

**Transmission Corporation of Telangana Limited  
(State Transmission Utility)**



**FILINGS FOR  
ANNUAL PERFORMANCE REVIEW (TRUE UP)  
OF TRANSMISSION BUSINESS  
FOR FY 2020-21 W.R.T.  
TRANSMISSION TARIFF ORDER DT.20.03.2020**

**December, 2021**

**BEFORE THE HONOURABLE TELANGANA ELECTRICITY REGULATORY  
COMMISSION**

AT ITS OFFICE AT V<sup>th</sup> FLOOR, SINGARENI BHAVAN, RED HILLS, HYDERABAD.

FILING NO. \_\_\_\_\_/2021  
CASE NO. \_\_\_\_\_/2021

**In the matter of:**

Filing of the Annual Performance Review (True up) for the FY 2020-21 of Transmission Business of TSTRANSCO w.r.t. Transmission Tariff Order dated 20.03.2020 for the 4<sup>th</sup> 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 FY 2020-  
21 OF TRANSMISSION BUSINESS OF TSTRANSCO**

I, D. Prabhakar Rao, S/o D. Pashupathi Rao, 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 FY 2020-21. 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** *The*

**VERIFICATION:**

I, the above named Deponent solemnly affirm at Hyderabad on this <sup>29<sup>th</sup></sup> day of **December, 2021** 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  
BGA, FCS  
COMPANY SECRETARY, TSTRANSCO,  
VIDYUT SOUDHA, HYDERABAD-500 082.

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**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 4<sup>th</sup> MYT (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 4<sup>th</sup> Control Period before 31<sup>st</sup> December of the following year.
3. It is to submit that TSTRANSCO filed Annual Performance Review (True up) for the FY 2019-20 for Transmission Business dt. 20.03.2021 and the Hon'ble Commission issued order dt. 02.09.2021.
4. TSTRANSCO filed Review Petition before TSERC dt. 02.12.2021 w.r.t. the order dt. 02.09.2021 on Annual Performance Review (True up) for FY 2019-20 for Transmission Business.

5. TSTransco herein files petition on Annual Performance Review (True up) for the FY 2020-21 for Transmission Business including the information in the booklet and in standard formats.
6. The Licensee submits the information in compliance with the Directive No. 6 of the MYT Tariff order dt. 20.03.2020 along with the present petition.
7. The operational Performance parameters achieved by TSTRANSCO for the FY 2020-21 are as follows.
  - i) Transmission System Availability: 99.9%
  - ii) Transmission System Loss: 2.57%
8. In the aforesaid circumstances, the applicant respectfully prays Hon'ble TSERC to
  - a) Take the accompanying petition on Annual Performance Review (True up) for the FY 2020-21 for Transmission Business on record.
  - b) Grant suitable opportunity to TSTRANSCO within a reasonable timeframe to file additional information if required.
  - c) Consider the facts and circumstances of the present petition and pass an appropriate order.

TRANSMISSION CORPORATION OF TELANGANA LIMITED  
(APPLICANT)

Through

Place: HYDERABAD  
Dated: 29<sup>th</sup>, December, 2021

  
**D. PRABHAKAR RAO**  
CHAIRMAN AND MANAGING DIRECTOR

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## 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 29<sup>th</sup> 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 2<sup>nd</sup> 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 regulation, all the regulations framed by erstwhile APERC will continue to apply for the state of Telangana. Subsequently, TSERC vide Telangana Official Gazette has issued its first regulation, Regulation No.1 of 2004 (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 for 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 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 - Analysis of Financial Performance for FY 2020-21.
- ii. Analysis of Performance of Transmission business for FY 2020-21.

## **2 True Up - Analysis of Performance from FY 2020-21:**

Transmission Corporation of Telangana Limited (TSTRANSCO) had filed 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 Hon'ble Telangana State Electricity Regulatory Commission (TSERC) on 30.11.2019 for approval of Aggregate Revenue Requirement (ARR), Filing of Proposed Tariff (FPT) in respect of Transmission Business for 4th MYT Control Period from FY 2019-20 to FY 2023-24.

The Petition was admitted by Hon'ble TSERC and assigned O. P. No. 3 of 2019. Hon'ble TSERC, in exercise of its powers under the Electricity Act, 2003 and Andhra Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Transmission of Electricity) read with 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, Hon'ble TSERC has issued ARR and Transmission Tariff Order for the 4th Control period (i.e., FY 2019-20 to FY 2023-24 ) 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 Control period.

In compliance to the directive No.3, TSTRANSCO hereby submits the following petition for Annual Performance Review (APR) relating to Transmission Business for FY2020-21:

- 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 during FY 2020-21.

**i. Operation and Maintenance (O&M) Expenses:**

The Actual O&M Expenses include Employees Cost, Administrative & General Expenses, Repairs & Maintenance Expenses for FY 2020-21.

**Variance in O&M Expenses:**

(Rs. in crores)

Particulars	FY 2020-21		
	Tariff Order	Actuals	Deviation
Gross O&M Costs	1025.51	865.67	-159.84
Employees Cost		773.98	
Administrative & General Expenses		42.51	
Repairs & Maintenance Expenses		49.18	
Less: O&M Expenses Capitalised	160.31	111.46	-48.85
Net O&M Expenses	865.20	754.21	-110.99

- Net O&M Expenses for the year have been decreased by Rs.110.99 Crores.
- The O&M cost as per Tariff Order is arrived/computed based on O&M approved norms. Whereas, the Company has submitted the actual O&M cost as per audited accounts of FY 2020-21.
- Capitalisation of Expenses have been decreased due to i) Decrease in capitalisation during the year and ii) Change of policy in capitalisation of Admin. & General expenses as per IND AS 12, as commented by C&AG during supplementary Audit of FY 2019-20.

**ii. Depreciation:**

In Compliance with Hon'ble TSERC vide Directive No.5, Company has changed its depreciation policy/rates duly charging depreciation as per CERC rates instead of rates as notified by Ministry of Power (MoP) with effect from FY 2020-21.

(Rs. in crores)

Particulars	FY 2020-21		
	Tariff Order	Actuals	Deviation
Depreciation	890.54	857.78	-32.76

- Actual depreciation amount has been decreased due to reduction in capitalisation during the year on account of Covid-19 pandemic.
- Further, it is pertinent to mention that, the Company is claiming depreciation on Consumer Contribution Assets as an expense and also considered as amortization of Consumer Contribution in Non Tariff Income (NTI). Hence, Hon'ble Commission is requested to consider the same.

**iii. Taxes on income:**

(Rs. in crores)

Particulars	FY 2020-21		
	Tariff Order	Actuals	Deviation
Income Tax	68.21	69.45	1.24

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. In fact, the Company has actually paid Income Tax amounting to Rs. 78.78 Crores as per Tax Audit for FY 2020-21.

**iv. Return on Capital Employed (RoCE):**

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

(Rs. in Crores)

Particulars	FY 2020-21		
	Tariff Order	Actuals	Deviation
<b>Assets</b>		18892.35	
Original Cost of Fixed Assets (OCFA)		17550.32	
Additions to OCFA		1342.03	
<b>Depreciation</b>		6181.40	
Opening Balance		5323.62	
Depreciation during the year		857.78	
<b>Consumer Contributions</b>		3499.67	
Opening Balance		2876.94	
Additions during the year		622.73	
Working Capital		92.00	
Change in Rate Base		-69.24	
Regulated Rate Base (RRB)	9205.27	9372.52	167.25
Cost of Debt (Interest & Finance Charges)	680.04	840.22	160.18
Return on Equity @14% on 25% of RRB	322.18	328.04	5.85
Return on Capital Employed (RoCE)	1002.22	1168.25	166.03

- In the Regulated Rate Base (RRB) calculation, the Company has considered the actual asset addition to fixed assets duly tallying with the books of accounts. Hon'ble TSERC is requested to consider for allowing the entire capitalization amount during the year in RRB calculation.
- Depreciation for the year has been calculated under straight line method by considering the depreciation rates as notified in CERC (Terms and Conditions of Tariff) Regulations, 2019.
- The Return on Capital Employed (RoCE) for the year is computed, adding the interest expenditure at actuals (net of interest capitalized) and Return on Equity (RoE) @14% on 25% of actual Regulated Rate Base.
- The Return on Capital Employed (RoCE) has been increased by Rs.166.03 Crores when compared to approved tariff/RoCE which is mainly due to considering lower accumulated Opening Gross block in the Tariff order for 4th MYT period by the Hon'ble TSERC on account of withholding of 5% of Capitalisation of the entire 3rd MYT period (i.e., from FY 2014-15 to 2018-19).

**v. Revenue:**

The following is the position of Revenue for FY 2020-21:

(Rs. in crores)

Particulars	FY 2020-21		
	Tariff Order	Actuals	Deviation
Revenue from Transmission Charges	2323.95	2353.88	29.93
Other Income	502.21	444.53	-57.68
Total:	2826.16	2798.41	-27.75

- The total revenue of the Company for the year has been decreased to the extent of Rs.27.75 Crores due to decrease in Non Tariff Income (Other income). The decrease in Non Tariff income is mainly on account of amortisation of consumer contribution and less capitalisation of LIS works during FY 2020-21 due to Covid-19 pandemic.
- Further, it is pertinent to mention that the Company is claiming depreciation on Consumer Contribution assets as an expense and also Non Tariff Income as an amortization of Consumer Contribution.

**vi. Aggregate Revenue Requirement (ARR) True up (Tariff Order Vs Actuals) for FY 2020-21:**

The Total Aggregate Revenue Requirement (ARR) approved by Hon'ble Commission for the year is Rs.2826.17 Crores, as against actual ARR of Rs.2849.71 Crores. Whereas, the company has received Rs.2798.41 Crores by way of revenue including other income/non tariff income. Thereby the company has incurred a deficit amount of Rs.51.29 Crores during FY 2020-21.

(Rs. in crores)

Particulars	FY 2020-21		
	Tariff Order	Actuals	Deviation
Expenditure	1984.26	1792.90	-191.36
O&M Costs	1025.51	865.67	-159.84
O&M Carrying Costs	0.00	0.00	0.00
Depreciation	890.54	857.78	-32.76
Taxes	68.21	69.45	1.24
Special Appropriation	0.00	0.00	0.00
Other Expenses	0.00	0.00	0.00
Less: Expenses Capitalised	160.31	111.46	-48.85
IDC Capitalised	0.00	0.00	0.00
O&M Exp. Capitalized	160.31	111.46	-48.85
Net Expenditure	1823.95	1681.45	-142.50
Return on Capital Employed (ROCE)	1002.22	1168.25	166.03
Gross ARR	2826.17	2849.71	23.54
Non Tariff Income	502.21	444.53	-57.68
Revenue from Tariff	2323.95	2353.88	29.93
Total Revenue	2826.16	2798.41	-27.75
Surplus/(Deficit)	-0.01	-51.30	-51.29

It could be seen from the above that, (i) the net expenditure of the Company has been decreased by Rs.142.50 Crores mainly due to decrease in O&M cost (ii) RoCE has been increased by Rs.166.03 Crores and there by the Gross ARR increased to the extent of Rs.23.54 Crores (iii) the total revenue of the Company decreased by Rs.27.75 Crores due to decrease in Non Tariff Income on account of less amortisation of Consumer Contribution during the year. In view of the above factors, the Company has incurred a deficit of Rs.51.29 Crores for FY 2020-21.

In view of the factual figures and reasons explained against the deficit incurred by TSTRANSCO for FY 2020-21 in compliance to the New Directive No.3 towards Annual Performance Review, Hon'ble commission is requested to consider the claim of Rs.51.29 Crores by way of special appropriation.

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## **ANNEXURE – I: PLANS FOR SYSTEM PERFORMANCE**

### **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:**

Typical Full load details along with curves for three seasons representing Peak demand met day and Peak demand met on weekend day for the year 2020-21 follows: -

#### **For 2020-21**

<b>Sl. No</b>	<b>Season</b>	<b>Date</b>
1	Typical week end day in summer	20 <sup>th</sup> March, 2021
2	Typical full load day in summer	26 <sup>th</sup> March, 2021
3	Typical week end day in monsoon	9 <sup>th</sup> August, 2020
4	Typical full load day in monsoon	9 <sup>th</sup> August, 2020
5	Typical full load day in winter	26 <sup>th</sup> February, 2021
6	Typical week end day in winter	27 <sup>th</sup> February, 2021

The highest system peak demand of 13688 MW was recorded on 26.03.2021 @ 12:22 PM for the FY 2020-21.

A brief analysis of system demand for all seasons of the year 2020-21 is furnished in the following sections:

#### **For 2020-21**

<b>PEAK GRID DEMAND</b>				
<b>SEASON</b>	<b>Max MW</b>	<b>Max Date</b>	<b>Min MW</b>	<b>Min Date</b>
SUMMER	13688	26.03.2021	4065	28.04.2020
MONSOON	12908	09.08.2020	2656	14.10.2020
WINTER	13452	26.02.2021	3892	28.11.2020

### **3 Summer season**

#### **For 2020-21**

The highest System Peak Demand recorded during summer season is 13688 MW on 26.03. 2021. From the system load curve (vide annexure 1.a) 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 8743 MW (minimum on 26.03.2021) throughout the day and the maximum demand recorded was 13688 MW. The **demand variation in summer was between 4065 MW and 13688 MW**. The minimum system demand met on 28<sup>th</sup> April 2020 was 4065 MW, and is the lowest recorded in this season.

### **4 Monsoon season**

#### **For 2020-21**

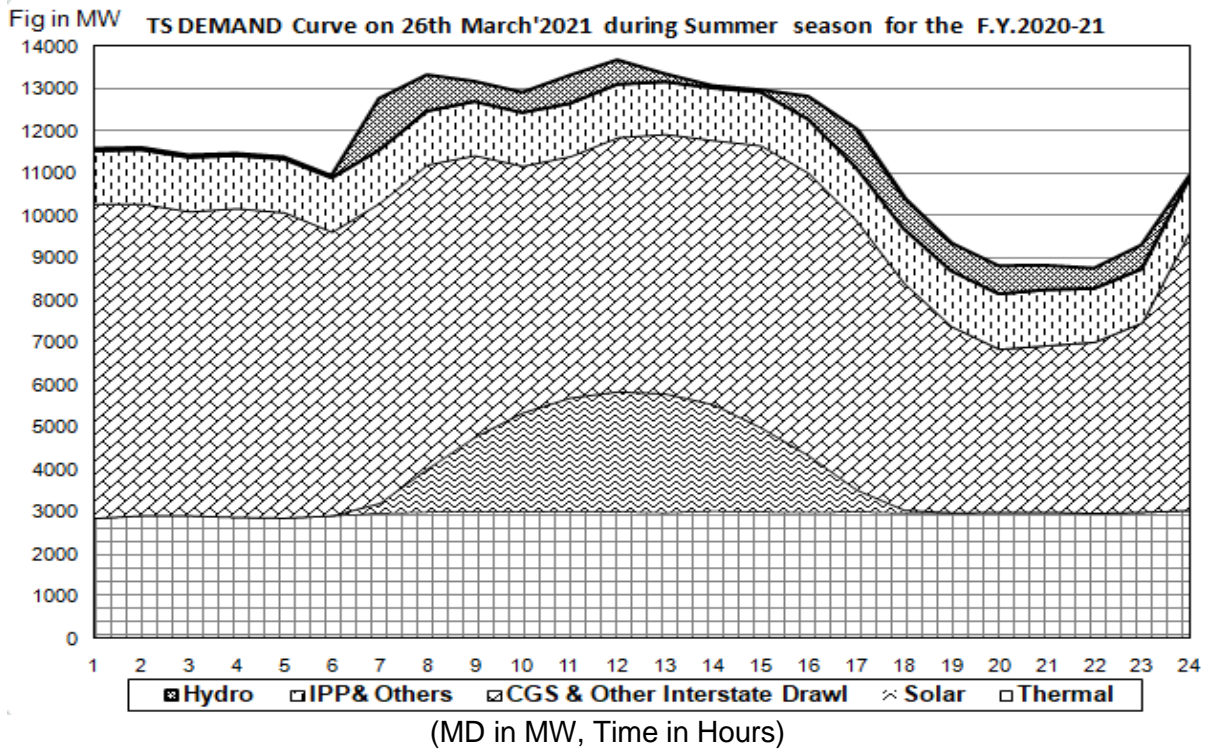
The highest System Peak Demand recorded during monsoon season is 12908 MW on 09.08. 2020. From the system load curve (vide annexure 1.b) on the day when the **highest** system peak was recorded during monsoon season, it can be seen that the system load is continuously maintained above 7621 MW (minimum on 09.08.2020) throughout the day and the maximum demand recorded was 12908 MW. The **demand variation in monsoon was between 2656 MW and 12908 MW**. The minimum system demand met on 14<sup>th</sup> October 2020 was 2656 MW, and is the lowest recorded in this season.

### **5 Winter season**

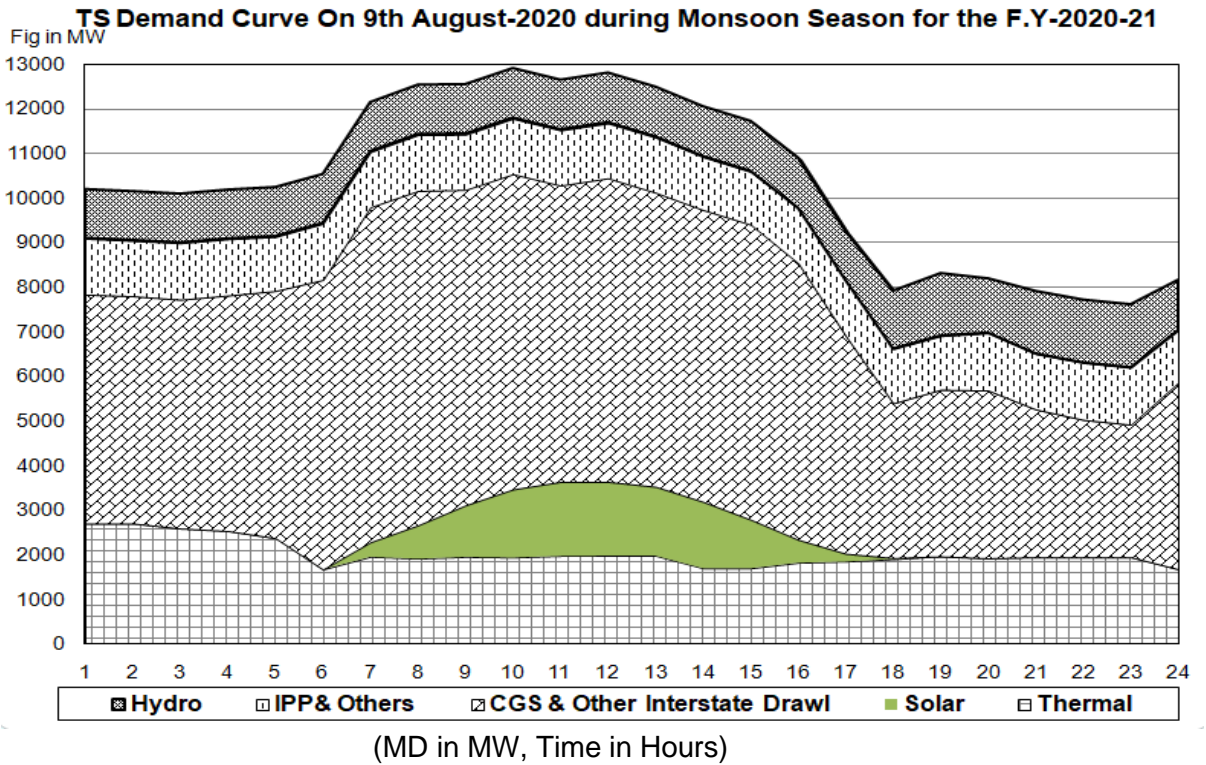
#### **For 2020-21**

The highest System Peak Demand recorded during winter season is 13452 MW on 26.02.2021. From the system load curve (vide annexure 1.c) 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 7587 MW (minimum on 26.02.2021) throughout the day and the maximum demand recorded was 13452 MW on February 26<sup>th</sup> 2021. The **demand variation in dry winter was between 3892 MW and 13452 MW**. The minimum system demand met on 28<sup>th</sup> November 2020 was 3892 MW, and is the lowest recorded in this season.

### Annexure 1.a

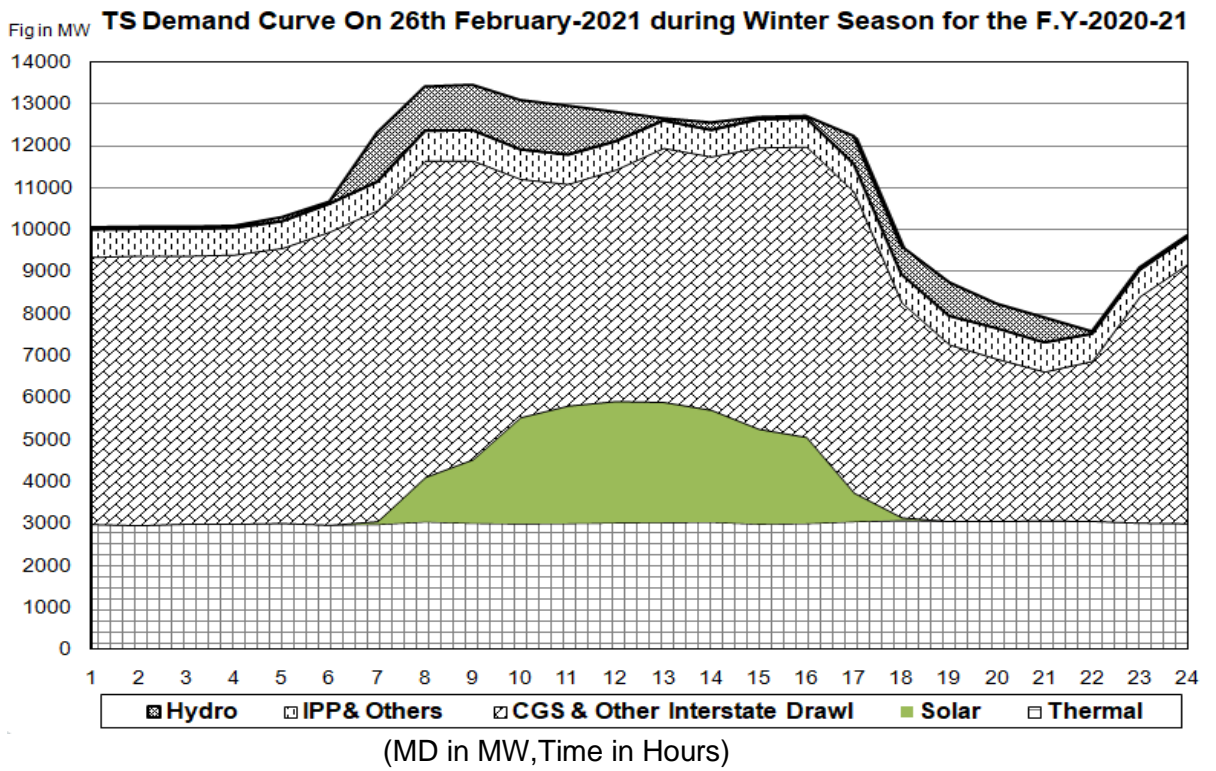


### Annexure 1.b





### Annexure 1.c



## LOAD DURATION CURVES

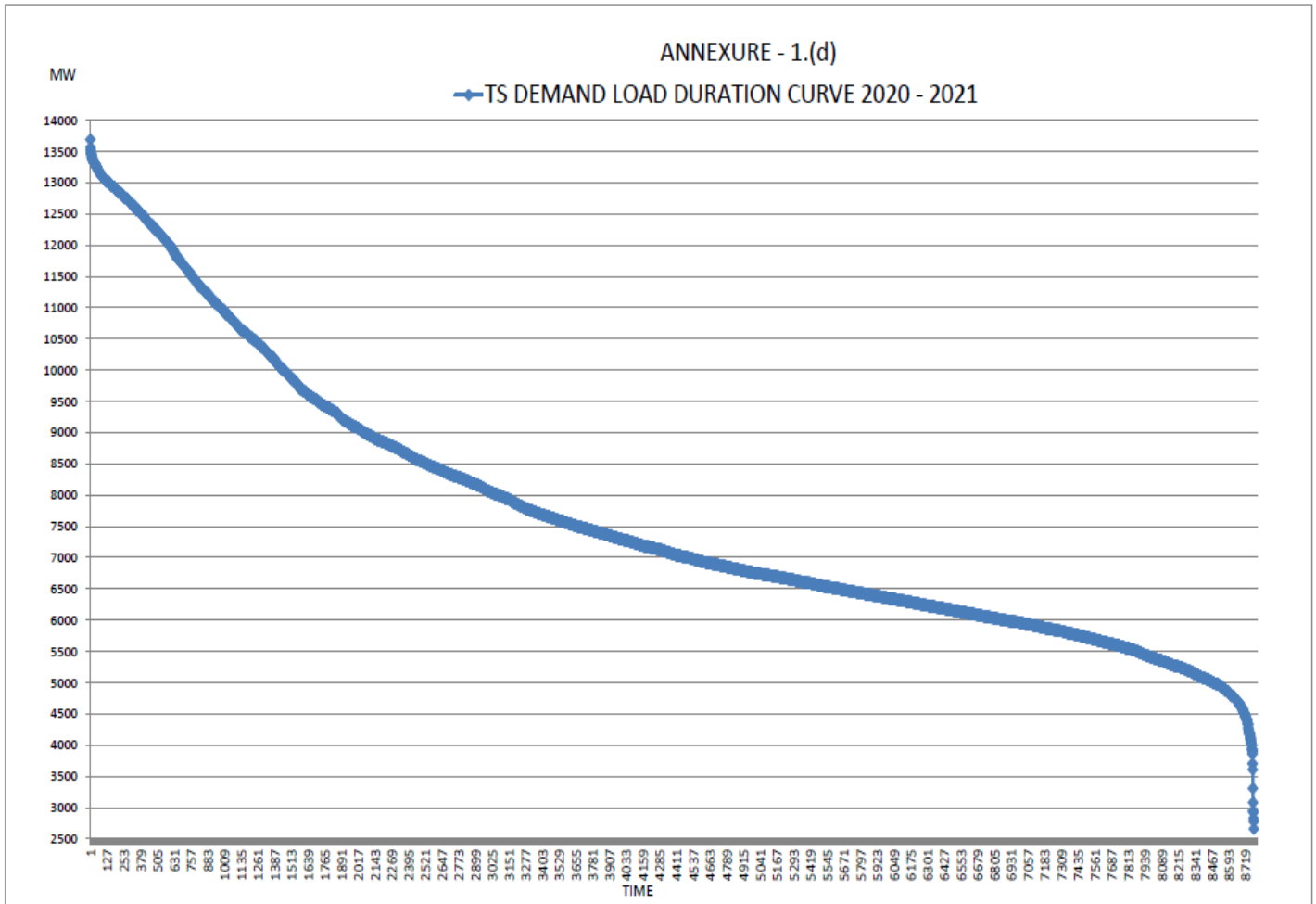
### 1. Requirement in the guidelines

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 2020-2021 is 100% of the total energy requirement. Load duration curve for the FY 2020-2021 is shown at Annexure 1(d).

#### Annexure 1(d)



## **PLANS FOR CAPITAL EXPENDITURE**

### **1. Requirement in the Guidelines.**

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

### **2. TSTransco's Response.**

#### **A. 220kV & 132kV Schemes:**

##### **(a) Write up of completed works:**

#### **1. Erection of 220/33 kV Sub-Station at Chanchalguda in Hyderabad District**

- The scheme is formulated to “reduce overloading of PTRs at 220/132/33 kV Sub-Station, Chandrayangutta and 132/33 kV Sub-Station Imlibun, to provide alternate source of supply to the 33/11 kV Sub-Stations, to avoid load shedding and also to cater to the upcoming loads.”
- The administrative approval was accorded vide T.O.O (CE-Transmission) Ms. No. 26 Dated: 27.02.2017, Amount: Rs.8912.00 Lakhs
- The scheme envisages the following work
  - (i) Erection of 220/33 kV GIS substation at Chanchalguda with 3 X 50 MVA PTRs
  - (ii) Erection of 220 kV DC line with 1000 Sqmm 220 kV UG cable for LILO of Chandrayangutta - Imlibun line (UG Cable) to the proposed 220/33 kV GIS substation, Chanchalguda
- The investment approval No. CRN TS/TST/220/33 KV, GIS, Chanchaguda/ Invest.Approval No.7/17-2017-18.date. August-2017, Amount. Rs.8912.00 Lakhs.
- Funding tie up with M/s REC Ltd & amount Rs. 80.20 Crores
- Purchase Order Date: 28.02.2018 & Amount: Rs. 6374.00 Lakhs.
- Target date of Commissioning :03.10.2019
- Date of commission:31.03.2021
- Delay due to procurement of Power Transformers and Transport of Power Transformer Bushings from Russia.

#### **2. Erection of 132/33 kV Sub-Station at Chinna Shankarampet in Medak District**

- The scheme is formulated under “System Improvement Transmission Scheme”.

- The administrative approval was accorded vide T.O.O (CE-Construction) Ms. No. 124, Dt: 19.08.2017, Amount: Rs.1600.00Lakhs
- The scheme envisages the following work
  - (i) Erection of 132/33 kV Sub-Station at Chinna Shankarampet in Medak District with 2 X 10/16 MVA PTRs.
  - (ii) Erection of 132 kV DC line for LILO of 132 kV Chegunta- Yeldurthy DC/SC line at the proposed 132/33 kV Chinna Shankarampet Sub-Station- 6KM
- Funding tie up with M/s. REC Ltd & amount Rs.1396.33 Lakhs
- Purchase Order Date:18.09.2018 & Amount: Rs.929.56 Lakhs
- Target date of Commissioning :17.05.2020
- Date of commission:23.01.2021
- Delay due to Right of Way in the line corridor.

**3. 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**

- The scheme is formulated “to provide start-up supply to Bhadradi Thermal Power Station (4X270 MW) under Black start restoration procedure & alternate evacuation of power from BTPS (4x270 MW).
- The administrative approval was accorded vide T.O.O(CE-Construction) MS.No.401, Dated:08.07.2019, Amount: Rs.6656.00 Lakhs.
- The scheme envisages the following work
  - (i). Supply, Erection, Testing & Commissioning of 400/220 kV, 1X315 MVA Auto Transformer along with PTR Bays and Bus coupler including civil works at BTPS.
  - (ii) Erection of 220 KV DC line from 220/132/33 KV Manuguru SS to 400 KV Bhadradi Thermal Power Station switch yard.
  - (iii) Erection of 220 kV Bays (2 Nos at 220 kV Manuguru, 2 Nos at BTPS).
- The investment approval No. CRN No. TST/TS Erection of 400/220 KV 1x315 MVA ICT at BTPS switch yard Manuguru& Erection of 220 KV DC line from 220/132/33 KV Manuguru SS to 400 KV BTPS switch yard Approval/No.06/2019-20, date, 22.12.2019, Amount.Rs.6656.00 Lakhs
- Funding tie up with M/s REC Ltd & amount Rs.5991.00 Lakhs

- Purchase Order Dates:15.10.2019, 18.11.2019 &Amount: Rs.2849.00 Lakhs
- Target date of Commissioning:17.05.2021
- Date of Commission:12.03.2021

#### **4. 2nd circuit stringing on 132kV DC/SC line from 220kV Durshed SS to 132kV Water Works SS**

- The scheme is formulated under “System Improvement Transmission Scheme”.
- The administrative approval was accorded vide T.O.O (CE-Construction-I) MS.No.08, Dated: 26.02.2014, Amount: Rs.243.00Lakhs.
- The scheme envisages the following work
  - (i) Erection of 132 kV 2nd circuit line on under construction 132 kV DC/SC line from 22kV Durshed SS to 132kV Water Works Karimnagar Town SS- 7.5KM.
  - (ii) 132 kV Bay extension at 220 kV Durshed substation- 1 No.
  - (iii) 132 kV Bay extension at 132 kV Water Work substation Karimnagar Town- 1No.
- Funding tie up with M/s. REC Ltd & amount Rs.218.25 Lakhs
- Purchase Order Date:03.03.2018 & Amount: Rs.141.05 Lakhs
- Target date of Commissioning :02.09.2019
- Date of Commission:27.02.2021
- Delay due to severe Right of Way in the town area.

#### **5. 132/33 kV SS at Nimmapalli with connected line in Karimnagar Dist**

- 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-Transmission) Ms. No.161, Dated: 26.08.2015, Amount Rs.1970.00 Lakhs.
- The scheme envisages the following work
  - (i) Erection of 132/33KV Substation at Nimmapalli with PTR capacity of 2x10/16 MVA
  - (ii) 132KV DC/SC line from the proposed 220KV SS Sircilla to the proposed 132KV SS at Nimmapalli-21KM.

- Funding tie up with M/s. REC Ltd & amount Rs. 1770.80 Lakhs
- Purchase Order Date:23.03.2018 & Amount: Rs. 1510.41Lakhs
- Target date of Commissioning :22.09.2019
- Date of Commissioning of line: 29.04.2021
- Delay due to severe Right of Way in the line corridor.

**6. Providing of 33KV Features at 220/11KV Bheemghanpur SS in Jayashankar Bhupalpally District.**

- The scheme is formulated “to meet the Agricultural loads under the scheme of providing 9:00 Hrs supply during day time, load growth of Warangal District head quarters and upcoming industrial loads”.
- The administrative approval was accorded vide T.O.O (CE-Transmission) Ms. No. 62 Dated: 25.04.2016, Amount Rs.573.00 Lakhs.
- The scheme envisages the following work
- Providing of 33KV Features at 220/11KV Bheemghanpur SS in Jayashankar Bhupalpally District with 1x50 MVA PTR
- Funding tie up with M/s. PFC Ltd & amount Rs. 493.98 Lakhs
- Purchase Order Date:05.05.2017 & Amount: Rs.445.6 Lakhs
- Target date of Commissioning :04.11.2018
- Date of Commissioning of line: 08.07.2020
- Delay due to supply of Power Transformers.

**7. 220/132/33KV SS at Kothur in Mahaboobnagar District.**

- The schemes are formulated under “System Improvement Transmission Scheme” covered in 765 kV Wardha - Hyderabad Link Transmission Scheme.
- The administrative approval was accorded vide T.O.O. (CE-400kV) Ms.No. 105, Dated: 15.07.2017, Amount: Rs.1279.05 Cr.
- The scheme envisages the following works
- 220/132/33 kV Kothur Sub Station with 2x160 MVA + 2x80 MVA PTRs.
  - (i) LILO of one ckt of 220kV Mamidipally - Shadnagar at Proposed Kothur 220kV SS – 3 KM.

(ii) LILO of one ckt of 220kV Shamshabad - proposed 400/220/132kV Kethireddypalli (Manikonda) SS at Proposed Kothur 220kV SS – 13KM

- The investment approval No. CRN No.TST/TS/765kV Hyderabad-Wardha Link Transmission Scheme – Erection of 400kV SS at Maheswaram and Manikonda with connected Transmission network investment proposal revised approval/ No.01/17/2017 for an amount of Rs:972.42 Crores
- Funding tie up with M/s PFC Ltd & amount Rs. 665.73Cr/Addl. 222.59 Cr
- Purchase Order Date:29.12.2016 & Amount Rs.44.24 Cr
- Target date of Commissioning (Schedule date):28.06.2017
- Date of Commission:01.10.2020
- Delay due to Severe Right of Way in the line corridor.

#### **8. 220/132kV Sub-Station at Banswada in Nizamabad District.**

- The schemes is formulated under “System Improvement Transmission Scheme” covered in 765 kV Wardha - Hyderabad Link Transmission Scheme.
- The administrative approval was accorded vide T.O.O. (CE-400kV) Ms.No. 105, Dated: 15.07.2017, Amount: Rs.1279.05 Cr.
- The scheme envisages the following works
  - (i) 220/132/33 kV Banswada Sub Station with 2x100 MVA PTRs.
  - (ii) 220kV DC line from 400/220kV SS Dichpally to proposed 220/132kV SS Banswada – 60 KM.
  - (iii) Erection of 220kV Bays at 400/220kV Sub-station at Dichpally – 2Nos.
- The investment approval No. CRN No.TST/TS/765kV Hyderabad-Wardha Link Transmission Scheme – Erection of 400kV SS at Maheswaram and Manikonda with connected Transmission network investment proposal revised approval/ No.01/17/2017 for an amount of Rs:972.42 Crores
- Funding tie up with M/s PFC Ltd & amount Rs. 665.73Cr/Addl. 222.59 Cr
- Purchase Order Date:27.02.2017 & Amount Rs.56.78 Cr
- Target date of Commissioning (Schedule date):26.08.2018
- Date of Commission:22.02.2021
- Delay due to Severe Right of Way in the line corridor.

**9. Erection of 132 kV DC Line on Narrow Based Towers for LILO of 132 kV Ibrahimpatnam - Turkayamzal SC Line to the proposed 220 kV SS, Bonguloor and 132 kV 630 sq.mm XLPE UG DC cable.**

- The work is covered in 220KV Bonguluru Scheme.
- The administrative approval was accorded vide T.O.O (CE-Construction-I) MS.No. 117, Dt: 30.05.2014, Amount: Rs.6340.00 Lakhs.
- The scheme envisages the following works
  - (i) Erection of 132 kV DC Line on Narrow Based Towers for LILO of 132 kV Ibrahimpatnam - Turkayamzal SC Line to the proposed 220 kV SS, Bonguloor- 5KM. (Rs.510 Lakhs).
  - (ii) Supply, Erection, Laying, Testing, Commissioning including the cost of accessories of 132 kV 630 sq.mm XLPE UG DC cable for LILO of 132 kV Ibrahimpatnam - Turkayamzal SC Line to the proposed 220 kV SS, Bonguloor- 3KM. (Rs.2100Lakhs).
- The investment approval No. CRN.No. APT/TS/220 KVSS - Bonguluru/F.Invest-27/2014, date. 28.02.2014, Amount.Rs.63.40 Cr
- Funding tie up with M/s. NABARD & amount Rs.6340.00 Lakhs.
- Purchase Order Date:02.03.2016 & Amount: Rs.23.22 Cr.
- Target date of Commissioning (Schedule date):10.01.2020.
- Date of Commission: 23.05.2020.

**10. 132KV DC/SC line from 220KV Chegur SS to existing 132KV Kothur SS in Mahaboobnagar District**

- The schemes are formulated under “System Improvement Transmission Scheme”
- The administrative approval was accorded vide T.O.O (CE-Construction) Ms. No.177, Dated: 30.11.2017, Amount Rs.568.00 Lakhs.
- The scheme envisages the following work
  - (i) Erection of 132 kV DC/SC line from 220kV Chegur (Kothur) Sub-Station under construction to the existing 132/33 kV Kothur Sub-Station- 6kM
  - (ii) Erection of 132kV bay at 132/33kV Kothur SS – 1 No
- Funding tie up with M/s. REC Ltd & amount Rs.511.00 Lakhs
- Purchase Order Date: 12.03.2019 & Amount: Rs.483.7 Lakhs
- Target date of Commissioning :11.09.2020
- Date of Commission: 24.07.2020



**(b)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
- Purchase Order Date:13.12.2016 & Amount: Rs.23.94 Cr
- Target date of Commissioning :12.06.2018
- Delay due to severe Right of Way in the line corridor.

**2. 132 KV DC/SC inter linking lines between substations 220 KV Yeddumailaram-132 KV Pashmailaram**

- The scheme is formulated under “System Improvement Transmission Scheme”.
- The administrative approval was accorded vide T.O.O (CE-Construction-I) MS. No. 61, Dt: 25.05.2012, Amount Rs.931.00 Lakhs
- The scheme envisages the following works
  - (i) 132 kV DC/SC line with narrow based towers from 220 kV Yeddumailaram SS to 132 kV Pashmailaram SS- 7KM
  - (ii) 132 kV Bay extension at 220 kV Yeddumailaram SS and 132 kV Pashmailaram SS – 2Nos.
- Funding tie up with M/s.NABARD & amount Rs. 931.00 Lakhs
- Purchase Order Date:09.05.2019 & Amount: Rs. 901.00 Lakhs
- Target date of Commissioning :08.11.2020
- Delay due to severe Right of Way issues as the line passes through the Ordnance Factory and Telangana State Industrial Infrastructure Corporation Limited premises.

**3. 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
- Purchase Order Date:09.09.2016& Amount: Rs.2179.17 Lakhs
- Target date of Commissioning :08.03.2018
- Delay due to severe Right of Way in the line corridor.

#### **4. Providing of alternate supply to 132 /33 kV SS Chennur and 132/33 kV SS Kataram from 220/132 kV SS, Manthani.**

- The scheme is formulated under “System Improvement Transmission Scheme under the program for providing 9.00 Hrs Day Time Supply for Agriculture”.
- The administrative approval was accorded vide T.O.O (CE-Construction) Ms. No. 210, Dt: 06.11.2015, Amount: Rs.1213.00 Lakhs.
- 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- 5 KM
  - (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- 5KM
  - (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- 19KM
  - (iv) Stringing of 2nd circuit from Loc. No. 34A of existing 132 kV Manthani – Kataram line to 132/33 kV SS Kataram-26KM
  - (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.)- 4Nos
- Funding tie up with M/s. REC Ltd & amount Rs.1091.70 Lakhs
- Purchase Order Date:07.02.2018 & Amount: Rs.970.27 Lakhs
- Target date of Commissioning :06.08.2019
- Delay due to severe Right of Way in the line corridor and laying of line in the Godavari river area.

#### **5. Erection of 220 KV D/C Line from 400/220/132kV Gajwel SS to 220/132 kV Siddipet SS**

- The scheme is formulated under “System Improvement Transmission Scheme 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 225, Dt: 10.12.2015, Amount: Rs.3811.70 Lakhs.
- The scheme envisages the following works

- (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- 40KM
- (ii) Erection of 220 KV Bays (Gajwel-2, Siddipet-2)- 4Nos.

- The investment approval No. CRN.No.TST/TS/Erection of 220 KV DC line Gajwel/Siddipet/Invest.App.04/17-2017-18.date.02.07.2017 Amount.Rs.38.11 Cr
- Funding tie up with M/s. REC Ltd & amount Rs.5694.93 Lakhs
- Purchase Order Date:04.12.2017 & Amount: Rs.3568.42 Lakhs
- Target date of Commissioning :03.06.2019
- The line passing through the kondapaka reserved Forest and Forest approvals are accorded recently by the Forest Department.

## **6. 132/33 kV Sub-station at Aipoor in Nalgonda 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 administrative approval was accorded vide T.O.O (CE-Transmission) Ms.No.195, Dt:14.10.2015, Amount: Rs.2132.00Lakhs
- The scheme envisages the following works
  - (i) Erection of 132/33 kV Sub-Station at Aipoor in Atmakoor (S) Mandal of Nalgonda District with 3 X 10/16 MVA PTRs.
  - (ii) Erection of 132 kV DC/SC line on Galvanised Towers from 400/220/132 kV Suryapet SS to 132 kV SS Thungathurthy to the now proposed 132/33 kV SS Aipoor- 13KM
  - (iii) 132 kV Second Circuit Stringing on existing DC/SC line from 400/220/132 kV Suryapet SS to 132 kV SS Thungathurthy for a distance of 13.00 KM.- 13KM
  - (iv) Erection of 132/ kV Bay at 400/220/132 kV Suryapet SS- 1No.
- The investment approval No. TST/TS /132/33 kV SS Aipoor, Nalgonda /F-INVST-01/2016-17. date. 11.04.2016, Amount.Rs.2132.00 Lakh
- Funding tie up with M/s. REC Ltd & amount Rs.1891.06 Lakhs
- Delay due to change of Substation site and Right of Way.

## **7. 132/33 kV SS at Kotagiri with connected line & Bay in Nizamabad District**

- The scheme is formulated “to meet the load growth, to improve the voltage regulation and for System Improvement Scheme”.
- The administrative approval was accorded vide T.O.O (CE-Transmission) Ms. No. 88 Dated: 30.06.2016, Amount: Rs.15.05 Crores
- The scheme envisages the following works
  - (i) Erection of 132/33 kV Sub-Station at Kotagiri in Nizamabad District with 3 X 10/16 MVA PTRs
  - (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. -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
- Purchase Order Date: 06.06.2018 & Amount: Rs. 11.23 Cr
- Target date of Commissioning :05.12.2019
- Delay due to severe Right of Way in the line corridor.

#### **8. 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.212.20 Crores
- 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 .21.22 Cr
- Funding tie up with M/s PFC Ltd & amount Rs. 182.98 Crores
- Purchase Order Date: 28.11.2016, 10.03.2017 & 19.05.2020 & Amount: Rs.160.07 Cr.
- Target date of Commissioning :18.11.2021
- Approvals from HGCL (Hyderabad Growth Corridor Limited) are awaited.

#### **9. 132/33 kV Substation at PTO, Petlaburz, Hyderabad District**

- 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 & carrying out the regular maintenance works, to provide reliable & uninterrupted power supply, an alternate source of supply in the scheme area and to cater to the upcoming loads.
- The administrative approval was accorded vide T.O.O (CE-Transmission) Ms. No. 29 Dated: 27.02.2017, Amount: Rs.39.93 Crores.
- The scheme envisages the following works
  - (i) Erection of 132/33 kV GIS substation at Police Transport Organisation (PTO), Petlaburz with 2X80 MVA PTR.
  - (ii) Erection of 132 kV DC line with 630 Sqmm 132 kV UG cable from the 220 kV GIS substation, Imlibun to the proposed 132/ 33 kV GS SS at Police Transport Organisation (PTO), Petlaburz-1.5 KM

(iii) Erection of 132 kV DC OH line on galvanised double circuit towers with Panther ACSR-3.5KM.

- The investment approval No. CRN TS/TST/132/33 KV, GIS, Petlaburz invest. Approval No.5/17-2017-18. date. August-2017, Amount.Rs.39.92 Cr
- Funding tie up with M/s REC Ltd & amount Rs. 35.94 Crores
- Purchase Order Date: 28.02.2018 & Amount: Rs.44.16 Cr.
- Target date of Commissioning :27.08.2019
- Work is held up due to Court case for Substation site.

#### **10.Erection of 132kV DC line from proposed 220/132kV SS Madugula to existing 132/33 kV Takkalapally (Yacharam) SS**

- The scheme is formulated to “reduce overloading of 132kV Godakandla – Takkalapally (Yacharam) line and to have reliable incoming supply from the 220 KV substation. Further there will be a load relief on 220 KV KM Pally Sub-Station.”
- The administrative approval was accorded vide T.O.O (CE-Transmission) Ms. No. 88 Dated: 02.06.2017, Amount: Rs.11.77 Crores
- The scheme envisages the following works
  - (i) Erection of 132 kV DC line from 220/132/33 kV Madugula SS to 132/33kV Takkalapally (Yacharam) SS – 17Km
  - (ii) Erection of 132kV bays at 132/33kV Takkalapally SS- 2 Nos
- Funding tie up with M/s REC Ltd & amount Rs. 10.60 Crores
- Work to be awarded.

#### **11.132/33 kV SS with connected line at Choppadandi in Karimnagar Dist.**

- The scheme is formulated “to feed the existing and upcoming loads and to extend power supply to Agriculture sector with quality & reliable power.”
- The administrative approval was accorded vide T.O.O (CE-Transmission) Ms. No. 86 Dated: 29.05.2017, Amount: Rs.22.85 Crores
- The scheme envisages the following works:
  - (i) Erection of 132/33 kV Sub-Station at Choppadandi in Karimnagar District with 2 X 31.5 MVA PTRs
  - (ii) Erection of 132 kV DC/SC line for LILO of 132 kV line from 220 kV Malyalapally Sub-Station to 220 kV Durshed Sub-Station at the proposed 132/33 kV Choppadandi Sub- Station-13 KM.
- The investment approval CRN No.TS/TST/132/33 KV, Choppadandi, SS /Investment Approval No.20/18,2017-18, date.27.02.2018, Amount. Rs.22.85 Cr
- Funding tie up with M/s PFC Ltd & amount Rs. 19.97Cr
- Purchase Order Date: 06.06.2018, Amount: Rs.9.65 Cr.
- Target date of Commissioning :05.12.2019
- Work held up due to change in Route Alignment of 132kV line connectivity.

## **12.132/33 kV Substation at Pitlam in Nizamabad District**

- The scheme is formulated under “System Improvement Transmission Scheme to feed the existing & upcoming loads, to improve the voltage regulation in 33KV feeders and also to cater the loads of 24 hours Agriculture supply”.
- The administrative approval was accorded vide T.O.O (CE-Construction) Ms. No.13, Dt: 20.01.2018, Amount Rs.3580.00 Lakhs
- The scheme envisages the following works
  - (i) Erection of 132/33KV Substation at Pitlam with PTR capacity of 2x31.5MVA
  - (ii) Erection of 132KV DC/SC line from 220KV SS Banswada to proposed 132KV SS Pitlam- 26.5KM
- The investment approval No. CRN No. TST/TS/Erection of 132/33 KV SS at Pitlam in Khammam Dist./ Approval No.04/2018-19.Date.01.06.2018 Amount.Rs.35.80 Cr
- Funding tie up with M/s. REC Ltd & amount Rs.3180.02 Lakhs
- Tenders to be called.

## **13.Erection of 220/132 kV Sub-Station at Ammavaripet in Warangal-Urban 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.

- 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.87.24 Crores
- Purchase Order Date:20.02.2020 & Amount: Rs. 42.55 Cr
- Target date of Commissioning: 19.08.2021.

#### **14.132/33 KV Substation at Nagaram in Suryapet District**

- The scheme is formulated under “System Improvement Transmission Scheme to meet the 24 Hrs Agriculture power supply, load demand in the scheme area and to avoid low voltage problems”.
- The administrative approval was accorded vide T.O.O (CE-Construction) Ms. No. 193, Dt: 30.08 2018, Amount Rs.3397 Lakhs.
- The scheme envisages the following works:
  - (i) Erection of 132/33 kV Sub-Station at Nagaram, Suryapet Dist with 1 X 31.5 + 1x10/16 MVA PTRs
  - (ii) Erection of 132 kV line with ACSR Panther Conductor on Galvanised Towers by making LILO of 132 kV DC/SC line from 400/220/132 kV Suryapet SS to 132/33 KV Thungathurthy SS at newly proposed 132/33 KV Nagaram SS-16KM
- The investment approval No. CRN No. TST/TS/Erection of 132/33 KV Sub station at Nagaram in Suryapet District. Approval/No.14/18/2018-19, date. 12.12.2018, Amount. Rs.33.97 Cr
- Funding tie up with M/s PFC Ltd & amount Rs.25.17 Crores
- Purchase Order Date:27.10.2020 & Amount: Rs.10.81 Cr
- Target date of Commissioning :26.04.2022

#### **15.33 KV features at 132 KV Railway Traction Switching Station, Kothagudem, Kothagudem Bhadradi District**

- The scheme is formulated under “System Improvement Transmission Scheme to extend reliable supply to district head quarter and also to evacuate 25 MW SCCL solar power.
- The administrative approval was accorded vide T.O. O (CE-Construction) MS. No 217,Dt: 25.09.2018, Amount Rs:992 Lakhs.
- The scheme envisages the following work33 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 Rs7.35 Crores
  - Tenders called, work to be awarded

### **16.132/33kV 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 of 132 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. 14.29 Crores
- Purchase Order Date: 31.10.2020 & Amount: Rs. 13.68Cr.
- Target date of Commissioning :30.04.2022

### **17.132/33 kV Gas Insulated Sub-Station (GIS) at Manikonda in Ranga Reddy 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.402 Dated:08.07.2019, Amount: Rs.107.18 Cr.
- The scheme envisages the following works
  - (i) Erection of 132/33 GIS Sub-station at Manikonda with 2 x 80 MVA PTRs.
  - (ii) LILO of existing 132 KV Shivarampally-Erragadda SC OH feeder between Loc.No.80 & Loc.No.81 with laying of 132 KV XLPE UG cable of 1200 Sq.mm for cable length of 2.5KM.
- The investment approval No. CRN/TST/TS/Erection of 132 KV SS at Manikonda in Rangareddy District. Approval No. 08/2019-20, date. 27.12.2019, Amount. Rs.107.18 Cr
- Funding tie up with M/s REC Ltd & amount Rs.96.46 Cr
- Purchase Order Date: 18.03.2021 & Amount: Rs. 72.10 Cr.
- Target date of Commissioning:17.09.2022

### **18.132/33 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 and to cater to the upcoming loads which are increasing multi-fold due to the vertical growth of the city and increase in commercial establishments.
- 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
- 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.57.27 Cr
- Purchase order to be issued.

### **19.132/33 KV IDA Mallapur Sub-station in Medchal-Malkajgiri District.**

- The scheme is formulated “to reduce overloading of PTRs at 220/132/33 kV Moulali Sub-Station, 220/132/33 kV Ghanapur Sub-Station & 132/33 kV Sub-Station, Bandlaguda, to improve voltage regulation, to reduce power losses, to provide reliable & uninterrupted power supply, to reduce the overall energy losses in the system and to cater to the upcoming loads of the IDA Mallapur having continuous and rapid industrial load growth.
- The administrative approval was accorded vide T.O.O(CE-Transmission) MS.No.30 Dated:27.02.2017, Amount: Rs.19.05 Cr.
- The scheme envisages the following works
  - (i) Erection of 132/33 kV AIS substation at IDA Mallapur with 1X80 + 1X50 MVA PTR.
  - (ii) Erection of 132 kV DC OH line on galvanised NB towers with Panther ACSR for LILO of 132 kV Ghanapur - Moulali line at the proposed 132 kV IDA Mallapur SS- 2kM.
- Funding tie up with M/s REC Ltd & amount Rs.16.81 Cr
- Tenders to be called.

### **20.2nd Circuit on 132KV DC/SC line from existing 220/132KV SS Waddekothapally to existing 132/33KV SS Peddanagaram.**

- The scheme is formulated “to meet (N-1) Contingency in the Network for ensuring satisfactory Power Supply.”
- The administrative approval was accorded vide T.O.O(CE-Construction) MS.No.149 Dated:09.10.2017, Amount: Rs.7.02 Cr.
- The scheme envisages the following works
  - (i) Stringing of 2nd circuit on 132KV DC/SC line from existing 220/132KV SS Waddekothapally to existing 132/33KV SS Peddanagaram with Panther ACSR Conductor- 30kM.
  - (ii) Erection of 132 KV feeder bays (at 220/132 KVSS Waddekothapally – 1No. and at 132 kV SS PeddaNagaram 1 No.) Total -2 Nos.

(iii) Diversion of Distribution HT & LT lines (33KV,11KV & LT lines)

- Funding tie up with M/s REC Ltd & amount Rs.6.32 Cr
- Purchase Order Date: 22.02.2020 & Amount: Rs.3.22 Cr
- Target date of Commissioning:21.08.2021

**21.132 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 proposed 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
- The investment approval No. CRN/TS/TST/220/Switching Station/ Mahaboobnagar / 132 KV Features /Invest Approval 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
- Purchase Order Date: 05.02.2020 & Amount: Rs.14.93 Cr
- Target date of Commissioning:04.08.2021

**22. 33 kV 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
  - 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 tie up with TSTransco funds
- Purchase Order Date: 18-09-2020 & Amount: Rs.14.95 Cr (including other work)
- Target date of Commissioning:17.03.2022

### **23. 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. 20.64 Crores
- Tenders to be called.

### **24. 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 LILOOof 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 Wranagal 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
- Tenders to be called.

**B. 400kV SCHEMES:**

**(a) Write up of Works:**

**I. WARDHA-HYDERABAD 765KV LINK TRANSMISSION SCHEME**

- i) **4 Nos. 400kV Quad Moose Bays at Maheshwaram SS, Rangareddy District**
  - All works completed and charged on 19.02.2021
- ii) **LILO of both Circuits of 400kV Mamidipalli-Dindi TMDC line to 400kV Maheshwaram SS on Multicircuit Towers**
  - All the works completed
  - Line charged on 19.02.2021

**II. RAYADURG SYSTEM IMPROVEMENT SCHEME:**

- i) 400/220/132kV GIS Substation at Rayadurg:
  - Site handed over on 01.08.2018.
  - 400kV,220kV & 132kV GIS Modules erection completed. 220kV & 132kVHV Testing completed. Pre-commissioning tests completed. 400kV GIB erection and firefighting building works are under progress.
- ii) 2 Nos. 400kV Quad Bay extension at 400/220kV Kethireddypalli SS:
  - Site handed over on 01.08.2018 and all works completed and charged on 20.11.2019.
- iii) 400kV DC Line from Kethireddypalli SS Rayadurg GIS:
  - a) 400KV DC Line (twin HTLS on Quad Conventional towers) from 400kV SS Kethiredypally SS to AP-41:Check survey: 27.56kMs out of 27.56kMs completed.Foundations:78/78 completed. Tower Erection: 77/78No.s completed. Stringing:19.274/27.272 kMs completed.
  - b) 400kV DC line from AP-41 to AP-75(ORR Junction) on Monopoles (Twin HTLS on Monopoles:11.741kms): Preliminary route survey completed for 11.741kMs. Foundations:22/65completed, Tower Erection: 18/65No.s completed, stringing:0.658/11.441kMs completed.
  - c) 400kV DC Line from AP-75(ORR Junction) to Rayadurg GIS with XLPE UG Cable: Detailed survey completed. Cable laying: 2649/3048Mtrs completed.JB Construction: 7/7 Nos completed.Jointing:5/7 completed.Excavation, Cable laying and jointing works under progress.
- iv) LILO of 220kV Gachibowli – Shivarampally line to proposed Rayadurg SS - UG cable: Detailed survey completed.Cable laying: 3990/5160Mtrs completed. JB Construction: 7/8 Nos completed.Jointing:3/8 completed.

- v) LILO of 220kV Gachibowli – Shapurnagar Line to proposed Rayadurg SS - UG cable: Detailed survey completed. Cable laying: 4575/4575Mtrs completed. JB Construction: 8/8 Nos completed. Jointing: 8/8 completed.
- vi) LILO of 220kV Gachibowli – Miyapur Line to proposed Rayadurg SS – UG cable: Detailed survey completed. Cable laying: 6057/6602Mtrs completed. JB Construction: 11/11 Nos completed. Jointing: 6/11 completed.
- vii) LILO of 220kV Gachibowli - Erragadda line to proposed Rayadurg Sub-station: Detailed survey completed. Cable laying: 3500/3500Mtrs completed. JB Construction: 5/5 Nos completed. Jointing: 5/5 completed.
- viii) 132kV DC line from proposed Rayadurg GIS to 132kV Madhapur SS - UG cable: Cable laying: 2750/2750Mtrs completed. JB Construction: 5/5 Nos completed. Jointing: 5/5 completed.
- ix) 132kV DC line from proposed Rayadurg GIS to 132kV Jubilee Hills SS - UG cable: Cable laying: 5060/5060Mtrs completed. JB Construction: 8/8 Nos completed. Jointing: 8/8 completed.
- x) LILO of 132kV Erragadda – Shivarampally SS SC line to proposed Rayadurg SS - UG cable: Cable laying: 2663/ 2663 Mtrs completed. JB Construction: 5/5 Nos completed. Jointing: 5/5 completed.
- xi) 132KV Bays at Madhapur SS: Cable trench completed. GIS modules foundation completed (4Nos.). Cable trench for laying Power & Control cables completed.
- xii) 132kV bays at 132kV Jubilee Hills SS: 20/20 Equipment foundation completed. 20/20 Equipment Str. Erection completed. 14/20 Equipment Erection completed. OET equipment under progress. cable laying and termination are under progress.

### **III. YTPP Thermal Power Evacuation Scheme**

- i) 400/220/132kV Choutuppall Substation: 400,220kV & 132kV Tower foundation works under progress.
- ii) 400kV QMDC Line from YTPP Switchyard to proposed 400/220/132 kV Choutuppall SS -92.5kMs: Tower Foundations: 111/259 Nos completed. Tower Erection: 26/259 Nos. completed.
- iii) 400kV QMDC Line from YTPP Switchyard to 400/220 kV Dindi SS- 103.512kMs: Tower Foundation: 121/290 Nos completed, Tower Erection: 44/290 Nos. completed.
- iv) Double circuit LILO of existing 400kV Khammam- Mamidipally TMDC Line to proposed 400/220/132kV Choutuppall Sub-Station- (8.6kMs+8.1kMs):

Foundation: 33/48Nos completed. Tower Foundation works are under progress.

- v) 2 Nos 400kV Quad Moose Bays at 400/220kV Dindi SS:Equipment foundation works under progress.
- vi) 400/220kV Damaracherla Sub-Station: Levelling works are under progress and Control room building works are under progress.
- vii) 400kV QMDC Line from Yadadri TPP Switchyard to 400/220kV Damaracherla SS (6.12kMs): 4.932kMs detailed survey completed. Tower foundations - 5/16 Nos. completed.
- viii) 400kV Quad Moose DC Line from Yadadri TPP Switchyard to 400/220 kV Jangaon SS (150 kMs):126.808/126.808kMs detailed survey completed. Tower foundations - 131/390 Nos. completed. Tower Erection - 9/390 Nos. completed
- ix) Two (2) No. 400kV Bays at 400kV Jangaon SS: Equipment foundations works, Cable trench works, AC kiosk Excavation works are under progress.

#### **IV. Telangana STPP-I (2x800MW) Power Evacuation Scheme**

- i) 400kV QMDC line from 400kV NTPC Common point (End of Multi Circuit Tower) to 400kV Narsapur Sub-station of length 171.00 kMs Work awarded in August'2017.

Foundation: 492 Nos. out of 492 Nos completed. Tower Erection: 492 Nos out of 492 Nos completed. Stringing: 173.323 kMs out of 173.323 kMs completed. All the works completed and ready for charging.

- ii) 400kV Quad Moose DC Line from Telangana STPP (NTPC) to 400/220kV Ramadugu Sub-station of length 53kMs works awarded in April'2018.

Foundation: 163 Nos. out of 163 Nos. Completed Tower Erection: 163 Nos. out of 163 Nos. completed. Stringing: 52.574 kMs out of 52.574 kMs completed. All the works completed and ready for charging.

- iii) 400/220kV Substation at Ramadugu, Karimnagar:

400kV NTPC-I&II feeder Bays charged on 12.06.2019.

Gajwel bay -II charged on 06.08.2019,

ICT-I & ICT-II: Charged on 29.01.2020.

220kV Side: XLPE Cable: Charged on 31.01.2020.

220kV Feeder Bays charged on 10.02.2020.

- iv) 2 Nos. 400kV Quad bays at 400/220/132kV Sub Station at Narsapur, Medak District:All works are completed & Charged on 30.05.2019.

## V. KTPP System Improvement Scheme

400/220/132kV Sub-station at KTPPSwitchyard, Bhupalapally:

Leveling works and Compound wall construction works are under progress.

400kV Tower foundation works under progress.

## VI. Diversion of 400kV lines for Railway Crossings

i) Diversion of 400kV QMDC line from 400kV Julurupadu SS to KTPS-VII at Loc.No. 38 to 43 - 2.5kMs approx.: Tower foundations 9Nos. completed out of 9Nos. Tower erection 7Nos. completed out of 9 Nos. Stringing works are under progress.

ii) Diversion of 400kV TMDC line from KTPS VI to Khammam (PGCIL) at Loc.No.129 to 132 - 1.5kMs approx.: Tower foundations 7Nos. completed out of 9Nos. Tower erection 2/9Nos. completed.

## List of 400kV Lines and Substations commissioned during FY2020-21

### 1. 400kV lines

S. No.	Name of Line	Length in CKM	Date of commissioning
1	LILO of both Circuits of 400kV Mamidipalli-Dindi TMDC line to 400kV Maheshwaram SS on Multicircuit Towers	13.23	Charged on 19.02.2021

### 2. 400kV Substations: Nil

### 3. 400kV Bays

S.No.	Name of the Substation	No. of Bays	Date of commissioning
1	400/220kV Maheshwaram SS	4	Charged on 19.02.2021

**C. Renovation Modernization and Improvization Schemes:**

**(a) Write up for RMI Works**

- i) An amount of Rs.150.33 Cr capital expenditure was projected for Renovation and Modernization of old assets (RMI schemes) in the ARR of balanced 3<sup>rd</sup> control period (FY 2016-19) and Hon'ble commission has accorded approval for Rs.100.22 Cr in its tariff order dt.01.05.2017 (Page No.46) for the FY 2017-2018 and FY 2018-2019 as follows:

SL No.	Financial Year	Renovation and Modernization	
		Filing	TSERC approved scheme Amount Rs. in Crores
1	2016-17	50.11	-
	2017-18	50.11	50.11
2	2018-19	50.11	50.11
<b>TOTAL</b>		<b>150.33</b>	<b>100.22</b>

- ii) An amount of Rs.300.00 Cr capital expenditure was projected for Renovation and Modernization of old assets (RMI schemes) in the ARR of 4<sup>th</sup> control period (FY 2019-20 to 023-24) and Hon'ble commission has accorded approval for Rs.300.00 Cr in its Tariff Order Dt. 20.03.2020 (page No. 58 as follows:

SL No.	Financial Year	Renovation and Modernization	
		Claimed	TSERC approved scheme Amount Rs. in Crores
1	2019-20	53.11	33.44
2	2020-21	56.00	75.67
3	2021-22	59.70	59.70
4	2022-23	63.29	63.29
5	2023-24	67.90	67.90
<b>TOTAL</b>		<b>300.00</b>	<b>300.00</b>

- iii) Due to implementation of RMI Schemes, outages of substation equipment have been reduced, improving reliability and stability of Transmission System and TSTRANSCO was able to implement the Government of Telangana prestigious flagship programme "24 Hrs Agriculture Supply" to farming sector.



**(b) Write up for ongoing RMI Works:**

The following activities under progress under RMI 2020-21 Scheme which have served for more than 25 years in all the OMC Circles.

- Replacement of old & obsolete substation equipment viz Electrical and Telecom
- Shifting of 33KV Equipment and 33KV Feeders from underneath of the Bus
- Earthing Improvement and renovation works in the EHT Substations
- Metal Spreading works and water supply arrangements to earth pits in the EHT Substations.
- Strengthening of Transmission lines, replacement of conductor works.
- Improvement of Power factor of Sub-station by procuring Capacitor Banks.

**D. Lift Irrigation Schemes taken up by TSTRANSCO under Deposit Contribution works (FY 2020-21):**

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 2020-21 are as detailed below.

<b>Description</b>	<b>2020-21</b>
400kV Lines (CKM)	0
220kV Lines (CKM)	88.948
132kV Lines (CKM)	18.6
400kV SS (Nos.)	0
220kV SS (Nos.)	3
132kV SS (Nos.)	2
400kV Bays (Nos.)	0
220kV Bays (Nos.)	46
132kV Bays (Nos.)	8

Details of commissioned Sub Stations and Connected Transmission Lines under Lift Irrigation Scheme works for FY 2020-2021:

**A. Lines:**

Sl. No	Name of the LIS	Name of the Line	Length (CKM)	Date of Commissioning
1	Kaleswaram Lift Irrigation Project	220kV DC line from 220/11kV Akkaram SS to 220/11kV Markook SS	18.272	26.04.2020
		220 kV LILO from Nirmal-Renjal 220 kV CKT-1 to Mupkal 220 kV SS	0.676	28.05.2020
		132 kV DC/SC line from 132/33 kV KataramSS to 132/11 kV Beersagarss	18.6	30.06.2020
2	Lift System under FFC	220 kV DC line from 400 kV Ramadugu to 220 kV Rampur SS	70	18.06.2020

**B. Substations:**

Sl. No	Name of the LIS	Sub-station	Date of Commissioning
1	Kaleswaram Lift Irrigation Project	220/11kV Akkaram SS	26.04.2020
		220/11kV Markook SS	26.04.2020
		132/11 kV Beersagar SS	30.06.2020
		132/11 kV Malakpet SS	29.06.2020
2	Lift System under FFC	220/11 kV Mupkal SS	28.05.2020

**C. SS Bays:**

Sl. No.	Name of the work	No. of Bays		
		400kV	220kV	132kV
1	<b>Kaleswaram Lift Irrigation Project</b>			
	400/220/11 SS at Sundilla Additional TMC works	0	5	0
	220/11 SS at Annaram Additional TMC works	0	4	0
	220/11 SS at Medigadda Additional TMC works	0	6	0
	220/11 SS at Akkaram	0	12	0
	220/11 SS at Markook	0	12	0
	132/11 kV Malakpet SS	0	0	4
	132/11 kV Beersagar SS	0	0	4
2	<b>FFC</b>			
	220/11 KV Mupkal SS	0	5	0
	220/11 KV Rampur SS	0	2	0

**Details of Ongoing works during FY 2020-21:**

The ongoing Transmission Lines and Substations in respect of LI Schemes are as detailed below

<b>FY2020-21</b>	<b>Lines (in CKM)</b>	<b>Substations (in No.s)</b>
400kV	0	0
220kV	292.7	6
132kV	2	2

**(i) Palamuru Lift Irrigation Scheme**

- a. Erection of 400/11kV Narlapur LI Sub-Station:Site is not handed over to TSTRANSCO by Irrigation & CAD department (TS. Govt)
- b. Erection of 400/11kV Vattem LI Sub-Station:Levelling of site is under progress (I &CAD scope) foundation work for Control room, DG& FF and store cum office building, tower and equipment foundation work is under progress.
- c. Erection of 400/11kV Yedula LI Sub-Station: Levelling of site is under progress (I&CAD scope), foundation work for control room building is under progress.
- d. 2Nos.400kV QMDC Bays at 400/220kV Veltoor Sub-Station:Site handed over to the contractor and levelling work is under progress. Equipment and tower foundations, LM tower foundations completed, LM tower erection work in progress.
- e. 2Nos.400kV QMDC Bays at 400/220kV Dindi Sub-Station:Site handed over to the contractor. Equipment foundations work in progress, RR cable trench work in progress.
- f. 400kV QMDC Line from proposed 400/11kV Yedula LISS to proposed 400/11kV Narlapur LISS(30.204kM).Check survey: 23.439/30.204 kM completed, Foundation: 37/92Nos. completed. Tower erection: 21/92 Nos. completed.
- g. 400kV QMDC Line from 400/220kV Dindi SS to proposed 400/11kV Yedula LISS(60kM). Check survey: 53.495/60 completed, Foundation:132/167 Nos. completed. TowerErection:105/167 Nos. completed.
- h. 400kV QMDC Line from 400/11kV Yedula LI SS to 400/11kV Vattem LI SS (34.50kMs)Check survey: 28.573/34.5kM completed Foundation:72/90Nos. completed. Tower Erection:56/90Nos. completed.
- i. 400kV QMDC Line from 400/220kV Veltoor SS to 400/11kV Yedula LI SS (52kMs).Check survey: 44.846/51.762 kM completed, Foundation: 94/138 Nos. completed. Tower Erection: 73/138Nos. completed.

**(ii) Sitarama Lift Irrigation Scheme**

**a. Pump House -1 at B.G. Kothur.**

- i) 220/11kV LI Substation at B.G. Kothur (V).

All works completed. Substation test charged on 14.10.2019.

- ii) LILO of one circuit of 220kV KTPS V-Lower Sileru -II Line to proposed Pump House-1 at B.G. Kothur for a length of 20 kMs. (approx).

All works completed, statutory inspection done, ready for charging

- iii) Erection of LILO of one circuit of 220kV KTPS-Manuguru Line to proposed Pump House-1 at B.G. Kothur for a length of 1 km. (approx).

All works completed. Line test charged on 14.10.2019.

**b. Pump House-2 at V.K. Ramavaram**

- i) 220/11kV LI Substation at V.K. Ramavaram. Sub-station site handed over to the contractor on 03.09.2018.

All works completed. Substation test charged on 28.12.2019.

- ii) 220kV KTS-Lower Sileru-I line to 220kV V.K. Ramavaram LI SS (1.416\*2)

All works completed. Line test charged on 28.12.2019.

- iii) Erection of LILO of 220kV KTS – Lower Sileru-I line at 400/220 kV Asupaka SS (0.524\*2kM)

All works completed. Charged on 09.06.2020.

- iv) 2Nos 220kV Bays at 220/11 KV VK Ramavaram LI SS under Sita Rama LIS in Bhadradi Kothagudem (Dist)

All works completed. Test charged on 04.09.2020

- iii) Erection of 220kV TMDC Line from 400/220/11kV Kamalapuram SS to 220/11 kV, V.K. Ramavaram for a length of 14.162kMs. (approx).

All works completed. Test charged on 04.09.2020.

**c. Pump House-3 at Kamalapuram**

- i) 400/220/11kV LI Substation at Kamalapuram with 3 x 315MVA Transformers.

Sub-station site handed over to contractor on 03.09.2018. Levelling of site is completed.

400kV side: Tower foundation: 26/26 completed, Tower erection: 26/26 completed Booms: 22/22 completed, Equipment foundation: 384/384 completed, Equipment structure erection: 384/384 completed, Equipment erection: 384/384 completed.

220kV side: Tower foundation: 86/86 completed Tower Erection: 86/86 completed Booms: 74/74 completed Equipment foundation: 518/554 completed, Equipment structure Erection: 518/554 completed, Equipment Erection: 518/554 completed, LM tower foundation: 12/12 completed, LM tower erection: 12/12 completed.

Pressure main towers: Foundation: 13/13 completed Tower Erection: 13/13 completed Stringing: 1.762/2.707kM completed.

- ii) 2 Nos 400kV Quad Bay extension at 400/220kV Julurupadu SS for Julurupadu to Kamalapuram line.  
All works completed. Test charged on 07.01.2020.
- iii) 400kV TMDC line from Julurupadu SS to Kamalapuram LI Sub Station for a length of 39.562kM.  
All works completed and ready for charging.

**ANNEXURE – II      PERFORMANCE MEASURES**

**NUMBER AND DURATION OF SUPPLY INTERRUPTIONS**

**1. Requirement in the Guidelines:**

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

**2. TSTransco’s Response:**

**(a) Interruptions on EHT lines during 2020-21**

i. Number and Duration of System Interruptions & Transmission System Availability (FY2020-21)

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 to prepare the booklet can be made available as and when requested. The average availability factor of EHT lines of TSTransco in its vast extent of the transmission system and the number of transmission circuits, worked out to 99.98% for the year 2020-2021. The details of the line availability for the year 2020-21 are shown in the tables below.

**Interruptions on EHT lines during 2020-21**

<b>Year</b>	<b>EHT line voltage</b>	<b>No. of interruptions</b>	<b>Total time of interruptions (Hrs)</b>	<b>Avg. Duration Per Interruption (hrs)</b>
2020-21	400kV	26	299.1500	Beyond 2 Hrs.(11.50)
	220kV	100	1092.3333	Beyond 2 Hrs.(10.92)
	132kV	182	1860.0667	Beyond 2 Hrs.(10.22)

ii. **Voltage-wise Availability of Transmission System for FY2020-21:**

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 of Telangana State during the period 2020-21 i.e., from April 2020 to March 2021 works out to be **99.98%**.

**Availability of Transmission system during 2020 - 21**

Sl. No.	Financial year	Transmission System availability in percentage
1	2020-21	99.98%

iii. **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.

**(b) Major Grid Disturbance(s)/Incident(s) occurred during the year 2020-21.**

**Grid Breaker trippings at 400KV Chandulapur SS on 18.04.2020 @ 11:48Hrs :**

On 18-04-2020, Lift irrigation personnel were checking the operation of isolators near the Consumer Bus and they have closed the consumer bus isolator of pump-3 transformer with R phase earth switch in closed condition (as the pipe link connected to opening of earth switch R-phase was broken) creating Bus fault.

Due to above operation Bus Bar protection of consumer Bus should have operated. But as the consumer bus bar protection was under block mode due to defective PU in pump-2 transformer bay during the event, the fault was fed from the remote end feeders connected to Chandulapur SS. Thereby all the in-service feeders i.e., 400KV Chandulapur-Gajwel-2, 400KV Chandulapur-Bhoopalpally-2, 400KV Chandulapur-Tippapur-2 & 400KV Chandulapur-Tukkapur-1 tripped at remote end with Zone-2 timings (350ms) except for Gajwel feeder which tripped with Zone-1 timing and also these feeders tripped at Chandulapur SS in reverse zone (350ms) except for Gajwel feeder.

**Performance Measures:**

Engineer-In-Chief of I&CAD department was requested on 20-08-2020 to take steps to adopt proper & safe operational procedures to avoid such unwarranted trippings in future and also informed to provide necessary protections during pre-commissioning activities itself.

**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:**

**PERIODS WHEN FREQUENCY WAS BEYOND PRESCRIBED LIMITS**

**a. Frequency**

Southern Regional Load Dispatch Center monitors the southern states (Telangana, Karnataka, Tamilnadu, Pondicherry, Kerala and a part of Goa). The system frequency is monitored by the Southern Regional Load Dispatch Center (SRLDC) located at Bangalore. As per the operating principles laid down by SRLDC, all constituent members are expected to maintain system frequency with the operating range of 49.90 HZ to 50.05 HZ.

The details of frequency duration, maximum and minimum frequency experienced during FY-2020-21 is shown below.

**Southern Region frequency during 2020-21**

Month	Average	Maximum		Minimum	
	HZ	HZ	Date	HZ	Date
Apr-20	50.01	50.30	4 <sup>th</sup>	49.61	01 <sup>st</sup>
May-20	50.01	50.29	26 <sup>th</sup> & 28 <sup>th</sup>	49.57	28 <sup>th</sup>
Jun-20	50.01	50.31	21 <sup>st</sup>	49.63	9 <sup>th</sup>
Jul-20	50.00	50.39	5 <sup>th</sup>	49.62	14 <sup>th</sup>
Aug-20	49.99	50.23	30 <sup>th</sup>	49.60	31 <sup>st</sup>
Sep-20	50.00	50.20	26 <sup>th</sup>	49.64	24 <sup>th</sup>
Oct-20	50.00	50.27	12 <sup>th</sup>	49.70	28 <sup>th</sup>
Nov-20	50.00	50.27	16 <sup>th</sup>	49.68	5 <sup>th</sup>
Dec-20	50.00	50.26	25 <sup>th</sup>	49.66	16 <sup>th</sup>
Jan-21	50.00	50.24	14 <sup>th</sup> , 26 <sup>th</sup> & 30 <sup>th</sup>	49.70	30 <sup>th</sup>
Feb-21	50.00	50.31	11 <sup>th</sup>	49.60	25 <sup>th</sup>
Mar-21	50.00	50.32	21 <sup>st</sup>	49.66	17 <sup>th</sup>
Year	<b>50.00</b>	<b>50.39</b>	<b>05.07.2020</b>	<b>49.57</b>	<b>28.05.2020</b>



**Percentage of time frequency varied:**

Month	<49.90 Hz	IEGC BAND (49.90-50.05 Hz)	>50.05 Hz
Apr-20	5.09	75.03	19.88
May-20	4.19	76.38	19.43
Jun-20	4.45	76.56	18.98
Jul-20	6.71	78.01	15.28
Aug-20	5.99	80.87	13.14
Sep-20	4.23	84.11	11.65
Oct-20	3.91	81.74	14.35
Nov-20	4.46	79.81	15.73
Dec-20	4.79	75.13	20.08
Jan-21	5.19	75.54	19.27
Feb-21	6.89	75.41	17.69
Mar-21	7.16	72.77	20.07
<b>Average</b>	<b>5.26</b>	<b>77.61</b>	<b>17.13</b>

**b. VOLTAGES OF TS SYSTEM FOR 2020-21**

Voltages recorded at some of the Generating Stations, Grid sub-stations and Tail-end sub-stations on 26.03.2021, the date on which the State Peak Demand Met i.e.,13688 MW are as tabulated below.

**Voltages profile at various Generating Stations as on 26.03.2021:**

<b>400kV Level</b>						
S.NO	STATION NAME	00:00	08:00	19:00	Max	Min
1	BHUPALAPALLY(KTPP)	407.94	399.06	409.95	413	398
2	BTPS	415.47	409.32	417.7	420.4	407.79
3	KTPS-VI	411.73	404.53	415.8	419.98	403
4	KTPS-VII	416.22	409.13	420.43	423.81	407.32
5	SINGARENI	418.21	415.16	419.75	424.75	413.62
<b>220kV Level</b>						
S.NO	STATION NAME	00:00	08:00	19:00	Max	Min
1	KTPS-V	227.78	222.65	230.5	232.95	221.48
2	LOWER JURALA	216.17	216.17	216.17	216.17	216.17
3	U.JURALA	214.28	205.09	222.11	224.98	201.33
4	N'SAGAR MAIN	224.17	217.5	228.43	231.01	215.45
<b>132kV Level</b>						
S.NO	STATION NAME	00:00	08:00	19:00	Max	Min
1	N'SAGAR	135.24	131.13	138.52	140.11	133.7
2	RTS-B	108.51	102.66	109.65	112.03	106.33

**Voltages profile at various 400kV substations as on 26.03.2021:**

S.NO	STATION NAME	00:00	08:00	19:00	Max	Min
1	CHANDULAPUR	412.31	403.61	418.04	422.64	400.32
2	DICHPALLY	413.64	402.3	421.78	427.04	398.15
3	DINDI	413.04	401.41	419.9	422.42	398.74
4	GAJWEL	410.01	401.38	417.9	422.98	397.46
5	JANGAON	416.21	406.18	422.88	427.76	405.93
6	JULURUPADU	420.16	412.98	425.02	427.5	410.33
7	KETHIREDDY PALLI	414.15	403.24	421.37	427.67	399.58
8	MAHABOORNAGAR	412.05	402.8	420.95	427.45	397.15
9	MAHESWARAM	411.93	401.55	418.85	424.53	398.01
10	MAMIDIPALLY	409.51	399.18	415.72	421.41	395.63
11	MEDARAM	415.22	406.48	420.22	425.37	404.08
12	NARSAPUR	411.9	402.46	418.42	422.63	398.27
13	NIRMAL	415.4	404.38	422.4	428.12	400.05
14	RAMADUGU	415.2	406.49	420.31	425.52	404.08
15	SHANKARPALLY	411.45	401.1	418.8	425.01	397.18
16	SUNDILA	414.84	410.01	417.59	422.49	408.22
17	SURYAPET	419.29	409.66	424.01	426.45	407.17
18	TIPPAPUR	414.64	405.9	420.2	424.92	402.75

**Voltages profile at various 220kV Major substations as on 26.03.2021:**

S.NO	STATION NAME	00:00	08:00	19:00	Max	Min
1	BONGULUR	226.76	219.52	230.18	233.66	218.13
2	BHEEMGAL	200.86	189.07	210.46	212.43	186.97
3	BHONGIR	221.96	216.07	227.58	231.54	212.96
4	CHALAKURTHY SWS	222.69	215.84	225.10	227.6	214.39
5	CHANDRAYANAGUTTA	193.51	186.22	195.54	200.18	185.04
6	DINDI	226.36	217.69	230.71	233.41	216.36
7	FABCITY	224.58	217.64	228	231.65	216.2
8	GACHIBOWLI	225.27	217.41	228.41	232.6	215.1
9	HAYATHNAGAR	230.19	222.7	231.36	234	222
10	IMLIBUN	226.6	219.64	229.74	233.6	217.92
11	JAGITYAL	228.32	214.47	234.11	236.59	213.72

12	KALWAKURTHY	219.86	210.78	226.2	229.14	208.2
13	KONDAMALLEPALLY	219.42	212.98	223.46	226.48	211
14	KAMAREDDY	207.65	201.13	226.33	229.07	198.63
15	KONDAPAKA	215.47	209.05	227.09	229.93	207.29
16	MAHABUBNAGAR	216.65	207.89	226.37	228.86	204.69
17	MEDCHAL	217.45	211.59	223.15	226.93	208.88
18	MEDARAM	230.12	220.23	234.44	237.01	219.5
19	MAMIDIPALLY	223.22	216.69	226.72	230.47	215
20	MOULALI	234.7	226.9	235.8	238.9	226.8
21	MURMUR	228.45	219.1	233.39	235.48	218.18
22	NARKETPALLY	214.2	208.28	225.87	229.58	206.14
23	NIRMAL	226.78	224.32	233.2	236.13	215.06
24	OSMANIA	230.84	224.21	232.25	236.06	222.25
25	PARGI	221.29	211.72	228.81	232.9	209.14
26	SIDDIPET	212.26	198.53	214.26	220.21	197.62
27	SINGOTAM	216.35	207.3	225.17	226.77	204.7
28	SHANKARPALLY	224.29	216.71	228.53	232.61	214.85
29	SHAPURNAGAR	226.2	218.69	229.78	233.89	215.96
30	SURYAPET	223.37	218.06	229.12	231.76	218.13

## ANNEXURE - III

## Scheme wise Details of CAPITALIZATION for F.Y:2020-21 (400kV Schemes)

S. 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) (Rs.in Crs)	Capitalization claimed for the current year 20-21 (Rs.in Crs)	Means of Finance			Date of Capitalization	Addition to Transmission Network (only 400kV data)			Reasons for cost overrun	Reasons for time overrun	Whether part capitalization 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	Suryapet System Improvement Scheme (S-14-02)	21.01.2015 (Revised)	Jul'2013	Sep'2013	Mar'2017	Apr'2018	1738.03	44.06	0.589				19.12.2020	0	0	0.00	NA	Delay in land acquisition and ROW issues	Part	2019000033 2019000039 2019000291 2019000404	-	-
2	Reactor Scheme-II (S-14-01)	06.08.2014	Oct'2016	Aug'2016	Sep'2017	Feb'2018	80.74	639.91	0.37				17.12.2020	0	0	0.00	NA	-	Part	2019000059 2019000060 2019000061 2019000229 2019000230	Yes	-
3	765kV Wardha-Hyderabad Link Transmission Scheme (S-15-13)	19.12.2017 (revised)	Jan'2016	Feb'2016	Mar'2019	ongoing	1178.97	741.32	229.37				25.08.2020	13.23	0	4.00	NA	severe ROW in the vicinity of Hyderabad	Part	2021000352 2021000353 2020000523 2020000520 2019000072 2021000348 2019000037 2019000043 2019000038 2019000287 2019000288 2019000040	Yes	-
4	Dindi System Improvement Scheme (P-15-01)	02.01.2016	Nov'2015	Dec'2015	Mar'2018	Dec'2017	333.54	697.8	0.5				29.05.2019	0	0	0.00	NA	-	Part	2019000250 2019000253	-	-
5	Rayadurg System Improvement Scheme (S-17-08)	24.05.2018	May'2018	Sep'2018	May'2020	ongoing	1786.40	32.89	0.55				03.06.2020	0	0	0.00	NA	-	Part	2020000013	-	-
6	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	0.8	0.65				17.12.2020	0	0	0.00	NA	upgradation to SAS	Part	2019000241 2019000044 2019000225	-	-
7	Augmentation Scheme-III (A-17-03)	30.08.2017	Sep'2017	Feb'2018	May'2018	Nov'2018	74.44	0.43	0.7				12.06.2020	0	0	0.00	NA	Due to site conditions	Part	2019000057 2019000058	-	-

S. No.	Name of the project	Investment approval date	Start Date		Completion Date (400kV works)		Approved cost as per Investment approval	Capitalization upto previous years (As per audited Financial Statements)	Capitalization claimed for the current year 20-21	Means of Finance			Date of Capitalization	Addition to Transmission Network (only 400kV data)			Reasons for cost overrun	Reasons for time overrun	Whether part capitalization or Full Capitalization	Physical Completion Certificate (400kV works only)	Financial Completion Certificate (400kV works only)	Electrical Inspector Certificate
8	Jaipur Power Transmission Scheme (P-10-01,S-10-24)	21.01.2015 (Revised)	Mar'2013	Mar'2013	Mar'2018	June'2018	842.39	146.94	0.52				17.12.2020	0	0	0.00	NA	ROW issues	Part	2020000463 2019000289 2019000246	-	-
9	Wind Power Transmission Scheme (P-12-04)	28.10.2013	Mar'2013	Aug'2013	Mar'2017	Nov'2016	525.37	7.45	0.44				16.05.2019	0	0	0.00	NA	-	-	2019000261	-	-
10	Nirmal Power Transmission Scheme (P-12-02,S-12-30,S-12-31)	19.07.2018 (revised)	Dec'2015	Dec'2015	Dec'2017	Sep 2018	1072.44	48.16	-3.365				10.06.2020	0	0	0.00	NA	Due to pile foundation works & heavy hard rock at Sub-station site	Part	2020000529 2019000034 2019000281 2019000283	-	-
11	Bhadra Thermal Power Transmission Scheme(P-15-03,S-12-23,S-15-20,S-15-21,S-15-22,S-15-25)	02.01.2016	Nov'2015	Dec'2015	Dec'2017	Feb 2019	1179.61	600.43	-1.38				25.05.2019	0	0	0.00	NA	ROW issues and Forest clearances	Part	2019000398 2019000128 2019000125 2019000428	-	-
12	KTPS VII Stage Thermal Power Transmission Scheme (P-15-04,S-16-05,S-15-24)	Dec'2017 (Revised)	Nov'2015	Dec'2015	Nov'2019	Nov 2019	1306.92	129.68	16.94				07.09.2020	0	0	0.00	NA	-	Part	2019000139 2019000429 2020000606 2020000011 2020000403 2019000122	-	-
13	Telangana STPP-I Power Evacuation Scheme (P-16-01)	23.08.2017	42826	Oct'2017	Apr'2020	ongoing	1151.60	989.54	7.53				31.08.2020	0	0	0.00	NA	400kV SS commissoed. 400kV Lines delayed due to RoW	Part	2020000005 2020000559	-	-
<b>TOTAL</b>							<b>11366.04</b>	<b>4079.41</b>	<b>253.41</b>					<b>13.23</b>	<b>0.00</b>	<b>4.00</b>						
<b>DC Works</b>																						
1	2 Nos bay extensions at 400kV Dichpally SS (D-15-09)	-	-	Feb'2016	-	Feb'2017	-	0.00	1.02				11.06.2020	0	0	0.00	NA	-	-	2019000009	-	-
2	Feeder and Metering Bays at STPP,Jaipur (D-17-02)	-	-	June'2017	-	Mar'2019	-	15.56	0.20				22.05.2019	0	0	0.00	NA	-	-	2019000341	-	-
3	Diversion of Gajwel-Shankerpally TMDC Line (D-18-02)	-	-	Aug'2018	-	Oct'2018	-	23.63	0.077				13.05.2019	0	0	0.00	NA	-	-	2019000207	-	-
<b>DC WORKS TOTAL</b>							<b>0.00</b>	<b>39.19</b>	<b>1.30</b>					<b>0.00</b>	<b>0.00</b>	<b>0.00</b>						
<b>400kV SCHEMES TOTAL</b>							<b>11366.04</b>	<b>4118.60</b>	<b>254.71</b>					<b>13.23</b>	<b>0.00</b>	<b>4.00</b>						

Scheme wise detail of CAPITALIZATION for FY 2020-21 : 132kV & 220kV Schemes																		(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 Rs. Crore	Capitalisation Upto Previous Year (up to 2019) (As per ARR) Rs. Crore	Expenditure/ Capitalisation claimed for the Current year (2020-21) Rs. Crore	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)		Lines (Ckt KM)	Capacity (MVA)	Bays (No.)						
1	S-07-03	Erragadda and O.U GIS & Cables scheme	29-09-2011	29-09-2011	27.12.2011	31.03.2020	E-27.05.2015 OU-14.10.2015	75.30	1.49	415.00					44.80	960.00	6				2019000183 2019000186 2019000196 2019000554		
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 Gunrock 220 kV SS.		Feb-10	12.8.2010	Nov'2012	30.11.2012																
	S-07-04.24	B) Hayatnagar 220 kV SS		Feb-13	8.2.2013	March'2017	03.05.2017	17.36													2019000506	Yes	
	S-07-04.23	c) Imlibun 220 kV SS		Jun-13	10.5.2013	March'2017	31.01.2017	328.20													2019000200		
	S-07-04.17	D) Moosarambagh 132 kV SS		Mar-15	19.03.2015	Mar'2017	26.10.2016	95.00													2021000096	Yes	
	S-07-04.14	E) Balkampet 132 kV SS		Mar-15	16.11.2010	Mar'2017	29.09.2016	77.00	88.54	0.36	96.76				308.00	1,621.50	42.00				2020000298 2021000087		
	S-13-13.01	F) Bachupalli(Miyapur) 220 kV SS		Feb-14	24.7.2013	05.01.2015 Mar'2017	11.11.2016	78.41													Yes	Yes	
	S-07-04-13	G) Fever Hospital 132 kV SS		Nov-10	16.11.2010	March'2017	04.01.2017	69.15													2019000194 2020000294	Yes	
	S-07-04.16	H)NIMS																			2019000179 2019000181 2019000198 2019000466		
S-07-04-15	H) Pattigadda 132 kV SS		Apr-15	26.03.2015	March'2017	29.12.2016	66.30													2019000184 2019000192 2019000193			
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		7.47	-0.02	31.19				3.00	47.50	2				2019000195		
4	S-08-11	132 kV SS Mamidipally & connected lines	08/25016	31.10.2008	31.12.2008	31.03.2020	31.03.2016 20.08.2016	21.92	-0.11	0.20					20.00	81.50	4				2019000522 2019000523		
5	S-08-14	Erection of 220/33 kV SS at Singotam 'X' Roads, instead of erection of 132/33 kV substation at Singotam 'X' Roads, Kollapur Mandal in Mahabubnagar district along with connected lines	13.02.2011	16.10.2010	25.01.2012	31.03.2020	02.09.2016	21.17	0.28	0.14					14.00	40.00	2				2019000508 2019000510		
6	S-10-02	132/33 kV Substation at Asifabad in Adilabad district along with connected 132 kV & 33 kV lines	28.11.2011	06.10.2010	29.11.2012	31.03.2020	25.11.2015	20.14	0.70	0.04	18.00				35.00	32.00	2				Yes		

Sl. No.	Scheme ID-SAP	Name of the Project	Investment Approval Date	Start Date		Completion Date		Approved Cost as per Investment Approval	Capitalisation Upto Previous Year (up to 2019) (As per ARR)	Expenditure/ Capitalisation claimed for the Current year (2020-21)	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				Rs. Crore	Rs. Crore	Rs. Crore		Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)						
7	S-10-03	Administrative approval for erection of 132/33 kV Substation at Utnoor in Adilabad district along with connected 132 kV & 33 kV lines	21.03.2011	01.10.2010	23.01.2012	31.03.2020	09.04.2015	29.51	0	0.0015					38.33	32.00	1				Yes		
8	S-10-06	132/33 kV Substation at Borapatla in Medak district along with connecting 132 kV and 33 kV lines	21.03.2011	18.06.2010	20.08.2011	31.03.2020	30.10.2017	15.4	0.43	0.19	36.75				36.00	47.50	2				2019000344 2019000614	yes	
9	S-10-11	132 kV SS Alwal (Keshampet) & connected lines	APT/TS/132kV SS-Keshampet/F-INVST-40/2013	Jan-14	19.4.2014	Jan-15	18.03.2016	18.49	0	0.02	18.49				26	47.5	2				2019000513 2019000521 2019000518		
10	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	0.13	0.25	14.79				19.58	47.50	2				2019000346 2019000397	Yes	
11	S-10-14	220 kV SS Manthani & connected lines	APT/TS/220/132 kV - Manthani/ F-INVST - 01/2011	Dec-13	19.10.2013	Mar-15	06.01.2016	49.66	0	0.11	55.21				86	200	4				2021000368		
12	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	24.27	2.32	10.550				10	32	2	RC pile foundations casted in Godavari river.			2020000530, 2020000532, 2020000310, 2020000313 2020000310	Yes	
13	S-10-18	132 kV SS Raikal & connected lines	APT/TS/132 kV SS -Raikal/ F-INVST - 20/2013	Apr-14	4.9.2014	Apr-15	07.09.2016	14.12	0	0.32	14.12				14	47.5	2				Yes		
14	S-10-20 S-10-26	220 kV Switching Station at Thimmajipeta & connected lines	Dec-17	05.07.2013	30.09.2013	31.03.2020	07.06.2017	29.32	0.32	1.69	67.46				94.00	0.00	8				2019000484 2021000184		
15	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	-0.02	0.00				--	32.00	--					2019000416	Yes	
16	S-11-01	132kV SS Gudur & connected lines	22.12.2011	04.04.2015	16.06.2015	31.03.2020	28.07.2016	13.29	0.13	0.002	12.35				20.00	47.50	2				2019000406 2019000407		
17	S-11-02	132 kV SS Kosigi & connected lines	APT/TS/132 kV SS -Kosigi/ F-INVST -10/2013	Jan-14	2.5.2013	Feb-14	17.12.2014	16.88	0	0.14	13.74				18	47.5	2				2019000504 2019000505 2019000507		
18	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	-0.11	0.51	14.70				14.00	47.50	1.00				2019000818		

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				Schedule	Actual	Schedule	Actual				Rs. Crore	Rs. Crore	Rs. Crore		Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)							Lines (Ckt KM)	Capacity (MVA)	Bays (No.)					
19	S-11-09	132 kV SS Chippapalli & connected lines	APT/TS/132kV SS-Chippapally/F-INVST-31/2013	29.07.2013	29.7.2013	Jul-14	21.12.2015	32.96	0	-0.03	19.13				61	47.5	2				Yes										
20	S-11-10	132kv ss Dasnagar & connected lines	APT/TS/132 kV SS-Dasnagar/F-INVST - 11/2013	Jan-14	1.4.2014	Apr-15	21.07.2016	16.66	0	0.00	15.66				26	81.5	2				2019000249	2019000251									
21	S-11-11	132KV parigi dmsagar line	15.09.2018	18.04.2018	13.12.2016	31.03.2020		30.80	0.32	0.21	19.26				70.00	--	4.00														
22	S-11-12	132kV SS Dornakal & connected lines	APT/TS/132kV SS-Dornakal/F-INVST-11/2014	May-14	10.6.2015	May-15	22.07.2016	17.32	0	0.01	17.32				20	47.5	2				2019000274	2019000275	2019000276	2019000740	Yes						
23	S-11-13	132 kV SS Doulthabad & connected lines	APT/TS/132kV SS-Doulthabad/F-INVST-38/2013	21.06.2013	21.6.2013	Mar-14	10.02.2017	21.8	0	-0.002	15.87				32.7	47.5	2				Yes	Yes									
24	S-11-16	220/132/33 kV substation at Huzurnagar in Nalgonda District	02.04.2013	21.06.2013	18.02.2016	31.03.2020	10.12.2018	52.49	64.99	0.37	62.65				100	263	10				2020000545	2020000546	2020000547	2020000548	2019000924	2019000925	2019000926	2019000810	2019000812		
25	S-11-21	132kV DC/SC line from 132kV Dharmapuri SS to 132kV Luxettipet SS and 2Nos bays at 132kV Dharmapuri SS and 2Nos bays at 132kV Luxettipet SS	12.07.2012	05.09.2014	12.12.2014	31.03.2020	12.12.2017	10.9	-0.06	0.37	10.90				25.00	0.00	2				Yes										
26	S-11-22	132 kV SS Madugula & connected lines	12.07.2012	01.09.2015	21.12.2015	31.03.2020	11.11.2017	22.09	0.05	0.001	19.05				39.40	63.00	4				2019000498	2019000499	2019000500	2019000501	2019000502						
27	S-11-24	132 kV SS Srirangapur (Mogiligidda) & connected lines	06.04.2011	02.04.2014	07.08.2014	31.03.2020	13.06.2016	16.91	0.02	0.15	13.14				14.00	81.50	2.00				2019000489	2019000490									
28	S-11-25 S-11-26	132KV SS Munugodu & connected lines	24.05.2013	11.08.2011	13.06.2016	31.03.2020	05.10.2017	19.33	1.4	-0.04	16.14				25.00	47.50	2				2020000566										
29	S-11-27	132/33 kV Substation at Nellikuduru in Warangal district along with connected 132 kV & 33 kV lines	24.05.2013	06.04.2011	21.07.2016	31.03.2020	04.01.2018	21.21	0.67	0.02	17.85				30.00	47.50	2				2019000295	2019000296	Yes								



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				Schedule	Actual	Schedule	Actual				Rs. Crore	Rs. Crore	Rs. Crore		Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)						
30	S-11-28	132kV SS Nimmapally & connected lines	APT/TS/132 kV SS -Nimmapalli/ F-INVST - 06/2014	Apr-15	23.3.2018	Apr-16	work in progress	25.35	0	9.21	37.09				21	32	2						
31	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 LILO arrangements to 132/33 kV SS Wadapally (NEW) in Nalgonda district.	TOO / CE/Trans/ MS No.106 Dated 17.06.2015 (As per APREC Proceedings No: 725/2013, dt.06.05.2013)	22.04.2013	22.4.2013	Jan-14	26.11.2016	4.99	0	-0.03	4.99				-	47.5	-				2021000070 2021000071		
32	S-11-37	132/33 kV Substation at Shad Nagar (V) Hamlet of Wattipally in Medak District	14.06.2016	14.06.2016	09.09.2015	31.03.2020	10.02.2018	19.07	0.60	0.50	57.20				42.00	32.00	2				2019000442 2019000606	Yes	
33	S-11-38	132 kV SS Yeldurthy & connected lines	Jul-13	03.09.2012	29.12.2016	31.03.2020	02.08.2018	17.89	14.11	0.002	17.27				18.00	63.00	2				2019000211 2019000170 2019000171	Yes	
34	S-11-39	132 kv SS Yerrabelli(V), Nidmanoor(M) & connected lines	22.12.2011	05.07.2015	18.09.2015	31.03.2020	03.10.2016	19.37	-0.16	0.06	13.71				25.00	47.50	2.00				2019000672 2019000673 2019000674		
35	S-12-01	220 kV features at proposed 132/33 kV Kosigi SS in Mahaboobnagar district	21.03.2013	13.01.2012	07.08.2014	31.03.2020	04.07.2016	52.25	0.84	0.89	46.57				101.00	200.00	8				2019000450 2019000445 2019000446 2019000448 2019000452		
36	S-12-02	132KV Arempula & connected lines	28.11.2015	01.04.2016	06.06.2016	31.03.2020	March'2017	21.53	0.03	0.11	19.38				30.00	48.00	2				2019000386 2019000387	Yes	
37	S-12-03	erection of 33 kV features at Gangadhara 132/11 kV Lift irrigation substation in Karimnagar district	T.O.O (CE-Construction-I) Ms. No. 278, Dated: 13.12.2012 (As per APREC Proceedings No: 725/2013, dt.06.05.2013)	Jun-14	29.11.2016	Jun-15	28.10.2017	4.18	0	0.30	7.51				-	32	-						
38	S-12-04	132/33 kV Substation at Inavole in Warangal district along with connected 132 kV & 33 kV lines	24.05.2013	24.02.2012	10.11.2016	31.03.2020	27.01.2018	24.11	2.86	-0.001	20.79				59.00	32.00	4				3019000403 2019000405		
39	S-12-05	erection of 33 kV features at Jankampet 132/11 kV Lift irrigation substation in Nizamabad district	20.12.2012	20.09.2016	01.11.2016	31.03.2020	16.02.2018	4.18	-0.03	0.16	7.54				0.00	32.00	0				2019000254 2019000255	Yes	

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				Schedule	Actual	Schedule	Actual				Rs. Crore	Rs. Crore	Rs. Crore		Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)						
40	S-12-06	Erection of 2nd circuit stringing on existing 220 kV DC/SC line from 220 kV Ramagundam Sub-Station to 220 kV Mandamarri (Bellampally) Sub-Station	31.01.2013	28.11.2012	06.10.2012	31.03.2020	20.10.2015	10.67	0	0.09					34.00	--	2						
41	S-12-10	132 kV SS MD Pally (Kattedan) & connected lines	21.07.2017	12.02.2015	05.08.2015	31.03.2020	25.09.2017	54.71	6.99	0.12	33.86				7.00	100.00	4				2019000538 2019000539	Yes	
42	S-12-11	132kV SS Munagala(V&M) & connected lines	28.11.2015	17.07.2015	20.06.2016	31.03.2020	22.12.2017	35.53	27.09	1.74	30.95				86.00	48.00	4				2020000551 2019000676		
43	S-12-12	Erection of 220/132kV SS at Nagole(Uppal) for Metro	13.08.2012	05.07.2012	21.09.2012	31.03.2020	25.09.2016	80.55	-0.01	0.25	80.55				28.00	263.00	4				2019000313 2019000517	Yes	
44	S-12-13	132KV SS Palakurthy & connected lines	APT/TS/132kV SS-Palakurthy/F-INVST-54/2013	29.07.2013	9.11.2015	Apr-14	29.07.2016	19.63	0	0.05	19.63				29.00	32.00	2				2019000689 2019000690 2019000691		
45	S-13-01	220/33kV features at existing Salivagu 220/11kV Lift Irrigation Substation	TOO / CE/Const-I/ MS No.42 Dated 10.05.2013 (As per APREC Proceedings No: 725/2013, dt.06.05.2013)	Apr-14	04.09.2014	Apr-15	31.01.2016	11.21	0	0.03					-	63	-				2019000309	Yes	
46	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	0.33	-0.62	68.90				94.00	200.00	9				2019000282 2019000305 2019000306 2019000308 2019000519 2019000737 2020000509 2020000519	Yes	
47	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	38.81	8.92					20	300	6		ROW issues		2019000540 2019000541 2020000357 2021000144		
48	S-13-06	132KV Dommarapochampally & connected lines	03.9.2014	17.05.2018	24.12.2016	31.03.2020	16.07.2018	36.32	23.57	0.10	32.35				7.20	63.00	2				2019000392 2019000394	Yes	
49	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	12.23	0.05	21.53				37.50	48.00	2				Yes		
50	S-13-14	220/132 kV SS at Siricilla in Karimnagar District	08.10.2015	03.08.2015	22.12.2015	31.03.2020	15.12.2016	87.3	2.61	1.88	60.00				134.00	300.00	8				Yes		

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				Schedule	Actual	Schedule	Actual				Rs. Crore	Rs. Crore	Rs. Crore		Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)						
51	S-14-03	132/33 kV Substation at Duddeda in Medak District along with connected lines	09.04.2015	10.05.2015	31.07.2015	31.03.2020	02.09.2016	24.60	0.03	0.02	19.06				30.00	63.00	2				2020000503 2021000323	Yes	
52	S-14-04	132/33 kV Substation at Ganeshpally in Medak District along with connected lines	09.04.2015	10.04.2015	04.07.2015	31.03.2020	08.06.2016	21.03	0.03	0.04	19.06				24.00	63.00	3.00				2019000576 2019000603 2019000604	Yes	
53	S-14-05	2nd ckt line Durshed SS to Water Works SS	26.02.2014	26.02.2014		31.03.2020	27.02.2021	2.43	1.96	0.31	2.18				7.50	--	2.00						
54	S-14-12	132 KV substation Khairthalapur along with connected lines	01.09.2015	10.09.2014	04.07.2016	31.08.2020	27.08.2019	66.04	53.88	0.65	59.090				15	63	4				2020000006, 2020000007 2020000008	Yes	
55	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	9.21	0.02	6.200				16	-	2	Additional towers erected due to ROW	Severe ROW issues. Some of the locations got completed with notice		2020000010, 2020000009		
56	S-15-02	Up-Grading 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	40.02	0.11	42.55				100	200	8				2020000136, 2019000093& 2019000613	Yes	
57	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	0.27	0.12	30.56				8.00	63.00	4				2019000605 2019000343	Yes	
58	S-15-04	132/33 kV Sub-Station at Jangapally of Bejjanki Mandal in Karimnagar District.	06.05.2013	30.07.2015	03.03.2018	31.12.2019	02.06.2019	19.79	12.60	0.46	16.68				28	48	2				Yes		
59	S-15-05	132KV Kondapur SS	21.02.2015	03.01.2015	23.03.2017	31.03.2020		24.49	6.36	1.35	21.71				20.00	63.00	1.00				2020000272		
60	S-15-08	Erection of 132 kV DC line for making LIL0 of one circuit of existing 132KV DC line from 132 KV SS Jakora to 132 KV SS Bichkunda at 132/33 kV SS Banswada under the program for providing 9.00 Hrs Day Time Supply for Agriculture	26.08.2015	05.09.2016	01.11.2016	31.03.2020	29.12.2017	8.00	0.18	0.22	6.53				20.00	0.00	2				2019000247 2019000248		
61	S-15-09	132kV line G'pur- Imbn line to Nagole	12.02.2015	12.02.2015	07.01.2016	31.03.2020	21.09.2017	10.77	0	0.01	10.77				3.60	--	--				2019000514		
62	S-15-10	132/33 kV Substation at Narayanpet in Mahaboobnagar District along with connected 132 kV & 33 kV lines	18.8.2016	17.07.2015	21.09.2016	31.03.2020	28.12.2017	21.23	1.08	0.01	34.98				15.00	63.00	2				2019000383 2019000384 2019000380		

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				Schedule	Actual	Schedule	Actual				Rs. Crore	Rs. Crore	Rs. Crore		Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)						
63	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-02.11.2018	46.4	18.86	0.75	38.06				208.00	--	4						
64	S-15-12	Erection of 132/33 kV Sub-Station at Gandimasani pet of Yellareddy Constituency in Nizamabad District.	07.09.2015	05.05.2016	25.07.2016	31.03.2020	25.09.2018	15.89	-0.02	1.62	13.40				12.00	48.00	2				2019000018 2019000019		
65	S-15-28	220 kV 2nd circuit stringing on 220 kV RSS - Jagityal and 220 kV RSS - Nirmal	17.12.2015	31.09.2015	27.11.2015	31.03.2020	30.12.2016	46.4	-0.02	0.20	38.06				204.00	--	4				Yes		
66	S-15-29	132KV DC line from 220KV HSB. LISS, BAY	27.07.2015	27.07.2015	11.11.2016	31.03.2020	29.12.2017	18.00	1.31	0.86	34.98				17.00	100.00	6.00				Yes		
67	S-15-31	erection of 2 <sup>nd</sup> circuit from 220kV Shivarampally SS to 132kV Asifnagar SS for providing 2 <sup>nd</sup> source of supply to 132kV Asifnagar substation	05.10.2015	25.03.2015	16.02.2018	31.03.2020	31.05.2019	45.97	41.65	-0.29	41.36				4.00	--	2				2020000354		
68	S-15-32	Erection of 220/132/33 kV SS at Pedagogpati in Khammam district	22.03.2016	07.11.2015	27.02.2017	31.03.2020	01.12.2018	124.44	44.74	0.37	121.25				220.00	263.00	4				2019000088 2019000103	Yes	
69	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	14.10	0.56	17.66				28.00	48.00	2				2020000621 2020000620		
70	S-15-37	erection 132 kV line from 220 kV Jurala Sub-Station to 132 kV leeza Sub-Station under the program of providing 9.00 Hrs agricultural supply during day time	06.05.2013	29.07.2015	12.03.2018	31.03.2020	07.08.2019	16.54	15.84	0.83	30.56				35.00	--	2				2020000637 2020000640 2020000641		
71	S-15-38	Erection of 132 kV lines for making LILO of (i) 2nd Circuit of 132kV Warangal – Shapur Nagar DC line at 132kV SS Jangaon and (ii) 2nd Circuit of 132kV Warangal – Shapur Nagar DC line at 132kV SS Kolanpak	06.05.2013	22.08.2015	07.02.2018	31.03.2020	J-28.12.2019 K-16.11.2019	8.38	5.8	0.04	7.02				12.00	--	4				2020000510		
72	S-16-07	Erection of 33 kV Features at existing 132 kV Switching Station, Kodandapur in Nalgonda District.	18.02.2016	18.02.2016	20.08.2018	31.03.2020	25.03.2019	8.91	0.23	0.31	8.010				--	63.00	--				2019000336		
74	S-16-08	33 kV Features at existing 220/11 kV LI Sub-Station, Bheemghanpur Warangal District.	25.04.2016	25.04.2016	05.05.2017	31.03.2020	08.07.2020	5.73	6.08	2.47	16.31				--	50.00	--		Delay in PTR supply		2020000505		

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				Schedule	Actual	Schedule	Actual				Rs. Crore	Rs. Crore	Rs. Crore		Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)						
75	S-16-09	132/33 kV Sub-Station at Regonda in Warangal District.	11.01.2017	06.04.2016	08.01.2018	31.03.2020	05.12.2018	22.11	13.7	0.18	19.07				20.00	48.00	2				2019000680 2019000681		
76	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	17.12	0.56	16.710				18.00	48.00	2				2020000506 2020000507		
77	S-16-16	erection of 220/33 kV Sub-Station, at Domalapenta Village of Nagarkurnool District (erstwhile Mahaboobnagar District)	15.12.2016	15.12.2016	05.03.2018	30.11.2019	26.07.2019	14.2	12.00	0.37	12.411				2.00	63.00	2						
78	S-17-01	Erection of 220/33 kV Sub-Station at Chanchalguda	CRN TS/TST/220/33 KV, GIS, Chanchalguda/Invest.Approval No.7/17-2017-18	27.02.2017	28.02.2018	31.03.2021	20.03.2021	89.12	0.00	78.25	80.21				2.00	150.00	--				2021000035		
79	S-17-09	220/132/33 kV Substation at Toopran(meenaji pet) in Medak District along with connected lines	09.04.2015	27.05.2017	23.12.2016	31.03.2021	06.02.2020	76.78	48.90	0.75	68.430				110.00	263.00	12				2020000000 2020000001	Yes	
80	S-17-11	33 kV Features at existing 132/11 kV LI Sub-Station, CH. Kondur in Nizamabad District	23.05.2017	23.05.2017	16.04.2018	31.03.2020	01.10.2018	4.2	2.5	-0.04	3.67				--	32.00	--				2019000143		
81	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	16.77	0.08	13.160				4.00	63.00	2				2019000921 2019000922		
82	S-17-15	Erection of 132/33 kV Sub-Station at Chinna Shankampet in Medak District	06.05.2013	19.08.2017	01.04.2018	31.03.2021	23.01.2021	16.00	0	8.96	13.96				12.00	32.00	--				2021000138 2021000138		
83	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	7.50	0.28	5.07				4.00	--	8				2020000517		
84	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	4.76	5.58	5.110				6.00	--	2	Narrow based towers erected due to RoW	RoW		2021000366 2021000367		

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				Schedule	Actual	Schedule	Actual				Rs. Crore	Rs. Crore	Rs. Crore		Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)							Lines (Ckt KM)
85	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	0.00	24.86	59.91				46.00	315.00	4							
86	P-15-05	400/220KV 315MVA PTR in place of failed 400/132KV 200MVA PTR at NTPC Ramagundam and connected 220KV line & Bay Works	07.09.2015	07.09.2015	24.11.2015	31.03.2020	30.12.2016	30.80	2.84	0.04	25.26				--	315.00	--				Yes			
87	P-11-01	Pulichintala Hydro electric project evacuation arrangements	APT/TS/Pulichintala-Evac/F-INVST-02/2014	Apr-14	12.2.2014	Apr-15	22-9-16 5-12-18	33.42	0.00	0.09					76	-	4				2020000568 2020000628			
88	P-10-03	132kV LILO line from 132 KV Makthal – Gadwal 2nd circuit line for the proposed 220 kV Substation Jurala along with bays in Mahabubnagar district	27.11.2010	27.11.2010	18.08.2011	31.03.2020	03.07.2019	7.61	6.51	0.33	3.52				20.00	--	2				2020000638 2020000639			
89	P-10-02	Transmission system for evacuation power from the forth coming Lower Jurala Hydro Electric Station (6x40 MW)	APT/TS/Lower Jurala-Evac / F-INVST - 06/2011	16.07.2011	23.12.2011	31.12.2013	29.04.2016	10.87	0.00	0.15					32	--	6				2021000186 2021000187 2021000188 2021000189			
90	N-17-01	Other Non Planned Project Str 2017-18								1.50														
91	N-18-01	Other Non Planned Project Str 2018-19								9.30														
92	N-19-01	Non Plan Capital Works for FY 2019-20								3.96														
93	N-20-01	Non Plan Capital Works for FY 2020-21								2.00														
<b>TOTAL</b>								<b>2944.06</b>	<b>801.38</b>	<b>180.87</b>	<b>2588.42</b>				<b>3395.61</b>	<b>8647.50</b>	<b>293.00</b>							

Sl. No.	Scheme ID-SAP	Name of the Project	Investment Approval Date	Start Date		Completion Date		Approved Cost as per Investment Approval	Capitalisation Upto Previous Year (up to 2019) (As per ARR)	Expenditure/ Capitalisation claimed for the Current year (2020-21)	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				Rs. Crore	Rs. Crore	Rs. Crore		Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)						
<b>DC WORKS</b>																							
1	D-13-02	SWICHYARDSTATIONNTPC SOLAR EVACUATION		01.09.2012	07.08.2014	13.05.2015	05.05.2016	10.17	0.11	0.01					0.70	-	-						
2	D-13-05	SHIFTING LINE AT YELLAMMABANDA FOR GHMC		31.10.2013	24.07.2014	30.10.2014	11.12.2015	6.97	0.18	0.14					-	-	-						
3	D-13-07	SHIFTING OF 132KV LINES FOR MMTSPH-II (i) 132 KV RC Puram-Pratap steel-My Home Pvt Ltd Line (ii) 132 KV RCPuram-Pratap steel-My Home Pvt Ltd-Cable (iii) RC Puram-Bollaram-Shapur Nagar		01.02.2016 01.03.2016 01.01.2016	24.10.2016 25.01.2018	01.03.2016 01.02.2018 01.05.2016	17.12.2016 27.07.2018 18.02.2017	28.36	0.04	0.05					-	-	-						
4	D-15-01	ERC OF (I) 132KV DC (2PH) LINE(20.5KM) -		21.07.2015	21.07.2015	20.10.2016	28.10.2016	13.61	-0.01	0.05					41.00	-	-						
5	D-15-08	220KV YELLURU & GOURIDEVIPALLY SS		24.02.2016	24.02.2016	23.11.2016	Y-03.11.17 G-08.12.17	Y- 39.81 G- 39.68	3.21	1.13					11.00	200.00	-						
6	D-16-07	DC WORKS-EREC OF 220KV BAY AT 220 BUDMPD		12.11.2015	03.11.2016	02.05.2017	14.06.2018	2.11	0.13	0.14					0.30	-	1.00						
7	D-16-09	DCW-132KV DC LINE 132KV MATTAMPALLI TO RTSS		18.11.2016	15.12.2016	14.05.2017	22.07.2017	6.76	0.22	0.13					4.40	-	2.00						
8	D-16-11	Shftg of 132KV ERG-MDHPR DC LN for GHMC		23.03.2017	23.03.2017	22.06.2017	07.11.2017	31.866	0.11	0.62					-	-	-						
9	D-16-14	Providing open access metering at M/s.CCI							0	1.17				-	-	-							
10	D-17-04	132 KV DC/SC line from Gangadhara LIS		14.03.2017	06.04.2018	05.10.2018	09.02.2019	12.91	0.23	0.33					18.00	-	1.00						
11	D-17-06	220 KV LILO (10.80 KM) line from existing RSS-Nagaram line		10.05.2016	08.01.2018	08.07.2018	30.03.2019	23.8	0.56	0.69					21.60	-	2.00						
12	D-17-07	Extn of 132 KV line 4m 220 KV Ch'gutta 2		22.12.2017	22.12.2017	21.03.2018	I-22.11.2018 II-07.10.2018		0.04	0					0.50	-	-						
13	D-17-08	132 KV DC line 4m Siddipet 2 elanthknta(K		09.02.2018	09.02.2018	08.06.2018	26.04.2018	4.319	0.86	-0.1					-	-	-						

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				Schedule	Actual	Schedule	Actual				Rs. Crore	Rs. Crore	Rs. Crore		Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)						
14	D-17-09	220KV Sdipet 2 Drshd DC line (kaleshrm)		25.04.2018	25.04.2018	24.10.2018	09.08.2018	9.228	0.47	0.04					-	-	-						
15	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	4.45	0.82					5.40	-	-						
				02.06.2018 (Ramannapet line)	02.06.2018 (Ramannapet line)	01.12.2018 (Ramannapet line)	06.12.2018	7.0374								2.70	-	-					
16	D-17-12	Shifting of 220KV kline from veltoor-Thi (1) Shifting of 220KV kline from veltoor-Thimmajipet 2) 220 KV Shifting of Boothpur-Kalwakurthy)		23.05.2018 13.04.2018	5.2018 13.04.2018	22.11.2018 12.10.2018	29.01.2019 06.11.2018	8.41 3.20	8.67	0.08					-	-	-						
17	D-18-05	shftng of Ins B/w manoharbd-Kothapalli n		21.08.2018	21.08.2018	20.02.2019	02.07.2019	21.38	2.01	0.08					-	-	-						
18	D-18-10	Divrsn of Gajwl-Kndapka etc Komrveli mal		26.09.2018	26.09.2018	25.03.2019	09.12.2020	17.599	5.04	0.16					-	-	-						
19	D-18-12	Extnsion of power supply to RTSS Manoharabad							0	7.72													
20	D-18-21	220KV DC line Dindi-Bonguluru loc no 5 t		07.05.2019	07.05.2019	06.11.2019	05.02.2020	7.91	4.13	0.44					-	-	-						
21	D-18-22	Shift of 132KV Makthal-Krishna DC line a		07.03.2019	07.03.2019	01.12.2019	23.12.2019	4.143	1.6	-0.01					-	-	-						
22	D-19-01	Shftng of 132KV Erragadda-Shivarampally		07.03.2019	07.03.2019	06.09.2019	11.03.2020	0.94	0.62	0.11					-	-	-						
23	D-19-04	Shifting 132kv lines from Road number 45 Durgam Cheruvu							0	8.92					-	-	-						
<b>DC WORKS TOTAL</b>								<b>217.49</b>	<b>32.67</b>	<b>22.72</b>					<b>105.60</b>	<b>200.00</b>	<b>6.00</b>						



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				Schedule	Actual	Schedule	Actual				Rs. Crore	Rs. Crore	Rs. Crore		Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)							Lines (Ckt KM)	Capacity (MVA)	Bays (No.)
<b>Augmentation of PTR SS</b>																										
1	A-05-03	Erection of 2nd 160MVA PTR in place of 1				4/9/2018				0.0297								No cost overrun			2020000663					
2	A-12-06	Aug of PTRs at 132KV SS Narsapur & Kandi		31.01.2012	31.01.2012	8/12/2015				0.0084								No cost overrun			2019000706					
3	A-13-03	Aug in WGL ZONE & Bandlaquda Metro Zone		09.07.2013	09.07.2013	10/8/2018				0.0068								No cost overrun			2021000264					
4	A-15-05	AUGof PTR@EHT SS for extending 9Hrs		01.05.2015	01.05.2015	6/1/2016				0.0932								No cost overrun			2021000066					
						5/27/2016																2021000068				
						4/16/2016																	2020000672			
						4/11/2016																	2019000529			
						4/7/2016																		2019000119		
						4/18/2016																		2019000117		
						3/5/2016																		2019000120		
						5/5/2016																		2021000194		
						3/31/2016																		2019000503		
						3/29/2016																		2021000198		
			5/11/2016																		2021000195					
			4/4/2016																		2020000283					
5	A-15-06	Augmentation of PTR capacities at variou		01.05.2015	01.05.2015													No cost overrun								
6	A-15-07	Augmentation of PTR capacities at 220kV		02.07.2015	02.07.2015	4/26/2016				-0.0179								No cost overrun			2019000806					
						5/13/2016																2019000817				
7	A-15-24	Aug. of 132KVSS Gunrock for additional 50		14.02.2015	14.02.2015	3/16/2019				0.0178								No cost overrun			2019000178					
8	A-15-25	Aug. at 220KV SS Gachibowli ADDL. 50MVA.		23.06.2015	23.06.2015	5/23/2018				0.051								No cost overrun			2019000409					
						9/8/2020																2021000244				
9	A-16-01	3rd 31.5MVA PTR at Adilabad SS		01.03.2016	01.03.2016	3/3/2017				0.2055								No cost overrun			2021000237					
10	A-16-02	Aug . 80MVAs at Moulali & sivarampally		16.02.2016	16.02.2016	8/26/2016				0.201								No cost overrun			2019000557					
11	A-16-09	Augt. PTR Capacity at 220KV Malyalpally		09.12.2016	09.12.2016	12/16/2019				0.1653								No cost overrun			2020000271					
12	A-16-10	Aug. at 220KV SS Gunrock & Ghanapur 160M		08.12.2016	08.12.2016	8/23/2019				0.4435648								No cost overrun			2020000437					
13	A-17-01	24 Hrs. Agl. supply works in WGL ZONE	TST/ TS/ Augmentation of Transformer capacities (24 Hrs. Agricultural supply) / Investment approval No.13/17, 2017-18		20.05.2017	20.05.2017	12/19/2018			1.8617								No cost overrun			2021000185					
							7/11/2018																2021000154			

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				Schedule	Actual	Schedule	Actual				Rs. Crore	Rs. Crore	Rs. Crore		Debt (Rs. Crore)	Equity (Rs. Crore)	Grants (Rs. Crore)							Lines (Ckt KM)	Capacity (MVA)
14	A-17-02	Aug Sys Stren & 24 Hrs Agl METRO & RURAL	TST/ TS/ Augmentation of Transformer capacities (24 Hrs. Agricultural supply) / Investment approval No.13/17, 2017-18	02.06.2017	02.06.2017		2/21/2018			-0.0000002								No cost overrun			2019000226				
							6/28/2018															2019000567			
							2/5/2019																2020000432		
15	A-17-05	Augmentation of PTR capacity at 132KV Manoharabad		16.03.2018	16.03.2018		12/31/2018			0.00000371								No cost overrun			2020000493				
16	A-18-02	Aug of PTR cap.at YWGI		18.07.2018	18.07.2018		4/30/2020			1.7747								No cost overrun			2021000303				
17	A-18-03	Augmantation of PTR at RCPuram and 4 Oth		17.11.2018	17.11.2018		2/2/2019			0.0373								No cost overrun			2021000288				
							3/11/2019																	2021000167	
18	A-19-01	Aug of 4th 160 MVA at 220KV Gachibowli		03.07.2019	03.07.2019		2/3/2020			0.1589								No cost overrun			2021000243				
19	A-19-03	Augmentation of 80 MVA at 132 KV IDPL SS		07.03.2020	07.03.2020		12/14/2020			0.2069								No cost overrun			2021000164				
							12/14/2020																	2021000165	
20	A-19-05	Augmentation of PTRs at gesukonda & Tiru		18.03.2020	18.03.2020		5/18/2020			0.0714								No cost overrun			2021000357				
21	A-20-03	Aug of PTR at Warangal & Karimnagar Circ		30.10.2020	30.10.2020		2/23/2021			1.678								No cost overrun			2021000251				
<b>PTRS AUGMENTATION TOTAL</b>										<b>0.00</b>	<b>0.00</b>	<b>6.99</b>													
<b>SCHEMES GRAND TOTAL</b>										<b>3161.55</b>	<b>834.05</b>	<b>210.59</b>													
	Add	IDC Capitalised during the Year								126.26															
	Less	Devolution of project materials & others								27.18															
<b>TOTAL Capitalisation incl. IDC</b>										<b>309.67</b>															

**Scheme wise Details of CAPITALIZATION for F.Y:2020-21 (Renovation, Modernization & Improvization Schemes)**

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				Scheduled	Actual	Scheduled	Actual				Debt	Equity	Grant		Lines (CKT KM)	Capacity (MVA)	Bays (Nos.)							
1	A-15-22	STRENGTHENING OF 10 NOS. OVERLOAD LINES						215.07		-1.2960								No cost overrun			completed			
			132 KV Halia – Nagarjuna Sagar line	18.04.2016		17.10.2016	14.12.2016															202000673		
			132 KV Bhongir-Aleru	18.04.2016		17.12.2016	06.02.2018															2019000766		
			132 KV Warangal - Jangoan	18.04.2016		17.10.2016	14.12.2016															202000627		
			132 KV Dichpally – Janakampet	18.04.2016		17.10.2016	16.12.2016															202000438		
			132 KV Nalgonda-Narketpally	05.05.2016		04.11.2016	31.01.2017															NA		
			132kv Narketpally - Rammannapet	29.11.2016		31.05.2017	17.06.2017															202000542		
			132kv Medchal-Shapumagar	29.11.2016		31.05.2017	09.01.2018															202000019		
			132kv Medchal-Medchal	29.11.2016		31.05.2017	15.04.2018															202000020		
			132 KV Janakampet-Renzal line	29.11.2016		31.05.2017	10.06.2017															202000435		
132KV Jubilee Hills-Chandrayangutta	30.11.2016		31.05.2017	01.11.2017															202000157					
2	A-18-05	PSDF STRENGTHENING-7NO'S 220KV EHT LINES						100.55		0.0009								No cost overrun						
		220 KV Gachibowli - Shankarpalli -I Line	CRN No.08/18 (2018-19)	18.09.2018			20.05.2019														2019000914			
		220 KV Gachibowli - Shankarpalli -II Line		18.09.2018			17.05.2019														2019000915			
		220 KV Malkaram – Shapumagar DC Line		18.09.2018			15.03.2019 (Ckt-I) & 12.03.2019 (Ckt-2)														2019000172			
		220 KV HIAL -Mamidipally-I Line		18.09.2018			11.02.2019														2019000151			
		220 KV HIAL -Mamidipally-II Line		18.09.2018			05.02.2019														2019000150			
		220 KV HIAL - Sivarampally Line		18.09.2018			11.02.2019														202000279			
		220 KV Mamidipally - Sivarampally Line		18.09.2018			31.01.2019														2019000153			

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				Scheduled	Actual	Scheduled	Actual				Debt	Equity	Grant		Lines (CKT KM)	Capacity (MVA)	Bays (Nos.)										
3	D-16-06	Erection of 33 KV bays for NPDCL		31.03.2016	31.03.2016		6/22/2016			0.0683								No cost overrun			2019000692						
							9/14/2016															2021000292					
							9/29/2016																2021000293				
							10/14/2016																2021000294				
							9/1/2016																2019000573				
							10/21/2016													2021000214							
4	D-18-07	1 No 33 KV Feeder Bays at 132 KV Sirpur Kagaznagar SS		05.05.2018	05.05.2018		6/25/2018			0.0000								No cost overrun			2019000688						
5	D-18-11	Replacement of CTs & PTs at 132KV OCM SS	07.01.2019	07.01.2019	01.05.2019	20.12.2019	20.12.2019	0.5689	-	0.0039								No cost overrun	Procurement Delay due to poor response of Bidders		2020000390	-	-				
6	D-20-27	33KV Bays for Amazon at Mahabubnagar		08.07.2020	08.07.2020		11/17/2020			0.1301								No cost overrun			2021000253						
							11/17/2020																	2021000252			
7	D-20-32	1 No 33 KV Feeder bay at 132KV Peddanagaram		05.09.2020	05.09.2020		11/21/2020			0.0261								No cost overrun			2021000280						
8	D-20-33	1 No 33 KV Feeder bay at 132KV Morthad for HRLIS		09.01.2020	09.01.2020		11/7/2020			0.0293								No cost overrun			2021000239						
9	D-19-12	Int.twr 132KV Gjwl-Chegunta loc 11 to 13	31.01.2020	30.04.2020						0.0130											2020000387						
10	D-19-13	Int.twr 132KV Gjwl-Chegunta loc 12 an 13	31.01.2020	30.04.2020						0.0038											2020000386						
11	D-20-31	Intermediat towers for Gajwel ring road(R & B)								0.7500																	
	D-20-31.01	Loc.No.149&151	12.11.2020	11.02.2021																		2021000143					
	D-20-31.02	Loc.No.156&158	12.11.2020	11.02.2021																		2021000142					
	D-20-31.03	Loc.No.9&12	18.12.2020	17.03.2021																		2021000141					
	D-20-31.04	Loc.No.166&168	09.12.2020	08.03.2021																		2021000137					
12	N-16-OMCP	O&M CAPITAL MAT. PROC. for FY: 2016-17					1/17/2017			0.9143								No cost overrun			2021000172						
							5/14/2017																2021000175				
							3/4/2016																		2021000196		
							2/6/2017																		2021000181		
							2/19/2018																			2021000245	
13	N-17-OMCP	O&M CAPITAL MAT. PROC. for FY: 2017-18					7/13/2020			0.3375								No cost overrun			2021000206						
							3/31/2018																	2021000139			

Sl. No.	Scheme ID-SAP	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 20-21	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.)							
14	N-18-OMCP	Cap.Material Drawl in O&M for FY:2018-19				11/6/2020			0.2268									No cost overrun			2021000116			
						7/26/2021															2021000349			
						11/20/2020																2021000168		
						3/28/2018																2020000649		
						9/24/2019																2021000118		
15	N-19-OMCP	Cap.Material Drawl in O&M for FY:2019-20				4/8/2020			0.6435									No cost overrun			2021000319			
						6/20/2020															2021000078			
						11/14/2019																2020000653		
						7/19/2019																2020000652		
						4/18/2020																2021000316		
						9/25/2020																2021000329		
						11/26/2019																2021000279		
						5/20/2020																2021000057		
						9/16/2020																2021000327		
						10/10/2019																2021000328		
						7/4/2019																2021000081		
						7/1/2019																2021000082		
						2/18/2020																2020000651		
						11/15/2020																2021000229		
						4/17/2021																2021000231		
						4/23/2018																2021000232		
						8/3/2020																2021000309		
			4/30/2019																2021000220					
			5/4/2019																2021000218					
			10/20/2020																2021000149					
16	N-19-02	NON PLAN TSTRANSCO CAPITAL INVESTMENT 2019	01.04.2019	01.04.2019		11/26/2020			0.7844									No cost overrun			2021000298			
						7/9/2021															2021000347			
						6/24/2020															2020000625			
						3/17/2020															2021000282			
						8/27/2020															2021000150			
						3/5/2020															2021000296			
						3/6/2020															2021000097			
						9/28/2020															2021000291			
17	N-20-02	NON PLAN TSTRANSCO CAPITAL INVESTMENT 2020	01.04.2020	01.04.2020		5/30/2020			0.0377									No cost overrun			2021000015			
						3/17/2021															2021000117			
						10/2/2020															2021000123			

Sl. No.	Scheme ID-SAP	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 20-21	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.)									
18	O-16-01	Rolling Stock for 2016-17		11.01.2017	11.01.2017	11.01.2018	8/18/2018	39.53		0.4960								No cost overrun			2019000110					
							5/30/2019															2020000295				
							12/24/2019																2020000623			
							10/6/2020																2021000241			
19	R-16-02	Renovation and Up-gradation of Protection System in EHT Substations		08.02.2016	08.02.2016	31.03.2020	8/31/2018	59.97		0.4059								No cost overrun			2021000334					
							12/31/2019															2021000236				
							7/2/2020																2021000120			
							6/24/2020																2021000121			
							9/16/2020																	2021000193		
							9/14/2020																	2021000032		
							9/21/2020																	2021000033		
							2/15/2020																	2020000082		
							8/26/2020																	2020000654		
							8/20/2020																	2021000176		
							2/17/2020																	2020000083		
							3/21/2020																	2020000332		
							2/26/2020																	202000286		
							2/28/2020																	202000287		
							8/29/2020																	2020000655		
							2/14/2020																	2020000084		
							3/19/2020																	2020000081		
							3/12/2020																	2020000073		
							3/12/2020																	2020000075		
							3/18/2020																	2020000108		
							6/19/2020																	2021000058		
							6/19/2020																	2021000059		
							3/19/2020																	2020000105		
							3/18/2020																	2020000093		
							3/17/2020																	2020000193		
							3/7/2020																	202000229		
							3/18/2020																	2020000059		
							3/18/2020																	2020000060		
							3/17/2020																	2020000055		
							3/17/2020																	2020000053		
							3/17/2020																	2020000056		
							6/19/2020																	2021000060		
			3/18/2020																	2020000159						
			3/16/2020																	2020000160						
			3/10/2020																	2021000113						
			2/11/2020																	2020000215						
			3/10/2020																	2021000115						
			3/17/2020																	2020000161						
			2/26/2020																	2020000216						
			3/19/2020																	2020000094						
			3/20/2020																	2020000233						
			3/20/2020																	2020000234						

Sl. No.	Scheme ID-SAP	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 20-21	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 Inspection Certificate		
				Scheduled	Actual	Scheduled	Actual				Debt	Equity	Grant		Lines (CKT KM)	Capacity (MVA)	Bays (Nos.)								
20	R-11-04	RMI for the Nalgonda Div.				1/30/2010			0.1774								No cost overrun			2021000286					
21	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	15.09.2026	6/30/2018	53.08	3.3592	-	-	-	-	-	-	No cost overrun	Repeated Tendering		2019000601	-	-				
							7/1/2020														2020000585				
							6/26/2020															2020000584			
							5/30/2019																202000032		
							7/6/2020																202000057		
							9/3/2019																2021000263		
							12/3/2019																2021000045		
							11/29/2019																2021000047		
							2/17/2020																2021000048		
							12/11/2019																2021000049		
							11/7/2019																2021000148		
							1/4/2020																2021000183		
							1/25/2020																2021000055		
							1/25/2020																2021000056		
							1/23/2020																2021000054		
							4/20/2019																2021000101		
							7/8/2019																2021000102		
							9/26/2019																2021000104		
							8/6/2019																2021000108		
							5/25/2019																2020000576		
							7/9/2019																2021000110		
							2/14/2019																2021000111		
							7/1/2020																2021000080		
							2/27/2019																2021000029		
							7/4/2019																2020000330		
							7/6/2019																2020000334		
							6/19/2020																2021000034		
							2/24/2020																2020000190		
							2/24/2020																2020000191		
							2/24/2020																2020000192		
			11/7/2019																2020000043						
			12/12/2019																2020000044						
			7/5/2019																2020000045						
			2/24/2020																2020000199						
			2/24/2020																2020000201						
			2/24/2020																2020000202						
			3/14/2019																2020000303						
			7/17/2019																2020000307						
			7/17/2019																2020000311						
			5/15/2019																2020000184						
			5/23/2019																2020000096						
			11/11/2020																2021000182						
			6/1/2017																2021000256						
			4/27/2017																2021000257						
			4/30/2017																2021000314						

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				Scheduled	Actual	Scheduled	Actual				Debt	Equity	Grant		Lines (CKT KM)	Capacity (MVA)	Bays (Nos.)								
21	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	7/20/2019	100.22	-	4.9510	-	-	-	-	-	-	No cost overrun	Repeated Tendering		2020000586	-	-			
							7/20/2019															2020000586			
							2/13/2020																2020000658		
							2/15/2020																2021000234		
							9/16/2020																2021000312		
							11/20/2019																2020000635		
							7/18/2020																2020000659		
							8/17/2019																2021000250		
							11/30/2019																2021000249		
							1/23/2020																2021000248		
							8/17/2020																2021000356		
							9/17/2019																2020000667		
							6/24/2019																2020000028		
							4/24/2019																2021000030		
							8/27/2019																2021000210		
							8/27/2019																2021000211		
							6/26/2019																2021000019		
							3/5/2020																2021000031		
							2/5/2019																2021000027		
							7/16/2019																2021000028		
							12/31/2019																2020000610		
							12/5/2019																2021000317		
							10/9/2019																2020000351		
							3/12/2020																2021000179		
							6/19/2020																2020000616		
							8/29/2020																2021000178		
							11/16/2019																2020000485		
							5/9/2020																2021000238		
							6/24/2020																2021000273		
							8/9/2020																2021000067		
							9/17/2020																2021000284		
							6/10/2020																2021000268		
							12/13/2019																2020000648		
							2/29/2020																2021000289		
							8/24/2020																2021000156		
							7/13/2020																2021000207		
							6/30/2019																2021000355		
							12/9/2020																2021000127		
							4/8/2020																2021000126		
							2/25/2021																2021000295		
			2/24/2020																2020000194						
			2/24/2020																2020000196						
			2/24/2020																2020000205						
			2/24/2020																2020000206						
			6/27/2019																2020000207						
			6/26/2019																2020000211						
			6/26/2019																2020000213						
			6/23/2020																2021000372						
			6/25/2019																2020000030						
			7/17/2019																2020000314						
			8/24/2018																2020000316						
			7/18/2018																2020000320						
			2/5/2019																2020000322						



Sl. No.	Scheme ID-SAP	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 20-21	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 Inspection Certificate		
				Scheduled	Actual	Scheduled	Actual				Debt	Equity	Grant		Lines (CKT KM)	Capacity (MVA)	Bays (Nos.)								
21							11/7/2020														2021000305				
							5/17/2019																2020000185		
							2/1/2020																2020000600		
							8/27/2019																2021000208		
							8/27/2019																2021000209		
							8/1/2020																2021000325		
							7/26/2020																2021000321		
							10/16/2019																2021000330		
							10/3/2019																2021000331		
							10/17/2019																2021000332		
							10/5/2019																2021000333		
							9/1/2020																2020000607		
							9/29/2020																2021000322		
							11/21/2019																2021000125		
							9/21/2020																2021000283		
							7/28/2020																2021000281		
							2/4/2020																2021000016		
							2/4/2020																2021000018		
							1/4/2020																2021000052		
							6/30/2020																2021000272		
							7/11/2020																2021000274		
							3/11/2020																2021000171		
							3/11/2020																2021000173		
							3/11/2020																2021000174		
							5/29/2020																2021000122		
							8/14/2020																2021000315		
							7/21/2020																2021000278		
							3/3/2021																2021000277		
							6/23/2020																2021000230		
							6/20/2020																2021000079		
							8/11/2020																2021000010		
							10/30/2020																2021000042		
							9/7/2020																2021000304		
							11/8/2020																2021000215		
							6/11/2020																2021000276		
							12/23/2020																2021000318		
							12/5/2020																2021000124		
							2/15/2020																2021000114		
							1/5/2021																2021000151		
							3/15/2021																2021000212		
			12/31/2019																2021000290						
			10/19/2015																2021000270						
			6/19/2020																2021000088						
			1/4/2020																2021000053						

Sl. No.	Scheme ID-SAP	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 20-21	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.)									
22	R-20-01	RMI for FY:2020-21	TSERC in its tariff order dt.20.03.2020 has approved for investment of Rs.75.67CrS under RMI during each of F.Y:2020-21.	16.09.2020	16.09.2020	31.03.2024	8/13/2020	75.65	-	1.2472	-	-	-		-	-	-	No cost overrun	Repeated Tendering		2021000017	-	-			
							2/8/2021																2021000255			
							8/31/2020																	2021000020		
							2/8/2021																	2021000254		
							12/9/2020																	2021000271		
							4/3/2021																	2021000216		
							3/6/2021																	2021000136		
							1/23/2021																	2021000086		
							12/23/2020																	2021000100		
							3/20/2021																	2021000107		
							11/11/2020																	2021000169		
							3/31/2021																	2021000259		
							12/19/2020																	2021000021		
							12/4/2020																	2021000112		
							3/31/2021																	2021000261		
							4/5/2021																	2021000265		
							4/5/2021																	2021000266		
							4/5/2021																	2021000267		
							4/5/2021																	2021000269		
							12/19/2020																	2021000320		
			12/9/2020																	2021000338						
			6/10/2020																	2021000339						
			6/30/2020																	2021000340						
			7/11/2020																	2021000341						
			7/28/2020																	2021000342						
			8/14/2020																	2021000343						
			7/21/2020																	2021000344						
<b>RMI GRAND TOTAL</b>								644.6389	0.00	<u>13.31</u>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							

**Scheme wise detail of CAPITALIZATION for FY 2020-21 : Lift Irrigation Schemes**

(Rs. in Crores)

S. No.	S. 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) (Rs.in Crs)	Capitalization claimed for the current year 20-21 (Rs.in Crs)	Means of Finance			Date of Capitalization	Addition to Transmission Network (only 400kV data)			Reasons for cost overrun	Reasons for time overrun	Whether part capitalization 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.)						
<b>LI works under CE/400kV</b>																							
1	L-13-01	Indira Sagar Rudrammakota LI scheme		-	Mar'2014	-	Aug'2017	-	109.1	0.07				25.05.2019	0.00	0	0	NA	-	-	2019000432	-	-
2	L-18-04	Sita Rama LI Scheme		-	Sep'2018	-	ongoing	-	8.45	29.21				14.07.2021	1.05	0	2	NA		Part	2021000024 2021000026 2021000177 2020000587 2021000025	Yes	-
<b>TOTAL</b>									<b>117.55</b>	<b>29.280</b>					<b>1.05</b>	<b>0.00</b>	<b>2.00</b>						
<b>LI works under CE/LIS</b>																							
1	D-08-04	'Extn of 220&132kV Supply to SPS LIS		Nov'09		Aug'10	Sep'16	189.36	46.35	0.1424937										Part Capitalisation			
2	D-15-03 (revised)	400kV Supply to Myadaram/Ramadugu /tippa		Sep'16		Feb'19	Apr'19	889.99	733.81	32.5842371						2290	33			Part Capitalisation	2019000619 2019000618 2020000425		
3	L-05-02	Extn of 220&132kV Supply to Godavari LIS	Rangaropally	Apr'17		Jul'21	Oct'21	119.59	55.06374238	2.251005					2.00	63	5			Part Capitalisation			
4	L-11-01 (revised)	Extn of Supply@132kV Thotpaly-Gourvly LI		Nov'14		Dec'16	Sep'21	43.733	36.286	0.5434156					63.00		2			Part Capitalisation	2020000368		
5	L-12-01	Extn of supply @ 132 kV to Kaddem LIS		May'2013		Aug'14	Oct'14	21.77	-	0.0256703					11.85	32	4			Part Capitalisation			
6	L-13-02	Kaleshwaram Lift Irrigation Scheme OLD (Bheersagar)		Jan'18		Oct'18	June'20	26.79	0	17.5939663					18.60	18.86	1			Part Capitalisation	2021000346 2021000345 2021000351		
7	L-14-01	Lift Irrigation Scheme at Jogapur		Apr'17		Jul'18	May'18	45.11	12.03	0.1334165										Part Capitalisation	2019000447 2019000451 2019000449		
8	L-15-01 (new)	Extn of Supply @ 220kV to AMRP LLC LIS		Jan'16		Apr'16	Jan'18	3.37	0.87	0.2101875										Part Capitalisation			
9	L-15-02	400 kV Supply to Tippapur		Jun'17		Oct'18	Apr'19	158.28	138.28	16.7943167					92.00					Part Capitalisation	2019000474		
10	L-15-03 (revised)	400kV Supply to Myadaram		Aug'16		Aug'17	Nov'18	66.48	54.6127012	0.0136458										Part Capitalisation	2019000607		

S. No.	S. 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) (Rs.in Crs)	Capitalization claimed for the current year 20-21 (Rs.in Crs)	Means of Finance			Date of Capitalization	Addition to Transmission Network (only 400kV data)			Reasons for cost overrun	Reasons for time overrun	Whether part capitalization or Full Capitalization	Physical Completion Certificate (400kV works only)	Financial Completion Certificate (400kV works only)	Electric Inspector Certificate
				Schedule	Actual	Schedule	Actual				Debt	Equity	Grants		Lines (CKM)	Capacity (MVA)	Bays (No.)						
11	L-15-04	400kV Supply to Ramadugu Mandal		Aug'16		Dec'17	May'18	113.96	89.11	1.0853846	Grant (I & CAD Govt of Telangana)									Part Capitalization	2019000615		
12	L-16-02	KLIP-400kVQMDCLine TippapurSS-ChndlaprSS		June'17		Jul'18	May'19	66.48	-	2.0691201	Grant (I & CAD Govt of Telangana)				38.23					Part Capitalization	2021000354	202100329	
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)		Mar'17		Sep'18	Mar'20	219.28	172.7338	10.0023963	Grant (I & CAD Govt of Telangana)				196.91					Part Capitalization	2020000135 2020000495 2020000134 2019000433 2020000495	202001657 0202001660 0202001724 202001657	
14	L-16-04	Extn of 132 kV Supply to Kanakapur PCL		May'17		Mar'19	Nov'18	31	17.56	1.3650217	Grant (I & CAD Govt of Telangana)									Part Capitalization	2020000367 2019000658 2019000663		
15	L-16-05	Kaleshwaram Lift Irrigation Project	Tippapur Line, Sundilla, Chandulapur, Medigadda, Annaram, Malakpet SS and Line	Mar'17		Dec'18	May'19	1638.46	603.6851	484.5061694	Grant (I & CAD Govt of Telangana)				108.70	2920	97			Part Capitalization	2021000359 2020000124 2019000536 2021000363 2019000444 2019000483 2019000480 2019000481 2019000478 2019000482 2019000472 2019000469 2019000444 2019000450 2019000482	202100330 0202001663 0202001723	
16	L-17-01 (revised)	Chanaka - Korata Lift Irrigation Scheme		Mar'17		Jun'18	May'19	41.15	22.329	1.4273188	Grant (I & CAD Govt of Telangana)				20.00		2			Part Capitalization	2019000659 2019000660 2019000662 2019000661 2020000375		
17	L-17-03	Lift Irrigation Scheme along Flood Flow Canal (FFC)		Feb'18		Nov'18	Jun'20	186.85	54.06	47.4131776	Grant (I & CAD Govt of Telangana)				74.00	240	12			Part Capitalization	2021000044 2021000073 2021000036 2021000037 2020000631 2020000632 2020000633		

S. No.	S. 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) (Rs.in Crs)	Capitalization claimed for the current year 20-21 (Rs.in Crs)	Means of Finance			Date of Capitalization	Addition to Transmission Network (only 400kV data)			Reasons for cost overrun	Reasons for time overrun	Whether part capitalization or Full Capitalization	Physical Completion Certificate (400kV works only)	Financial Completion Certificate (400kV works only)	Electric al Inspector Certificate
				Schedule	Actual	Schedule	Actual				Debt	Equity	Grants		Lines (CKM)	Capacity (MVA)	Bays (No.)						
18	L-17-04	Package-14-Kaleshwaram LI Scheme (Akkaram-Markook)		Apr'18		May'19	Jun'20	197.66	-	112.7060301	Grant (I & CAD Govt of Telangana)			32.38	386	20			Part Capitalization	2021000361 2021000360 2021000358 2021000299 2021000301 2021000302 2021000358 2021000299	202100331 0202100332 0202100333		
19	L-18-02	220/11 kv SS at Bheemghanpur		Jun'18		Dec'18	Aug'19	23.99	11.0010079	-0.2495973	Grant (I & CAD Govt of Telangana)				128.5	1			Part Capitalization				
20	L-18-03	Thumilla LIS		Jul'18		Dec'18	Nov'18	28.17	11.9177	4.9258519	Grant (I & CAD Govt of Telangana)								Part Capitalization	2019000923 2020000473 2021000362	202001654 0202001656		
<b>TOTAL</b>								<b>4111.47</b>	<b>2059.70</b>	<b>735.54</b>				<b>657.66</b>	<b>6078.36</b>	<b>177.00</b>							
<b>LIS GRAND TOTAL</b>								<b>4111.473</b>	<b>2177.25</b>	<b>764.82</b>				<b>658.71</b>	<b>6078.36</b>	<b>179.00</b>							

ANNEXURE -IV  
Format 1.1(d)

ABSTRACT OF ACTUAL INVESTMENTS ( FY 2020-21)  
400 KV SCHEMES

Form 1.1d: INVESTMENTS  
Year:2020-21

(Rs. in Crores.)

Sl. No.	Code	Project Details					PLANNED CAPITAL EXPENDITURE							SOURCE OF FINANCING						Investments proposed for the year				Investments incurred in the year				Cumulative progress (Year on)				Remarks		
		Project Code*	Project Title	Project Purpose**	Project Start Date (DD-MM-YYYY)	Project Completion date (DD-MM-YYYY)	Base Cost	Contingency	IDC	Duties	Taxes	Expense capitalised	TOTAL COST	Internal Accrual Component of capex in year	Equity Component of capex in year	Debt Component of capex in year						Annual				Annual								
																Loan Amount	Interest Rate	Moratorium Period	Repayment 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 (Rs. Cr.)	IDC Incurred	Other expense incurred		Percentage capitalisation	
1	P-10-01	APT/TS/SCCL(Jaipur)-Evacuation-400kV Quad D/C /F-INVST-42/2013	Jaipur Power Transmission Scheme		Mar'2013	Mar'2021	686.42	20.59	61.59			73.79	842.39									1.00				0.51				25.72			100	
2	S-14-02	APT/TS/400kV Suryapet/F-INVST-28/2014	Suryapet Power Transmission Scheme		Jul'2013	Mar'2021	1,426.53	42.80	144.80			153.35	1,767.48									4.00				0.61				11.83			100	
3	S-14-01	Lr.No.APERC/Secy/DD(Trans)/F:E-700-9/2014 dated 06.08.2014	Reactor Scheme-II		Sep'2016	Mar'2020	80.74					80.74	80.74									0.00				0.37				1.23			100	
4	P-15-01	TST / TS / 400kV Dindi Substation /Trans. improvement scheme /Invest. Approval No.16/15, Dt.02.01.2016	Dindi System Improvement Scheme		Nov'2015	Mar'2021	251.97	7.56	27.08			34.92	321.53									16.00				11.25				60.40				
5	P-15-04,S-15-24,S-16-05	TST / TS / KTPS VII STAGE (1x800MW)/POWER TRANSMISSION/INVEST. APPROVAL/Revised approval 17/17, 2017-18, dec'2017	KTPS 1x800Mw, VII stage Power Evacuation scheme		Jul'2015	Mar'2022	1,150.31	34.17	105.61			122.43	1,412.52									28.85				34.24				881.93				
6	S-15-13	TST/TS/765kV Wardha -Hyderabad Link Transmission scheme- investment proposal revised approval NO 16/17-2017-18 Dt.19.12.2017	765kV Wardha -Hyderabad Link Transmission scheme		Nov'2015	Mar'2021	1,037.70	30.82	100.08			110.45	1,279.05									92.00				57.06				449.57				
7	A-15-11,A-15-10	TST/TS/315 MVA PTR,Augmentation/DICHPALLY,VELTOOR,Gajwel/revised APPROVAL NO 03/17,2017-18 dated 04.05.2017	Augmentation Scheme		Feb'2016	Mar'2020	95.59					95.59	95.59									0.00				0.65				4.57			100	
8	P-15-03,S-12-23,S-15-20,S-15-21,S-15-22,S-15-25	TST/TS/Bhadradri (4x270) MW Thermal power Transmission/ Investment Approval NO17/15, Dt.02.01.2016	Bhadradri Thermal Power Transmission Scheme 4 X 270 MW		Nov'2015	Mar'2021	1,055.78	31.67	103.41			113.496	1,304.36									10.00				2.95				79.88				
9	P-12-02, S-12-30, S-12-31	TST/TS/400kV Nirmal Power Transmission Scheme-Power Evacuation from M/s. SCCL 2x600MW units and for upcoming 1x800MW units. /F.Revised approval/NO 07/2018-19 dated 19.07.2018	Nirmal Power Transmission Scheme		Dec'2015	Mar'2022	943.93	28.04	78.61			100.47	1,151.05									33.00				18.05				229.23				
10	A-17-03	TS/TS/Invest. Approval/PTR Augmentation/400kV Malkaram & Shankerpally No 11/2017, 17-18 dated 30.08.2017	Augmentation Scheme-III		Dec'2017	Mar'2020	74.44					74.44	74.44									0.00				0.70				1.43			100	
11	S-17-08	TST/TS/Rayadurg System Improvement Scheme Approval/NO 02/2018-19 dated 24.05.2018	Rayadurg System Improvement Scheme		Sep'2018	Mar'2022	1,469.01	43.63	117.40			156.36	1,786.40									300.00				681.58				1454.49				
12	P-16-01	TS/TS/Investment approval/Telangana STPP-1 (2x800MW) NO. 10/2017 dated 23.08.2017	Telangana STPP-1 Power Evacuation		Oct'2017	Mar'2022	1,013.61	30.11	105.26			107.88	1,256.86									67.00				94.48				826.46				
13	P-12-04		Wind Power Evacuation Scheme		Jan'2014	Nov'2016																0.00				0.44				0.67			100	

Sl. No.	Code	Project Details					PLANNED CAPITAL EXPENDITURE							SOURCE OF FINANCING					Investments proposed for the year				Investments incurred in the year				Cumulative progress (Year on)				Remarks																				
		Project Code*	Project Title	Project Purpose**	Project Start Date (DD-MM-YYYY)	Project Completion date (DD-MM-YYYY)	Base Cost	Contingency	IDC	Duties	Taxes	Expense capitalised	TOTAL COST	Internal Accrual Component of capex in year	Equity Component of capex in year	Debt Component of capex in year				Annual				Annual																											
																Loan Amount	Interest Rate	Moratorium Period	Repayment 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 (Rs. Cr.)	IDC Incurred		Other expense incurred	Percentage capitalisation																		
14		TST/TSYadradri Thermal Power Evacuation/Approval No.09/2019-20	Yadradri Thermal Power Evacuation		Jan'2020	Mar' 2024	1,887.67	56.07	209.70			200.91	2,354.35								577.75					113.48				113.60																					
15		TST/TS/KTPP SIS/Approval No.03/2019-20	KTPP System Improvement Scheme		Jan'2020	Mar' 2024	372.58	11.07	30.92			39.66	454.23								125.00					55.07				55.16																					
16		TST/TS/Reactor Scheme-III/Approval No. 04/2019-20	Reactor Scheme -III		Jan'2020	May'2022	201.44	5.98	20.92			21.44	249.78								80.00					0.00				0.00																					
<b>400kV Works Total</b>							<b>11,747.73</b>	<b>342.50</b>	<b>1,105.38</b>			<b>1,235.15</b>	<b>14,430.76</b>								<b>1,334.60</b>					<b>1,071.44</b>				<b>4,196.17</b>																					
<b>DC Works</b>																																																			
1	D-17-02		Execution of 2 Nos Feeder bays and 8 Nos Metering Bays at STPP,Jaipur		June'2017	Mar'2019	28.21						28.21								0.00					0.20				1.13			100																		
2	D-15-09		2 Nos Bay Extensions at 400kV Dichpally SS		Feb'2016	Feb'2017	16.12						16.12								0.00					1.02				2.92			100																		
3	D-18-02		Diversion of 400kV Gajwel-Shply TMDCLine		Aug'2018	Oct'2018	6.06						6.06								0.00					0.08				2.22			100																		
4	D-20-03		Diversion of 400kV Julurupadu-KTPS & KTPS PGCIL Line		Aug'2020	Aug'2021	17.58						17.58								0.00					14.72				14.72																					
<b>DC Works Total</b>							<b>67.97</b>	<b>0.00</b>	<b>0.00</b>			<b>0.00</b>	<b>67.97</b>									<b>0.00</b>					<b>16.02</b>				<b>20.99</b>																				
<b>GRAND TOTAL</b>							<b>11815.70</b>	<b>342.50</b>	<b>1105.38</b>			<b>1235.15</b>	<b>14498.73</b>										<b>1334.60</b>					<b>1087.46</b>				<b>4217.16</b>																			











Sl. No.	Code (TOO No.)	Project Details					PLANNED CAPITAL EXPENDITURE							SOURCE OF FINANCING							Investments proposed for the year FY 2020-21				Actual expenditure for FY 2020-21				Cumulative progress upto 31.03.2021				Remarks		
		Scheme IDs	Project Code* (ERC Approval)	Project Title	Project Purpose**	Project Start Date (DD-MM-YYYY)	Project Completion date (DD-MM-YYYY)	Base Cost	Contingency	IDC	Duties	Taxes	Expense capitalised	TOTAL COST	Internal Accrual Component of capex in year	Equity Component of capex in year	Debt Component of capex in year							Annual				Annual							
																	Loan Amount	Interest Rate	Moratorium Period	Repayment 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 (Rs. Cr.)	IDC Incurred	Other expense incurred		Percentage capitalisation	
49	T.O.O (CE-Construction-I) Ms. No. 07 Dated: 18.12.2013 S110NIM132	S-07-04		TWIN CITIES TRANSMISSION SYSTEM & 132 kV SS NIMS & connected lines & erection of 220/132 kV substations at Gunrook, Imibun (GIS) & Hayathagar	System Improvement	01.08.2014	31.03.2022	76.84	2.30	8.83		0.61	8.49	97.08			85.36					JICA					0.36				4.37				
	TOO (CE-Construction) MS No.379, Dt:17.01.2012					01.08.2014	31.03.2022	11.75	0.35	1.18		0.71	1.26	15.25			11.40																		
50	T.O.O. (CE-Transmission) Ms. No. 140 Dated: 13.10.2016 (Revised)	S-08-08		CRN.No./TST/TS/220-132 KV GIS-HydrF.Invt./99/2019, Dt:20.02.2009	System Improvement	31.05.2013	31.03.2021	130.19	3.91	13.02		7.81	14.00	168.92			31.19					PFC					0.00				6.90				
51	T.O.O (CE-Transmission) Ms. No. 59 Dated:19.04.2016	S-08-11		APT/TS/132 kV SS- Mamidipalli/ F-INVEST - 12/2013	System Improvement	26.06.2009	31.03.2016	21.92						21.92								PFC					0.20				2.41				
52	T.O.O (CE-Construction) Ms. No. 290 Dt: 16.10.2010	S-08-14		APT/TS/220/33 KV- Singotam x Roads/F-INVEST-20/2011	System Improvement	12.02.2011	31.03.2020	17.64	0.53	2.12		1.10	1.90	23.29								Syndicate Bank					0.15				0.29				
53	T.O.O (CE-Construction) Ms. No. 267 Dated: 6.10.2010	S-10-02		CRN.No.APT/TS/132 KVSS/ Asifabad/Invest.24/12	System Improvement	29.11.2012	31.03.2020	16.78	0.50	1.68		1.01	1.80	21.78			18.00					REC					0.04				0.72				
54	T.O.O (CE-Construction) Ms. No. 99 Dated: 18.06.2010	S-10-06		CRN.No.TST/TS/132 KV SS Borabatta/F.INVT-24/2011, dt:21.03.2011	System Improvement	20.08.2011	31.03.2022	12.83	0.38	1.28		0.77	1.38	16.65			36.75					NABARD					0.19				0.25				
55	T.O.O (CE-Construction-I) Ms. No. 365 Dated: 03.12.2010 S110KESHAM	S-10-11		APT/TS/132kV SS- Keshampet/F-INVEST-40/2013	System Improvement	19.04.2014	31.03.2019	17.39	0.23	1.85		0.00	0.87	20.34			16.30					REC					0.02				0.02				
56	T.O.O (CE-Construction-I) Ms. No. 506 Dated: 15.03.2011	S-10-13		APT/TS/132kV SS- LGM Peta/F-INVEST-17/2012 (Revised approval awaited)	System Improvement	16.09.2011	31.03.2022	35.51						35.51			14.79					UCO Bank					0.25				36.34				
57	T.O.O (CE-Construction-I) Ms.No.18 Dated: 15.04.2014 S110MANTNI	S-10-14		APT/TS/220/132 KV - Manthani/ F-INVEST - 01/2011	System Improvement	07.12.2014	31.03.2022	52.10	0.66	5.52		0.01	2.44	60.73			49.66					Uco Bank					0.12				0.12				
58	TOO MS.No.11 dt:07.03.2014	S-10-17		P.No.28/APERC/Secy/Dir Engg/E/25/2013, Dt:06-05-2013	System Improvement	07.08.2016	31.03.2022	19.95	0.60	1.99		1.25	2.14	25.93			10.55					REC					2.49				26.75				
59		S-10-18		APT/TS/132 KV SS - Raikal/ F-INVEST -20/2013		01.12.2014	07.09.2016	14.12						14.12			13.80					OBC					0.32				0.32				
60	T.O.O (CE-Construction) MS. No.319 Dated: 06.11.2010	S-10-20 s-10-26		APT/TS/220 kv - SW.Stn / F-INVEST - 2/2013	System Improvement	30.09.2013	07.06.2017	74.76						74.76			67.46					PFC					0.61				79.49				
61	T.O.O (CE-Construction) Ms. No. 107 Dated: 23.06.2010	S-10-22		Erection of 33KV features at Vikarabad	System Improvement	01.05.2014	01.03.2022	4.47						4.47													0.00				0.00				
62	T.O.O (CE-Construction-I) Ms. No. 504 Dated: 15.03.2011	S-11-01		APT/TS/132KV SS-Gudur/ F-INVEST-13/2014	System Improvement	16.06.2015	28.07.2016	13.29						13.29			12.35					PFC					0.04				13.15				



















(Actual Expenditure for FY:2020-21 )

RENOVATION MODERNISATION & IMPROVISATION (RMI) SCHEMES

Form 1.1d: INVESTMENTS

Year:2020-21

(Rs. in Crores.)

Sl. No.	Project Details					PLANNED CAPITAL EXPENDITURE							SOURCE OF FINANCING					Investments proposed for the year				Investments incurred in the year				Cumulative progress (Year on year)				Remarks		
	Project Code*	Project Title	Project Purpose	Project Start Date (DD-MM-YYYY)	Project Completion date (DD-MM-YYYY)	Base Cost	Contingency	IDC	Duties	Taxes	Expense capitalised	TOTAL COST	Internal Accrual Component of capex in year	Equity Component of capex in year	Debt Component of capex in year					Annual				Annual								
															Loan Amount	Interest Rate	Moratorium Period	Repayment 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 (Rs. Cr.)	IDC Incurred		Other expense incurred	Percentage capitalisation
1	R-15-01	RMI		1/4/2020	31/03/2021	53.08			inclusive	inclusive		53.08			47.72					PFC				1.66			3%	1.66			3%	
2	R-17-01	RMI		1/4/2020	31/03/2021	100.22			inclusive	inclusive		100.22			90.22					REC				4.17			4%	4.17			4%	
3	R-20-01	RMI		1/4/2020	31/03/2021	75.65			inclusive	inclusive		75.65			68.04					REC				1.80			2%	1.80			2%	
4	O-16-01	Rolling Stock for 2016-17	Rolling Stock	11.01.2017		39.53						39.53											0.58			1%	0.58			1%		
5	D-16-06	Erection of 33 KV bays for NPDCL	DC Works	31.03.2016		27.79						27.79											0.18			1%	0.18			1%		
6	D-18-07	1 No 33 KV Feeder Bays at 132 KV Sirpur Kagaznag at SS	DC Works	05.05.2018		0.47						0.47											0.00			0%	0.00			0%		
7	D-20-16	Erection of 4Nos 33 KV Bays for Amazon at Fabcity Takkalapa lly & Marnidipal ly SS	DC Works	17.04.2020		2.66						2.66											0.24			9%	0.24			9%		
8	D-20-20	33 KV Bay at Fabcity for Cherpai	DC Works	08.05.2020		0.71						0.71											0.14			19%	0.14			19%		
9	D-20-23	33 KV Bay for Textile park at Geesukonda	DC Works	12.06.2020		0.36						0.36											0.07			18%	0.07			18%		
10	D-20-27	33KV Bays for Amazon at Mahabubnagar	DC Works	08.07.2020		1.07						1.07											0.75			70%	0.75			70%		
11	D-20-32	1 No 33 KV Feeder bay at 132KV Peddanagaram	DC Works	05.09.2020		0.16						0.16											0.03			16%	0.03			16%		
12	D-20-33	1 No 33 KV Feeder bay at 132KV Morthad for HRLIS	DC Works	09.01.2020		0.26						0.26											0.03			11%	0.03			11%		





Format 1.1(d)

This form captures investments as planned and actually incurred  
LIFT IRRIGATION SCHEMES

Form 1.1d: INVESTMENT PLAN

Year:2020-21

Sl. No.	Code	Project Details					PLANNED CAPITAL EXPENDITURE							SOURCE OF FINANCING							Investments proposed for the year				Investments incurred in the year				Cumulative progress (Year on year)				Remarks		
		Project Code*	Project Title	Project Purpose**	Project Start Date (DD-MM-YYYY)	Project Completion date (DD-MM-YYYY)	Base Cost	Contigency	IDC	Duties	Taxes	Expense capitalised	TOTAL COST	Internal Accrual Component of capex in year	Equity Component of capex in year	Debt Component of capex in year				Annual				Annual											
																Loan Amount	Interest Rate	Moratorium Period	Repayment 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 (Rs. Cr.)	IDC Incurred	Other expense incurred	Percentage capitalisation			
<b>LI Schemes under CE/400kV</b>																																			
1		Bulk Load/DC works	Sita Rama Lift Irrigation scheme (L-18-04)		Sep'2018	Mar'2022	418.45	--				418.45									Govt TS Grants	150.00				63.51				63.51					
2		Bulk Load/DC works	Indira Sagar Rudrammakota LIS (L-13-01)		Mar'2014	Aug'2017	290.14					290.14									Govt TS Grants	0.00				0.07				0.07			100		
<b>Total</b>							<b>708.59</b>					<b>708.59</b>										<b>150.00</b>				<b>63.58</b>				<b>63.58</b>					
<b>LI Schemes under CE/PRLIS</b>																																			
1		Bulk Load/DC works	Palamuru Ranga Reddy Lift Irrigation Scheme (L-17-02)		Mar'2018	May'2023	1901.46	--				1901.46									Govt TS Grants	650.00				238.46				239.50					
<b>Total</b>							<b>1901.46</b>					<b>1901.46</b>											<b>650.00</b>				<b>238.46</b>				<b>239.50</b>				
<b>LI Schemes under CE/LIS</b>																																			
1	L-05-02	L-05-02	Godavari LIS (a) (132/11kV Gandiramaram, 132/11kV Bommakuru, 132/11kV Rangarao pally)	Extension of power supply to Lift Irrigation project taken up by Govt. of TS	April-17	Oct-19	79.19					79.19									Govt. of TS Grants I&CAD	0.00				2.31				14.84					





Sl. No.	Code	Project Details				PLANNED CAPITAL EXPENDITURE							SOURCE OF FINANCING						Investments proposed for the year				Investments incurred in the year				Cumulative progress (Year on year)				Remarks		
		Project Code*	Project Title	Project Purpose**	Project Start Date (DD-MM-YYYY)	Project Completion date (DD-MM-YYYY)	Base Cost	Contigency	IDC	Duties	Taxes	Expense capitalised	TOTAL COST	Internal Accrual Component of capex in year	Equity Component of capex in year	Debt Component of capex in year				Annual				Annual									
																Loan Amount	Interest Rate	Moratorium Period	Repayment 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 (Rs. Cr.)	IDC Incurred		Other expense incurred	Percentage capitalisation
5	L-17-03	L-17-03	Lift Irrigation Scheme along Flood Flow Canal 220/11 kV Rampur SS, 220/11kV Rajeswerraoapeta SS, 220/11kV Mupkal SS	Extension of power supply to Lift Irrigation project taken up by Govt. of TS	Feb-18	May'20	186.85	189.36				186.85			186.85					Govt. of TS Grants I&CAD					5.42				86.42				
6	L-13-02	L-13-02	Kaleshwar am Lift Irrigation Scheme OLD 132/11kV Beersagar (Kannepalli) LIS	Extension of power supply to Lift Irrigation project taken up by Govt. of TS	Dec-16	Jun'20	31.40					31.40			31.40					Govt. of TS Grants I&CAD					2.28				15.31				
7	L-14-02	L-14-02	Kaleshwar am PKGS-20,21&22 220/11kV Sarangapur, 220/11kV Manichippa, 220/11kV Yacharamt handa	Extension of power supply to Lift Irrigation project taken up by Govt. of TS	Jan'19	May'22	264.82					264.82	264.82	264.82	264.82					Govt. of TS Grants I&CAD	40.00				46.42				121.38				
8	L-18-02	L-18-02	JCR Phase-III Supplemental & Augmentation works at Bheemgha npur 220/11kV Bheemgha npur	Extension of power supply to Lift Irrigation project taken up by Govt. of TS	May-18	Aug'19	23.99					23.99			23.99					Govt. of TS Grants I&CAD					-0.21				11.53				

Sl. No.	Code	Project Details				PLANNED CAPITAL EXPENDITURE								SOURCE OF FINANCING					Investments proposed for the year				Investments incurred in the year				Cumulative progress (Year on year)				Remarks		
		Project Code*	Project Title	Project Purpose**	Project Start Date (DD-MM-YYYY)	Project Completion date (DD-MM-YYYY)	Base Cost	Contigency	IDC	Duties	Taxes	Expense capitalised	TOTAL COST	Internal Accrual Component of capex in year	Equity Component of capex in year	Debt Component of capex in year				Annual				Annual									
																Loan Amount	Interest Rate	Moratorium Period	Repayment 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 (Rs. Cr.)	IDC Incurred		Other expense incurred	Percentage capitalisation
9	L-18-01	L-18-01	JCR Phase-III 220/11kV Devvanapeta SS 220/11kV Devvanapeta SS	Extension of power supply to Lift Irrigation project taken up by Govt. of TS	Feb'2020	Mar'21	138.66													Govt. of TS Grants I&CAD	40.00				63.76				73.66				
10	L-19-01	L-19-01	Kaleshwar am Lift Irrigation Schemes 220/11 kV New Manchippa SS and 220/11 kV New Mentrajpalv SS	Extension of power supply to Lift Irrigation project taken up by Govt. of TS	June'20	Dec'2021	67.77													Govt. of TS Grants I&CAD	54.22				3.50				3.50				
11	L-17-04	L-17-04	Kaleshwar am Lift Irrigation Scheme- Package - 14 (Akkaram & Markook)	Extension of power supply to Lift Irrigation project taken up by Govt. of TS	Apr-18	Apr'20	197.66													Govt. of TS Grants I&CAD					28.80				100.90				
12	L-18-03	L-18-03	Thumilla Lift Irrigation (RDS) 132/11kV Thumilla	Extension of power supply to Lift Irrigation project taken up by Govt. of TS	June'18	Nov'18	28.17													Govt. of TS Grants I&CAD					3.56				5.06				
13	L-17-05	L-17-05	PRLIS Diversion of 3Nos. 220kV lines due to submerging in the proposed Anjanagiri Project	Extension of power supply to Lift Irrigation project taken up by Govt. of TS	May-18	Nov-21	18.23													Govt. of TS Grants I&CAD					2.82				7.71				

Sl. No.	Code	Project Details				PLANNED CAPITAL EXPENDITURE							SOURCE OF FINANCING					Investments proposed for the year				Investments incurred in the year				Cumulative progress (Year on year)				Remarks						
		Project Code*	Project Title	Project Purpose**	Project Start Date (DD-MM-YYYY)	Project Completion date (DD-MM-YYYY)	Base Cost	Contigency	IDC	Duties	Taxes	Expense capitalised	TOTAL COST	Internal Accrual Component of capex in year	Equity Component of capex in year	Debt Component of capex in year				Annual				Annual												
																Loan Amount	Interest Rate	Moratorium Period	Repayment 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 (Rs. Cr.)		IDC Incurred	Other expense incurred	Percentage capitalisation			
14			220/11 kV Dharmasagar substation (Scheme Under Formulation)	Extension of power supply to Lift Irrigation project taken up by Govt. of TS.																Govt. of TS Grants I&CAD	20.00				0.00											
15	D-08-04	D-08-04	Extntion of 220kV & 132kV Supply to SPS LIS	Extntion of 220kV & 132kV Supply to SPS LIS taken up by Govt. of TS.	Nov-09	May-12	189.36					189.36								Govt. of TS Grants I&CAD					0.14											
16	L-12-01	L-12-01	Extension of supply @ 132kV to Kaddem LIS	Extension of supply @ 132kV to Kaddem LIS taken up by Govt. of TS.	May-13	Aug-14	21.77					21.77								Govt. of TS Grants I&CAD					0.03											

Sl. No.	Code	Project Details					PLANNED CAPITAL EXPENDITURE							SOURCE OF FINANCING					Investments proposed for the year				Investments incurred in the year				Cumulative progress (Year on year)				Remarks				
		Project Code*	Project Title	Project Purpose**	Project Start Date (DD-MM-YYYY)	Project Completion date (DD-MM-YYYY)	Base Cost	Contigency	IDC	Duties	Taxes	Expense capitalised	TOTAL COST	Internal Accrual Component of capex in year	Equity Component of capex in year	Debt Component of capex in year				Annual				Annual											
																Loan Amount	Interest Rate	Moratorium Period	Repayment 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 (Rs. Cr.)	IDC Incurred		Other expense incurred	Percentage capitalisation		
17	L-14-01	L-14-01	Lift Irrigation scheme at Jogapur	Lift Irrigation scheme at Jogapur taken up by Govt. of TS	Oct-17	May-18	45.12					45.12			45.12					Govt. of TS Grants I&CAD					0.13				0.13						
18	L-16-01 D-16-03	L-16-01 D-16-03	Extension of 132kV supply to Dubbatanda BRLIS	Extension of 132kV supply to Dubbatanda BRLIS taken up by Govt. of TS	Jul-16	Dec-16	30.84					30.84			30.84					Govt. of TS Grants I&CAD					-0.28				-0.28						
19	L-16-04	L-16-04	Extn of 132kV Supply to Kanakapur PCL	Extn of 132kV Supply to Kanakapur PCL taken up by Govt. of TS	Aug-17	Nov-18	31.73					31.73		31.73						Govt. of TS Grants I&CAD					1.68				1.68						
20	L-19-02	L-19-02	Phase-III Godavari Lift Irrigation Scheme (132/11kV Rajavaram)	Phase-III Godavari Lift Irrigation Scheme taken up by Govt. of TS	Sep-20	Oct-21	22.43					22.43			22.43					Govt. of TS Grants I&CAD	10.00				0.69				0.69						
21	L-15-01	L-15-01	Extn supply at 220kV to AMRP LLC LIS	Extn supply at 220kV to AMRP LLC LIS taken up by Govt. of TS	Jan-16	Jan-18	3.37					3.37		3.37						Govt. of TS Grants I&CAD					0.21				0.21						
<b>Total</b>							<b>4578.66</b>	<b>189.36</b>				<b>4578.66</b>	<b>264.82</b>	<b>299.92</b>	<b>4578.66</b>							<b>164.22</b>				<b>339.13</b>				<b>1698.54</b>					
<b>GRAND TOTAL</b>							<b>7188.71</b>	<b>189.36</b>				<b>7188.71</b>	<b>264.82</b>	<b>299.92</b>	<b>4578.66</b>								<b>964.22</b>				<b>641.17</b>				<b>2001.62</b>				

## ANNEXURE – V

### 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.
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.
3	Annual Performance Review	The Commission directs the petitioner to file the Performance Review (true up) for each year of the 4 <sup>th</sup> Control Period before 31 <sup>st</sup> 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.
4	Capitalisation details for 3 <sup>rd</sup> 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 <sup>rd</sup> Control Period, in the Petition to be filed for the Annual Performance Review for FY 2019-20.	Complied with.
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 <sup>th</sup> 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 <sup>th</sup> Control Period	Complied with.
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> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>c. The above mentioned certificates have to be submitted to the Commission within 60 days of completion of work, at the latest.</li> </ol>	Complied with.

**ANNEXURE: VI TSTRANSCO Contract Capacities in MW for FY 2020-21**

<b>TSTRANSCO Contract Capacities for FY 2020-21 (Actuals, in MW)</b>				
<b>Generating Station / Source</b>	<b>Installed/ Contracted Capacity (MW)</b>	<b>Net Capacity TS Share</b>	<b>2020-21</b>	
			<b>TSSPDCL</b>	<b>TSNPDCL</b>
<b>TSGENCO THERMAL</b>				
KTPS-D(V)(2x250)	500.00	455.00	321.00	134.00
KTPS-VI(1x500)	500.00	462.50	326.29	136.21
RTS-B (1x62.5)	62.50	56.25	39.68	16.57
KTPP St.I(1x500)	500.00	462.50	326.29	136.21
KTPP St.II (1x600)	600.00	558.00	393.67	164.33
KTPS VII	800.00	758.00	534.77	223.23
BTPS	810.00	741.15	522.88	218.27
<b>TOTAL TSGENCO THERMAL</b>	<b>3772.50</b>	<b>3493.40</b>	<b>2464.59</b>	<b>1028.81</b>
<b>TSGENCO HYDEL</b>				
N.SAGAR (ph) (NSPH)(7x100.8+1x110)	815.60	807.44	569.65	237.79
NSLCPH(2*30)	60.00	59.40	41.91	17.49
Pochampadu	36.00	35.64	25.14	10.50
Srisaïlam LBPH(SLBHES)(6x150)	900.00	889.20	627.33	261.87
Jurala HES (6)(Priyadarshini) (50% share to Karnataka)	234.00	115.83	81.72	34.11
Singur(2x7.5)	15.00	14.85	10.48	4.37
Nizam Sagar(2*5)	10.00	9.90	6.98	2.92
Mini Hydel (Peddapalli,)	9.16	9.07	6.40	2.67
Mini Hydel (Palair)	2.00	1.98	1.40	0.58
Lower Jurala Hydro Electric Project(6x40)	240.00	237.60	167.63	69.97
Pulichintala(4x30)	120.00	118.80	83.81	34.99
<b>TOTAL TSGENCO HYDEL</b>	<b>2441.76</b>	<b>2299.71</b>	<b>1622.45</b>	<b>677.27</b>
<b>INTER STATE HYDEL PROJECTS</b>				
Machkund PH	120.00	44.81	31.62	13.20
Tungabhadra PH & Hampi	72.00	30.73	21.68	9.05
<b>TOTAL IS HYDEL</b>	<b>192.00</b>	<b>75.55</b>	<b>53.30</b>	<b>22.25</b>
<b>CENTRAL GENERATING STATIONS</b>				
NTPC (SR)-I&II	2100.00	333.14	235.03	98.11
NTPC (SR) Stage-III	500.00	84.25	59.44	24.81
NTPC (Simhadri) I	1000.00	507.91	358.33	149.58
NTPC (Simhadri) II	1000.00	233.27	164.57	68.70
NTPC Talcher-II	2000.00	205.34	144.87	60.47
NLC - Stage-I	630.00	53.15	37.50	15.65
NLC - Stage-II	840.00	95.36	67.28	28.08
NPC (Kaiga) Unit I & II	440.00	62.12	43.83	18.29
NPC (Kaiga) Unit III & IV	440.00	65.99	46.56	19.43

Generating Station / Source	Installed/ Contracted Capacity (MW)	Net Capacity TS Share	2020-21	
			TSSPDCL	TSNPDCCL
NPC (MAPS)	440.00	20.14	14.21	5.93
NTECL Valluru Thermal Power	1500.00	101.23	71.42	29.81
NLC tamil( Tuticorin) Unit I COD18.6.15 & Unit II COD 29.08.15	1000.00	141.91	100.12	41.79
New Nyvelly Thermal Power Station	500.00	58.22	41.07	17.15
Kuddankulam Nuclear Power Plant (KKNP)	1000.00	46.10	32.52	13.58
Kudigi Unit-I&II	2400.00	271.35	191.44	79.91
NVVNL Bundled Power COAL	85.00	43.00	30.34	12.66
NSM II(Coal)( NTPC 200 MW)	200.00	200.00	141.10	58.90
<b>TOTAL CGS</b>	<b>16075.00</b>	<b>2522.48</b>	<b>1779.61</b>	<b>742.87</b>
<b>OTHERS</b>				
Vemagiri	370.00	193.03	136.18	56.85
GVK Extension	220.00	115.43	81.44	33.99
Gautami	464.00	242.50	171.08	71.42
Konaseema	444.00	231.83	163.56	68.27
Thermal Powertech (Unit-I)	660.00	269.45	190.10	79.35
Thermal Powertech (Unit-II)	660.00	570.00	402.14	167.87
Singareni Thermal Power Project Stage-I	1200.00	1131.00	797.92	333.08
Chattisgarh Power Purchase	1000.00	948.00	668.81	279.19
<b>OTHERS TOTAL</b>	<b>5018.00</b>	<b>3701.24</b>	<b>2611.22</b>	<b>1090.02</b>
<b>NCE</b>				
Bio-Mass	0.00	0.00	0.00	0.00
Bagasse	48.20	48.20	15.00	33.20
Industrial-Waste	15.00	15.00	7.50	7.50
MSW	19.80	19.80	19.80	0.00
Wind Power	100.80	100.80	100.80	0.00
Mini-Hydel	0.00	0.00	0.00	0.00
Solar	2233.94	2233.94	1511.81	722.13
Solar JNNM Ph-I Bundled ISTS	45.81	45.81	32.32	13.49
<b>TOTAL NCE</b>	<b>2463.55</b>	<b>2463.55</b>	<b>1687.23</b>	<b>776.32</b>
<b>Discom Total</b>		<b>14555.94</b>	<b>10218.41</b>	<b>4337.53</b>
<b>Open Access</b>		<b>53.46</b>	<b>53.46</b>	
<b>Grand Total Contractual Capacity</b>		<b>14609.40</b>	<b>14609.40</b>	
Note: APGPCL Contracted Capacity is not included as TSDISCOMs decided not to schedule power from APGPCL from Feb 2020 onwards.				