

STATE LOAD DESPATCH CENTRE (SLDC)

ANNUAL FEES & OPERATING CHARGES

for 4th Control Period - FY2019-20 to FY2023-24



ORDER

8th March, 2019

ANDHRA PRADESH

ELECTRICITY REGULATORY COMMISSION

#11-4-660, 4th Floor, Singareni Bhavan, Red Hills, Hyderabad - 500 004

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**ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION
HYDERABAD**

FRIDAY, THE EIGHTH DAY OF MARCH, TWO THOUSAND AND NINETEEN

Present

Justice G. Bhavani Prasad, Chairman

Dr. P. Raghu, Member

Sri P. Rama Mohan, Member

In the matter of

Determination of Annual Fees & Operating Charges

for

the State Load Despatch Centre (SLDC) for the 4th Control Period

(FY2019-20 to FY2023-24)

O.P. No.31 of 2018

**Transmission Corporation of Andhra Pradesh Limited (APTRANSCO)
representing State Load Despatch Centre (SLDC)**

The filing for Annual fee and Operating Charges for State Load Despatch Centre Activity for the 4th Control Period (FY2019-20 to FY2023-24) filed by the Transmission Corporation of Andhra Pradesh Limited vide O.P.No.31 of 2018 came up for consideration before the Commission. Upon following the procedure prescribed for determination of such tariff (Annual fee and Operating charges) under Section 64 of the Electricity Act, 2003 (Central Act No.36 of 2003) and after careful consideration of the material available on record, the Commission, in exercise of the powers vested in it under the said Central Act No. 36 of 2003, the Andhra Pradesh Electricity Reform Act, 1998 (State Act 30 of 1998) and the APERC Levy and Collection of Fees and Charges by State Load Despatch Centre Regulation, 2006 (Regulation No.1 of 2006), hereby passes this:

ORDER**CHAPTER - I****INTRODUCTION**

1. Consequent to coming into force of the Andhra Pradesh Reorganization Act, 2014 (Central Act No.6 of 2014) (hereinafter referred to as the Reorganization Act) and in terms of the provisions of Section 92 of the said Act read with Schedule XII (C) (3) and Section 82 of the Electricity Act, 2003, the Government of Andhra Pradesh issued notification in G.O.Ms.No.35, Energy (Power- III) Department, dt.01.08.2014 and constituted the Andhra Pradesh Electricity Regulatory Commission.
2. The Transmission Corporation of Andhra Pradesh Ltd. (APTRANSCO) / the Applicant is the holder of the Transmission License (License No.1/2000) issued by Andhra Pradesh Electricity Regulatory Commission (APEREC) which is the State Electricity Regulatory Commission for the State of Andhra Pradesh under relevant provisions of the Electricity Act, 2003 (Act). Further, as per Section 39(1) of the Act, APTRANSCO is also the State Transmission Utility (STU).
3. Sub-section (1) of section 31 of the Electricity Act, 2003 (Act) provides that the State Government shall establish a State Load Despatch Centre (SLDC). Sub-section (2) provides that the said SLDC shall be operated by a Government company or any authority or 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. Pending establishment of such a company/ authority /corporation, the Government of Andhra Pradesh (GoAP) notified in G.O.Ms.No.33 dated 11.07.2014, that the existing SLDC shall continue as SLDC and be operated by the Transmission Corporation of Andhra Pradesh Ltd., (APTRANSCO or Applicant) being the STU.
4. Section 32(3) of the Act provides for levy and collection of such fees and charges by SLDC from the generating companies and licensees engaged in the intra-state transmission of electricity as may be specified by the State Commission.

APERC (Adaptation) Regulation, 2014

5. In exercise of the powers conferred by Section 181 of the Electricity Act, 2003 (Central Act No.36 of 2003) and all other powers thereunto enabling, including those conferred by the Andhra Pradesh Electricity Reform Act, 1998 (State Act No.30 of 1998) and the A.P. Reorganization Act, 2014, the Commission issued APERC (Adaptation) Regulation, 2014 (Regulation No.4 of 2014) and notified that with effect from 01.08.2014, all regulations made by, all decisions, directions or orders of, and all the licenses and practice directions issued by the Commission in existence as on the date of G.O.Ms. No.35, dt.01.08.2014 referred to above, shall apply in relation to the State of Andhra Pradesh and shall continue to have effect until duly altered, repealed or amended. The said Regulation No.4 of 2014 was published in the Extraordinary Gazette of the State of Andhra Pradesh on 29.11.2014.

Statutory provisions, Filing requirements and permission

6. As per Clause 6.1 of the APERC Levy and Collection of Fees and Charges by State Load Despatch Centre Regulation, 2006 (Regulation No.1 of 2006), the SLDC shall file with the Commission, an application / petition for a Control Period with statements containing details of the fee and charges under its currently approved levels of fee and charges along with the proposals, if any, for determination of fee and charges for the ensuing Control Period by 30th November immediately preceding the first year of the Control Period. The 4th Control Period covers five years from FY2019-20 to FY2023-24.
7. By letter dated 29.11.2018, APTRANSCO on behalf of SLDC has requested for extension of time upto 07.12.2018 stating that it is in the process of finalizing the MYT write up for the SLDC activity for the 4th Control Period. Commission, vide its letter No. T-77/D.No.1000/2018, dt.04.12.2018 permitted the licensee to file the fee and charges relating to the SLDC Activity for the 4th Control Period on or before 07.12.2018.

ARR Filings, Public Notice, Public Hearings and SAC & SCF meetings

8. On 06.12.2018, the licensee has filed an application seeking determination of SLDC Annual Fee and Charges for the 4th Control Period. The application filed by the Licensee was admitted by the Commission and assigned O.P. No.31 of 2018.

9. The filings made by the licensee were uploaded in the Commission's website and by its letter dated 13.12.2018, the Commission directed the Licensee to issue a public notice in Telugu language in two Telugu daily newspapers and in English language in two English daily newspapers incorporating the SLDC Annual Fees and Charges submitted to the Commission, for information and calling for views/objections/suggestions on the same from individuals, representatives of consumer organizations and other stakeholders to be submitted on or before 07.01.2019 by 5 PM and to upload the filings in its official website and to make available the copies of filings at its corporate office and also at circle offices. Further, the Commission also directed the licensee to publish the details of the venues and the dates and timings of public hearings at three (3) different places in the State of Andhra Pradesh at Visakhapatnam, Tirupati and Vijayawada (the headquarters of APTRANSCO and also the Capital of the State of Andhra Pradesh) and at Hyderabad, the place of the head office of the Commission and the details of Joint meetings of State Advisory Committee (SAC) and State Coordination Forum (SCF) on ARR and Tariff Proposals along with the proposed tariff schedule in the public notice. It is also informed to notify in the public notice that the views / objections / suggestions submitted to the Commission up to 5 PM on 25.01.2019 will also be considered while determining the SLDC Annual Fees and Operating Charges for the 4th Control Period.
10. In compliance with the directions of the Commission, the licensee has caused publication of public notices on 15.12.2018, in Telugu Language in two (2) Telugu daily newspapers and in English Language in two (2) English daily newspapers (**Annexure-A1, A2 and A3**) incorporating the details of the proposed SLDC Annual Fees and Operating Charges along with other details as directed, inviting views / objections / suggestions in respect of the SLDC Annual Fees and Operating Charges for various users for the 4th Control Period and also informed that all the interested persons / associations / stakeholders / objectors who want to be heard in person/through authorized representatives may appear before the Commission during public hearings. The filings were also uploaded in the website of the licensee.

Response to the Public Notice

11. In response to the public notice, the Commission received objections /suggestions/views in writing and/or in person at its Office and during public hearings (**Annexure-B**). As directed by the Commission, the licensee communicated its written replies to the views / objections / suggestions received from the stakeholders.

Public Hearings

12. The Commission conducted public hearings at the following places as published in the public notice and as informed to the licensee to have the widest consultations possible and the benefit of maximum inputs in finalizing the SLDC Annual Fees and Operating Charges for the 4th Control Period.

S. No.	Venue/place of Public Hearing	Date of Public Hearing
1	Conference Hall, ATC Building, Corporate Office, APEPDCL, P&T Colony, Seethammadhara, Visakhapatnam – 530 013.	07-01-2019 (Monday)
2	O/o. SE/Operation/Vijayawada, APSPDCL, Opp. PWD Ground, Beside CM camp office, Vijayawada.	08-01-2019 (Tuesday)
3	Conference Hall, Corporate Office, (Vidyut Nilayam), APSPDCL, Behind Srinivasa Kalyanamandapam, Sreenivasapuram, Tiruchanoor Road, Tirupati.	09-01-2019 (Wednesday)
4	O/o APERC, 11-4-660, 4th Floor, Singareni Bhavan, Red Hills, Hyderabad - 500 004	18-01-2019 (Friday)
5	O/o APERC, 11-4-660, 4th Floor, Singareni Bhavan, Red Hills, Hyderabad - 500 004	25-01-2019 (Friday)

* Timings for public hearings - 10.00 AM to 1.00 PM and from 2.00 PM to till all the interested persons or their authorized representatives are exhausted.

13. The Commission has conducted last public hearing at Hyderabad thereby providing a final opportunity to the stakeholders to submit their views / objections/suggestions in writing as well as in person.
14. During the public hearings, the Joint Managing Director, Fin., Comml., HRD, IPC & IT, APTRANSCO at Vijayawada; the Director, Grid,

Transmission Management, APTRANSCO at Visakhapatnam and Tirupati; the Chief General Manager, HRD & Planning, APTRANSCO at Hyderabad, made a brief presentation on the filings. Then the participating stakeholders were heard in detail apart from receiving all written representations presented by them.

15. After the public hearings a joint meeting of the State Co-ordination Forum and the State Advisory Committee was held on 10.01.2019 in the Meeting Hall, Corporate Office, APSPDCL, Tirupati, wherein the views of the members were ascertained on the SLDC Annual Fees and Operating Charges.
16. The views/objections/suggestions expressed by the stakeholders and/or their representatives, in writing and/or in person and the replies provided by the licensee in writing and/or through oral responses during the public hearings held from 07.01.2019 to 25.01.2019 in respect of SLDC Annual Fees and Operating Charges and the views of the members of State Coordination Forum (SCF) & State Advisory Committee (SAC) have been duly considered in arriving at the appropriate conclusions in this Order, in so far as they relate to the determination of SLDC Annual Fees and Operating Charges for the 4th Control Period.

CHAPTER - II
TRUING-UP OF EXPENDITURE PERTAINING TO
FY2013-14 TO FY2017-18

17. As per clause 4.7 of Regulation No. 1 of 2006, variations in recovery of capital cost and operating charges over the fee and charges fixed for a year on account of variations in SLDC usage shall be adjusted in the subsequent Control Period or earlier, in case the variations are considered to be significant by the Commission warranting adjustment thereof before the commencement of the subsequent Control Period, with financing cost at the average rate(s) of borrowing during the year(s) to which the variations relate.
18. The Commission in its Tariff order on SLDC annual fee & Operating charges for 3rd Control Period, adjusted the variance in revenue of SLDC upto FY2012-13. Therefore, in accordance with the Regulation, the variance in the revenue of SLDC with reference to approvals from FY2013-14 to FY2017-18 needs to be examined by the Commission.
19. As per the SLDC Tariff Orders issued by the Commission for 2nd and 3rd Control Periods, the details of year wise approved annual fees and operating charges from FY2013-14 to FY2017-18 are given in the table below:

TABLE NO. 2.1
Approved Annual Fees and Operating Charges
for 2nd & 3rd Control Periods (Rs. Cr.)

S. No.	Financial Year	Operating Charges	Annual Fees	Total Charges approved
2nd Control Period				
1.	2013-14	35.81	10.09	45.90
3rd Control Period				
2.	2014-15	62.10	5.52	67.62
3.	2015-16	63.98	7.46	71.44
4.	2016-17	68.92	9.03	77.95
5.	2017-18	73.63	10.66	84.29

20. The licensee has not filed the variance details for FY2013-14 to FY2017-18 along with the ARR & FPT proposals for the 4th Control Period and hence, the same was sought for and obtained by the Commission subsequently.

21. Based on the information furnished by the licensee, the variance in revenues of SLDC for FY2013-14 to FY2017-18 is computed year wise and the details are given in the table below.

TABLE NO. 2.2
Variance Computations

Financial Year	Actual Expndr.	Expndr. approved as per Tariff Order	Variance Surplus/ (deficit)	Revenue approved	Revenue realized	Variance Surplus/ (Deficit)	Total Variance Surplus/ (Deficit)
(1)	(2)	(3)	(4) = (3)-(2)	(5)	(6)	(7) = (6)-(5)	(8) = (4)+(7)
2013-14	26.14	21.16	(4.98)	21.16	30.85	9.69	4.72
2014-15	48.64	31.18	(17.46)	31.18	50.26	19.08	1.62
2015-16	45.26	32.94	(12.32)	32.94	43.85	10.91	(1.41)
2016-17	48.32	35.94	(12.38)	35.94	48.65	12.71	0.33
2017-18	46.11	38.87	(7.24)	38.87	54.15	15.28	8.04
Total Variance			(54.38)			67.67	13.30

22. As seen from the above table, the total variance for FY2013-14 to FY2017-18 is Rs.13.30 Cr. surplus. This surplus amount is adjusted in the operating cost and capital costs in each year of the 4th Control Period uniformly.

CHAPTER – III**MYT FILINGS FOR 4th CONTROL PERIOD, OBJECTIONS****General**

23. The licensee has filed the SLDC Annual Fees and monthly Operating Charges to recover the capital cost and operating cost respectively from the users of SLDC services for the 4th Control Period i.e. from FY2019-20 to FY2023-24. The proposed Annual Fees and Operating Charges are to be levied on users of SLDC services based on users' generation capacity. The details of capital cost, operating cost, generation capacity of users likely to use SLDC services, Annual Fees and monthly Operating Charges have been filed for each year of the 4th Control Period in accordance with the Regulation No.1 of 2006 issued by the Commission for the purpose of fixing the Annual Fees and Operating Charges for SLDC services.

Generation Capacity

24. The licensee has stated that it estimated the system generation capacity (in terms of MW) based on the generation capacities contracted by the two distribution companies and capacity contracted by other users (such as Open Access and Captive users) who are likely to use the SLDC services to transmit the electricity to their chosen destinations. The generation capacity arrived in this manner will be the base on which the proposed Annual Fees and Operating Charges are to be levied. The licensee has projected a generation capacity of 21,486 MW by the last year of the 4th Control Period, while giving the details for each year. The details of the generation capacity in terms of MW filed by APTRANSCO are given in the Table below.

TABLE NO. 3.1**Filings: Estimated Generation Capacities (MW)**

S. No.	Source of Power	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
I	APGENCO	6393	7192	6855	6987	7297
	a) Thermal	4614	5412	4957	4574	4574
	b) Hydro	1780	1780	1898	2413	2723
II	Central Generating Stations	2686	2686	2686	2686	2686
III	Joint Sector (APGPCL, APDISCOMs & IPP GAS)	792	792	792	792	792
IV	IPPs (others)	233	233	222	217	217
V	Others (NCE, MPP's etc. Wind, Mini Hydel)	9422	10607	10575	10486	10385
Total Generation Capacity		19526	21509	21131	21167	21377
VI	Open Access Generators	700	153	150	118	109
Total		20226	21662	21280	21285	21486

Capital Investment

25. The licensee has stated that the closing balance of Fixed Assets (Investment) at the beginning of FY2018-19 was shown at Rs.16.19 Cr. and the value of assets being added during FY2018-19 is Rs.99.95 Cr. The total Capital Investment proposed by the licensee is Rs.194.69 Cr. for the 4th Control Period. The year wise investments proposed are given in the table below.

TABLE NO. 3.2**Filings: Capital investment for the 4th Control Period (Rs. Cr.)**

Name of the Wing	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
Grid Operation	22.58	15.17	10.49	12.75	5.75	66.74
Commercial/EBC	21.48	0.10	0.10	0.10	3.10	24.88
Telecom	99.95	0.00	0.00	0.00	0.00	99.95
Power Systems	0.57	0.57	0.66	0.66	0.66	3.12
Total	144.58	15.84	11.24	13.51	9.51	194.69

Capital Cost

26. The licensee has stated that capital cost for SLDC for each year of the 4th Control Period is the sum of the unrecovered annual capital costs on residual investments plus the costs on proposed investments during each year of the 4th Control Period. The annual capital cost (amortized investments) is estimated using the formula specified in the Regulation No.1 of 2006. The investment recovery period is considered as 10 years at the rate of interest 10.5%.

27. Accordingly, the licensee has proposed to recover a sum of Rs.239.09 Cr. as capital cost on the investments proposed during 4th Control Period and on residual investments. The details of capital cost worked out year wise are given in the table below.

TABLE NO. 3.3
Filings: Capital Cost for the 4th Control Period (Rs. Cr.)

S. No.	Parameter	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
1.	Capital Cost on new investment	24.07	2.63	1.87	2.25	1.58	32.39
2.	Capital Cost on Residual investment	19.31	43.38	46.01	47.88	50.12	206.70
Total		43.38	46.01	47.88	50.12	51.70	239.09

Operating Cost (O & M Expenses)

28. The licensee has stated that the operating cost for SLDC consists of a) Employee costs, b) Administration & General (A&G) expenses and c) Repairs & Maintenance (R&M) expenses. These expenses are recurring in nature and related to operating aspects of SLDC. These expenses for each year of the 4th Control Period have been estimated by taking the Inflation index factor 5.16% for escalation year on year. The licensee has also stated that, the financial commitment of wage revision which is due with effect from 1st April, 2022 will be claimed based on actuals.
29. The licensee has estimated a sum of Rs.355.78 Cr. as the Operating Cost for the 4th Control Period while giving the details for each year. The details of breakup of operating costs year wise are given in the Table below.

TABLE NO. 3.4
Filings: Operating & Maintenance expenses for the 4th Control Period (Rs. Cr.)

S. No.	Parameter	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
1.	Employee Cost	51.34	56.19	61.79	68.41	75.81	313.54
2.	A&G Expenses	4.00	4.40	4.84	5.33	5.86	24.44
3.	R&M Expenses	2.92	3.21	3.53	3.88	4.27	17.80
Total O&M Expenses		58.26	63.80	70.17	77.61	85.94	355.78

Fees and Charges

30. The licensee has proposed to recover the capital cost and Operating Expenses for each year of the 4th Control Period by levying annual fees and

Operating charges based on the estimated generation capacity. The summary of the said details is given in Table below.

TABLE NO. 3.5
Filings: Annual Fees and Operating Charges
for the 4th Control Period (Rs. Cr.)

S. No.	Parameter	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1.	Generation Capacity (MW)	20226	21662	21280	21285	21486
2.	Capital Cost (Rs. Cr.)	43.00	46.00	48.00	50.00	52.00
3.	Operating Expenses (Rs. Cr.)	58.00	64.00	70.00	78.00	86.00
Annual Fee (Rs./MW/Annum)		22,448	22,201	23,497	24,568	25,090
Operating Charges (Rs./MW/Month)		2,400	2,454	2,748	3,039	3,333

Change in methodology

31. The licensee stated that the methodology for computation of Transmission charges has been revised by considering State Peak Demand in place of Contracted Capacity as per the draft amendment to Regulation No. 5 of 2005. In line with that, the licensee requested that the Commission may consider amendment to Regulation No. 1 of 2006, for considering State Peak Demand in place of Total Generation Capacity for computation of SLDC Annual Fees and Operating Charges. Accordingly, the licensee has also estimated the SLDC Charges based on State Peak demand for the 4th Control Period, which are given in the table below:

TABLE 3.6
Filings: SLDC Charges based on State Peak Demand
for the 4th Control Period

SLDC Charges based on State Peak Demand – 4th Control Period						
Parameter	Financial Year					Total
	2019-20	2020-21	2021-22	2022-23	2023-24	
Capital Cost (Rs. Cr.)	43	46	48	50	52	239
O&M Expenses (Rs. Cr.)	58	64	70	78	86	356
State Peak Demand (MW)	11,450	12,219	13,209	14,315	15,539	
Annual Fee (Rs./MW/Annum)	37,883	37,654	36,246	35,015	33,273	
Operating Charge (Rs./MW/Month)	4,240	4,351	4,427	4,518	4,609	

Introduction of New Charges

32. The licensee as State Transmission Utility and SLDC as system operator, stated to be on account of higher share of RE penetration in the grid, have proposed to set up a Battery Energy Storage System (BESS) with a capacity of 250-500 MW with 2-4 hours of storage, under OPEX Model, to address the morning and evening/night peak deficits (shorter durations), intermittency problems owing to high RE penetration (15 - 30 mins) and also smoothening of curves.
33. The licensee has estimated the cost of Battery Energy Storage System of 500 MWh capacity to be about Rs.975 Cr. The total annual charges estimated to be paid by the licensee to the developer over a period of 10 years are Rs.185 Cr. The licensee proposed the following to recover the annual charges estimated:

Charge	Applicability
Renewable Integration Charges: 70 % of Annual Charges (Rs./MW/Month)	Only to RE developers (Wind/Solar)
Ancillary support charges: 30 % of Annual Charges (Rs./Unit)	All the consumers including Licensees, OA consumers

Computation of ancillary support Charges:

- Capacity of BESS: 500 MWh
- Utilization of BESS in a year: 200 days
- Charge and discharge cycles in a day: 2
- Proposed ancillary service charge: Rs.3.2/kWh (Deviation penalty paid by the State utilities for the period Apr-Oct '18)

Total Ancillary service charges = BESS capacity * Utilization of BESS in No. of days/Year * No. of cycles in a day * Ancillary Service Charge (Rs./Unit)

$$= 500 \text{ MWh} * 200 \text{ days} * 3.2 * 2 = \text{Rs. } 64 \text{ Cr.}$$

The balance Rs.121 Cr. (Rs.185 Cr. – Rs.64 Cr.) is proposed to be collected from the RE developers (Wind and Solar) in the form of 'Renewable Integration Charges'.

OBJECTIONS:**34. Annual fee and operating charges shall be based on total generation capacity only.**

Sri M. Venugopala Rao, Convener, Center for Power studies, Hyderabad has stated that for implementing merit order despatch and ensuring grid discipline and safety, SLDC has to deal with total generation capacity i.e. it has to issue instructions to all the generating projects. If State peak demand is considered as the basis for computation of annual fee and operating fee for SLDC (as was sought by AP TRANSCO) then the per unit burden will increase abnormally. The Commission is requested to reject the proposal of AP TRANSCO to consider State peak demand for computation of SLDC annual fees and operating fee and continue to consider the total generation capacity as the basis for computation of the same.

APTransco's Response: APTransco, in its filings for ARR and MYT for Transmission business for the 4th Control Period, has considered State Peak Demand instead of Generation Capacity, for computation of Transmission charges. In the same way, it is proposed to change the methodology for computation of SLDC Annual Fees and SLDC Operating charges by considering State Peak Demand instead of Generation Capacity. This way the methodology adopted by APTransco for computation of tariff will reflect the actual costs incurred and also further result in recovering the same from the users of the transmission system.

Commission's View: The Commission has kept in view the objection and the response in evaluating the methodology to be adopted.

35. If projected capacities do not come up, income would be high

Sri M. Venugopala Rao has stated that operating expenses of SLDC are being worked out on the basis of projected generating capacity. If addition of generation capacity and peak demand fall short of projections, SLDC can earn higher annual fee and operating charges for revenue as permitted by the Commission based on such projections.

APTransco's Response: The monthly billing is carried out based on the transmission tariff, operating and annual expenses of SLDC, approved by the Commission and these are estimated based on the projected capacities. The billing is also based on projected capacities and not based on actuals.

However, if AP TRANSCO realizes higher revenue than approved by the Commission then the same would be passed as benefit to the consumers as part of true-down exercise.

Commission's View: Noted.

36. **SLDC O&M Cost should be rational**

Sri M. Venugopala Rao has stated that since working of SLDC is basically online in nature with necessary system requirements, addition of generating capacity may not automatically increase its costs of operation substantially. So also, the requirement of man power may not be increased substantially. The O&M expenditure including wage bill need to be in consonance with the norms prescribed by the Commission. If additional O&M expenditure as is being claimed for SLDC is allowed as pass through by the Commission irrespective of its norms, then there will be no prudent limitations to such expenditure. The contradiction between the norms prescribed by the Commission and actual O&M expenditure incurred by the power utilities including SLDC, needs to be resolved in a rational way to see that they adhere to the norms prescribed by the Commission while effecting periodical pay revisions instead of seeking true-up of financial commitment of wage revision in the proposals of SLDC for the fifth control period as and when it submits the same in future.

APTransco's Response: APSLDC has filed its O&M expenses as per the laid down procedures in the regulations. No projection was made by APSLDC for wage revision while submitting the ARR filing. The projection of employee cost portion of O&M cost was made based on actuals FY2017-18 cost only.

Commission's View: The views of the learned objector are kept in view in evaluating the projections in the ARR.

37. The Commission has decided to consider the ARR and FPT filings submitted by the licensee for SLDC activity which are mentioned in brief in this Chapter, as the basis for determination of Annual Fees and operating charges to be levied by the SLDC to recover its Capital Cost and Operating expenses respectively for each year of the 4th Control Period with due weight being given to views/objections/suggestions of stakeholders, as discussed in this chapter.

CHAPTER – IV**ANNUAL FEES & OPERATING CHARGES****Generation Capacity**

38. The Commission has examined the generation capacity details filed by the licensee for SLDC for the purpose of levying the Annual Fees and Operating Charges and the generation capacities filed by the APGENCO submitted in its Tariff application. Out of the total generation capacity proposed by the licensee, with reference to the capacities of APGENCO, the capacities furnished in its Tariff application are considered to be the capacities without altering the capacities of other generators. The open access capacities as approved in Transmission Tariff order in 4th Control Period are considered in the total generation capacities estimated under open access.
39. Accordingly, the estimated generation capacity by the Commission is given in the table below.

TABLE NO. 4.1**Estimated Generation Capacities for the 4th Control Period (MW)**

S. No.	Source of Power	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
I	APGENCO	6371	7169	7982	8497	8807
	a) Thermal	4592	5390	6084	6084	6084
	b) Hydro	1780	1780	1898	2413	2723
II	Central Generating Stations	2686	2686	2686	2686	2686
III	Joint Sector (APGPCL, APDISCOMs & IPP GAS)	792	792	792	792	792
IV	IPPs (others)	233	233	222	217	217
V	Others (NCE, MPP's etc. Wind, Mini Hydel)	9422	10607	10575	10486	10385
Total Generation Capacity		19504	21487	22257	22677	22886
VI	Open Access Generators	383	310	366	438	513
Total		19887	21797	22624	23115	23399

Generation capacities estimated by the licensee and the Commission for the 4th Control Period are shown at Annexure-C

Capital Investments

40. The Commission examined the investment proposals made by the licensee for SLDC operations for each year of the 4th Control Period. The following changes are effected in the proposed investments.

- i) The investments proposed under telecom head for the FY2019-20 for providing data transfer equipment at various EHT 132 kV substations of APTRANSCO are already been considered as investments transmission business in the Tariff order for transmission tariffs for the 4th Control Period and hence the same are not considered as investment under SLDC activity. However, an investment of Rs. 1 Cr. for each year of the Control Period is approved to take care of the any exigencies relating to Telecom.
- ii) The investments proposed under Power systems head is approved at the same level as filed.
- iii) The investments proposed under EBC head for the FY2019-20 is approved by deducting the grants sanctioned by MoP from Power System Development Fund (PSDF) and the investments proposed for the remaining years in the Control Period are approved at same level as filed.
- iv) The investments proposed under Grid Operation heads are considered at 50% based on actual investments made in the 3rd Control Period.
41. As detailed above, the investments for SLDC activity have been approved at Rs.47.02 Cr. by the Commission against the proposed investment of Rs.194.67 Cr. by the licensee for the entire Control Period and year wise details are given in the table below. The detailed break-up of investments approved is shown at Annexure-D.

TABLE NO. 4.2
Investment proposed and approved (Rs. Cr.)

Year	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
Filed	144.58	15.84	11.24	13.51	9.51	194.67
Approved	15.01	9.25	7.00	8.13	7.63	47.02

Capital Cost

42. The Capital Cost computed by the Commission is based on the formula given in the Regulation No. 1 of 2006 and by considering the following:
- a) The rate of interest of 10.3% as approved in Transmission Tariff order in 4th Control Period is considered.

- b) The investment is proposed to be recovered in 10 years.
43. Accordingly, the Gross capital cost computed by the Commission for the 4th Control Period is Rs. 51.71 Cr. After adjusting the true-down amount as determined in Chapter-II, the net capital cost is arrived at Rs. 45.06 Cr. The detailed break-up of Capital Cost approved is shown at Annexure-E.
44. Year-wise capital cost filed by the licensee and approved by the Commission are given in the table below.

TABLE NO. 4.3**Capital Cost filed and approved (Rs. Cr.)**

Year -->	FY	FY	FY	FY	FY	Total
	2019-20	2020-21	2021-22	2022-23	2023-24	
Filed	43.38	46.01	47.88	50.12	51.7	239.09
Approved	3.81	6.19	8.58	11.55	14.93	45.06

Operating Cost (O& M expenses)

45. The Commission examined the Operating Costs proposed by the licensee and the subsequent information obtained from it, for SLDC operations for each year of the 4th Control Period. The following changes are effected in the proposed Operating costs.
- i) The Employee expenses were computed based on the average of actual O&M expenses of FY2015-16 to FY2017-18 by applying inflation index factor of 5.16% as filed by the licensee to the base year FY2018-19 and for the 4th Control period.
- ii) The Repairs & Maintenance (R&M) and Administrative & General (A&G) expenses were computed based on the actual expenses of FY2017-18 by applying inflation index factor of 5.16% as filed by the licensee to the base year FY2018-19 and for the 4th Control Period
46. Accordingly, the Gross Operating cost computed by the Commission for the 4th Control Period is Rs.290.76 Cr. After adjusting the true-down amount as determined in Chapter-II the net capital cost is arrived at Rs.284.11 Cr.
47. Year-wise Operating cost filed by the licensee and approved by the Commission are given in Table below.

TABLE NO. 4.4
O&M Expenses filed and approved (Rs. Cr.)

Year	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total
Filed	58.26	63.80	70.17	77.61	85.94	355.78
Approved	51.22	53.83	56.64	59.64	62.78	284.11

The details of year wise and element wise Operating Cost as filed by the licensee and approved by the Commission are shown in Annexure-F.

State Pool Account

48. After the advent of APERC Forecasting, Scheduling and Deviation Settlement of Solar and Wind Generation Regulation, 4 of 2017, the AP TRANSCO, which is operating the State Load Despatch Centre being the State Transmission Utility, addressed Lr.No. ED(SLDC)/ EE(DSM)/ F.DSM/ D.No.597 of 2019 dated 15.02.2019 to the Commission stating that the APSLDC is collecting amounts from QCAs and generators and crediting into a separate current account no. 37877782837 in the State Bank of India, Mid Corporate branch, Gunadala, Vijayawada in the name of APSLDC STATE POOL ACCOUNT and seeking a clarification on the further steps to be taken concerning the amounts credited to that account as Regulation No.4 of 2017 has no clarity on the issue.
49. Regulation No. 4 of 2017 was made in exercise of the powers, among other things, conferred by sub-section (3) of Section 32 of the Electricity Act, 2003 by which “the State Load Despatch Centre may levy and collect such fee and charges from the generating companies and licensees engaged in intra-state transmission of electricity as may be specified by the State Commission” and Section 181(g) under which the State Commission may make regulations consistent with the Act and the Rules about the levy and collection of fees and charges by the State Load Despatch Centre from generating companies or licensees engaged in intra-state transmission of electricity.
50. Regulation No. 4 of 2017 enables the SLDC to give appropriate directions under sub-section (1) of Section 33 of the Electricity Act, 2003, in relation to matters covered by clauses 4.2, 4.6 and 5.2 of the Regulation. Clause 6 relating to energy account and deviation settlement specifies the deviation

charges to be payable or receivable as per Appendix-I thereof, the accounting for which purpose shall be done by the SLDC. Under Clause 6.10, the SLDC shall maintain all necessary records, registers and accounts in respect of Forecasting, Scheduling and Deviation Settlement in accordance with the regulation and as per Clause 6.11, the SLDC shall give appropriate directions under sub-section (1) of Section 33 of the Electricity Act, 2003 on the manner of making the State Pool Account settlement, dealing with the default in respect of the same, the manner of de-pooling of energy deviations and deviation charges and operation of Virtual Pool and State Pool Account.

51. Thus, it is very clear that the Commission by Regulation No. 4 of 2017, empowered the SLDC on every aspect of energy account and deviation settlement including deviation charges and it is the SLDC which can levy and collect such deviation charges due to that statutory empowerment, with further powers to issue appropriate directions in exercise of its statutory power under sub-section (1) of Section 33 of the Electricity Act, 2003. Hence, no further clarity is required from the Regulation No. 4 of 2017 which is self-explanatory that whatever amounts are credited to the APSLDC STATE POOL ACCOUNT under the regulation absolutely belong to and are at the disposal the SLDC.
52. Clause 5 of Regulation No. 5 of 2005, the Andhra Pradesh Electricity Regulatory Commission (Terms and Conditions for determination of transmission tariff) Regulation, 2005 and clause 7 of Regulation No. 1 of 2006, the Andhra Pradesh Electricity Regulatory Commission (Levy and Collection of fees and Charges by State Load Despatch Centre) Regulation, 2006 refer to the segregation of accounts between the SLDC activity and transmission activity and it is seen from the filings by the licensee that there was complete segregation of accounts between SLDC activity and transmission activity as per the audited accounts of the licensee. Therefore, there is absolutely no administrative or accounting hitch in the SLDC dealing with the amounts credited to the APSLDC STATE POOL ACCOUNT.
53. Accordingly, it is clarified and directed that the amounts standing to the credit of the APSLDC STATE POOL ACCOUNT belong to and are at the disposal of the APSLDC to be dealt with as per the prescribed procedures in accordance with law.

Annual Fees and Monthly Operating Charges

54. The annual fees and Monthly Operating charges are computed based on the following formulas prescribed in the Regulation No. 1 of 2006 to recover the approved Capital cost and Operating cost for SLDC activity by the licensee.

$$i) \quad \text{Annual Fee (Rs/MW/Year)} = \frac{\text{Capital Cost}}{\text{Generation Capacity}}$$

$$ii) \quad \text{Operating Charges (Rs/MW/Month)} = \frac{\text{Operating Cost}}{(\text{Generation Capacity} \times 12)}$$

Though the Transmission Tariffs of AP TRANSCO are determined with reference to the State Peak Demand for the 4th Control Period with reference to the amendments already made to Regulation No. 5 of 2005, calculating the Annual Fees and Monthly operating charges of APSLDC on an identical basis is not possible due to Regulation No. 1 of 2006 as in force prescribing the above stated formula for calculation with no other permissible alternatives. Accordingly, the request of the licensee in that regard is not considered.

55. Accordingly, Annual Fees and Monthly operating charges are determined by substituting the approved Generation Capacity, Capital Cost and Operating cost in the above formulas for each year of the 4th Control period. The details of Annual Fee and Monthly operating charges are given in the Table below.

TABLE NO. 4.5
Approved: Annual Fees and Operating Charges

S. No.	Parameter	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1.	Generation Capacity (MW)	19887	21797	22624	23115	23399
2.	Capital Cost (Rs. Cr.)	3.81	6.19	8.58	11.55	14.93
3.	Operating Expenses (Rs. Cr.)	51.22	53.83	56.64	59.64	62.78
	Annual Fee (Rs./MW/Annum)	1917.48	2838.01	3792.02	4997.87	6382.27
	Operating Charges (Rs./MW/Month)	2146.34	2058.18	2086.32	2150.21	2235.65

The year-wise Annual Fees and Operating Charges filed by the licensee and approved by the Commission are shown at Annexure-G.

Notes on fees and charge

i) Generating Companies (including Captive Generating Plants), Distribution Licensees, Open access users and Trading Licensees using the intra-State Transmission Network shall pay the SLDC charges (Annual Fees & Operating Charges).

ii) All the users shall pay the Annual Fees in advance in two equal instalments, by 10th of April and by 10th of October every financial year starting from FY2019-20 onwards:

Provided that in case where the usage of intra-state transmission system commences after the 10th of April or the 10th October of a year, the Annual Fees for the period upto 30th September of the year and 31st March of the subsequent year respectively shall be required to be paid before the commencement of intra-state transmission.

iii) The Operating Charges shall be paid monthly.

iv) If the Annual Fees and Operating Charges, as the case may be, are not paid by the due date(s), surcharge at the rate of two percent (2%) per month shall be levied on the unpaid amounts.

v) Every user shall deposit an amount equivalent to two months Operating Charges in advance as security against default in payment of Operating Charges.

56. The aforementioned fees and charges fixed for each year of the 4th Control Period are applicable from 1st April to 31st March of the respective year subject to review by the Commission whenever deemed necessary.

New Charges not accepted

57. The licensee proposed an investment of Rs.975 Cr. towards Battery Energy Storage System. The AP TRANSCO made the same proposal in its ARR for the 4th Control Period which has not been considered by the Commission in its order on Transmission Tariffs for the 4th Control Period for the reasons detailed therein. For the same reasons, the proposal of the licensee herein also did not receive any consideration from the Commission. However, the

option of the licensee to make such proposal afresh in the manner in which the same is permitted in the Transmission Tariff order remains open.

Institutional Capacity Building and Strengthening of SLDC

58. One of us, namely Sri P. Rama Mohan has been on the Technical Committee of the Forum of Regulators (FOR) which consists of the Central Electricity Regulatory Commission and all State and Joint Electricity Regulatory Commissions, which has taken up in a big way the required power sector reforms in the country. One of the important subjects taken up by the Technical Committee of the FOR is the institutional capacity building and strengthening of Load Despatch Centres in India. The Technical Committee appointed a sub-group which submitted a detailed draft report with recommendations on twenty (20) aspects requiring reform and improvement for achieving the desired capacity building and strengthening of Load Despatch Centres. The draft report has been adopted by the Technical Committee of the FOR and it should be acted upon with all sense of urgency and seriousness. The Transmission Corporation of Andhra Pradesh Limited (AP TRANSCO) which is the State Transmission Utility operating the Andhra Pradesh State Load Despatch Centre shall forthwith constitute a working group with the Chairman and Managing Director of AP TRANSCO as the Chairman and Superintending Engineer, APSLDC as the Convener and such other members as the Chairman and Managing Director of APTRANSCO deems fit to nominate to be such members. The working group shall examine each of the recommendations of the sub-group of the Technical Committee of the FOR on the subject and decide the manner of implementation of the same with reference to APSLDC and submit its report to the Commission on or before 01.07.2019. This should be treated as a direction of this Commission within the meaning of Sections 142 and 146 of the Electricity Act, 2003.

This Order is signed on the 8th day of March, 2019.

Sd/-
P. Rama Mohan
Member

Sd/-
Dr. P. Raghu
Member

Sd/-
Justice G. Bhavani Prasad
Chairman

ANNEXURE-A1

The Hindu (AP Edition) & Deccan Chronicle (AP Edition) dt: 15.12.2018

BEFORE THE HONOURABLE ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION (APERC)
D.No. 11-4-660, 4th Floor, Singareni Bhavan, Red Hills, Hyderabad - 500 004.

Transmission Corporation of Andhra Pradesh Limited (APTRANSCO)

PUBLIC NOTICE

1. Notice is hereby given to all that the Transmission Corporation of Andhra Pradesh Limited (APTRANSCO) holding License No. 1/2000, as on 06-12-2016, filed before the Andhra Pradesh Electricity Regulatory Commission (APERC) the Multi Year Aggregate Revenue Requirement (ARR) and Filing for Proposed Tariff (FPT) (Transmission Tariffs) for its Transmission Business and SLDC activity for 4th Control Period (FY2019-20 to FY2023-24). These filings have been taken on record by the Hon'ble Commission in O.P.Nos.30 and 31 of 2018.

2. Copies of the filings are available in the Office of the Chief General Manager (HRD & Planning, APTRANSCO, 1st Floor, Vidyut Soudha, Gunadala, Vijayawada-520004) and also in the offices of the Chief Engineers/Zones located at Visakhapatnam, Vijayawada & Kadapa and also in the offices of the Superintending Engineers OMC/O&M located at Vijayawada, Guntur, Ongole, Nellore, Srikakulam, Vizianagaram, Visakhapatnam, Rajamahendravaram, Eluru, Kadapa, Kurmool, Tirupathi, Anantapur. Interested persons may inspect/peruse the said Multi Year ARR & FPT and take note thereof during office hours at any of the said offices at free of charge. These proposals are also available on www.aptransco.co.in and the same may also be accessed at www.aperc.gov.in. A copy of these filings, can be obtained from the above offices from the date of publication on payment of Rs.100/- (DD in favor of Pay Officer/APTRANSCO payable at SBI, Mid Corporate Branch, Vja). Also a summary of Multi Year ARR and FPT in English and Telugu can be separately obtained on payment of Rs.10/- (DD in favor of Pay Officer/APTRANSCO payable at SBI, Mid Corporate Branch, Vijayawada).

3. Views/objections/suggestions if any, on the Multi Year ARR&FPT filings for 4th Control Period proposed by APTRANSCO for its Transmission Business and SLDC activity, together with supporting material may be sent to the Chief General Manager (HRD & Planning, APTRANSCO, 1st Floor, Vidyut Soudha, Gunadala, Vijayawada-520004) in person or through Registered Post so as to reach on or before **07-01-2019 by 5 PM**. A copy of the same must also be filed with the Commission Secretary, APERC at the address mentioned above. The views/objections/suggestions should be duly signed and should carry full name and postal address of the person(s) sending the views/objections/suggestions. If the views/objections/suggestions are filed on behalf of any organization or any category of consumers, it should be so mentioned. If the objector also wants to be heard in person, it may also be specifically mentioned accordingly. The views/objections/suggestion should accompany the following statement as an overleaf.

Name & full address of the Objector with contact Number	Brief details of View(s)/ Objection(s)/ Suggestion(s)	Whether copy of objection & proof of delivery at APTRANSCO's office enclosed (Yes/No)	Whether Objector wants to be heard in person (Yes/No)
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4. The Multi Year ARR & FPT (Transmission Tariffs) schedule for Transmission Business and SLDC activity for 4th Control Period (FY2019-20 to FY2023-24) proposed by the APTRANSCO is given below:

SCHEDULE-I

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED PROPOSED TARIFF FOR TRANSMISSION BUSINESS OF APTRANSCO FOR 4th CONTROL PERIOD i.e., FY 2019-20 TO FY 2023-24

A) ARR / Transmission Charges						
Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	Aggregate Revenue Requirement - Transmission (In Rs Crore)	1673.36	2098.50	2628.25	3352.74	4142.74
2	State Peak Demand (MW)	11450	12219	13209	14315	15539
3	Transmission Charges (Rs/kWh/Month)	121.79	143.12	165.81	195.18	222.17

B) Transmission Loss Reduction Trajectory						
Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1)	Transmission Loss (%)	3.12 +/-0.3	3.10 +/-0.3	3.06 +/-0.3	3.05 +/-0.3	3.00 +/-0.3

C) Capital Investments						
Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1)	Capital Investments (In Rs. Crore)	1472.23	2902.50	3086.30	3162.43	2915.14

(Any other charges or special conditions and the authority for such levy, which the Licensee intends to, bring to the notice of the public)

SCHEDULE-II

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED PROPOSED TARIFF FOR SLDC ACTIVITY OF APTRANSCO FOR 4th CONTROL PERIOD i.e., FY 2019-20 TO FY 2023-24

A) ARR /SLDC Annual fee						
Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
1	Aggregate Revenue Requirement - SLDC (In Rs Crore)	102	110	118	128	136
2	Capacity (MW)	20226	21662	21280	21285	21486
3	Operating Charges (Rs. /MW / Month)	2400	2454	2748	3039	3333
4	Annual Fee (Rs. /MW/Annum)	21445	21240	22499	23548	24064

B) Capital Investment						
Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1)	Capital Investments (In Rs. Crore)	43	46	48	50	52

(Any other charges or special conditions and the authority for such levy, which the Licensee intends to, bring to the notice of the public)

Introduction of new charges:
APTRANSCO as a state transmission utility and SLDC as a system operator are contemplating to set up a battery energy storage system (BESS) with a capacity of 250-500 MW with 2-4 hours of storage, under Opex Model, to address morning and evening/night peak deficits (shorter durations), intermittency problems owing to high RE penetration (15 - 30 mins) and also smoothening of curves. APTRANSCO and SLDC as a system operator, may plan to set up storage system under Opex Model by paying annuity charges to the Developer. The fixed cost of battery energy storage system of 500 MWh capacity is estimated to be about ~ INR 975 Crores. Assuming the system to operate over a period of 10 Years (2 cycle operation), the total annuity charges to be paid by APTRANSCO to the developer shall be of INR 185 Crs (that may be recovered in the form of Renewable Integration Charges (RIC) to meet the intermittency and smoothening of the solar generation and Ancillary service charges for peak load management (during day and night). Currently the recovery of Net ARR is entirely through transmission tariff and the proposed charges including Net ARR incurred by APTRANSCO and SLDC for providing the above mentioned services would be recovered as follows

Charges	Applicability
100% of NetARR	Distribution Licensees (LTOA/MTOA)
Renewable integration charges: 70 % of Annuity Charges (INR/MW/Month)	Only to RE developers (Wind/Solar)
Ancillary support charges: 30 % of Annuity Charges (INR/Unit)	All the consumers including Licensees, OA consumers.

Renewable Integration Charges (RIC) INR/MW/Month = Total Annuity Charges - (Ancillary Service Charges (INR/Unit) * Quantum of energy supplied by battery energy storage systems for providing ancillary services during the year).
SLDC shall levy RIC to only RE developers as operating RIC charges (INR/MW/Month).
The Renewable Integration Charges is estimated as INR 121 Crs based on following assumptions

- Capacity of BESS : 500 MWh
- Utilization of BESS in a year : 200 days
- Charge and discharge cycles in a day : 2
- Proposed ancillary service charge: INR 3.2/kWh (Deviation penalty paid by the state utilities for the period Apr-Oct'18)

Total Ancillary service charges = BESS capacity * Utilization of BESS in No. of days/Year * No. of cycles in a day * Ancillary Service Charge (INR/Unit)
= 500 MWh * 200 days * 3.2 * 2
= INR 64 Crores

5. Hon'ble Commission will conduct Public hearings on said Multi Year ARR&FPT for 4th Control Period (FY2019-20 to FY2023-24) proposals of APTRANSCO along with ARR and FPT proposals on Retail Supply Business of DISCOMs. But, Public Hearing on 25-01-2019 at Hyderabad is exclusively meant for Multi Year ARR & Tariff Proposals submitted by Discoms and APTRANSCO. The schedule is as follows:

Sl. No.	Venue/place of Public Hearing	Date of Public Hearing
1	Conference Hall, ATC Building, Corporate Office, APEPDC, P&T Colony, Seethammadhara, Visakhapatnam - 530 013.	07-01-2019 (Monday)
2	O/o, SE/Operation/Vijayawada, APSPDCL, Opp. PWD Ground, Beside CM camp office, Vijayawada.	08-01-2019 (Tuesday)
3	Conference Hall, Corporate Office, (Vidyuth Nilayam), APSPDCL, Behind Srinivasa Katyanamandapams, Sreenivasapuram, Tiruchanoor Road, Tirupathi.	09-01-2019 (Wednesday)
4	O/o APERC, 11-4-660, 4th Floor, Singareni Bhavan, Red Hills, Hyderabad-500004	18-01-2019 (Friday)
5	O/o APERC, 11-4-660, 4th Floor, Singareni Bhavan, Red Hills, Hyderabad-500004. (Exclusive for MYT proposals)	25-01-2019 (Friday)

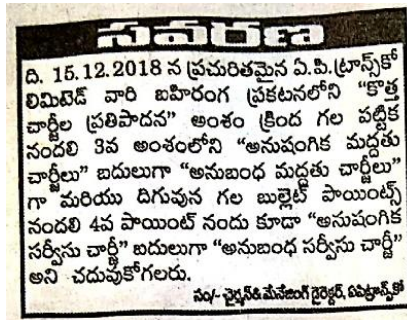
* Timings for public hearings - 10.00 AM to 1.00 PM and from 2.00 PM to till all the interested persons who desire to be heard in person or through their authorized representatives are exhausted.
All the interested persons / associations / stakeholders / objectors who want to be heard in person / through authorized representatives, may appear before the Hon'ble Commission on the above mentioned dates and submit their views / objections / suggestions in respect of the said Multi Year ARR and Tariff proposals of APTRANSCO.
The views / Objections/suggestions submitted to the Hon'ble Commission beyond the stipulated date **07-01-2019 up to 5 PM on 25-01-2019**, the date of the last public hearing exclusively for Multi Year ARR and Tariff Proposal of Discoms and APTRANSCO, will also be taken into consideration while determining Multi Year ARR and Tariff of APTRANSCO for 4th Control Period.

6. The Hon'ble Commission will also conduct the 13th Joint Meeting of State Advisory Committee (SAC) and 8th State Coordination Forum on 10-01-2019 (Thursday) at Conference Hall, Corporate Office, APSPDCL, Tirupathi on Multi Year ARR and Tariff proposals of APTRANSCO along with ARR and FPT proposals on Retail Supply Business of Discoms for 4th Control Period.

Place : Vijayawada **Sd/- CHAIRMAN & MANAGING DIRECTOR**
Date : 15-12-2018 **APTRANSCO**
R.O. No. 60/18

ANNEXURE-A3

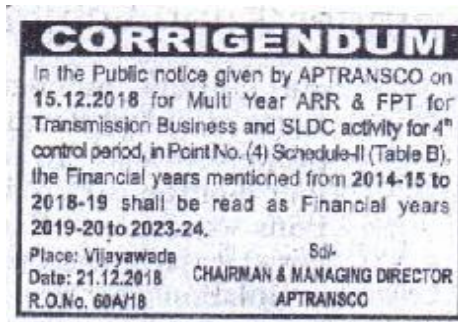
Andhra Jyothi (AP Edition) dt:16.12.2018



Andhra Jyothi and Enadu (AP Edition) dt:21.12.2018



Deccan Chronicle and Hindu (AP Edition) dt:21.12.2018



ANNEXURE-B**LIST OF OBJECTORS**

S. NO.	NAME & ADDRESS OF THE OBJECTOR
1	Sri M.Venugopala Rao, Convener, Centre for Power Studies, H.No.7-1-408 to 413, F 203, Sri Sai Darsan Residency, Balkampet Road, Ameerpet, Hyderabad 500 016. Phone No.:(040)23737404 Mobile No.9441193749 email address: vrmummareddi@gmail.com

ANNEXURE- D**APPROVED: BREAK UP OF INVESTMENT****FOR 4th CONTROL PERIOD (Rs. Cr.)**

Investment	Financial Year					
	2019-20	2020-21	2021-22	2022-23	2023-24	Total
GRID Operation	11.29	7.58	5.24	6.38	2.88	33.37
Commercial / EBC	2.15	0.10	0.10	0.10	3.10	5.55
Telecom	1.00	1.00	1.00	1.00	1.00	5.00
Power Systems	0.57	0.57	0.66	0.66	0.66	3.11
Total (Rs. Cr.)	15.01	9.25	7.00	8.13	7.63	47.02

ANNEXURE-E**BREAK UP OF CAPITAL COST APPROVED (Rs. Cr.)**

Financial Year	Gross Capital Cost	True-down amount	Net Capital Cost
2019-20	5.14	1.33	3.81
2020-21	7.52	1.33	6.19
2021-22	9.91	1.33	8.58
2022-23	12.88	1.33	11.55
2023-24	16.26	1.33	14.93
Total	51.71	6.55	45.06

ANNEXURE-F
OPERATING COST FILED AND APPROVED (Rs. Cr.)

Financial year	Employee Cost		A&G expenses		R&M expenses		True-down	Total Operating Cost	
	Filed	Apprvd.	Filed	Apprvd.	Filed	Apprvd.	Apprvd.	Filed	Apprvd.
2019-20	51.34	42.95	4.00	6.36	2.92	3.24	1.33	58.26	51.22
2020-21	56.19	45.16	4.40	6.59	3.21	3.41	1.33	63.80	53.83
2021-22	61.79	47.49	4.84	6.89	3.53	3.58	1.33	70.17	56.64
2022-23	68.41	49.95	5.33	7.26	3.88	3.77	1.33	77.61	59.64
2023-24	75.81	52.52	5.86	7.62	4.27	3.96	1.33	85.94	62.78
Total	313.54	238.07	24.44	34.73	17.80	17.96	6.65	355.78	284.11

ANNEXURE-G
ANNUAL FEES AND OPERATING CHARGES FILED AND APPROVED

Financial Year	Annual Fees (Rs./MW/Year)		Operating Charges (Rs./MW/Month)	
	Filed	Approved	Filed	Approved
2019-20	22448.00	1917.48	2400.00	2146.34
2020-21	22201.00	2838.01	2454.00	2058.18
2021-22	23497.00	3792.02	2748.00	2086.32
2022-23	24568.00	4997.87	3039.00	2150.21
2023-24	25090.00	6382.27	3333.00	2235.65

ABBREVIATIONS

A&G	Administration & General
A.P. / AP	Andhra Pradesh
AG	Accountant General
APERC	Andhra Pradesh Electricity Regulatory Commission
AP Genco	Andhra Pradesh Power Generation Corporation Limited
APGPCL	Andhra Pradesh Gas Power Corporation Limited
APTRANSCO	Transmission Corporation of Andhra Pradesh Limited
ARR	Aggregate Revenue Requirement
BSES	Bombay Suburban Electric Supply
CAGR	Compound Annual Growth Rate
CERC	Central Electricity Regulatory Commission
CPI	Consumer Price Index
CGS	Central Generating Stations
Cr.	Crore
DISCOM	Distribution Company
SDSTPP	Sri Damodaram Sanjeevaiah Thermal Power Plant
EMS	Energy Management System
FCC	Financial Completion Certificate
FPT	Filing for Proposed Tariff
FY	Financial Year
GoAP	Government of Andhra Pradesh
IPP	Independent Power Producer
LSR	Lower Sileru Power Station
MAPS	Madras Atomic Power Station
MU	Million Units

MW	Mega-Watt
MYT	Multi-Year-Tariff
NPC	Nuclear Power Corporation
NSRCPH	Nagarjuna Sagar Right Canal Power House
NTPC	National Thermal Power Corporation Limited
O&M	Operation and Maintenance
O.P.	Original Petition
PABM	Penna Ahobilam
PCC	Project Completion Certificate
R&M	Repairs and Maintenance
RAC	Regulatory Affairs Cell
Rs.	Rupees
RTPP	Rayalaseema Thermal Power Plant
SAC	State Advisory Committee
SCADA	Supervisory Control and Data Acquisition
SCF	State Coordination Forum
SLDC	State Load Despatch Centre
SR	Southern Region
SRBPH	Srisaillam Right Bank Power House
STU	State Transmission Utility
u/s	Under Section
USL	Upper Sileru Power House
NTTPS	Dr. Narla Tata Rao Thermal Power Station
WPI	Wholesale Price Index

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