



TRANSMISSION CORPORATION OF TELANGANA LIMITED

From
Chief Engineer
(Comml.&RAC)
Vidyut Soudha,
Hyderabad – 500082.

To
The Secretary, TSERC,
#11-4-660, 5th floor,
Singareni Bhavan, Red Hills,
Hyderabad – 500004.

Lr.No.CE(Comml.&RAC)/SE(Plg)/RAC/F-APR'22-'23/D.No.112/23 Dt. 30-12-2023

Sir,

Sub: TSTRANSCO – Filing of petition for Annual Performance Review (True up) for FY 2022-23 of Transmission Business of TSTRANSCO – Submission of 6 Nos. books to the Hon'ble commission – Reg.

Ref: TSERC Transmission Tariff Order Dt. 20-03-2020

As per the Hon'ble Commission's directive No. (3) issued vide the order cited above, 6 Nos. books of the petition for Annual Performance Review (True up) for FY 2022-23 of Transmission Business of TSTRANSCO are submitted herewith.

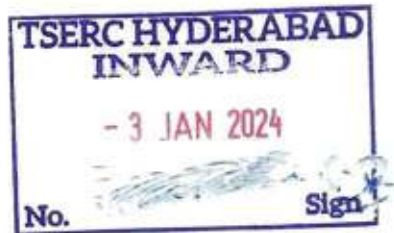
The receipt of the same may please be acknowledged.

Yours faithfully,

CHIEF ENGINEER
(Comml.&RAC)

e-mail: ce.rac@tstransco.in
Mobile: 8985041522

Encl: APR petition – 6 Nos. Books



Copy to:

PS to Joint Managing Director(Fin., Comml. &HRD)/TSTRANSCO/Hyd.

Transmission Corporation of Telangana Limited (State Transmission Utility)



**Filings for
ANNUAL PERFORMANCE REVIEW (True-Up)
of Transmission Business for FY2022-23 w.r.t.
Transmission Tariff Order dt.20.03.2020**

December 2023

INDEX

A. Affidavit	4
B. Petition	6
1. Introduction	8
2. TRUE-UP of Transmission Business – Financial Performance for FY2022-23... 9	
i. Variance of O&M Expenses	10
ii. Variance of Depreciation.....	11
iii. Variance of Taxes on Income.....	11
iv. Variance of Return on Capital Employed.....	12
v. Variance of Revenue.....	13
vi. ARR (True up) (Traiff order Vs Actuals).....	13
3. TRUE-UP of Transmission Business – Technical Performance for FY2022-23.....	
3.1 Plans for System Performance.....	15
(a) Representative Seasonal Load Curves	16
(b) Load duration Curves	19
(c) Plans to improve Transmission System Performance	21
(d) Plans for Capital Expenditure	23
(i) 400kV Schemes	
a. Works Completed during FY2022-23	23
b. Works in Progress	24
(ii) 220kV & 132kV Schemes	
a. Completed works during FY2022-23	26
b. Works in Progress	31
(iii) Lift Irrigation Schemes	
a. Works Completed during FY2022-23	41
b. Works in Progress	41
3.2 Performance Measures.....	
(a) Interruptions on EHT Lines during FY2022-23	47

(b) Major Grid Disturbances	49
(c) Periods when frequency was beyond prescribed limits	52
(d) Voltages at nodal generating stations and grid sub-stations recorded on 30.03.2023.....	53

List of TABLES:

1. Table 1 : Variance in O&M Expenses (Rs. in Crore)	10
2. Table 2 : Variance in Depreciation (Rs. in Crore).....	11
3. Table 3 : Variance in Taxes on Income (Rs. in Crore)	11
4. Table 4 : Variance in ROCE (Rs. in Crore)	12
5. Table 5 : Variance in Revenue (Rs. in Crore)	13
6. Table 6 : ARR (True up) (Rs. in Crore)	14

List of Graphs:

1. TS System Load Curve during summer of FY2022-23	17
2. TS System Load Curve during monsoon of FY2022-23	18
3. TS System Load Curve during winter of FY 2022-23	18
4. TS System Load Duration Curve for FY 2022-23	20

Annexures:

Annexure-I: Actual Contracted Capacities for FY2022-23 in MW.....	56-57
Annexure-II: List of Directives for 4th Control Period	58
Annexure-III: Actual Capital Expenditure during FY2022-23 in 1.1d	59-77
Annexure-IV: Scheme wise Capitalization for FY2022-23	78-93

**BEFORE THE HONOURABLE TELANGANA ELECTRICITY REGULATORY
COMMISSION**

AT ITS OFFICE AT Vth FLOOR, SINGARENI BHAVAN, RED HILLS, HYDERABAD.

O.P. No. 2 of 2024

FILING NO. _____/2023
CASE NO. _____/2023

In the matter of:

Filing of the Annual Performance Review (True up) for the FY2022-23 of Transmission Business of TSTRANSCO w.r.t. Transmission Tariff Order dated 20.03.2020 for the 4th Control Period i.e., for FY 2019-20 to FY 2023-24, read with Regulation No.5 of 2005 issued by the erstwhile APERC and subsequently adopted by TSERC as per Regulation No.1 of 2014.

In the matter of:

TRANSMISSION CORPORATION OF TELANGANA LIMITED ...Applicant

**AFFIDAVIT OF APPLICANT VERIFYING THE APPLICATION ACCOMPANYING FILING
OF ANNUAL PERFORMANCE REVIEW (TRUE UP) FOR THE FY2022-23 OF
TRANSMISSION BUSINESS OF TSTRANSCO**

I, S.A.M. Rizvi, S/o Dr. S.A.H. Rizvi, working for gain at the Transmission Corporation of
Telangana Limited do solemnly affirm and say as follows:

1. I am the Chairman and Managing Director of TSTransco, the licensee company operating and controlling the Transmission & SLDC business of electricity in Telangana pursuant to the license granted by the Hon'ble Commission. I am competent and duly authorized by TS Transco to affirm, swear, execute and file this affidavit in the present proceedings.

2. I have read and understood the contents of the accompanying filing of Annual Performance Review (True up) for the FY2022-23. The statements made in the paragraphs of the accompanying application, now shown to me, are true to my knowledge derived from the official records made available to me and are based on information and advice received which I believe to be true and correct.



DEPONENT

VERIFICATION:

I, the above named Deponent solemnly affirm at Hyderabad on this 30th day of **December, 2023** that the contents of the above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.


DEPONENT

Solemnly affirmed and signed before me.


COMPANY SECRETARY
TSTRANSCO/HYDERABAD
RAVI KUMAR SULUVA
BCA, FCS
COMPANY SECRETARY, TSTRANSCO,
VIDYUT SOUDHA, HYDERABAD-500 082.

**BEFORE THE HONOURABLE TELANGANA ELECTRICITY REGULATORY
COMMISSION**

AT ITS OFFICE AT Vth FLOOR, SINGARENI BHAVAN, RED HILLS, HYDERABAD.

FILING NO. _____/2023

CASE NO. _____/2023

In the matter of:

Filing of the Annual Performance Review (True up) for the FY2022-23 of Transmission Business of TSTRANSCO w.r.t. Transmission Tariff Order dated 20.03.2020, for the 4th Control Period i.e., for FY 2019-20 to FY 2023-24, read with Regulation No.5 of 2005 issued by the erstwhile APERC and subsequently adopted by TSERC as per Regulation No.1 of 2014.

In the matter of:

TRANSMISSION CORPORATION OF TELANGANA LIMITED

.... Applicant

The applicant respectfully submits as under:

1. Hon'ble TSERC, as per Tariff Order dt. 20.03.2020 for Transmission Business for the 4th Multi-Year Tariff (MYT) period i.e., FY 2019-20 to FY 2023-24 directed TSTRANSCO to comply with the directives stipulated for each year of the MYT period.
2. As per the Directive No.3 of the Tariff Order dt.20.03.2020, TSTRANSCO is required to file Annual Performance Review (True up) for each year of the 4th Control Period before 31st December of the following year.
3. It is to submit that TSTRANSCO filed Annual Performance Review (True up) for the FY 2021-22 for Transmission Business dt. 29.12.2022 and the Hon'ble Commission issued order dt. 26.05.2023.
4. TSTRansco herein files petition on Annual Performance Review (True up) for the FY2022-23 for Transmission Business including the information in the booklet and in standard formats.
5. The Licensee submits the information (PCCs and FCCs) in compliance with the Directive No. 6 of the MYT Tariff order dt. 20.03.2020 along with the present petition.
6. The operational Performance parameters achieved by TSTRANSCO for the FY2022-23 are as follows.

- i) Transmission System Availability: 99.98%
 - ii) Transmission System Loss: 2.52%
7. In the aforesaid circumstances, the applicant respectfully prays the Hon'ble TSERC to:
- a) Take the accompanying petition on Annual Performance Review (True up) for the FY2022-23 for Transmission Business on record.
 - b)
 - i) consider the Surplus of Rs.252.33 Crores as pass-through by way of special appropriation in the next control period.
 - ii) consider the depreciation on addition during the Year from the date of capitalization during the Year from the date of capitalization as per CERC Regulation No.33, vide notification No. L-1/236/2018/CERC dt: 07.03.2019.
 - iii) allow the entire capitalization amount in Regulated Rate Base (RRB) computation
 - iv) consider to grant an incentive to the petitioner in terms of Clause 18(1) of Regulation No. 5 of 2005, for maintaining Transmission System losses below the approved loss bands during the last 4 years of the 4th MYT period.
 - c) Grant suitable opportunity to TSTRANSCO within a reasonable timeframe to file additional information if required.
 - d) Consider the facts and circumstances of the present petition and pass an appropriate order.

TRANSMISSION CORPORATION OF TELANGANA LIMITED
(APPLICANT)

Through

Place: HYDERABAD

Dated: 30 December, 2023


S.A.M. RIZVI

CHAIRMAN AND MANAGING DIRECTOR

1 Introduction

With the enactment of Andhra Pradesh Reorganisation Act 2014, the Telangana State has been carved out from the undivided Andhra Pradesh State as the 29th state of the Republic India on 02.06.2014.

The erstwhile Regulatory Commission of undivided State of Andhra Pradesh had issued Regulation No. 3 of 2014 (Reorganization) Regulation, 2014 on 25.05.2014, consequent to the framing of Andhra Pradesh Reorganization Act 2014 notified by Government of India on 01.03.2014, where in clause 3 of the regulation says that, "All the regulations as well as their supplementary regulations/amendments, rules, orders, proceedings, guidelines, memos, notifications, other instruments issued immediately before 2nd June 2014 by the APERC for the conduct of business and other matters shall fully and completely apply to the whole of the states of Telangana and Andhra Pradesh and shall similarly apply in relation to all matters falling within the jurisdiction of the Commission until they are altered, repealed or amended by the respective State Electricity Regulatory Commissions".

In accordance with the above regulaton, all the regulations framed by erstwhile APERC wil continue to apply for the state of Telangana. Subsequently, TSERC vide Telangana Official Gazette has issued its first regulation, Regulation No.1 of 2014 (adoption of Previously subsisting Regulations, Decisions, Directions or Orders, Licenses and Practice of Directions) wherein clause 2 says that "All regulations, decisions, directions or orders, all the licenses and practice directions issued by the erstwhile Andhra Pradesh Electricity Regulatory Commission (Regulatory Commission for States of Andhra Pradesh and Telangana) as in existence as on the date of the constitution of the Telangana State Electricity Regulatory Commission and in force, shall mutatis-mutandis apply in relation to the stakeholders in electricity in the State of Telangana including the Commission and shall continue to have effect until duly altered, repealed or amended, any of Regulation by the Commission with effect from the date of notification as per Notification issued by the Government of Telangana in G.O.Ms.No.3 Energy (Budget) Department, dt.26.07.2014 constituting the Commission".

In compliance with the Regulations and Guidelines issued by the TSERC, TSTRANSCO, the State Transmission Utility & Transmission Licensee managing the Transmission business herein submits the following in this Annual Performance Review (True-up) Petition:

- i. True-Up of Financial Performance for FY2022-23.
- ii. True-Up of Technical Performance for FY2022-23.

2 True-Up of financial performance for FY2022-23:

Transmission Corporation of Telangana Limited (TSTRANSCO) had filed its Petition under Section 26(5) of the Andhra Pradesh Electricity Reform Act, 1998, Sections 61 to 64 of the Electricity Act, 2003 and relevant Guidelines and Regulations, before the Telangana State Electricity Regulatory Commission (TSERC) on 30.11.2019 for approval of Aggregate Revenue Requirement (ARR), Filing for Proposed Tariff (FPT) for Transmission Business for the 4th MYT Control Period from FY 2019-20 to FY 2023-24.

The Petition was admitted by the Hon'ble TSERC and assigned O. P. No. 3 of 2019. The Hon'ble TSERC, in exercise of its powers under the Electricity Act, 2003 and the Andhra Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Transmission of Electricity) Regulation No. 5 of 2005 as adopted by Hon'ble TSERC vide its Regulation No. 1 of 2014, and after considering Petitioner's submissions, suggestions and objections of the other stakeholders, responses of Petitioner has issued ARR and Transmission Tariff Order for the 4th MYT Control period (i.e., FY 2019-20 to FY 2023-24) and is applicable with effect from 20.03.2020.

Hon'ble TSERC vide "Appendix B" has issued new directive No.3 wherein, the commission has directed the petitioner to file **Performance Review (True up)** for each year of the 4th MYT Control period.

In compliance to the directive No.3, TSTRANSCO here-by submits the following for Annual Performance Review (APR) of Transmission Business for FY 2022-23:

- Statement of variance with the Tariff Order for each item in the Aggregate Revenue Requirement and reasons for variation.
- Aggregate Revenue Requirement (ARR) for the year computed based on actual investments, interest and other costs.
- The Surplus/Deficit for the year has been arrived, based on the revenue earned for FY 2022-23.

I) Operation and Maintenance (O&M) Expenses:

The Actual O&M Expenses include 1. Employees Cost, 2. Administrative & General Expenses and 3. Repairs & Maintenance Expenses for FY 2022-23.

Table 1: Variance in O&M Expenses:

(Rs. in Crores)

Particulars	FY 2022-23		
	Tariff Order	Actuals	Deviation
Gross O&M Costs	1130.28	1410.15	279.87
Employees Cost		1292.54	
Administrative & General Expenses		70.44	
Repairs & Maintenance Expenses		47.17	
Less: O&M Expenses Capitalised	160.89	142.49	-18.40
Net O&M Expenses	969.39	1267.66	298.27

- Net O&M Expenses for the year have been increased by Rs.298.27 Crores.
- The O&M cost as per Tariff Order is estimated amount and the same is computed based on O&M approved norms. Whereas, Company has submitted the actual O&M cost as per audited accounts for FY 2022-23. Employee cost has increased due to pay scale revision to the employees and terminal benefits as per actuarial valuation.
- Capitalisation of expenses have been decreased due to decrease in capitalisation during the year and also adoption of policy changes in capitalisation of Admin. & General expenses as per IND AS 12 commented by C&AG.

II) Depreciation:

In Compliance with Hon'ble TSERC Directive No.5, the Company has changed its accounting policy of charging depreciation rates as per CERC rates instead of rates notified by Ministry of Power with effect from FY 2020-21 onwards.

Table 2:

(Rs. in Crores)

Particulars	FY 2022-23		
	Tariff Order	Actuals	Deviation
Depreciation	1245.29	1036.64	-208.65

- Actual depreciation amount has decreased due to i) Change in Depreciation methodology and rates ii) less capitalisation during the year.
- Depreciation has been arrived at as per the CERC depreciation rates under straight line method on the opening assets and also on additions to OCFA during the year proportionately in accordance with CERC Tariff Regulations, 2019.
- Hon'ble Commission is further requested to consider the depreciation on the addition during the Year from the date of capitalisation as per clause no. 33 of CERC (Terms & Conditions of Tariff) Regulations, 2019.

III) Taxes on income:

Table 3:

(Rs. in Crores)

Particulars	FY 2022-23		
	TariffOrder	Actuals	Deviation
Income Tax	104.28	81.94	-22.34

Tax on income was calculated at current rate of Minimum Alternate Tax (MAT) on the Return on Equity (RoE) @ 14% on 25% of actual Regulated Rate Base.

IV) Return on Capital Employed (RoCE):

Return on Capital Employed (RoCE) is to cover the interest charges on the debt portion and Return on Equity on the actual Regulated Rate Base of TS TRANSCO in 75:25 Debt Equity Ratio. Company has computed the actual Return on Capital Employed (ROCE) for the years as per the methodology prescribed by the Hon'ble Commission vide Regulation 5 of 2005.

Table 4:

(Rs. in Crores)

Particulars	FY 2022-23		
	Tariff Order	Actuals	Deviation
Assets		22900.11	
Original Cost of Fixed Assets (OCFA)		21296.49	
Additions to OCFA		1603.62	
Depreciation		8035.24	
Opening Balance		6998.60	
Depreciation during the year		1036.64	
Consumer Contributions		3769.01	
Opening Balance		3590.02	
Additions during the year		179.00	
Working Capital		156.29	
Change in Rate Base		193.99	
Regulated Rate Base (RRB)	14073.03	11058.15	-3014.88
Cost of Debt (Interest & Finance Charges)	1039.65	935.53	-104.11
Return on Equity @ 14% on 25% of RRB	492.56	387.04	-105.52
Return on Capital Employed (RoCE)	1532.20	1322.57	-209.63

- The depreciation for the year has been calculated on straight line method considering the depreciation rates as notified in CERC (Terms and Conditions of Tariff) Regulations, 2019.
- In the Regulated Rate Base (RRB) calculation, Company has considered the actual asset addition to Fixed Assets tallying with the books of accounts. Hon'ble TSERC is requested to allow the entire capitalization amount in RRB computation.
- The additions to OCFA as per the audited accounts for FY 2022-23 is Rs.1603.62 Crores which is after adjustment of Asset withdrawal of Rs. 121.13 Crores during the Year.

- The Return on Capital Employed (RoCE) for the year is computed considering the net interest expenditure at actual (i.e., net interest capitalisation) and , Return on Equity (RoE) @14% on 25% of actual Regulated Rate Base as per Regulation No.5 of 2005.

V) Revenue: The following is the position of Revenue for FY 2022-23:

Table 5 :

(Rs. in Crores)

Particulars	FY 2022-23		
	Tariff Order	Actuals	Deviation
Revenue from Transmission Charges	3398.66	3415.79	17.13
Other Income	452.51	545.36	92.85
Total:	3851.17	3961.15	109.98

- The total revenue of the Company for the year has been increased to the extent of Rs.109.98 Crores due to increase in Non-Tariff Income (Other income). The increase in Non-tariff income is mainly on account of Interest on Inter corporate deposits for an amount of Rs. 112.43 Crores arranged to TS Discoms for working capital requirement by borrowing short terms loans from Banks and Financial Institutions.

VI) Aggregate Revenue Requirement (ARR) True up (Tariff Order Vs Actuals) for FY 2022-23:

- The Total Aggregate Revenue Requirement (ARR) approved by Hon'ble Commission for the year is Rs.3851.17 Crores, against actual ARR of Rs.3708.81 Crores. Whereas, the company has received Rs.3961.15 Crores by way of revenue including other Income. Thereby the company has earned a Surplus of Rs.252.33 Crores during FY 2022-23.

Table 6:

(Rs. in Crores)

Sl. No.	Particulars	FY 2022-23		
		Tariff Order	Actuals	Deviation
A.	Expenditure (i + ii + iii + iv + v + vi)	2479.85	2528.73	48.88
i	O&M Costs	1130.28	1410.15	279.87
ii	O&M Carrying Costs	0.00	0.00	0.00
iii	Depreciation	1245.29	1036.64	-208.65
iv	Taxes	104.28	81.94	-22.34
v	Special Appropriation	0.00	0.00	0.00
vi	Other Expenses	0.00	0.00	0.00
B.	Less: Expenses Capitalized (vii + viii)	160.89	142.49	-18.40
vii	IDC Capitalized	0.00	0.00	0.00
viii	O&M Exp. Capitalized	160.89	142.49	-18.40
C.	Net Expenditure (A – B)	2318.96	2386.24	67.28
D.	Return on Capital Employed (ROCE)	1532.20	1322.57	-209.63
E.	Gross ARR/Total Expenditure (C + D)	3851.16	3708.81	-142.35
ix	Non Tariff Income	452.51	545.36	92.85
x	Revenue from Tariff	3398.66	3415.79	17.13
F	Total Revenue (ix + x)	3851.17	3961.15	109.98
G	Surplus/(Deficit) (F – E)	0.01	252.34	252.33

- It could be seen from the above that, (i) the net expenditure of the Company has been increased by Rs.67.28 Crores mainly due to increase in O&M cost (ii) RoCE has been decreased by Rs.209.64 Crores due to reduction in RRB and thereby the Gross ARR decreased to the extent of 142.35 Crores. (iii) the total revenue of the Company increased to Rs.109.98 Crores on account of Non-tariff income which includes Interest on Inter corporate deposits for an amount of Rs. 112.43 Crores on account of inter corporate deposits arranged to TS Discoms for working capital requirement by borrowing short terms loans from Banks and Financial Institutions. In view of the above, the Company has incurred a surplus of Rs.252.33 Crores for FY 2022-23.

In view of the factual figures and reasons explained for the surplus incurred by TSTRANSCO for FY 2022-23, in compliance with the New Directive No.3 towards Annual Performance Review, the Hon'ble commission is requested to consider the surplus of Rs.252.33 Crores as pass-through by way of special appropriation in the next control period.

3. TRUE UP OF TECHNICAL PERFORMANCE FOR FY 2022-23

3.1 PLANS FOR SYSTEM PERFORMANCE

(a) REPRESENTATIVE SYSTEM LOAD CURVES

1) Requirement in the Guidelines:

Representative system load curves for weekdays and weekends for various seasons (such as summer, winter and monsoon). Indicate in case if any load restriction was imposed. Also provide expected system load curves for the ensuing year and indicate the expected supply curves in each case. (Guidelines – 10a).

2) TSTRANSCO's Response:

2022-23

Typical Full load details along with curves for three seasons representing Peak demand met on week day and Peak demand met on weekend day for the year 2022-23 are as follows:-

For 2022-23

Sl.No	Season	Date
1	Typical week end day in summer	04 th Mar'23
2	Typical full load day in summer	30 th Mar'23
3	Typical week end day in monsoon	03 rd Sept'22
4	Typical full load day in monsoon	26 th Sept'22
5	Typical full load day in winter	11 th Feb'23
6	Typical week end day in winter	28 th Feb'23

The highest system peak demand of 15497 MW was recorded on 30.03.2023 @ 11:01 AM for the FY 2022-23.

A brief analysis of system demand for all seasons of the year 2022-23 is furnished in the following sections:

For 2022-23

PEAK GRID DEMAND				
SEASON	Max MW	Max Date	Min MW	Min Date
SUMMER	15497	30.03.2023	4688	02.05.2022
MONSOON	13191	26.09.2022	3760	29.07.2022
WINTER	14794	28.02.2023	4266	30.11.2022

1 Summer season

For 2022-23

The highest System Peak Demand recorded during summer season is 15497 MW on 30.03.2023. From the system load curve (vide Graph 1) on the day when the highest system peak was recorded during summer season, it can be seen that the system load is continuously maintained above 8739 MW (minimum on 30.03.2023) throughout the day and the maximum demand recorded was 15497 MW. The **demand variation in summer was between 4688 MW and 15497 MW**. The minimum system demand met on 02nd May 2022 was 4688 MW and is the lowest recorded in this season.

2 Monsoon season

For 2022-23

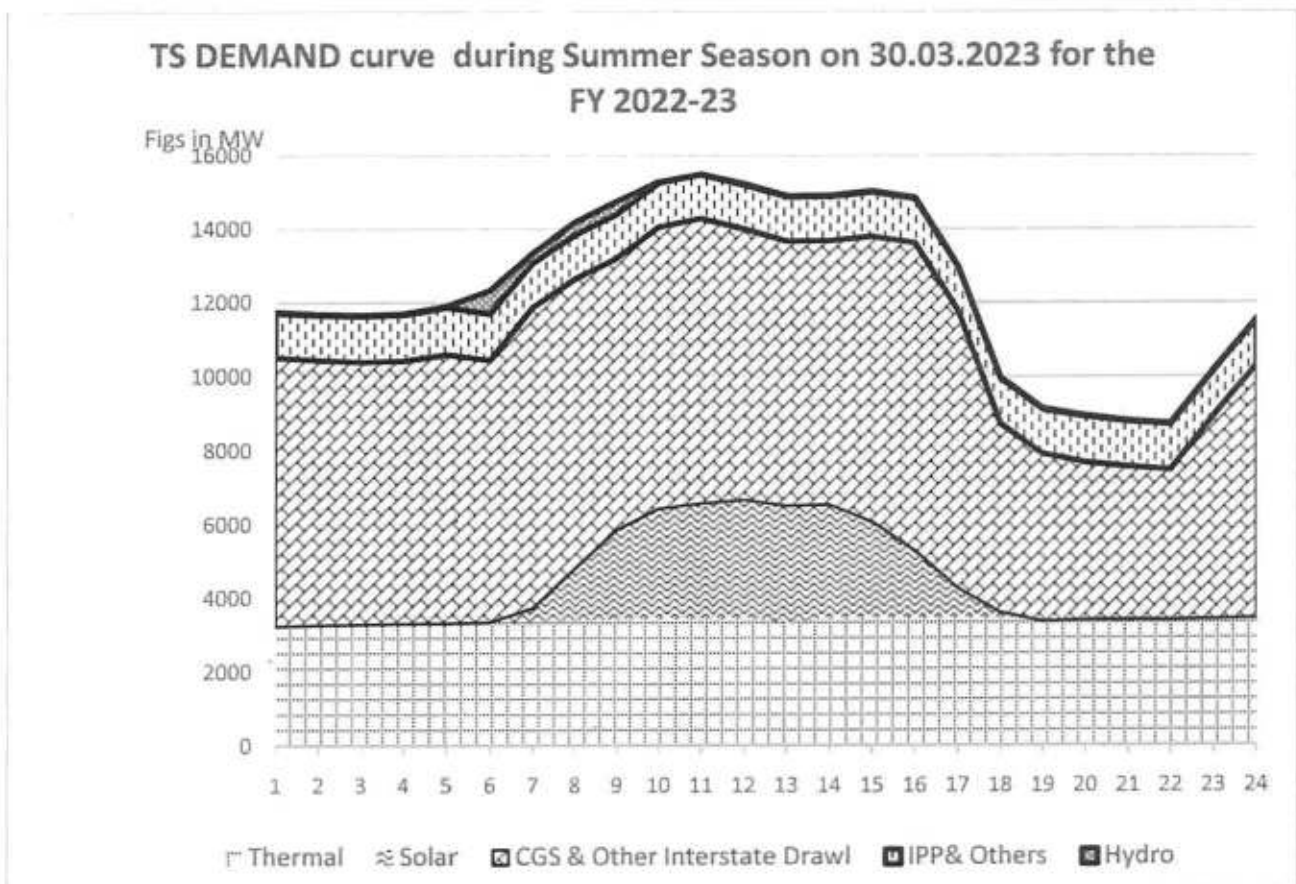
The highest System Peak Demand recorded during monsoon season is 13191 MW on 26.09.2022. From the system load curve (vide Graph 2) on the day when the highest system peak was recorded during monsoon season, it can be seen that the system load is continuously maintained above 6003 MW (minimum on 26.09.2022) throughout the day and the maximum demand recorded was 13191 MW. The **demand variation in monsoon was between 3760 MW and 13191 MW**. The minimum system demand met on 29th July 2022 was 3760 MW and is the lowest recorded in this season.

3 Winter season

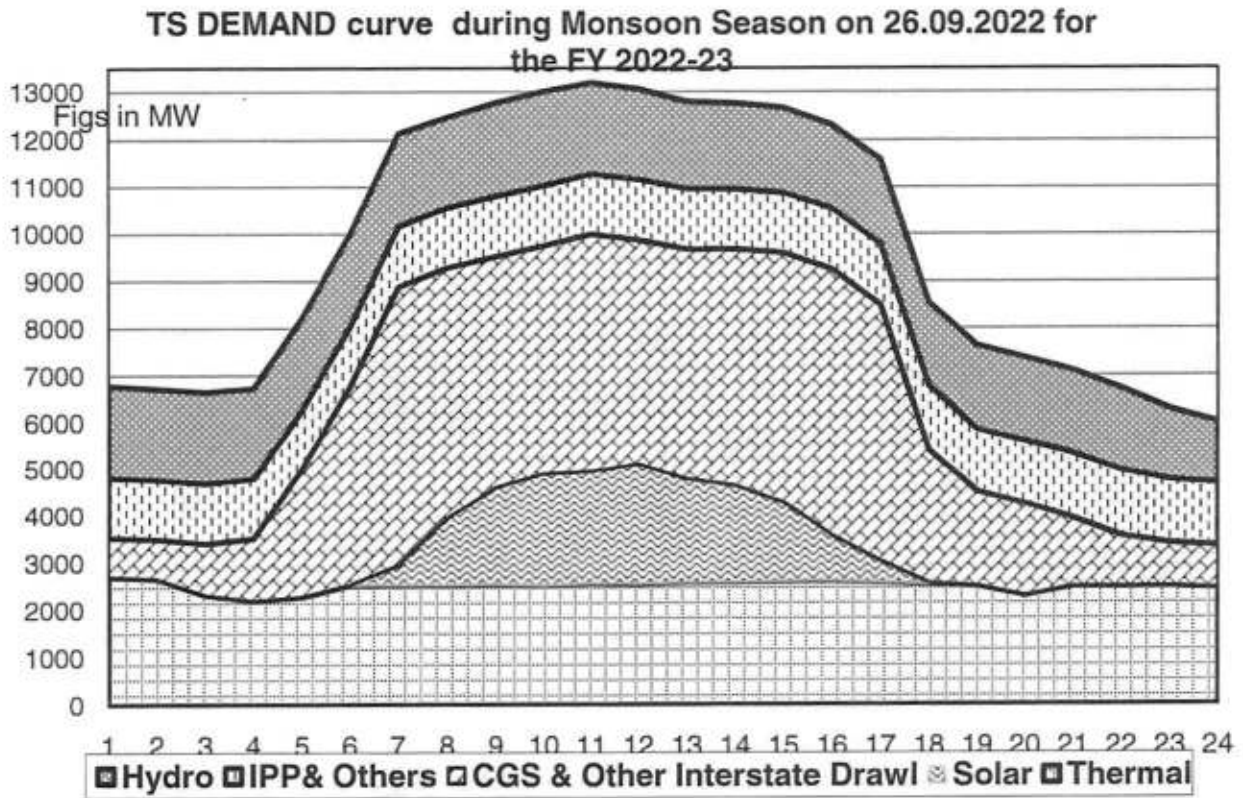
For 2022-23

The highest System Peak Demand recorded during winter season is 14794 MW on 28.02.2023. From the system load curve (vide Graph 3) on the day when the highest system peak was recorded during winter season, it can be seen that the system load is continuously maintained above 7232 MW (minimum on 28.02.2023) throughout the day and the maximum demand recorded was 14794 MW. The **demand variation in dry winter was between 4266 MW and 14794 MW**. The minimum system demand met on 30th November 2022 was 4266 MW and is the lowest recorded in this season.

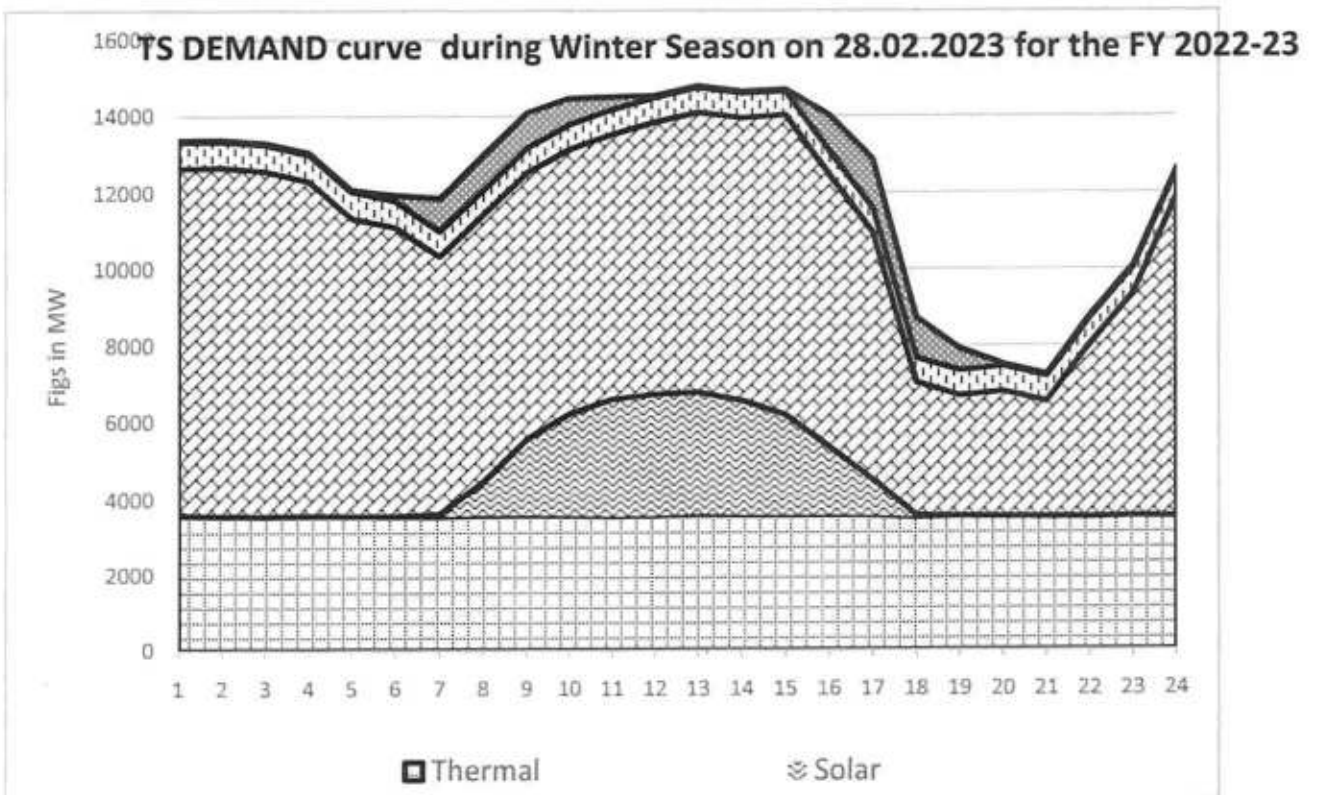
Graph 1:



Graph 2:



Graph 3:



(b) LOAD DURATION CURVES

1. Requirement in the guidelines

Load duration curves for the past year and current year and expected load duration curve for the ensuing year. Indicate energy unserved on the load duration curves. (Guidelines – 10b)

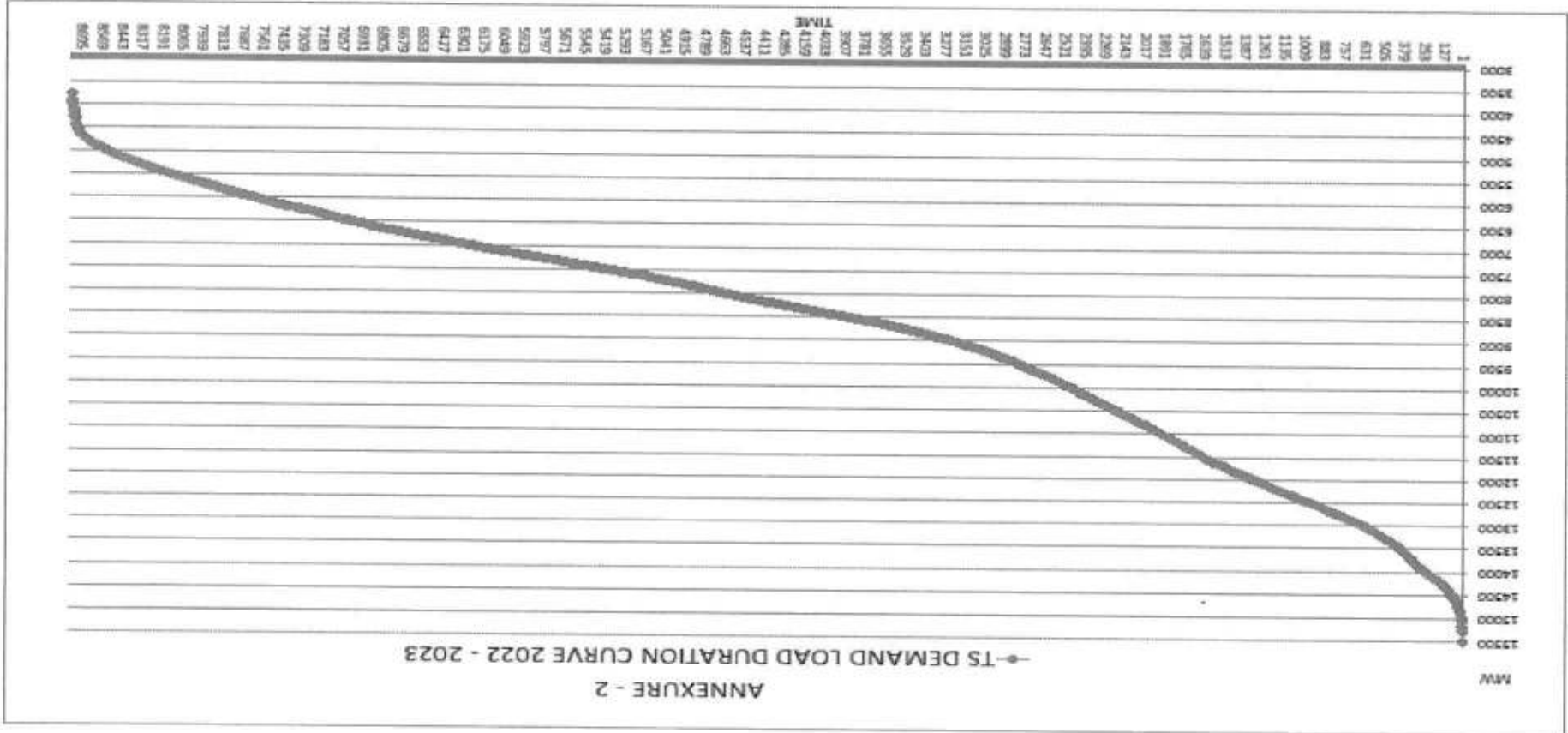
2. TSTRANSCO's Response:

The energy availability in FY 2022-23 is 100% of the total energy requirement.

Load duration curve for the FY 2022-23 is enclosed as Graph-4.

Graph 4:

TS Demand Load Duration Curve for the FY: 2022-23



(c) PLANS TO IMPROVE TRANSMISSION SYSTEM PERFORMANCE

1. Requirement in the Guidelines:

Plans to improve Transmission System Performance. (Guidelines – 10d)

2. TSTransco's Response:

The transmission system of TSTransco as of March 31, 2023 consists of 6357 Circuit KMs of 400 kV lines, 9317 Circuit KMs of 220 kV lines, 12141 Circuit KMs of 132 kV lines, 25 Nos. 400 kV sub-stations, 101 Nos. 220 kV sub-stations and 250 Nos. 132 kV sub-stations.

During 2022-23, an expenditure of Rs. 981.47 Crs. was incurred by TSTRANSCO towards strengthening of Transmission network, which resulted in the addition of the following assets (incl. LIS). Rs. 949.18 Cr for LIS Schemes funded by I&CAD dept., GoTS.

(Incl. LIS)

400 kV lines	44.00 Ckm.
220 kV lines	259.00 Ckm.
132 kV lines	171.00 Ckm.
400 kV sub-stations	2 Nos.
220 kV sub-stations	3 Nos.
132 kV sub-stations	3 Nos.

Plans to improve Transmission System performance.-

- i. 2nd set of Battery set is being installed in all 220KV Sub-stations to have reliable transmission network.
- ii. All the static relays in the Control and relay panels are being replaced with numerical relays in the Control & Relay Panels in a phased manner.
- iii. Old conductor is being replaced with HTLS Conductor to improve transfer capacity of Transmission lines using existing towers
- iv. ERS (Emergency restoration System) is being introduced for transmission lines

- v. SPS (Special protection scheme) are being introduced to avoid the cascade tripping in the important Grid Connected Sub-Stations.
- vi. Installation of capacitor Banks in the Transmission system for reactive power compensation.

(d) PLANS FOR CAPITAL EXPENDITURE

1. Requirement in the Guidelines.

Plans for all Capital Expenditure. (Guidelines – 10g)

2. TSTransco's Response

A. Plans for Capital Expenditure for 400kV Schemes

(i) 400kV Transmission Projects works completed during 2022-23

A. Rayadurg System Improvement Scheme :

- 1 LILO of Gachibowli – Shivarampally 220kV Line to Rayadurg SS - UG cable (5.16 km) charged on 06.04.2022
- 2 LILO of Jubilee Hills – Shivarampally 132kV SC Line to Rayadurg SS - UG cable (2.663 km) charged on 06.04.2022

B. YTPP Thermal Power Evacuation Scheme :

- 1 400/220 kV Damaracherla Substation (2x500 MVA) charged on 30.12.2022 :
- 2 400kV QMDC Line from Yadadri TPP Switchyard to Damaracherla 400/220kV Substation - 9.864 ckm charged on 30.12.2022 (up to Terminal Tower of YTPP)
- 3 LILO of Khammam-Mamidipally 400kV DC Line to Choutuppal 400kV Substation - 33.376 ckm charged on 15.03.2023
- 4 400/220/132kV Choutuppal Substation charged on 16.03.2023 (with 1x500 MVA ICT)

C. Augmentation Scheme-IV (Transformation capacity addition)

- 1 500 MVA, 400/220kV ICT at existing Veltoor 400kV Substation (in place of 315MVA ICT) charged on 08.02.2023
- 2 500 MVA, 400/220kV ICT at existing Gajwel 400kV Substation (in place of 315MVA ICT) charged on 25.02.2023

D. Reactors Scheme - III :

- 1 125MVAR Bus Reactor at Kamalapuram 400kV SS charged on 11.04.2022

(ii) 400kV Transmission Schemes under Progress during FY:2022-23
(ongoing):

A. YTPP Thermal Power Evacuation Scheme :

- 1 400kV Yadadri TPP - Choutuppal QMDC Line
 - i) No. of Foundations completed : 259 / 259
 - ii) No. of Towers Erected : 252 / 259
 - iii) Stringing completed (in ckm) 63.726 / 184.754
- 2 400kV Yadadri TPP - Dindi QMDC Line
 - i) No. of Foundations completed : 290 / 290
 - ii) No. of Towers Erected : 286 / 290
 - iii) Stringing completed (in ckm) 143.206 / 207.58
- 3 400kV Yadadri TPP - Janagaon QMDC Line
 - i) No. of Foundations completed : 367 / 402
 - ii) No. of Towers Erected : 283 / 402
 - iii) Stringing completed (in ckm) 43.834 / 278

B. KTPP System Improvement Scheme :

- 1 Bhoopalapally 400/220/132kV Substation:

Switchyard ->	<u>400 kV</u>	<u>220 kV</u>	<u>132 kV</u>
i) Foundations completed (Nos.)	195/207	230/232	58/58
ii) Structures Erected (Nos.)	194/207	215/232	40/58
iii) Equipment Erected (Nos.)	192/207	212/232	40/58

 - iv) Work awarded to contractor on 22.05.2020.
ICTs, Reactor, PTR Foundations works are completed. Control Room Building, DG Building, store cum office, Kiosk, Roads and Drains, Firewall, Earthing, cable trench works are under progress

C. Augmentation Scheme-IV :

- 1 Veltoor 400/220 kV Substation :
2nd 500 MVA ICT works to be taken up at Veltoor Substation in place of existing 315 MVA ICT.
- 2 Suryapet 400/220 kV Substation :
Equipment Foundations & Erection works under progress for installation of new 500 MVA ICT.

- 3 Dichpally 400/220 kV Substation :
Equipment Foundations & Erection works under progress for installation of new 500 MVA ICT.
- 4 Asupaka 400/220 kV Substation :
315 MVA ICT to be transported after dismantling at Veltoor 400kV SS and to be erected at Asupaka
- 5 Kamalapuram 400/220 kV Substation :
Dismantled 315 MVA ICT at Gajwel transported to Kamalapuram;
Erection works to be taken up at Kamalapuram 400kV SS.

d. Reactors Scheme-III :

SI No	400kV Substation	Status of Works Progress as on 31.03.2023
1	Maheswaram - 125 MVAR Bus Reactor	Reactor Bay Extension : Site handed over to the contractor on 01.07.2021
		Reactor Equipment Bay charged on 10.02.2023.
		125 MVAR Reactor yet to be received.
2	Dindi - 125 MVAR Reactors - 2 Nos.	Reactor Bay Extensions : Site handed over on 01.07.2021.
		Reactor Equipment Bays charged on 03.03.2023.
		125 MVAR Reactors yet to be received.
3	Choutuppal - 125 MVAR Bus Reactor	Reactor Bay Extension : All works completed
		Reactor Equipment Bay test charged on 15.03.2023.
		125 MVAR Reactor yet to be received.
4	Asupaka - 80 MVAR Bus Reactor & 63 MVAR Line Reactor	Reactor Bay Extensions : Site handed over on 01.07.2021.
		Erection works of Reactor & Bay Equipment completed
		Testing of Bus and Line Reactors under progress
5	Suryapet 125 MVAR Bus Reactor	Site handed over to the contractor on 01.07.2021
		All the Equipment & Tower Foundations completed. Equipment erection completed
		Bus reactor foundation: Main plinth completed. Auxiliary foundation works and Pit wall works completed
		Cable laying works are under progress
		Kiosk: Wall paneling, door, window fixing and false ceiling

		works completed. Roads works under progress
6	Jangaon 125 MVAR Bus Reactor	Site handed over to the contractor on 01.07.2021
		Equipment foundation and erection works are completed
		Bus reactor foundation: Main plinth completed. Auxiliary, foundation completed. Grade slab works completed. Cable laying works completed
		Kiosk: All the works are completed
		IPS Tube Erection: Completed. Testing yet to be taken up
7	Kethireddypally - 125 MVAR Bus Reactor	Site handed over on 13.06.2022
		Bay Equipment foundations & Erection completed except 1 set of CTs (Tie bay)
		Cable laying and Termination works completed
		Reactor Main plinth, Rail Track & Pitwall works completed. Auxiliary foundations yet to be started; Fire wall completed
8	Narsapur - 125 MVAR Bus Reactor	Site handed over on 13.06.2022
		Bay Equipment foundations & Erection completed except 1 set of CTs (Tie bay); Cable laying and Termination works completed
		Reactor Main plinth, Rail Track PCC and TMT works completed. Fire wall - I & II works completed. Rail wall works under progress

B. PLANS FOR CAPITAL EXPENDITURE FOR 220KV AND 132KV SCHEMES

Capital works are being taken up for catering to new loads of distribution licensees, open access consumers, captive power plants and for evacuation of power from the up-coming Generating Stations. Strengthening of the Transmission System is being planned to improve the system voltage profile, decrease losses and to enhance the reliability of the system. The construction of new 220 KV & 132 KV Sub-stations and connected lines are being executed with the funding from M/s REC, M/s PFC and internal (TSTransco) funding.

(i) **Write up of completed works**

1. Erection of 132/33kV Substation at Kotagiri in Nizamabad District.

- The scheme is formulated under “System Improvement Transmission Scheme to meet the load growth and to improve the voltage regulation in the surrounding (Kotagiri, Bhiknoor, Madnoor, Varni & Bodhan Mandals).
- The administrative approval was accorded vide T.O.O.(CE-Transmission) Ms.No.88, Dt:30.06.2016.(Amount Rs.15.05 Crores).
- The Work envisages the following.
 - (i) Erection of 132/33 kV Sub-Station at Kotagiri in Nizamabad District with 3 X 10/16 MVA PTRs (Released).
 - (ii) Erection of 132 kV DC/SC line on Galvanised Towers with Panther ACSR from 132/33 kV Sub-Station, Jakora to the proposed 132kV Sub-Station at Kotagiri-12KM.
 - (iii) 132 kV Bay extensions at 132/33 kV Sub-Station, Jakora – 1 No.
- Funding tie up with M/s PFC Ltd & amount Rs.12.97 Crores
- Date of commissioning: 12.05.2022.

2. Erection of 132/33 kV Gas insulated Substation (GIS) at Manikonda in Rangareddy district.

- The scheme is formulated under “System Improvement Transmission Scheme to overcome the low voltage problems, to cater to the upcoming loads and also to provide quality power supply to the consumers.”
- The revised administrative approval was accorded vide T.O.O (CE-Transmission) Ms.No.402, Dated: 08.07.2019,(Amount Rs: 107.18Crores).
- The Work envisages the following.
 - (i) Erection of 132/33 kV Gas Insulated Substation at Manikonda with 2X80 MVA PTRs.

- (ii) Making LILO of 132kV Raidurg – Shivarampally line to proposed 132/33kV GIS Substation Manikonda with 132kV 1200sqmm XLPE UG Cable-2.2KM.

- Funding tie up with M/s REC Ltd & amount Rs.96.46 Crores.
- Date of commissioning: 15.09.2022.

3. Erection of 220kV DC line from 400kV SS Damaracherla to 220kV SS Miryalaguda.

- The scheme is formulated under "Yadadri power evacuation Scheme."
- The administrative approval was accorded vide T.O.O(CE-400kV) MS.No.451 Dated:10.10.2019 (Amount Rs.2354.35 Crores).
- The Work envisages the following.
 - (i) Erection of 220kV TMDC line from 400/220 kV SS Damaracherla to 220kV SS Miryalaguda – 25 kM.
 - (ii) 220kV Bay extensions at Miryalaguda SS- 2No's.
- Date of Commissioning:29.08.2022 (Circuit-I) & 29.12.2022 (Circuit-II).
- Funding tie up with M/s. PFC Ltd & amount Rs.1102.26 Crores (for total scheme)

4. LILO of both circuits of existing Malkaram-Narketpally DC line to 400/220/132kV Choutuppall SS on multi circuit towers in Nalgonda district.

- The scheme is formulated under "Yadadri power evacuation Scheme."
- The administrative approval was accorded vide T.O.O(CE-400kV) MS.No.451 Dated:10.10.2019 (Amount:Rs.2354.32 Crores).
- The Work envisages the following.
 - (i) Making LILO of both circuits of existing 220kV Malkaram-Narketpally DC line to 400/220/132kV Choutuppall SS on Multi circuit Towers – 15 kM.
- Date of Commissioning: 20.03.2023 (Circuit-II) & 23.03.2023 (Circuit-I).

- Funding tie up with M/s. PFC Ltd & amount Rs.1102.26 Crores (for total scheme)

5. Erection of 220KV DC line from 400/220/132kV Gajwel SS to 220/132kV Siddipet SS.

The scheme is formulated to improve the power flow to Medak District for meeting the 9.00 Hours day time agricultural supply.

- The administrative approval was accorded vide T.O.O (CE-Transmission) Ms. No. 225, Dated: 10.12.2015. (Amount Rs 38.12 Crores).
- The work envisages the following.
 - (i) Erection of 220 kV DC line on Galvanised Towers with Moose ACSR from 400/220/132 kV SS Gajwel to 220/132 kv SS Siddipet – 32.41 kM.
 - (ii) 220KV Bay Extensions at 400kV Gajwel- 2No's & 220kV Bay Extensions at 220kV SS Siddipet- 2No's.
- Funding tie up with M/s REC Ltd & amount Rs.56.95 Crores (including other work)
- Date of Commissioning: 19.11.2022.

6. Erection of 132kV DC line from 400/220/132kV SS KTPP to 132/33 kV SS Chelpur in Warangal District.

- The scheme is formulated under KTPP system improvement scheme.
- The administrative approval was accorded vide T.O.O (CE-400kV) Ms. No. 297, Dated: 09.02.2019, (Amount Rs.454.23 Crores)
- The work envisages the following.
 - (i) 132kV single Moose DC line from proposed 400/220/132kV KTPP SS to 132 kV Chelpur SS on 220kV multi circuit towers - 2 KM.
 - (ii) 132kV Bay extension at 132/33kV SS Chelpur.- 2 No's.
- Funding tie up with M/s. PFC Ltd & amount Rs. 405 Crores (for total scheme)
- Date of Commissioning: 24.09.2022.

7. 132KV DC line from 220/132kV SS Yeddumailaram to 132/33kV SS Pashamailaram in Sangareddy District.

- The scheme is formulated under System Improvement Transmission Scheme for strengthening of 132 kV system since the loads fed from Pashamailaram substation are very important and for supply of power without interruption to these loads.
- The administrative approvals were accorded vide (i) T.O.O. (CE-Construction-I) Ms.No.61, Dated: 25.05.2012 (Rs.9.31 Crores) and (ii) TOO (CE_Construction) Ms.no. 1252. Dated: 25.11.21.(Total cost Rs. 3.98 Crores).
- The work envisages the following.
 - (i) 132kV DC line with narrow based towers from 220/132 kV Yeddumailaram SS to 132/33kV SS Pashamailaram - 7 KM.
 - (ii) 132 kV Bay extensions at 220/132kV SS Yeddumailaram – 1 No. & 132kV Bay extensions at 132kV SS Pashamailaram SS -1No.
- Funding from NABARD (1st T.O.O), amount Rs. 8.38 Crores,TSTRANSCO funds (2nd T.O.O).
- Date of commissioning: 27.09.2022.

8. Making LILO of 132kV Khammam-Chilakallu and Chilakallu- kusumanchi to 220kV Pedagogopathi SS on multi circuit towers.

- The work is covered in the Bhadradi Thermal Power Transmission Scheme.
- The administrative approval was accorded vide TOO (CE-projects) MS.No.15, Dated:29.04.2016.(Total cost Rs.1304.36 crores)
- The work envisages the following.
 - (i) Making LILO of 132kV Khammam-Chilakallu and Chillakallu - Kusumanchi on multi circuit towers to 220kV Peddagopathi SS - 20.5 KM.
- Funding tie up with M/s. PFC Ltd & amount Rs.1150.16 Crores (for total scheme)

- Date of commissioning: 23.12.2022.

(ii) Write up of works under progress (ongoing)

1. 132 kV DC line from the proposed 220/132/33 kV SS Parigi to 132/33 kV SS Dharmasagar

- The work is covered in 132KV SS Donthanpally.
- The administrative approval was accorded vide T.O.O.(CE-Construction) Ms.No.82, Dt:18.04.2018, Amount: 3215.00 Lakhs
- The scheme envisages the following work
132 kV DC line from the proposed 220/132/33 kV SS Parigi to 132/33 kV SS Dharmasagar- 36KM (Rs.1836.00 Lakhs)
- The investment approval No.CRN.No.TST/TS erection of 132 kV SS at Donthanpalli in Rangareddy District /F-Revised approval/ INVST-12/18/2018-19, dt.10.09.2018, Amount in Rs.3215.00 Lakhs
- Funding tie up with M/s. REC Ltd & amount Rs.1926.27 Lakhs.

2. 132 kV SS Kandukuru & connected lines in Rangareddy District

- The scheme is formulated under "System Improvement Transmission Scheme to meet increased load on 33/11 kV substations and also to reduce 33 kV line losses".
- The administrative approval was accorded vide T.O.O (CE-Construction-I) Ms.No. 347, Dated: 13.02.2013, Amount: Rs. 2275 Lakhs
- The scheme envisages the following work
 - (i) 132/33 kV Substation at Kandukuru with 1x31.5 + 1 x 16 MVA(Released) PTR Capacity
 - (ii) 132 kV DC/SC line from proposed 220/132 kV Fab city substation to the proposed 132/33 kV Kandukuru substation on narrow based towers and Normal towers- 18KM
 - (iii) 132KV Bay extension at 132/33KV SS Fabcity- 1No.
- The investment approval No TST/TS/132 kV SS-Kandukuru/ F-INVST-05/2015.Dt.08.10.2014, Amount in Rs.22.74 Cr
- Funding tie up with M/s. REC Ltd.& amount Rs.2005.78 Lakhs

3. 220/132/33 kV Substation at Borampet in Ranga Reddy district

- The scheme is formulated “for evacuation of power from 2 X 800 MW Telangana STPP to be established by NTPC at Ramagundam”.
- The administrative approval was accorded vide T.O.O (CE-Transmission) Ms. No. 72 Dated: 13.05.2016, Amount: Rs.212.20Crores
- The scheme envisages the following works
 - (i) Erection of 220/132/33 kV Sub-Station at Borampet with 2 X 160 MVA + 2 X 80 MVA PTR Capacities.
 - (ii) 220 kV Multi Circuit OH line on MC Towers with Moose ACSR from 400 kV Narsapur SS to proposed 220 kV Borampet SS-38 KM
 - (iii) 220 kV DC line with UG Cable from 400 kV Narsapur SS to proposed 220 kV Borampet SS – 5 KM.
 - (iv) Erection of 220 kV Bays at 400 kV Narsapur-2 Nos.
- The investment approval CRN No. TST/TS/ 220/132/33 kV SS, Borampet RR District/ INVST- No. 07/16 - 2016-17.date.19.10.2016, Amount.Rs.212.20 Cr
- Funding tie up with M/s PFC Ltd & amount Rs. 182.98 Crores

4. Erection of 132kV DC line from under construction 220/132kV SS Ammavaripet to the existing 132/33kV SS Geesukonda and Erection of 220/132kV SS Ammavaripet & LILO one circuit of 220kV Manoharabad-Warangal DC line to proposed 220/132kV SS Ammavaripet in Warangal District.

- The scheme is formulated under “System Improvement Transmission Scheme to feed the upcoming industrial corridor at Madikonda and a Textile Park at Geesugonda”.
- The administrative approval was accorded vide T.O.O (CE-Construction) MS.No.294,Dt:29.01.2019, Amount: Rs.126.86 Crores
- The scheme envisages the following works
 - (i) Erection of 220/132 kV Sub-Station at Ammavaripet with 2X100 MVA PTR Capacity in Warangal Dist
 - (ii) Erection of 220 kV DC Line on Galvanized Towers with Moose ACSR Conductor for LILO of one circuit of 220 kV Mahabubabad - Warangal line to proposed 220 kV Ammavaripet SS- 31KM

- (iii) Erection of 132 kV DC Line on Galvanized Towers with Panther ACSR Conductor from the proposed 220/132 kV Sub-station Ammavaripet to the existing 132/33 kV Sub-Station, Geesukonda- 23KM
 - (iv) Erection of 132 kV Line on Multi-circuit Towers with Panther ACSR Conductor for accomdation of 132 KV Line to 132KV SS Inavole and 132KV Line to 132KV SS Wardhannapet from the proposed 220/132 kV Sub-station Ammavaripet to AP 8- 6.98KM
 - (v) Erection of 132 kV DC/SC Line on Galvanized Towers with Panther ACSR Conductor from the AP.8 to the 132/33 kV SS Inavole-2.32KM
 - (vi) Erection of 132 kV DC/SC Line on Galvanized Towers with Panther ACSR Conductor from the AP.8 to the 132/33 kV SS Wardhannapet- 16.25KM
 - (vii) Erection of 132 kV Bays (2 Nos at 132 kV Geesukonda, 1 No at 132 KV Wardannapet& 1No at 132 kV Inavole)- 4Nos.
 - (viii) The investment approval No. CRN No: TST/TS/Erection of 220/132 kV Substation at Ammavaripet, Kazipet(M) in Warangal Urban District. Approval/ No.02/2019-20, Date. 10.08.2018, Amount.Rs.126.91 Cr
- Funding tie up with M/s PFC Ltd & amount Rs.87.24Crores

5. 132/33kV SS at Padmanagar in Karimnagar District

- The scheme is formulated "to meet the existing & upcoming load demand in the Karimnagar town."
 - The administrative approval was accorded vide T.O.O (CE-Construction) Ms. No.254, Dated:26.11.2018. Amount: Rs.19.29 Crores
 - The scheme envisages the following works.
 - (i) Erection of 132/33 kV Sub-Station Padmanagar (V) in Karimnagar District with 2x10/16 MVA capacity
 - (ii) LILO of132 KV Line (one circuit) from 220/132 KV SS Durshad to the 132/33 KV SS Siricilla to proposed 132/33 KV SS Padmanagar-7 KM
- Funding tie up with M/s PFC Ltd & amount Rs. 14.20 Crores.

6. 132/33 KV Gas Insulated Sub-station (GIS) at Seetharambagh

- The scheme is formulated "to reduce overloading of PTRs at 220/132/33 kV Shivarampally Sub-Station & 132/33 kV Imlibun Sub-Station, to reduce the length

of 33 kV lines feeding the scheme area, thereby reducing the time taken in locating faults, attending breakdowns & restoration of supply, to provide reliable & uninterrupted power supply, to reduce the overall energy losses in the system".

- The administrative approval was accorded vide T.O.O(CE-Transmission) MS.No.28 Dated:27.02.2017, Amount:Rs.63.63 Cr.
- The scheme envisages the following works
 - (i) Erection of 132/33 kV GIS substation at Seetharambagh with 2X80 MVA PTRs
 - (ii) Erection of 132 kV DC line with 630 Sqmm 132 kV UG cable from Asifnagar Sub-Station to the proposed 132/33 kV GIS substation at Seetharambagh- 4kM
 - (iii) 132 kV Bay extensions at Asifnagar substation-2 No.s
- The investment approval No. CRN TS/TST/132/33 KV, GIS, Seetharambagh/ Invest.Approval No.6/17-2017-18. date.August-2017, Amount.Rs.63.63 Cr
- Funding tie up with M/s REC Ltd & amount Rs. 57.27Crores

7. 132 kV features at 220 kV Thimmajipet Switching Station in Mahaboobnagar District and extending connectivity to 132 kV Jadcherla Sub-Station from Thimmajipet

- The scheme is formulated as part of "Comprehensive Transmission Requirement Scheme for the years 2012-2017"
- The administrative approval was accorded vide T.O.O(CE-Construction) MS.No.103 Dated:11.07.2017, Amount:Rs.29.32 Cr.
- The scheme envisages the following works
 - (i) Erection of 132kV features at 220 kV Thimmajipet Switching Station in Mahaboobnagar District with 2x100 MVA PTRs.
 - (ii)Erection of 132 kV DC line on Galvanised Towers with Panther ACSR from the existing 220/132 kV Thimmajipet Sub-Station, to the existing 132/33 kV Jadcherla Sub-Station -18kM.
 - (iii) 132 kV Bay extensions at 132/33 kV Sub-Station, Jadcherla- 2 No.s
- The investment approval No. CRN/TS/TST/220/Switching Station/ Mahaboobnagar / 132 KV Features /InvestApproval No.14/17-2017-18. date. December-2017, Amount.Rs.29.32 Cr
- Funding tie up with M/s REC Ltd & amount Rs.26.39 Cr

8. 33kV Features at upcoming 220/132 KV Sub-Station, Ammavaripet in Kazipet (M) , Warangal Urban (District).

- The scheme is formulated "to meet the growing demand of the Warangal city with reliable supply and reduced line losses."
- The administrative approval was accorded vide T.O.O(CE-Construction)MS.No.341 Dated:02.04.2019,Amount:Rs.8.10 Cr.
- The scheme envisages the following work
 - (i) Providing of 33 kV Features at upcoming 220/132 KV Sub-Station, Ammavaripet in Kazipet (M), Warangal Urban (District) with Released 2X50 MVA PTRs.
- Funding from TSTransco funds

9. 132/33kV SS at Pammy in Khammam District.

- The scheme is formulated "to feed the supply to existing 6Nos 33/11KV Substations."
- The administrative approval was accorded vide T.O.O (CE-Construction) Ms. No.14, Dated:20.01.2018. Amount: Rs.23.39 Crores
- The scheme envisages the following works
 - (i) Erection of 132/33 kV Sub-Station at Pammy in Khammam District with 2 X 31.5 MVA PTRs.
 - (ii) Erection of 132 kV DC line for LILO of 132 kV Kusumanchi-Chilakallu line at the proposed 132/33 kV Pammy Sub- Station -8Km.
- The investment approval No. CRN No. TST/TS/Erection of 132/33 KV SS at Pammy in Khammam Dist. Approval/No.03/2018-19, date. 01.06.2018 Amount.Rs.23.39 Cr
- Funding tie up with M/s REC Ltd& amount Rs. 20.64Crores

10.132/33 kV SS at Peechara in Warangal Dist.

- The scheme is formulated "to meet the load demand and to improve the voltage profile"
- The administrative approval was accorded vide T.O.O (CE-Construction) Ms. No.43, Dated:06.03.2018. Amount: Rs.43.92 Crores
- The scheme envisages the following works

- (i) Erection of 132/33 kV Sub-Station at Peechara, Warangal Dist with 2 X 31.5 MVA PTRs.
- (ii) Erection of 132 kV DC line with HTLS Conductor on Galvanised Towers by making LILO of existing 132 kV line from 220/132/33KV Waranagal SS to 132/33KV Jangaon SS at proposed 132/33KV Peechara SS-12 KM
- The investment approval No. CRN No.TST/TS/Erection of 132/33 KV Substation at Peechara in Warnagal District. Approval No. 05/2018-19.date. 19.07.2018, Amount.Rs.43.92 Cr
- Funding tie up with M/s REC Ltd.& amount Rs. 39.11 Crores

11.132 kV DC line from 400/220/132 kV SS Narsapur to 132/33 kV SS Yeldurthy in Medak District

- The scheme is formulated "to mitigate overloading on 132 kV Gajwel – Chegunta DC line".
- The administrative approval was accorded vide T.O.O (CE-Construction) Ms. No.1208, Dated:04.10.2021, Amount: Rs.30.58Crores
- The scheme envisages the following works
 - (i) Erection of 132kV DC line on Galvanized Towers with Panther ACSR conductor from 400/220/132 kV SS Narsapur to 132/33 kV SS Yeldurthy.– 23kM.
 - (ii) Erection of 132 kV feeder bays (2 Nos at Narsapur& 2 Nos at Yeldurthy)
- Funding from TSTransco funds.

12.132/33 kV Sub-Station at Nuthankal (V) & (M) in Suryapet District instead of 132/33 kV Aipoor SS in Suryapet District

- The scheme is formulated "to overcome the low voltage problems, to cater to the upcoming loads and also to provide quality power supply to the consumers".
- The administrative approval was accorded vide T.O.O (CE-Construction) Ms. No.1330, Dated:10.03.2022, Amount: Rs.30.55Crores
- The scheme envisages the following works
 - (i) Erection of 132/33kV Sub-station at Nuthankal in Suryapet District with PTRs capacity of (2x50 MVA) + (1x10/16 MVA Released.)

- (ii) Stringing of 2nd circuit from Loc.No.16 to Loc.No.75 (Tapping Tower) on existing 132kV DC/SC line from 400/220/132 kV SS Suryapet to 132/33kV SS Thungathurthy towers– 16.5kM
 - (iii) Erection of 132kV DC/SC line from Loc.No.75 (Tapping tower) to proposed to 132/33kV SS Nuthankal on Galvanised towers – 9.5kM
 - (iv) 132 kV Bay extension at 400/220/132kV SS Suryapet-1No.
- The investment approval No: TST/TS/ Erection of 132/33kV Sub station at Nuthankal (V) & (M) in Suryapet District instead of 132/33 kV Aipoor SS in Suryapet district. Approval No. 02/2022-23
 - Funding tie up with M/s REC Ltd. & TSTransco funds

13. Erection of 220kV SMDC line from proposed 400/220kV SS Damaracherla to existing 220/132/33kV SS Huzurnagar in Nalgonda District.

- The scheme is formulated under Yadadri Thermal Power (5X800MW) Evacuation Scheme.
- The administrative approval was accorded vide T.O.O (CE-400KV) Ms. No.451, Dated:10.10.2019, Amount: Rs.2354.35Crores
- The scheme envisages the following works
 - (i) 220kV SMDC line from proposed 400/220kV SS Damaracherla to existing 220/132/33kV SS Huzurnagar-45 KM.
 - (ii) 220kV Bay extensions at 220/132/33kV SS Huzurnagar-2No's
- Funding tie up with M/s PFC Ltd. & amount Rs.1102.26 Crores.

14. Erection of 132kV DC line from proposed 400/220/132kV SS Choutuppall to 132kV SS Choutuppall.

- The scheme is formulated under Yadadri Thermal Power (5X800MW) Evacuation Scheme.
- The administrative approval was accorded vide T.O.O (CE-400KV) Ms. No.451, Dated:10.10.2019, Amount: Rs.2354.35Crores
- The scheme envisages the following works
 - (i) 132kV DC line from proposed 400/220/132kV SS Choutuppall to 132kV SS Choutuppall.-9.961KM on Multicircuit towers & 4.732kM on DC towers.
 - (ii) 132kV Bay extensions at 132/33kV SS Choutuppall-2No's
- Funding tie up with M/s PFC Ltd. & amount Rs.1102.26 Crores.

15. Erection of 220KV DC line with single Moose conductor from 220/132kVSS Indravelly (Uttoor) to existing 132/33kV SS Asifabad.(To be charged at 132kV Level).

- The scheme is formulated under Nirmal power transmission Scheme.
- The administrative approval was accorded vide T.O.O (CE-400KV) Ms. No.07, Dated:09.01.2018, Amount: Rs.1151.05Crores
- The scheme envisages the following works
 - (i) 220kV SMDC line from 220/132kV SS Indravelly(Uttoor) to the existing 132/33kV SS Asifabad.-71KMs.
 - (ii) 132kV Bay extensions at 132/33kV SS Asifabad -2No's
- Funding tie up with M/s REC Ltd. & amount Rs.843.16 Crores.

16. Erection of 220/132/33KV Substation at Husnabad in Siddipet District.

- The scheme is formulated under KTPS VII Stage power transmission Scheme.
- The administrative approval was accorded vide T.O.O (CE-400KV) Ms. No.139, Dt:11.09.2017, Amount: Rs.1412.53Crores
- The scheme envisages the following works
 - (i) Erection of 220/132/33kV SS Husnabad with 2X100MVA + 2X50 MVA PTRs.
 - (ii) 220kV DC line from 400/220kV Substation Jangaon to proposed 220/132/33kV SS Husnabad-42Kms.
 - (iii) 132kV LILO from 132kV Palamkula-Husnabad DC/SC line to proposed 220/132/33kV Substation Husnabad in Siddipet District.-(2Kms.)
- Funding tie up with M/s PFC Ltd. & amount Rs.1077.12 Crores.

17. Providing of alternate supply to 132 /33 kV SS Chennur and 132/33 kV SS Kataram from 220/132 kV SS Manthani in Karimnagar District.

- The scheme is formulated under the program for providing 9.00 Hrs Day Time Supply for Agriculture.
- The administrative approval was accorded vide T.O.O (CE-Transmission) Ms. No.210, Dt:06.11.2015, Amount: Rs.12.13Crores
- The scheme envisages the following works

- (i) Stringing of two circuits on already approved (under construction) 132 KV Multi circuit towers from 220/132 KV SS Manthani upto Loc. No. 19 of existing 132Kv Manthani – Kataram line.
 - (ii) Erection of 132 kV DC line (5.00 KM) from existing Loc. No. 19 upto Loc.No. 34A, of 132 kV Manthani – Kataram line.
 - (iii) Stringing of 2nd circuit from newly proposed DC line (from Loc No. 34A of 132 kV Manthani – Kataram) to 132/33 kV Chennur SS on the existing DC/SC line.
 - (iv) Stringing of 2nd circuit from Loc. No. 34A of existing 132 kV Manthani – Kataram line to 132/33 kV SS Kataram.
 - (v) Erection of 132 KV bay (at 220/132 KVSS Manthan - 2 Nos., at 132 kV SS Kataram - 1No.at 132 kV SS Chennur - 1 No. Total-4Nos.
- Funding tie up with M/s REC Ltd. & amount Rs.10.92 Crores.

18.Erection of 33 KV features at 132 KV Railway Traction Switching Station, Kothagudem, Kothagudem Bhadradi District.

- The scheme is formulated “to provide quality, reliable & uninterrupted power supply to the consumers and also to meet the future demand”.
- The administrative approval was accorded vide T.O.O (CE-Construction) Ms. No.217, Dt:25.09.2018, Amount: Rs.9.92Crores
- The scheme envisages the following works
 - (i) 33 KV features at 132 KV Railway Traction Switching Station, Kothagudem, Kothagudem Bhadradi District with 2 X 10/16 MVA PTRs.
- Funding tie up with M/s PFC Ltd. & amount Rs.7.35 Crores.

19.Erection of 132/33 KV Sub-Station at Koutala (V) in Koutala (M) of Komaram Bheem Asifabad District.

- The scheme is formulated under system improvement scheme to avoid power interruption and to give better supply to the area.
- The administrative approval was accorded vide T.O.O (CE-Construction) Ms. No.981, Dt: 22.02.2021, Amount: Rs.56.56Crores.
- The scheme envisages the following works

- (i) Erection of 132/33 kV Sub-Station at Koutala in Komaram Bheem Asifabad Dist with 2 X 10/16 MVA PTRs (Released).
 - (ii) 132 KV DC/SC line from existing 132 KV Sirpur Kagaznagar SS to proposed 132 KV SS Koutala.-43.40KMs.
 - (iii) 132 KV feeder bay at existing 132 KV SS Sirpur Kagaznagar-1no's
- Funding is with TS Transco funds.

20.Erection of 220kV Twin Moose DC line by making LILO of existing 220kV Salivagu-Bheemghanpur line at Ramappa point(Loc.No.66) to proposed 400/220/132kV KTPP SS in Jayashankar Bhupalapally District.

- The scheme is formulated under 400 kV KTPP system improvement scheme
- The administrative approval was accorded vide T.O.O (CE-400 kV) Ms. No.297, Dt:09.02.2019, Amount: Rs.454.23 Crores.
- The scheme envisages the following works.
 - (i) 220kV Twin Moose DC line by making LILO of existing 220kV Salivagu-Bheemghanpur line at Ramappa point (Loc.No.66) to proposed 400/220/132kV KTPP SS- 22KMs.
- Funding tie up with M/s PFC Ltd. & amount Rs.405 Crores.

21.Erection of 132/33kV Substation at Patancheru in Sangareddy District.

- The scheme is formulated under "System Improvement Transmission Scheme for reliable and quality power supply to major revenue source industrial consumers and to the residential/commercial areas of Patancheru".
- The administrative approval was accorded vide T.O.O (CE-Construction) Ms. No.375, Dated: 03.06.2019, Amount:Rs: 23.64 Crores.
- The work envisages the following
 - (i) Erection of 132/33kV SS Patancheru with 2X31.5MVA PTR.
 - (ii) Erection of 132kV DC/SC line from 132kV SS RC puram to proposed 132kV SS Patancheru in Sangareddy District – 4.7 kM
- Funding tie up with M/s REC Ltd. & amount Rs.20.85 Crores.

C. LIFT IRRIGATION SCHEME (LIS) WORKS TAKEN UP BY TSTRANSCO UNDER DEPOSIT CONTRIBUTION WORKS:

TSTRANSCO has taken up construction of Transmission lines and Substations at 132kV, 220kV and 400kV level for extension of power supply to Pumping stations under various Lift Irrigation schemes which are funded by I&CAD Department, Govt. of Telangana.

The Transmission system established under extension of power supply to LI Schemes is included in the Transmission system of TSTRANSCO.

The addition of Transmission network in respect of LI Schemes for FY 2022-23 is as detailed below (as on 31.03.2023):

Description	Kaleswaram LI Schemes	Godavari LIS (phase- III)	Palamuru-Rangareddy LIS	Sitharama LIS	TOTAL for FY: 2022-23
400kV Lines (CKM)	0	0	0	0	0
220kV Lines (CKM)	0	0	0	62.74	62.74
132kV Lines (CKM)	0	0	0	0	0
400kV SS	0	0	0	0	0
220kV SS	0	0	0	0	0
132kV SS	0	0	0	0	0
400kV Bays	0	0	2	0	2
220kV Bays	3	2	0	16	21
132kV Bays	0	2	0	0	2

I. Kaleswaram Lift Irrigation Scheme & Godavari (Phase-III) LIS :

a. Sub-stations & Lines commissioned during FY 2022-23 : NIL

b. Details of Ongoing works during FY 2022-23 (Progress as on 31.03.2023)

The ongoing Transmission Lines and Substations in respect of LI Schemes for FY 2022-23 is as detailed below:

Sl. No.	Description	Status
Kaleshwaram Lift Irrigation Schemes		
1.	220/11 kV Manichippa SS & connected 220 kV DC line from Dichpally to Manichippa (48 CKM)	Substation: Works are under progress. Line: Tower Foundation: 40/40 Completed Tower Erection: 40/40 Completed Stringing: 24.176 Completed
2.	220/11 kV Yacharam Thanda SS & connected 220 kV DC line from Dichpally to Yacharam Thanda (53.7 CKM)	Substation: Works are under progress. Line: Tower Foundation: 86/97 Completed Tower Erection: 86/97 Completed Stringing: 15.977/26.902 Completed
3.	220/11 kV New Manichippa SS & connected 33 kV DC Line (4 km) from 220/33 kV Manichippa SS to 33/11 kV Ghadkol (New Manichippa) Substation (8 CKM)	Substation: Works are under progress. Line: 33 KV Line Tower Foundation: 0/0 Completed Tower Erection: 0/0 Completed Stringing: NIL
J Chokka Rao (JCR) GLIS Phase-III at Devannapet		
1.	220/11kV Devannapeta SS & connected 220kV DC line from 400/220kV Jangaon SS (110 CKM)	Substation: SS & Line commissioned on 12.04.2023. Line: Tower Foundation: 198/198 Completed Tower Erection: 198/198 Completed Stringing: 54.314/54.314 Completed
Kaleshwaram Lift Irrigation Scheme-Additional TMC Works		
1.	400/220 KV Annaram Substation & connected 400 KV QMDC line (approx. 22.5 KM) from STPP (Jaipur) to proposed 400 KV SS at Annaram pump house in Peddapally District (40.344 CKM)	Substation: Works are under progress. Line: Tower Foundation: 48/63 Completed Tower Erection: 0/63 Completed Stringing: 0/20.172 Completed
2.	TMDC Line from 400/220 KV Annaram SS to 220/11 KV SS at Medigadda - 48 KM and 2 Nos Bay extensions at existing 220/11 KV Medigadda LI SS. (96 CKM)	Substation: Works are under progress. Line: Tower Foundation: 113/155 Completed Tower Erection: 64/155 Completed Stringing: 0/40.494 Completed
3.	400 KV Switching Station at Kachapur & connected (i) LILLO of 400kV QMDC Line from STPP Jaipur- 400/220/11kV Ramadugu SS of line length 2 X 3.5 KM (7 CKM)	Substation: Works are under progress. Line: Tower Foundation: 18/30 Completed Tower Erection: 0/30 Completed Stringing: 0/9.52 Completed
	(ii) 400kV QMDC Line from 400kV Kachapur Switching station to 400/220/132kV Gajwel SS of line length 9 KM (18 CKM)	Substation: Works are under progress. Line: Tower Foundation: 14/23 Completed Tower Erection: 0/23 Completed Stringing: 0/7.228 Completed

	(iii) LILO of 400kV QMDC Line from Telangana STPP NTPC (2x800MW)- 400/220/32kV Narsapur SS of line length 2 X 2.5 KM (5 CKM)	Substation: Works are under progress. Line: Tower Foundation: 7/23 Completed Tower Erection: 0/23 Completed Stringing: 0/3.908 Completed
4.	400/11KV Namapur (Pegadapally) Substation & connected (i)400 KV TMDC line from Namapur Substation Switchyard to Transformer Deck of Pump House of length 2 Km (4 CKM)	Substation: Works are under progress. Line: Tower Foundation: 0/6Completed Tower Erection: 0/6Completed Stringing: 0/2.13Completed
	(ii) 400kV QMDC Line from 400kV Kachapur Switching station to 400/11kV Namapur (Pegadapally) SS of Line length 19.3 Km. (38.6 CKM)	Substation: Works are under progress. Line: Tower Foundation: 17/46 Completed Tower Erection: 0/46 Completed Stringing: 0/15.14 Completed
	(iii)400kV QMDC Line from 400kV Velgatoor Switchyard to 400/11kV Namapur (Pegadapally) SS of line length 22.5 Km (45 CKM)	Substation: Works are under progress. Line: Tower Foundation: 35/70 Completed Tower Erection: 0/70 Completed Stringing: 0/21.74Completed
5.	400/11KV Velgatoor Substation & connected 400kV QMDC Line from Velgatoor Switchyard to Transformer deck of 3.712CKM.	Substation: Works are under progress. Line: Tower Foundation: 0/13Completed Tower Erection: 0/13Completed Stringing: 0/3.712Completed
b.	400kV QMDC Line from 400kV Kachapur Switching station to 400/11kV Velgatoor SS of Line length 26 Km. (52 CKM)	Substation: Works are under progress. Line: Tower Foundation: 53/76Completed Tower Erection: 45/76Completed Stringing: 0/24.70Completed
6.	400/11kV Veljipur Sub-Station & connected 400KV QMDC Line from existing 400/11KV Tippapur SS to proposed 400/11KV SS Veljipur of line length of 5.5 Kms (11 CKM)	Substation: Works are under progress. Line: Tower Foundation: 17/18 Completed Tower Erection: 15/18 Completed Stringing: 0/5.1 Completed
7.	400/11KV Yellaipally Substation & connected 400 KV QMDC Line from Existing 400/13.8/11 KV Chandlapur SS to proposed Yellaipally 400/11 KV Substation 9.548 Km. (19.01 CKM)	Substation: Works are under progress. Line: Tower Foundation: 29/30 Completed Tower Erection: 25/30 Completed Stringing: 0/9.548Completed
8.	400 kV QMDC line from existing 765/400 kV Nizamabad SS (PGCIL) to existing 400/13.8/11 kV Chandulapur SS (Approx. length 94 km) on turnkey basis. (188 CKM)	Substation: Works are under progress. Line: Tower Foundation: 209/278Completed Tower Erection: 0/278 Completed Stringing: 0/93.99Completed
9.	New Tukkapur 400/11KV SS	Substation: Works are under progress.

II. Palamuru Ranga Reddy Lift Irrigation Scheme works – Progress as on 31.03.2023

No. of Substations (along with No. of Bays) and lines commissioned during 2022-23

1. Only 2Nos. 400kV Bays at 400/220kV Dindi SS were commissioned on 10.06.2022.
2. Substations and Lines commissioned during 2022-23 : Nil.

**Palamuru Lift Irrigation Scheme (Phase-I works) –
Erection Contractor: M/s. Larsen & Toubro Ltd, Chennai.**

Works awarded in October'2020.

- i) **Erection of 400/11kV Narlapur LI Sub-Station (incl.1No.125MVAR Bus Reactor):**
Construction of Control room building, Store cum office building and DG & FF building, Reactor foundation are under progress. Tower foundations:11/52 completed and Tower foundations are under progress.
- ii) **Erection of 400/11kV Vатtem LI Sub-Station (incl.1No.125MVAR Bus Reactor):**
Erection works for Control room building, DG & FF building, Store cum office building, Water tank and Cable trench are under progress, Tower foundations: 46/48 completed, Tower Erection: 46/48 completed, Beams: 30/33 completed, Equipment foundation: 631/711 completed, Equipment structure erection: 610/711 completed, Equipment erection: 580/711 completed LM foundations: 12/13 completed, LM Tower erection: 12/13 completed, Reactor Foundation: 1/1 completed, Bay kiosk: 4/4 completed.
- iii) **Erection of 400/11kV Yedula LI Sub-Station (incl.1No.125MVAR Bus Reactor):**
Erection work for Control room building, DG & FF building, Store cum office building, Water tank and Cable trench are under progress, Tower foundations: 68/68 completed, Tower erection: 68/68 completed, Beams:53/53 completed, LM Tower foundations: 17/18 completed, LM tower erection:17/18 completed,

Equipment foundation: 1134/1146 completed, Equipment str. erection:1083/1146 completed, Equipment erection: 1029/1146 completed, Reactor Foundation: 1/1 completed, Kiosk:9/9 completed.

iv) **2Nos. 400kV QMDC Bays at 400/220kV Veltoor Sub-Station:**

Cable trench 580/580 RM completed, Tower foundations: 10/10 completed, Tower Erection: 10/10 completed, Beams: 10/10 completed, Equipment foundations: 156/156 completed, Equipment structure erection: 84/84 completed, Equipment erection: 84/84 completed, LM tower foundations:2/2Nos. completed, LM tower erection:2/2Nos. completed, Bay kiosk: 2/2 Nos. completed, Bus extension stringing: 2/2 completed.

v) **2Nos.400kV QMDC Bays at 400/220kV Dindi Sub-Station:**

Equipment foundations: 114/114 completed, Equipment structure erection:68/68 completed, Equipment erection:68/68 completed, Cable trench: 240/240 completed, Bay kiosk: 1/1 completed.

All works are completed and bays were charged on 10.06.2022.

vi) **400kV QMDC Line from proposed 400/11kV Yedula LISS to proposed 400/11kV Narlapur LI SS:**

Check survey:27.737/27.737 completed, Foundation: 94/94Nos. completed. Tower erection: 92/94 Nos. completed, Stringing:24.519/27.737 completed.

vii) **400kV QMDC Line from 400/220kV Dindi SS to proposed 400/11kV Yedula LI SS:**

Check survey: 55.320/55.320kM, Foundation:167/167 completed, Tower Erection: 167/167 completed, Stringing: 55.320/55.320kM completed.

viii) **400kV QMDC Line from 400/11kV Yedula LI SS to 400/11kV Vатtem LI SS:**

Check survey:30.363/30.363 completed, Foundation:90/90 completed, Tower Erection:90/90 completed. Stringing: 30.268/30.363 kM completed.

ix) **400kV QMDC Line from 400/220kV Veltoor SS to 400/11kV Yedula LI SS:**

Check survey:46.801/46.801 completed, Foundations:139/139 completed. Tower Erection: 139/139Nos. completed, Stringing:46.801/46.801 completed.

Palamuru Lift Irrigation Scheme (Phase-II works) - Erection Contractor:

M/s. Kalpataru Power Transmission Ltd.,- M/s. Siemens Ltd., (JV),

Purchase Order issued on 04.03.2022.

i. 400/11kV Uddandapur LI Sub-Station:

Site handed over to the contractor on 10.12.2022.

Control room building and DG&FF building works under progress.

ii. 2Nos. 400kV QMDC Bays at 400/11kV Vатtem LISS:

Equipment foundation: 109/114 and Equipment Structure erection:46/114 completed and civil works are under progress.

iii. 400kV QMDC Line from 400/220kV Maheswaram SS to proposed 400/11kV Uddandapur LISS (65kM):

Check survey (KM) : 60.245/60.245 completed, Foundations (Nos.):179/179 completed, Tower Erection (Nos.):179/179 completed, Stringing (kM): 60.177/60.245 completed.

iv. 400kV QMDC Line from 400/11kV Vатtem LI SS to proposed 400/11kV Uddandapur LI SS (34.129 kMs):

Check survey (KM):34.139/34.139 completed, Foundations (Nos.):103/103 completed, Tower Erection (Nos.):103/103 completed, Stringing (kM): 33.681/34.139 completed.

III. 400kV Transmission Projects commissioned during 2022-23 under Sitharama Lift Irrigations Scheme:

SI No	Name of Transmission Line	Length in Ckm	Date of Commissioning
I	Transmission Lines		
1	Lilo from KTS-Manuguru to BG Kothuru	1.028	08.06.2022
2	Lilo from KTS-Lower Sileru-II to BG Kothuru	33.388	30.06.2022
3	Kamalapuram 400kV SS to VK Ramavaram SS	28.324	21.10.2022
	Total (220kV Lines - LIS)	62.74	
II	Bay Extensions :	400kV	220kV
1	220kV B.G.Kothur LI Substation - Transco		7
2	220kV B.G.Kothur LI Substation (LI Ownership)		9
	Total (220kV Bay Extensions - LIS)	0	16

3.2 PERFORMANCE MEASURES

(a) NUMBER AND DURATION OF SUPPLY INTERRUPTIONS

1. Requirement in the Guidelines:

Number and duration of supply interruptions on transmission networks, separately for 400kV, 220 Kv and 132 kV. Details of steps proposed to improve performance and monitoring. (Guidelines – 11a)

2. TSTransco's Response:

Interruptions on EHT lines during 2022-23

Most of the feeders have alternative supply. Hence, whenever there is any interruption to one feeder, then supply is provided from the alternate source and interrupted feeder is restored immediately by taking necessary steps. All transmission line breakdowns are logged and recorded. The data sheets maintain information such as circuit name and number, date and time of occurrence, date and time of restoration, any remedial measures taken for alternate supply, and a brief description of the cause. As the data is voluminous, and manually entered, all the log sheets have not been included in this filing. However, any data requested by the Commission can be made available as and when requested. Considering the vast extent of the transmission system and the number of transmission circuits, the average availability factor of EHT lines of TSTransco for the year 2022-23 works out at 99.98%. The details of the line availability for the years 2022-23 are shown in the tables below.

Interruptions on EHT lines during 2022-23:

Year	EHT line voltage	No. of interruptions	Total time of interruptions (Hrs)	Avg. Duration Per Interruption (Hrs)
2022-23	400kV	21	306.87	Beyond 2 Hrs. (14.61)
	220kV	100	1273.75	Beyond 2 Hrs. (12.73)
	132kV	116	1363.05	Beyond 2 Hrs. (11.75)

Transmission System Availability during 2022-23:

As per the guidelines given by the Central Electricity Authority, all 220kV and 400kV including 132kV EHV AC Transmission systems are considered for determining the

Transmission system availability and the same has been calculated as per guidelines of Central Electricity Regulatory Commission.

As per the calculations, the Transmission system availability of TSTRANSCO system during the period 2022-23 i.e. from April 2022 to March 2023 of Telangana State works out to be **99.98%**.

Sl. No.	Financial year	Transmission System Availability
1	2022-23	99.98%

Plans to improve performance monitoring:

It is to be planned to incorporate the Formula for calculation of availability factor in SAP duly integrating in the system to enable the data to be updated regularly in the real time system as the approval accorded towards rate contract for supply of transducers for data transfer.

Steps implemented /proposed to improve performance and monitoring of Transmission System

The following steps have been implemented to improve the performance and monitoring.

- Replacement of aged conductors in a phased manner, since conductor snapping and jumper failures are found to be the major causes for interruptions.
- Replacement of old and failed insulators on existing lines.
- Reinforcement of the conductor of overloaded lines, periodical tree cutting work to prevent falling of branches with conductor, conducting quarterly inspection of lines and timely rectification of defects noticed.
- Breakdown staff attending supply interruptions is arranged round the clock.
- Emergency vehicles are kept ready for breakdown staff round the clock to facilitate quick and timely deployment of staff and minimize the duration of interruptions.
- Safety appliances such as gloves, safety shoes, helmets, earthing rods are also provided to the breakdown staff with necessary T&P.
- Use of off line signature preventive maintenance and line fault locators for locating the fault on lines during breakdowns.

- TSTRANSCO is carrying out the hot line works very effectively in the live line maintenance from 132kV to 400kV lines and Sub-Stations by adopting hot stick method - using insulated sticks, bare hand technique – using conductive suit along with insulated ladder. Like replacement of damaged insulators, tightening of bolts and nuts of jumpers, shoe clamp, tension clamp and bay to bay jumpers connection etc.,

(b) Major Grid Disturbance(s)/Incident(s) occurred during the year 2022-23

1. Grid Breaker trippings at 220kV Medchal SS on 21-06-22 at 19:31 Hrs due to Busbar Protection Operation.

On 21-06-2022 at 19:31Hrs, 220kV busbar protection was operated and tripped all the 220kV feeders and 220/132kV PTRs connected to the Bus without any indications at 220kV Medchal SS.

From the events it was observed that a fault current of 10,000 Amps was recorded in R-Ph on 220kV Malkaram feeder-1. Accordingly 220kV Malkaram feeder-1 has been isolated and the remaining 220kV Feeders and PTRs had been taken into service.

On 22-06-22, it was noted that above tripping caused due to failure of control cable laid between the R-ph CTMB of 220kV Malkaram feeder-1 to bus bar protection panel.

Performance Measures:

The defective cable was replaced with healthy cable on 22-06-2022 and the feeder was taken in to service.

2. Grid Breaker trippings at 220kV Chalakurthy Switching Station and outage of 220kV Puliyatanda SS and 220kV Puttamgandi SS on 02.11.2022 at 00:37 hrs.

Prior to the grid incident, 220kV Chalakurthy-Miryalaguda feeder was idle charged from 220kV Chalakurthy SWS.

On 02-11-2022 at 00:37Hrs, for a R-Phase to ground fault on 220kV Chalakurthy-Miryalaguda feeder, Zone-1 protection was operated for which the breaker did not trip at 220kV Chalakurthy Switching substation resulting in operation of LBB protection at 220kV Chalakurthy SWS.

As 220kV Puliyatanda SS and 220kV Puttamgandi SS were radially fed from 220kV Chalakurthy switching station, there was load interruption of 60 MWs.

Performance Measures:

The breaker is pneumatic type of CGL make and the compressor motor of the breaker did not turn on when the air pressure was dropping before the set point as the pressure switch was stuck and the breaker went into lock out condition.

After the tripping incident the pressure switch contacts were cleaned and breaker on & off operations were verified, feeder was charged and found ok.

3. Grid Breaker trippings at 220/132kV Tandur SS on 17.01.2023 at 06:55 hrs.

Prior to the incident, load of 98 MWs (i.e., 257A) was observed from 400/220kV Shankarpally SS to 220kV Tandur SS and load of 14 MWs from 220kV Tandur SS to 220kV Sedam SS.

On 17-01-2023, it was observed a sudden increase of load from 14MWs to 195 MWs from 220kV Tandur SS to 220kV Sedam SS. Due to which the load on 220kV Shankarpally –Tandur feeder increased from 257A to 700A.

Later at 06:55Hrs, 220kV Shankarpally-Tandur feeder tripped at 400/220kV Shankarpally SS on overload protection (as the current suddenly increased from 700A to 1300A).

Overload protection setting adopted in Main-I Alstom make P444 type distance relay with current setting as $1.5 \times I_n$ and time delay of 1.5 sec.

As a result, entire 132kV Tandur SS load was fed from 220kV Kosigi SS and 220kV Parigi SS as they are connected to Tandur SS at 132kV level.

Subsequently 132kV Parigi-Tandur feeder tripped at Parigi SS and 220/132kV 100MVA PTR-1 & 2 at Kosigi SS tripped on overload protections causing load interruption of 252 MWs to Tandur SS, 132kV Kodangal SS, 132kV Maddur SS and 33kV feeders of 220/132kV Kosigi SS

Performance Measures:

The time delay for Over Current protection on 220kV Shankarpally-Tandur feeder at 220kV Shankarpally SS is set to maximum as independent Over Current protection is not envisaged for feeders with 220kV Voltage class and above.

Directional Back up overcurrent relay on 132kV Kodangal – Tandur feeder at 132kV Kodangal SS is tested and found to be OK.

(c) PERIODS WHEN VOLTAGE AND FREQUENCY WAS BEYOND PRESCRIBED LIMITS

1. Requirement in the Guidelines

Periods when voltage and/or frequency was beyond the prescribed limits on Transmission (400 kV, 220 kV, 132 kV) networks. Details of steps proposed to improve performance and monitoring. (Guidelines – 11b).

2. TSTransco’s Response:

I. PERIODS WHEN FREQUENCY WAS BEYOND PRESCRIBED LIMITS

Frequency

The details of frequency in Average, Maximum, Minimum and % time experienced during FY-2022-23 is shown below.

Month	Average	Maximum		Minimum	
	HZ	HZ	Date	HZ	Date
Apr-22	49.93	50.26	14 th	49.43	19 th
May-22	50.00	50.36	23 rd	49.50	3 rd
Jun-22	49.99	50.36	19 th	49.48	13 th
Jul-22	50.00	50.30	14 th	49.42	18 th
Aug-22	50.00	50.31	15 th	49.47	16 th
Sep-22	50.00	50.31	16 th	49.50	2 nd
Oct-22	50.01	50.41	24 th	49.53	25 th
Nov-22	50.00	50.27	26 th	49.44	8 th
Dec-22	50.00	50.55	26 th	49.41	25 th
Jan-23	50.00	50.49	23 rd	49.42	20 th
Feb-23	50.00	50.40	10 th	49.51	9 th
Mar-23	50.00	50.48	4 th	49.56	7 th
Year	49.99	50.55	26.12.2022	49.41	25.12.2022

Month	<49.90 Hz	IEGC BAND (49.90-50.05 Hz)	>50.05 Hz
Apr-22	31.98	59.25	8.77
May-22	9.83	72.23	17.94
Jun-22	12.45	73.39	14.16
Jul-22	7.82	73.45	18.72
Aug-22	8.77	75.77	15.45
Sep-22	6.24	80.79	12.97
Oct-22	4.88	78.26	16.86

S.NO	STATION NAME	00:00	08:00	19:00	Max	Min
400kV Level						
1	BHUPALAPALLY(KTPP)	412.99	406.73	422.23	423.74	405.34
2	BTPS	408.52	406.11	413.47	414.48	404.78
3	KTPS-VI	413.91	412.49	422.5	423.76	409.8
4	KTPS-VII	413.02	413.02	421.22	422.65	408.7
5	SINGARENI	417.46	413.71	425.49	427.95	411.2
220kV Level						
S.NO	STATION NAME	00:00	08:00	19:00	Max	Min
1	KTPS-V	230.55	227.66	235.64	236.7	226.62
2	LOWER JURALA	215.04	210.82	230.88	232.87	208.59
3	U.JURALA	214.22	210.1	232.1	234.01	207.43
4	N.SAGAR MAIN	226.97	226.02	236.4	238.21	220.15
132kV Level						
S.NO	STATION NAME	00:00	08:00	19:00	Max	Min
1	N.SAGAR	134.97	135.01	141.62	142.61	131.1
2	RTS-B	112.66	108.42	114.92	115.57	108

Voltages profile at various Generating Stations as on 30.03.2023

as tabulated below.

Voltages recorded at some of the Generating Stations, Grid sub-stations and Tail-end sub-stations on 30.03.2023, the date on which the State Peak Demand Met i.e., 15497 MW are

(d) VOLTAGES OF TS SYSTEM FOR 2022-23

Month	>49.90 Hz	IEGC BAND (49.90-50.05 Hz)	>50.05 Hz
Nov-22	6.70	77.00	16.31
Dec-22	13.06	57.49	29.45
Jan-23	13.30	58.70	28.00
Feb-23	10.75	64.68	24.57
Mar-23	9.18	65.63	25.19
Average	11.25	69.72	19.03

Voltages profile at various 400kV Substations as on 30.03.2023

S.NO	STATION NAME	00:00	08:00	19:00	Max	Min
1	CHANDULAPUR	410.94	404.39	426.13	428.22	402.3
2	DICHIPALLY	410.51	407.23	422.23	423.74	405.34
3	DINDI	412.75	407.05	427.01	429.42	402.39
4	GAWJEL	410.86	403.05	426.98	429.32	400.72
5	JANGAON	414.22	408.03	430.57	431.4	407.17
6	JULURUPADU	416.12	412.61	425	425	410.55
7	KETHIREDDY PALLI	413.47	407.37	429.21	432.69	403.6
8	MAHABOBNAGAR	410.88	410.88	428.17	431.83	405.53
9	MAHESWARAM	409.93	405.72	425.02	428.3	397.9
10	MAMIDIPALLY	407.52	402.26	422.64	426.1	397.97
11	MEDARAM	415.89	407.58	427.75	430.53	404.79
12	NARSAPUR	412.44	404.71	427.35	430	396.4
13	NIRMAL	412.44	408.18	429.73	432.78	403.44
14	RAMADUGU	415.63	407.77	428.34	431.23	405.23
15	SHANKARPALLY	410.2	403.8	426.51	429.74	397.64
16	SUNDILA	416.48	412.12	425.79	428.47	409.42
17	SURYPET	416.78	412.88	429.46	429.46	410.59
18	TIPPAPUR	414.19	406.93	428.35	430.52	399.97

Voltages profile at various 220kV Major substations as on 30.03.2023

S.NO	STATION NAME	00:00	08:00	19:00	Max	Min
1	BONGULUR	225.2	220.97	233.58	234.76	217.9
2	BHEMGAL	220.73	213.52	232.27	234.02	210.17
3	BHONGIR	224.25	219.2	233.92	235.84	217.49
4	CHALAKURTHY SWS	222.96	218.67	230.03	231.62	216.94
5	CHANDRAYANAGUTTA	224.6	224.6	224.6	224.6	224.6
6	DINDI	225.6	220.57	236.11	238.64	218.09
7	FABCITY	225.26	220.68	233.11	235.25	217.65
8	HAYATHNAGAR	227.5	223.21	234.89	236.95	220.38
9	IMLIBUN	225.65	221.27	233.19	235.33	218.79
10	JAGITYAL	227.7	215.85	237.28	238.53	214.68
11	KALWAKURTHY	220.64	215.62	233.41	235.48	212.77
12	KONDAMALLEPALLY	219.78	215.26	232.18	234.04	211.6
13	KAMAREDDY	206.47	202.57	232.7	234.62	199.61
14	KONDAPAKA	215.91	210.93	234.54	236.46	208.3

15	MAHABUBNAGAR	229.12	219.91	236.81	238.04	218.7
16	MEDCHAL	220.65	215.45	229.3	231.44	213.07
17	MEDARAM	227.33	220.78	240.41	242.18	218.27
18	MAMIDIPALLY	223.55	219.25	231.27	233.37	216.94
19	MOULALI	227.57	222.99	234.83	236.53	220.9
20	MURMUR	229.76	222.86	237.87	238.97	221.93
21	NARKETPALLY	219.23	215.24	234.53	236.27	213.31
22	NIRMAL	225.8	218.7	237.09	238.49	217.14
23	OSMANIA	227.33	222.48	235.31	237.31	220.31
24	PARGI	222.17	213.07	234.89	237.2	208.83
25	SIDDIPET	215.48	208.95	233.94	235.83	206.28
26	SINGOTAM	219.75	216.04	232.75	234.5	213.88
27	SHANKARPALLY	224.43	218.3	234.19	236.27	215.56
28	SHAPURNAGAR	228.58	222.38	236.7	238.97	219.99
29	SURAPET	226.66	222.97	234.91	236.23	221.65

ANNEXURE - I: TSTRANSCO Contracts (in MW) for FY 2022-23 (Actuals)

Sl. No.	Generating Station / Source	Installed/Contracted Capacity (MW)	Net Capacity of TSDiscoms (MW)	Transmission Contracted Capacity (MW)	
				TSSPDCL	TSNPDCL
I	TSGENCO THERMAL				
1	KTPS-D(V)(2x250)	500.00	455.00	321.00	134.00
2	KTPS-VI(1x500)	500.00	462.50	326.29	136.21
3	RTS-B (1x62.5)	62.50	56.25	39.68	16.57
4	KTPP St.I(1x500)	500.00	462.50	326.29	136.21
5	KTPP St.II (1x600)	600.00	558.00	393.67	164.33
6	KTPS VII (1 x 800)	800.00	758.00	534.77	223.23
7	BTPS (4 x 270)	1080.00	988.20	697.18	291.02
	Total TSGENCO Thermal	4042.50	3740.45	2638.89	1101.56
II	TSGENCO HYDEL				
1	N.SAGAR PH (1x110 + 7x100.8)	815.60	807.44	569.65	237.79
2	NSLCPH(2x30)	60.00	59.40	41.91	17.49
3	Pochampadu (3x9 + 1x9)	36.00	35.64	25.14	10.50
4	Srisaillam LBPH(SLBHES)(6x150)	900.00	889.20	627.33	261.87
5	Jurala HES (6)(Priyadarshini) (50% share to Karnataka) (6 x 39)	234.00	115.83	81.72	34.11
6	Singur(2x7.5)	15.00	14.85	10.48	4.37
7	Nizam Sagar (2x5)	10.00	9.90	6.98	2.92
8	Mini Hydel (Peddapalli,) (total 19 units)	9.16	9.07	6.40	2.67
9	Mini Hydel (Palair) (2 x 1MW)	2.00	1.98	1.40	0.58
10	Lower Jurala Hydro Electric Project(6x40)	240.00	237.60	167.63	69.97
11	Pulichintala(4x30)	120.00	118.80	83.81	34.99
	Total TSGENCO Hydel	2441.76	2299.71	1622.45	677.26
III	INTER STATE HYDEL				
1	Machkund PH	120.00	0.00	0.00	0.00
2	Tungabhadra PH & Hampi	72.00	0.00	0.00	0.00
	TOTAL IS Hydel	192.00	0.00	0.00	0.00
IV	CENTRAL GENERATING STATIONS				
1	NTPC (SR)-I&II	353.01	328.16	231.52	96.64
2	NTPC (SR) Stage-III	88.50	82.97	58.54	24.43
3	NTPC (Simhadri) I	538.90	507.91	358.33	149.58
4	NTPC (Simhadri) II	256.82	242.05	170.77	71.28
5	NTPC Talcher-II	217.41	203.82	143.80	60.02
6	NLC - Stage-I	5.25	4.72	3.33	1.39

Sl. No.	Generating Station / Source	Installed/Contracted Capacity (MW)	Net Capacity of TSDiscoms (MW)	Transmission Contracted Capacity(MW)	
				TSSPDCL	TSNPDCL
7	NLC - Stage-II	6.91	6.22	4.39	1.83
8	NLC TPS-I Expn	5.47	5.01	3.53	1.48
9	NLC – TPS-II Expn	6.51	5.86	4.13	1.73
10	NPC (Kaiga) Unit I & II	67.70	60.59	42.75	17.84
11	NPC (Kaiga) Unit III & IV	72.01	64.45	45.47	18.98
12	NPC (MAPS)	22.04	19.73	13.92	5.81
13	NTECL Valluru Thermal Power	106.13	99.50	70.20	29.30
14	NLC tamil(Tuticorin) Unit I & II	147.49	139.01	98.07	40.94
15	New Nyvelly Thermal Power Station	61.92	58.05	40.95	17.10
16	Kuddankulam Nuclear Power Plant (KKNP) Unit- I	4.34	4.00	2.82	1.18
17	Kuddankulam Nuclear Power Plant (KKNP) Unit- II	50.00	50.00	35.28	14.72
18	Kudigi Unit-I&II	281.12	263.55	185.93	77.62
19	NVVNL Bundled Power COAL	45.81	45.81	32.32	13.49
20	NSM II(Coal)(NTPC 200 MW)	200.00	200.00	141.10	58.90
Total CGS		2537.34	2391.41	1687.15	704.26
VI	OTHERS				
1	Sembcorp (Unit-I) (Sembcorp)	660.00	269.45	190.10	79.35
2	Sembcorp (Unit-II) (Sembcorp)	660.00	570.00	402.14	167.86
3	Singareni Thermal Power Project	1200.00	1131.00	797.92	333.08
4	Chattisgarh Power Purchase	1000.00	948.00	668.81	279.19
Total Others		3520.00	2918.45	2058.97	859.48
VII	NCE				
1	Bio-Mass	30.00	0.00	00.00	00.00
2	Bagasse	78.40	72.40	15.00	57.40
3	Mini-Hydel	2.55	0.00	0.00	0.00
4	Industrial-Waste	15.00	7.50	7.50	0.00
5	MSW	19.80	19.80	19.80	0.00
6	Wind Power	128.10	128.10	128.10	0.00
7	Solar	5101.54	4091.75	2822.49	1269.26
Total NCE		5375.39	4319.55	2992.89	1326.66
Discom Total		18108.99	15669.57	11000.35	4669.22
Open Access			87.644	87.644	
Grand Total Contractual Capacity (in MW)			15757.21	15757.21	
Note: APGPCL Contracted Capacity is not included as TSDISCOMs decided not to schedule power from APGPCL from Feb 2020 onwards.					

ANNEXURE – II

LIST OF DIRECTIVES

Sl. No.	Directive	Subject of Directive	Compliance Report
1	Segregation of assets and liabilities between APTransco and TSTransco	The Commission directs the petitioner to submit a compliance report on the segregation of assets and liabilities between APTransco and TSTransco by 30.06.2020	Complied with vide APR FY2020-21
2	Transmission works relating to LI Schemes	The Commission directs the petitioner to execute the Transmission works relating to LIS duly coordinating with the Irrigation Department.	Complied with since FY 2019-20.
3	Annual Performance Review	The Commission directs the petitioner to file the Performance Review (true up) for each year of the 4 th Control Period before 31 st December of the following year. As a first step, the petitioner shall file the Annual Performance Review for FY 2019-20 by 31.12.2020.	Complied with since the APR for FY 2019-20.
4	Capitalisation details for 3 rd Control Period from FY 2014-15 to FY 2018-19	The Commission directs the petitioner to submit the complete details sought regarding the capitalisation for the 3 rd Control Period, in the Petition to be filed for the Annual Performance Review for FY 2019-20.	Complied with since FY 2019-20.
5	Computations of Depreciation in accordance with CERC (Terms and Conditions of Tariff) Regulations, 2019	The Commission directs the petitioner to submit the computations of depreciation for each year of the 4 th Control period in accordance with the provisions of the CERC (Terms and Conditions of Tariff) Regulations, 2019 in Annual Performance Review for each year of the 4 th Control Period	Complied with since FY 2019-20.
6	Capital Investments	<p>Considering the importance of capitalisation of works, the Commission lays down the following requirements to be fulfilled before accepting inclusion of the value of the capitalised work in the OCFA:</p> <p>a. On completion of a capital work, a physical completion certificate (PCC) to the effect that the work in question has been fully executed, physically, and the assets created are put in use, to be issued by the concerned engineer not below the rank of Superintending Engineer.</p> <p>b. The PCC shall be accompanied or followed by a financial completion certificate (FCC) to the effect that the assets created have been fully entered in the fixed assets register by transfer from the CWIP register to OCFA. The FCC shall have to be issued by the concerned finance officer not below the rank of senior Accounts Officer.</p> <p>c. The above mentioned certificates have to be submitted to the Commission within 60 days of completion of work, at the latest.</p>	Complied with. PCCs & FCCs FY2021-22 are being submitted

Format 1.1(d)

1.1(D) ABSTRACT OF ACTUAL INVESTMENT INCURRED (True Up) DURING FY: 2022-23 OF 400KV SCHEMES

FY 2022-23

(Amount Rs. in Crores)

Sl No.	Project Code	Project Title	Project Purpose	Project Start Date DD-MM-YY	Project Completion Date DD-MM-YY	PLANNED CAPITAL EXPENDITURE					SOURCE OF FINANCING							Investments proposed for the year				Investments incurred in the year				Cumulative progress (year on year)				Remarks			
						Base Cost	Contingency	IDC	TAXES	Expenditure Capitalised	Total Cost	Internal Accrual Component of capex in year	Equity Component of capex in year	Loan Amount	Interest Rate	Moratorium period	Repayment period	Loan source	Proposed investment in the year	Proposed IDC	Proposed other expenditure	% Capitalisation	Actual investment in the year	IDC incurred	Other expenditure incurred	% Capitalisation	Actual investment in the year	IDC incurred	Other expenditure incurred		% Capitalisation		
1	APT/TS/400kV Suryapet/ F-INVST-28/2014 dated 21.01.2015	Suryapet Power Transmission Scheme (S-14-02)	System Improvement	Jul' 2013	Mar' 2021	1,426.53	42.80	144.80		153.35	1,767.48			1,317.27					REC	0.00				0.305				11.86				100	
2	TST/TS/765kV Wardha-Hyderabad Link Transmission Scheme- Investment proposal Revised Approval No.16/17-2017-18, dated 19.12.2017	765kV Wardha-Hyderabad Link Transmission scheme (S-15-13)	System Improvement	Nov' 2015	Mar'2022	1,037.70	30.82	100.08		110.45	1,279.05			1001.65					PFC	0.00				1.142				460.70					
3	TST/TS/Rayadurg System Improvement Scheme Approval No.02/2018-19, dated 24.05.2018	Rayadurg System Improvement Scheme (S-17-08)	System Improvement	Sep'2018	Apr'2022	1,469.01	43.63	117.40		156.36	1,786.40			1778.26					PFC	0.00				49.967				1742.87					
4	TST/TS/KTPP SIS/ Approval No.03/2019-20	KTPP System Improvement Scheme (S-19-01)	System Improvement	Jan'2020	Mar' 2024	372.58	11.07	30.92		39.66	454.23			405.00					PFC	0.00				44.641				208.59					
5	TST/TS/Reactor Scheme-III/ Approval No.04/2019-20	Reactor Scheme - III (S-19-02)	System Improvement	Jan'2020	Mar'2023	201.44	5.98	20.92		21.44	249.78			158.72					PSDF	0.00				29.412				57.42					
6	--	HVWS at 500MVA ICTs of 400kV SS (S-21-06)	System Improvement	Dec'2021	May'2022	0.90	0.03	0.00		0.10	1.02	1.02							TSTRANSOCO	0.00				0.162				0.64					
7	TS/TST/Investment Approval/Telangana STPP-1 (2x800MW) No.10/2017, dt.23.08.2017	Telangana STPP-1 Power Evacuation (P-16-01)	Power Evacuation	Oct'2017	Mar'2022	1,013.61	30.11	105.26		107.88	1,256.86			1,131.17					REC	0.00				0.258				854.30					
8	TST/TS/Yadradri Thermal Power Evacuation/ Approval No.09/2019-20, dated 27.01.2020	Yadradri Thermal Power Evacuation (P-19-02)	Power Evacuation	Jan'2020	Mar' 2024	1,887.67	56.07	209.70		200.91	2,354.35			2,212.91					REC & PFC	0.00				303.925				1338.45					
9	TST/TS/315 MVA PTR,Augmentation/DICHPAL Y,VELTOOR,Gajwel/revised APPROVAL NO 03/17,2017-18 dated 04.05.2017	Augmentation Scheme (A-15-11, A-15-10)	System Improvement	Feb'2016	Mar' 2020	95.59	--	--	--	--	95.59			79.84					PFC	0.00				0.021				4.59			100		
10	TST/TS/Augmentation Scheme-IV/ Erection of 315/500MVA ICT's at 400kV Suryapet, Asupaka, Veltoor, Dichpally & Gajwel Substations.	400kV Augmentation Scheme-IV (A-21-07)	System Improvement	Dec.' 2020	Sept., 2023	154.45	4.59	12.00		16.44	187.48	187.48							PFC	0.00				73.191				73.19					
DC Works																																	
1	--	Diversion of 400kV Julurupadu KTPS & KTPS-PGCL Line (D-20-03)	DC work	Aug' 2020	Aug'2021	17.58	--	--	--	--	17.58			NA	NA	NA	NA	NA	Consumer contribution	0.00				0.038	NA			21.92	NA			100	
Non-Plan Capital Works :																																	
1	Other Non-planned Project 2018-19 (N-18-01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.04	-	-	-	-	-	-	-	-	
2	Non-plan Capital works (N-19-01)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.427	-	-	-	-	-	-	-	-	
Total						9449.82												0.00				502.60				4774.52							

Abstract of Actual Expenditure incurred for FY:2022-23 of Augmentation of PTRs, Lines & RMI Schemes

ANNEXURE-III

Form 1.1d

This form captures investments as planned and actually incurred
Please fill in the required details pertaining to each year

FY: 2022-23

(Figures Rs. in crores)

Sl.No	PROJECT DETAILS						PLANNED CAPITAL EXPENDITURE						SOURCE OF FINANCING					Investments Proposed for the year annual				Investments incurred in the year annual				Cumulative Progress (Year on Year)				Remarks				
	Project Code*	Project Title	Project Purpose**	Expenditure as on 31.03.2022	Project Star Date (DD-MM-YY)	Project Completion date (DD-MM-YY)	Base Cost	Contingency	IDC	Duties	Taxes	Expense Capitalised	Total Cost in crores	Internal Accrual Component of capex in year	Equity Component of capex in year	Debt Component of Capex in year					Investments Proposed for the year annual				Investments incurred in the year annual									
																Loan Amount	Interest Rate	Moratorium Period	Pre payment Period	Loan Source	Proposed investment in the year (Rs.Cr)	Proposed IDC	Proposed Other expense	Percentage capitalisation	Actual investment in the year (Rs.Cr)	IDC incurred	Other expense incurred	Percentage capitalisation	Actual investment in the year		IDC incurred	Other expense incurred	Percentage capitalisation	
1	A-15-06	Augmentation of PTR capacities at various	To meet the growing loads	8.21	01.05.2015	31.03.2023	233.75	Incl		Incl	Incl	Incl	233.75								REC	(0.01)	-	-	0%	0.00	-	-	0%	8.21	-	-	4%	
2	A-16-06	Aug with 160 MVA in place of 100 MVA at 400 KV Gajwel	To meet the Industrial, Agriculture and etc., loads	4.93	01.03.2016	31.03.2023	8.95	Incl		Incl	Incl	Incl	8.95								REC	0.01	-	-	0%	0.00	-	-	0%	4.93	-	-	55%	
3	A-17-01	Augmentation of Power Transformer capacities at various EHT SS in Warangal and Karimnagar Zones	To meet the Industrial, Agriculture and etc., loads	36.25	20.05.2017	31.03.2023	59.91	2.20	-	-	2.23	7.89	72.23			63.13					PFC:37203017	1.00	-	-	100%	0.01	-	-	0%	36.26	-	-	50%	
4	A-17-02	Augmentation of Transformer capacities at various EHT SS for extending 24 Hrs. Agl. supply in Metro and Rural Zones	To meet the Industrial, Agriculture and etc., loads	44.72	02.06.2017	31.03.2023	42.15	1.67	-	-	1.50	5.97	51.29			41.32					PFC:37203017	2.00	-	-	200%	0.00	-	-	0%	44.72	-	-	87%	
5	A-18-02	Aug of PTR cap. at YWGI	To meet the Industrial, Agriculture and etc., loads	2.94	18.07.2018	31.03.2023	6.68	Incl		Incl	Incl	Incl	6.68								REC	0.04	-	-	1%	0.04	-	-	1%	2.98	-	-	45%	
6	A-19-04	Augmentation of PTRs at 220 KV Hayathnag	To meet the growing loads	11.04	18.03.2020	31.03.2023	14.40	Incl		Incl	Incl	Incl	14.40								TSTRANSCO Funds	9.83	-	-	68%	0.00	-	-	0%	11.04	-	-	77%	
7	A-20-01	Augmentation at 220KV Manthani SS & 132KV	To meet the growing loads	0.32	10.06.2020	31.03.2023	8.97	Incl		Incl	Incl	Incl	8.97								TSTRANSCO Funds	1.09	-	-	34%	1.09	-	-	12%	1.41	-	-	16%	
8	A-20-02	Aug of 3rd 220/132KV PTR at 400KV Narsap	To meet the growing loads	1.47	26.06.2020	31.03.2023	3.63	Incl		Incl	Incl	Incl	3.63								TSTRANSCO Funds	1.25	-	-	34%	0.35	-	-	10%	1.82	-	-	50%	
9	A-20-03	Aug of PTR at Warangal & Karimnagar Circ	To meet the growing loads	2.42	03.01.2020	31.03.2023	8.26	Incl		Incl	Incl	Incl	8.26								TSTRANSCO Funds	0.21	-	-	3%	0.39	-	-	5%	2.81	-	-	34%	
10	A-20-06	Aug of 3rd PTR at 132KV MDPally SS	To meet the growing loads	3.18	05.02.2021	31.03.2023	3.92	Incl		Incl	Incl	Incl	3.92								TSTRANSCO Funds	3.09	-	-	79%	0.74	-	-	19%	3.92	-	-	100%	
11	A-20-07	Aug of 4rd PTR at 132KV Pashmailaram SS	To meet the growing loads	0.55	30.03.2021	31.03.2023	1.56	Incl		Incl	Incl	Incl	1.56								TSTRANSCO Funds	0.54	-	-	35%	0.07	-	-	4%	0.62	-	-	40%	
12	A-21-01	Aug of 160 MVA PTR at 400KV Suryapet SS	To meet the growing loads	1.30	12.04.2021	31.03.2023	8.35	Incl		Incl	Incl	Incl	8.35								TSTRANSCO Funds	1.30	-	-	16%	1.86	-	-	22%	3.16	-	-	38%	

Sl.No	PROJECT DETAILS						PLANNED CAPITAL EXPENDITURE						SOURCE OF FINANCING						Investments Proposed for the year annual				Investments incurred in the year annual				Cumulative Progress (Year on Year)				Remarks			
	Project Code*	Project Title	Project Purpose**	Expenditure as on 31.03.2022	Project Star Date (DD-MM-YY)	Project Completion date (DD-MM-YY)	Base Cost	Contingency	IDC	Duties	Taxes	Expense Capitalised	Total Cost in crores	Internal Accrual Component of capex in year	Equity Component of capex in year	Debt Component of Capex in year						Proposed investment in the year (Rs.Cr)	Proposed IDC	Proposed Other expense	Percentage capitalisation	Actual investment in the year (Rs.Cr)	IDC incurred	Other expense incurred	Percentage capitalisation	Actual investment in the year		IDC incurred	Other expense incurred	Percentage capitalisation
																Loan Amount	Interest Rate	Moratorium Period	Pre payment Period	Loan Source														
13	A-21-02	Aug of 132/33 KV PTRs at Mamidipally & 4	To meet the growing loads	0.23	07.05.2021	31.03.2023	11.47	Incl		Incl	Incl	Incl	11.47								TSTRANSCO Funds	0.23	-	-	2%	0.04	-	-	0%	0.27	-	-	2%	
14	A-21-04	Aug. of PTR capacity at 220KV Huzurabad	To meet the growing loads	1.10	18.08.2021	31.03.2023	6.03	Incl		Incl	Incl	Incl	6.03								TSTRANSCO Funds	1.10	-	-	18%	0.00	-	-	0%	1.10	-	-	18%	
15	A-21-05	Augmentations of 220KV PTRs at 5Nos Subs	To meet the growing loads	1.10	18.08.2021	31.03.2023	6.03	Incl		Incl	Incl	Incl	6.03								TSTRANSCO Funds	1.10	-	-	18%	3.27	-	-	54%	4.37	-	-	72%	
16	A-21-06	Augmentations of 132KV PTRs at 24Nos Sub	To meet the growing loads	2.86	07.10.2021	31.03.2023	48.75	Incl		Incl	Incl	Incl	48.75								TSTRANSCO Funds	2.86	-	-	6%	6.71	-	-	14%	9.57	-	-	20%	
17	A-22-01	Augmentation of PTR at 132 KV Medchal SS	To meet the growing loads	-	06.06.2022	31.03.2023	0.25	Incl		Incl	Incl	Incl	0.25								TSTRANSCO Funds	0.25	-	-	6%	0.20	-	-	79%	0.20	-	-	79%	
18	A-22-02	Augmentation of PTR at 132KV Balanagar S	To meet the growing loads	-	11.10.2022	31.03.2023	6.27	Incl		Incl	Incl	Incl	6.27								TSTRANSCO Funds	3.14	-	-	6%	0.09	-	-	1%	0.09	-	-	1%	
19	A-22-03	Aug. of PTR at Kaithalapur & Bhongir	To meet the growing loads	-	21.12.2022	31.03.2023	0.49	Incl		Incl	Incl	Incl	0.49								TSTRANSCO Funds	0.25	-	-	6%	0.10	-	-	20%	0.10	-	-	20%	
20	D-16-06	Erection 33KV Bays TSNPDCL	DC Works	12.98	31.03.2016	31.03.2023	19.31	Incl		Incl	Incl	Incl	19.31								Customer Contribution	0.24	-	-	1%	0.00	-	-	0%	12.98	-	-	67%	
21	D-18-03	Implementation of DAS for RTSS	DC Works	2.59	11.01.2018	31.03.2023	3.80	Incl		Incl	Incl	Incl	3.80								Customer Contribution	0.14	-	-	4%	0.00	-	-	0%	2.59	-	-	68%	
22	D-18-20	Providing of ABT meters at Railway Traction SS	DC Works	3.64	1/4/2020	31.03.2023	9.64	Incl		Incl	Incl	Incl	9.64								Customer Contribution	0.83	-	-	9%	0.25	-	-	3%	3.89	-	-	40%	
23	D-19-06	132KV Durshed-Karimnagar SC-DC line	DC Works	-	01.04.2023	31.03.2023	2.98	Incl		Incl	Incl	Incl	2.98								Customer Contribution	0.00	-	-	-	0.00	-	-	0%	-	-	-	0%	
24	D-19-07	ABT Metering at 132 KV Manuguru & Kothag	DC Works	(0.33)	1/4/2020	31.03.2023	1.35	Incl		Incl	Incl	Incl	1.35								Customer Contribution	-	-	-	-	0.15	-	-	11%	(0.18)	-	-	14%	
25	D-19-08	Providing of ABT meters at OCM & Mandamarry SS of M/s.SCCL.	DC Works	6.96	1/4/2020	31.03.2023	14.10	Incl		Incl	Incl	Incl	14.10								Customer Contribution	1.67	-	-	12%	-0.23	-	-	-2%	6.73	-	-	48%	
26	D-19-14	33KV Bay Extension at 220KV manuguru	DC Works	-	1/4/2020	31.03.2023	0.18	Incl		Incl	Incl	Incl	0.18								Customer Contribution	0.17	-	-	96%	0.17	-	-	93%	0.17	-	-	93%	
27	D-20-16	Erection of 4Nos 33KV Bays for M/s Amazo	DC Works	0.73	01.04.2020	31.03.2023	2.66	Incl		Incl	Incl	Incl	2.66								Customer Contribution	0.12	-	-	5%	0.03	-	-	1%	0.76	-	-	28%	
28	D-20-21	33KV bays for SCCL Bittupally at 132KV Manthani	DC Works	-	01.04.2020	31.03.2023	0.40	Incl		Incl	Incl	Incl	0.40								Customer Contribution	0.12	-	-	5%	0.03	-	-	8%	0.03	-	-	8%	
29	D-20-22	CT Replacement for Kesoram at Malyalaply	DC Works	-	01.04.2020	31.03.2023	0.10	Incl		Incl	Incl	Incl	0.10								Customer Contribution	0.10	-	-	5%	0.04	-	-	40%	0.04	-	-	40%	
30	D-20-36	220KV Shivarampally SS 4Nos. Bays	DC Works	-	01.04.2020	31.03.2023	1.20	Incl		Incl	Incl	Incl	1.20								Customer Contribution	0.12	-	-	5%	0.00	-	-	0%	-	-	-	0%	
31	D-20-43	33KV Bays for NPDCL Dasnagar	DC Works	-	01.04.2020	31.03.2023	0.25	Incl		Incl	Incl	Incl	0.25								Customer Contribution	0.12	-	-	5%	0.22	-	-	88%	0.22	-	-	88%	

Sl.No	PROJECT DETAILS						PLANNED CAPITAL EXPENDITURE						SOURCE OF FINANCING						Investments Proposed for the year annual				Investments incurred in the year annual				Cumulative Progress (Year on Year)				Remarks			
	Project Code*	Project Title	Project Purpose**	Expenditure as on 31.03.2022	Project Start Date (DD-MM-YY)	Project Completion date (DD-MM-YY)	Base Cost	Contingency	IDC	Duties	Taxes	Expense Capitalised	Total Cost in crores	Internal Accrual Component of capex in year	Equity Component of capex in year	Debt Component of Capex in year						Proposed investment in the year (Rs.Cr)	Proposed IDC	Proposed Other expense	Percentage capitalisation	Actual investment in the year (Rs.Cr)	IDC incurred	Other expense incurred	Percentage capitalisation	Actual investment in the year		IDC incurred	Other expense incurred	Percentage capitalisation
																Loan Amount	Interest Rate	Moratorium Period	Pre payment Period	Loan Source														
32	D-21-16	4Nos 33KV Bays in substation in OMC Wara	DC Works	0.27	25.02.2022	31.03.2023	0.84	Incl	Incl	Incl	Incl	0.84								Customer Contribution	0.27	-	-	32%	0.15	-	-	18%	0.15	-	-	18%		
33	D-21-20	33KV Bay for Raghuram at 132KV Suglampal	DC Works	0.06	03.01.2021	31.03.2023	0.23	Incl	Incl	Incl	Incl	0.23								Customer Contribution	0.06	-	-	25%	0.12	-	-	50%	0.17	-	-	75%		
34	D-21-22	Shifting of 132KV Nandipet- Nizamabad S	DC Works	-	23.07.2021	12.01.2022	2.93	Incl	Incl	Incl	Incl	2.93								Customer Contribution	0.06	-	-	25%	0.23	-	-	8%	0.23	-	-	8%		
35	D-21-26	33KV Bay for singareni at 132KV Penuball	DC Works	0.08	07.09.2020	31.03.2023	0.17	Incl	Incl	Incl	Incl	0.17								Customer Contribution	0.08	-	-	49%	0.00	-	-	2%	0.09	-	-	51%		
36	D-21-46	33KV Bay at 132KV B Gangaram	DC Works	-	01.04.2021	31.03.2023	0.18	Incl	Incl	Incl	Incl	0.18								Customer Contribution	0.08	-	-	49%	0.11	-	-	61%	0.11	-	-	61%		
37	D-21-49	Construction of wall and other for NHA at Asifabad	DC Works	-	01.04.2021	31.03.2023	0.30	Incl	Incl	Incl	Incl	0.30								Customer Contribution	0.08	-	-	49%	0.17	-	-	57%	0.17	-	-	57%		
38	D-22-03	Replacement of 132KV metring CTs PTs	DC Works	-	01.04.2022	31.03.2023	0.25	Incl	Incl	Incl	Incl	0.25								Customer Contribution	0.08	-	-	49%	0.03	-	-	12%	0.03	-	-	12%		
39	N-16-OMCP-OPEN	Migarte to OMC Open Capital inventory	NON PLAN	-	01.04.2022	31.03.2023	0.08	Incl	Incl	Incl	Incl	0.08								TSTRANSCO Funds	0.35	-	-	10%	0.08	-	-	100%	0.08	-	-	100%		
40	N-18-OMCP	FY 2018-19 capital material drawn in O&M	NON PLAN	-	01.04.2019	31.03.2023	-	Incl	Incl	Incl	Incl	-								TSTRANSCO Funds	-	-	-	10%	0.00	-	-	0%	-	-	-	0%		
41	N-19-OMCP	FY 2019-20 capital material drawn in O&M	NON PLAN	-	01.04.2019	31.03.2023	-	Incl	Incl	Incl	Incl	-								TSTRANSCO Funds	0.35	-	-	10%	-0.01	-	-	0%	(0.01)	-	-	0%		
42	N-19-02	Non Planned Capital works (O&M) 2019-20	NON PLAN	1.38	01.04.2019	31.03.2023	3.52	Incl	Incl	Incl	Incl	3.52								TSTRANSCO Funds	0.35	-	-	10%	0.05	-	-	1%	1.43	-	-	41%		
43	N-20-02	Non Planned Capital works (O&M) 2020-21	NON PLAN	1.29	01.04.2020	31.03.2023	6.30	Incl	Incl	Incl	Incl	6.30								TSTRANSCO Funds	0.15	-	-	2%	0.93	-	-	15%	2.22	-	-	35%		
44	N-21-02	Non Planned Capital works (O&M) 2021-22	NON PLAN	2.71	01.04.2021	31.03.2023	10.80	Incl	Incl	Incl	Incl	10.80								TSTRANSCO Funds	2.71	-	-	25%	5.18	-	-	48%	7.89	-	-	73%		
45	N-22-02	Non Planned Capital works (O&M) 2022-23	NON PLAN	-	01.04.2022	31.03.2023	25.01	Incl	Incl	Incl	Incl	25.01								TSTRANSCO Funds	12.51	-	-	6%	6.21	-	-	25%	6.21	-	-	25%		
46	O-16-01	Rolling Stock	Procurement of Major SS Equipment	0.323	1/4/2022	31/03/2023	39.53	-	-	Inclusive	Inclusive	39.53	-	-	35.57	-	-	-	REC					0.323	-	-	0.8171	0.323	-	-	1%	-		
47	R-15-01	RMI	Replacement of old and obsolete equipment of substations and lines of	0.137	1/4/2022	31/03/2023	53.08			Inclusive	Inclusive	53.08			47.72				PFC					0.137			0.2581	0.137			32%			
48	R-16-02	PSDF		42.80	07.09.2020	31/03/2022	59.97	Incl		Incl	Incl	59.97							Grant	0.08	-	-	49%	0.15	-	-	0%	42.95	-	-	72%			
49	R-17-02	132KV Bellampally-Sirpurkaganagar tower		-	07.09.2020	31/03/2022	4.90	Incl		Incl	Incl	4.9							Customer Contribution	0.08	-	-	49%	0.67	-	-	14%	0.67	-	-	14%			
50	R-17-01	RMI		4.799	1/4/2022	31/03/2023	100.22			Inclusive	Inclusive	100.22			90.22				REC					4.799			4.7885	4.799			5%			

Sl.No	PROJECT DETAILS						PLANNED CAPITAL EXPENDITURE						SOURCE OF FINANCING					Investments Proposed for the year annual				Investments incurred in the year annual				Cumulative Progress (Year on Year)				Remarks				
	Project Code*	Project Title	Project Purpose**	Expenditure as on 31.03.2022	Project Start Date (DD-MM-YY)	Project Completion date (DD-MM-YY)	Base Cost	Contingency	IDC	Duties	Taxes	Expense Capitalised	Total Cost in crores	Internal Accrual Component of capex in year	Equity Component of capex in year	Debt Component of Capex in year				Investments Proposed for the year annual				Investments incurred in the year annual										
																Loan Amount	Interest Rate	Moratorium Period	Pre payment Period	Loan Source	Proposed investment in the year (Rs.Cr)	Proposed IDC	Proposed Other expense	Percentage capitalisation	Actual investment in the year (Rs.Cr)	IDC Incurred	Other expense Incurred	Percentage capitalisation	Actual investment in the year		IDC incurred	Other expense Incurred	Percentage capitalisation	
51	R-20-01	RMI	TRANSCO	12.783	1/4/2022	31/03/2023	75.65			inclusive	inclusive		75.65			68.04					REC					12.783			16.898	12.783			17%	
52	R-21-01	RMI		2.137	1/4/2022	31/03/2023	59.7			inclusive	inclusive		59.7								Transco Internal funds					2.137			3.5796	2.137			4%	
53	S-22-01	Const. of 33KV bays at 132/33KV Substation	System Improvement	0	1/4/2022	31/03/2023	1.20	Incl		Incl	Incl	Incl	1.2								Transco Internal funds	0.08	-	-	49%	0.90	-	-	75%	0.90	-	-	75%	
54	Z-21-01	Rolling Stock	Procurement of Major SS Equipment	12.892	1/4/2022	31/03/2023		-	-				-	-	-										12.892	-	-		12.892	-	-	-	-	
55	Z-99-01	Rolling Stock	Procurement of Major SS Equipment	2.749	1/4/2022	31/03/2023		-	-				-	-	-										2.749	-	-		2.749	-	-	0%	-	
56	T-18-01	PSDF IMP OPGW		-	07.09.2020	31/03/2022	19.52	Incl		Incl	Incl	Incl	19.52								Grant	0.08	-	-	49%	15.91	-	-	82%	15.91	-	-	82%	
Total							1,000.17	3.87	-	-	3.73	13.86	1,021.63													82.31				279.81				

Abstract of Actual Expenditure incurred for FY:2022-23 of 400kV Schemes-LIS

ANNEXURE-III

Format 1.1(d)

FY: 2022-23

(Amount Rs. in Crs)

S.No.	Project Code	Project Title	Project Purpose	Project Start Date DD-MM-YY	Project Completion Date DD-MM-YY	PLANNED CAPITAL EXPENDITURE						SOURCE OF FINANCING							Investments proposed for the year				Investments incurred in the year				Cumulative progress (year on year)				Remarks		
						Base Cost (in Rs.Crs)	Contingency	IDC	TAXES	Expense Capitalised	Total Cost	Internal Accrual Component of capex in year	Equity Component of capex in year	Loan Amount	Interest Rate	Moratorium period	Repayment period	Loan source	Proposed investment in the year(Rs. Crs.)	Proposed IDC	Proposed other expense	% Capitalisation	Actual investment in the year	IDC incurred	Other expense incurred	% Capitalisation	Actual investment in the year(Rs. in Crs)	IDC incurred	Other expense incurred	% Capitalisation			
1	Bulk Load/DC works	Indira Sagar Rudrammakota LIS (L-13-01)	Providing Supply to LI pumps	Mar'2014	Aug'2017	290.14	--	--	--	--	290.14								Govt TS Grants	-				0.004				0.004				100	
2	Bulk Load/DC works	Sita Rama Lift Irrigation scheme (L-18-04)	Providing Supply to LI pumps	Sep'2018	May'2023	418.45	--	--	--	--	418.45								Govt TS Grants	-				4.454				4.454				100	
	Total										708.59									-				4.458				4.458					

Format 1.1(d)

Abstract of Actual Expenditure incurred for FY:2022-23 of PRLIS Scheme

(Amount Rs. in Crs)

Base Year 2022-23																															
S.No.	Project Code	Project Title	CWIP as on 31.03.2022	Project Purpose	Project Start Date DD-MM-YY	Project Completion Date DD-MM-YY	PLANNED CAPITAL EXPENDITURE					SOURCE OF FINANCING							Investments proposed for the year				Investments incurred in the year				Cumulative progress (year on year)				Remarks
							Base Cost (in Rs.Crs)	Contingency	IDC	TAXES	Expenditure Capitalised	Total Cost	Internal Accrual Component of capex in year	Equity Component of capex in year	Loan Amount	Interest Rate	Moratorium period	Repayment period	Loan source	Proposed investment in the year(Rs. Crs.)	Proposed IDC	Proposed other expenditure	% Capitalisation	Actual investment in the year	IDC incurred	Other expenditure incurred	% Capitalisation	Actual investment in the year(Rs.in Crs)	IDC incurred	Other expenditure incurred	
1	Bulk Load/ DC works	Palamuru Ranga Reddy Lift Irrigation Scheme (L-17-02)	744.89	Lift Irrigation works (DCW)	Mar'2018	May'2024	2,155.04	--			2,155.04							Grants	300.00				403.14				1148.03				
Total			744.89							2155.04									300.00				403.14				1148.03				

Scheme wise details of Actual Capitalisation for FY 2022-23 - 400KV SCHEMES

FY: 2022-23

SI No	Name of the project	Investment approval date	Start Date		Completion Date (400kV works)		Approved cost as per Investment approval (Rs.in Crs)	Capitalization upto previous years (As per audited Financial Statements) (from FY 2016-17) (Rs.in Crs)	Capitalization claimed for the current year (Rs.in Crs)	Means of Finance (%)			Date of Capitalization	Addition to Transmission Network (only 400kV wing data)			Reasons for cost overrun	Reasons for time overrun	Whether part or Full Capitalization	Physical Completion Certificate (400kV works only)	Financial Completion Certificate (400kV works only)	Electrical Inspector Certificate
			Schedule	Actual	Schedule	Actual				Debt	Equity	Grants		Lines (CkM)	Capacity (MVA)	Bays (No.)						
I System Improvement Schemes																						
1	Suryapet System Improvement Scheme (S-14-02)	21.01.2015 (Revised)	Jul' 2013	Sep' 2013	Mar' 2017	Apr' 2018	1738.03	649.74	0.305	-	-	-	23.06.2021	0	0	0	NA	Delay in land acquisition and ROW issues	Part	2019000039 2019000404	0202000198 0202001824	Exempted by GoTS as per Energy (PR. II) Department, GO Ms No. 10 Date 09-05-2022
2	765kV Wardha-Hyderabad Link Transmission Scheme (S-15-13)	19.12.2017 (revised)	Jan' 2016	Feb' 2016	Mar' 2019	Feb' 2021	1178.97	927.17	1.142	-	-	-	30.07.2021	0	0	0	NA	severe ROW in the vicinity of Hyderabad	Part	2019000043 2020000523 2021000352 2021000353	0202000157 0202000332 0202100149 0202100148	
3	Rayadurg System Improvement Scheme (S-17-08)	24.05.2018	May' 2018	Sep' 2018	May' 2020	April 2022	1786.40	1,567.52	151.467	-	-	-	31.03.2023	0	0	0	NA	Delayed due to RoW & COVID	Part	2020000013 2022000085 2022000094 2022000104 2022000120 2022000129 2022000141 2022000151 2022000181 2023000684 2023000843	0202200511 0202300609 0202200163 0202200162 0202200172 0202200170 0202200167 0202200165 0202200168 2023000696 2023000714	
4	Reactor Scheme-III (S-19-02)	09.12.2019	Jan' 2020	Jan' 2020	Mar' 2023	ongoing	249.79	-	3.629	-	-	90%	10.02.2023	0	0	1	NA	-	Part	2023001150	2023000712	
5	HVWS at 500MVA ICTs of 400kV Substations (S-21-05)	-	-	Dec' 2021	-	May' 2022	-	-	0.805	-	-	-	27.06.2022	0	0	0	NA	-	Part	2023000444 2023000445 2023000448	2023000697 2023000618 2023000713	
II Augmentation Schemes																						
1	400kV Augmentation Scheme (PTRs at Veltoor&Dichpally & Gajwel) (A-15-11& A-15-10)	04.05.2017 (Revised)	Feb' 2016	Feb' 2016	Oct' 2017	May' 2018	95.59	45.27	0.021	-	-	-	17.12.2020	0	0	0	NA	upgradation to SAS	Part	2019000044	0202000043	
III Power evacuation schemes																						
1	Telangana STPP-I Power Evacuation Scheme (P-16-01)	23.08.2017	Apr' 2017	Oct' 2017	Apr' 2020	Aug' 2021	1151.6	452.24	408.936	-	-	-	03.06.2021	0	0	0	NA	Delayed due to RoW	Part	2020000559 2023000472 2023000473	0202000364 2023000426 2023000425	
2	Yadradri Thermal Power Evacuation (P-19-02)	27.01.2020	Jan. 2020	Dec' 2021	May' 2022	On-going	2354.35	-	385.524	-	-	-	15.03.2023	43.24	1500	0	NA	-	Part	2023000422 2023001148 2023001134 2023001136 2023001151	2023000674 2023000663 2023000710 2023000711 2023000671	
IV DC Works																						
1	Diversion of 400kV Julurupadu-KTPS & KTPS-PGCIL Line) (D-20-03)	-	-	Aug' 2020	-	Aug' 2021	-	21.88	0.039	-	-	-	16.10.2021	0	0	0	NA	-	-	2022000288 2022000291	0202200154 0202200155	
Total							8,554.730	3,663.811	951.868													

NA:Not applicable as the investment is within the approved scheme cost.

Scheme wise details of Actual Capitalisation for FY 2022-23 - System Improvement Schemes

FY: 2022-23

Sl. No.	Scheme ID	Name of the Project	Investment Approval Date	Start Date		Completion Date (Charging date)		Approved Cost as per Investment Approval Rs. Crore	Capitalisation Upto Previous Year (n-1) (as per Audited Financial Statements) (up to 2022) (As per ARR) Rs. Crore	Expenditure/ Capitalisation claimed for the Current year (2022-23) Rs. Crore	Loan Source	Means of finance			Date of Capitalization Date	Addition to Transmission Network			Reasons for cost overrun	Reasons for time overrun	Whether Part Capitalization or Full Capitalization	(Figures in Rs Crore)											
				Schedule	Actual	Schedule	Actual					Debt	Equity	Grants (Rs. Crore)		Lines (ckt km)	Capacity (MVA)	Bays (No.)				Physical Completion Certificate	Financial Completion Certificate	Electrical Inspector Certificate									
																									Rs. Crore	Rs. Crore	Rs. Crore						
System Improvement schemes																																	
1	S-07-03	Eragadda and O.U GIS & Cables scheme	10.2009	29-09-2011	27.12.2011	31.03.2020	E-27.05.2015 OU-14.10.2015	525.25	77.00	0.12	PFC	75%	25%	0	—	44.80	960.00	6	—	—	Full	2019000183 2019000186 2019000196 2019000554 2020000328	202001409 202000318 202001636 202001435 202000378	*									
2	Erection of various 220 KV & 132 KV GIS substations and connecting XLPE UG cable lines in and around Hyderabad metropolitan city with JBIC funding								89.33	-1.17	JICA	75%	25%	0	—	308.00	1,621.50	42.00	—	—	Full	2019000506 202000615	202000615	*									
	S-07-04.24	A) Hayatnagar 220 KV SS	Feb-13	8.2.2013	March'2017	03.05.2017	17.36	75%																	25%	0	—	—	—	Full	2019000506	202000615	*
	S-07-04.23	B) Imlibun 220 KV SS	Jun-13	10.5.2013	March'2017	31.01.2017 02.02.2017	328.20	75%																	25%	0	—	—	—	Full	2019000200	0202001681	*
	S-07-04.17	C) Moosarambagh 132 KV SS	Mar-15	19.03.2015	Mar'2017	26.10.2016	95.00	75%																	25%	0	—	—	—	Full	2021000096	202000078	*
	S-07-04.14	D) Balkampet 132 KV SS	Mar-15	16.11.2010	Mar'2017	29.09.2016	77.00	75%																	25%	0	—	—	—	Full	2020000298 202000506 2019000192	202000046 202000615 202001630	*
	S-07-04.13	E) Fever Hospital 132 KV SS	Nov-10	16.11.2010	March'2017	02.01.2017 07.01.2017	69.15	75%																	25%	0	—	—	—	Full	2019000194 2020000294 2019000198	202001677 202001678 202001506	*
	S-07-04.16	F) NIMS	24.09.2010	26.03.2015	16.02.2017	19.09.2018	85.36	75%																	25%	0	—	—	—	Full	2019000179 2019000181	202001706 202001509	*
S-07-04.15	G) Pattigadda 132 KV SS	Apr-15	26.03.2015	March'2017	29.12.2016	66.30	75%	25%	0	—	—	—	Full	2019000184 2019000193	202001680 202001675	*																	
3	S-08-08	132/33 KV Narayanaguda GIS Sub-station	13.10.2016	13.10.2016	31.05.2013	31.03.2020	08.12.2017	56.90	7.54	0.11	PFC	75%	25%	0	—	3.00	47.50	2	—	—	Full	2019000195	202001682	*									
4	S-08-11	132 KV SS Mamidpaty & connected lines	Aug-16	31.10.2008	31.12.2008	31.03.2020	31.03.2016 20.08.2016	21.92	0.27	-0.31	PFC	75%	25%	0	—	20.00	81.50	4	—	—	Full	2019000522 2019000523	202000278 202000277	*									
5	S-10-05	132/33kv SS Aitpamula	15.09.2010	28.04.2010	20.10.2010	19.04.2012	21.03.2013	12.94	0.02	0.09	UCO Bank	75%	25%	0	—	21.00	47.50	2	—	—	Full	2022000449 2023000522	202200455 2023000965	*									
6	S-10-13	Erection of 132/33KV SS LGM Pet	08.08.2011	31.06.2011	16.09.2011	31.03.2020	18.08.2016	31.90	0.63	0.13	UCO Bank	75%	25%	0	—	19.58	47.50	2	—	—	Full	2019000346 2019000397 2023000971	202000488 202000492 202000489	*									
7	S-10-17	132/33 KV Substation at N V Puram in Khammam District	06.05.2013	07.03.2014	17.08.2016	31.03.2020	24.06.2019	18.01	26.75	0.00	REC	75%	25%	0	—	10	32	2	RC pile foundations casted in Godavari river.	—	Full	202000530 202000532, 2020000310, 2020000313 2020000333	202000034 202000036 202000037 202000033 202001647	*									
8	S-10-20	220 KV Switching Station at Thimmajpetta & connected lines	Dec-17	05.07.2013	30.09.2013	31.03.2020	07.06.2017	29.32	2.02	0.00	PFC	75%	25%	0	—	94.00	0.00	8	—	—	Full	2019000486 2019000487 2019000492 2019000488 2021000184	202100291 202000833 202100290 202000232 202100380	*									
9	S-10-22	Erection of 33KV features at Vikarabad	23.06.2010	23.06.2010	04.12.2012	31.03.2020	01.03.2016	4.47	0.08	0.02		75%	25%	0	—	—	32.00	—	—	—	Full	2019000416	202000496	*									
10	S-10-23	132/33 KVSS at water works in Karimnagar District	2013	10.05.2013	12.07.2013	11.04.2014	06.09.2014	47.5	0	0.04	Oriental Bank of Commerce	75%	25%	0	—	6.50	47.50	1	—	—	Full	2023000746	202001260 202001262	*									
11	S-11-01	132/33 kv ss At Gudur	22.12.11	16.06.2015	07.07.2015	06.04.2016	28.07.2016	13.29	0.13	0.03	PFC	75%	25%	0	—	20.00	47.50	2.00	—	—	Full	2019000407 2023001050 2023001049 2019000406	202001471 2023000351 2023000352 202000216	*									
12	S-11-07	132/33KVSS- GANGANPALLI (ALWALPAD)LINES	27.04.2011	27.04.2011	26.10.2015	31.03.2020	23.08.2018	14.7	0.79	0	PFC	75%	25%	0	—	14.00	47.50	1.00	—	—	Full	2019000074 2019000073 2019000071 20190000818	202000845 202000846 202100293 202000155	*									
13	S-11-11	132KV parigi dmsagar line	15.09.2018	18.04.2018	13.12.2018	31.03.2020	work in progress (expected - 31.03.2024)	30.80	1.23	0.16	REC	75%	25%	0	—	70.00	—	4.00	—	—	Full	NO	NO	*									

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				Schedule	Actual	Schedule	Actual					Rs. Crore	Rs. Crore	Rs. Crore		Debt	Equity							Grants (Rs. Crore)
14	S-11-12	132/33 KV SS at Dornakal in Warangal District	2014	May-14	10.06.2015	May-15	22.07.2016	17.32	0.01	0	REC	75%	25%	0	—	20.00	47.50	2.00	—	—	Full	2019000274 2019000275 2019000276 2019000740	202001633 202001631 202000264 202000287	*
15	S-11-13	132 KV SS Douthabadi & connected lines	AP/TS/132KV SS-Douthabadi-INVST-38/2013	21.06.2013	21.6.2013	Mar-14	10.02.2017	21.8	0.018	1.10	REC	75%	25%	0	—	32.7	47.5	2	—	—	Full	2022000425 2023000828 2023000784	202001236 202001234 202001235	*
16	S-11-16	220/132/33 KV substation at Huzunagar in Nalgonda District	02.04.2013	21.06.2013	18.02.2016	31.03.2020	10.12.2018	52.49	65.36	0.02	PFC	75%	25%	0	—	100	263	10	—	—	Full	2020000545 2020000546 2020000547 2020000548 2020000549 2019000924 2019000925 2019000926 2019000810 2019000812 2019000812 2019000927 2019000811	202001036 202001040 202001019 202001039 202001037 202001016 202001013 202001010 202001010 202001034 202001041	*
17	S-11-27	132/33 KV Substation at Kethikuduru in Warangal district along with connected 132 KV & 33 KV lines	24.06.2013	06.04.2011	21.07.2016	31.03.2020	04.01.2018	21.21	0.96	0.02	REC	75%	25%	0	—	30.00	47.50	2	—	—	Full	2019000295 2019000296 2019000297	0202000289 0202000288 0202001634	*
18	S-11-28	132KV SS Nimmampally & connected lines	AP/TS/132 KV SS-Nimmampally-INVST-06/2014	Apr-15	23.3.2018	Apr-16	work in progress	25.35	15.9	0.19	REC	75%	25%	0	—	21	32	2	—	—	Full	2021000275 2023000534 2023000535	202200384 202100077 202001277	*
19	S-11-30	erection of 220/132 KV substation at Parigi in Rangla Reddy district	11.05.2012	09.08.2011	19.10.2013	31.03.2020	04.03.2016	60.35	1.24	0.04	REC	75%	25%	0	—	110.00	200.00	8	—	—	Full	2019000418, 2019000419, 2019000420 2019000412	202000500 202000501 202000502 202000503	*
20	S-11-35	Shifting of 132 KV SS at Wadapally by erection of 132 KV SS at Wadapally (New) in place of existing Wadapally SS and 132 KV LILC arrangements to 132/33 KV SS Wadapally (NEW) in Nalgonda district.	TGO / CE/Trans/MS No.106 Dated 17.06.2015 (As per AP/REC Proceedings No: 725/2013, dt:06.06.2013)	22.04.2013	22.4.2013	Jan-14	26.11.2016	4.99	0.63	0.24	REC	75%	25%	0	—	-	47.5	-	-	—	Full	2021000070 2021000071	202001056 202001057	*
21	S-12-05	erection of 33 KV features at Jankampet 132/11 KV LILC irrigation substation in Nizamabad district	20.12.2012	20.09.2016	01.11.2016	31.03.2020	16.02.2018	4.18	0.29	0.17	REC	75%	25%	0	—	0.00	32.00	0	—	—	Full	2019000254 2019000255 2019000140 2019000141	202000041 202000035 202001053 202001139	*
22	S-12-08	Erection of 2nd circuit stringing on existing 220 KV DC/SC line from 220 KV Ramagundam Sub-Station to 220 KV Mandamudi (Belampally) Sub-Station	31.01.2013	28.11.2012	06.10.2012	31.03.2020	20.10.2015	10.67	0.20	0.01	REC	75%	25%	0	—	34.00	-	2	—	—	Full	202001290 202001292 202001722	202001290 202001292 202001722	*
23	S-12-08	132 KV DC/SC line from 220/132 KV substation Vedanturam to 132/33 KV SS Pashamalaram -Accorded	2013	27.12.2020	27.12.2020	26.04.2021	27.09.2022	9.31	-	10.51	NABARD	75%	25%	0	—	7.00	-	2	—	—	Full	2023001117 2023001118 2023001114 2023000689	2023000470 2023000471 2023000472 202300307	*
24	S-12-13	of 132/33 KV Substation at Palakurthy in Warangal district along with connected 132 KV & 33 KV lines		09.11.2015	09.11.2015	09.08.2016	29.07.2016	19.63	-	0.09		75%	25%	0	—	29.00	32.00	1	—	—	Full	2019000690 2019000691 2023000999 2023001000 202300998	202000308 202000309 2023000317 2023000318 2023000319	*

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				Schedule	Actual	Schedule	Actual					Debt	Equity	Grants (Rs. Crore)		Lines (ckt km)	Capacity (MVA)	Bays (No.)						
25	S-13-02	220/132 KV SS at Ayyagaripally in Mahaboobabad in Warangal district.	09.05.2016	05.01.2016	02.03.2016	31.03.2020	29.01.2018	78.33	-0.29	0.26	REC	75%	25%	0	—	94.00	200.00	9	—	—	Full	2019000282 2019000305 2019000306 2019000308 2019000519 2019000737 2020000597 2019000739	202001637 202000310 202001635 202000320 202000317 202000316 202000319 202000315	*
26	S-13-03	220/132/33KV SS at Bonguloor in RR District	28.02.2014	30.05.2014	05.09.2013	31.03.2020	23.05.2020	63.4	48.06	0.15	NABARD	75%	25%	0	—	20	300	6	—	ROW issues	Full	2019000540 2019000541 202000357 2021000144 202000053	202000284 202200054 202100152 202000619 202000622	*
27	S-13-06	132/33 KV Sub-Station at Dommarapochampally in Rangareddy district with connected 132 KV lines	03.09.2014	15.05.2018	24.12.2016	31.03.2020	16.07.2018	36.32	22.29	0.00	REC	75%	25%	0	—	7.2	63	2	—	—	Full	2019000392 2019000394	202000504 202000505	*
28	S-13-10	132/33KV SS Kachapur & connected lines	26.2.2016	07.10.2015	22.09.2015	31.03.2020	04.05.2018	21.53	12.82	0.47	REC	75%	25%	0	—	37.50	48.00	2	—	—	Full	2023000749 2023000750 2023000751	202001280 202001281 202001283 202001286 202001289 202001288	*
29	S-13-14	220/132 KV SS at Sircilla in Karimnagar District	08.10.2015	03.08.2015	22.12.2015	31.03.2020	15.12.2016	87.30	4.49	0.13	REC	75%	25%	0	—	134.00	300.00	8	—	—	Full	2023001099 2023001100	202001293 202001298 202001300 202001301 202001304	*
30	S-14-12	132 KV substation Khaithalapur along with connected lines	01.09.2015	10.09.2014	04.07.2016	31.08.2020	27.08.2019	66.04	55.51	0.05	REC	75%	25%	0	—	15	63	4	—	—	Full	2020000006, 2020000007 2020000008 2021000240 2021000242	202000507 202000508 202000509 202100302 202100303	*
31	S-15-01	Providing second source of supply to 132/33 KV Sub-Station, Lalgadi Malakpet in Shameerpet Mandal of Ranga Reddy District	06.05.2013	19.08.2015	20.10.2015	31.03.2020	18.10.2019	7.31	10.13	0.04	PFC	75%	25%	0	—	16	—	2	Additional towers erected due to ROW	Severe ROW issues. Some of the locations got completed with police protection	Full	2020000010, 2020000009	202001129 202001134	*
32	S-15-02	Up-Gradation of 132/33 KV SS Aswaraopet to 220/132 KV SS	05.10.2015	24.08.2015	18.01.2017	31.03.2020	28.04.2018	52.82	39.96	0.23	PFC	75%	25%	0	—	100	200	8	—	—	Full	2020000136, 2019000938 2019000813 2020000522	202000027 202000035 202001650 202000023	*
33	S-15-03	132/33 KV Substation at Chandulapur Village of Chinnakodur Mandal in Medak District along with connected lines	04.02.2015	04.02.2015	27.04.2015	31.03.2020	06.10.2017	18.25	0.38	0.00	REC	75%	25%	0	—	8.00	63.00	4	—	—	Full	2019000605 2019000343	202000584 202000585	*
34	S-15-11	220 KV 2nd circuit stringing on 220 KV RSS - Jagityal and 220 KV RSS - Nirmal	17.12.2015	06.11.2017	19.11.2016	31.03.2020	N-30.12.2016 J-02.11.2016	46.4	18.86	0.01	PFC	75%	25%	0	—	208.00	—	4	—	—	Full	2023001162 2023000538	202001323 202001326 202001334 202001338 202001345	*
35	S-15-29	132KV DC line from 220KV HSBD. LISS, BAY	27.07.2015	27.07.2015	11.11.2016	31.03.2020	29.12.2017	18.00	2.17	0.53	REC	75%	25%	0	—	17.00	100.00	6.00	—	—	Full	2023000538 2023000539	202001357 202001353 202001356 202001359 202001361	*
36	S-15-31	erection of 2 nd circuit from 220kV Shivarampally SS to 132KV Asifnagar SS for providing 2 nd source of supply to 132KV Asifnagar substation	05.10.2015	25.03.2015	16.02.2018	31.03.2020	31.05.2019	45.97	35.97	-0.12	REC	75%	25%	0	—	4.00	—	2	—	—	Full	2020000354 2019000006 2019000005 2020000356	202000287 202000290 202000291 202000292	*
37	S-15-32	Erection of 220/132/33 KV SS at Pedagogali in Khammam district	22.03.2016	07.11.2015	27.02.2017	31.03.2020	01.12.2018	124.44	45.51	0.04	REC	75%	25%	0	—	220.00	263.00	4	—	—	Full	2019000088 2019000103	202000025 202000029	*
38	S-15-33	132/33 KV SS at Sarangapur in Adilabad District	06.05.2013	21-12-2015	04.04.2018	31.01.2020	11.12.2019	19.93	15.09	1.61	REC	75%	25%	0	—	28.00	48.00	2	—	—	Full	2020000621 2020000620	202001545 202001544	*
39	S-15-34	220 KV DC line on Galvanised Towers with Moose ACSR from 400/220/132 KV SS Gajwel to 220/132 kv SS Siddipet	2.07.2017	4.12.2017	4.12.2017	3.12.2018	19.11.2022	63.28	—	53.73	REC	75%	25%	0	—	80.00	—	4	—	—	Full	2023001110 2023001111 2023001112	2023000465 2023000467 2023000468	*
40	S-15-37	132 KV line from 220 KV Jurala Sub-Station to 132 KV Ijeza Sub-Station	06.05.2013	29.07.2015	12.03.2018	11.03.2019	07.08.2019	16.54	16.64	0	REC	75%	25%	0	—	35.00	—	2	—	—	Full	2020000637 2020000640 2020000641	202000206 202000212 202000213	*
41	S-16-06	33 KV Features at existing 220/11 KV LI Sub-Station, Bheemghampur Warangal District.	25.04.2016	25.04.2016	05.05.2017	31.03.2020	08.07.2020	5.73	15.72	0.56	PFC	75%	25%	0	—	—	50.00	—	—	Delay in PTR supply	Full	2020000505	202100143	*

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				Schedule	Actual	Schedule	Actual					Rs. Crore	Rs. Crore	Rs. Crore		Debt	Equity	Grants (Rs. Crore)						
42	S-16-11	132/33 kV Substation at Bachannapet in Warangal District	25.05.2016	25.05.2016	06.06.2018	31.03.2020	31.10.2019	19.38	18.09	0.10	PFC	75%	25%	0	—	18.00	48.00	2	—	—	Full	2020000506 2020000507	202000017 202000368	*
43	S-16-12	132/33 kV Substation at Kotagiri in Nizamabad District	30.06.2016	28.06.2019	28.06.2019	31.03.2020	11.05.2022	15.05	—	16.95	PFC	75%	25%	0	—	12.00	48.00	1	—	—	Full	2023000284 2023000283 2023000282	2023000156 2023000157 2023000158	*
44	S-17-01	Erection of 220/33 kV Sub-Station at Chanchalguda	CRN TS/TST/220/33 KV, GIS, Chanchalguda/Investment Approval No.7/17-2017-18	27.02.2017	28.02.2018	31.03.2021	20.03.2021	89.12	77.57	-0.02	REC	75%	25%	0	—	2.00	150.00	—	—	—	Full	2021000035	202100160	*
45	S-17-03	132/33 kV Sub-Station at Moulali ZTS in Medchal-Malkajgiri District	2017-18	04.05.2019	04.05.2019	03.02.2020	30.07.2021	49.78	—	43.85	REC	75%	25%	0	—	7.00	100.00	2.00	—	—	Full	2022000496 2022000497 2022000498	2023000065 2023000066 2023000067	*
46	S-17-04	132/33kV SS Gachibowli in Ranga Reddy district	27.02.2017	27.02.2017	11.06.2019	10.12.2020	22.09.2021	18.73	20.42	0.69	REC	75%	25%	0	—	2.00	160.00	—	—	—	Full	2022000374 2022000375 2022000376	202200406 202200407 202200408	*
47	S-17-09	220/132/33 kV Substation at Toopran(meenajpet) in Medak District along with connected lines	09.04.2015	27.05.2017	23.12.2016	31.03.2021	06.02.2020	76.78	52.46	0.17	REC	75%	25%	0	—	110.00	263.00	12	—	—	Full	2020000000 2020000001	202000576 202000577	*
48	S-17-13	erection of 132/33 kV Sub-Station at Yadagirigutta Temple with connected line Town of Yadadri (erstwhile Nalgonda) District	09.05.2017	09.05.2017	16.07.2018	31.03.2020	11.12.2019	15.06	17.11	0.04	PFC	75%	25%	0	—	4.00	63.00	2	—	—	Full	2019000921 2019000922	202000883 202000886	*
49	S-17-14	33kV features at 220kV SS mahabubabad	16.11.2017	16.11.2017	20.02.2020	19.08.2021	26.05.2021	8.54	2.88	-0.01	REC	75%	25%	0	—	—	32.00	—	—	—	Full	2021000061	202200369	*
50	S-17-15	Erection of 132/33 kV Sub-Station at Chinna Shankarampet in Medak District	06.05.2013	19.08.2017	01.04.2018	31.03.2021	23.01.2021	16.00	9.17	0.23	REC	75%	25%	0	—	12.00	32.00	—	—	—	Full	2021000138 2021000140	202100228 202100229	*
51	S-17-16	132kv 2nd Circuit stringing from waddekothapally to peddanagaram	09.10.2017	09.10.2017	22.02.2020	21.08.2021	06.11.2021	7.02	3.21	0.09	REC	75%	25%	0	—	30.00	—	2.00	—	—	Full	2022000382 2022000383 2022000384	202200376 202200376 202200375	*
52	S-17-18	feeding 132/33 kV SS Ghanpur through Ring Mains	09.05.2017	09.05.2017	23.10.2018	31.03.2020	26.06.2019	5.8	8.01	0.38	PFC	75%	25%	0	—	4.00	—	8	—	—	Full	2020000516 2020000517 2023001048 2023001047	202000372 202000373 2023000354 2023000355	*
53	S-17-20	132 KV DC/SC line from 220KVSS Chegur (Kothur) to existing 132KVSS Kothur	30-11-2017	30-11-2017	12.03.2019	31.03.2020	24.07.2020	5.68	10.37	0.11	REC	75%	25%	0	—	6.00	—	2	Narrow based towers erected due to RoW	RoW	Full	2021000366 2021000367	202100306 202100305	*
54	S-17-23	132 kV features at 220 kV Thimmajpet Switching Station in Mahaboobnagar District and extending connectivity to 132 kV Jadcherla Sub-Station from Thimmajpet	Dec-17	07.03.2020	07.03.2020	06.12.2020	22.07.2022	29.32	—	7.34	REC	75%	25%	0	—	36.00	—	2	—	—	Full	2023001163	2023000825	*
55	S-18-02	220/132 kV Sub-Station at Ammavaripet, Kazipet (M) in Warangal Urban District and connected lines and bays along with downstream works	10.08.2018	26.02.2021	26.02.2021	19.05.2022	31.03.2024(expected)	111.84	—	17.28	PFC	75%	25%	0	—	133.55	—	4	—	—	Full	2023000369 2023000306 2023000368 2023000303	2023000320 2023000321 2023000322 2023000323	*
56	S-18-04	132/33kV SS Nagaram in Suryapet District	12.12.2018	30.08.2018	27.10.2020	26.04.2022	27.03.2022	33.97	10.91	0.92	PFC	75%	25%	0	—	32.00	47.50	—	—	—	Full	2022000074 2022000076	202200171 202200173	*
57	S-19-03	132/33 kV Sub-Station at Patancheru in Sangareddy District	22.11.2019	06.07.2020	06.07.2020	5.11.2021	30.11.2022	23.64	0.00	14.13	REC	75%	25%	0	—	4.70	63.00	—	—	—	Full	2023001114 2023001115	2023000466 2023000469	*
58	S-19-05	132/33 kV Gas Insulated Sub-Station (GIS) at Manikonda in Ranga Reddy District along with connected line with 132 KV XLPE UG cable	29.12.2019	18.03.2021	18.03.2021	17.03.2022	15.09.2022	66.56	0.00	85.55	REC	75%	25%	0	—	—	160.00	—	—	—	Full	2023000002 2023000003 2023000004	2023000277 2023000278 2023000279	*
59	S-21-01	132/33kV SS Pasra at mulugu District	30.06.2021	30.06.2021	25.10.2021	31.12.2022	31.01.2022	12.80	6.23	1.73	Transco funds	75%	25%	0	—	3.80	32.00	—	—	—	Full	2022000264 2022000381	202200373 202200274	*
60	P-19-01	400/220 kV, 1X315 MVA ICT at Bhadradi Thermal Power Station (BTPS) switch yard, Manuguru, TSGENCO and erection of 220 KV DC line from 220/132/33 KV Manuguru SS to 400 KV BTPS switch yard	22.11.2019	08.07.2019	31.09.2019	31.03.2021	12.03.2021	66.56	26.03	0.56	REC	75%	25%	0	—	46.00	315.00	4	—	—	Full	2021000006 2021000007	202100047 202100080	*

Sl. No.	Scheme ID	Name of the Project	Investment Approval Date	Start Date		Completion Date (Charging date)		Approved Cost as per Investment Approval Rs. Crore	Capitalisation Upto Previous Year (n-1) (as per Audited Financial Statements) (up to 2022) (As per ARR) Rs. Crore	Expenditure/ Capitalisation claimed for the Current year (2022-23) Rs. Crore	Loan Source	Means of finance			Date of Capitalization	Addition to Transmission Network			Reasons for cost overrun	Reasons for time overrun	Whether Part Capitalization or Full Capitalisation	Physical Completion Certificate	Financial Completion Certificate	Electrical Inspector Certificate
				Schedule	Actual	Schedule	Actual					Debt	Equity	Grants (Rs. Crore)		Date	Lines (ckt km)	Capacity (MVA)						
61	S-02-03	EREC 132KV BAY AT NIRMAL-KHANPUR FEEDER							0.33															
62	P-12-02	Nirmal Power Transmission Scheme							3.95															
63	P-15-01	Dindi System Improvement Scheme							0.97															
64	P-15-03	Bhadradri Thermal Power Transmission scheme							25.74															
65	P-15-04	KTPS (Stage-VII-1X800MW) -Scheme							0.32															
66	P-16-01	Telangana STPP-I (2 X 800MW) Power Evacuation scheme							0															
	P-19-02	Yadadri Thermal Power (5X 800MW) evacuation scheme							66.31															
									357.01															

*Note: Electrical Inspector Certification is exempted as per the G.O. Ms.No.10, Dt:09.05.2022

Scheme wise details of Actual Capitalisation for FY 2022-23 -Depository contribution works (DC Works)

FY: 2022-23

(Figures in Rs Crore)

Sl. No.	Scheme ID-SAP	Name of the Project	Investment Approval Date	Start Date		Completion Date		Approved Cost as per Investment Approval/ Scheme cost Rs. Crore	Capitalisation Upto Previous Year (n-1) (as per Audited Financial Statements) (up to 2021) (As per ARR) Rs. Crore	Capitalisation claimed for the Current year (2022-23) Rs. Crore	Loan Source	Means of finance			Date of Capitalization Date	Addition to Transmission Network			Reasons for cost overrun	Reasons for time overrun	Whether Part Capitalization or Full Capitalisation	Physical Completion Certificate	Financial Completion Certificate	Electrical Inspector Certificate
				Schedule	Actual	Schedule	Actual					Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)		Lines (ckt km)	Capacity (MVA)	Bays (No.)						
Brought Forward (BF)										357.01														
1	D-13-02	SWICHYARDSTATION NTPC SOLAR EVACUATION		01.09.2012	07.08.2014	13.05.2015	05.05.2016	10.17	0.14	0.06	Consumer contribution													
2	D-15-08	220KV YELLURU & GOURIDEVIPALLY SS		24.02.2016	24.02.2016	23.11.2016	Y-03.11.17 G-08.12.17		4.34	-0.02	Consumer contribution													
3	D-16-08	132KV DC Mandamarry-Bellampally line from Loc.No.132 to 136 and Loc No. 141 to 145 for a length of 5.938		28.10.2025	28.10.2015	27.02.2016	26.02.2017	8.51	-	-0.15	Consumer contribution													
4	D-16-14	Providing open Access metering systems Viz., Main, Check and Stand by Metering to the existing 132KV HT Consumer. M/s CCI at 220/132/33KV SS Tandur(TSTRANSCO-Executing)		21.06.2018	21.06.2018	30.08.2019	11.08.2020	1.78	1.17	0.05	Consumer contribution													
5	D-17-04	132KV DC/SC line from Gangadhara LIS to proposed 132/25 KV Kothapally Railway Traction Substation		06.04.2018	06.04.2018	05.10.2018	09.02.2019	1291.31	0.56	-0.01	Consumer contribution													
6	D-17-11	132 KV line 4m Miryalaguda to RTSS and Ramannapet to Ramannapet		02.06.2018 (Miryalaguda line)	02.06.2018 (Miryalaguda line)	01.12.2018 (Miryalaguda line)	27.09.2019	8.374	5.54	0.15	Consumer contribution													
				02.06.2018 (Ramannapet line)	02.06.2018 (Ramannapet line)	01.12.2018 (Ramannapet line)	06.12.2018	7.0374			Consumer contribution													
7	D-18-10	Divrsn of Gajwl-Kndapka etc Komrvelli mal		26.09.2018	26.09.2018	25.03.2019	09.12.2020	17.599	12.14	-0.02	Consumer contribution													
8	D-18-12	Extnsion of power supply to RTSS Manoharabad		15.04.2019	15.04.2019	14.10.2019	25.11.2020	1.05	7.66	0.28	Consumer contribution													
9	D-18-13	pwr sply 2 132KV RTSS Divitipally(RVNL)		PO.Issued Dt:10.01.2019 DoH Bay- 21.01.2020 Line- 29.04.2019 Metering Bay 28.09.2021	-	Bay- 20.10.2020 Line- 28.01.2020 Metering Bay- 27.06.2022	22.07.2022	9.76	-	6.58	Consumer contribution													
10	D-18-15	Extn of 132KV line 4 kamrdy 2 lamdla Ra		24.03.2021	24.03.2021	23.12.2021	31.03.2023	14.55	-	7.48	Consumer contribution													
11	D-18-17	Erection of metering bay at 132KV Parigi SS and Laying of 132KV XLPE UG Cable between existing TSTRANSCO 132KV Bus to wind power 132KV Bus including Outdoor Termination (DC-Supervision work)		DC_Supevision work			24.03.2016	0.41		-0.05	Consumer contribution													
12	D-18-21	220KV DC line Dindi-Bonguluru		07.05.2019	07.05.2019	06.11.2019	05.02.2020	7.91	4.57	0.08	Consumer contribution													
13	D-18-22	Shift of 132KV Makthal-Krishna RTSS DC line between Loc. No 29A to 29B Near Maganooru Village in Mahaboobnagar District		07.03.2019	07.03.2019	28.07.2019	23.12.2019	4.14	1.60	0.01	Consumer contribution													
14	D-19-02	Shift Gachibowli-Madapur-I&II DC lines crossing at Botanical garden junction hyderabad(TSTRANSCO-Executing)		29.11.2019	29.11.2019	28.05.2020	28.06.2022	13.02	-	4.77	Consumer contribution													
15	D-19-03	Sft 220KV Gachibowli -S.nagar-Eragadda line		29.11.2019	29.11.2019	28.05.2020	31.08.2021	19.61	9.16	-1.03	Consumer contribution													
16	D-19-04	Shifting 132kv lines from Road number 45 Durgam Cheruvu		30.01.2019	22.03.2019	21.09.2019	13.06.2020	18.8	8.92	0.46	Consumer contribution													
17	D-20-06	132KV DC/Sc line 4m 132/33kv ss northad		15.04.2021	15.04.2021	14.01.2021	29.04.2022	5.81	-	1.02	Consumer contribution													
18	D-20-07	Modifictn of bpower line of Bhadrachalam Sattarpally Railway track in bhadrakothagudem		20.10.2020	20.10.2020	19.04.2021	28.07.2021	61.16		14.51	Consumer contribution													
19	D-20-09	Gajwel-Chegunta for manoharabad to Kothapally		29.01.2021	29.01.2021	23.04.2021	03.07.2021	2.69	1.54	0.11	Consumer contribution													
20	D-21-18	Shifting of 220KV Miryalaguda-KTPS SC line		-	-	-	-	-	0.46	0.35	Consumer contribution													

Sl. No.	Scheme ID-SAP	Name of the Project	Investment Approval Date	Start Date		Completion Date		Approved Cost as per Investment Approval/ Scheme cost Rs. Crore	Capitalisation Upto Previous Year (n-1) (as per Audited Financial Statements) (up to 2021) (As per ARR) Rs. Crore	Capitalisation claimed for the Current year (2022-23) Rs. Crore	Loan Source	Means of finance			Date of Capitalization	Addition to Transmission Network			Reasons for cost overrun	Reasons for time overrun	Whether Part Capitalization or Full Capitalisation	Physical Completion Certificate	Financial Completion Certificate	Electrical Inspector Certificate	
				Schedule	Actual	Schedule	Actual					Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)		Date	Lines (ckt km)	Capacity (MVA)							Bays (No.)
21	D-21-24	132kV DC.SC line Ganganpally-RTSS Pandur		P.O.:11.10.2021 DOH: Bays and 132KV Line 29.09.2021. 2nd Ckt: profile:11.10.2021	—	10.04.2022	132kV Line: 28.10.2022 2nd Ckt 10.04.2023	14.55	-	2.27	Consumer contribution														
22	D-21-37	Shifting of 1No.220KV DC line of Regumanugadda-Wanaparthy & Singotam of length 2KM		22.12.2021	22.12.2021	21.09.2022	19.08.2022 & 26.08.2022	9.56	-	7.35	Consumer contribution														
23	D-21-44	M/s. Mahalakshmi Profiles Pvt Ltd- Medak		Supervision work				1.26	-	0.28	Consumer contribution														
24	D-22-18	Erection of (i) 1No. 132KV bay at 220/132KV Chandanvally SS (M/s.TSIIIC)		Supervision work				18.01.2023	2.49		0.28	Consumer contribution													
25	L-12-02	2Nos 132kV Bays at Jaipur for SCCL		—	—	—	—	—	0.25	0.07	Consumer contribution														
26	D-20-10	Extn of cntrl room bal works at 20KV SS		—	—	—	31.03.2024		-	0.53	Consumer contribution														
27	D-21-30	Industrial park at Chandanvally(V)								37.84	Consumer contribution														
Total										440.26															

Scheme wise detail of Actual Capitalisation for FY 2022-23-Non Plan Capital Works

FY: 2022-23

(Figures in Rs Crore)

Sl. No.	Scheme ID-SAP	Name of the Project	Investment Approval Date	Start Date		Completion Date		Approved Cost as per Investment Approval/ Scheme cost Rs. Crore	Capitalisation Upto Previous Year (n-1) (as per Audited Financial Statements) (up to 2021) (As per ARR) Rs. Crore	Capitalisation claimed for the Current year (2021-22) Rs. Crore	Loan Source	Means of finance			Date of Capitalization Date	Addition to Transmission Network			Reasons for cost overrun	Reasons for time overrun	Whether Part Capitalization or Full Capitalisation	Physical Completion Certificate	Financial Completion Certificate	Electrical Inspector Certificate
				Schedule	Actual	Schedule	Actual					Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)		Lines (ckt km)	Capacity (MVA)	Bays (No.)						
		Brought Forward (BF)							440.26															
1	N-17-01	Other Non Planned Project Str 2017-18							0.01															
2	N-18-01	Other Non Planned Project Str 2018-19							0.73															
3	N-19-01	Non Plan Capital Works for FY 2019-20							0.82															
4	N-21-01	Non Plan Capital Works for FY 2021-22							4.57															
5	N-22-01	Non Plan Capital Works for FY 2022-23							0.03															
		Grand Total							446.42															

Details of Actual Capitalization for FY:2022-23 of Augmentation of PTRs, Lines & RMI Schemes

ANNEXURE-IV

Sl. No.	L1 WBS Element	Name of the Project	Investment Approval Date		Scheduled	Actual	Scheduled	Actual	Completion Date	Approved Investment as per previous year Financial Statements	Capitalisation upto the Current Year (Rs. Crores)	Means of Finance			Date of Capitalisation	Lines (CKT KM)	Capacity (MVA)	Addition to Transmission Network (Nos. Bays)	Reason for Overrun	Whether Part Capitalisation (or Full Capitalisation)	Physical Completion Certificate	Financial Completion Certificate	Electrical Inspector Certificate	
			Scheduled	Actual								Debt	Equity	Grant										
1	A-17-01	24 Hrs. Agri. supply works in WGL ZONE	No.13/17, 2017-18	01.05.15	01.05.15	01.05.15	01.05.15	01.05.21	12/11/2019 4/21/2018 4/30/2018 8/7/2021 3/5/2016 7/11/2018	0.357	75%	25%	-	7/14/2023 6/14/2019 6/9/2023 7/5/2023 7/3/2023 7/6/2021				No cost overrun	No Time Overrun		202300170 2019000694 2023000536 2023001159 2023001135 2021000154			
2	A-17-02	Aug Sys Stren & 24 Hrs Agri METRO & RURAL	No.13/17, 2017-18	01.05.15	01.05.15	01.05.15	01.05.21	2/5/2019	2/19/2021	0.001	75%	25%	-	7/11/2020				No cost overrun	No Time Overrun		2020000431			
3	A-18-02	Aug of PTR cap at YWGI		18.07.18	18.07.18	18.07.18	18.07.21	2/19/2021	2/19/2021	0.317	75%	25%	-	6/20/2022				No cost overrun	No Time Overrun		2022000380			
4	A-19-01	Aug of 4th 160 MVA at 220KV Gachibowli		03.07.19	03.07.19	02.07.21	02.07.21	1/25/2020	1/25/2020	0.092	75%	25%	-	6/26/2023				No cost overrun	No Time Overrun		2023001041			
5	A-19-03	Augmentation of 80 MVA at 132 KV IDPL SS		07.03.20	07.03.20	06.03.22	06.03.22	12/28/2020	12/28/2020	0.112	75%	25%	-	6/19/2023				No cost overrun	No Time Overrun		2023000760			
6	A-19-04	Augmentation of PTRs at 220 KV Hayathnag		18.03.20	18.03.20	17.03.22	17.03.22	8/26/2021	8/26/2021	0.002	75%	25%	-	6/1/2022				No cost overrun	No Time Overrun		2022000132			
7	A-20-03	Aug of PTR at Warangal & Karimnagar Circ		03.10.20	03.10.20	02.10.23	02.10.23	1/18/2021	1/18/2021 1/18/2021 1/18/2021	0.151	75%	25%	-	11/2/2022 6/16/2023 6/16/2023				No cost overrun	No Time Overrun		2022000489 2023000682 2023000683			
8	A-20-06	Aug of 3rd PTR at 132KV MDPally SS		05.02.21	05.02.21	04.02.23	04.02.23	9/8/2022	9/8/2022	3.830	75%	25%	-	11/3/2022				No cost overrun	No Time Overrun		2022000495			
9	A-20-07	Aug of 4rd PTR at 132KV Pashalaram SS		30.03.21	30.03.21	29.03.23	29.03.23	12/26/2021	12/26/2021	0.069	75%	25%	-	6/10/2022				No cost overrun	No Time Overrun		2022000273			
10	A-21-01	Aug of 160 MVA PTR at 400KV Suryapet SS		12.04.21	12.04.21	11.04.23	11.04.23	1/13/2023	1/13/2023	3.153	75%	25%	-	2/3/2023				No cost overrun	No Time Overrun		2022000501			
11	A-21-02	Aug of 132/33 KV PTRs at Mamidipally & 4		07.05.21	07.05.21	06.05.23	06.05.23	4/27/2022	4/27/2022	0.026	75%	25%	-	6/23/2023				No cost overrun	No Time Overrun		2023000955			
12	A-21-05	Augmentations of 220KV PTRs at 5Nos Subs		04.10.21	04.10.21	03.10.23	03.10.23	8/22/2022	8/22/2022 8/26/2022 8/26/2022	1.421	75%	25%	-	6/24/2023 6/12/2023 6/17/2023				No cost overrun	No Time Overrun		2023000997 2023000570 2023000738			
13	A-21-06	Augmentations of 132KV PTRs at 24Nos Sub		07.10.21	07.10.21	06.10.23	06.10.23	7/13/2022	9/7/2022 6/22/2022 8/26/2022 9/13/2022 3/13/2023 3/13/2023 9/28/2022 12/24/2022 12/22/2022 11/11/2022 10/13/2022 10/13/2022 9/28/2022 12/27/2021 12/27/2021 6/10/2022 7/13/2022 6/9/2022 10/23/2022 10/23/2022 10/23/2022 3/29/2023 12/24/2022 2/3/2023 3/1/2023	6.069	75%	25%	-	6/15/2023 6/23/2023 6/17/2023 6/17/2023 6/27/2023 6/15/2023 5/23/2023 6/12/2023 6/13/2023 6/12/2023 6/12/2023 6/12/2023 6/27/2023				No cost overrun	No Time Overrun		2023000905 2023000650 2023000856 2023000555 2023000228 2023000556 2023000851 2023000584 2023000850 2023000849 2023000234			
14	A-22-01	Augmentation of PTR at 132 KV Medchal SS		06.06.22	06.06.22	05.06.24	05.06.24	1/8/2023	1/8/2023 1/8/2023 1/8/2023	0.197	75%	25%	-	6/23/2023 6/23/2023 6/23/2023				No cost overrun	No Time Overrun		2023000896 2023000894 2023000882			
15	A-22-02	Augmentation of PTR at 132KV Balanagar S		11.10.22	11.10.22	10.10.24	10.10.24	12/6/2022	12/6/2022 12/6/2022	0.040	75%	25%	-	6/23/2023				No cost overrun	No Time Overrun		2023000936 2023000881			
16	A-22-03	Aug. of PTR at Kaitalapur & Bhongir		21.12.22	21.12.22	20.12.24	20.12.24	3/1/2023	3/1/2023 3/1/2023	0.096	75%	25%	-	5/20/2023				No cost overrun	No Time Overrun		2023000241 2023001013			
17	D-16-06	Erection 33KV Bays TSNPDCL						7/26/2016	7/26/2016	0.335				6/15/2023				No cost overrun	No Time Overrun		2023000654			

Sl. No.	L1 WBS Element	Name of the Project	Investment Approval Date	Start Date		Completion Date		Approved Cost as per Investment Approval	Capitalisation upto previous year as per Audited Financial Statements	Capitalisation claimed for the Current Year (Rs. Crores)	Means of Finance			Date of Capitalisation	Addition to Transmission Network			Reason for Cost Overrun	Reason for Time Overrun	Whether Part Capitalisation (or) Full Capitalisation	Physical Completion Certificate	Financial Completion Certificate	Electrical Inspector Certificate
				Scheduled	Actual	Scheduled	Actual				Debt	Equity	Grant		Lines (CKT KM)	Capacity (MVA)	Bays (Nos.)						
34	N-21-02	Non Planned Capital works (O&M) 2021-22		01.04.21	01.04.21	31.03.2024	10/30/2021	4.912	75%	25%		6/1/2022				No cost overrun	No Time Overrun		2022000137	*			
							9/17/2022					5/15/2023							2023000022	*			
							5/23/2023					6/13/2023							2023000586	*			
							1/10/2023					5/22/2023							2023000271	*			
							2/4/2023					5/18/2023							2023000145	*			
							2/10/2023					5/18/2023							2023000141	*			
							1/12/2023					5/16/2023							2023000058	*			
							1/11/2023					5/22/2023							2023000261	*			
							1/18/2023					5/26/2023							2023000416	*			
							2/7/2023					5/18/2023							2023000137	*			
							2/21/2023					6/9/2023							2023000545	*			
							1/19/2023					5/30/2023							2023000451	*			
							1/18/2023					5/16/2023							2023000059	*			
							12/24/2022					6/23/2023							2023000889	*			
							3/16/2023					5/22/2023							2023000264	*			
							12/28/2022					5/15/2023							2023000017	*			
							2/28/2023					5/22/2023							2023000269	*			
3/31/2022	5/25/2023	2023000378	*																				
35	N-22-02	Non Planned Capital works (O&M) 2022-23		01.04.22	01.04.22	31.03.2025	12/5/2022		0.092	75%	25%				No cost overrun	No Time Overrun		2023000371	*				
36	S-22-01	Const. of 33KV bays at 132/33KV Substati		01.04.22	01.04.22	31.03.2024	12/22/2022	0.233	75%	25%		6/26/2023				No cost overrun	No Time Overrun		2023001019	*			
							9/26/2022					5/27/2023							2023000432	*			
							9/26/2022					5/27/2023							2023000431	*			
							12/22/2022					6/9/2023							2023000553	*			
							12/22/2022					6/9/2023							2023000554	*			
37	O-16-01	Rolling stock for FY 2016-2017	-	11.01.2017	11.01.2017	11.01.2018	31.03.2023	39.53	-	-	-					Procurement Delay due to poor response of Bidders		-	-	*			
37	R-16-02	PSDF	-	11.01.2017	11.01.2017	11.01.2018	31.03.2023	59.97	-	-	-					Procurement Delay due to poor response of Bidders		-	-	*			
38	R-15-01	RMI for the year 2015	APERC in its Tariff Order dt.09.05.2014 has approved Rs.98.50 Crores for combined state of Andhra Pradesh under Renovation & Modernization Scheme for the year 2015-16. After careful consideration, TSTRANSCO accords approval for Rs.53.08 Crores (53.89% of 98.50 Crores.	16.09.2015	16.09.2015	15.09.2016	31.03.2023	53.08		0.172	-	-	-			Repeated Tendering		-	-	*			
39	R-17-01	RMI for FY:2017-18 & 2018-19	TSERC in its tariff order dt.01.05.2017 has approved for investment of Rs.50.11Cr under RMI during each of F.Y.:2017-18,2018-19	07.10.2017	07.10.2017	06.10.2018	31.03.2023	100.22		5.024	-	-	-			Repeated Tendering		-	-	*			

Sl. No.	L1 WBS Element	Name of the Project	Investment Approval Date	Start Date		Completion Date		Approved Cost as per Investment Approval	Capitalisation upto previous year as per Audited Financial Statements	Capitalisation claimed for the Current Year (Rs. Crores)	Means of Finance			Date of Capitalisation	Addition to Transmission Network			Reason for Cost Overrun	Reason for Time Overrun	Whether Part Capitalisation (or) Full Capitalisation	Physical Completion Certificate	Financial Completion Certificate	Electrical Inspector Certificate
				Scheduled	Actual	Scheduled	Actual				Debt	Equity	Grant		Lines (CKT KM)	Capacity (MVA)	Bays (Nos.)						
40	R-20-01	RMI for the F.Y:2020-21	TSERC in its tariff order dt.20.03.2020 has approved for investment of Rs.75.67Cr under RMI during each of F.Y:2020-21	16.09.2020	16.09.2020	15.09.2021	31.03.2023	75.6		7.879								Repeated Tendering				*	
41	R-21-01	RMI for the F.Y:202-22	TSERC in its tariff order dt.20.03.2020 has approved for investment of Rs.59.70Cr under RMI during each of F.Y:2021-22	14.03.2022	13.03.2023	13.03.2023	31.03.2023	59.7		1.510								Repeated Tendering				*	
42	Z-21-01	Rolling stock for the F.Y:2021-22	-	17.07.2021		31.03.2022				14.575								Repeated Tendering				*	
43	Z-99-01	Rolling stock for the major Sub-Station equipment	-	23.09.2022		31.03.2023				1.982								Repeated Tendering				*	
44	D-21-22	Shifting of 132KV Nandipet-Nizamabad line(DC Work) (Railway)		23.07.2021	02.10.2021	12.01.2022	12.01.2022	2.93	NA	0.23	NA	NA	DC work	12.1.22						2022000046	2022000420	*	
45	R-17-02	R-17-02.01 : 132 KV Bellampally-Sirpurkhagaznagar tower replacement works		23.04.2018	28.01.2019	29.03.2021	29.03.2021	4.90	NA	0.78	NA	NA	RMI funds							Not completed	NA	*	
		Total						395.930		61.873													

Note : * Electrical Inspector Certification is exempted by the Govt. of TS, as per the G.O. Ms.No.10, Dt:09.05.2022 issued by Energy

Scheme wise Actual Capitalization for FY 2022-23 (400kV Lift Irrigation Schemes)

FY: 2022-23

SI No	Name of the project	Investment approval date	Start Date		Completion Date (400kV works)		Approved cost as per Investment approval (Rs.in Crs)	Capitalization upto previous years (As per audited Financial Statements) (from FY 2016-17) (Rs.in Crs)	Capitalization claimed for the current year (Rs.in Crs)	Means of Finance (%)			Date of Capitalization	Addition to Transmission Network (only 400kV wing data)			Reasons for cost overrun	Reasons for time overrun	Whether part or Full Capitalization	Physical Completion Certificate (400kV works only)	Financial Completion Certificate (400kV works only)	Electrical Inspector Certificate
			Schedule	Actual	Schedule	Actual				Debt	Equity	Grants		Lines (CKM)	Capacity (MVA)	Bays (No.)						
1	Indira Sagar Rudrammakota LI scheme (L-13-01)	-	-	Mar' 2014	-	Aug' 2017	-	109.18	0.010	-	-	100	10.08.2017	0	0	0	NA	-	-	2019000432 2022000442	0202000780 0202001837	Exempted by GoTS as per Energy (PR.II) Department, G.O.Ms.No. 10, Dt.09.05.20 22
2	Sita Rama LI Scheme (L-18-04)	-	-	Sep' 2018	-	May, 2023	-	99.07	164.650	-	-	100	30.06.2022	0	0	0	NA	-	Part	2020000587 2021000024 2021000025 2021000026 2021000177 2022000392 2023000327 2023000328 2023000329 2023000354	0202000375 0202100164 0202100163 0202100165 0202100166 0202200361 02023000423 02023000421 02023000422 02023000420	
Total								208.25	164.66													

NA:Not applicable as the investment is within the approved scheme cost.

Lift Irrigation Schemes -- Actual Capitalisation for FY 2022-23

FY : 2022-23

Sl. No.	LI WBS Element	Name of the Project	Start Date		Completion Date		Approved Cost as per Investment Approval	Capitalisation upto previous year as per Audited Financial Statements	Capitalisation claimed for the Current Year(FY 2022-23) (Rs. Crores)	Means of Finance			Date of Capitalisation	Addition to Transmission Network			Reason for Cost Overrun	Reason for Time Overrun	Whether Part Capitalisation (or) Full Capitalisation	Physical Completion Certificate	Financial Completion Certificate	Electrical Inspector Certificate
			Scheduled	Actual	Scheduled	Actual				Debt	Equity	Grant		Lines (CKT KM)	Capacity (MVA)	Bays (Nos.)						
1	D-15-03 (revised)	400kV Supply to Myadaram SS /Ramadugu SS/tippapur SS	Sep'16		Jul'19	Jan'20	889.99	771.62	23.26		Grant		31.03.2019					Part Capitalisation	2019000619 2019000618 2020000420 2020000425	0202001108, 0202001113 0202000738, 0202000743 0202000755, 0202001108 0202001113, 0202000738 0202000743, 0202000755	Exempted by GoTS as per Energy (PR II) Department, GO Ms No. 10 Date 09- 05-2022	
2	L-05-02	Extn of 220&132kV Supply to Godavari LIS (Gandiramaram,Bommakur,Rangara opally,Dharmasagar,Salivagu SS,Connected Lines and Bays)	Apr'17		Jul'21	Oct'19	119.59	57.49	0.08		Grant		05.02.2018, 25.10.2019, 20.08.2018, 05.02.2018, 06.11.2017, 06.11.2017, 10.01.2018, 10.01.2018, 25.10.2019, 10.01.2018, 27.04.2011, 30.03.2022					Part Capitalisation	2019000431 2019000435 2019000438 2019000439 2019000440 2019000443 2019000528 2019000531	0202000171, 0202001456 0202001461, 0202000064 0202000056, 0202000095 0202000083, 0202000089		
3	L-11-01 (revised)	Extn of Supply@132kV Thotpaly-Gourvly LI (Huzurabad to Regonda Line, LILO to Huzurabad,Huzurabad SS)	Nov'14		Dec'16	Sep'19	43.733	36.83	-0.030		Grant		31.03.2020, 31.03.2017, 19.07.2017					Part Capitalisation	2020000368	0202000760 0202001146		
4	L-14-01	Lift Irrigation Scheme at Jogapur	Apr'17		Jul'18	May'18	45.1209	12.17	0.03		Grant		31.03.2019					Part Capitalisation	2019000451 2019000449 2019000447	0202000769		
5	L-15-01 (new)	Extn of Supply @ 220kV to AMRP LLC LIS	Jan'16		Apr'16	Jan'18	7.99	2.53	-0.035		Grant		23.01.2018, 17.01.2018, 03.10.2016,17.01.2018					Part Capitalisation	2019000849 2019000824 2021000038 2019000823	202000962 202000963 202000965 202000966		
6	L-15-02	400 kV Supply to Tippapur (Ramadugu to Tippapur Line)	Jun'17		Sep'18	Apr'19	158.28	155.09	-1.42		Grant		31.03.2020					Part Capitalisation	2019000474	0202000788		
7	L-15-03 (revised)	400kV Supply to Myadaram (Ramadugu to Medaram Line)	Aug'16		Aug'17	Nov'18	66.48	54.7	0.000		Grant		31.03.2019					Part Capitalisation	2019000607 2019000619	020200079		
8	L-15-04	400kV Supply to Ramadugu Mandal (LILO of Both SCCL -Gajwel CKTS to Ramadugu)	Aug'16		Dec'17	May'18	113.96	88.35	-0.24		Grant		31.03.20219					Part Capitalisation	2019000615	0202000793		
9	L-16-04	Extn of 132 kV Supply to Kanakapur PCLI	May'17		May'18	Nov'18	31.73	19.23	0.01		Grant		31.03.2019					Part Capitalisation	2020000367 2019000658 2019000663 2019000367	0202001153 0202001154 020200079 0202000802 0202000801		
10	L-16-05	Kaleshwaram Lift Irrigation Project (Tukkapur SS & Bays, Chandulapur SS & LILO of Gajwel -Bplapally to Chandulapur SS and Sundilla, Annaram,Medigadda, Malakpet SS, Connected Lines and Bays)	Mar'17		Dec'18	Jun'20	1336.07	1134.38	10.67		Grant		31.03.2019					Part Capitalisation	2019000480 2019000482 2019000472 2019000483 2019000469 2019000444 2019000478 2019000481 2020000450 2021000363 2021000359 2020000124 2019000536	0202100330, 0202100370 0202000787, 0202000783 0202100068, 0202000771 0202000766, 0202000761 0202000758, 0202000750 0202000732		
11	L-17-01 (revised)	Chanaka - Korata Lift Irrigation Scheme	Mar'17		Jun'18	May'19	43.49	24.48	0.09		Grant		31.03.2019					Part Capitalisation	2019000659 2019000661 2020000375 2019000662	0202001164 0202001167 0202000727 0202000716 0202000705 0202000700		

Sl. No.	L1 WBS Element	Name of the Project	Start Date		Completion Date		Approved Cost as per Investment Approval	Capitalisation upto previous year as per Audited Financial Statements	Capitalisation claimed for the Current Year(FY 2022-23) (Rs. Crores)	Means of Finance			Date of Capitalisation	Addition to Transmission Network			Reason for Cost Overrun	Reason for Time Overrun	Whether Part Capitalisation (or) Full Capitalisation	Physical Completion Certificate	Financial Completion Certificate	Electrical Inspector Certificate
			Scheduled	Actual	Scheduled	Actual				Debt	Equity	Grant		Lines (CKT KM)	Capacity (MVA)	Bays (Nos.)						
12	L-17-03	FFC	Feb'18		Nov'18	Jun'20	186.89	101.32	0.29	Grant		31.03.2020, 31.03.2021						Part Capitalisation	2021000073 2021000036 2020000633 2020000632 2021000044 2020000631	0202100072 0202000690 0202000695 0202000688 0202100073 0202100075		
13	L-16-03	Erection of bulk load works of 400/11KV Tukkapur LI(Package 12) under Kaleshwaram Lift Irrigation Project (Dr.B.R.P.C.L.I.S) (Chandulapur to Tukkapur Line, Narsapur to Tukkapur Line, Tippapur to Chandulapur Line)	Jun'17		Dec'18	Mar'20	219.28	183.57	1.20	Grant		31.03.2020						Part Capitalisation	2020000134 2020000135 2020000495 2020000134 2020000577 2019000433	0202001724		
14	L-18-02	220/11 kv SS at Bheemghanpur	Jun'18		Dec'18	Aug'19	23.99	10.87	0.05	Grant		14.08.2019							2012000534	0202000397		
15	L-18-03	Thumilla LIS	Jul'18		Dec'18	Nov'18	28.17	16.85	0.16756	Grant		19.11.2018, 31.08.2019						Part Capitalisation	2020000473 2019000923 2021000362	0202001656 0202001654		
16	L-13-02	Kaleshwaram Lift Irrigation Scheme OLD(kannepalli)	Jan'18		Jun'20	Jun'20	28.78	17.35	0.510	Grant		31.03.2021							2021000346 2021000345 2021000351			
17	L-17-04	Akkaram and Markook	Aug'18		May'19	Apr'20	197.66	116.775	1.434	Grant		26.04.2020, 16.05.2020							2021000361 2021000358 2021000360 2021000302 2021000301 2021000299			
18	L-14-02	Dr B.R.Ambedkar Pranahitha LIS Pkg-20,21,22 (Manchippa,Sarangapur,Yacharam Thanda SS, Connected Lines and Bays)	Apr'19		May'22	Dec'23	266.47	67.74	-0.380	Grant		31.03.2022			120	3						
19	D-17-04 (new)	132 kV DC/SC line from Gangadhara LIS	Dec'09		Dec'10	July'12	7.99	0.56	-0.010	Grant		09.02.2019										
20	I-17-05	Diversion of 3 No's 220 kV Lines-Anjanagiri	May'18		Nov'18	Dec'20	18.23	1.1089	-0.07135	Grant		09.12.2020										
21	I-19-02	132/11 kV RS Ghanpur	Mar'20		Sep'20	Mar'22	22.43	0.89	16.20	Grant		30.03.2022, 07.02.2022, 25.05.2022			32	2						
22	D-11-05	132/11 kV SS at Gouavelli	Nov'15		Mar'22	Mar'22	25.97	0.00	20.69	Grant		31.03.2023							2020000833			
23	L-19-01	Mentrajally	Mar'20		Feb'21	Mar'22	37.4	0.00	17.05	Grant		31.03.2023										
24	L-18-01	Devannapeta	Sep'20		Sep'21	Jun'23	138.67	0.00	0.00	Grant						2						
25	L-16-01	Extn of 132kv Dubbathanda BRLI							0.002	Grant												
26	L-13-01	C.M.D of 220 MVA @ IND SAGAR RUDRA LIS							0.01	Grant												
Total:							4058.36	2873.90	89.60				0.00	152.00	7							