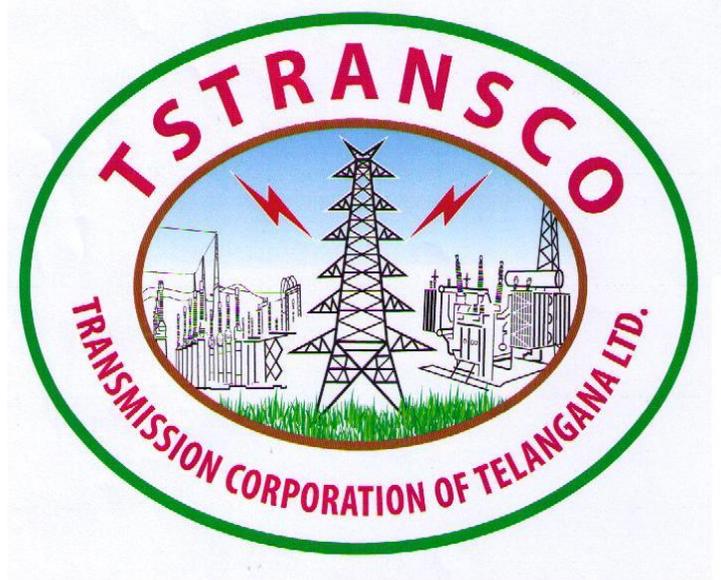


**Transmission Corporation of Telangana Limited
(State Transmission Utility)**



**Filing for Proposed Annual Fee and Operating
Charges for SLDC Business for the 4th Control
Period (FY2019-20 to FY2023-24)**

30th November 2019

**BEFORE THE HONOURABLE TELANGANA STATE ELECTRICITY
REGULATORY COMMISSION**

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

FILING NO. _____/2019

CASE NO. _____/2019

In the matter of:

Filing of the Aggregate Revenue Requirement (ARR), Filing for Proposed Tariff (FPT) for the 4th Control Period (FY2019 - 20 to FY2023 - 24) for its SLDC Activity under Section 26 (5) of the Andhra Pradesh Electricity Reform Act, 1998 (hereinafter referred to as 'the Act') and under Part VII (Section 61 to Section 64) of the Electricity Act, 2003 read with the relevant APERC Guidelines and Regulations as adapted by the TSERC till date, by the Transmission Corporation of Telangana Limited ('TSTransco or 'the Licensee') as the Transmission Licensee and SLDC operator.

In the matter of:

TRANSMISSION CORPORATION OF TELANGANA LIMITED

... Applicant

**AFFIDAVIT OF APPLICANT VERIFYING THE APPLICATION ACCOMPANYING FILING
OF AGGREGATE REVENUE REQUIREMENT**

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 state pursuant to the license granted by the erstwhile Hon'ble APERC and in terms of Government of Telangana state (GoTS) orders vide G.O.Ms.No.9 dated 17-09-2014.
I am competent and duly authorized by TSTransco 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 Aggregate Revenue Requirement for SLDC Business. The statements made in the paragraphs of the accompanying application 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.

b. u. e
DEPONENT

VERIFICATION:

I, the above named Deponent solemnly affirm at Hyderabad on this *29th* day of **November, 2019** 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.

b. u. e
DEPONENT

Solemnly affirmed and signed before me

[Signature]

COMPANY SECRETARY
TS TRANSCO, HYDERABAD

BEFORE THE HONOURABLE TELANGANA STATE ELECTRICITY REGULATORY COMMISSION

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

FILING NO. _____/2019

CASE NO. _____/2019

In the matter of:

Filing of the Aggregate Revenue Requirement (ARR), Filing for Proposed Tariff (FPT) for the 4th Control Period (FY2019 - 20 to FY2023 - 24) for its SLDC Activity under Section 26 (5) of the Andhra Pradesh Electricity Reform Act, 1998 (hereinafter referred to as 'the Act') and under Part VII (Section 61 to Section 64) of the Electricity Act, 2003 read with the relevant APERC Guidelines and Regulations as adapted by the TSERC till date, by the Transmission Corporation of Telangana Limited (TSTransco or 'the Licensee) as the Transmission Licensee and SLDC operator.

In the matter of:

TRANSMISSION CORPORATION OF TELANGANA LIMITED

... Applicant

The Applicant respectfully submits as under: -

1. With the enactment of Andhra Pradesh Reorganization Act 2014, the Telangana state has been carved out from the undivided Andhra Pradesh state as the 29th state of the Republic India on 02.06.2014.
2. The erstwhile Regulatory Commission of undivided State of Andhra Pradesh has issued Regulation No. 3 of 2014 (Reorganization) Regulation, 2014 on 25.05.2014 consequent to the framing of Andhra Pradesh Reorganization Act 2014 notified by Government of India on 01.03.2014, where in clause 3 of the regulation says that, " All the regulations as well as their supplementary regulations/amendments , rules, orders, proceedings , guidelines , memos, notifications, other instruments issued immediately before 2nd June 2014 by the APERC for the conduct of business and other matters shall fully and completely apply to the whole of the states of Telangana and Andhra Pradesh and shall similarly apply in relation to all matters falling within the jurisdiction of the Commission until they are altered, repealed or amended by the respective State Electricity Regulatory Commissions".

3. 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 2014 (adoption of Previously subsisting Regulations, Decisions, Directions, or Orders, Licenses and Practice of Directions) wherein clause 2 says that “ All regulations, decisions, directions or orders, all the licenses and practice directions issued by the erstwhile Andhra Pradesh Electricity Regulatory Commission (Regulatory Commission for States of Andhra Pradesh and Telangana) as in existence as on the date of the constitution of the Telangana State Electricity Regulatory Commission and in force, shall mutatis-mutandis apply in relation to the stakeholders in electricity in the state of Telangana including the Commission and shall continue to have effect until duly altered, repealed or amended, any of Regulation by the Commission with effect from the date of notification as per Notification issued by the Government of Telangana in G.O.Ms. No. 3 Energy (Budget) Department, dt. 26-07-2014 constituting Commission”.
4. This filing for ARR, FPT and MYT is in accordance with the provisions of the Reform Act, the Electricity Act, 2003, the License granted by the Hon'ble Commission to TSTransco on 11th July, 2014 and the Guidelines and Regulations including the regulations pertaining to Transmission, SLDC, Open Access, etc., issued by the Honorable Commission till date.
5. As per the Commission's Regulations, the 3rd Control period is 5 years for SLDC business i.e., from FY 2014-15 to FY 2018-19. APTRANSCO had already filed MYT for the 3rd control period for SLDC business. Accordingly, APERC had issued MYT for the 3rd control period (FY 2014-15 to FY 2018-19).
6. Consequent upon formation of the state of Telangana and its coming into being with effect from 02.06.2014, the Government of Andhra Pradesh has established Transmission Corporation of Telangana Limited vide G.O Ms. No 25, Dt. 29.05.2014. The Commission (APERC) has issued deemed license to TSTRANSCO with Licence No. 1 of 2014 vide proceeding No. APERC/Secy/160/2014 dt. 11.07.2014.

Sub-section (1) of section 31 of the Electricity Act, 2003, provides that the State Government shall establish a State Load Dispatch Center (SLDC). Sub-section (2) of the Section 31 provides that the said SLDC shall be operated by a Government company/authority/corporation constituted by or under any State Act and that until such company / authority / corporation is notified by the State Government, the State

Transmission Utility (STU) shall operate the SLDC. The Government of TS notified in G.O.Ms.No.9 dated 17-09-2014 that the existing SLDC shall continue as SLDC and be operated by the Transmission Corporation of Telangana Ltd. (TSTRANSCO), which was earlier notified as STU for Telangana State.

In the absence of separate approved ARR for TSTRANSCO for the period from FY 2014-15 to FY 2016-17 , the expenditure approved for composite APTRANSCO has been segregated based on power allocation ratio @53.89% to TSDISCOMS(notified by GoAP vide G.O. Ms. No. 20,Dt 08.05.2014) and considered to compare with actuals for the said period.

7. TSTransco had filed the ARR, FPT and MYT for determining the Annual Fee and Operating Charges for its SLDC Business for the remaining part of Third Control Period of Two years for i.e., FY 2017-18 and FY 2018-19 and TSERC issued Tariff Order on 20th June 2017.
8. While filing the present ARR, FPT and MYT petition for SLDC business for the period from FY 2019-20 to FY 2023-24 TSTransco has endeavored to comply with the various applicable legal and regulatory directions and stipulations including the directions of the Hon'ble Commission in the Business Rules of the Commission, the Guidelines, prior ARR and Tariff Orders and Levy and Collection of Fees and Charges by State Load Despatch Centre (Regulation No. 1 of 2006) dated 27th July, 2006.
9. Based on the information available, the Applicant has made bonafide efforts to comply with the directions of the Hon'ble Commission and discharge it's obligations to the best of it's abilities. However, should any further material become available in the near future, the Applicant reserves the right to file such additional information and consequently amend / revise the application.
10. The current petition for Annual fee and Operating charges for SLDC Business for the MYT FY 2019-20 to FY 2023-24 being filed has been discussed and approved by the Board of Directors of TSTransco and Sri. D. Prabhakar Rao, Chairman and Managing Director of TSTransco has been authorized to execute and file the said Annual Fee and Operating Charges petition on behalf of TSTransco. Accordingly, the current petition for Annual fee and Operating Charges for SLDC Business is signed and verified by, and backed by the affidavit of Sri. D. Prabhakar Rao, Chairman and Managing Director.

11. In the aforesaid facts and circumstances, the Applicant requests that the Hon'ble Commission:

- a. to take the accompanying Annual fee and Operating charges for the Petition for 4th Control period (FY 2019-20 to FY 2023-24) of TSTransco for SLDC Business on record;
- b. to grant suitable opportunity to TSTransco within a reasonable time frame to file additional material information if any;
- c. to treat the filing as complete in view of substantial compliance with justification placed on record;
- d. to consider and approve SLDC Annual fee and Operating charges including all requested regulatory treatments in the filing;
- e. to pass such order, as the Hon'ble Commission may deem fit and proper in the facts and circumstances of the case.

TRANSMISSION CORPORATION OF TELANGANA LIMITED
(APPLICANT)

Through


D. PRABHAKAR RAO
CHAIRMAN AND MANAGING DIRECTOR

Place: HYDERABAD

Dated: 29th NOVEMBER, 2019

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1 Introduction

Pursuant to the applicable provisions of the Electricity Act, 2003, the State Government shall establish a State Load Dispatch Center (SLDC). Section 31 (2) of the Act, provides that the said SLDC shall be operated by a Government Company / Authority / Corporation constituted by or under any State Act and that until such Company / Authority / Corporation is notified by the State Government, the State Transmission Utility (STU) shall operate the SLDC.

As per the provisions of Andhra Pradesh Reorganization Act, 2014, by enactment of which, Telangana State was formed as the 29th State of the Republic India on 02.06.2014 has necessitated formation of TRANSCO and SLDC for the new State, the Government of AP has created TRANSCO for Telangana to function as Transmission Utility for Telangana and incorporated under Companies Act, 2013.

The Government of Telangana, under the Section 31(1) of the EA 2003 has notified Telangana TRANSCO as the State Transmission Utility (STU) in the state vide G.O.Ms.No. 1, dated 21-06-2014. TSTRANSCO is presently carrying out solely, the Transmission & SLDC business as per the Licence No.1 of 2014 granted by the erstwhile APERC on Deemed Licence Conditions of Licensee, Transitional (Reorganization) Regulations, etc.

Under the provisions of Section 31(2) of the EA 2003, the existing SLDC was declared as deemed to have been established by the Government of Telangana vide G.O.Ms.No. 9, dated 17-09-2014 and since been operated by the State Transmission Utility (i.e., TSTRANSCO).

The Telangana SERC has adopted vide its Regulation No. 1 of 2014, previously subsisting Regulations, Decisions, Directions, or Orders, Licenses and Practice of Directions or orders, all the licenses and practice directions issued by the erstwhile Andhra Pradesh Electricity Regulatory Commission (Regulatory Commission for States of Andhra Pradesh and Telangana until duly altered, repealed or amended, any of Regulation by the Commission.

Based on MYT submitted by APTRANSCO for 3rd Control Period, the erstwhile APERC had issued MYT for the 3rd Control Period (FY 2014-15 to FY 2018-19) for SLDC business.

Filing of ARR of SLDC business for Fourth Control Period (FY 2019-20 to FY 2023-24)

This filing for ARR, FPT and MYT for 4th Control period (FY 2019-20 to FY 2023-24) is in accordance with the provisions of the Reforms Act, 1998, the Electricity Act, 2003, Licence granted by the erstwhile APERC to TSTRANSCO on 11th July, 2014 and the Guidelines and Regulations including the regulations pertaining to Transmission, SLDC, Open Access, etc., issued by the Honorable Commission till date. Section 32 (3) of the Electricity Act, 2003 provides for levy and collection of such fees and charges from the generating companies and licensees engaged in the intra-state transmission of electricity as may be specified by the State Commission.

As per the clause 6 of Regulation No. 1 of 2006, dated 27th July , 2006 (Levy and Collection of Fees and Charges by State Load Dispatch), TSTransco has to file with the Commission, an application / petition with statements containing details of the Fee and Charges under its currently approved levels of fee and charges along with the proposals for the 4th Control Period i.e., for FY 2019 - 20 to FY 2023 - 24.

In compliance with the TSERC Regulations and Guidelines, TSTransco, the State Transmission Utility & Transmission Licensee managing the SLDC business herein submits the following in this Petition:

- i. Analysis of Performance of FY 2014-15 to FY 2018-19.
- ii. Revised Estimates for FY2018-19.
- iii. Annual Fee for the 4th Control Period i.e., for FY2019 - 20 to FY2023 – 24
- iv. Operating Charges for the 4th Control Period i.e., for FY2019 - 20 to FY2023 - 24
- v. True Up - Analysis of Performance from FY 2014-15 to FY 2018-19.

2 . TRUE-UP FOR 3RD CONTROL PERIOD (FY 2014-15 TO 2018-19)

Consequent to bifurcation of Andhra Pradesh State, a separate Transmission Utility in the name of TRANSMISSION CORPORATION OF TELANGANA LIMITED (TS TRANSCO) for the State of Telangana has been incorporated and commenced its activities w.e.f. 02 / 06 / 2014 i.e., from the formation day of state of Telangana.

Filing of ARR of SLDC business for Fourth Control Period (FY 2019-20 to FY 2023-24)

In the absence of separate approved ARR for TSTRANSCO, for the period from FY 2014-15 to FY 2016-17, the expenditure approved for composite APTRANSCO has been segregated based on power allocation ratio @53.89% to TSDISCOMs (notified by Govt. of AP vide G.O.Ms.No.20, Dt.08.05.2014) and considered to compare with actuals for the said period.

This True up filing is made by the Transmission Licensee, TRANSMISSION CORPORATION OF TELANGANA LIMITED (TSTRANSCO) as per Clause 4.7 of the Andhra Pradesh Electricity Regulatory Commission (Levy and collection of fees and charges by State Load Despatch Centre) Regulation No.1 of 2006 for variations in recovery of capital cost and operating charges over the fees and charges fixed for a year on account of variations in SLDC usage for the FY2014-15 (02.06.2014 to 31.03.2015) to FY2018-19.

The licensee is submitting the following as part of correction filings for FY 2014-15 (02.06.2014 to 31.03.2015) to FY 2018-19.

- Statement of variance with the Tariff Order for each item in the Aggregate Revenue Requirement and reasons for variation.
- Actual Aggregate Revenue Requirement (ARR) for each year computed based on O&M Charges and actual interest and other costs.
- The Surplus/Deficit for each year is arrived based on actual revenue for the respective year.

(a) Operation and Maintenance (O&M) Expenses True Up:

The O&M Expenses cover the Employees Cost, Administrative & General Expenses, Repairs & Maintenance Expenses.

Table 1: True Up: O&M Expenses

Rs. in Crores)

Particulars	FY 2014-15 (02.06.2014 to 31.03.2015)			FY 2015-16			FY 2016-17		
	Tariff Order	Actuals	Devi- ation	Tariff Order	Actuals	Devi- ation	Tariff Order	Actuals	Devi- ation
Employees Cost	19.28	25.02	5.74	24.75	29.47	4.71	26.43	38.30	11.87
Administration and General Exp.	5.51	1.68	-3.84	7.19	1.94	-5.24	7.81	3.00	-4.81
Repairs & Maintenance Exp.	3.67	2.15	-1.51	2.54	1.55	-0.99	2.89	1.45	-1.44
Total:	28.47	28.85	0.38	34.48	32.96	-1.52	37.12	42.75	5.63
Particulars	FY 2017-18			FY 2018-19(Provl.)			Total		
	Tariff Order	Actuals	Devi- ation	Tariff Order	Actuals	Devi- ation	Tariff Order	Actuals	Devi- ation
Employees Cost	34.77	43.54	8.77	37.76	58.69	20.93	142.99	195.03	52.03
Administration and General Exp.	2.24	2.41	0.17	2.42	4.73	2.31	25.17	13.76	-11.42
Repairs & Maintenance Exp.	1.45	1.54	0.09	1.56	2.15	0.59	12.11	8.85	-3.26
Total:	38.46	47.49	9.03	41.74	65.58	23.84	180.27	217.63	37.36

Operating Expenses consist of the following expenses:

- Employee Expenses
- Administration and General Expenses
- Repair & Maintenance Expenses
- Other Miscellaneous expenses

Variance in O&M Expenses:

- As could be seen from the above that there is increase of Rs.37.36 Crores in operating costs for FY 2014-15 (02.06.2014 to 31.03.2015) and FY 2018-19. The increase is mainly on account of pay revision during FY 2018-19 which was not factored in the Tariff Order for FY 2018-19.

- Pending final allocation of employees between APTRANSCO and TSTRANSCO, actuarial valuation towards employee terminal benefits could not be taken up. However, Pension & Gratuity Contribution has been provided provisionally.

(b)Capital Cost True Up:

Capital Cost is a recovery towards Interest & Finance Charges and Depreciation is a claim towards replacement cost of fixed assets. Depreciation has been calculated for every year on all the fixed assets capitalized up to the previous year considering the rates notified by the Ministry of Power, Govt. of India.

Table 2 : Capital Cost True Up

(Rs. in Crores)

Particulars	FY 2014-15 (02.06.2014 to 31.03.2015)			FY 2015-16			FY 2016-17		
	Tariff Order	Actuals	Devi-ation	Tariff Order	Actuals	Devi-ation	Tariff Order	Actuals	Devi-ation
Capital Cost	2.48	0.45	-2.02	4.02	0.60	-3.42	4.87	0.58	-4.29
Total:	2.48	0.45	-2.02	4.02	0.60	-3.42	4.87	0.58	-4.29
Particulars	FY 2017-18			FY 2018-19(Provl.)			Total		
	Tariff Order	Actuals	Devi-ation	Tariff Order	Actuals	Devi-ation	Tariff Order	Actuals	Devi-ation
Capital Cost	4.22	4.10	-0.12	5.80	2.52	-3.28	21.39	8.25	-13.13
Total:	4.22	4.10	-0.12	5.80	2.52	-3.28	21.39	8.25	-13.13

There is a reduction of Rs. 13.13 Crores in Capital cost. This is mainly due to lesser capitalization of fixed assets than envisaged in Tariff Order.

(c)Revenue True Up:

The following is the position of Revenue during FY 2014-15 (02.06.2014 to 31.03.2015) to FY 2018-19:

Table 3: Revenue True Up (Rs. in Crores)

Particulars	FY 2014-15 (02.06.2014 to 31.03.2015)			FY 2015-16			FY 2016-17		
	Tariff Order	Actuals	Devi-ation	Tariff Order	Actuals	Devi-ation	Tariff Order	Actuals	Devi-ation
<u>Revenue from SLDC Charges :</u>									
Operating Charges	28.47	32.21	3.74	34.48	39.06	4.58	37.12	42.08	4.95
Annual Fees	2.48	2.65	0.17	4.02	3.99	-0.03	4.87	4.97	0.10
Sub-Total:	30.95	34.86	3.91	38.50	43.05	4.55	41.99	47.05	5.06
Other Income	0.00	1.15	1.15	0.00	1.31	1.31	0.00	2.21	2.21
Total:	30.95	36.01	5.06	38.50	44.36	5.86	41.99	49.26	7.27
Particulars	FY 2017-18			FY 2018-19(Provl.)			Total		
	Tariff Order	Actuals	Devi-ation	Tariff Order	Actuals	Devi-ation	Tariff Order	Actuals	Devi-ation
<u>Revenue from SLDC Charges :</u>									
Operating Charges	36.21	43.03	6.82	39.40	41.71	2.31	175.68	198.09	22.41
Annual Fees	4.22	4.63	0.41	5.80	5.83	0.03	21.39	22.07	0.68
Sub-Total:	40.43	47.66	7.23	45.20	47.54	2.34	197.07	220.16	23.09
Other Income	2.25	1.16	-1.09	2.35	0.97	-1.38	4.60	6.80	2.20
Total:	42.68	48.82	6.14	47.55	48.51	0.96	201.67	226.95	25.29

- The Actual Revenue from SLDC Charges during FY 2014-15 (02.06.2014 to 31.03.2015) to FY 2018-19 is Rs. 198.09 Crores as against Rs.175.68 Crores approved by the united Commission; thereby there is an increase of Rs. **22.41** Crores. The main reason for increase is due to increase of revenue from Open Access Customers.
- Further, there is a increase in Other Income of Rs.2.20 Crores mainly on account of income from SLDC Processing fees and other income.

(d) Surplus/ (Deficit) during the period FY 2014-15 to FY 2018-19

The Total Aggregate Revenue Requirement (ARR) approved by Hon'ble Commission for FY2014-15 (02.06.2014 to 31.03.2015) and FY2018-19 is Rs. **201.67** Crores as against which actual ARR is Rs. **225.90** Crores, thereby there is an increase of Rs. **24.23** Crores in ARR. Further, there is an increase in revenue to the tune of Rs. **25.29** Crores, resulted to a total increase of Rs.1.06 Crores. However the Hon'ble Commission has already adjusted(by way of reduction in tariff for FY 2017-18 and FY 2018-19) an amount of Rs.20.75 crores towards Special Appropriation for FY 2014-15 and FY 2015-16. As such there is a claim of **Rs.19.69** crores in 4th MYT control period.

Table 4 : True Up: **ARR Deviation – (Tariff Order vis-à-vis Actual):**

(Rs. in Crores)

Particulars	FY 2014-15 (02.06.2014 to 31.03.2015)			FY 2015-16			FY 2016-17		
	Tariff Order	Actuals	Devi- ation	Tariff Order	Actuals	Devi- ation	Tariff Order	Actuals	Devi- ation
Total Expenditure	30.95	29.31	-1.64	38.50	33.56	-4.94	41.99	43.33	1.34
Revenue from SLDC Charges :	30.95	36.01	5.06	38.50	44.36	5.86	41.99	49.26	7.27
Surplus/(Deficit)	0.00	6.70	6.70	0.00	10.80	10.80	0.00	5.93	5.93
Particulars	FY 2017-18			FY 2018-19			Total		
	Tariff Order	Actuals	Devi- ation	Tariff Order	Actuals	Devi- ation	Tariff Order	Actuals	Devi- ation
Total Expenditure	42.68	51.60	8.91	47.54	68.09	20.55	201.67	225.90	24.23
Revenue from SLDC Charges :	42.68	48.82	6.14	47.55	48.51	0.96	201.67	226.95	25.29
Surplus/(Deficit)	0.00	-2.78	-2.78	0.01	-19.58	-19.59	0.00	1.06	1.06
Less: True up for FY 2014-15 & FY 2015-16 already ordered in the Tariff Order for Balance Period of 3 rd Control Period (FY 2017-18 & FY 2018-19)									20.75
Balance :									-19.69

2 Determination of SLDC Annual Fee for the 4th Control Period:

The Hon'ble Commission has notified vide Regulation No. 1 of 2006, dated July 27th 2006 "Levy and collection of Fees and Charges by SLDC". As per the above regulation, TSTRANSCO is filing an application for Annual Fee and Operating Charges for the 4th Control Period (i.e., from FY2019-20 to FY2023-24).

Filing for Annual Fee:

TSTRANSCO has computed the Annual SLDC charges based on the following methodology:

- Estimation of Year on Year Investments for the period FY2019-20 to FY2023-24.
- Computation of Capital Cost based on methodology suggested by the Hon'ble Commission.
- Determination of Year on Year Generation Capacity.
- Computation of SLDC Annual Charges.

3.1 CAPITAL INVESTMENTS

SLDC Annual Fee is to cover the Capital cost of SLDC Business during the Control Period. In compliance to the Regulation 1 of 2006, the licensee has to estimate the Annual Fee based on methodology prescribed vide Regulation. Accordingly, the licensee has prepared a detailed investment plan for FY 2019-20 and FY 2023-24 as shown below.

TABLE :5 Proposed Capital Investment for 4th Control Period in Rs. Lakhs

Description	Grid Operation	EBC	Telecom	TOTAL
2018-2019 (R.E.)	113.57	11.68	0.865	126.11
2019-2020	956.50	1189.79	148.41	2294.70
2020-2021	813.25	547.33	133.24	1493.82
2021-2022	490.40	18.32	85.38	594.10
2022-2023	87.71	18.66	101.69	208.06
2023-2024	90.21	19.02	37.59	146.82
Grand Total	2551.64	1804.80	507.17	4863.61
Total for 4th Control Period	2438.07 (24.38)	1793.12 (17.93)	506.31 (5.06)	4737.50 (47.37)

Based on the above investment plan, the Capital Cost for 4th Control Period is shown in TABLE :

TABLE : 6 Proposed Capital Cost for 4th Control Period (Rs. in Crores)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Generation Capacity (MW)	16540	18892	18924	20979	22537
Opening Balance of Fixed Assets	14.49	14.49	14.49	14.49	14.49
Additions made during FY 2019-20	22.95	22.95	22.95	22.95	22.95
Additions made during FY 2020-21		14.94	14.94	14.94	14.94
Additions made during FY 2021-22			5.94	5.94	5.94
Additions made during FY 2022-23				2.09	2.09
Additions made during FY 2023-24					1.47
Total Asset Value	37.44	52.38	58.32	60.41	61.88
Rate of Interest	11%	11%	11%	11%	11%
Tenure	10	10	10	10	10
<u>Capital Cost Claimed</u>					
Opening Balance of Fixed Assets	2.46	2.46	2.46	2.46	2.46
Additions made during FY 2019-20	3.90	3.90	3.90	3.90	3.90
Additions made during FY 2020-21		2.54	2.54	2.54	2.54
Additions made during FY 2021-22			1.01	1.01	1.01
Additions made during FY 2022-23				0.35	0.35
Additions made during FY 2023-24					0.25
Total Capital Cost	6.36	8.89	9.90	10.26	10.51
SLDC Annual Fee (Rs./MW/Annum)	3843.63	4707.92	5232.94	4889.51	4662.25

The plan of Capital Assets to be added for SLDC Activity for the 4th Control Period FY2019-20 to FY2023-24 and Revised Estimates for FY2018-19 is shown in Table 2.

The new Capital Assets proposed to be added during the 4th Control Period and the need for such capital assets for SLDC business in each of the wings viz., Grid Operation, EBC, Tele communication wings are detailed below.

A. SCADA Wing:

Creation of Backup SLDC:

The SCADA/EMS system of M/s Alstom make (Now M/s GE) with Main SLDC & Backup SLDC (replica of Main SLDC) systems is procured replacing the old GE make system under “replacement/upgradation of existing SCADA/EMS system” project taken up by M/s PGCIL on turnkey basis on behalf of erstwhile APTRANSCO and other southern region constituents.

Consequent to bifurcation of erstwhile Andhra Pradesh State, the main SLDC equipment is allotted to Telangana and backup SLDC equipment is allotted to residual AP.

As per the Report of the Task Force (Satnam Committee) on Implementation of Pradhan Committee Report, each State should have a Main SLDC and a fully functional replica as Backup SLDC, as part of disaster management.

In view of the above, TSTRANSCO has identified the location for Backup SLDC at Warangal taking into consideration of the recommendations of the Forum of Load Despatches.

Creation of Backup SLDC involves design, engineering, NIT, Tender evaluation, finalization of contract, procurement, erection, project management, testing and commissioning and other works incidental thereto. M/s PGCIL was requested to take up the project on turnkey basis. Subsequently, M/s PGCIL has submitted draft consultancy agreement. The estimated cost is approximately Rs 8.05 Cr (including taxes & duties).

For commissioning of this project, simultaneously construction of building at the identified location in 220KV Warangal SS is taken up by Civil wing at an estimate cost of Rs 6.4 Crores.

Providing Meeting/ Conference/Video Conference Hall:

SLDC has made provision for meeting/Conference/Video conference by identifying place in the Fifth floor, Annex building. The necessary infrastructure like Furniture, display screens, Conference equipment etc., to be arranged for making it fully functional.

Automatic Generation Control (AGC):

Hon'ble CERC in its order dated 13.10.15 on petition no.11/SM/2015, directed to implement AGC for enabling utilization of secondary reserves in the event of grid emergencies.

Based on the directions, the implementation aspect was discussed in various OCC, TCC, SRPC and decided to implement AGC on pilot basis identifying one or two generators (Thermal / Hydel) from each state. The generator must plan to operationalize AGC along with reliable telemetry and communication. On the other hand, National/ Regional/State Load Despatch Centre (NLDC/RLDC/SLDC) would need technical upgrades as well as operational procedure to be able to send automated signals to these generators. The data telemetry upgrades at SLDC involves erection, commissioning and integration of servers and related hardware and software with the existing SCADA/EMS system.

As a pilot project, the KTS-VI stage was identified by TSGENCO for implementation of AGC. This project will be taken up in co-ordination with TSGENCO at an estimated project cost of Rs 80 lakhs.

B. Power Planning Wing:

Load Forecasting for State of Telangana:

For State Discoms, SLDC - Telangana is responsible for optimum scheduling and despatch and also for secure, reliable and safe operation of the state grid. The forecasting Software will be able to provide short term forecast (same day forecast), day ahead forecast and weekly forecast. It will help to optimize scheduling of state generator, to plan outages of generating units, network elements and better grid management. It ultimately helps to enhance system security and reliability.

C. EBC & RE Wing:

Hardware & Software Components for SAMAST Project:

Procurement of Data base servers, Application server, Operating system, SAN storage, Backup software, Antivirus, Oracle Data base Licensees, Switches, NAS, Rack, Support services training, Firewall etc. for implementation of Intra-State ABT- SAMAST (Scheduling, Accounting, Metering and Settlement of Transactions in Electricity) Project. Development of different modules such as scheduling, Deviation Settlement Mechanism

(DSM) for RE and conventional generators and distribution licensees. This project is essential for energy accounting, Implementation of DSM for RE generators as per TSERC regulations and implementation of Intra-state ABT (TSERC Draft regulation is issued).

AMR project:

Procurement of GPRS modems with Ethernet port for data transfer over fibre optic network of GPRS network. Head and system (H&S) for Data acquisition, Metre data management systems (MDMS), Integration, Installation and commissioning for implementation of AMR project. This project is necessary for obtaining continuous metered data online for carrying out weekly energy settlements as part of implementation of Intra-state ABT.

RE-II Wing:

Renewable Energy Management Centre (REMC):

Government of India's initiative of encouraging renewable energy generation under the Ministry of New & Renewable Energy in reducing GHG emission and carbon dioxide has resulted in rapid development of solar/wind power sectors in various states.

Large scale renewable generation capacity addition of more than 175 GW is envisaged in the country by 2022. This requires addressing the issues and challenges of grid integration of large scale renewable generation which is proposed to be covered under this project by establishing Renewable Energy Management Centers (REMCs) co-located at State Load dispatch centres. M/s PGCIL has taken up the implementation of the project across the country. The project is initiated in the following states under phase one: Tamil Nadu, Karnataka, Andhra Pradesh, Gujarat, Maharashtra, Rajasthan and Madhya Pradesh.

The project is funded by Ministry of Power (MoP) with the scope of work covering:

- Forecasting of RE generation in area of jurisdiction on day-ahead, hour-ahead, week-ahead, month-ahead basis.
- Smart Dispatching solutions.
- Real time tracking of generation from RE sources and its geo-spatial visualization.
- Close coordination with respective LDC for RE generation and control for smooth grid operation.
- Single source information repository and coordination point for RE penetration.

With rapid integration of Solar Energy in Telangana, TSTRANSCO has taken up with MNRE and MoP for implementation of REMC project in our State. The process is initiated for establishment of REMC collocated at SLDCs.

The basic requirements involve reviewing licences for forecasting tools. These tools come with license validity of three years inclusive warranty period. Thereafter the renewal has to be done by respective SLDCs.

SCADA & DYNAMIC STUDIES: -

Eigen Value Analysis:

Eigen Value analysis describe the small signal behaviour of the system- the behaviour line arised around one operating point – but not the non linear behaviour of, for instance, controllers during large perturbations. Therefore, time domain simulation and modal analysis in the frequency domain complement each other in the analysis of power systems.

Eigen value analysis investigates the dynamic behaviour of a power system under difference characteristic frequencies (modes). In a power system, it is required that all modes be stable. Moreover, it is desired that all electromechanical oscillations be damped out as quickly as possible. The results of an Eigen value analysis are given as frequency and relative damping for each oscillatory mode.

D. TELECOM Wing:

I . Procurement of communication equipment

1. Procurement of communication equipment i.e, OLTEs, MUX, EPABX, Charges and Batteries at Back up SLDC, Warangal are necessary for implementation of Data Acquisition System (DAS) of all EHT substations for Back up SLDC, Warangal.
2. Procurement of Network elements (Layer 3 Switches and Routers) are necessary at different wide band stations for implementation of data routing from all EHT substations to Back up SLDC, Warangal and Main SLDC, Vidyut Soudha and integration of Back up SLDC to Main SLDC.
3. Procurement of Centralized Network Management System and Data Monitoring Software's at Main SLDC, Vidyut Soudha and Back Up SLDC, Warangal is necessary for configuration of communication equipment, to monitor alarms and co-ordinating

with field staff in rectification of problems related to communication equipment (Data, Voice, Protection, SAP, VOIP) to improve the data availability to SLDC and furniture, computers are required for Back up SLDC at Warangal and main SLDC at Vidyut Soudha.

II. Repairs and Maintenance

1. Repairs and Maintenance of the communication equipment at Main SLDC, Vidyut Soudha is very much essential for providing uninterrupted Data and Voice communication to SLDC.
2. Repairs and Maintenance charges comprises of replacement of communication equipment, cards, networking equipment, office equipment.

E. Power Systems Wing:

1. System Studies divisions currently is responsible for technical feasibility of 400kV, 220kV and 132kV Sub-Stations and network improvements.
2. Apart from these, the maximum demand network preparation is to be continuously carried out compatible with all India network being prepared by Power Grid, CEA and SRLDC using PSS/E Software for carrying joint studies.
3. Further, fault MVA calculations for upcoming networks need to be carried for PTCC approvals.
4. In view of the above PSS/E Licenses were purchased for use of System Studies wing for timely completion of the aforesaid load flow studies and to obtain approvals from CEA for new 400kV Substation networks and other LI schemes in coordination with CEA and Power Grid.
5. Presently System Protection Division is computing the fault level calculation and the relay settings based on the in house developed software, which has a limitation of number of PTRs.
6. The PSS/E software will help protection division in computing the fault level calculation without any limitation and will have the consistency in the results on par with the system studies, dynamic studies and PGCIL.
7. The above PSS/E licenses are also required for usage of protection wing for studying the transmission corridor congestion and to prepare special protection schemes (SPS) independently to enhance the reliability of the network.

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3.2 Capital Cost Projection:

TABLE : 7 (A) Investments

Particulars	2018-19 (Base Year)	2019-20	2020-21	2021-22	2022-23	2023-24
Investment proposed during the year	1.64	22.95	14.94	5.94	2.09	1.47

TABLE : 7 (B) Capital Cost Projection (Rs. in Crores)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Total Capital Cost	6.36	8.89	9.90	10.26	10.51

3.3 Total Generation Capacity:

The total generation capacity estimated, including the capacity related to Open Access consumers over the next 5 years is as shown below:

TABLE: 8 Estimated Generation Capacities (MW)

Sl. No	Source of Power	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
I	Genco					
A	Thermal	4113.94	3677.80	3677.80	5197.80	6717.80
B	Hydro	2406.29	2406.29	2406.29	2406.29	2406.29
II	Central Generating Stations	2643.74	4003.74	4003.74	4302.75	4302.75
III	Joint Sector	24.51	24.51	24.51	24.51	24.51
IV	IPPs	0.00	0.00	0.00	0.00	0.00
V	NCEs (Solar, Wind, Mini Hydel etc.)	3473.53	4873.48	4873.48	4873.48	4873.48
VI	Inter State Hydel	75.54	75.54	75.54	75.54	75.54
VII	Others (Chattisgarh, Singareni & Thermal PowerTech)	3517.45	3517.45	3517.45	3719.45	3719.45
	TOTAL	16255.00	18578.81	18578.81	20599.82	22119.82
VIII	Open Access Generators	285.14	313.66	345.02	379.53	417.48
	GRAND TOTAL	16540.15	18892.48	18923.84	20979.35	22537.31

Note:- Generating Station-wise details are shown in Annexures – B

3.4 Annual Fee & Capital Cost for the 4th Control Period

As per Regulation 1 of 2006 the SLDC Annual Fee is to be calculated as detailed below:

$$\text{SLDC Annual Fee (Rs./MW/Annum)} = \frac{\text{Capital Cost}}{\text{Total Generating Capacity}}$$

TABLE : 9 SLDC Annual Fee for the 4th Control Period

Particulars	Units	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Total Capital Cost	Rs. (Crores)	6.36	8.89	9.90	10.26	10.51
Generation Capacity	MW	16540	18892	18924	20979	22537
SLDC Annual Fee	Rs./MW/p.a.	3844	4708	5233	4890	4662

The Annual fee for the Fourth control period has been calculated based on the total capital cost for the Fourth control period on total generation capacity as per SLDC regulation.

The Annual fee is Rs.3844 /MW/P.A. for the year FY 2019-20, Rs.4708 /MW/P.A. for FY 2020-21, Rs.5233 /MW/P.A. for the year FY 2021-22, Rs.4890/MW/P.A. for the year FY 2022-23 and Rs.4662 /MW/P.A. for the year FY 2023-24.

4. Determination of SLDC Operating Charges for the 4th Control Period :

TSTRANSCO submits the Aggregate Revenue Requirement (ARR) for SLDC Charges for 4th Control Period i.e., FY 2019-20 to FY 2023-24 as per the methodology notified by the Hon'ble Commission vide Regulation 1 of 2006. The following are the main components of ARR:

SLDC Operating Charges are to cover the O&M Expenses of SLDC Business i.e., Employees Cost, Administrative & General Expenses, Repairs & Maintenance Expenses relating to SLDC Business.

For estimating the O&M Expenses i.e., Employee Cost, Administration & General Expenses, Repairs & Maintenance Expenses, an escalation @ 7.68% was adopted based on the escalation factors arrived from CERC methodology 2019.

Further, it is to submit that wage revision to the employees is due w.e.f. 01.04.2022. However, the impact of wage revision was not factored in the above projections. The same will be claimed separately based on actuals.

Based on the above the following is the position of O&M Expenses from FY 2019-20 to FY 2023-24:

TABLE : 10 Projection of Operation & Maintenance Expenses (Rs. in Crores)

Particulars	FY 2018-19 (Base Year)	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
<u>Operating Charges:</u>						
Employees Cost	31.96	34.41	37.06	39.90	42.97	46.27
Administration & General Exp.	2.47	2.66	2.86	3.08	3.32	3.58
Repairs & Maintenance Exp.	0.47	1.33	1.75	1.67	3.09	3.15
Sub-Total:	34.90	38.40	41.67	44.66	49.38	52.99
Less: Non-Tariff Income	0.97	1.00	1.00	1.00	1.00	1.00
Total Operating Charges	33.93	37.40	40.67	43.66	48.38	51.99

4.1 Employee Cost:

The employee cost for the FY 2019-20 to FY 2023-24 has been projected at an escalation rate of 7.68% as per CERC methodology.

The employee cost, other than the salaries of the personnel, also contain the following components:

- Surrender leave
- Various medical allowances
- Other Allowances and pension contribution

4.2 Administration and General Charges:

The Administration and General charges for the FY 2019-20 to FY 2023-24 has been projected at an escalation rate of 7.68% as per CERC methodology.

4.3 Repairs and Maintenance Costs:

TABLE: 11 Projection of R&M Costs for 4th Control Period Rs. Lakhs

FY	Grid Operation	EBC	Telecom	TOTAL
2018-2019 (R.E.)	0.00	0.00	0.00	0.00
2019-2020	10.41	0.00	29.68	40.09
2020-2021	11.97	0.00	26.64	38.61
2021-2022	11.97	0.00	17.07	29.04
2022-2023	11.97	0.00	20.34	32.31
2023-2024	11.97	0.00	7.52	19.49
Grand Total	58.29	0.00	101.25	159.54
Total for 4th Control Period	58.29 (0.58)	0.00	101.25 (1.01)	159.54 (1.59)

As per the clause No. 7 of Regulation 2/2006, the Energy Billing Centre is also considered as a part of the SLDC Business. Therefore, the assets of SLDC Business are mainly SCADA Wing & Energy Billing Centre.

The R&M costs are primarily for the AMCs of various equipments. The Repairs & Maintenance Expenditure is projected based on the requirements of SCADA, Power Planning, EBC & RE, Dynamic Studies, Telecom and Power Systems wings.

Repairs and Maintenance:

In order to facilitate the Reliable and efficient speech and data communication system, Power Line Carrier Communication (PLCC) and Optical Fibre Communication (OFC) is being implemented in substations. Repairs and maintenance of the equipment is very much essential for uninterrupted transfer of real time data to SLDC and for implementation of SCADA.

Repairs and Maintenance Charges comprises of Lines and cable networks, Plant and Machines, Office equipment.

4.4 Special Appropriation:

Based on provisional/un-audited accounts, the surplus of Rs. -19.69 Crores gained during FY 2014-15 to FY 2018-19 is being passed on to the consumers as a negative element during FY 2019-20 (as Rs.20.75 Cr passed onto the consumers during FY 2017-18 & FY 2018-19) as against surplus of Rs.1.06 Cr during the period FY 2014-15 to FY 2018-19.

TABLE : 12 Special Appropriation (Rs. in Crores)

Particulars	2018-19(Base Year)	2019-20	2020-21	2021-22	2022-23	2023-24
Special Appropriation		19.69	-	-	-	-
		19.69	-	-	-	-

4.5 Non-Tariff Income:

The major components of other income are income from SLDC Processing fees, delayed payment surcharge etc. Based on the past trend, the Non-Tariff Income for FY 2019-20 to FY 2023-24 is estimated as detailed below:

TABLE : 13 Non-Tariff Income (Rs. in Crores)

Particulars	2018-19(Base Year)	2019-20	2020-21	2021-22	2022-23	2023-24
Non – Tariff Income	0.97	1.00	1.00	1.00	1.00	1.00

4.6 Operating Charges for Third Control Period:

As per Regulation 1 of 2006 the SLDC Operating Charges are to be calculated as detailed below:

$$\text{SLDC Operating Charges (Rs./MW/Month)} = \frac{\text{Annual Operating Charges}}{\text{Total Generating Capacity} \times 12}$$

The details of Operating charges are shown in Table 14.

TABLE: 14 SLDC Operating Charges for the 4th Control Period (Rs.Crores)

Particulars	FY 2018-19 (Base Year)	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Employees Cost	31.96	34.41	37.06	39.90	42.97	46.27
Administration & General Exp.	2.47	2.66	2.86	3.08	3.32	3.58
Repairs & Maintenance Exp.	0.47	1.33	1.75	1.67	3.09	3.15
Special Appropriation		19.69				
Sub-Total:	34.90	58.09	41.67	44.66	49.38	52.99
Less: Non-Tariff Income	0.97	1.00	1.00	1.00	1.00	1.00
Total Operating Charges	33.93	57.09	40.67	43.66	48.38	51.99
Generation Capacity(MW)	15507	16540	18892	18924	20979	22537
Operating Charges (Rs./MW/Month)	1823.41	2876.57	1794.04	1922.49	1921.72	1922.54

The Operating Charges are Rs. **2876.57** MW/Month for the year FY 2019-20, Rs. **1794.04** MW/Month. for FY 2020-21, Rs. **1922.49** /MW/Month for the year FY 2021-22, Rs. **1921.72** /MW/Month for the year FY 2022-23 and Rs. **1922.54**/MW/Month for the year FY 2023-24.

5 Summary – SLDC Charges

TABLE : 15 Summary – Filing for SLDC for 4th Control Period

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Employees Cost	34.41	37.06	39.90	42.97	46.27
Administration and General Exp.	2.66	2.86	3.08	3.32	3.58
Repairs & Maintenance Exp.	1.33	1.75	1.67	3.09	3.15
Special Appropriation	19.69				
	58.09	41.67	44.66	49.38	52.99
Less: Non-Tariff Income	1.00	1.00	1.00	1.00	1.00
Total Operating Charges(Rs. Crores)	57.09	40.67	43.66	48.38	51.99
Generation Capacity(MW)	16540	18892	18924	20979	22537
Operating Charges(Rs./MW/PM)	2876.57	1794.04	1922.49	1921.72	1922.54
Capital Cost (Rs. Crores)	6.36	8.89	9.90	10.26	10.51
SLDC Annual Fee (Rs./MW/Annum)	3844	4708	5233	4890	4662

ANNEXURE – A: LIST OF DIRECTIVES

Sl.No.	Directive	Remarks
1.	TSTRANSCO shall file the details of completed capital works pertaining to SLDC operations along with Project Completion Certificate (PCC) and Financial Completion Certificate (FCC) as is being done for transmission projects. TSTRANSCO shall also file a monthly report with the Commission on progress in capital works pertaining to SLDC operations by 25 th of every month relating to the previous month.	Complied with
2.	TSTRANSCO shall file the actual costs and revenues by 25 th of every month relating to the previous month in the format prescribed for this purpose by the Commission (by erstwhile APERC). TSTRANSCO may also state its own observations on cost, revenues and capacities along with the monthly report.	Complied with
3.	Segregation of Employees Cost	
(a)	TSTRANSCO shall apportion the cost of employees of Telecom wing to SLDC business and Transmission business in the next filing as per Grid Code. Since, in the present filing all employees cost of Telecom wing is shown in SLDC business, further the cost of expansion of Telecom shall be shown in the concerned business as per Grid Code.	Complied with
(b)	In the present filing the total employee cost of power system is shown under the SLDC business. The employees of power system wing are dealing with SLDC business and Transmission business. The TSTRANSCO is directed to segregate the cost of employees between Transmission business and SLDC business.	Complied with
4.	As per clause 4.5.1 (employees cost) of Regulation No.1 of 2006 of APERC the staffing plan shall be submitted to the Commission to get approval. As per clause 4.5.2 of Regulation No.1 of 2006, for the A&G costs and R&M costs the norms have to be determined. Hence, the TSTRANSCO is directed to submit proposals for determining norms for these costs in O&M expenses well before the next filings.	Complied with
5.	The Commission is keen on proposal of optimum utilisation of SLDC business assets by engaging in other business activity and make additional financial gains leading to tariff reduction to all SLDC users and hereby directs the SLDC business to make needful study and send the proposal for Commission examination and approval in optimum utilisation of these assets and amount of financial gains accrues to the Licensee on or before 31st December 2017.	Complied with

ANNEXURE: B TSSLDC Contract Capacities in MW for the 4th Control period (FY 2019-20 to 2023-24)

Generating station/source	Installed Capacity	Net Capacity TS Share	TS DISCOMs SHARE				
			2019-20	2020-21	2021-22	2022-23	2023-24
KTPS-A	180	162.54	162.54	0.00	0.00	0.00	0.00
KTPS-B	120	108.36	108.36	0.00	0.00	0.00	0.00
KTPS-C	120	108.36	108.36	0.00	0.00	0.00	0.00
RTS-B	62	56.88	56.88	0.00	0.00	0.00	0.00
KTPS-D (V)	500	455.00	455.00	455.00	455.00	455.00	455.00
KTPS-VI	500	462.50	462.50	462.50	462.50	462.50	462.50
KTPS-VII	800	760.00	760.00	760.00	760.00	760.00	760.00
KTPP-I	500	462.50	462.50	462.50	462.50	462.50	462.50
KTPP-II	600	555.00	555.00	555.00	555.00	555.00	555.00
Bhadradri-TPS-I	270	245.70	245.70	245.70	245.70	245.70	245.70
Bhadradri-TPS-II	270	245.70	245.70	245.70	245.70	245.70	245.70
Bhadradri-TPS-III	270	245.70	245.70	245.70	245.70	245.70	245.70
Bhadradri-TPS-IV	270	245.70	245.70	245.70	245.70	245.70	245.70
Yadradri-TPS-I	800	760.00	0.00	0.00	0.00	760.00	760.00
Yadradri-TPS-II	800	760.00	0.00	0.00	0.00	760.00	760.00
Yadradri-TPS-III	800	760.00	0.00	0.00	0.00	0.00	760.00
Yadradri-TPS-IV	800	760.00	0.00	0.00	0.00	0.00	760.00
Yadradri-TPS-V	800	760.00	0.00	0.00	0.00	0.00	0.00
Total Thermal	8463	7913.94	4113.94	3677.80	3677.80	5197.80	6717.80
Hydel							
NSPH	816	807.44	807.44	807.44	807.44	807.44	807.44
NSLCPH	60	59.40	59.40	59.40	59.40	59.40	59.40
Pochampad-PH	36	35.64	35.64	35.64	35.64	35.64	35.64
Nizamsagar-PH	10	9.90	9.90	9.90	9.90	9.90	9.90
Singur	15	14.85	14.85	14.85	14.85	14.85	14.85
SSLM-LBPH	900	891.00	891.00	891.00	891.00	891.00	891.00
Priyadarshini-Jurala	234	231.66	231.66	231.66	231.66	231.66	231.66
Lower-Jurala	240	237.60	237.60	237.60	237.60	237.60	237.60
Pulichintala	120	118.80	118.80	118.80	118.80	118.80	118.80
Total Hydel	2431	2406.29	2406.29	2406.29	2406.29	2406.29	2406.29
Total Genco		10320.23	6520.23	6084.09	6084.09	7604.09	9124.09
Interstate Hydel Projects							
Machkund PH	120	44.81	44.81	44.81	44.81	44.81	44.81
Tungabhadra PH & Hampi	72	30.73	30.73	30.73	30.73	30.73	30.73
Total IS Hydel	192	75.54	75.54	75.54	75.54	75.54	75.54
CGS							
NTPC(SR)-Ramagundam-1-2	2100	345.45	345.45	345.45	345.45	345.45	345.45
NTPC(SR)-Ramagundam-3	500	86.73	86.73	86.73	86.73	86.73	86.73
NTPC Talcher-Stage-2	2000	214.47	214.47	214.47	214.47	214.47	214.47
NLC-Stage-I	630	59.93	59.93	59.93	59.93	59.93	59.93
NLC-Stage-II	840	107.13	107.13	107.13	107.13	107.13	107.13
NPC-MAPS	440	22.76	22.76	22.76	22.76	22.76	22.76
NPCIL-Kaiga-Unit 1&2	440	70.41	70.41	70.41	70.41	70.41	70.41
NPCIL-Kaiga-Unit 3&4	440	74.73	74.73	74.73	74.73	74.73	74.73
NTPC-Simhadri-I	1000	538.90	538.90	538.90	538.90	538.90	538.90
NTPC-Simhadri-II	1000	231.30	231.30	231.30	231.30	231.30	231.30

Filing of ARR of SLDC business for Fourth Control Period (FY 2019-20 to FY 2023-24)

TSSLDC Contract Capacities in MW for the 4th Control period (FY 2019-20 to 2023-24)

Generating station/source	Installed Capacity	Net Capacity TS Share	TS DISCOMs SHARE				
			2019-20	2020-21	2021-22	2022-23	2023-24
NTECL Vallur	1500	110.75	110.75	110.75	110.75	110.75	110.75
NLC Tamilnadu (Tuticorn) (NTPL)	1000	152.37	152.37	152.37	152.37	152.37	152.37
NTPC Kudgi-I & II	2400	271.68	271.68	271.68	271.68	271.68	271.68
KKNPP (Kudankulam Nuclear)	1000	50.00	50.00	50.00	50.00	50.00	50.00
NCE-Bundled power NVVNL ph 1	85	45.81	45.81	45.81	45.81	45.81	45.81
NCE-Bundled power NTPC Coal	200	200.00	200.00	200.00	200.00	200.00	200.00
Neyveli New Unit-1	500	30.66	30.66	30.66	30.66	30.66	30.66
Neyveli New Unit-2	500	30.66	30.66	30.66	30.66	30.66	30.66
NLC-TPS - II 2nd expansion	1320	299.01	0.00	0.00	0.00	299.01	299.01
Telangana STPP(ph 1)	1600	1360.00	0.00	1360.00	1360.00	1360.00	1360.00
Total CGS	19495	4302.75	2643.74	4003.74	4003.74	4302.75	4302.75
Joint Sector							
APGPCL-I	100	6.67	6.67	6.67	6.67	6.67	6.67
APGPCL-II	172	17.84	17.84	17.84	17.84	17.84	17.84
Total Joint Sector	272	24.51	24.51	24.51	24.51	24.51	24.51
Others							
Thermal-Power-Tech (Unit - I)	660	269.45	269.45	269.45	269.45	269.45	269.45
Thermal-Power-Tech (Unit - II)	660	570.00	570.00	570.00	570.00	570.00	570.00
Singareni-TPP Stage - I	1200	1128.00	1128.00	1128.00	1128.00	1128.00	1128.00
Chhattisgarh-Power	1000	1000.00	1000.00	1000.00	1000.00	1000.00	1000.00
Singareni Stage – II	800	752.00	0.00	0.00	0.00	752.00	752.00
Staggered Medium term PSA with PTC *	550	550.00	550.00	550.00	550.00	0.00	0.00
Total Others	4870	4269.45	3517.45	3517.45	3517.45	3719.45	3719.45
NCE#							
Bio-Mass	51.00	42.57	42.57	42.57	42.57	42.57	42.57
Bagasse	73.95	35.30	35.30	35.30	35.30	35.30	35.30
Industrial-Waste	18.50	17.16	17.16	17.16	17.16	17.16	17.16
MSW	17.60	17.60	17.60	17.60	17.60	17.60	17.60
Wind Power	100.80	100.30	100.30	100.30	100.30	100.30	100.30
Mini-Hydel	18.71	15.87	15.87	15.87	15.87	15.87	15.87
Solar	2826.93	2826.93	2826.93	2826.93	2826.93	2826.93	2826.93
Solar Bundled under Ph-II	417.80	417.80	417.80	417.80	417.80	417.80	417.80
NTPC ISTS Connected Solar PSA	1099.95	1099.95	0.00	1099.95	1099.95	1099.95	1099.95
NTPC ISTS Connected Wind PSA	300.00	300.00	0.00	300.00	300.00	300.00	300.00
Total NCE	4925.24	4873.48	3473.53	4873.48	4873.48	4873.48	4873.48
Discom Total		23865.96	16255.00	18578.81	18578.81	20599.82	22119.82
Open Access			285.148	313.663	345.029	379.532	417.485
Grand Total Contractual Capacity		23865.96	16540.15	18892.48	18923.84	20979.35	22537.31

* The power is not being supplied till date by the aggregator as per PSA

The contracted capacities of NCE generators pertaining to TS/NPDCL connected at 33 kV level and above are tabulated.