commission required necessary data to assess the expenditure, revenue requirement for determination of ARR and tariff. Hence, the Commission vide its letter dated 02.03.2020, directed the Petitioner to submit the required data pertaining to the Truing Up of ARR for FY 2018-19, Annual Performance Review (APR) of ARR for FY 2019-20, Business Plan Order for the MYT Period FY 2020-25 and determination of ARR/Tariff for FY 2020-21, as per the provisions of the relevant Regulations with the prescribed formats, templates along with supporting documents, in the form of a petition within 10 days, failing which the Commission shall be constrained to initiate proceedings under Section 142 of the Electricity Act, 2003 simultaneously,

without prejudice to any other action for such serious lapse, as contemplated under the Electricity Act 2003.

2.4.8 The Petitioner thereafter submitted its Business Plan after a delay of almost 6 months, on March 04, 2020 as the same should have been filed latest by October 15, 2019 and submitted that the process of filing of the Business Plan and the ARR & Tariff Petition for FY 2020-21 was slightly delayed on account of delay in preparation of data as per the new tariff formats prescribed in the MYT Regulations 2019. The Petitioner assured that in future they will submit the petition as per the prescribed time lines.

2.4.9 The Commission would like to caution the Petitioner that such delays in future in filing of APR and Truing Up Petition during this control period would be dealt in accordance with the directions contained under Hon'ble APTEL's Judgement dated 11.11.2011 in OP No. 1/2011 referred above. Additionally, this would be treated as non-compliance of relevant provisions of various Regulations and may entail appropriate punitive action against the Petitioner.

2.5 PRELIMINARY SCRUTINY OF THE PETITIONS

2.5.1 The Commission vide its letter No. UPERC / Secy /D(Tariff)2020-21-90 dated March 03, 2020 directed Petitioner to make presentation on the Business Plan before the Commission on March 18, 2020.

2.5.2 Accordingly, the Petitioner made presentation on the Business Plan on March 18, 2020 before the Commission. During the presentation, the Commission discussed various issues and the deficiencies that were found in the Petitioner's submission as per the preliminary analysis conducted by the Commission. The Commission raised various queries on the Business Plan based on the submission made by the Petitioner and directed the Petitioner to address the same. The issues raised by the Commission are detailed subsequently in this Order under para containing deficiency.

2.5.3 The Commission as per the discussion held during the presentation and preliminary analysis undertaken, sent the first Deficiency vide e-mail dated May 13, 2020, containing various queries, wherein the Petitioner was directed to provide its reply on the same. Further, the Commission also directed the Petitioner to revise the Business Plan and Capital Investment Plan taking into consideration the impact due to outbreak of Covid-19 Pandemic.

2.5.4 Further, the Petitioner in compliance to the directives of the Commission's letter ref. no. UPERC/Secv/D (Tariff)/20-088 dated 13-05-2020 to revise the Business Plan or Capital

Investment Plan due to outbreak of Covid-19 Pandemic, resubmitted the Revised Business Plan on September 17, 2020.

2.5.5 While approving various parameters of the Business Plan for the Control Period FY 2021-25, the Commission has taken into consideration the Post Covid projections submitted by the Petitioner.

3 BUSINESS PLAN FOR THE MYT PERIOD FY 2020-21 TO FY 2024-25

3.1 INTRODUCTION

3.1.1 In this section, the Commission has scrutinized the Business Plan for the Multi-Year Tariff (MYT) Period (FY 2020-21 to FY 2024-25) in line with the provisions of the MYT Distribution and Transmission Tariff Regulations, 2019.

3.1.2 The Commission in exercise of power conferred under Section 181 read with Sections 61, 62 & 86 of the Electricity Act, 2003 issued the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution and Transmission) Regulations, 2019, on September 23, 2019. These Regulations lays down Multi Year Tariff framework for Business Plan, determination of True Up, APR, ARR and Tariff for the respective year during the Control Period and stipulates that the transmission licensee shall submit the Business Plan for the entire Control Period for the consideration of the Commission prior to the beginning of the Control Period.

3.1.3 In this regard, the relevant extract of Regulation 5 of the MYT Distribution & Transmission Regulations, 2019 is reproduced as below:

Quote

5. Business Plan and ARR Petition

……

5.2 The Transmission Licensee shall file a Business Plan by 15.10.2019, duly authorized by the Board of Directors or by any Committee/ person authorized by the Board in this regard, for the Control Period of five Financial Years, i.e., from April 01, 2020 to March 31, 2025, which shall comprise but not be limited to Transmission Capacity, Circuit line length, Number of Sub-stations, Capital Investment Plan, Financing Plan and physical targets, Equity, Grants, etc., in accordance with Guidelines and Formats as may be prescribed by the Commission accompanied with applicable fees. Above requirement of the Commission does not exclude its right to seek any other information in this regard, as deemed necessary.

5.3 The Capital Investment Plan shall show separately, on-going projects that will spill over into the Control Period, and new projects (with justification) that will commence in the Control Period but may be completed within or beyond it, for which relevant technical and commercial details shall be provided.

5.4 The Distribution Licensee shall project the realistic power purchase requirement optimised on cost from all Generating Stations and other sources considered for power purchase based on the Merit Order Despatch (MOD)/ Security Constrained Economic Despatch (SCED) principles, Must Run plants and Renewable Energy plants subject to the Renewable Purchase Obligation (RPO) stipulated by the Commission under the relevant Regulations and their subsequent amendments, and the target set, if any, for Energy Efficiency (EE) and Demand Side Management (DSM) schemes, etc.:

Provided that MOD/ SCED principles shall not apply to purchase of power from Renewable Energy sources up to the RPO stipulated by the Commission.

5.5 The forecast of expected revenue from Tariff shall be based on the following:

(a) In the case of a Transmission Licensee, estimate of ARR or estimates of Transmission Capacity allocated to Transmission System Users, as appropriate;

(b) In the case of a Distribution Licensee, estimate of quantum of electricity to be supplied to consumers and wheeled on behalf of Distribution System Users;

Provided that the Distribution Licensee shall submit relevant details of category/ sub-category wise Number of Consumers, Connected load and Energy Sales projections, status of metering, feeder level/ distribution transformer metering, diversity factor for various category of consumers taking seasonality into consideration, etc., for each Distribution Licensee area;

(c) Existing and proposed Tariff as on the date of filing of the Petition.

Unquote

3.2 EXISTING TRANSMISSION SYSTEM:

Petitioner's Submission

3.2.1 The Petitioner has submitted that its transmission network in the state consists of over 44074 Ckt kms. of transmission line and total of 575 installed substations as on 31st March 2020. Further, Petitioner is in the process of rapidly increasing its network capacity to handle the new generation capacities coming up in the next five years.

3.2.2 The Petitioner has submitted that it's area is divided into 6 zonal offices having circles alongside with large number of divisions for operation and maintenance of the existing sub-stations and lines as well as for construction of new substations and lines.

3.2.3 Further, the Petitioner has submitted the details of existing Transmission Network of Uttar Pradesh at respective voltage levels comprising of the Transmission Lines in circuit kilometer, number of Sub-Stations and the Transformation Capacity in MVA. The Petitioner has broadly classified the assets under three Licensee namely UPPTCL, SEUPPTCL & WUPPTCL.

Table 1: EXISTING TRANSMISSION LINES (CKT. KM) (AS ON 31.3.2020)

Voltage Level	Transmission Lines (Ckt. Km)				% Share in Total
	UPPTCL	SEUPPTCL	WUPPTCL	Consolidated	
132 KV	23,732	-	-	23732	52%
220 KV	12,985	-	-	12985	29%
400 KV	6,242	412	358	7012	15%
765 KV	1,085	377	257	1719	4%
Total	**44,044**	**789**	**615**	**45,448**	

Table 2: EXISTING SUB-STATIONS (S/s) (AS ON 31.3.2020)

Voltage Level	No. of Substations				% Share in Total
	UPPTCL	SEUPPTCL	WUPPTCL	Consolidated	
132 KV	426	-	-	426	73%
220 KV	125	1*	-	126	22%
400 KV	22	1	5	28	5%
765 KV	2	1	2	5	1%
Total	**575**	**3**	**7**	**585**	

To be upgraded to 400 KV by SEUPPTCL

Table 3: EXISTING TRANSFORMATION CAPACITY (MVA) (AS ON 31.3.2020)

Voltage Level	Transformation Capacity (MVA)				% Share in Total
	UPPTCL	SEUPPTCL	WUPPTCL	Consolidated	
132 KV	50,410	-	-	50410	37%
220 KV	44,900	200	560	45660	34%
400 KV	20,820	630	5,660	27110	20%
765 KV	6,000	1,000	6,000	13000	10%
Total	**1,22,130**	**1,830**	**12,220**	**1,36,180**	

Commission's View

3.2.4 The Commission has noted the submission made by the Petitioner regarding existing Transmission lines, No. of Substations & Transformation capacity. The Petitioner has

developed the vast and robust transmission network in the state for reliable and efficient transmission of electricity. The Licensees operates a network of 45447 Ckt kms. of transmission line, 585 sub-stations and 136180 MVA of Transformation Capacity as on 31.3.2020.

3.3 PEAK DEMAND

Petitioner's Submission

3.3.1 During the presentation before the Commission on March 18, 2020 (pre-covid), the Petitioner submitted the year on year Projected Peak Demand (MW) and Energy (MU) to be handled:

TABLE 4: YEAR ON YEAR PROJECTION OF PEAK DEMAND(MW) AND ENERGY (MU) SUBMITTED BY THE PETITIONER

FY	FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24		FY 2024-25	
	Projected	y-o-y % Growth	Projected	y-o-y % Growth	Projected	y-o-y % Growth	Projected	y-o-y % Growth	Projected	y-o-y % Growth
Peak Demand (MW) of the Discoms (as per demand of UPPCL & NPCL)	24,500	***8.89%***	27,000	***10.20%***	28,500	***5.56%***	30,000	***5.26%***	30,792	***2.64%***
UPPTCL's Projections for Energy (MU) to be Delivered to Discoms & Open Access	1,32,746	***4.73%***	1,43,376	***8.01%***	1,53,519	***7.07%***	1,61,741	***5.36%***	1,70,483	***5.40%***
Peak Demand (MW) as per the CEA's 19th EPS dated Jan 2017, Table No. 2.10, Page No. 48	21,948	***7.94%***	23,664	***7.82%***	25,331	***7.04%***	26,658	***5.24%***	28,053	***5.23%***
Energy Requirement (MU) as per the CEA's 19th EPS dated Jan 2017, Table No. 2.6, Page No. 40	1,07,507	***7.98%***	1,15,928	***7.83%***	1,23,921	***6.89%***	1,31,833	***6.38%***	1,40,221	***6.36%***

3.3.2 The Petitioner has submitted that it has projected the peak demand of the Uttar Pradesh for the Control Period based upon the inputs received from the distribution licensees and the same is depicted as below:

Table 5: ESTIMATED PEAK DEMAND SUBMITTED BY THE PETITIONER (MW) (PRE & POST COVID)

Financial Year	FY 2019-20		FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24		FY 2024-25	
	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid
Estimated Peak Demand (MW) Pre & Post Covid	22500	21632	24500	23,800	27000	26,500	28500	28,000	30000	30,000	30792	31,500

3.3.3 Further, the Petitioner has submitted that it has prepared the peak demand projection in consultation with the State Discoms and it is noted that the peak demand projected till FY 2020-21, is increasing due to SAUBHAGYA scheme and after all connections released under SAUBHAGYA are regularized post FY 2021-22, the growth rate of peak demand is expected to slow down in the following years and the peak demand is expected to remain constant.

Commission's view

3.3.4 The Commission has analyzed the trend of peak demand of previous years and has also considered the projection of the peak demand submitted by the Distribution Licensees in their Business Plan Petitions for Control period from FY 2020-21 to FY 2024-25. The comparison of projected peak demand submitted by the Petitioner (Post Covid) and the Distribution Licensees is shown below:

Table 6: COMPARISON OF ESTIMATED PEAK DEMAND B/W DISCOMS & UPPTCL (MW)

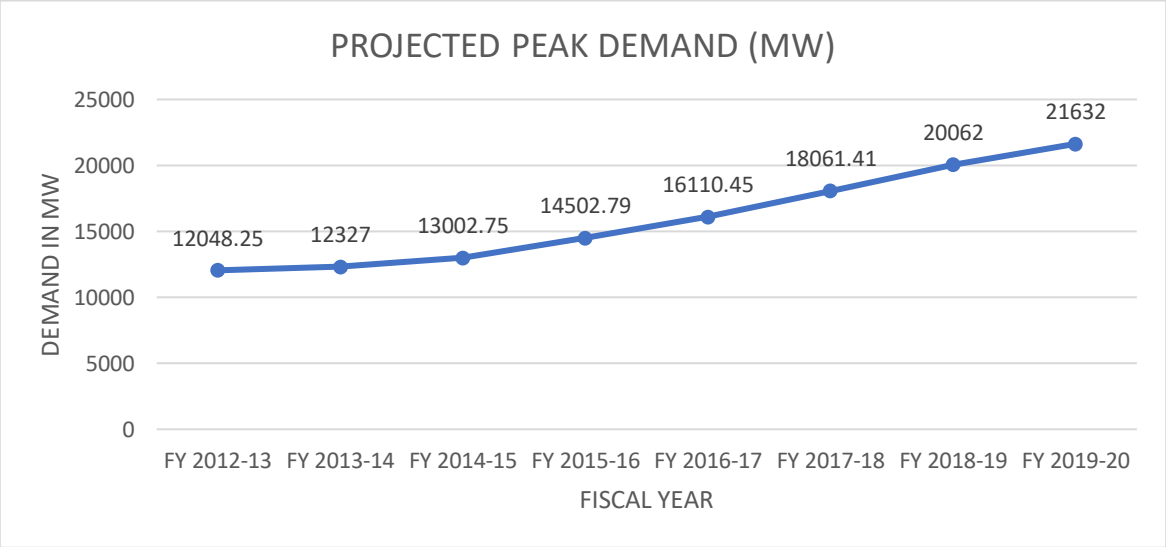
Particulars	State Discoms	NPCL	Total of Discoms in UP	UPPTCL
	(A)	(B)	(C=A+B)	(D)
FY 2020-21	22500	495	22995	23800
FY 2021-22	24500	550	25050	26500
YoY % change	*8.89%*	*11.11%*	*8.94%*	*11.34%*
FY 2022-23*	27000	615	27615	28000
YoY % change	*10.20%*	*11.82%*	*10.24%*	*5.66%*
FY 2023-24	28500	685	29185	30000
YoY % change	*5.56%*	*11.38%*	*5.69%*	*7.14%*
FY 2024-25*	30000	755	30755	31500
YoY % change	*5.26%*	*10.22%*	*5.38%*	*5.00%*

*The year on year growth rate Projection of Peak Demand made by the Discoms is higher than that of UPPTCL for FY 2022-23 and FY 2024-25.

3.3.5 Further, past year trend of Peak Demand of Uttar Pradesh has been given below:

Table 7: PEAK DEMAND OF UPPTCL (MW) FY 2012-13 TO FY 2019-20

Peak Demand (MW)								
Particulars	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**	**FY 2018-19**	**FY 2019-20**
Peak Demand	12048.25	12327.00	13002.75	14502.79	16110.45	18061.41	20062.00	21632.00
YoY increase in %age		2.31%	5.48%	11.54%	11.09%	12.11%	11.08%	7.83%



3.3.6 The Commission has also noted that the actual peak demand met for FY 2020-21 till September 2020 has reached to 23867 MW on September 16th, 2020 at 22:00 hrs and it seems that it may not further rise as based on historical trend, the period during which maximum peak occurs has already surpassed. Therefore, the Commission after considering 23867 MW as peak demand for FY 2020-21 has noted that there is 10.33% rise in peak demand compared to last year`s peak demand of 21632 MW. Further, the Commission has also observed that the CEA in 19th Electric Power Survey, Volume IV dated Aug. 19, 2019 provides for the state-specific model for forecasting Peak Electricity Demand estimate using Regional Seemingly Unrelated Regression (SUR) Model. The SUR Model forecasting provides three scenarios, i.e. Baseline, Optimistic and Pessimistic. The forecasts under Baseline scenario in Table No. A5.11: Forecasted Peak Electricity Demand (SUR Model Baseline) in MW Page No. 138 of the EPS, provides the projections of the peak demand of the Uttar Pradesh as follows:

Table 8: PROJECTED PEAK DEMAND OF UP BY CEA (19th EPS, Volume IV) Baseline Scenario (SUR)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
CEA Projects as per 19th EPS (Vol. IV)	16623	17525	18635	19870	21223	22663	24197	25779	27405
YoY increase in %age		5.43%	6.33%	6.63%	6.81%	6.79%	6.77%	6.54%	6.31%

3.3.7 The Commission has considered the most likely 'Baseline' Scenario projections % peak demand, after considering the actual peak demand for FY 2020-21 and escalating the growth rate projected by the CEA for FY 2021-22 to FY 2024-25 as per above table. The Commission observes that the peak demand reaches 30819 MW by FY 2024-25, whereas the Petitioner has projected the same to be 31500 MW by FY 2024-25. Accordingly, the Commission has computed the peak demand (MW) for the Control Period FY 2021-25 as under:

TABLE 9: PEAK DEMAND (MW) FOR THE CONTROL PERIOD FY 2020-21 TO FY 2024-25

Particulars	FY 2020-21 (Actual)	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Peak Demand (MW)	**23867**	**25486**	**27212**	**28991**	**30819**

3.4 TOTAL TRANSFER CAPABILITY (TTC) AT CTU-STU PERIPHERY & GRID CAPACITY (MW)

Petitioner's Submission

3.4.1 The Petitioner has submitted that in past five years there was an increase of 49% (14,503 MW to 21,632 MW) in peak demand met. The increase in projection towards peak demand met in next five years is around 32% (23,800 MW to 31,500 MW) which is realistic considering the past year trend and addition in base.

3.4.2 Further, there would be around 7636 MW of addition in thermal generation capacity in U.P. up to FY 2024-25 as depicted below:

TABLE 10: YEAR ON YEAR ADDITION IN THERMAL GENERATION CAPACITY IN U.P. (MW) PROPOSED BY PETITIONER

Projects	Plant Capacity (MW)	COD (Expected)	UP Share (MW)
Meja TPS	2x660	Unit-2 - July'2020	512
Tanda II TPS	2x660	Unit-2 - Oct'2020	505

Projects	Plant Capacity (MW)	COD (Expected)	UP Share (MW)
Harduaganj Ext. Stage-II TPS	1x660	Dec'2020	660
Ghatampur TPS	3x660	Unit-1 - Mar'2021	427
		Unit-2 - Oct'2021	427
		Unit-3 - Mar'2022	427
Obra-C TPS	2x660	Unit-1 - Dec'2021	660
		Unit-2 - April'2022	660
Jawaharpur TPS	2x660	Unit-1 - Dec'2021	660
	2x660	Unit-2 - April'2022	660
Panki TPS	1x660	Sep'2022	660
Khurja STPP	2x660	Unit-1 - Nov'2023	198
		Unit-2 - May'2024	198

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Year wise Addition in Generation Capacity (MW)	984	2,103	2,173	1,980	198	198

3.4.3 The Petitioner has submitted that in prevailing scenario the assessment of Total Transfer Capability (herein after referred as "TTC") of Uttar Pradesh control area has been done by Northern Regional Load Dispatch Centre (herein after referred as "NRLDC") based on the existing intra-state network & its connectivity with ISTS network in the state, considering the different intra-state generation scenario, and the same was informed to UPPTCL on May 10, 2019 and May 01, 2020 respectively. The TTC limits are as below:

Table 11: TOTAL TRANSFER CAPABLITY (MW) AS ON MAY 10, 2019

S.No	Generation of UP Control Area (MW)	Total Transfer Capability (MW)	Reliability Margin (MW)	Available Transfer Capability (MW)
1	9000	14100	600	13500
2	9500	13800	600	13200
3	10000	13400	600	12800
4	10500	12850	600	12250
5	10700	12700	600	12100

Table 12: TOTAL TRANSFER CAPABLITY (MW) AS ON MAY 01,2020 (POST COVID)

S.No	Generation of UP Control Area (MW)	Total Transfer Capability (MW)	Reliability Margin (MW)	Available Transfer Capability (MW)
1	9000	14500	600	13900
2	9500	14200	600	13600
3	10000	13900	600	13300
4	10500	13700	600	13100
5	11000	13300	600	12700

3.4.4 Further, the Petitioner has projected the TTC based on the Peak Demand projections, planned transmission network and intra-state generation addition for the control period as under:

Table 13: TOTAL TRANSFER CAPABLITY (MW) PROJECTIONS FOR MYT CONTROL PERIOD BY THE PETITIONER (PRE COVID)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Estimated Peak Demand (MW)	22500	24500	27000	28500	30000	30792
Internal Generation Availability (MW)	10500	12000	16800	17000	17000	17000
TTC (Import Capability) (MW)	12850	13500	14000	14000	15000	16000
Transmission Capacity (MW)	24000	25500	30300	31000	32000	33000

Table 14: REVISED TOTAL TRANSFER CAPABLITY (MW) PROJECTIONS FOR MYT CONTROL PERIOD BY THE PETITIONER (POST COVID)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Estimated Peak Demand (MW)	23,800	26,500	28,000	30,000	31,500
Internal Generation Availability (MW)	12,000	14,000	16,000	16,200	16,400
TTC (Import Capability) (MW)	13,500	14,000	14,000	15,000	16,000
Transmission Capacity (MW)	25,500	28,000	30,000	31,200	32,400

Commission's View

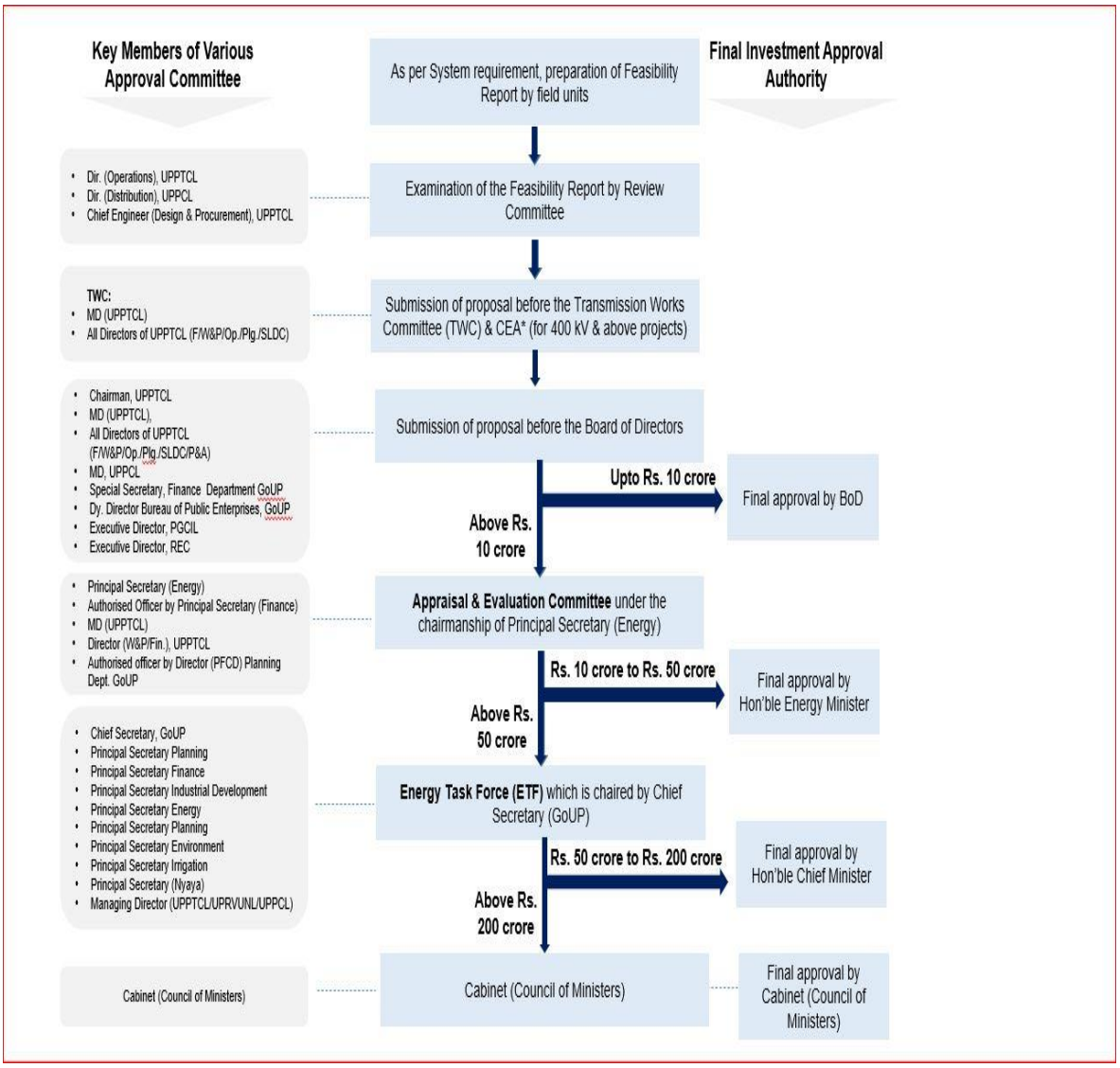
3.4.5 The Commission has noted the projections of the Total Transfer Capability (TTC) by the Petitioner. The Petitioner has to plan its Transmission system infrastructure and capacity, taking into consideration the total Peak Demand of the system Users, internal generation availability, evacuation plan of upcoming power plants including RE, energy to be wheeled through the system both within & outside the State and various other factors like renewable / other generation, etc.

3.5 CAPITAL EXPENDITURE PLAN

Petitioner's Submissions

3.5.1 The Petitioner has submitted that it is under the process of strengthening its Transmission System (132 kV & above) to meet the load growth requirement of the state & also for evacuation of power of various generators i.e. Conventional Energy and Non-Conventional Energy. The outlay in the current year is mostly against ongoing works considering physical progress of those schemes. For the new schemes pre-project activities are initiated like feasibility study, financial sanction from Transmission Works Committee (TWC), Board of Directors (BOD) and Energy Task Force (ETF). The Petitioner has submitted that the tenders are floated for certain work and evaluated based on the financial sanction and the work orders are placed for project executions. Accordingly, on commencement of project execution, schemes are shifted from the database of new schemes to ongoing schemes during a quarterly project review. The Process Flow for approval of Transmission Projects & Capital Expenditure of the Petitioner is as under:

The Process Flow for approval of Transmission Projects & Capital Expenditure of the Petitioner



**All 400 kV and above projects are also examined in the Standing Committee of Northern Region Power System Planning, CEA which comprises of members of all stakeholders and consented subsequently by NRPC*

PROPOSED TRANSMISSION INFRASTRUCTURE DETAILS FOR THE MYT CONTROL PERIOD:

3.5.2 The Petitioner has submitted that the details of the transmission works are approved by the Board of the Directors and the Minutes of Transmission Works Committee (TWC) has been submitted to the Commission which provide the details of the approval. These Minutes contain the details regarding requirement of the project based on the

anticipated demand projection of specific region, evacuation and/or other system strengthening.

3.5.3 The following table summarizes the proposed physical targets (Pre and Post Covid) for the MYT Period (FY 2020-21 to 2024-25) submitted by the Petitioner:

Table 15: DETAILS OF LINE LENGTH (CKM) PROPOSED BY THE PETITIONER (PRE & POST COVID))

Line Length (Ckt. km)										
Voltage Level	FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24		FY 2024-25	
	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid
132 kV	27,551	27,310	29,449	29,565	29,996	31,189	30,467	31,912	31,013	32,756
220 kV	16,201	14,754	18,683	18,234	19,146	19,461	19,838	20,128	20,388	20,591
400 kV	8,078	7,765	8,909	9,103	9,244	9,557	9,694	10,057	10,104	10,317
765 kV	1,085	1,942	1,305	2,312	1,490	2,607	1,705	2,822	1,705	2,822
Total	**52,915**	**51,771**	**58,346**	**59,213**	**59,876**	**62,813**	**61,704**	**64,919**	**63,210**	**66,487**

3.5.4 Thus, the Table above shows that in the year 2024-25, the shares of 132 KV, 220 KV, 400 KV & 765 KV will increase from 52.75 %, 28.50 %, 15.00 % & 3.75 % respectively in 2020-21 to 49.27 %, 30.97 %, 15.52 % & 4.24 % respectively in 2024-25. This shows an increased share of 400KV & 765KV transmission line and therefore will contribute to transmission loss reduction.

Table 16: DETAILS OF SUB-STATION (S/S) PROPOSED BY THE PETITIONER (PRE & POST COVID))

Number of Substation (S/s)										
Voltage Level	FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24		FY 2024-25	
	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid
132 kV	463	455	495	473	511	495	518	507	533	524
220 kV	162	141	179	167	189	183	199	193	208	202
400 kV	31	29	35	35	40	38	41	39	45	41
765 kV	2	2	4	4	5	5	6	6	6	6
Total*	**658**	**627**	**713**	**679**	**745**	**721**	**764**	**745**	**792**	**773**

Table 17: DETAILS OF TRANSFORMATION CAPACITY (MVA) PROPOSED BY THE PETITIONER (PRE & POST COVID)

Transformation Capacity (MVA)										
Voltage Level	FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24		FY 2024-25	
	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid
132 kV	57,816	56,994	61,425	59,886	64,630	63,852	66,630	66,720	69,339	69,589

Transformation Capacity (MVA)										
Voltage Level	FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24		FY 2024-25	
	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid
220 kV	55,750	52,740	63,865	63,529	68,181	69,205	72,381	74,185	76,501	78,045
400 kV	27,790	28,250	35,812	38,562	40,782	41,512	42,997	43,402	44,997	45,722
765 kV	7,500	7,500	13,500	13,500	16,000	18,000	20,160	20,820	20,820	20,820
Total	**148,856**	**145,484**	**174,602**	**175,477**	**189,593**	**192,569**	**202,168**	**205,127**	**211,657**	**214,176**

3.5.5 Thus, the Table above shows that in the year 2024-25, the shares of 132KV, 220KV, 400KV & 765 KV will increase from 39.18 %, 36.25 %, 19.42 % & 5.16 % respectively in 2020-21 to 32.49 %, 36.44 %, 21.35 % & 49.72 % respectively in 2024-25. This shows an increased share of 400 KV & 765 KV transformation capacity (MVA) and therefore will contribute to transmission loss reduction.

3.5.6 The Petitioner has submitted that the above network is planned to meet the projected demand of 31500 MW upto FY 2024-25. The Petitioner in the submission has stated that the 220 kV, 132 kV substations are mainly for transmission–distribution interface points. Since these substations are connected to Discoms substations at the downstream, hence the purpose of constructions of these substations is load specific.

3.5.7 The Petitioner in its forecast describes that the 132 kV, 220 kV Substations are planned in the initial stage of five-year planning period on the basis of forecast of demand by Discoms. However, final approval and construction of these substations will be carried out only after 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.

3.5.8 Petitioner has further submitted that 765 kV, 400 kV (lines and bays) works planned in the initial stage of five-year planning period are mainly on account of extension of transmission network, system strengthening or to transmit power upto load centers and evacuation of power from large generating projects. The details of schemes / projects along with the brief justification submitted by the Petitioner are attached as 'Annexure A' to the order.

3.5.9 The scheme wise details are submitted as under:

A. <u>EVACUATION SYSTEM FOR UPCOMING THERMAL STATIONS:</u>

3.5.10 The Petitioner has submitted the details pertaining to the Evacuation system of the Upcoming Thermal Stations:

Table 18: EVACUATION SYSTEM FOR THE UPCOMING THERMAL STATIONS

S. No.	Name of the Project	Name of the Developer	Capacity Addition in MW	Total Capacity Addition in MW
1	Obra C TPS	UPRVUNL	2x660	1320
2	Ghatampur TPS	UPRVUNL & NLC	3x660	1275 (Share of U.P. is 64.39 % of Installed Capacity)
3	Harduagnaj Ext. TPS	UPRVUNL	1x660	660
4	Panki Extension	UPRVUNL	1x660	660
5	Jawaharpur TPS	UPRVUNL	2x660	1320
6	Khurja STPP	NHDC	2x660	1320 MW (Share of U.P. is 60%)

3.5.11 The further details of Evacuation System for each of the above mentioned Upcoming Thermal stations as submitted by the Petitioner is as under:

1. Obra C TPS:

Table 19: OBRA-C (2X660 MW) POWER EVACUATION SYSTEM:

Name of the Project	Evacuation System
Obra C TPS	1. LILO of 765 KV Anpara 'D' – Unnao SC line- (15 km.)
	2. 400 KV DC Jaunpur – Obra line (upto 1 Ckt. LILO point of Obra 'B' – Obra 'C' 400 KV DC line) (190 km.)
	3. (Obra C- Obra D DC line (1.5 km.) also, to be used for start-up power

a) 400 KV DC JAUNPUR – OBRA LINE:

Evacuation of Obra-C TPS at 400/220/132 kV Jaunpur substation has been planned in co-ordination for removal of overloading at 400 kV Azamgargh and Varanasi existing substations as these substations are highly loaded in peak load conditions.

b) LILO OF 765 KV ANPARA 'D' – UNNAO SC LINE:

In order to comply with CEA planning criteria of N-1 contingency, LILO of 765 KV Anpara 'D' – Unnao SC line at Obra –C has been planned for optimum utilisation of the existing transmission system for evacuation system. Anpara D – Unnao 765 kV line also evacuate power from 2X500 MW Anpara D.

2. GHATAMPUR (3X660 MW) POWER EVACUATION SYSTEM:

Table 20: GHATAMPUR (3X660 MW) POWER EVACUATION SYSTEM

Name of the Project	Evacuation System
Ghatampur TPS	1.Ghatampur TPS – Agra UP 765 S/C Line-240 km (with line reactors of 189 MVAR at both ends)

Name of the Project	Evacuation System
	2.Agra (U.P.)-Greater Noida (U.P.) 765 KV S/C Line-200 km (with line reactors of 240 MVAR at Agra end)
	3.Ghatampur TPS – Hapur 765 KV S/C Line-400 Km (with line reactors of 330 MVAR at both ends)
	4.Ghatampur TPS – Kanpur (PG) 400 KV DC Line – 60 Km.
	5.21/765 KV Generator Transformer, 2x1500 MVA, 765/400 KV & 3x200 MVA, 400/132 KV ICT at Ghatampur TPS
	6.Connectivity at 132 KV from plant to nearby UPPTCL substation

3. HARDUAGANJ EXT. TPS (1X660 MW) POWER EVACUATION SYSTEM:

Table 21: HARDUAGANJ EXT. TPS (1X660 MW) POWER EVACUATION SYSTEM

Name of the Project	Evacuation System
Harduaganj Ext. TPS	1.LILO of one ckt. Of Aligarh-Sikandrabad 400 KV DC Line (Isolux Line) at Harduaganj TPS – 25 Km
	2.400/220 KV, 2x315 MVA ICT at Harduaganj Ext.

4. PANKI EXTENSION TPS (1X660 MW) POWER EVACUATION SYSTEM:

Table 22: PANKI EXTENSION TPS (1X660 MW) POWER EVACUATION SYSTEM

Name of the Project	Evacuation System
Panki TPS	1.Panki TPS – Panki 400 KV DC Line – 3 Km

5. JAWAHARPUR TPS (2X660 MW) POWER EVACUATION SYSTEM:

Table 23: JAWAHARPUR TPS (2X660 MW) POWER EVACUATION SYSTEM

Name of the Project	Evacuation System
Jawaharpur TPS	1. LILO of 765 KV Mainpuri – Greater Noida SC (WUPPTCL) Line (15Km.)
	2. 400 KV Jawaharpur – Firozabad DC Quad Line (80 Km.)
	3. 400 KV Substation Firozabad (2x500+2x160 MVA)
	Downstream network
	1. LILO of 220 KV Firozabad (220 KV)– Agra (765 KV) line at 400 KV Firozabad (20 Km.)
	2. LILO of 132 KV Atmadpur – Barhan SC line at
	400 KV Firozabad (35 Km.)
	3. 132 KV Firozabad (400 KV) – Narkhi DC line (30 Km.)

a) 400 KV JAWAHARPUR – FIROZABAD DC LINE

Evacuation Jawaharpur TPS at 400/220/132 kV Firozabad substation has been planned in co-ordination with strengthening of existing network in area of Agra, Firozabad and surrounding due to increasing demand upto 2022.

b) LILO OF 765 KV MAINPURI – GREATER NOIDA SC (WUPPTCL) LINE

In order to comply with CEA planning criteria of N-1 contingency, LILO of 765 KV Mainpuri – Greater Noida SC Line at Jawaharpur has been planned to optimize the existing transmission system.

6. KHURJA STPP (2X660 MW) POWER EVACUATION SYSTEM:

Table 24: KHURJA STPP (2X660 MW) POWER EVACUATION SYSTEM

Name of the Project	Evacuation System
Khurja STPP	1. LILO of 1 ckt. of U/c 400 KV Aligarh – Shamli DC Line at Khurja STPP*
	2. LILO of 220 KV Hathras – Khair SC Line at Khurja TPS
	3. 220 KV Anoopsahar - khurja TPS DC Line

**Line is tentative and to be finalised with Load Flow Study with CEA*

B. TRANSMISSION WORKS UNDER GREEN ENERGY CORRIDOR – II:

3.5.12 The Petitioner has submitted that the Solar power Evacuation System is planned to be executed in four phases each of 1000 MW under the Green Energy Corridor scheme. The total estimated cost worked out by CEA for the planned transmission system is Rs. 5011.47 Cr. (including IDC).

3.5.13 The Petitioner has submitted that it has carried out the exercise for standardization of rates for various works to be carried out as turnkey/non turnkey projects and schedule of rates w.e.f. April 2017 has been approved by CEA.

a) SOLAR POWER EVACUATION SYSTEM-4000 MW (UNDER GEC-II IN BUNDELKHAND REGION):

Solar power evacuation system is planned in four phases each of 1000 MW as under mentioned:

Table 25: SOLAR POWER EVACUATION SYSTEM-4000 MW (Ist PHASE 1000 MW SOLAR POWER)

Name of the Project	Evacuation System
Ist Phase 1000 MW Solar Power	**220/132/33 kV, 2x160+2x40 MVA Rampura (Jalaun)**
	220 kV SC line Rampura-Sikandra (220)- 30 Kms.
	220/132/32 kV, 2x160+2x40 MVA Talbahat (Lalitpur)

Name of the Project	Evacuation System
	220 kV DC line Talbahat (Lalitpur)-Babina (Jhansi)U/C- 40 Kms.
	220/132/33 kV, 2x160+1x40 MVA Birdha (Lalitpur)
	220 kV SC line Birdha (Lalitpur)-Lalitpur (220)- 35 Kms.
	220/132/33 kV, 2x160+2x40 MVA Mandavra (Lalitpur)
	220 kV SC line Mandavra (Lalitpur)-Lalitpur (220) - 50 Kms.
	220kV bays at Sikandra (1 nos), Babina (1 nos) & Lalitpur 220kV (2 nos) S/s of UPPTCL
	132/33 kV, 2x40 MVA Kadaura (Jalaun)
	132 kV SC line Kadaura-Hamirpur (Patara) - 35 Kms.
	132/33 kV, 2x40 MVA Kuthond (Jalaun)
	132 kV SC line Kuthond (Jalaun)-Madhogarh - 25 Kms.
	132/33 kV, 2x40 MVA Kurara (Hamirpur)
	132 kV SC line Kurara (Hamirpur)-Bharua Sumerpur- 32 Kms.
	132/33 kV, 2x40 MVA Gohand (Hamirpur)
	132 kV SC line Gohand (Hamirpur)-Bharua Sumerpur- 50 Kms.
	132/33 kV, 2x40 MVA Moth-II (Garotha)New (Jhansi)
	132 kV SC line Moth II(New) Jhansi-Moth existing (Jhansi) - 10 Kms.
	132/33 kV, 2x40 MVA Barokh Khurd (Banda)
	132 kV SC line Barokh Khurd (Banda)-Banda (400) - 25 Kms.
	Creation of 132 kV voltage level at Banda 400/220 kV (Installation of 220/132kV 2x160 MVA ICT at Banda 400kV S/S)

Table 26: SOLAR POWER EVACUATION SYSTEM-4000 MW (IInd PHASE 1000 MW SOLAR POWER)

Name of the Project	Evacuation System
IInd Phase 1000 MW Solar Power	**400/220/132, 2x500+2x160 MVA Maheba (Jalaun) with 125 MVAR Bus Reactor**
	LILO of one ckt Banda (400)-Orai (400) 400kV DC line at Maheba (Jalaun) - 25 Kms
	200/132 kV, 2x160 MVA Sarila (Hamirpur)
	220 kV DC line Sarila (Hamirpur)-Maheba (Jalaun)- 104 Kms. (Twin Moose)
	220/132/33 kV, 1x160+1x40 MVA Dakaur (Jalaun)
	220 kV DC line Dakaur-Maheba (400) - 35 Kms.
	220/132/33 kV, 1x160+1x40 MVA Panwari (Mahoba)
	220 kV SC line Panwari (Mahoba)-Sarila (Hamirpur)- 40 Kms.
	132/33 kV, 2x40 MVA Muskara (Hamirpur)
	132 kV SC line Muskara (Hamirpur)-Sarila (Hamirpur) - 15 Kms.
	Talbhat

Table 27: SOLAR POWER EVACUATION SYSTEM-4000 MW (IIIrd PHASE 1000 MW SOLAR POWER)

Name of the Project	Evacuation System
IIIrd Phase 1000 MW Solar Power	**765/400/220, 2x1500+3x500 MVA Gurusarai (Jhansi) with 125 MVAR Bus Reactor at 400kV and 330 MVAR Bus Reactor at 765kV**

Name of the Project	Evacuation System
	765 kV SC line Gurusarai (Jhansi)-Mainpuri - 185 Kms.
	Construction of one 765kV Bay at Mainpuri (765) S/S
	400 kV DC line Gurusarai-Orai PG(Quad) - 100 Kms
	400/220/132 kV, 2x500+2x160 MVA Farrukhabad with 1x125 MVAR Bus Reactor
	400 kV DC line Maheba (Jalaun)-Farrukhabad - 140 Kms.
	400 kV DC line Farrukhabad-Badaun - 95 Kms.
	220 kV DC line Farrukhabad (400)-Neebkarori- 50 Kms.
	220 kV DC line Farrukhabad (400)-Etah (220)- 90 Kms.
	220/132 kV, 1x160 MVA Charkhari (Mahoba)
	220 kV DC line Charkhari (Mahoba)-Gurasarai (Jhansi) -80 Kms. (Twin Moose)
	220/132/33, 2x160+2x40 MVA Bamaur (Jhansi)
	220 kV SC line Bamaur (Jhansi)-Gurusarai (Jhansi) -12 Kms.
	220/132/33 kV, 2x160+2x40 MVA Bangra (Jhansi)
	220 kV SC line Bangra (Jhansi)-Gurusarai (Jhansi) - 15 Kms.
	220/132/33 kV, 1x160+1x40 MVA Kabrai (Mahoba)
	220 kV SC line Kabrai (Mahoba)-Charkhari (Mahoba)- 26 Kms.

Table 28: SOLAR POWER EVACUATION SYSTEM-4000 MW (IVth PHASE 1000 MW SOLAR POWER)

Name of the Project	Evacuation System
IVth Phase 1000 MW Solar Power	**765/400/220/132 kV, 1x1500+2x500+2x160 MVA Jakhora (Lalitpur) with 125 MVAR Bus Reactor at 400kV & 330 MVAR Bus Reactor at 765kV**
	765 kV SC line Jakhora (Lalitpur)-Gurusarai (Jhansi) -115 Kms
	220 kV DC HTLS line Jakhora (Lalitpur)-Lalitpur TPS 50 Kms.
	LILO of one ckt of 765kV Lalitpur TPS - Agra DC line at Jakhora S/S - 2x50 km
	Shifting of Lalitpur TPS - Agra (765) line reactor 330 MVAR at Jakhora (765) end after LILO of Lalitpur TPS - Agra (765) at Jakhora (765)
	220kV Bays at Lalitpur TPS-02 no.
	220/132/33 kV, 2x160+2x40 MVA Baragaon (Jhansi)
	220 kV SC line Baragaon (Jhansi)-Gurusarai (Jhansi) -50 Kms.
	220/132/33 kV, 2x160+2x40 MVA Jaitpur (Mahoba)
	220 kV SC line Jaitpur (Mahoba)-Charkhari (Mahoba) -22 Kms.
	132/33 kV, 2x40 MVA Mehrauni (Lalitpur)
	132 kV DC line Mehrauni (Lalitpur)-Jakhora (Lalitpur)- 45 Kms.
	132/33 kV, 2x40 MVA Bar (Lalitpur)
	132 kV DC line Bar (Lalitpur)-Jakhora (Lalitpur) - 26 Kms.
	Talbhat

3.5.14 The Petitioner has submitted the details of year wise addition of substations and transmission lines at various voltage levels under Green Energy Corridor-II (GEC-II) scheme. The same is shown below:

TABLE 29: YEAR WISE SUMMARY OF NUMBER OF SUBSTATIONS PLANNED UNDER GEC-II SCHEME (PRE COVID)

Voltage Level	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total
765 kV	0	0	1	1	0	2
400 kV	0	1	1	0	0	2
220 kV	4	3	4	2	0	13
132 kV	6	1	0	2	0	9
Total	**10**	**5**	**6**	**5**	**0**	**26**

Table 30: REVISED YEAR WISE SUMMARY OF NUMBER OF SUBSTATIONS PLANNED UNDER GEC-II SCHEME (POST COVID)

Voltage Level	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total
132 kV	-	8	-	2	0	10
220 kV	-	7	4	2	0	13
400 kV	-	1	1	-	0	2
765 kV	-	-	1	1	0	2
Total	**-**	**16**	**6**	**5**	**0**	**27**

TABLE 31: YEAR WISE SUMMARY OF TRANSMISSION LINES (CKM.) PLANNED UNDER GEC-II SCHEME (PRE COVID)

Voltage Level	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total
765 kV	0	0	185	215	0	400
400 kV	0	25	335	0	0	360
220 kV	155	179	273	122	0	729
132 kV	177	15	0	71	0	263
Total	**332**	**219**	**793**	**408**	**0**	**1752**

Table 32: REVISED YEAR WISE SUMMARY OF TRANSMISSION LINES (CKM.) PLANNED UNDER GEC-II SCHEME (POST COVID)

Voltage Level	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total
132 kV	-	192	-	71	0	263
220 kV	-	334	273	122	0	729
400 kV	-	25	335	-	0	360
765 kV	-	-	185	215	0	400
Total	**-**	**551**	**793**	**408**	**0**	**1,752**

3.5.15 The fund requirement of GEC-II for meeting the estimated capital investment (including IDC) is proposed to be met through the following sources:

- MNRE Grant – 40%
- Loan – 40%
- Equity (UPPTCL own resources/State Government equity infusion) – 20%

3.6 CAPITAL INVESTMENT & FINANCING PLAN

3.6.1 The details of the Capital Expenditure from FY 2015-16 to FY 2019-20 submitted by the Petitioner are as under:

Table 33: CAPITAL EXPENDITURE DETAILS FROM FY 2015-16 TO FY 2019-20

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
	Trued Up	Trued Up	True Up (claimed)	True Up (claimed)	APR (claimed)
Capital Expenditure	2759.68	3942.81	2460.74	2571.03	4184.76

3.6.2 The Petitioner has submitted the summary of the CAPEX Plan for FY 2020-21 to FY 2024-25 as under:

Table 34: CAPITAL EXPENDITURE PLAN FOR MYT CONTROL PERIOD (Rs. Crore) (PRE & POST COVID)

S.No	Capex	FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24		FY 2024-25	
		Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid	Pre Covid	Post Covid
1	New/Ongoing Projects	5410	3,436	4457	4,351	2490	4,214	1551	1,734	1457	1,621
2	Green Energy Corridor II (Solar Power)	414	335	848	1,476	1520	1,584	1096	1,007	1133	610
3	Augmentation	598	594	268	225	449	377	398	388	246	360
4	System Strengthening (Line & Bays)	294	359	875	264	110	250	135	300	175	350
5	Addition of Capacitor/Reactor	70	87	75	75	30	100	30	100	30	100
6	**Total**	**6785**	**4,810**	**6523**	**6,393**	**4599**	**6,525**	**3211**	**3,529**	**3041**	**3,041**
7	**Through Tariff Based Competitive Bidding (TBCB)**	**3201**	**2,952**	**2328**	**3,317**	**0**	**0**	**0**	**0**	**0**	**0**

3.6.3 The Petitioner has submitted that the Capital Investment will be funded through grants, equity & debt and respective breakup of funding for the Control Period is as under:

Table 35: FINANCING OF CAPITAL INVESTMENT FOR MYT CONTROL PERIOD (Rs. Crore) (PRE COVID)

S.No	Financing	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Grant	0	166	339	608	439	453
2	Consumer Contribution/Deposit Works	230	251	158	34	0	0
3	Debt	3,453	4,458	4,218	2,770	1,940	1,812
4	Equity	1,480	1,910	1,808	1,187	832	776

S.No	Financing	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
5	**Total Investment**	**5,163**	**6,785**	**6,523**	**4,599**	**3,211**	**3,041**

Table 36: REVISED FINANCING OF CAPITAL INVESTMENT FOR MYT CONTROL PERIOD (Rs. Crore) (POST COVID)

S.No	Financing	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
1	Grant	134	591	633	403	244
2	Consumer Contribution/Deposit Works	236	281	94	0	0
3	Debt	3,108	3,865	4,058	2,188	1,958
4	Equity	1,332	1,656	1,739	938	839
5	**Total Investment**	**4,810**	**6,393**	**6,525**	**3,529**	**3,041**

3.6.4 The Petitioner has submitted that the capital expenditure during the Control Period would be funded through a debt equity mix of 70:30 after deduction of grant and consumer contribution received. The debt of 70% would be arranged from financial institution such as PFC, REC etc. The counterpart equity funding would be provided by GoUP through budgetary resources.

Commission's View

3.6.5 The Regulation 32 of the MYT Distribution & Transmission Regulations, 2019 specifies as under:

Quote

32 Capital Investment Plan

32.1 The Transmission Licensee shall submit a detailed capital investment plan, financing plan and physical targets for each year of the Control Period for strengthening and augmentation of the Intra-State Transmission System of the Transmission Licensee, meeting the requirement of load growth, improvement in quality of supply, reliability, metering, reduction in congestion, etc., to the Commission for approval:

Provided that in case of non- submission of the Capital Investment Plan by the Transmission Licensee for a year of the Control Period, the Commission may disallow the Capital expenditure for that year.

32.2 The Capital Investment Plan shall be a least cost plan for undertaking investments. However, all capital expenditure projects of 220 kV and above and other capital expenditure of value exceeding Rs. Twenty Crore, must have prior approval of the Commission on quarterly basis, and will be subject to prudence check.

Unquote

3.6.6 The Commission observed that as per the above Regulations, the Petitioner was required to submit the various details of the Capital Investment for the approval of the Commission. However, the Commission based upon the submission of the Petitioner has found various deficiencies in the business plan and the response on the queries has been sought from the Petitioner vide letter / email dated May 13, 2020. The details as sought from the Petitioner were as follows:

Quote

1) *Details about the transmission capacity addition methodology and demand estimation methodology and their relationship etc.*
2) *The Petitioner shall segregate the identified projects Zone wise, year wise & Project (scheme) wise capex plan along with tentative cost under the following categories:*

- *In order to meet the requirement of load growth.*
- *Refurbishment and replacement of equipment.*
- *Reduction in transmission losses.*
- *Improvement of voltage profile.*
- *Improvement in quality of supply.*
- *System reliability.*
- *Metering.*
- *Communication and computerisation.*
- *Any other category (please specify)*

3) *Provide the monthly and annual data of Load Duration Curve, Peak Demand, Base Demand, Hours of Peak Demand in a year along with respective Time Slots and Energy Handled (MU) from 2008-09 to FY 2019-20 and forecast the same vis-a-vis justifying the capex addition for business plan period.*

4) *Provide the normative / average construction time required (in months) for construction of various projects for e.g. Transmission Sub-Stations, lines (765 kV, 400 kV, 220 kV, 132kV) etc.*

5) *Allocation of Transmission Capacity and energy wheeled to the Transmission System Users from 2008-09 to FY 2019-20.*

6) *UPPTCL to provide project wise details of SCOD and expected COD of each generating plant and the associated evacuation transmission system, with details of delay (time & cost overrun) and justifications for the same.*

7) *The details of tariff and projected energy in MUs to be wheeled through TBCB projects and its impact on transmission tariff.*

8) *The details of old and new projects and schemes along with the justifications of on-going projects (of previous control period) that may spill over into the new Control Period.*

9) *Necessity for the scheme -*

- *Whether the proposed capital investment is necessary to set up the infrastructure to meet normal load growth or to reach new consumers or for increasing administrative efficiency?*
- *Whether equipment proposed to be replaced are operating close to their rated capacities and equipment are required to reduce the load on the existing equipment to prolong its life, to increase the reliability of the system and to facilitate the creation of back up facility during scheduled maintenance operation?*
- *Whether it meets at least the near future demand growth projections?*
- *Whether the scheme fits into overall system planning study for Uttar Pradesh? The details thereof.*

10) *Technical justification -*

- *The single line diagram for the proposed projects duly differentiating the existing schemes vis-à-vis the newly proposed schemes?*
- *Whether the projects meet design & planning criteria with the prevailing norms and standards?*
- *Whether the replacement of old equipment is necessary and, if so, whether the existing equipment has outlived its normal life span?*

- *Whether the proposed investment would improve the reliability of supply? (The reasons for procurement with justification must be given.)*
- *Whether the investment is necessary for reduction in transmission losses?*
- *Present transmission capacity, zone wise along with details of load centres, capacity utilization factor, line loading, energy wheeled and Transmission System Availability. Also submit the year-wise projections of 5 years control period.*

11) *Alternatives -*

- *Whether other alternative schemes have been considered? (If so, the basis on which the proposed scheme has been selected out of several alternatives considered by the licensees will have to be mentioned.)*
- *Whether the proposed investment would result in duplication of existing infrastructure? (if the cost of investment is supposed to be borne by some other agency, then it should be clearly mentioned.*
- *Whether proposed investment includes repairs of various grid stations and buildings, sub stations? (The expenses of repairs are already provided for in the O&M expenses and, therefore, justification for claiming these expenses under capital investment must be clearly brought out.)*

12) *The Licensee has proposed to take the Return on Equity at 2% in the Business Plan. Hence the licensee shall submit an undertaking / commitment that they will not claim more than 2% return on equity for entire life of such assets and ensure detailed & transparent accounting in this regard.*

13) *The Commission vide its Letter dated February 20, 2019, had directed the UPPTCL to carry all new transmission works, where investment exceeds Rs.100 Crore, through competitive bidding only. Therefore, the Licensee to submit the status report and clarify whether the proposed projects in business plan are / will be in accordance with the direction of the Commission.*

14) *The Commission also sought the Petitioner to submit the Detailed Capex Cost Benefit Analysis for all the project along with following queries:*

15) *Whether cost benefit analysis has been considered and the least cost option has been selected? (The details of cost benefit analysis must be given. The basis for estimated cost shall be mentioned and such estimated cost shall be used as a baseline for competitive bidding.)*

16) *What is the Pay-back period of the proposed investment?*

17) *Whether recurring cost associated with the projects are reasonable?*

Unquote

3.6.7 The Petitioner has submitted only a list of projects for the Control Period FY 2020-21 to FY 2024-25 with year of commissioning along with a brief justification of the same. However, the Petitioner has neither submitted the details asked by the Commission in the above query nor it has formally approached the Commission for approval of any scheme separately as per the provisions of the Regulation. The process of approval followed by UPPTCL as shown in para 3.5.1 only relates to their internal process regarding release of government finances and does not includes the UPERC (Multi Year Transmission Tariff) regulation 2019. It appears there are vested interest in the UPPTCL who do not disclose full facts before the authorities and get the projects cleared from their Board/ State Government based of reasons other than techno-economic factors under regulatory prudence. In order to safeguard the consumers from bearing any unjust and unfair transmission charges, any investment approval by the Commission will be allowed only after examining the technical & financial viability in terms of the Regulations outlined above. The Commission directs the Petitioner to ensure timely submission of each scheme / project and obtain prior approval of the Commission as per Clause 32.2 of the UPERC MYT Regulations 2019. Failure to do so will result in disallowance of such investment as a regulatory expenditure in ARR for tariff purposes.

3.6.8 The Commission has also observed that the Transformation Capacity (MVA) projected by the Petitioner is very high in comparison to the Peak Demand (MW) projections. This implies that the sub-stations have either not been properly located near the load centers or have not been designed for appropriate capacity thereby causing lower utilization. Any further investment for increasing the Transformation Capacity (MVA) needs to be critically examined and explained in relation to the growth of peak load / demand of the area it intends to cater to.

3.6.9 Further, the Commission has compared the Transformation Capacity (MVA) to Peak Demand (MW) ratio of the petitioner with CPSU & other State Transmission Licensee's and found the following:

State	Peak Demand (MW)	Transformation Capacity (MVA)	Ratio (MVA/MW)
PGCIL	182533	4,19,815	2.30
Maharashtra (FY 2019-20)	24962	1,28,015	5.13
Delhi (FY 2019-20)	6526	20,026	3.07
Madhya Pradesh (FY 2019-20)	14555	65,171	4.48
UPPTCL (FY 2019-20)	**21632**	**1,22,130**	**5.65**
UPPTCL (proposed for FY 2020-21)	23867	1,45,484	6.10
UPPTCL (proposed for FY 2024-25)	**31500**	**2,14,176**	**6.80**

3.6.10 From the above table, it can be observed that UPPTCL`s current Transformation Capacity (MVA) to Peak Demand (MW) ratio is much higher than other Transmission Licensees, including PGCIL which has a healthy ratio of around 2.3 only. Further, the ratio is increasing from 5.65 in FY 2019-20 to 6.80 in FY 2024-25 reflecting unhealthy investment trends and imprudent Capital Investment plans of the Petitioner. The Commission is of the view that the Capital expenditure plan indicated by the Petitioner needs strict prudence check besides techno-economic scrutiny as per the provisions of the MYT Regulations 2019

3.6.11 Accordingly, in absence of detailed investment proposal under the Regulations, the incomplete capital expenditure plan cannot be approved as a part of this business plan. The Commission directs the Petitioner to submit the capital investment schemes / projects along with their techno-economic details and obtain prior approval of this Commission as per the Regulations, failing which such expenditure may not be included in the ARR. Further, the Commission also directs the Petitioner UPPTCL to implement its all new transmission schemes/ projects through Tariff Based Competitive Bidding (TBCB)/ Competitive Bidding only.

3.7 TRANSMISSION LOSSES

Petitioner's Submission

3.7.1 The Petitioner has submitted that the Commission has approved intra-State transmission losses of 3.56% vide Tariff Order for FY 2019-20 dated August 27, 2019.

3.7.2 Further, the Petitioner has claimed that the intra-State transmission loss level over the past few years have reduced from 4% to the range of 3.5% to 3.6%.

3.7.3 The Regulation 38 of the MYT Distribution & Transmission Regulations, 2019 MYT Regulations, 2019 states that the energy losses in the Intra-State Transmission System, as determined by the State Load Dispatch Centre and approved by the Commission, shall be borne by the Transmission System Users in proportion to their usage of the Intra-State Transmission System.

3.7.4 The intra-State transmission losses claimed for FY 2017-18 to FY 2019-20 and proposed for FY 2020-21 to FY 2024-25 by the Petitioner is shown in the table below:

Table 37: INTRA-STATE TRANSMISSION LOSSES (%) FOR FY 2017-18 TO FY 2024-25 BY THE PETITIONER (PRE COVID)

Particulars/Year	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
	ACTUAL	ACTUAL	PROVISIONAL	PROJECTED				
Intra-State Transmission Loss (%)	3.56%	3.56%	3.53%	3.50%	3.45%	3.40%	3.35%	3.30%

3.7.5 Further, the Petitioner submitted the revised loss trajectory proposed for FY 2020-21 to FY 2024-25, considering the actual loss for FY 2019-20 and impact of Covid-19 pandemic on its capital expenditure plan as shown in the table given below:

Table 38: INTRA-STATE TRANSMISSION LOSSES (%) FOR FY 2017-18 TO FY 2024-25 BY THE PETITIONER (POST COVID)

Particulars/Year	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
	ACTUAL	ACTUAL	PROVISIONAL	PROJECTED				
Intra-State Transmission Loss (%)	3.56%	3.56%	3.43%	3.41%	3.40%	3.38%	3.35%	3.30%

Commission's Analysis

3.7.6 The Commission vide email dated 12.03.2020 sought the details of actual transmission losses from the SLDC for the respective years. The SLDC vide email dated 21.03.2020 provided the details of transmission losses. The Commission observed that the Transmission losses as provided by the SLDC does not match with the data provided by the Petitioner. The same was enquired from the Petitioner and the Petitioner replied as under:

Quote

A. In respect of the UPERC query regarding the mismatch of the transmission losses as computed by UPSLDC and that submitted by UPPTCL, it is submitted that presently actual drawl by Distribution Licensee is being accounted as below:

1. UPSLDC is issuing energy account (T-D) interface point (i.e. actual drawl by Distribution Licensee form intra-state transmission system) on the basis of MRI data of energy meter at

these interface points through processing the same in EASS software at UPSLDC. The drawl ascertained for state owned Discoms by UPSLDC, on this basis, is not being considered for billing and losses calculation by UPPCTL (commercial wing), as MRI data for all the interface points is not available and UPSLDC software does not take account of missing data while computing the intra-state transmission losses.

2. Transmission zones of UPPCTL is also issuing energy account which is having distribution zone-wise data for drawl energy at T-D interface points. The same is compiled from the data of energy statements prepared on the basis of the joint monthly manual reading of various interface points energy meters at grid sub-station level. This drawl energy data for state owned Discoms is considered for billing and losses calculation by UPPTCL commercial wing.

3. Presently, the drawl by NPCL and NR-UP (Railways) available through EASS software is being considered for billing and losses calculation by UPPTCL commercial wing.

B. It is further submitted that presently actual Injected energy at G-T interface points for the generators (intra-state entity) under the scheduling regime and actual energy at inter-state interface points is only available through EASS software. Actual injected energy data of co-gen, solar generating stations which is not provided in EASS is accounted from the data provided by the transmission zones energy accounts.

C. UPSLDC is providing the intra-state transmission loss on the basis of injected & drawl energy data available in EASS software only. Whereas, UPPTCL is calculating the intra-state transmission losses, considering the injection/drawl as mentioned above, hence the same are different.

Unquote

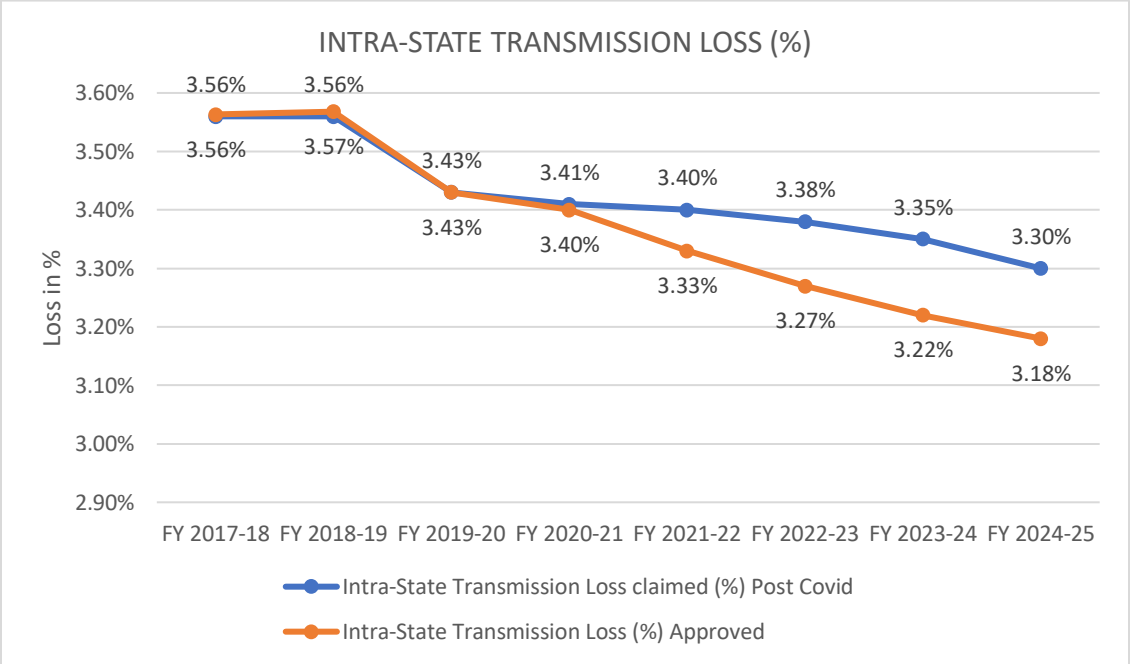
3.7.7 The Commission has noted the submission of the Petitioner and SLDC and directs the Petitioner to rectify the discrepancy at the earliest.

3.7.8 Further, the Commission has observed that the Petitioner has submitted that it will add 4 No. additional 765kV S/s upto FY 2024-25 constituting addition of 13320 MVA. The Petitioner has also proposed addition of 12 No. of 400 kV sub-stations constituting addition of 17472 MVA transformation capacity. Accordingly, almost 50% of Transformation Capacity (MVA) addition during the Control Period upto FY 2024-25 will be done on the higher voltage levels of 400 kV and 765 KV. Due to this addition, the %

share of line length of 765 kV increases from 1% in FY 2019-20 to 4% in FY 2024-25 of total Line length (Ckt Kms), and % share of 400 kV lines increases from 15% in FY 2019-20 to 16% of total Line length (Ckt Kms) in FY 2024-25. Similarly, the % share of Transformation Capacity (MVA) of 765 kV voltage level increases from 3% in FY 2019-20 to 10% of total Transformation Capacity (MVA) in FY 2024-25, and % share of 400 kV Transformation Capacity (MVA) increases from 16% in FY 2019-20 to 21% of total Transformation Capacity (MVA) in FY 2024-25. Such increase at the higher voltage levels of 400 kV and 765 KV should result in reduction of overall lines losses. Further, the Commission has noted that even though major capital expenditure proposed is towards evacuation system, some of the capex is also towards system augmentation, system strengthening and installation of capacitors and reactors to reduce Vars, hence, the overall system loss will reduce accordingly. Hence, the Commission has approved the loss trajectory for the Control period as under:

Table 39: INTRA-STATE TRANSMISSION LOSSES (%) FOR FY 2017-18 TO FY 2024-25 AS APPROVED BY THE COMMISSION

Particulars/Year	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
	ACTUAL	ACTUAL	PROVISIONAL	APPROVED				
Intra-State Transmission Loss (%)	3.56%	3.57%	3.43%	3.40%	3.33%	3.27%	3.22%	3.18%



3.8 TRANSMISSION SYSTEM AVAILABILITY

Petitioner's Submission

3.8.1 The Petitioner has submitted that the availability factor of the transmission network for the year 2017-18 was 99.07%. The transmission system availability for the UPPTCL's network has remained above 99% over the past years.

3.8.2 The Petitioner intend to maintain the transmission availability above 99% throughout the MYT Control Period from FY 2020-21 to FY 2024-25 which is higher than the Normative annual transmission availability factor of 98% as specified by the Commission in its MYT Transmission Regulation, 2019 for recovery of full transmission charges.

Commission's View

3.8.3 The Commission finds that the Petitioner's claim of Transmission System Availability to be maintained above 99% throughout the MYT Period against the Normative annual transmission availability factor of 98% as specified in the Regulations is acceptable.

3.9 SEGREGATION OF THE TRANSMISSION AND SLDC BUSINESS ACTIVITY

Commission's View

3.9.1 The Commission in the Tariff Order dated August 27, 2019 had directed UPPTCL to expedite the process to separate the SLDC from UPPTCL in order to make SLDC as an independent Organization. Further, the Commission in the Regulation 29.3 of MYT Distribution & Transmission Regulations, 2019 states that the Transmission Licensee shall provide ARR for Transmission and SLDC separately due to the segregation of the business activities. The relevant extract of the same is reproduced below:

Quote

29.3 The Transmission Licensee shall segregate its business into Transmission Business and SLDC activity. The revenue requirement of the Transmission Business would be used for determining non-discriminatory transmission charge.

29.4 After complete segregation of accounts between Transmission Business and SLDC activity, SLDC will be governed by the appropriate Regulations, however, till that time the ARR for each business shall be supported by an Allocation Statement duly approved by the Board of Directors or by any Committee / person authorized by the Board in this regard, of the Transmission Licensee containing the apportionment of all costs, revenues, assets, liabilities, reserves, and provisions among the Transmission Business, SLDC activity and any other Business of the Transmission Licensee. The Allocation Statement shall also contain the methodology used for the apportionment between different businesses.

Unquote

3.9.2 As per Notification No. UPERC/Secy/SLDC Regulation/2020-043 Lucknow dated May 14, 2020, the UPERC (Fees & Charges of State Load Dispatch Centre and other related matters) Regulation, 2020 were notified. Accordingly, the SLDC has to file Business Plan along with ARR, APR & True-Up as per Regulation 6.1 of UPERC (Fees & Charges of State Load Dispatch Centre and other related matters) Regulation, 2020.

Quote

6.1 The Petitions to be filed in the Control Period under these Regulations will comprise of the following:

Filing date	*True- Up*	*APR*	*ARR / Tariff*
15.10.2020	*Business Plan for FY, 2021-22 to FY, 2024-25*		
30.11.2020			*FY, 2021-22*
30.11.2021		*FY, 2021-22*	*FY, 2022-23*
30.11.2022	*FY, 2021-22*	*FY, 2022-23*	*FY, 2023-24*
30.11.2023	*FY, 2022-23*	*FY, 2023-24*	*FY, 2024-25*

Unquote

3.9.3 The Petitioner has submitted that as per GoUP notification, it is presently maintaining a separate account for SLDC. Further, UPPTCL has started the process of separation / segregation / unbundling of the SLDC from UPPTCL. The Commission directs UPPTCL to expedite the process to separate the SLDC from UPPTCL in order to make SLDC as an independent organization as per UPERC SLDC Regulations, 2020 notified on May 14, 2020 and further submit the compliance to the Commission.

In view of above, the Commission has revised the Peak Demand as per Table-9 and approved the revised transmission loss trajectory as per Table-39 for the Petitioner.

The Capital Investment Plan has not been approved as a part of this Business Plan and this order shall not be construed as approval of the Capital Investment Plan. The Petitioner has to submit the details of each investment scheme / project of 220 kV and above and other capital expenditure of value exceeding Rs. 20 Crore and obtain prior approval of the Commission as per Regulations for inclusion as regulated expenditure in the ARR. Failure to do so will result in disallowance of such investment in the ARR in order to safeguard the consumers from unjust and unfair charges.

Further, to provide a level playing field between the public and private sector, all new transmission projects should be implemented through Tariff Based Competitive Bidding (TBCB) only. Furthermore, the Petitioner and SLDC shall file separate ARRs of respective year of the control period in accordance with the observations / directions contained above and as per the timelines as specified under their respective Regulations.

(Vinod Kumar Srivastava)	(Kaushal Kishore Sharma)	(Raj Pratap Singh)
Member (Law)	**Member**	**Chairman**

Place: Lucknow

Date: October 15, 2020

SANJAY KUMAR SINGH

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4 ANNEXURE A

UPPTCL DETAILED CAPITAL INVESTMENT PLAN FROM FY 2020-21 TO FY 2024-25 (EXCLUDING GREEN ENERGY CORRIDOR/ AUGMENTATION / SYSTEM STRENGTHENING ETC.) ALONG WITH BRIEF JUSTIFICATION

SUBMITTED BY THE PETITIONER

ANNEXURE – I: UPPTCL DETAILED CAPITAL INVESTMENT PLAN FROM FY 2020-21 TO FY 2024-25 (EXCLUDING GREEN ENERGY CORRIDOR/AUGMENTATION/SYSTEM STRENGTHENING ETC.)

Annexure I: UPPTCL Detailed Capital Investment Plan from FY 2020-21 to FY 2024-25 (Excluding Green Energy Corridor/ Augmentation/ System Strengthening etc.)

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Farh, GIS 132/33 kV 2x40 MVA**	80		23	20-21	13/3rd	9.27	9.27	4.63	-	-	-	-	Cater increased load demand and provide uninterrupted power supply	Ongoing
TL	132	LILO of Kirawali - Mathura 132 kV SC line at Farh (DC Monopole Tower) -0.5 km	0	1	0.10	20-21	13/3rd	-	0.10	-	-	-	-	-		Ongoing
SS	132	**Misrikh 132/33 kV 2x40 MVA**	80		19	20-21	13/7th	7.74	11.61	-	-	-	-	-	To meet out the increasing load demand in Sitapur & nearby areas.	Ongoing
TL	132	LILO of Sitapur (220) - Neri 132 kV SC line at Mishrikh - 35 km	0	70	15	20-21	13/7th	6.07	9.11	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Lambhua 132/33 kV 2x40 MVA**	80		18	19-20	13/8th	9.18	1.84	-	-	-	-	-	Existing 220 KV SS Payagipur is feeding dist Sultanpur & nearby area through outgoing 33 KV feeders. Due to non existenceof any 132 KV SS in Lambhua, feeder lengths are large resulting into low voltage problems & supply interruprtions.	Completed
TL	132	LILO of Sultanpur (220) -Kadipur 132kV line at Lambhua -25 km	0	50	11	19-20	13/8th	5.42	1.08	-	-	-	-	-	0	Completed
SS	132	**Fatehpur Sikiri (Agra) GIS 132/33 kV 2x40 MVA**	80		23	19-20	13/3rd	11.59	2.32	-	-	-	-	-	Cater increased load demand and provide uninterrupted power supply.	Completed
TL	132	LILO of Sikandra (220) -Kirawali 132 kV SC line at Fahtehpur Sikri - 22 km	0	44	10	19-20	13/3rd	5.00	1.00	-	-	-	-	-	0	Ongoing
SS	132	**Kalwari 132/33 kV 2x20 MVA**	40		18	19-20	13/5th	9.01	1.80	-	-	-	-	-	Existing220 KV Basti & 132 KV Bansi are feeding Basti & its rural areas & hence SS are fully loaded. Hence, SS is planned.	Completed

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	Basti (220) - kalwari 132 kV DC tower on SC line- 25 km	0	25	8	19-20	13/5th	4.19	0.84	-	-	-	-	-		Completed
TL	132	Bhaukhari (Basti)400 - Kalwari (Basti) 132 kV DC line - 45 km	0	90	19	19-20	13/12th	9.69	1.94	-	-	-	-	-		Ongoing
SS	132	**Baghra(Muzaffarnagar) 132/33 kV 2x40 MVA**	80		20	19-20	13/9th	10.06	2.01	-	-	-	-	-	To meet out the load requirment and to improve voltage profile.	Completed
TL	132	Badaikala(Muzaffarnagar) 220-Baghra 132 kV DC line-15 Kms.	0	30	7	19-20	13/9th	3.26	0.65	-	-	-	-	-		Completed
TL	132	LILO of Nara (Muzaffarnagar) 220 - Lalukheri 132 kV SC line at Baghra- 01 km (Alternet source)	0	2	0	19-20	13/9th	0.22	0.04	-	-	-	-	-		Completed
SS	132	**Dudhali(Saharanpur) 132/33 kV (2x40 MVA)**	80		18	22-23	Pending TWC	-	1.80	8.09	8.09	-	-	-	To meet out the increasing load demand in Dudhali & nearby areas.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	Dudhali-Badaikala(220) 132 kV DC line - 25 Kms.	0	50	16	22-23		-	1.62	8.08	6.46	-	-	-		New Project
SS	132	**Khajni(Gorakhpur) 132/33 kV (2x40 MVA)**	80		18	21-22	13/31 st	-	1.80	8.09	8.09	-	-	-	Presently, tehsil Khajni & nearby area are fed through 132 KV Kaudiram , Gida & 220 KV Barahua SS which is also main source of these 132 KV SS. 220 KV Barahua is fully loaded. To reduce the loading at Barahua 220 KV SS, it may be fed through newly constructed Gola 220 KV SS. To reduce the overloading of Barahua SS and provide relaible supply to 33 KV SS, new SS has been planned.	New Project
TL	132	Khajni-Gola(220) 132 kV DC line- 30 Kms.	0	30	19	21-22		-	3.88	10.90	4.30	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Meerganj (Bareilly) 132/33 kV 2x40 MVA**	80		24	20-21	13/17 th	9.44	9.44	4.72	-	-	-	-	Meerganj area of District Bareilly is being fed through 33 kV s/s Meerganj (Rural), Fatehganj (west), Shergarh etc. These s/s are fed through 220 kV C.B. Ganj, Dohna and 132 kV s/s Richa. As there is no transmission s/s in nearby area. So that 33 kV feeder length are large and line is overloaded.	Ongoing
TL	132	LILO of 132 kV CB Ganj (220) - Rampur (132) 132kV SC line at Meerganj (132)- 1.5 km (UPPTCL)	0	3	1	20-21	13/17 th	0.31	0.39	0.08	-	-	-	-		Ongoing
TL	132	LILO of C B Ganj (220)-Gulabari, Moradabad (132) 132 kV SC line at Meerganj (132) - 1.5 km	0	3	1	20-21	13/17 th	0.31	0.39	0.08	-	-	-	-		Ongoing
TL	132	LILO of C B Ganj (220) - Dhampur Sugar Mill (Bareilly)132 kV line at Meerganj (132) - 2 km	0	4	1	20-21	13/17 th	0.41	0.51	0.10	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Kairana (Shamli) 132/33 kV 2x63 MVA**	126		23	20-21	13/15 th	9.37	9.37	4.68	-	-	-	-	Existing 220 KV Shamli SS is feeding Kairana & nearby area of dist. Shamli though 33 KV feeders. With construction of new 132 KV SS, 33 KV SS Kairana rural will be feeded through new SS.	Ongoing
TL	132	Shamli (220) - Kairana (132) 132 kV DC (Zebra) line - 10 km	0	20	8	20-21	13/15 th	3.06	3.83	0.77	-	-	-	-		Ongoing
SS	132	**Bahjoi (Sambhal) 132/33 kV 2x40 MVA**	80		17	22-23	12/14 th		1.70	7.65	7.65	-	-	-	Due to increase in load demand in Bahjoi & nearby areas, new 132 KV SS has been planned.	New Project
TL	132	Chandausi(220)-Behjoi 132 kV DC Line-35Km	0	70	16	22-23	12/14 th		1.61	8.05	6.44	-	-	-		Ongoing
TL	132	Babrala-Behjoi 132 kV DC line-25 Km	0	50	14	22-23	12/14 th		1.40	7.00	5.60	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Itaunja (Lucknow) 132/33 kV 2x40 MVA**	80		18	23-24	Pending TWC	-	-	-	-	10.78	7.19	-	To meet out the increasing load demand in Itaunja & nearby areas.	New Project
TL	132	132 kV Hardoi Rd (400/220) - Itaunja DC - 29 Km.	0	58	19	23-24		-	-	-	-	11.25	7.50	-		New Project
SS	132	**Kaisarganj (Behraich) 132/33 kV 2x40 MVA**	80		19	20-21	13/17 th	7.55	9.44	1.89	-	-	-	-	Existing 220 KV SS Bahraich is feeding Kaisarganj & nearby areas. To cater the increase demand & to transfer 33KV load of Kaisarganj (rural), Fakharpur & new Proposed 33KV SS, new SS is planned.	Ongoing
TL	132	Bahraich(220) - Kaisarganj(132) 132 kV DC (Zebra) line-35km	0	70	27	20-21	13/17 th	10.71	10.71	5.36	-	-	-	-		Ongoing
TL	132	Colonelganj (Gonda) - Kaisarganj (Bahraich 132 kV DC (Zebra) line - 25 km	0	50	19	20-21	13/17 th	7.65	7.65	3.83	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Tiloi (Amethi) 132/33 kV 2x40 MVA**	80		19	20-21	13/15 th	7.55	7.55	3.77	-	-	-	-	Existing 132 KV jagdishpur SS is providing Supply to tehsil Amethi & nearby area which is fully loaded, hence, to provide supply to new 33 KV SS & meet out the increasing load demand in the area.	Ongoing
TL	132	LILO of Amawan (Raibareily) - Jagdishpur (Amethi) 132 kV SC line at Tiloi - 20 km	0	40	10	20-21	13/15 th	4.08	4.08	2.04	-	-	-	-		Ongoing
SS	132	**Hasanganj 132/33 kV 2x40 MVA**	80		23	19-20	13/13 th	11.48	2.30	-	-	-	-	-	Existing 132 KV Sonik & Chakalwansi SS are feeding the Hasanganj & nearby area. which is overloaded and space constraint for new bay. Hence, new SS has been planned.	Completed
TL	132	Sonik (Unnao) - Chakalwanshi (Unnao) 132 kV SC line 2nd ckt stringing work - 29.5 km	0	30	3	19-20	13/13 th	1.33	0.27	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of Sonik (132) - Chakalwanshi (Unnao) 132 kV SC line 2nd ckt at Hassanganj- 22 km	0	44	10	19-20	13/13 th	4.77	0.95	-	-	-	-	-		Ongoing
SS	132	**Rudauli 132/33 kV) 2x40 MVA**	80		19	19-20	13/4th	9.28	1.86	-	-	-	-	-	Cater increased load demand in Rudauli and nearby area.	Complete d
TL	132	LILO of Sohawal (220) - Ramsnehi Ghat 132 kV SC line at Rudauli -12km	0	24	5	19-20	13/4th	2.55	0.51	-	-	-	-	-		Ongoing
TL	132	Ayodhya (220)- Rudauli (Faizabad) 132 kV DC line - 45 km	0	90	19	19-20	13/4th	9.54	1.91	-	-	-	-	-		Ongoing
SS	132	**Madhogarh 132/33 kV 2x40 MVA**	80		19	20-21	13/1st	7.42	11.12	-	-	-	-	-	Existing 33 KV feeders are fed through 132 KV Jalaun SS. Some of the 33kV feeders are having considerable long lengths hence to improve voltage profile & to meet out increasing load demand new ss is planned.	Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of Jalaun - Bhadrekhi, Orai (400) 132 kV SC line at Madhogarh (OPGW) - 35 km	0	70	16	20-21	13/1st	6.54	9.80	-	-	-	-	-		Ongoing
SS	132	**Nichlaul (132/33 kV) 2x40 MVA**	80		18	21-22	13/31st	-	1.80	8.09	8.09	-	-	-	Presently, tehsil Nichlaul & nearby areaare fed through 132 kV Mahaarajganj SS, main feeding line of Maharajganj SS is fully loaded. There is space constarint for new bays at 132 KV maharajganj & due to increasing load in the area, is expected to be oevrloaded. Hence, to remove overloaidng of 132 KV line & to cater the increasing demand, new SS is planned.	New Project
TL	132	132kV Mahrajganj (220)-Nichlaul DC-33Km.	0	66	21	21-22		-	2.13	10.67	8.53	-	-	-		New Project
SS	132	**Barhaj (132/33 kV) 2x40 MVA**	80		18	22-23	Pending TWC	-	1.80	8.09	8.09	-	-	-	To cater load demand of Barhaj and nearby area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 kV Deoria (220) Existing Barhaj DC - 30 Km.	0	60	19	22-23		-	1.94	9.70	7.76	-	-	-		New Project
SS	132	**Ghosi 132/33 kV 2x40 MVA**	80		20	20-21	13/19 th	7.93	9.92	1.98	-	-	-	-	Existing 132 KV Dohrighat & Katgharmehlu SS are feeding Ghosi & nearby area. Due to continuous increase in demand, new 33 KV SS has been planned, hence, to cater the increase demand, new SS has been planned.	Ongoing
TL	132	LILO of Mau Old-Barhalganj 132 kV line at Ghosi - 12 km	0	24	6	20-21	13/19 th	2.43	3.04	0.61	-	-	-	-		Ongoing
SS	132	**Kachwa (Mirzapur) 132/33 kV 2x40 MVA**	80		20	20-21	12/38 th	9.77	1.95	-	-	-	-	-	Due to increased load demand in town area Kachwa (dist. Mirzapur), new SS has been planned.	Ongoing
TL	132	Raja Ka Talab (220) - Kachwa 132 kV DC line - 10 km	0	20	5	20-21	12/38 th	2.50	0.50	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Aliapur 132/33 kV 2x63 MVA (GIS)**	126		39	20-21	13/4th	15.63	15.63	7.82	-	-	-	-	Alaipur area are fed through 132/33 KV Sarnath SS which is overloaded and having low voltage problem, and increasing demand in the area requires new SS to cater the future demand & improve the volatge profile.	Ongoing
TL	132	LILO of Sahupuri (220) - Sarnath 132 kV SC line at Alaipur - 8km	0	16	6	20-21	13/4th	2.27	2.84	0.57	-	-	-	-		Ongoing
SS	132	**Cholapur 132/33 kV 2x40 MVA**	80		19	20-21	13/3rd	7.42	11.12	-	-	-	-	-	132 KV SS Sarnath & Varanasi Cantt. are presently overloaded, hence, to meet the increasing demand in Varanasi-Azamgarh road area, new SS is required.	Ongoing
TL	132	LILO of Sarnath - Varanasi Cantt. 132 kV DC line one ckt at Cholapur(132) - 10 km	0	20	5	20-21	13/3rd	1.82	2.72	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Ahrora 132/33 kV 2x20 MVA**	40		12	20-21	13/3rd	4.66	6.99	-	-	-	-	-	132/33 kV existing Chunar SS running at full loads, new SS will lead to better voltage profile & provide unintruptted supply.	Ongoing
TL	132	LILO of Chunar - Mirzapur 132 kV SC line at Ahrora - 25km	0	50	11	20-21	13/3rd	4.54	6.81	-	-	-	-	-		Ongoing
SS	132	**Mandhata 132/33 kV 2x40 MVA**	80		19	21-22	13/11th		1.92	8.65	8.65	-	-	-	To provide connectivity to Vishwanathganj, Sarai Bhimsen, Dehlupur, Jedwara, etc. 33KV substation.	Ongoing
TL	132	LILO of Sorawan - Pratapgarh (220) 132 kV SC line at Mandhata (Pratapgarh)-25 km	0	50	11	21-22	13/11th		1.08	5.38	4.30	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Rajapur 132/33 kV 2x40 MVA**	80		19	20-21	13/7th	7.74	11.61	-	-	-	-	-	Existing 132 KV Karvi SS is providing supply to tehsil Rajapur & nearby area of district Chitrakoot & is 45 km from the HQ. Multiple 33 KV SS are connected to single 33 KV feeder hence, to improve the power supply & voltage profile in area, new SS is planned.	Completed
TL	132	Pahari (Chitrkoot) 220 - Rajapur 132 kV DC line - 30 km (UPPTCL)	0	60	13	20-21	13/7th	5.20	7.81	-	-	-	-	-		Completed
SS	132	**Badagaon 132/33 kV 2x40 MVA**	80		19	20-21	13/11th	7.43	9.29	1.86	-	-	-	-	In order to improve the voltage profile & provide uninterrupted power supply in the Badagaon and near by area, new SS is planned.	Ongoing
TL	132	Rasra (400) - Badagaon 132 kV DC line - 52 km	0	104	22	20-21	13/11th	8.95	8.95	4.48	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of 132 kV Mohmmdabad - Mau line at Badagaon -7.0 km	0	14	3	20-21	13/11th	1.20	1.51	0.30	-	-	-	-		Ongoing
SS	132	**UPSIDC, Kosikalan (132/33 kV) 2x40 MVA**	80		19	20-21	13/10th	7.40	7.40	3.70	-	-	-	-	To meet out increasing industrial & commercial load demand and space constraint for bay at existing ss, new ss is required.	Ongoing
TL	132	(UPSIDC) Kosikalan - Chhata (220) 132 kV DC line - 25 km	0	50	11	20-21	13/10th	4.34	4.34	2.17	-	-	-	-		Ongoing
SS	132	**Sonkh Road 132/33 kV 2x40 MVA**	80		18	19-20	13/8th	9.18	1.84	-	-	-	-	-	At Existing 220 KV Gokul & 132 KV Mathura II SS, there is space constraint for new 33KV bays & there is increasing demand in adjoing areas of NH nearby to Sonkh road.	Completed
TL	132	LILO of Gokul (220)- Mathura - II 132 kV SC line at Sonkh Road- 14 km	0	28	6	19-20	13/8th	3.04	0.61	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Noida Sector-63 (132/33 kV) 1x63+1x40 MVA (Deposit)**	103		41	20-21	12/40 th	20.60	12.36	8.24	-	-	-	-	Due to increase in commercial & residential load, new SS has been planned under deposit scheme.	Ongoing
TL	132	G.Noida (400)Pali- Noida (63) 132 kV DC line - 25 km (Noida Authorithy)	0	50	11	20-21	12/40 th	4.30	6.45	-	-	-	-	-		Ongoing
SS	132	**Noida Sector-67 (132/33 kV) 1x63+1x40 MVA (Deposit)**	103		41	20-21	12/40 th	16.48	20.60	4.12	-	-	-	-	Due to increase in commercial & residential load, new SS has been planned under deposit scheme.	Ongoing
TL	132	132 kV Gr. Noida (400) - Sector-67 DC Line	0	4	13	20-21	12/40 th	5.38	8.06	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Bharawan (Sandila), Hardoi 2X40 MVA**	80		19	20-21	13/18 th	7.55	7.55	3.77	-	-	-	-	Existing 132 KV Sandila SS is providing supply to Bharawan, Atrauli & Baileyganj area. Due to increased demand in the area, new SS has been planned. Existing 33 KV SS Atrauli, Malhera, etc. & under construction Sarwa SS will be connected to this new SS.	Ongoing
TL	132	LILO of Jehta, Lucknow(400)-Rahimabad(lucknow) 132 kV line one ckt at Bharawan (Sandila) -20km	0	40	10	20-21	13/18 th	4.05	6.08	-	-	-	-	-		Ongoing
SS	132	**Bulandshahar Road-II (BSR-II) 132/33 kV 2x40 MVA (GIS)**	80		37	20-21	13/17 th	14.68	14.68	7.34	-	-	-	-	There is increase in industrial, commercial & domestic load & to meet the future demand & reduce the overloading of existing 132 KV SS Bulandshahar SS, new SS is planned.	Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of existing 132 kV SC line Pratap Vihar (220) -DPH at Bulandshahar Road-II,Ghaziabad on Monopole-0.6km	0	1	1	20-21	13/17 th	0.52	0.66	0.13	-	-	-	-		Ongoing
SS	132	**Kareli, GIS 132/33 kV 2x63 MVA**	126		39	21-22	13/15 th		3.89	17.50	17.50	-	-	-	Existing 132 KV Minto Park, Teliarganj & GIS old powerhouse are feeding Allahabad city. Due to increasing demand in the area & Space constarint for new 33 KV bay at existing SS, new SS has been planned.	Ongoing
TL	132	Cantt. (220) Allahabad - Kareli (Allahabad) 132 kV DC line -4.5 km (Underground cable-0.5km +4.0 km on Monopole)	0	9	12	21-22	13/15 th		1.21	6.04	4.83	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**FCI-II,Gorakhpur 132/33 kV 2x40 MVA**	80		19	20-21	13/19 th	7.55	11.33	-	-	-	-	-	Existing 132 KV SS FCI-I is providing supply to town area of Gorakhpur which is fully loaded. Due to continuous increase in demand in the area, new SS has been planned.	Ongoing
TL	132	Hata (220) Kushinagar -FCI-II (Gorakhpur) 132 kV (Zebra) DC line - 46 km *(40km DC Tower & 6km Monopole)*	0	92	45	20-21	13/19 th	22.62	18.10	4.52	-	-	-	-		Ongoing
SS	132	**Pailani (Banda) 132/33 kV 2x40 MVA**	80		20	20-21	13/15 th	7.82	9.78	1.96	-	-	-	-	Tehsil Pailani of dist. Banda & nearby area are fed through 33 KV Jaspura SS. Feeder lengths from 132kv Charla Ss is 50 kms & multiple 33 KV SS are connected on one feeder. To counter this issue & providing supply to upcoming new 33 KV SS Chandwara, pailani, kaleshwar, etc., new SS has been proposed.	Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	Pailani (220) - Augasi 132 kV DC line (Zebra) - 40 km	0	80	30	20-21	13/15 th	12.16	12.16	6.08	-	-	-	-		Ongoing
TL	132	LILO of Banda (220) - Sumer Bharhua (132) 132 kV DC line second ckt at Pailani -30 km	0	60	15	19-20	13/15 th	7.60	1.52	-	-	-	-	-		Ongoing
SS	132	**Itiyathok 132/32 kV 2x40 MVA**	80		19	20-21	13/12 th	7.52	7.52	3.76	-	-	-	-	Existing 132 KV Balramour SS is feeding Shivpura, Itiyathok, Kharagpur & Subhagpur 33 KV SS due to large feeder lengths, there is low voltage issues in the area, hence new SS is planned.	Ongoing
TL	132	Balrampur (220) -Itiathok (Gonda) 132 kV DC line - 28 km	0	56	12	20-21	13/12 th	4.82	7.23	-	-	-	-	-		Ongoing
TL	132	132 kV Bulandshahar Rd.(220)-JarchaDC - 28.75 Km.	0	58	19	21-22			1.86	9.29	7.43	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Chhanbey, 132/33 kV 2x40 MVA**	80		21	20-21	13/21 st	8.23	8.23	4.12	-	-	-	-	Existing 132 KV SS Lalganj & Jigna are providing supply to Chhanbey (Mirzapur area). Due to long feeder lengths, there is low volatge profile in the area. Hence, to improve the voltage profile, new SS is planned.	Ongoing
TL	132	Masauli (400) Prayagraj - Chhanbey (Mirzapur) 132 kV DC line (Zebra)-45km	0	90	29	20-21	13/21 st	11.52	11.52	5.76	-	-	-	-		Ongoing
TL	132	Lalganj(Mirzapur) -Chhanbey (Mirzapur) 132 kV DC line (Zebra)-25 km	0	50	16	19-20	13/21 st	8.00	1.60	-	-	-	-	-		Ongoing
TL	132	132 kV Shamli (400/220) Chausna DC - 25.3 Km.	0	51	16	22-23		-	-	3.27	13.07	-	-	-		New Project
SS	220	**Dataganj (220/132/33 kV) 2x160+2x40 MVA**	400		103	21-22	13/30 th	-	17.18	46.52	39.68	-	-	-	To cater load demand and unintrrupted power supply at Chausna and near by area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Badaun (400) GIS-Dataganj (220) DC Line - 28 km		56	23	21-22	13/30 th	-	2.31	11.53	9.22	-	-	-		New Project
TL	220	LILO of one ckt of Roja-(TPS) Badaun(220) DC Line-12 km		24	9	21-22	13/30 th	-	0.86	4.32	3.46	-	-	-		New Project
TL	220	LILO of Usawana (132) - Tilhar (132) 132 KV SC Line at Dataganj-21 km		42	10	21-22	13/30 th	-	0.97	4.85	3.88	-	-	-		New Project
SS	132	**Ramnagar (132/33 kV) 2x40 MVA**	80		18	21-22	Pending TWC	-	1.80	8.09	8.09	-	-	-	To cater increase load demand in Ramnagar and near byarea.	New Project
TL	132	132 kV Barabanki (220) - Ramnagar DC - 29 Km.	0	58	19	21-22		-	1.87	9.37	7.49	-	-	-		New Project
TL	132	132 kV Bahraich (220) - Ikauna DC - 37.95 Km.	0	76	25	21-22		-	2.45	12.26	9.81	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Maharaj Ganj (132/33 kV) 2x40 MVA**	80		32	22-23	Pending TWC	-	-	3.23	19.39	9.69	-	-	To Cater increased load demand and provide uninterrupted power supply in Maharajganj and near by area.	New Project
TL	132	132 kV Mahoba (220) -Ichauli Maudaha DC - 37.9 Km.	0	76	24	22-23		-	-	2.45	12.24	9.79	-	-		Ongoing
SS	132	**Hussainganj (132/33 kV) 2x40 MVA**	80		19	20-21	13/9th	7.40	9.25	1.85	-	-	-	-	Existing Fatehpur 132/33 kV SS is providing supply to adjoining area is fully loaded, hence to cater the future demand & reduce O/L of the SS.	Ongoing
TL	132	LILO of Fatehpur(220) - Malwan 132 kv DC line at Hussainganj- 35 km.	0	70	15	20-21	13/9th	6.07	9.11	-	-	-	-	-		Ongoing
SS	132	**Shahpur (Muzaffarnagar) 132/33 kV 2x40 MVA**	80		18	22-23	Pending TWC	-	-	1.80	10.78	5.39	-	-	To Cater increased load demand and provide uninterrupted power supply in Shahpur and near by area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	Badaikala(220)-Shahpur 132 kV DC line -20 Kms.	0	40	13	22-23		-	-	1.29	6.46	5.17	-	-		Ongoing
SS	132	**Hasanpur (132/33 kV) 2x40 MVA**	80		18	22-23	Pending TWC	-	7.19	7.19	3.59	-	-	-	To Cater increased load demand and provide uninterrupted power supply in Hasanpur and near by area.	New Project
TL	132	132 kV Amroha(220)-Hasanpur DC-27.6 km.	0	55	18	22-23		-	7.13	7.13	3.57	-	-	-		New Project
TL	132	132 kV Awas Vikas Loni(220)Proposed-Loni New DC - 5.75 Km.	0	12	4	22-23		-	-	0.74	2.97	-	-	-		Ongoing
SS	132	**Dhaulana (132/33 kV) 2x40 MVA**	80		18	22-23	Pending TWC	-	-	7.19	8.99	1.80	-	-	To Cater increased load demand and provide uninterrupted power supply in Dhaulana and near by area.	New Project
TL	132	132 kV Hapur (220) - Dhaulana DC 20 Km.	0	40	13	22-23		-	-	5.17	6.46	1.29	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 kV Khatauli(220) Proposed-Mansurpur DC -6.9 Km.	0	14	4	22-23		-	-	1.78	2.23	0.45	-	-		New Project
SS	132	**Mohanlalganj 132/33 kV 2x40 MVA**	80		19	20-21	13/4th	7.42	9.28	1.86	-	-	-	-	To Cater increased load demand in Mohanlalganj & nearby area.	Ongoing
TL	132	LILO of Haidergarh - Barabanki (220) 132 kV DC line single ckt at Mohanlalganj (220)-25 km	0	50	11	20-21	13/4th	4.24	6.36	-	-	-	-	-		Ongoing
SS	132	**Nigohan (132/33 kV) 2x40 MVA**	80		18	24-25	Pending TWC	-	-	-	-	5.39	12.58		To Cater increased load demand in Nigohan & nearby area.	New Project
TL	132	132 kV SGPGI Rd.(220) Proposed - Nigohan DC -30 Km.	0	60	19	24-25		-	-	-	-	11.63	7.75			New Project
SS	132	**Uresar (132/33 kV) 2x40 MVA**	80		18	23-24	Pending TWC	-	0.00	0.00	0.00	10.78	7.19	-	To Cater increased load demand in Uresar & nearby area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 kV Firozabad (400/220/132) - Uresae DC - 35 Km.	0	70	23	23-24		-	0.00	0.00	0.00	13.93	9.28	-		New Project
SS	132	**Derapur (132/33 kV) 2x40 MVA**	80		18	22-23	Pending TWC	-	1.80	8.09	8.09	-	-	-	To Cater increased load demand in Derapur & nearby area.	New Project
TL	132	132 kV Sikandra (220) - Derapur DC - 17.25 Km.	0	35	11	22-23		-	4.46	5.57	1.11	-	-	-		New Project
SS	132	**Naraini (132/33 kV) 2x40 MVA**	80		18	22-23	Pending TWC	-	7.19	8.99	1.80	-	-	-	To Cater increased load demand in Naraini & nearby area.	New Project
TL	132	132 kV Banda (400/220) - Naraini DC - 36.6 Km.	0	73	24	22-23		-	2.36	11.82	9.46	-	-	-		New Project
SS	132	**Aung (132/33 kV) 2x40 MVA**	80		18	24-25	Pending TWC	-	0.00	0.00	0.00	5.39	12.58		To Cater increased load demand in Aung & nearby area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	i) 132 kV Fatehpur (New) (220) Pro -Aung DC - 40.25 Km.	0	81	26	24-25		-	0.00	0.00	0.00	15.60	10.40	-		New Project
TL	132	ii) LILO of 132 kV Nanubasta - Malwan -10 Km.	0	20	6	24-25		-	0.00	0.00	0.00	3.88	2.58			New Project
SS	132	**Balthera Road (132/33 kV) 2x40 MVA**	80		18	23-24	Pending TWC	-	-	-	-	10.78	7.19	-	To Cater increased load demand in Belthra road & nearby area.	New Project
TL	132	132 kV Rasra (220) Existing - Belthera Rd. DC - 31.5 Km.	0	63	20	23-24		-	-	-	-	12.21	8.14	-		New Project
SS	132	**Maghar (132/33 kV) 2x40 MVA**	80		18	24-25	Pending TWC	-	-	-	-	5.39	12.58		To Cater increased load demand in Maghar road & nearby area.	New Project
TL	132	132 kV Dulhipar(220) - Maghar DC 11 Km.	0	22	7	24-25		-	-	-	-	4.26	2.84	0.71		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Dulahapur/Jakhania (132/33 kV) 2x40 MVA**	80		18	24-25	Pending TWC	-	-	-	-	5.39	12.58	-	To Cater increased load demand in Dulahapur & nearby area.	New Project
TL	132	132 kV Ghazipur (220) - Dulahpur/Jakhania DC - 28.75 Km.	0	58	19	24-25		-	-	-	-	5.57	13.00			New Project
TL	132	132 kV Gajokhar (220) - Sindhora DC - 25	0	50	16	24-25		-	-	-	-	-	8.08	8.08		New Project
TL	132	132 kV Sirathu (220) - Chail - DC Line - 35 Km.	0	70	23	24-25		-	-	-	-	-	11.31	11.31		New Project
SS	132	**Oyal (Lakhimpur) (132/33 kV) 2X40 MVA**	80		21	20-21	13/23rd	8.23	8.23	4.12	-	-	-	-	Existing 132KV SS lakhimpur is providing supply to Oyal (lakhimpur) & nearby area. Due to increase in demand of the area, this SS is expected to be fully loaded, hence to cater the increasing demand in the area, new SS has been planned.	Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	Gola (khiri)220-Oyal 132 kv DC line -45 km.	0	90	29	20-21	13/23 rd	11.52	11.52	5.76	-	-	-	-		Ongoing
TL	132	LILO of lakhimpur - Laharpur 132 kv SC line at Oyal - 15 km.	0	30	7	20-21	13/23 rd	2.78	4.18	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**132/33 kv Bilochpura (Baghpat) 2X40 MVA**	80		20	20-21	13/24 th	8.16	8.16	4.08	-	-	-	-	Presently, Bilochpura (baghpat) & nearby areas are fed through 132 KV baghpat & Harsia SS. 220 KV Barut & Baghpat SS are main source in Baghpat region. At Other 132 KV SS Singhawli & Nirpura in the region, there is space constarint for 33 KV bays. Multiple 33 KV SS are connected on 33 KV feeders. Baghpat region is under NCR hence, many Small, medium & large industries are shiftinh from NCR to Baghpat region. Hence, to cater the increasing demand & to remove multiple 33KV SS connectivity on single feeder s, new 132 KV SS is reuqired in the region.	Ongoing
TL	132	LILO of Baghpat (220)- Harsia 132 kV DC line one ckt at Bilochpura- 04 km	0	8	2	20-21	13/24 th	0.74	0.93	0.19	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**132/33 kv Gazipur-II 2X40 MVA & Associated Line**	80		37	22-23	Pending TWC	-	3.66	16.47	16.47	-	-	-	Due to increase load demand of Ghazipur and nearby area and space constraint for new 33 kv bay at existing 132kv SS.	New Project
TL	132	**Associated Lines**		20		22-23										
SS	220	**220/132/33 KV GIS Madhuban Bapudham (1x160+3x60 MVA) LV Side**	340		85	19-20	13/29 th	42.33	16.93	-	-	-	-	-	To reduce the overloading of nearby 220 kV s/s and to provide downstream supply to 132 kV s/s for improvement of power supply.	Completed
TL	220	LILO of Muradnagar (220)-Dadri 220 KV SC Line at Dasna (400) and Madhuban Bapudham (220) GIS-17.5 Km	0	35	83	19-20	13/29 th	41.66	16.66	-	-	-	-	-		Completed
TL	220	LILO of Muradnagar New (400)-Atur (400) 220 KV SC Line at Madhuban Bapudham (220)-12 Km		24	21	19-20	13/29 th	10.51	4.20	-	-	-	-	-		Completed

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Madhuban Bapudham-Govindpuram 132 KV DC Line-3 Km		6	4	19-20	13/29 th	2.20	0.88	-	-	-	-	-		Completed
TL	220	Noida (148) - Noida -38 (A) 220 kV DC line on Multicircuit & Narrow Base Tower - 23.5 km (Deposit)	0	47	38	19-20	12/40 th	18.78	7.51	-	-	-	-	-		Ongoing
SS	220	**220/132/33KV Bhadaura (2x100+2x40) LV Side**	280		47	19-20	12/8th	23.57	9.43	-	-	-	-	-	Supply of Ghazipur area is being fed through existing 220 KV Ghazipur SS which is radial SS and there is space constarint for new 132 KV bay. 132 KV SS fed from the 220 KV SS are fully loaded & their incoming lines are also fully loaded, hence, to cater to the increasing demand in the area & to provide relief to existing 220 KV SS, new SS has been planned.	completed
TL	220	LILO of 220 kV Sarnath - Sahupuri line at Bhadaura -85 km	0	170	57	19-20	12/8th	28.30	11.32	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of 132 KV Jamania-Gazipur at Bhadaura-25 Km		50	10	19-20	12/8th	5.24	2.10	-	-	-	-	-		Ongoing
TL	220	Kashimabad (Gazipur)-Kundeshar (Gazipur) SC Line (System Strenthening) - 30 Km		30	10	19-20	13/8th	5.20	2.08	-	-	-	-	-		Ongoing
SS	220	**220/132/33kV Sangipur (Pratapgarh) (2x160+2x40)**	400		71	20-21	12/25 th	35.39	31.85	3.54	-	-	-	-	Due to saturation of existing 220 KV Pratapgarh SS & its connected lines and increasing load demand in the area, new 220 KV SS had been planned.	Ongoing
TL	132	Sangipur(220) - Garwara 132 kV DC line - 30 km	0	60	13	20-21	12/41 st	5.09	7.63	-	-	-	-			New Project
TL	220	Sultanpur (220) - Sangipur 220 kV DC line -40 km	0	80	31	20-21	12/25 th	15.64	12.51	3.13	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Raibarielly PGCIL (220) - Sangipur 220 kV DC line - 60 km	0	120	47	20-21	12/25 th	23.46	18.77	4.69	-	-	-	-		Ongoing
TL	132	Sangipur (220) - Kunda 132 kV DC line - 40 km	0	80	18	20-21	12/25 th	7.33	11.00	-	-	-	-	-		Ongoing
TL	132	Sangipur (220) - Lalganj 132 kV SC line - 40 km	0	40	15	20-21	12/25 th	5.84	8.75	-	-	-	-	-		Ongoing
SS	220	**Nirpura(Hybrid)/Chhaprauli , 2X160 + 1X60 MVA**	380		80	20-21	13/13 th	23.98	31.97	23.98	-	-	-	-	Existing 220 KV Barut & Baghpat SS are feeding dist. Baghpat & nearby areas. Barut SS & 132 KV line are overloaded, hence to cater the increasing demand in the NCR area, 220/ 132 & 220/33 KV Nirpura SS has been planned. Some of the 33 KV feeder fed from 132 KV Nirpura will be connected at new 220/33 KV Nirpura SS.	Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of Baraut (Baghpat) - Shamli 220 kV SC line at Nirpura (220) - 15km	0	30	10	20-21	13/13 th	3.06	5.10	2.04	-	-	-	-		Ongoing
TL	132	LILO of Chaprauli (Baghpat) - Kirthal (Baghpat) 132 kV SC line at Nirpura -20 km)	0	40	9	20-21	13/13 th	3.47	4.34	0.87	-	-	-	-		Ongoing
SS	220	**Khatauli 220/132/33 kV 2x160+ 2x60MVA**	440		64	22-23	13/22 nd		6.41	28.86	28.86	-	-	-	Khatauli & nearby area in dist. Muzzafarnagar area are fed through 132 KV SS khatauli. 132 KV SS & lines are fully loaded, hence, to reduce overloading of the lines & to cater the increasing demand in the area, new SS is planned.	New Project
TL	220	LILO of Muzaffarnagar(400) - Shamli(220) 220 kv SC line at Khatauli(220)- 12 km.	0	24	8	22-23	13/22 nd	2.47	4.12	1.65	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of Muzaffarnagar(400) - Modipuram(220) 220 kv SC line at Khatauli(220)-01 km.	0	2	1	21-22	13/22 nd	0.21	0.35	0.14	-	-	-	-		Ongoing
TL	132	LILO of 132 kV SC line khatauli-Pura line at Khatauli(220)-08 km.	0	16	4	21-22	13/22 nd	1.49	1.87	0.37	-	-	-	-		Ongoing
SS	220	**Vasundhara GIS 220/132/33 kV 2x160+2x40 MVA & Associated Line**	400		85	22-23	Pending TWC	-	8.50	25.50	51.00	-	-	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	Vasundhara-Indirapuram(400) DC line - 5 Km.	0	10	4	22-23		-	1.10	1.84	0.74	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of Muradnagar(400) - Sahibabad at Vasundhara (220)- 2km	0	4	1	22-23		-	0.44	0.74	0.29	-	-	-		New Project
SS	220	**Anandnagar (Gorakhpur) 220/132/33 kV 2x160+ 2x40MVA**	400		62	22-23	13/4th		6.23	18.68	37.36	-	-	-	To cater increased load in Anadnagar & nearby areas and to reduce overloading of existing transmission lines.	New Project
TL	220	Sahjanwa, Gorakhpur (400) PG - Anandnagar 220 kV DC line (Twin moose conductor) - 65 km	0	130	65	22-23	13/4th		6.50	19.50	39.00	-	-	-		Ongoing
TL	220	Annandnagar (Maharajganj) 220 -Dulhipar (Sant kabir Nagar) 220 kV DC line (Moose conductor) - 58km *(To be estimated with Revised estimat of Maharajanj 220kV)*	0	116	48	22-23	13/22nd		4.76	14.27	28.54	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of Maharajganj - Anandnagar 132 kv SC line at Anandnagar (220)-25 km	0	50	11	22-23	13/4th	4.24	5.30	1.06	-	-	-	-		Ongoing
TL	132	Anandnagar (220) - Nawtanwa 132 kV DC line - 30 km	0	60	13	22-23	13/4th	5.09	7.63	-	-	-	-	-		Ongoing
TL	132	LILO of Anandnagar - Naugarh 132 kV SC line at Anandnagar (220) - 20 km	0	40	8	22-23	13/4th	3.39	5.09	-	-	-	-	-		Ongoing
SS	220	**Maharajganj 220/132/33 kV 2x160+ 2x40 MVA**	400		62	20-21	13/4th	18.68	24.91	18.68	-	-	-	-	Presently 132 KV feeder Is overloaded, hence, to cater the increase load demand in the Maharajganj area, new SS has been planned.	Ongoing
TL	220	Anandnagar (220) - Maharajganj 220 kV DC line - 30 km	0	60	22	20-21	13/4th	6.56	10.94	4.38	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of Maharajganj - FCI (Gorakhpur) 132 kV SC line at Maharajganj (220) - 15km	0	30	6	20-21	13/4th	2.54	3.82	-	-	-	-	-		Ongoing
TL	132	Maharajganj (220) -Laxmipur (Kushinagar) 132 kV DC line - 40 km	0	80	17	20-21	13/4th	6.78	10.18	-	-	-	-	-		Ongoing
SS	220	**Faridpur(bareilly) 220/132/33 kV 2x100+ 2x40 MVA**	280		62	20-21	13/1st	18.45	24.60	18.45	-	-	-	-	Due to Increasing load demand in Bareiily & nearby area and to provide additional source to Bisalpur 132 KV SS.	Ongoing
TL	220	LILO of Shahjahanpur-Bareily 220 kV line at Faridpur (220) -20 km	0	40	15	20-21	13/1st	5.83	7.29	1.46	-	-	-	-		Ongoing
TL	132	LILO of Faridpur - Bareily Town 132 kV SC line at Faridpur (220) - 20 km	0	40	9	20-21	13/1st	3.71	5.57	-	-	-	-	-		Ongoing
TL	132	Faridpur (220) - Bisalpur 132 kV SC line on DC tower - 30 km	0	30	11	20-21	13/1st	4.38	6.57	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Tundla 220/132/33 kV 2x160+2x40 MVA**	400		55	21-22	13/23 rd		5.53	24.88	24.88	-	-	-	Presently, Tundla & nearby area is fed through 132 kV Tundla SS. There is space constarint for new 33KV bay & also 132 KV feeder Is overloaded, hence, to cater the increase demand in the area, new SS has been planned.	Ongoing
TL	220	LILO of Agra (765) (PG) - Firozabad (400) 220 kV SC line at Tundla(220) - 01km	0	2	1	21-22	13/23 rd	0.20	0.34	0.14	-	-	-	-		Ongoing
TL	132	LILO of Tundla (132) - Barhan 132 kV SC line at Tundla (220) - 1.5 km	0	3	1	21-22	13/23 rd	0.28	0.35	0.07	-	-	-	-		Ongoing
SS	220	**220/33 kV) Satrikh Road(Juggaur) Lucknow (Hybrid with SAS) 2x60 MVA**	120		55	21-22	13/24 th		5.51	24.78	24.78	-	-	-	Due to increase in load demand in dist. Barabanki, Satrikh road & nearby areas, new 220 KV SS has been planned. This substation will reduce overloading of existing 220 kv Barabanki SS.	Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Barabanki (220) - Satrikh Road (Juggaur) 220 kV DC line - 25 km	0	50	17	21-22	13/24 th	-	6.84	10.25	-	-	-	-		Ongoing
TL	220	LILO of Chinhat (220) - C.G. City (220) 220 kV line (Single Moose) at Satrikh Road(Juggaur) (220)- 0.3km	0	1	0	21-22	13/24 th	0.08	0.13	0.05	-	-	-	-		Ongoing
SS	220	**Modipuram-II (220/132/33 kV) S/S 2x160+ 2x40 MVA**	400		71	21-22	12/14 th		7.06	31.76	31.76	-	-	-	To reduce overloading of Shatabdinagar, Modipuram- I, Charla 220 KV SS, there is requirement of Modipuram II to cater the load of the region.	New Project
TL	220	Shamli (400)-Modipuram (II) 220 kV DC line - 64 km	0	120	47	21-22	13/10 th		4.72	23.58	18.86	-	-	-		Ongoing
TL	220	Baghpat (400)-Modipuram (II) 220 kV DC line - 35km	0	70	26	21-22	12/21 st		2.58	12.90	10.32	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of Kankankhera - Hapur Road 132kV SC line at Modipuram (II) - 22km	0	44	10	21-22	12/21 st	4.12	5.16	1.03	-	-	-	-		Ongoing
TL	220	LILO of Modipuram (220) - Faridnagar (220) KV SC Line at Modipuram II-5 Km	0	10	4	21-22	12/21 st	1.11	1.85	0.74	-	-	-	-		Ongoing
TL	132	LILO of Kankankhera-Bedaspuri 132 KV SC Line at Modipuram II-11 Km	0	22	5	21-22	12/21 st	2.06	2.58	0.52	-	-	-	-		Ongoing
TL	132	LILO of Partapur-Niwari Road 132 KV SC Line at Modipuram II-7 Km	0	14	3	21-22	12/21 st	1.31	1.64	0.33	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Balrampur(220/132/33 kV) 2x160+ 2x40 MVA**	400		60	20-21	13/10 th	18.09	30.15	12.06	-	-	-	-	Existing 132 KV SS Balrampur is currently fully loaded and is having source 220 KV Gonda SS. Feeder lines to this SS usually gets fully loaded which calls for establishment of new 220 KV SS. This will also mean provision of second source to Balrampur	Ongoing
TL	220	LILO of Gonda (400) - Behraich 220 kV SC line at 220 kV S/s Balrampur - 46 km (UPPTCL)	0	92	31	20-21	13/10 th	15.64	12.51	3.13	-	-	-	-		Ongoing
TL	132	Balrampur (220) - Bhinga (shrawasti) 132 kV SC line - 34.5 km (2.5 km New 132 kV line & 32km stringing) (UPPTCL)	0	35	4	20-21	13/10 th	1.50	1.88	0.38	-	-	-	-		Ongoing
TL	132	LILO of Balrampur - Bhinga 132 kV SC line at Balrampur (220) - 04 km (1X2.5 +1X32)	0	8	2	20-21	13/10 th	0.69	0.87	0.17	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	Balrampur (220) - Tulsipur 132 kV DC line - 48 km	0	96	21	20-21	13/10 th	8.32	12.49	-	-	-	-	-		Ongoing
SS	220	**Azizpur (Shahjahanpur) (220/132kV) S/S 2x160+ 2x40 MVA**	400		62	20-21	13/5th	18.68	28.02	15.57	-	-	-	-	Existing 220 KV SS in district Shahjahanpur is feeding town & rural areas & also some of the area of Gola, Bareilly, Sitapur, etc. Existing 132 kV SS is overloaded hence, to cater the future load demand & reduce overloadinng of existing SS, new SS is planned.	Ongoing
TL	220	M/s PGCIL Shahjahanpur (400) -Azizpur (Shahjahanpur) 220 kV DC line - 20 km (UPPTCL)	0	40	15	20-21	13/5th	5.84	7.30	1.46	-	-	-	-		Ongoing
TL	220	Shahjahanpur (220)- Azizpur (Shahjahanpur) 220 kV SC line - 20 km (UPPTCL)	0	20	11	20-21	13/5th	4.52	5.65	1.13	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 kV SC line from 220 kV Azizpur to tapping tower 12 of Shahajahanpur 220 - Jalalabad line- 7km	0	7	2	20-21	13/5th	0.94	1.18	0.24	-	-	-	-		Ongoing
TL	132	Shahjahanpur - Shri Mau 132 kV DC line -45 km (UPPTCL)	0	90	19	20-21	13/5th	7.63	7.63	3.82	-	-	-	-		Ongoing
SS	220	**Ayodhya GIS (220/132/33kV) S/S, 2X160+2X63**	446		99	20-21	13/7th	29.81	39.74	29.81	-	-	-	-	To meet out increase load demand in Darshan Nagar, Ayodhaya nearby area and to provide downstream supply to existing 132 kV s/s.	Ongoing
TL	220	LILO of Sohawal (PGCIL)- New Tanda 220 kV DC line single circuit at Ayodhya (220) - 20 km	0	40	14	20-21	13/7th	5.44	6.80	1.36	-	-	-	-		Ongoing
TL	220	Tanda (NTPC) - New Tanda (220) 220 kV DC line- 25 km	0	50	17	20-21	13/7th	5.10	8.50	3.40	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of Darshannagar - Nawabganj 132 SC line at Ayodhya-20 km (UPPTCL)	0	40	9	20-21	13/7th	3.47	5.20	-	-	-	-	-		Ongoing
SS	220	**Babina(jhansi) (220/132/33), 2X160+2X40 MVA**	400		62	20-21	13/4th	18.68	24.91	18.68	-	-	-	-	Existing 220 KV Dunara & 132 KV Hansari SS are fully loaded,so to cater upcoming load demand new SS is required.	Ongoing
TL	220	LILO of Lalitpur TPS -Dunara 220 kV DC line single circuit at Babina (220) - 10 km	0	20	7	20-21	13/4th	2.19	3.65	1.46	-	-	-	-		Ongoing
TL	132	LILO of Lalitpur - Hasari 132 kV ckt -II line at Babina - 10 km	0	20	4	20-21	13/4th	1.68	2.10	0.42	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**220/132/33kV Gola (2x160+2x40 MVA)**	400		59	21-22	13/17 th		5.91	26.58	26.58	-	-	-	Existing 132 KV Gola & Mohammedi SS are feeding Gola (Kheri) & nearby area. This SS are radially feeded through Shahjahanpur 220 KV SS & is fully loaded. Hence to provide reliable supply in the area & reduce overloading, new SS has been planned. This SS will provide second source to 132 kV Gola & Mohammedi SS.	Ongoing
TL	220	Shahjahanpur (PG) (400) - Gola (220) khiri 220 kV DC (Moose) line - 65km	0	130	61	21-22	13/17 th		6.08	30.42	24.34	-	-	-		Ongoing
TL	220	LILO of Shahjahanpur (220) - Nighasan (220) 220 kV SC line at Gola (220) - 10 km	0	20	8	21-22	13/17 th	2.34	3.90	1.56	-	-	-	-		Ongoing
TL	132	LILO of Gola (132) - Banda (Shahajahanpur) 132 kV SC line at Gola (220) - 15km	0	30	8	21-22	13/17 th	3.06	4.59	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of 132 kV existing line Gola (132)- Mohmmdi section at Gola (220) -20 km	0	40	10	21-22	13/17 th	4.08	6.12	-	-	-	-	-		Ongoing
TL	132	132 kV DC line from T-off point of Shahjahanpur (220) -Gola (132) to Mohammdi- 02 km	0	4	1	21-22	13/17 th	0.41	0.51	0.10	-	-	-	-		Ongoing
SS	220	**220/132/33 kV s/s Pratap Vihar Gaziabad (Hybrid) (1x160+3x60)**	340		71	19-20	12/14 th	35.49	14.20	-	-	-	-	-	Due to increase in load demand in Pratap vihar (Ghaziabad) nearby areas, new 220 KV SS has been planned.	Completed
TL	220	LILO of Moradnagar (400) - Sahibabad 220 kV DC line one circuit (Monopole) at Pratap Vihar - 04 km	0	8	8	19-20	12/29 th	4.14	1.65	-	-	-	-	-		Completed
TL	220	Indrapuram (400) - Pratap Vihar 220 kV SC line (Monopole) - 08 km	0	8	5	19-20	12/29 th	2.62	1.05	-	-	-	-	-		Completed

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of Sahibabad (220) - Industrial Area 132 kV SC line at Pratap Vihar - 01 km (HTLS)	0	2	2	19-20	12/30 th	1.00	0.20	-	-	-	-	-		Completed
TL	132	Pratap Vihar(220)-DPH 132 kV DC Line on Monopole Tower -10 Kms.	0	20	30	19-20	12/38 th	15.00	3.00	-	-	-	-	-		Completed
SS	220	**220/132/33 kV Mallawan (Hardoi), 2x160 MVA (2x160+2x40)**	400		67	21-22	13/14 th		6.70	30.14	30.14	-	-	-	Existing 132 KV Sandila, Baghauli, Bangarmau SS are providing supply to Mallawan & nearby area. 33 KV feeder are fully loaded & are having long lengths. Due to new planned 33 kV SS & augmentation, new 220 KV SS has been planned. Also, partial load of 132 KV Bangarmau, Chakalwansi & Sonik will be transferred to new SS.	Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Mallawan 220 (Hardoi)- Hardoi (220) 220 kV DC line -56 km *(i) one ckt of Mallawan 220 (Hardoi) -Hardoi (220) 220 kV DC line with connect at Hardoi (220) . (ii) Shahjahanpur (PG) - Hardoi (220) SC line will de-terminated from Hardoi (220) at Hardoi end. (iii) Second ckt of DC line Mallawan 220 (Hardoi) - Hardoi (220)will connect to shahjahanpur PG- Hardoi line at Hardoi end after de-termination off point (ii).*	0	112	44	21-22	13/14 th		4.39	21.97	17.57	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Jehta 400 (Lucknow) - Mallawan 220 (Hardoi) 220 kV DC (Moose) line - 90 km (UPPTCL) *(Overhead 88km+ U/G cable 02km)*	0	180	116	21-22	13/14 th		11.60	57.98	46.38	-	-	-		Ongoing
TL	132	Baghauli132 (Hardoi) - Mallawan 220 (Hardoi) 132 kV on DC line (Zebra conductor)- 15km	0	30	11	21-22	13/14 th	4.56	6.83	-	-	-	-	-		Ongoing
TL	132	LILO of Sandila (Hardoi) - Bagarmau (Unna) 132 kV SC line at Mallawan (220)- 20 km	0	40	10	21-22	13/14 th	4.05	5.07	1.01	-	-	-	-		Ongoing
SS	220	**220/132/33 kV Vrindavan, Mathura S/S (2x160+2x40)**	400		61	20-21	12/41 st	18.40	30.67	12.27	-	-	-	-	Existing 132 KV Vrindawan SS is fully loaded & also there is space constraint for new 33 KV bay. 220 KV SS Gokul also get overloaded during peak hour. Hence, to cater the increasing demand in the area, new 220 KV SS is being planned.	Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of Chatta (Mathura) - Math (400) 220 kV DC line one ckt at Vrindawan(220) -27 km (UPPTCL)	0	54	20	20-21	12/41 st	7.88	9.85	1.97	-	-	-	-		Ongoing
TL	132	LILO of Vrindawan - Mathura 132 kV SC line at Vrindawan (220) - 22 km (UPPTCL)	0	44	9	20-21	12/41 st	3.73	4.67	0.93	-	-	-	-		Ongoing
SS	220	**220/132/33 kV Badaikala (Muzaffarnagar), 2x160+2x40 MVA**	400		66	20-21	13/10 th	19.69	32.82	13.13	-	-	-	-	To reduce the overloading of nearby 220 kV s/s and to provide downstream supply to 132 kV s/s for improvement of power supply.	Ongoing
TL	220	Badaikala(Muzaffarnagar)-Shamli(400) 220 kV DC Line-40 Km (UPPTCL)	0	80	27	20-21	13/10 th	10.88	13.60	2.72	-	-	-	-		Ongoing
TL	220	LILO of Muzaffarnagar (400) - Nanauta 220kV SC lineat Badaikala (220) - 10 km (UPPTCL)	0	20	7	20-21	13/10 th	2.72	3.40	0.68	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 kV Badaikala -Purkazi DC tower at SC line - 40 km	0	40	14	20-21	13/10 th	5.54	8.32	-	-	-	-	-		Ongoing
SS	220	**220/132/33 kV (2x160+2x40) and 220/33kV 2x60 MVA Deoband**	400		76	21-22	13/23 rd		7.57	34.07	34.07	-	-	-	Presently, Deoband, Kota (saharanpur) area is fed throughh 132 KV Deoband SS. 220 KV Nanauta SS is main source of this 132 kv SS. Due to increasind demand in the area, there is possibility of overloading of source SS & 132 KV lines, hence, to cater the increasing demand, new 220 KV SS has been planned. WIth the construction of new SS, 132 KV Deoband & kota SS will have additional source.	New Project
TL	220	Saharanpur (400) PGCIL - Deoband (220) 220 kV DC line (1xMoose)- 30 km	0	60	25	21-22	13/23 rd		2.47	12.35	9.88	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Shamli (400) - Deoband (220) kV DC line (1xMoose) - 55 km	0	110	45	21-22	13/23 rd		4.53	22.64	18.11	-	-	-		Ongoing
TL	132	LILO of Kota - Deoband 132 kV SC line at Deoband(220)- 05 km	0	10	2	21-22	13/23 rd	0.93	1.16	0.23	-	-	-	-		Ongoing
SS	220	**220/33 kV Jewar (Hybrid) 2x60 MVA**	120		51	21-22	13/15 th		5.11	23.01	23.01	-	-	-	Jewar area is pertain to NCR region where industrial and commercial load growth is high so to cater load demand new ss is required.	New Project
TL	220	LILO of Jahangirpur (765kV G.Noida) - IITGNL UPPTCL (U/C) one ckt at Jewar - 8 km ***(Narrow base DC Tower)***	0	16	26	21-22	13/15 th	7.85	13.08	5.23	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	***220/132 kV Amariya (Pilibhit) 2x100+2x40 MVA***	280		61	21-22	13/19 th		6.08	27.37	27.37	-	-	-	Presently, dist. Pilibhit & nearby areas are fed through the only available 220 KV SS Pilibhit. There is continuous increase in demand of the area. The possibility of extension of existing SS is not possible, hence, to cater the new demand &reduce overloading of existing SS & feeder, new SS has been planned.	Ongoing
TL	220	Bareilly (400) - Amriya (Pilibhit) 220 kV DC (Each ckt at Moose) line-40 km	0	80	37	21-22	13/19 th		3.74	18.72	14.98	-	-	-		Ongoing
TL	132	Amriya (220) - Pooranpur 132 kV DC line (Zebra) -60 km	0	120	38	21-22	13/19 th		3.84	19.20	15.36	-	-	-		Ongoing
TL	132	Amriya (220) - Richha 132 kV DC line (Zebra) - 30 km	0	60	19	21-22	13/19 th		1.92	9.60	7.68	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**220/132 kV Farukkhabad (Bhojpur) 2x160+2x40 MVA**	400		66	21-22	13/25 th	-	6.63	29.84	29.84	-	-	-	Presently, district Farukkahabad is feeding through 220 KV Neebkarori & Chibbramau SS. 220 KV Neebkarori SS is fully loaded & there Is space constarint for new 132, 33 KV bays. Hence, due to incresing load demand in the area, new 220 KV SS is required.	New Project
TL	220	LILO of Nib Karori-Manpuri (PGCIL) 220 KV Line 1 ckt at Farukkhabad-20 Km		40	14	21-22	13/25 th	-	1.37	6.84	5.47	-	-	-		New Project
TL	220	220 KV Chibra Mau (kanauj)-Farukhabad DC Line-30 Km		60	25	21-22	13/25 th	-	2.47	12.35	9.88	-	-	-		New Project
TL	220	LILO of 132 KV fatehgarh-kainjanj Line at Farukkhabad-15 km		30	7	21-22	13/25 th	-	0.70	3.48	2.78	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**220/132/33 kV Dulhipar 2x160+2x40 MVA**	400		80	20-21	13/22 nd	24.14	32.18	24.14	-	-	-	-	Presently, dist., Basti & Sant Kabir nagar are fed through 220 KV Basti & Barhua SS. These SS are also feeding Khalilabad, Medhawal, Nathnagar & Gida area. During peak hours, both SS & lines get fully loaded, hence, to cater the increasing demand in Sant Kabirnagar, new SS has been planned. Also, Khalilabad & Gida will be provided with reliable power supply source.	Ongoing
TL	220	LILO of Gorakhpur (PG) - Bansi (Siddharthnagar) 220 kV SC line at Dulhipar - 15km (UPPTCL)	0	30	10	20-21	13/22 nd	3.06	5.10	2.04	-	-	-	-		Ongoing
TL	220	Bhaukhari(Basti) 400- Dulhipar (220) DC line -60 km	0	120	40	20-21	13/22 th	20.24	16.19	4.05	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of Mehdawal (Sant kabir Nagar) - Basti (220) 132 kV SC line at Dulhipar - 10km (UPPTCL)	0	20	4	20-21	13/22 nd	1.74	2.17	0.43	-	-	-	-		Ongoing
TL	132	LILO of Khalilabad -Gida (Gorakhpur) 132 kV SC line at Dulhipar - 38 km	0	76	16	20-21	13/22 th	6.59	8.24	1.65	-	-	-	-		Ongoing
SS	220	**IITGNL 220/33 kV 4x60 MVA (DEPOSIT)**	240		85	20-21	13/5th	25.37	29.60	29.60	-	-	-	-	For managing Rapid Increase in urban load and establishment of food industries IITGNL has requested PVVNL for 4x60 MVA load demand. SS has been planned on deposit basis.	Ongoing
TL	220	G.Noida (765) WUPPTCL-IITGNL 220 kV DC line-45 km	0	90	33	20-21	13/5th	13.13	16.41	3.28	-	-	-	-		Ongoing
TL	220	Sikandrabad (400) WUPPTCL-IITGNL 220 kV DC line-42km	0	84	31	20-21	13/5th	12.25	15.32	3.06	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**220/132/33 kV Bhadohi (GIS) 2x200+2x40 MVA**	480		99	21-22	13/28 th	-	9.89	44.52	44.52	-	-	-	Presently, in Bhadohi & nearby district, there are following constraints in transmission system: 1. Overloading of 220 KV jaunpur SS 2. Overloading of Jaunpur- Aamgarh 220 KV line 3. Overloading of Mirzapur-Orai- Bhadohi 132 KV line. 4. Saturation in existing SS due to increase in demand in the area. Due to above issues, supply of Jaunpur, Azamgarh Gopiganj, Bhadohi, etc. is affected. Hence, to overcome these problems & expected solar generation in the region, 220 KV SS is required. Various 220 KV, 132 KV under construction transmission lines will be utilized for feeding 220 KV SS.	New Project
TL	220	Stringing of II ckt of Azamgarh II (220)-Aurai (400) 220 KV line - 78 km		156	12	21-22	13/28 th	-	1.24	6.18	4.94	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of 1 ckt Azamgarh II (220)-Aurai (400) 220 KV line at Jaunpur (400) - 50 km		100	37	21-22	13/28 th	-	3.69	18.43	14.74	-	-	-		New Project
TL	220	Aurai (400) Bhadohi (220) Kv DC Line - 5 km		10	4	21-22	13/28 th	-	0.37	1.85	1.48	-	-	-		New Project
TL	220	Extension of U/C 220 KV Mirzapur (220) - Aurai (400) SC Line upto Bhadohi (220)-6 km		6	3	21-22	13/28 th	-	0.35	1.73	1.38	-	-	-		New Project
TL	220	Extension of U/C 220 KV phoolpur (220) - Aurai (400) SC Line upto Bhadohi (220)-8 km		8	5	21-22	13/28 th	-	0.46	2.31	1.84	-	-	-		New Project
TL	220	Stringing of II ckt of Sahupuri (220) - Raja ka Talab (220) Line upto Chandauli (400)-63 Km		63	10	21-22	13/28 th	-	1.00	5.00	4.00	-	-	-		New Project
TL	220	Stringing of II ckt of U/C Raja ka Talab (220) - Aurai (400)-17 km		17	3	21-22	13/28 th	-	0.27	1.35	1.08	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Extension of Raja ka Talab (220)-Aurai (400) Bhadohi 220 KV DC Line - 5 Km		10	4	21-22	13/28 th	-	0.37	1.85	1.48	-	-	-		New Project
TL	132	Extension of Aurai (400) - Aurai 132 KV U/C DC Line till Bhadohi 220 - 6 Km		12	3	21-22	13/28 th	-	0.28	1.41	1.12	-	-	-		New Project
TL	132	Extension of U/C 132 KV SC Line Aurai (400)-Gopiganj 132 KV till Bhadoi -9 Km		9	3	21-22	13/28 th	-	0.34	1.72	1.37	-	-	-		New Project
TL	132	Extension of U/C 132 KV SC Line Aurai (400)-Raja ka Talab 132 KV till Bhadoi -4 Km		4	2	21-22	13/28 th	-	0.15	0.77	0.61	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	In place of U/C LILO of Jaunpur-Maniyahu - Bhadohi 132 KV SC Line at Aurai (400 Construction of Bhadohi 220 - Bhadohi 132 DC Inter Connector I. From LILO point of Jaunpur (220) - Maniyahu- Bhadohi 132 KV DC Line to Bhadohi 132 KV - 6 km		12	3	21-22	13/28 th	-	0.28	1.41	1.12	-	-	-		New Project
TL	132	II. Aurai (400) Bhadohi (220) 132 KV DC Line- 3 Km		6	1	21-22	13/28 th	-	0.14	0.71	0.56	-	-	-		New Project
TL	220	Chhaprauli-Sighauli DC line- 30 Km.	0	60	22	21-22		-	2.21	11.06	8.84	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**220/33 KV 3x60 MVA Morta, Gaziabad (220 KV side GIS and 33 KV side AIS)**	180		55	21-22	13/30 th	-	5.53	24.89	24.89	-	-	-	Presently, Meerut road , Morta & nearby areas are fed through 132 kV Morta SS. The SS is saturated & due to increasing load in the area, it is expected that SS & 132 KV feeders will be fully loaded. Hence, due to increasing demand in Morta, rajnagar (extn.) area, new 220/ 33 KV SS is required. The new SS will reduce loading at 132 KV Morta & its connecting line and Muradnagar (220 KV SS).	New Project
TL	220	After LILO of Muradnagar II (400) - Atur (400) 220 KV SC Line at Madhuban Bapudham, LILO of I Section Muradnagar II (400) - Madhuban Bapudham SC Line at Morta-0.8 Km	0	70	3	21-22	13/30 th	-	0.25	1.27	1.02	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Khaga 220/132/33 kV 2x160+2x40 MVA**	400		53	22-23	Pending TWC	-	5.25	15.76	31.52	-	-	-	To cater load demand and improvement in voltage profile in khaga tahshil and near by area.	New Project
TL	220	Fatehpur PG-Khaga(220) DC-50 Km.	0	100	34	22-23		-	3.41	10.22	20.43	-	-	-		New Project
TL	132	Khaga 220/Khaga (132) Kv DC Line-35 km		70	23	22-23		-	2.27	6.81	13.62	-	-	-		New Project
SS	220	**G.Noida (II) (220/33 kV) (Proposed) 2x160 MVA**	320		52	22-23	Pending TWC	-	5.17	23.24	23.24	-	-	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	**Associated Lines**		25		22-23										
SS	220	**Kidwainagar GIS (220/33 kV) 3x60 MVA**	180		80	20-21	13/20 th	24.09	32.12	24.09	-	-	-	-	Presently Kidwainagar, Govindnagar & nearby areas are fed through 220KV Naubasta & 132 KV Meherban Singh SS. As there is rapid increase in demand in the area & extension of the existing SS is not possible, hence a new 220 KV SS near the load centre has been planned.	Ongoing
TL	220	LILO of Panki (220) - Bhaunti, Kanpur (PGCIL) 220 kV line on Monopole at 220 kV S/S Govind Nagar -6 km		12	20	20-21	13/20 th	5.89	9.81	3.92	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**220/132 kV Chandpur (bijnor) 2X160 MVA**	320		48	20-21	13/24 th	14.33	19.11	14.33	-	-	-	-	Existing 132 KV Chandpur SS, fed through Nehtaur 440 KV (WUPPTCL) & 220 KV Nehtaur (UPPTCL), provides supply to Chandpur (Bijnor) & nearby areas. There is continuous increase in load demand in the area and 132 KV feeders have less margin available to cater the increase demand. Multiple 33 KV SS are connected on single feeder, hence to overcome these situation, new 220 / 132 KV SS is being planned at existing 132 KV Chandpur SS.	Ongoing
TL	220	LILO ofMeerut (765) UP - Amroha 220 kV DC line (Moose) at chandpur- 27 km	0	54	22	20-21	13/24 th	6.67	8.89	6.67	-	-	-	-		Ongoing
TL	132	Chandpur-Tajpur 132 kv DC line - 30 km.	0	60	19	20-21	13/24 th	7.68	9.60	1.92	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**220/132/33 Kirawali (Agra) 2X100+2X40**	280		54	22-23	13/24 th		5.39	16.16	32.32	-	-	-	Presently, Kirawali (Agra) & nearby areas are fed through Kirawli 132 KV existing SS. There is space constraint for new 33 KV bay at the SS. 33 KV UPSIDC, Dura, Madnapur & Mangolikalan are fed through single 33 KV feeder from 132 KV Kirawali SS. Feeder to Kirawali town & rural are to be seprated & to be fed through new 220 KV SS. New 220 KV SS will also provide additional source to 132 KV Farh, & fatehpur Sikri & also upcoming new 33 KV SS Kirawali town, Midhapur are to be fed through this SS.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	After LILO of Sikandra(220)-Bharatpur(220) 220 kv Rajasthan prasarn nigam SC lineat Agra PGCIL--Agra(765)PGCIL - Sikandra 220 kv section lilo at kirawli -13 km.	0	26	9	22-23	13/24 th		0.89	2.67	5.33	-	-	-		Ongoing
TL	132	LILO of Fahtehpur Sikri -Kirawali 132 kV SC line at kirawli 220 -27 km	0	54	13	22-23	13/24 th		1.25	3.76	7.52	-	-	-		Ongoing
TL	132	LILO of Farh - Mathura 132 kV SC line at kirawli (220) -30 km	0	60	14	22-23	13/24 th		1.39	4.18	8.36	-	-	-		Ongoing
SS	220	**Bijnore (Lucknow) Sarojaninagar 220/132/33 kV, 2x160+2x40 MVA**	400		55	21-22	13/18 th		5.55	24.96	24.96	-	-	-	Existing 400 KV SS Sarojininagar is providing supply to Bijnor (lucknow) & nearby area. The feeders to this SS are overloaded, hence, to meet out the increasing demand & reduce overloaidng of the 400 KV SS feedres, new SS has been planned.	Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of Sarojninagar(400) - Bachrawan(220) 220 KV SC line (Moose Conductor on Multicuricuit Tower) at Bijnore-01km	0	2	2	21-22	13/18 th		0.25	1.24	0.99	-	-	-		Ongoing
TL	132	Bijnore(220)-Raibareilly Road, Lucknow (Proposed 132 kV Substation near SGPGI) 132 kV DC line (Zebra) at Monopole DC Tower-1.5km	0	3	5	21-22	13/18 th		0.49	2.46	1.96	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Myorpur (220/132/33 kV) 2X160 +2x40 MVA**	400		59	21-22	13/28 th	-	5.94	26.72	26.72	-	-	-	Presently, Myorpur & near by areas are fed through 132 Switchyard of Pipri (UPJVNL). Due to non-availibility of second source, difficulty has been faced to maintain supply in the region. As there is increasing demand, planning of solar park in future & fully loading of 132 KV evacuation lines of Rihand Hydro, a new 220 KV SS has been planned.	Ongoing
TL	220	Obra (220) TPS - Myorpur 220 KV DC Line-75 km		150	62	21-22	13/28 th	-	6.17	30.87	24.69	-	-	-		New Project
TL	132	Pipri - Myorpur 132 KV DC Line-45 Km		90	29	21-22	13/28 th	-	2.91	14.55	11.64	-	-	-		New Project
TL	220	Renovation work for exsisting 220 KV feeder Bay at OTPS			4	21-22	13/28 th	-	0.41	2.04	1.63	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	400	**Noida(123) 400/132 /33 kV, 4X200+4X100 (Works Below 220 kV to be carried out on Deposit basis by Noida , Auth.) at Rs. 154.45 Crore**	1200		282	20-21	12/40 th	84.71	111.62	86.03	-	-	-	-	Due to increase in demand in Noida sectors, various 132 KV SS have been planned. Hence, to provide reliable source to these SS, New 400 KV SS have been planned.	Ongoing
TL	400	LILO of Ataur (400) (WUPPTCL) - Indirapuram (WUPPTCL) Quad DC line one ckt at Noida Sec (123) (400kV) - 10km (at Quad Monopole) ***(For providing Second source)***	0	20	79	20-21	13/20 th	23.77	31.69	23.77	-	-	-	-		Ongoing
TL	400	400 kV DC Noida Sec. 148-Noida Sec. 123 - 20 km (monopole)	0	40	81	19-20	12/40 th	40.50	16.20	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	400	**Jehta (Hardoi Road) GIS-400/220/132 kV, 2X500+2X160 MVA**	1320		324	20-21	12/24 th	97.11	161.86	64.74	-	-	-	-	220 KV, 400 KV SS in dist. Lucknow are running at their full capacity & due to increase load demand in dist. Lucknow & nearby areas, new 220 KV SS has been planned.	Ongoing
TL	400	LILO of I ckt of PGCIL Kursi Road Lucknow - Unnao 400 KV DC Line-15 km		30	24	20-21	12/24 th	7.34	14.24	2.89	-	-	-	-		Ongoing
TL	400	LILO of II ckt of PGCIL Kursi Road Lucknow - Unnao 400 KV DC Line-15 km		30	24	20-21	12/24 th	7.34	12.24	4.89	-	-	-	-		Ongoing
TL	220	Jehta Hardoi Road (400) - Hardoi Road 220 KV DC Line-10 km		20	8	20-21	12/24 th	2.35	3.91	1.56	-	-	-	-		Ongoing
TL	132	LILO of Rahimabad-Sandila 132 KV SC Line at Jehta Hardoi Road (400) Substation - 35 Km		70	16	20-21	12/24 th	6.42	8.02	1.60	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	Jehta (400) - Hanuman setu 132 kV SC line - 11 km (10 km under ground cable) (1000 square mm cable)	0	11	36	20-21	12/37 th	14.53	18.16	3.63	-	-	-	-		Ongoing
TL	400	Jehta 400 - Mehtabbagh Negupark SC Line-14.5 km (10 km O/h+4.5 km Cable)		15	52	20-21	12/24 th	15.48	25.80	10.32	-	-	-	-		Ongoing
SS	400	**Sahupuri(Chandauli) GIS - 400/220 kV, 2X500 MVA, *(125MVAR Bus reactor & reator of 63 MVAR and each ckt of Bihar Sharif (Bihar) - Chandauli 400 kV DC line)***	1000		234	21-22	13/9th	-	46.71	105.09	81.74	-	-	-	Existing 400 KV Varanasi SS is fully loaded & 220 KV line are genarally overloaded, hence, to provide connectivity to new upcoming 220 KV SS, new 400 KV SS has been planned.	Ongoing
TL	400	LILO of Thathra,Varanasi PG (765)- Bihar Shariff (Bihar) 400 kV DC Quad lines (ISTS) at Sahupuri (400) - 30 km (UPPTCL)	0	60	196	21-22	13/9th		19.62	98.10	78.48	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Extension of 220 kV Bus of 220 kV Shaupuri substation upto 220 kV bus of 400/220 kV GIS through cable (1200 sqmm copper) -2x0.7 km	0	1	11	21-22	13/9th		1.10	5.50	4.40	-	-	-		Ongoing
TL	220	Retermination of 220 kV Sahupuri - Bhelupur DC line though cable at 220 kV bus of 400/220 kV GIS (630 sqmm copper) -2x0.7 km	0	1	9	21-22	13/9th		0.91	4.55	3.64	-	-	-		Ongoing
SS	400	**Bhaukhari (Basti) GIS - 400/220/132kV, 2X500+2X200 MVA *(125 MVAR Bus reactor & 2x50 MVAR line reactor on Basti - Lucknow (PG) line at Basi end included)***	1400		320	20-21	13/12th	96.07	128.09	96.07	-	-	-	-	To facilitate power evacuation from Tanda Extn. (2x660 MW) and to meet out increasing load demand of Gorakhpur, Basti, Siddharthnagar, Santkabir Nagar area	Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of 132kV SC line Haraiya(Basti)-Darshan nagar(Faizabad) at Bhaukhari(Basti) 400kV -15km	0	30	6	20-21	13/12 th	2.58	3.23	0.65	-	-	-	-		Ongoing
TL	400	400kV DC line(Q) Tanda(NTPC) Extn. - Bhaukhar, Basti -48km ***(Ghaghra River Xing included)***	0	96	150	20-21	13/12 th	44.90	59.87	44.90	-	-	-	-		Ongoing
TL	400	LILO of 3rd & 4th ckt of (Twin Moose Conductor) line Gorakhpur(PG)-Lucknow(PG) at Bhaukhari(Basti) -28 & 30km	0	116	181	20-21	13/12 th	90.43	72.34	18.09	-	-	-	-		Ongoing
TL	220	LILO of 220kV SC line Gonda(220)-Basti(220) at Bhaukhari(Basti) - 15km	0	30	10	20-21	13/12 th	3.04	5.06	2.02	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132kV DC line Bhaukhari(Basti) -Rudauli(Basti) - 35km *(Cost to be included in Rudauli (Basti) 132 kV S/S Proposed)*	0	70	22	20-21	13/12 th	8.96	8.96	4.48	-	-	-	-		Ongoing
SS	400	**Machlishear (Jaunpur)- 400/220/132 Kv, 2x315+ 2x160 MVA**	950		204	21-22	12/35 th		40.71	91.60	71.25	-	-	-	To facilitate power evacuation from Obra 'C' and reduce overloading of 400 kV Azamgarh and Sarnath s/s and its lines.	Ongoing
TL	400	Machlishear (Jaunpur) (400) -Varanasi (765kV)PGCIL 400 kV DC line - 75 km	0	150	128	21-22	12/35 th		12.84	64.18	51.34	-	-	-		Ongoing
TL	400	LILO of I Ckt of Obra C (400) - Obra B (400) KV DC Line at Machlishear Jaunpur **(TBCB)**-190 Km		380	299	21-22	12/35 th	-	-	-	-	-	-	-		New Project
TL	400	Obra "B" - Obra "C" - 400 kV DC line 1.5 km	0	3	5	21-22	13/22 nd		0.49	2.45	1.96	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of Jaunpur - Gajokhar 220 kV SC line at Jaunpur(400) - 45 km	0	90	33	21-22	12/35 th		3.32	16.58	13.26	-	-	-		Ongoing
TL	220	LILO of I ckt of Azamgarh II - Bhadohi (220 KV) DC Line at Machlishear Jaunpur - 50 Km		100	37	21-22	12/35 th		3.69	18.43	14.74	-	-	-		Ongoing
TL	132	132 KV Machlishear Jaunpur (400) - Sahaganj (132) DC Line - 40 km		80	19	21-22	12/35 th		1.88	9.38	7.50	-	-	-		Ongoing
TL	132	132 KV Machlishear Jaunpur (400)- Badlapur (132) SC Line-30 Km		30	11	21-22	12/35 th		1.14	5.72	4.58	-	-	-		Ongoing
SS	400	**Shamli-400/220/132 kV(GIS), 2X500+2X200 MVA (Including Bus Reactor of 125 MVAR & 50 MVAR line reactor on each ckt at Shamli end)**	1400		284	20-21	13/10 th	85.30	113.73	85.30	-	-	-	-	To reduce the overloading of 400 KV Muzzafarnagar and to provide alternate source to 132 KV Jalalpur, Thanabhavan, Budhana, Kharad SS	Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	400	Aligarh (400)-Shamli(400) 400 kV DC - 235 km	0	470	421	20-21	13/10 th	126.16	168.21	126.16	-	-	-	-		Ongoing
TL	220	LILO of Shamli (220) -Nanauta 220 kV line at Shamli (400) - 08 km (UPPTCL)	0	16	5	20-21	13/10 th	1.63	2.72	1.09	-	-	-	-		Ongoing
TL	132	LILO of Jalalpur (Bannat) - Thanabhawan 132 kV line at Shamli (400)-05 km (UPPTCL)	0	10	2	20-21	13/10 th	0.87	1.09	0.22	-	-	-	-		Ongoing
TL	132	LILO of Budhna - Kharad 132 kV line Shamli (400) - 16 km (UPPTCL)	0	32	7	20-21	13/10 th	2.78	3.47	0.69	-	-	-	-		Ongoing
TL	132	Kaniyan -Shamli (400) 132 kV SC line - 26 km (UPPTCL)	0	26	9	20-21	13/10 th	3.60	4.50	0.90	-	-	-	-		Ongoing
TL	220	LILO of Moradnagar-Shamli 220kV SC line at Baghpat (400) PG-2 km (UPPTCL)	0	4	2	20-21	12/35 th	0.47	0.79	0.32	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	400	Meerut (765)UP - Shamli 400 kV DC line - 75km (UPPTCL)	0	150	128	21-22	13/22 nd	-	12.79	63.93	51.14	-	-	-		New Project
SS	400	**Raebareli(400) GIS - 400/220/132 kV, 2x500+2x160 MVA (Including 125 MVAR Bus Reactor)**	1320		235	21-22	12/45 th	-	23.50	105.75	105.75	-	-	-	200/ 132 KV Amawa (PGCIL) SS is fully loaded & can't cater the increasing demand of the area. 220 KV Amethi SS is also under construction in the area & not having strong source. Hence, to provide reliable source to under construction 220 & 132 KV SS, new 400 KV SS is being planned.	Ongoing
TL	400	Unchahaar (NTPC) - Fatehpur 400 kV PGCIL DC line one circuit LILO - 60 km (UPPTCL)	0	120	104	20-21	12/45 th	31.29	41.72	31.29	-	-	-	-		Ongoing
TL	220	220 kV Raebreli (400 kV) - Amethi (220 kV) DC line - 40 km	0	80	33	20-21	12/45 th	9.94	16.57	6.63	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of Amawan (UPPTCL) - Salon 132 kV DC line one circuit at Raebreli (400) - 15 km (UPPTCL)	0	30	6	20-21	12/45 th	2.54	3.18	0.64	-	-	-	-		Ongoing
TL	220	Raebreilly (400 kV) -Bachrawn (220) kV DC line -35 km (Each ckt single Moose conductor)	0	70	31	20-21	12/45 th	9.19	15.32	6.13	-	-	-	-		Ongoing
SS	400	**Rasra (400) GIS-400/220/132 Kv, 2x500+2x160 MVA (Including 125 MVAR Bus reactor)**	1320		233	20-21	13/5th	69.75	93.00	69.75	-	-	-	-	To reduce the overloading of 400 KV Sarnath SS and 220 KV Sarnath - Ghazipur line. It will also act as an alternate source to 132 KV Kashimabad, Chitparagaon, Ballia SS.	Ongoing
TL	400	LILO of Ebrahim Patti, PGCIL(765) - Kasara Mau(Mau) 400 kV DC line one ckt at Rasra (400) -38km (UPPTCL)	0	76	66	20-21	13/5th	33.03	13.21	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of Rasra (220)-Gazipur 220 kV SC line at Rasra (400) - 10 km (UPPTCL)	0	20	7	20-21	13/5th	2.92	3.65	0.73	-	-	-	-		Ongoing
TL	220	Rasra (400)-Bhadaura (Gazipur) 220 kV DC line - 47 km	0	94	34	20-21	13/5th	13.71	17.14	3.43	-	-	-	-		Ongoing
TL	132	Rasra (400)-Balia 132 kV DC line - 35 km (UPPTCL)	0	70	15	20-21	13/5th	5.94	8.90	-	-	-	-	-		Ongoing
TL	132	Rasra (400) - Chitbadagaon (Balia) 132 kV SC line - 18 km (UPPTCL)	0	18	6	20-21	13/5th	2.41	3.62	-	-	-	-	-		Ongoing
TL	132	Rasra (400) - Kasimabad (Ghazipur) 132 kV DC line - 26 km (UPPTCL)	0	52	11	20-21	13/5th	4.41	6.61	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	400	**Firozabad (400) - 400/220/132 kV, 2X500+2X160 MVA, (Including 125 MVAR Bus reactor) ,(Through TBCB)**	1320		191	20-21	12/45 th	-	-	-	-	-	-	-	To facilitate power evacuation from Jawaharpur TPS and for increasing load and system reliabilty.	Ongoing
TL	400	I ckt of Fatehabad Agra (765) - Agra South 400 KV DC Line at Firozabad (400)-20 km **(TBCB)**		40	35	20-21	12/45 th	-	-	-	-	-	-	-		Ongoing
TL	400	Jawaharpur (TPS) - Firozabad 400 Kv DC Quard Line-80 km **(TBCB)**		160	264	20-21	12/45 th	-	-	-	-	-	-	-		Ongoing
TL	220	LILO of Firozabad (220) - Agra 765 (PG) 220 Kv SC Line at Firozabad (400)-20 km **(TBCB)**		20	15	20-21	12/45 th	-	-	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of Aitmadpur-Barhan 132 KV SC Line at Firozabad 400-35 Km **(TBCB)**		70	15	20-21	12/45 th	-	-	-	-	-	-	-		Ongoing
TL	132	Firozabad (400) Narkhi 132 KV DC Line-30 km **(TBCB)**		60	13	20-21	12/45 th	-	-	-	-	-	-	-		Ongoing
SS	400	**Badaun(400) GIS-400/220/132 Kv,2x315+2x160 MVA (Through TBCB)**	950		245	20-21	13/5th	-	-	-	-	-	-	-	To facilitate power evacuation from Roja TPS and for increasing load and system reliabilty.	Ongoing
TL	400	Roja TPS Badaun (400 KV) DC Line-100 km **(TBCB)**		200	174	20-21	13/5th	-	-	-	-	-	-	-		Ongoing
TL	220	LILO of CBGanj (220)-Badaun 220 Kv SC Line at Badaun 400 KV-5 km		10	4	20-21	13/5th	1.10	1.83	0.73	-	-	-	-		Ongoing
TL	220	LILO of Pura Chandausi (220) - Badaun (220) KV SC Line at Badaun 400-35 Km **(TBCB)**		70	26	20-21	13/5th	-	-	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	Ujhani-Badaun (400) 132 KV SC Line 40 Km **(TBCB)**		40	10	20-21	13/5th	-	-	-	-	-	-	-		Ongoing
TL	132	Bilsi-Badaun (400) 132 KV DC Line 40 km **(TBCB)**		80	10	20-21	13/5th	-	-	-	-	-	-	-		Ongoing
SS	220	**Khorabar-Gorakhpur 220/132/33 kV, 2x160+2x40MVA**	400		40	23-24	As per demand requirment of the area	-	-	-	12.00	20.00	8.00	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	**Associated Lines - 30 Km**		30		23-24										

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	400	**Noida (Gr. Noida) 400/220/132 kV 2x315+2x160 MVA**	950		465	22-23	As per demand requirment of the area	-	-	46.52	232.58	186.06	-	-		New Project
TL	400	**Associated Lines**		30		22-23										
SS	220	**Dibiyapur (Auraiya) 220/132kV, 2x160 MVA**	320		30	22-23	As per demand requirment of the area	-	-	3.00	15.00	12.00	-	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of one ckt. of 220 kV DC line Auraiya (TPS) - Sikandra (Agra) at Dibiyapur (220) or LILO of 220 kV Bhauti (400) - Mainpur(220) - 20 Km		40	40	22-23		-	-	12.00	20.00	8.00	-	-		New Project
SS	220	**Varanasi Cantt. (220/33 kV) 3x60 MVA**	180		20	22-23	As per demand requirment of the area	-	-	2.00	10.00	8.00	-	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	Varanasi (400) - Varanasi - 20 Km. or Shahupuri - Raja Ka Talab IInd Ckt LILO at Varanasi Cantt. (220)		40	60	22-23		-	-	18.00	30.00	12.00	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Khodsama (132/33 kV) 2x40 MVA**	80		20	22-23	As per demand requirment of the area	-	-	2.00	18.00	-	-	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	132	LILO of One Ckt of 132kV line Nanauta - Shamli, Shyamla at Khodsama S/s.-10Km.		20	20	22-23		-	-	4.00	16.00	-	-	-		New Project
SS	132	**132/33 kV, 2x40 MVA UPEIDA Erach Defence Corridor**	80		60	22-23	13/33 rd	-	-	6.00	54.00	-	-	-	To cater load demand of defence corridor developed by UPEIDA.	New Project
TL	132	**Associated Lines**		175		22-23										

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	400	**Mathura (II) 400/220/132kV, 2x315+2x160 MVA**	950		100	23-24	As per demand requirment of the area	-	-	-	30.00	50.00	20.00	-		New Project
TL	400	Fatehabad (765)-Mathura (II) DC line-75Km.		150	80	23-24		-	-	-	24.00	40.00	16.00	-		New Project
TL	400	Mathura (II) 400-Dasna (400) DC line-150Km.		300	20	23-24		-	-	-	6.00	10.00	4.00	-		New Project
TL	220	Mathura (II) 400 -Vrindavan (220) DC line-20Km.		40	40	23-24		-	-	-	12.00	20.00	8.00	-		New Project
TL	132	Mathura (II) 400 - Sonkh Road DC line-40Km.		80	100	23-24		-	-	-	40.00	50.00	10.00	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	**400**	**220/132 KV (2x100 MVA) at 400/220kV Muradnagar-II**	200		30	19-20	13/3rd	14.91	5.96	-	-	-	-	-	Due to overloading of Muradnagar 220/132 KV SS and increasing demand in the nearby area 220/132 KV capacity is to be created at existing 400/220 KV Muradnagar II SS.	complete d
TL	132	Muradnagar II (400)-Morta 132 KV SC Line-0.2 Km		0	0	19-20	13/3rd	0.04	0.01	-	-	-	-	-		Ongoing
TL	132	Muradnagar II (400)-DPH 132 KV SC Line-1.2 km		1	0	19-20	13/3rd	0.22	0.04	-	-	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	**220**	**220/33 kV Gharbara(Gautam Budh Nagar) 2x60MVA and its associated line**	120		52	21-22	Pending TWC	-	5.20	23.40	23.40	-	-	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	**220**	**Associated Lines**		60		21-22										
SS	**220**	**220/33 kV YEIDA Sec.-18 (Gautam Budh Nagar) 2x60MVA**	120		33	21-22	13/29 th	-	3.27	14.72	14.72	-	-	-	Due to upcoming load of YEIDA sec-18, new SS has been planned under deposit scheme.	New Project
SS	**220**	**220/132, 220/33 kV YEIDA Sec.-24 (Gautam Budh Nagar) 1x160+2x60MVA**	280		59	21-22	13/29 th	-	5.92	26.62	26.62	-	-	-	Due to upcoming load of YEIDA sec-24, new SS has been planned under deposit scheme.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Greater Noida (765) - Yeida Sector 18, 220 KV DC Line-26 Km		52	27	21-22	13/29 th	-	2.67	13.35	10.68	-	-	-		New Project
TL	220	Yeida Sector 18 - Yeida Sector 24, 220 KV DC Line-9 Km		18	7	21-22	13/29 th	-	0.74	3.70	2.96	-	-	-		New Project
SS	**220**	**220/132, 220/33 kV GIS Noida Sec.-45 (Gautam Budh Nagar) 1x160+2x60MVA**	280		85	22-23	12/38 th		8.50	25.50	51.00	-	-	-	Due to increase in commercial & residential load, new SS has been planned under deposit scheme.	New Project
TL	220	220kV Noida Sec.148 - 38A Botenical Garden line -22kM		22	35	22-23	12/40 th		3.49	10.48	20.96	-	-	-		Ongoing
SS	**220**	**220/132/33 kV Mohan Road (2x160+3x63) MVA Lucknow and its associated line**	509		285	22-23	13/28 th	-	22.78	85.41	176.52	-	-	-	Due to development of new township in Mohan road region by LDA, new 220KV SS is being planned under deposit scheme.	New Project
TL	220	Jehta 400 Mohan Road (Lucknow) DC Line-28 Km (22 km O/H+U/G)		56	0	22-23	13/28 th	-	-	-	-	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of Sarojni Nagar (400) - Hardoi Road (220) KV SC Line at Mohan Road-3 km		6	0	22-23	13/28 th	-	-	-	-	-	-	-		New Project
TL	132	LILO of Mohan Road (132) - TRT 132 KV SC Line at Mohan Road 220 KV-6 km (Underground)		12	0	22-23	13/28 th	-	-	-	-	-	-	-		New Project
SS	**132**	**132/33 kV Maksanwa (Gonda) 2x40MVA**	80		18	21-22	Pending TWC	-	1.80	8.09	8.09	-	-	-	To cater load demand and improvement in voltage profile in Maskanwa and near by area.	New Project
TL	132	132kV Sambhal (400)-Hasanpur DC line -35kM		70	23	21-22		-	2.26	11.31	9.04	-	-	-		New Project
TL	132	132kV Sambhal (400)-Babrala DC line -15kM		30	10	21-22		-	0.97	4.85	3.88	-	-	-		New Project
SS	**132**	**132/33 kV Basti (Town) Basti 2x40 MVA and its associated lines**	80		32	22-23	Pending TWC	-	3.20	8.00	20.80	-	-	-	To cater load demand in Basti and near by area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	**132**	**Associated Lines**		30		22-23										
SS	**132**	**132/33 kV Sohratgarh (Basti) 2x40MVA**	80		18	22-23	Pending TWC	-	1.80	8.09	8.09	-	-	-	To cater load demand in Sohratgarh and near by area.	New Project
TL	132	132kV Sohratgarh - Dulhipar DC line -50kM		100	32	22-23		-	3.23	16.15	12.92	-	-	-		New Project
SS	**132**	**132/33 kV Phoolwaria (Azamgarh) 2x40MVA**	80		18	22-23	Pending TWC	-	1.80	8.09	8.09	-	-	-	To cater load demand in Phoolwaria and near by area.	New Project
TL	132	LILO of 132kV Phoolpur-Azamgarh-II DC line at Phoolwaria - 21kM		42	14	22-23		-	1.36	6.78	5.42	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	**132**	**132/33 kV Jehta (Lucknow) 2x40MVA**	80		23	21-22	13/30 th	-	2.30	10.34	10.34	-	-	-	Due to rapid development of Urban housing & commercial projects in Jehta & Hardoi road (Lucknow) area, the existing 220 KV Hardoi road & 132 KV Rahimabad SS are expected to be fully loaded. Hence, to cater the increasing demand & to provide additionalsource to 33 KV feederfed from Rahimabad & hardoi SS, new SS is planned. Partial rural load of 220 KV Hardoi road will also be transferred to new SS.	New Project
TL	**132**	Inter connector DC Line from U/C Jehta (400)-Jehta (132)-(U/G 0.5 km)		1	6	21-22	13/30 th	-	0.56	2.82	2.26	-	-	-		New Project
SS	**132**	**132/33 kV Maruadih (Deoria) 2x40MVA**	80		18	22-23	Pending TWC	-	1.80	4.49	11.68	-	-	-	To cater load demand in Maruadih and near by area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	**132**	**Associated Lines**		25		22-23										
SS	**220**	**220/132/33 KV 2x200, 2x63 MVA Kunduni (Sitapur)**	526		69	21-22	13/30 th	-	6.94	31.24	31.24	-	-	-	Presently, rural & town area of dist Sitapur are fed through 220 KV Sitapur SS. 132 KV SS Biswa, Mahmoodabad, Sidhauli, Neri, Laharpur in dist. Sitapur are fed through 220 KV Sitapur SS. 132 KV Biswa & Mahmoodabad are radially fed. Feeding line of 220 KV Sitapur SS is fully loaded. Hence, to reduce overloading of 220 KV Sitapur SS & 220, 132 KV lines & to provide second source to Biswa & Manmoodabad SS, new 220 KV SS is required.	New Project
TL	**220**	LILO of Sitapur (220)-Nighasan (220) KV SC Line at Kanduni-30		60	22	21-22	13/30 th	-	2.16	10.80	8.64	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	**220**	Kursiroad Lucknow PG (400) - Kanduni (220) 220 KV DC Line-60		120	49	21-22	13/30 th	-	4.94	24.70	19.76	-	-	-		New Project
TL	**220**	LILO of Sitapur 220 - Sahjahanpur 220 KV SC Line at 400 KV Sahjahanpur (PG)-10 km		20	7	21-22	13/30 th	-	0.72	3.60	2.88	-	-	-		New Project
TL	**132**	Biswan (132) - Kanduni (220) 132 KV DC Line-20 Km		40	13	22-23	13/30 th	-	-	2.55	10.18	-	-	-		New Project
TL	132	Construction of New Line and Stringing of II circuit on DC Tower Sidhauli (132)- Mahmudabad (132) KV SC Line-33 Km		33	3	21-22	13/30 th	-	0.31	1.57	1.26	-	-	-		New Project
TL	220	After above stringing LILO of I ckt at Kanduni 220-20 Km		40	9	21-22	13/30 th	-	0.92	4.62	3.69	-	-	-		New Project

SS	400	**400/220/132 KV 2x500, 2x200 MVA Mohanlalganj (Lucknow) (GIS)**	1400		253	22-23	13/29 th	-	-	25.26	126.30	101.04	-	-	Following issues are prevalent in and around Lucknow area:- a) High loading of Sarojninagar 400 kV, 2x500 + 3x200 MVA substation. b) High loading of 220 kV downstream lines namely CG City – Raibarely PG, Sarojninagar(400) – Hardoi Road, Sarojininagar(400) – Gomtinagar(220) etc. c) Radial status of 220 kV Barabanki (presently fed from Sohawal PG). d) Fast increasing load in Lucknow near Sultanpur Road and Mohanlalganj area. e) Construction of 400/220/132 kV Sultanpur Road substation with LILO of Sarojininagar(400) – Sultanpur (400) 400 kV S/C line through PPP mode is under litigation with UPPTCL and is quite uncertain. To address the above mentioned issues, new 400 KV SS has been planned.	New Project
TL	400	LILO of Sarojni Nagar (400)-Unnao (765), 400 KV SC Line at Mohanlalganj-37 Km		74	64	22-23	13/29 th	-	-	19.09	31.81	12.72	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	400	LILO of Lucknow PG (400) - Sultanpur (400) SC Line at Mohanlalganj-6 Km		12	10	22-23	13/29 th	-	-	3.08	5.14	2.05	-	-		New Project
TL	220	LILO of Chinhat (220) - C.G. City (220) 220 kV line (Single Moose) at Mohanlalganj-31.7 km		63	21	22-23	13/29 th	-	-	6.32	10.53	4.21	-	-		New Project
TL	220	LILO of I ckt of Barabanki (220) - Satrikh Road Lko (U/C) 220 KV DC Line at Mohanlalganj-20 Km		40	15	22-23	13/29 th	-	-	4.42	7.37	2.95	-	-		New Project
TL	220	Mohanlalganj(400) - Bijnaur Road (220) KV DC Line-20 Km		40	15	22-23	13/29 th	-	-	4.42	7.37	2.95	-	-		New Project
TL	132	Inter Connecting DC U/G Cable from Mohanlalganj (400) to Mohanlalganj (132)-0.15 Km		0	2	21-22	13/29 th	-	0.17	0.86	0.69	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**132/33 KV 2x40 MVA Rudhauli (Basti)**	80		19	22-23	13/29 th	-	-	1.92	17.32	-	-	-	220 KV Basti & Bansi SS are expected to be overloaded soon. Hence, to reduce the overloading & provide connectivity to new 33KV SS, new 132 KV SS is required.	New Project
TL	132	LILO of Basti (220) Basi (220) 132 KV SC Line at Rudhauli-23 km		46	11	22-23	13/29 th	-	-	2.15	8.62	-	-	-		New Project
TL	132	Bhaukhri Basti (400) - Rudhauli (Basti) 132 KV DC Line-35 km		70	22	22-23	13/29 th	-	-	4.48	17.92	-	-	-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	765	**Rampur (Moradabad) 765/400/220 kVS/S, 2X1500+2X500 MVA (Including cost of 330 MVAR Bus Reactor & additional Bays at different Voltage levels) (Through TBCB)**	4000		636	21-22	13/15 th	-	-	-	-	-	-	-	Western area of Moradabad Commissionary is agriculture based & there is increase in agro industries & domestic consumers. To meet the demand, various primary transmission SS are under construction. Existing 400/ 220 & 132 KV transmission system is fully loaded, hence new 765 SS has been planned. Further, the new SS shall be utilized for the evacuation of Harduaganj, Obra C, jawaharpur & Ghatampur Gen Stations. This SS will also provide alternative source to existing 400 KV Moradabad & proposed new 400 KV Sambahl SS.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	765	LILO of Ghatampur (TPS) kanpur - Hapur (765) 765 kV line (Quad Bersimis) at Rampur (765) - 55 km (Including 240 MVAR line reactor on Rampur - Ghatampur line at Rampur end after LILO), Expected cost of Ganga River-Xing- 50 Cr.) ***(Rs. Cr. 283.80+50)***	0	110	284	22-23	13/15 th	-	-	28.38	141.90	113.52	-	-		New Project
TL	400	LILO of Bareilly (400) PG - Moradabad (400) 400 kV PGCIL DC line one ckt at Rampur (765) - 3 km	0	6	5	21-22	13/15 th	-	0.26	2.55	2.30	-	-	-		New Project
TL	765	LILO of Moradabad (400) - Rampur (220) SC line at Rampur (765) - 10 km	0	20	8	21-22	13/15 th	-	0.78	3.90	3.12	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Rampur (765) - Moradabad - II (220) (Proposed) 220 kV DC (Moose) line - 70 km	0	140	360	21-22	13/15 th	-	35.98	179.90	143.92	-	-	-		New Project
SS	765	**Modipuram (Meerut) GIS 765/400/220 kV S/S, 2X1500+2X500 MVA (Including cost of 240 MVAR Bus Reactor at 765kV & 80 MVAR at 400 kV) (Through TBCB)**	4000		508	21-22	13/22 nd	-	-	-	-	-	-	-	In Western region of UP, there is continuous increase in industrial & residential load growth and to facilitate transmission of power from genrating station to load center.	New Project
TL	765	LILO of G. Noida (765) - Hapur (765) 765 kV SC line (WUPPTCL) at Meerut (UP) - 45 km **(Through TBCB)**	0	90	231	21-22	13/22 nd	-	-	-	-	-	-	-		New Project
TL	220	Meerut(765)UP-Jansath 220 kV DC line (Moose) - 45 km	0	90	37	21-22	13/22 nd	-	3.70	18.52	14.82	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Meerut (765) UP - Amroha 220 kV DC line (Moose) - 45 km (Ganga River Xing including 02 Nos. Well Foundation)	0	90	61	21-22	13/22 nd	-	6.10	30.52	24.42	-	-	-		New Project
TL	220	Meerut (765)- G. Noida(II) 220 kV DC (Moose) line- 50 km (Noida (220) -II is proposed for future work of Greater Noida area & cost not included in these works) ***(Deposit)***	0	100	68	21-22	13/22 nd	-	6.78	33.91	27.13	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	400	**Simbholi (400) GIS - 400/200/132 Kv, 2x500+ 2x200 MVA (Including 80MVAR Bus reactor)(Through TBCB)**	1400		254	21-22	13/22 nd	-	-	-	-	-	-	-	Dist. Meerut in NCR region, there is continuous industrial & township development. Existing 765 KV Meerut (PG) SS & 220 , 132 KV lines generally fully loaded. Hence, to reduce the overloading & to transmit the power from upcoming thermal projects Ghatampur, Jawaharpur & Obra C to load centres, new 440 KV SS has been planned.	New Project
TL	400	Simbhaoli (400) - Moradnagar 400 kV DC line (Twin Moose) - 95 km **(Through TBCB)**	0	190	162	21-22	13/22 nd	-	-	-	-	-	-	-		New Project
TL	400	Simbhaoli (400) - Meerut (UP) 400 kV DC line (Twin Moose) - 40 km **(Through TBCB)**	0	80	68	21-22	13/22 nd	-	-	-	-	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of Hapur Hybrid (220)-Simbhaoli (220) 220 kV SC line at Simbhaoli (400)-30 km	0	60	21	21-22	13/22 nd	-	2.06	10.29	8.23	-	-	-		New Project
TL	132	LILO of 132 kV Garhmuketeshwar- Gajraula at 400 kV Simbhaoli line-08 km	0	16	4	21-22	13/22 nd	-	0.37	1.87	1.49	-	-	-		New Project
SS	400	**Sambhal(400) GIS - 400/220/132 Kv,2X 500+2X160 MVA (Including 125 MVAR Bus reactor), (Through TBCB)**	1320		257	21-22	13/22 nd	-	-	-	-	-	-	-	Western region of Muradabad is agricultural intensive region. Development of agro & other industrial units in the region shall require aditional demand. Therefore, in order to transfer power from genarating station to these load centres & to reduce the load of existing 220 KV & 132 KV transmission lines, new 400 KV SS is being planned.	New Project
TL	400	Rampur(765)-Sambhal (400) 400 kV DC line-80km (River crossing) **(Through TBCB)**	0	160	136	21-22	13/22 nd	-	-	-	-	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of Chandausi(220)-Sambhal(220)220 kV existing SC line at Sambhal (400) -20km	0	40	16	21-22	13/22 nd	-	1.57	7.85	6.28	-	-	-		New Project
TL	220	LILO of Sambhal (220) -Gajraula (Amroha) 220kV existing SC line at Sambhal(400) - 50 km	0	100	39	21-22	13/22 nd	-	3.92	19.62	15.70	-	-	-		New Project
TL	132	LILO of Babarala (132)- Bisauli (Badaun) 132 kV existing SC line at Sambhal(400) - 24 km	0	48	12	21-22	13/22 nd	-	1.22	6.08	4.86	-	-	-		New Project
TL	132	LILO of Chandusi (132)- Bilari (Moradabad) 132 kV existing SC line at Sambhal - 32 km	0	64	16	21-22	13/22 nd	-	1.62	8.10	6.48	-	-	-		New Project
TL	400	Sambhal(400) - Badaun(400) 400 kV DC line - 67 km	0	134	114	21-22	13/22 nd	-	11.42	57.11	45.69	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Campierganj 132/33 kV 2x40 MVA**	80		23	20-21	13/20 th	9.20	11.51	2.30	-	-	-	-	Presntly, Campierganj tahsil area are fed through 132 KV SS Anandnagar, which are fully loaded. Hence, to cater the increased demand in the area, new SS has been planned.	Ongoing
TL	132	LILO of Barahuwa (220) - Anandnagar 132 kV SC line at Campierganj - 02km	0	4	1	20-21	13/20 th	0.37	0.47	0.09	-	-	-	-		Ongoing
TL	132	Campierganj (132) - Anandnagar (220) 132 kV DC (Zebra) line -38 km	0	76	24	20-21	13/20 th	9.73	12.16	2.43	-	-	-	-		Ongoing
SS	132	**Dhanaura (132/33 kV) 2x40 MVA**	80		18	22-23	As per demand requirment of the area	-	-	1.80	16.17	-	-	-	To cater load demand in Dhanaura and near by area.	New Project
TL	132	132 kV Amroha(220) - Dhanaura DC - 20.7 km.	0	41	13	22-23		-	-	2.67	10.70	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 kV Nehtaur New(220) - Mamdaur DC - 31.05 Km.	0	62	20	21-22		-	2.01	10.03	8.02	-	-	-		New Project
SS	220	**220/33 KV Lucknow Awas Vikas Sultanpur Road (Deposit) 5x60 MVA**	300		102	22-23	12/46 th	-	10.24	25.59	66.53	-	-	-	Due to development of various urban housing projects by Awas Vikas Parishad at Sultanpur road & nearby area, new 220 KV SS is being planned	New Project
TL	220	Sultanpur Road(400)-Sultanpur Road (Awas Vikas, Lucknow) 220 kV DC line -0.8 km (underground cable)	0	2	18	22-23	12/46 th	-	1.77	4.41	11.47	-	-	-		New Project
TL	220	Varanasi (400) - Varanasi - 20 Km.	0	40	15	22-23		-	-	4.42	7.37	2.95	-	-		New Project
TL	220	Rasra(400)-Balia(220) DC-35 Km.	0	70	26	22-23		-	-	7.74	12.90	5.16	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Swaheri (Bijnor) 132/33 kV 2x40**	80		20	22-23	13/1st	-	-	2.04	18.32	-	-	-	To cater load demand in Swaheri and near by area.	New Project
TL	132	132 kV Nehtaur (400 kV) - Swaheri (Bijnor) 132 kV DC line (OPGW) -2km	0	4	1	22-23	13/1st	-	-	0.18	0.73	-	-	-		New Project
SS	132	**132/33 kV Padrauna (Kushinagar) 2x40MVA and Associated Lines**	80		20	22-23	As per demand requirment of the area	-	-	2.04	18.32	-	-	-	To cater load demand in Tahsil Padrauna and near by area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Moradabad II 220/132/33 kV 2x160+2x40 MVA**	400		57	23-24	As per demand requirment of the area	-	-	-	17.21	28.69	11.48	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	Muradabad(Rampur)(400)-Moradabad II - DC Line 30 Km.		60	22	23-24		-	-	-	6.63	11.06	4.42	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Loni II 220/132/33 kV 2x160+2x40 MVA**	400		57	23-24	As per demand requirment of the area	-	-	-	17.21	28.69	11.48	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	Loni II-Ataur(400) & Moradabad I(400) line-30 Km.		30	22	23-24		-	-	-	6.63	11.06	4.42	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Sahjanwa(Gorakhpur) 132/33 kV**	80		18	23-24	As per demand requirment of the area			-	7.12	10.67		-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	132	Sahjanwa-Gola(220) 132 kV DC line -15 Kms.	0	30	10	23-24				-	3.88	5.81		-		New Project
SS	132	**Kandhala(Shamli) 132/33 kV 2x40 MVA**	80		18	23-24	As per demand requirment of the area			-	7.19	10.78		-	To cater load demand in Kandhala and near by area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	Kandhala-Shamli(400/220) 132 kV DC line -25 Kms.	0	50	16	23-24				-	6.46	9.70		-		New Project
SS	132	**Tana(Shamli) 132/33 kV 2x40 MVA**	80		18	23-24	As per demand requirment of the area			-	7.19	10.78		-	To cater load demand in Tana and near by area	New Project
TL	132	Tana-Shamli(400/220) 132 kV DC line 25 Kms.	0	50	10	23-24				-	3.88	5.81		-		New Project
SS	132	**Karera(Ghaziabad) 132/33 kV 2x40 MVA**	80		18	24-25	As per demand requirment of the area				-	5.39	12.58	-	To cater load demand in Karera and near by area.	New Project
TL	132	Karera-Ghaziabad Meerut Rd. Morta(220) 132 kV DC line 15 Kms.	0	30	10	24-25					-	2.91	6.78	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Kanauja(Ghaziabad) 132/33 kV 2x40 MVA**	80		18	25-26	As per demand requirment of the area					-	7.19	10.78	To Cater increased load demand and provide uninterrupted power supply in kanauja and near by area.	New Project
TL	132	Kanauja-Ghaziabad Mrt. Rd. Morta (220) 132 kV DC line - 30 Kms.	0	60	19	25-26						-	7.76	11.63		New Project
SS	132	**Rasulpur (132/33 kV) 2x40 MVA**	80		18	24-25	As per demand requirment of the area				-	5.39	12.58	-	To Cater increased load demand and provide uninterrupted power supply in Rasulpur and near by area.	New Project
TL	132	132 kV Sardhana(220) Proposed - Rasulpur DC - 13.8 Km.	0	28	9	24-25					-	2.68	6.24	-		New Project
SS	132	**Parichhatgarh (132/33 kV) 2x40 MVA**	80		18	23-24	As per demand requirment of the area			-	7.19	10.78		-	To Cater increased load demand and provide uninterrupted power supply in Parichhatgarh and near by area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 kV Sardhana(220) - Parichhatgarh DC -36.8 Km.	0	74	24	23-24				-	9.52	14.27		-		New Project
TL	132	132 kV khatauli(220) Proposed - Budhana DC - 28 Km.	0	56	18	23-24				-	7.24	10.86		-		New Project
SS	132	**Chilkana (132/33 kV) 2x40 MVA**	80		18	24-25	As per demand requirment of the area				-	5.39	12.58	-	To Cater increased load demand and provide uninterrupted power supply in Chilkana and near by area.	New Project
TL	132	132 kV Shaharanpur New (220) Pro-Chilkana DC -21 Km.	0	42	14	24-25					-	4.07	9.50	-		New Project
SS	132	**Muzaffarabad (132/33 kV) 2x40 MVA**	80		18	24-25	As per demand requirment of the area				-	5.39	12.58	-	To Cater increased load demand and provide uninterrupted power supply in Muzaffarabad and near by area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 kV Shaharanpur New (220) Pro - Muzaffarabad DC -25 Km.	0	50	16	24-25					-	4.85	11.31	-		New Project
SS	132	**Kiyara (132/33 kV) 2x40 MVA**	80		18	24-25	As per demand requirment of the area				-	5.39	12.58	-	To Cater increased load demand and provide uninterrupted power supply in kiyara and near by area.	New Project
TL	132	132 kV Amariya Pilibhit (220) Proposed -Kiyara DC - 9.2 Km.	0	18	12	24-25					-	3.72	8.69	-		New Project
SS	132	**Gauriganj II (132/33 kV) 2x40 MVA**	80		18	24-25	As per demand requirment of the area				-	5.39	12.58	-	To Cater increased load demand and provide uninterrupted power supply in Gauriganj and near by area.	New Project
TL	132	132 kV Sultanpur Rd.(400/220) - Gauriganj DC - 25 Km.	0	50	16	24-25					-	4.85	11.31	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Fatehpur (132/33 kV) 2x40 MVA**	80		18	25-26	As per demand requirment of the area					-	7.19	10.78	To Cater increased load demand and provide uninterrupted power supply in Fatehpur and near by area.	New Project
TL	132	132 kV Barabanki (220) - Fatehpur DC - 30 Km.	0	60	19	25-26						-	7.76	11.63		New Project
SS	132	**Mahsi (132/33 kV) 2x40 MVA**	80		18	24-25	As per demand requirment of the area				-	5.39	12.58	-	To Cater increased load demand and provide uninterrupted power supply in Mahsi and near by area.	New Project
TL	132	132 kV Bahraich (220) - Mahsi DC - 23 Km.	0	46	15	24-25					-	4.46	10.41	-		New Project
SS	132	**Saur (132/33 kV) 2x40 MVA**	80		18	25-26	As per demand requirment of the area					-	7.19	10.78	To Cater increased load demand and provide uninterrupted power supply in Saur and near by area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 kV *Moradabad-II(220)* -Saur DC - 41.4 Km.	0	83	27	25-26						-	10.70	16.06		New Project
SS	132	**Tanda Bijnor (132/33 kV) 2x40 MVA**	80		18	25-26	As per demand requirment of the area					-	7.19	10.78	To Cater increased load demand and provide uninterrupted power supply in Tanda Bijnor and near by area.	New Project
TL	132	132 kV Nehtaur New (220) - Tanda DC -29.9 Km.	0	60	19	25-26						-	7.73	11.60		New Project
SS	132	**Shishgarh (132/33 kV) 2x40 MVA**	80		18	25-26	As per demand requirment of the area					-	7.19	10.78	To Cater increased load demand and provide uninterrupted power supply in Shishgarh and near by area.	New Project
TL	132	132 kV Amriya, Pilibhit (220) Pro-Shishgarh DC - 41.4 Km.	0	83	27	25-26						-	10.70	16.06		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Malihabad (132/33 kV) 2x40 MVA**	80		18	23-24	As per demand requirment of the area				-	12.58	5.39	-	To Cater increased load demand and provide uninterrupted power supply in Malihabad and near by area.	New Project
TL	132	132 kV Hardoi Rd.(400/220) - Malihabad DC - 10 Km.	0	20	6	23-24					-	4.52	1.94	-		New Project
SS	132	**Sawayajpur (132/33 kV) 2x40 MVA**	80		18	25-26	As per demand requirment of the area					-	7.19	10.78	To Cater increased load demand and provide uninterrupted power supply in Sawayajpur and near by area.	New Project
TL	132	132 kV *Hardoi New (220) Proposed* - Sawayajpur - 31 Km DC Line	0	62	20	25-26						-	8.02	12.02		New Project
SS	132	**Achnera (132/33 kV) 2x40 MVA**	80		18	24-25	As per demand requirment of the area				-	5.39	12.58	-	To Cater increased load demand and provide uninterrupted power supply in Achnera and near by area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 kV Kirawali Proposed - Achnera DC - 26 Km.	0	52	17	24-25					-	5.04	11.77	-		New Project
SS	132	**Fariha (132/33 kV) 2x40 MVA**	80		24	21-22	Pending TWC	-	6.04	12.08	6.04	-	-	-	To Cater increased load demand and provide uninterrupted power supply in Pariha and near by area.	New Project
TL	132	Usayani Tundla (220) - Fariha (132) 132 kV DC Line	0	60	19	21-22		-	4.85	9.70	4.85	-	-	-		New Project
TL	132	Narkhi (132 kV) - Fariha (132 kV) 132 kV DC Line	0	37	12	21-22		-	3.01	6.02	3.01	-	-	-		New Project
SS	132	**Pataili (132/33 kV) 2x40 MVA**	80		18	25-26	As per demand requirment of the area					-	7.19	10.78	To Cater increased load demand and provide uninterrupted power supply in Pataili and near by area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 kV "Kasganj (220) Proposed - Pataili DC - 35 Km.	0	70	23	25-26						-	9.05	13.58		New Project
SS	132	**Saron (132/33 kV) 2x40 MVA**	80		18	24-25	As per demand requirment of the area				-	5.39	12.58	-	To Cater increased load demand and provide uninterrupted power supply in Saron and near by area.	New Project
TL	132	132 kV Kasganj (220) Proposed - Saron DC - 12 Km.	0	24	8	24-25					-	2.33	5.43	-		New Project
SS	132	**Karhal (132/33 kV) 2x40 MVA**	80		18	24-25	As per demand requirment of the area				-	5.39	12.58	-	To Cater increased load demand and provide uninterrupted power supply in Karhal and near by area.	New Project
TL	132	132 kV Safai New (220)Existing - Karhal DC - 6.9 Km.	0	14	4	24-25					-	1.78	2.68	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Govardhan (132/33 kV) 2x40 MVA**	80		18	23-24	As per demand requirment of the area			-	7.19	10.78		-	To Cater increased load demand and provide uninterrupted power supply in Govardhan and near by area.	New Project
TL	132	132 kV Chhata (220) - Govardhan DC - 30 Km.	0	60	19	23-24				-	7.76	11.63		-		New Project
SS	132	**Kora (132/33 kV) 2x40 MVA**	80		18	25-26	As per demand requirment of the area					-	7.19	10.78	To Cater increased load demand and provide uninterrupted power supply in Kora and near by area.	New Project
TL	132	132 kV Fatehpur (New) (220) Proposed - Kora DC - 48.3 Km.	0	97	31	25-26						-	12.49	18.74		New Project
SS	132	**Dhatu(132/33 kV) 2x40 MVA**	80		18	25-26	As per demand requirment of the area					-	7.19	10.78	To Cater increased load demand and provide uninterrupted power supply in Dhatu and near by area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 kV Khaga (220) Proposed - Dhatu DC - 28.75 Km.	0	58	19	25-26						-	7.43	11.15		New Project
SS	132	**Madhuban (132/33 kV) 2x40 MVA**	80		18	24-25	As per demand requirment of the area				-	7.19	10.78	-	To Cater increased load demand and provide uninterrupted power supply in Madhuban and near by area.	New Project
TL	132	132 kV Mau(400/132) - Madhuban DC - 25 Km.	0	50	16	24-25					-	6.46	9.70	-		New Project
SS	132	**Bairia (132/33 kV) 2x40 MVA**	80		18	25-26	As per demand requirment of the area					-	7.19	10.78	To Cater increased load demand and provide uninterrupted power supply in Baria and near by area.	New Project
TL	132	132 kV Ballia (220) Proposed - Bairia DC - 30 Km.	0	60	19	25-26						-	7.76	11.63		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Semeriaon (132/33 kV) 2x40 MVA**	80		18	24-25	As per demand requirment of the area				-	7.19	10.78	-	To Cater increased load demand and provide uninterrupted power supply in Semeriaon and near by area.	New Project
TL	132	132 kV Dulhipar (220) - Semeriaon DC - 17.25 Km.	0	35	11	24-25					-	4.46	6.69	-		New Project
SS	132	**Jiyapur (132/33 kV) 2x40 MVA**	80		18	23-24	As per demand requirment of the area				-	12.58	5.39	-	To Cater increased load demand and provide uninterrupted power supply in Jiyapur and near by area.	New Project
TL	132	132 kV Azamgarh (220) II - Jiyapur DC - 21 Km.	0	42	14	23-24					-	9.50	4.07	-		New Project
SS	132	**Barda (132/33 kV) 2x40 MVA**	80		18	24-25	As per demand requirment of the area				-	7.19	10.78	-	To Cater increased load demand and provide uninterrupted power supply in Barda and near by area.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 kV Jaunpur (400/220/132) -Barda DC - 23 Km.	0	46	15	24-25					-	5.95	8.92	-		New Project
SS	220	**Mawana 220/132/33 Kv 2x160+ 2x40 MVA**	400		57	24-25	As per demand requirment of the area				5.74	14.35	37.30	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	Mawana-Modipuram II DC line-20 Km.	0	40	15	24-25					1.47	3.69	9.58	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Nehtaur New 220/132/33 kV 2x160+2x40 MVA**	400		57	24-25	As per demand requirment of the area				5.74	14.35	37.30	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	Bhopa Road-Nehtaur(New)-50 Km.	0	100	37	24-25					3.69	9.21	23.95	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Saharanpur New 220/132/33 kV 2x160+2x40 MVA**	400		57	23-24	As per demand requirment of the area			17.21	17.21	22.95		-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	Lalukheri (400) - Saharanpur New DC line - 55 Km.	0	110	40	23-24				12.13	12.13	16.17		-		New Project
SS	220	**Naini UPSIDC (220/33 kV) 3x60 MVA**	180		55	24-25	As per demand requirment of the area				5.53	13.83	35.95	-	To cater load demand in near by area	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Rewa Road (400)-Naini UPSIDC (220/33 kV) - 20 Km.	0	40	15	24-25					1.47	3.69	9.58	-		New Project
SS	220	**Lucknow Hardoi Road(220/33 kV) 3x60 MVA**	180		55	24-25	As per demand requirment of the area				5.53	13.83	35.95	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	Hardoi Road (400) - Lucknow(220) 10 Km.	0	20	7	24-25					0.74	1.84	4.79	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Meerut By Pass (220/33 kV) 3x60 MVA**	180		55	24-25	As per demand requirment of the area				5.53	13.83	35.95	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	Meerut by Pass - Modipuram(765/ 400) 35 Km.	0	70	26	24-25					2.58	6.45	16.76	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Sardhana (220/132/33 kV) 2X160 +2x40 MVA**	400		57	24-25	As per demand requirment of the area				5.74	14.35	37.30	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	Sardhana-Modipuram (765) DC line-20 km	0	40	15	24-25					1.47	3.69	9.58	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Kannauj (220/132/33 kV) 2X160 +2x40 MVA**	400		57	23-24	As per demand requirment of the area			17.21	17.21	22.95		-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	LILO of Neebkarori-Mainpuri (PG) at Kannauj DC line - 30 km	0	60	22	23-24				6.63	6.63	8.84		-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Fatehpur New (220/132/33 kV) 2X160 +2x40 MVA**	400		57	24-25	As per demand requirment of the area				5.74	14.35	37.30	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	Fatehpur (PG) - Fatehpur New - 20 km	0	40	15	24-25					1.47	3.69	9.58	-		New Project
SS	400	**Lalu kheri (400) - 400/220/132 Kv,2X315+2X160 MVA**	950		180	24-25	As per demand requirment of the area				17.99	44.98	116.95	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	400	Lalu kheri-Shamli DC line - 20 Km.	0	40	34	24-25					3.42	8.56	22.25	-		New Project
TL	400	Lalu Kheri-Bhopa Road DC line-20 Km	0	40	34	24-25					3.42	8.56	22.25	-		New Project
SS	400	**Bhopa Road (400) - 400/220/132 kV, 2X315+ 2X 160 MVA**	950		180	24-25	As per demand requirment of the area				17.99	44.98	116.95	-		New Project
TL	400	Lilo of Vishnu Prayag-Srinagar -Muzaffarnagar - 20 Km.	0	40	34	24-25					3.42	8.56	22.25	-		New Project
TL	400	Bhopa Road-Nehtaur SC line - 50 Km.	0	50	86	24-25					8.55	21.38	55.58	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**220/132/33 KV Badaun Road 2x160+2x40 MVA**	400		57	22-23	Pending TWC	-	11.48	17.21	28.69	-	-	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	Badaun (400) - Badaun Road DC Line-50 km	0	100	37	22-23		-	7.37	11.06	18.43	-	-	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Mau 400/132 (creation of 220 kV voltage level) 2x160 MVA**	320		180	24-25	As per demand requirment of the area				17.99	44.98	116.95	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	400	LILO of Rasra (220)-Deoria 220 kV SC line at Mau (400) - 45 km	0	90	33	24-25					3.28	8.20	21.33	-		New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**Deoria New (220) - 220/132 kV, 2X 160 MVA+2x40 MVA**	400		57	24-25	As per demand requirment of the area				5.70	14.25	37.05	-	Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	Stringing of 220 KV SC Line Deoria - Rasra (220 Kv) - 83.4 Km		83	19	24-25					1.92	4.80	12.47			New Project
TL	220	LILO Deoria-Rasra (400 Kv) at 220 kV Line Deoria New - 15 km	0	30	22	24-25					2.16	5.40	14.04	-		New Project
SS	132	**Narkhi (Firozabad) 132/33 kV 2x40 MVA (Including associated lines)**	80		25	19-20	13/3rd	15.20						-	Due to increasing demand and space constarint for new bays at existing 200 KV Firozabad & 132 KV Tundla SS necessitates SS.	Completed

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of 132 kV DC shikohabad-Tundla at Narkhi 15Kms.)	0	30		19-20	13/3rd	-						-		Completed
SS	132	**Hanumansetu (132/33 kV) GIS (Including associated lines) 2x40 MVA**	80		168	19-20	12/37th	100.90						-	To Cater increased load demand and provide uninterrupted power supply in Hanumansetu and near by area.	Completed
TL	132	132kV Hardoi Road - Hanuman setu cable - 13.4km App.	0	13		19-20	12/37th	-						-		Completed
TL	132	132kV Neebu Park (Mehtab bagh) - Hanuman setu cable - 5.0km App.	0	5		19-20	12/37th	-						-		Completed
TL	132	Jehta (400) - Hanuman setu 132 kV SC line - 11 km (10 km under ground cable) (1000 square mm cable)	0	11		19-20	12/37th	-						-		Completed

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Kabrai 132/33 kV 2x20 MVA (Including associated lines)**	40		28	19-20	13/6th	16.65						-	Existing 132 KV Mahoba SS is feeding Kabrai Alipura, Mataul, etc areas of district Mahoba and is fully loaded. In order to connect new 33K Alipura, Khanna & Pehara SS & reduce the existing large feeder lengths.	Completed
TL	132	LILO of Banda - Mahoba 132 kV line at Kabrai -06 km	0	12		19-20	13/6th	-						-		Completed
SS	132	**Bansdih 132/33 kV 2x40 MVA (Including associated lines)**	80		58	19-20	12/39th	34.92						-	Due to increased demand in Bansdih (Ballia) area & to contain the low volatge issue in the area, new SS has been planned.	Completed
TL	132	Ibrahim Ptti - Balia(765) PGCIL - Bansdih 132 kV DC line - 62 km	0	124		19-20	12/39th	-						-		Completed
TL	132	LILO of Ibrahim Ptti - Bansdih 132 kV DC line at Sikandarpur - 12 km	0	24		19-20	12/39th	-						-		Completed

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Akrabad 132/33 kV 1x20 MVA (At 400 kV s/s Aligarh) (Including associated lines)**	20		10	19-20	13/5th	6.22						-	To cater the load demand of Akarabad and nearby regions.	Completed
TL	132	LILO of Boner - Sikandrarao 132 kV SC line at Akbrabad - 02 km	0	4		19-20	13/5th	-						-		Completed
SS	220	**Amethi 220/132/33 kV 2X160+2x40 (Including associated lines)**	400		116	19-20	12/30th	69.89						-	220 KV reliable source is not available in proximity to Existing 132 KV SS in Amethi & nearby area. Also, there is Low voltage problem due to excessive length of 33 KV feeders. Hence, to contain this situation, new SS is being planned.	Completed
TL	220	LILO of Sultanpur - Sangipur 220 kV DC line one circuit at Amethi -10 km	0	20		19-20	12/30th	-						-		Completed

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	Amethi (220) - Jagdishpur 132 kV DC line - 45 km	0	90		19-20	12/30 th	-						-		Completed
TL	132	Amethi (220) - Musafirkhana 132 DC line - 30 km)	0	60		19-20	12/30 th	-						-		Completed
TL	132	Amethi (220) - Gauriganj 132 kV DC line - 15 km	0	30		19-20	12/30 th	-						-		Completed
SS	220	**Unnao (220/33 kV)(Dahi Chowki) 3X60 (Including associated lines)**	180		51	19-20	13/5th	30.56						-	Exisitng 132 KV Kundan road & Sonikh SS are providing Supply to Unnao & its Industrial area. Due to increasing load demand & industrial development 220/33 KV SS is being planned at existing 400/220 KV SS Dahi Chowki.	Completed
TL	220	LILO of Sarojninagar - Unnao line single ckt at Dahi Chowki Unnao - 0.1 km	0	0		19-20	13/5th	-						-		Completed

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**220/132/33kV Partapur Jagriti Vihar (Meerut) (2x160+2x40) (Including associated lines)**	400		127	19-20	12/13 th	76.36						-	Due to rapid growth of industrial and commercial load in Meerut township and nearby area.	Completed
TL	220	Partapur (Jagriti Vihar - Meerut) - Hapur (765)220kV DC line - 40 km	0	80		19-20	12/21 st	-						-		Completed
TL	220	Partapur (Jagriti Vihar - Meerut) - Meerut (400)PGCIL 220kV DC tower SC line - 25 km	0	50		19-20	12/21 st	-						-		Completed
TL	132	LILO of Naglikithor - Mundali 132 kV SC line at Partapur (Jagriti Vihar) - 15 km	0	30		19-20	12/21 st	-						-		Completed

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	Partapur, Jagriti Vihar (220) - Lohia Nagar (Hapur Road) 132 kV SC line - 05 km (avilable monopole towers at stringing-4 km & new 132 kV monopole at sc line-1 km)	0	5		19-20	13/4th	-						-		Completed
TL	132	LILO of Kankankhera - Partapur 132kV line at Hapur By pass (Vedviyaspuri, Meerut) - 1.5 km	0	3		19-20	12/21st	-						-		Completed
SS	220	**220/33 kV Noida Sec- 38-A (Botanical Garden) 3x60 MVA GIS (Deposit) (Including associated lines)**	180		89	19-20	12/40th	53.44						-	Due to increase in commercial & residential load, new SS has been planned under deposit scheme.	Completed
TL	220	Noida (148) - Noida -38 (A) 220 kV DC line on Multicircuit & Narrow Base Tower - 23.5 km (Deposit)	0	47		19-20	12/40th	-						-		Completed

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of Noida (148) - Gazipur 220kV SC line at Noida sec.38 (A) - 1 km	0	2		19-20	12/40 th	-						-		Completed
TL	220	Noida (148) - Noida -38 (A) 220 kV DC line on Multicircuit & Narrow Base Tower - 0.8 km (Deposit)	0	2		19-20	12/40 th	-						-		Completed
SS	220	**220/132/33kV Raja ka Talab (2X160+2X40) , 132/33 kV 2x40 Kursato (Varanasi) (Including associated lines)**	400		145	19-20	12/17 th	87.18						-	Due to increase in load demand in varanasi & nearby areas, new 220 KV SS has been planned.	Completed
TL	132	Raja ka Talab (220)-Raja ka Talab (132) 132 kV DC Interconnector - 0.1 km	0	0		19-20	12/17 th	-						-		Completed
TL	220	Raja Ka Talab - Badhoi (400) 220 KV SC line on DC towers-25 km	0	25		19-20	12/17 th	-						-		Completed

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	Raja Ka Talab - Sahupuri (220) 220 KV SC line on DC towers-45km	0	45		19-20	12/17 th	-						-		Completed
TL	132	LILO of Raja ka Talab (132) - Gajokhar 132 kV SC line at Kursato - 06 km	0	12		19-20	12/17 th	-						-		Completed
TL	132	Raja ka Talab (220) - Kursato DC tower at 132 kV SC line - 35 km	0	35		19-20	12/17 th	-						-		Completed
TL	132	LILO of Raja ka Talab (132) - Aurai (400) 132 kV SC line at Raja ka Talab (220) -08 km	0	16		19-20	12/17 th	-						-		Completed
SS	220	**Kasganj 220/132/33 2x160+ 2x40 MVA (Including associated lines)**	400		104	20-21	13/7th	41.60	52.01	10.40	-	-	-	-	In order to cater the increasing load demand in Kasganj dist. & nearby area, 220 KV new SS is planned.	Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	LILO of Sikandrarao (220) - Jawaharpur TPS (220) kV line at Kasganj (220)- 45 km	0	90		20-21	13/7th	-						-		Ongoing
TL	132	LILO of Kasganj - Ganjdundwara 132 kV SC line at kasganj (220) - 12 km	0	24		20-21	13/4th	-						-		Ongoing
TL	132	Sikandrarao(220) - Kasganj 132 kV TSS SC (2 phase) line on DC Tower - 35 km (deposit railway)	0	70		20-21	13/7th	-						-		Ongoing
TL	132	LILO of Sahibabad (220) - Industrial Area 132 kV SC line at Pratap Vihar - 01 km (HTLS)	0	2		20-21	12/30th	-						-		Ongoing
TL	132	Pratap Vihar(220)-DPH 132 kV DC Line on Monopole Tower -10 Kms.	0	20		20-21	12/38th	-						-		Completed

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	220	**220/132kV Mallawan (Fatehpur), 2x160 MVA (2x160+2x40) (Including associated lines)**	400		105	20-21	13/14 th	41.84	52.31	10.46	-	-	-	-	Due to increase in load of Fatehpur dist. & nearby areas, Existing Fatehpur 220 KV SS is getting overloaded, to reduce overloading & provide supply to DFCCIL, there is requirement of new SS at Mallawan.	Ongoing
TL	220	LILO Fatehpur - Unchahar (220 KV DC SC Line at Mallawan (220) - 30 km	0	30		20-21		-						-		Ongoing
TL	132	Mallawan 220 - Jahanabad 132 KV SC Line - 45 km	0	180		20-21	13/14 th	-						-		Ongoing
TL	132	LILO Mallawan - Naubasta 132 KV SC Line at Malwan(220) - 1 km	0	30		20-21	13/14 th	-						-		Ongoing
TL	132	LILO Mallawan - Bindki 132 KV SC Line at Malwan(220) - 1 km	0	40		20-21	13/14 th	-						-		Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	LILO of one ckt 132KV Fatehpur (220) Mallawan DC Line at Hussainganj - 35 km	0	70		20-21		-						-		Ongoing
SS	220	**220/33kV GIS Phoolbagh Lower Ganga Canal (Kanpur) 2X60 MVA (Including associated lines)**	120		99	19-20	12/21 st	59.12						-	Supply of Kanpur city is mainly fed through 220 KV Panki, Naubasta & RPH SS. 132 KV Azadnagar & 220 KV RPH SS are overloaded & there is space constraint for bays and also ROW problems for line construction. Hence, to meet out the increasing demand & to reduce overloading, new 220 KV SS has been planned.	Completed
TL	220	Unnao (400)-Phoolbagh 220 kV DC line-50 km (including River Xing)	0	100		19-20	12/21 st	-						-		Completed

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	400	**Noida(148) (400) - 400/220/132 /33 kV,2X500 + 1X160 +2X100 MVA (charged from 220 kv side) (Including associated lines)**	1240		180	19-20	12/40 th	108.00						-	Due to increase load demand in Noida and its nearby area, various 132 KV SS have been planned. Hence, to provide reliable source to these SS, New 400 KV SS have been planned.	Complete d
TL	220	Noida Sec. 148-Noida (45)220 kV DC line - 21.5 km	0	43		19-20	12/40 th	-						-		Complete d
SS	220	**220/132/33 KV Anoopsahar 2x160 MVA + 2x40 MVA**	400		103	23-24	As per demand requirment of the area			30.90	30.90	41.20			Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	220	220 KV Anoopsahar - khurja TPS DC Line - 40 Km		80	27	23-24			-	-	8.10	13.50	5.40	-		New Project
SS	220	**220/132/33 KV Jaunpur - II 2x160 + 2x40 MVA**	400		103	23-24	As per demand requirment of the area			30.90	30.90	41.20			Substations of 132, 220 kV are envisaged in the initial stage of five-year planning period on the basis of forecast of demand by discoms. However, final approval and construction of these substations is accorded 2 - 2 ½ years before as per certainty/ indication of growth of load demand in the area and can be completed in even compressed time schedule.	New Project
TL	220	LILO of Gajokhar - Kirakat at Jaunpur - II - 20 Km		40	12	23-24			-	-	3.60	6.00	2.40	-		New Project
SS	132	**132/33 KV 2x40 MVA Kailadevi (Sambhal)**	80		20	21-22	13/34 th	-	1.98	8.89	8.89	-	-			New Project

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 KV Sambhal (220) - Asmauli (132) DC line Ckt on S/s - 70 Km		70	16	21-22			1.60	7.18	7.18					
TL	132	132 KV Sambhal (400) U/c - Kaielidevi SC line on D/c tower - 25 km		25	9	21-22			0.93	4.20	4.20					
SS	132	**Mansurpur alongwith associated lines - (2x40 MVA)**	80		22	21-22	Pending TWC	-	2.20	5.50	14.30	-	-		To cater load demand in near by area	New Project
TL	132	**Associated Lines**		20		21-22										
SS	132	**Bhatparrani alongwith associated lines (2x40 MVA)**	80		22	22-23	As per demand requirment of the area	-	-	2.20	13.20	6.60	-		To cater load demand in near by area	New Project
TL	132	**Associated Lines**		20		22-23										

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
SS	132	**Budhana New alongwith associated lines (2x40 MVA)**	80		22	22-23	Pending TWC	-	2.20	5.50	14.30	-	-		To cater load demand in near by area	New Project
TL	132	**Associated Lines**		20		22-23										
SS	220	**220 KV (2x160+2x40 MVA) Chunar/ Pahari alongwith associated lines**	400		40	23-24	As per demand requirment of the area	-	0.00	0.00	2.00	20.00	18.00		To cater load demand in near by area	New Project
TL	220	**Associated Lines**		35		23-24										
SS	132	**132 KV GIS SS Sector 115 - New, Noida (GB Nagar) (2x63 MVA) (Deposit Works)**	126		50	20-21	13/14 th	-	10.00	40.00	-	-	-			Ongoing

SS/ TL	Voltage Level (kV)	Name of Project	Total MVA	Line Length (Ckm)	Capital Cost (Rs. Crore)	Year of Commissioni	TWC	Year on Year Expenditure (Rs. Crore)						Spill Over Beyond FY 2024-25 (Rs. Crore)	Project Justification and benefits	Status
								FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25			
TL	132	132 KV line Sector - 115 Sector 123 **(Deposit Works)**		5	19	20-21		-	3.79	15.16	-	-	-			Ongoing
SS	220	**220 KV Moth (1x160)**	160		43	21-22	13/33 rd	-	0.00	30.05	12.88	-	-			New Project
TL	220	Lilo of ckt - II of 220 KV Paricha (TPS) - Orai at Moth (40 Km)		40	14	21-22		-	0.00	10.07	4.32	-	-			New Project
		Total	**63,151**	**21,190**	**23,057**			**3,136.11**	**3,436.34**	**4,351.48**	**4,213.74**	**1,734.17**	**1,620.89**	**262.01**		