Andhra Pradesh
Electricity Regulatory Commission

4th Floor, Singareni Bhavan, Red Hills, Lakdi-ka-pul, Hyderabad 500004.

TARIFF ORDER

15th April, 2019

WHEELING TARIFFS
FOR
DISTRIBUTION BUSINESS

In the supply areas of

Eastern Power Distribution Company of A.P. LTD.
(APEPDCL)
Southern Power Distribution Company of A.P. LTD.
(APSPDCL)

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ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

HYDERABAD

MONDAY, THE FIFTEENTH DAY OF APRIL,
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 Wheeling Tariffs for Distribution Business for the 4th Control Period (FY2019-20 to FY2023-24)

in

O.P.No.28 of 2018
Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)

O.P.No.29 of 2018
Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)

... **Applicants**

The Aggregate Revenue Requirements (ARRs) and Filings for Proposed Tariff (FPTs) for Wheeling filed by the Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL) vide O.P.No.28 of 2018 and the Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL) vide O.P.No.29 of 2018 in respect of their Distribution business for the 4th Control Period (FY2019-20 to FY2023-24) came up for consideration before the Commission. Upon following the procedure prescribed for determination of such tariff under Section 64 of the Electricity Act, 2003 (Central Act 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 36 of 2003, the Andhra Pradesh Electricity Reform Act, 1998 (State Act 30 of 1998) and the APERC Terms and Conditions for determination of Tariff for Wheeling and Retail Sale of Electricity Regulations, 2005 (Regulation 4 of 2005) as amended from time to time, hereby passes the following:

COMMON ORDER
CHAPTER – I
INTRODUCTION

1. Consequent to coming into force of the Andhra Pradesh Reorganization Act, 2014 (Central Act 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 Eastern Power Distribution Company of Andhra Pradesh Ltd. (APEPDCL) and the Southern Distribution Company of Andhra Pradesh Ltd. (APSPDCL), the Applicants are the holders of the Distribution Licenses (License Nos.12/2000 and 15/2000 respectively) issued by Andhra Pradesh Electricity Regulatory Commission (APERC) which is the State Electricity Regulatory Commission for the State of Andhra Pradesh under relevant provisions of the Electricity Act, 2003 (Act).

3. Upon bifurcation of the erstwhile combined State of Andhra Pradesh, two DISCOMs (APEPDCL and APSPDCL) out of the four number DISCOMs then existing, remained in the residuary State of Andhra Pradesh. Two districts namely Kurnool & Anantapur under the territorial jurisdiction of the erstwhile APCPDCL have been merged with APSPDCL as per the provisions of the AP Reorganization Act, 2014. Accordingly, the service area of APSPDCL was extended from six (6) Districts to eight (8) districts.

APERC (Adaptation) Regulation, 2014

4. 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 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 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

5. Section 64(3) read with Section 62 (c) of the Electricity Act, 2003 stipulates that the Commission shall determine tariff for wheeling of electricity.

6. Regulation 4 of 2005 notified by the Commission introduced Multi Year Tariff (MYT) framework and accordingly, the distribution licensees have to file ARRs along with FPTs with the Commission for determination of Tariff for Distribution business for a period of 5 years (called Control Period). The 4th Control Period covers five years from FY2019-20 to FY2023-24.

7. The Central Act, 36 of 2003 as well as the Regulation 4 of 2005 mandate that the distribution licensees shall file for their licensed business an application in such form and in such manner as specified and in accordance with the guidelines issued by the Commission for the Control Period, not less than 120 days before the commencement of the first year of the Control Period, for approval of the Commission. The Applicants have to file their Aggregate Revenue Requirement (ARR) and Filings of Proposed Tariff (FPT) before 30.11.2018 as per Regulation 4 of 2005.

8. APEPDCL, by a letter dated 30.11.2018, on its behalf and on behalf of APSPDCL, has requested for extension of time upto 15.12.2018 for filing of ARRs and FPTs stating that the projections of financial parameters for ARR of Distribution business for the 4th Control Period also forms major part of the business plan. As such, upon finalization of MYT, the business plan will also be finalized simultaneously along with write-up and they will be in a position to submit the ARR of Distribution business & Business Plan for 4th Control Period simultaneously within fifteen days' time. The Commission, vide its letter No. APERC / Secy. / Tariff / F.77 / D.No.1005 / 2018, Dt.04.12.2018 permitted

the licensees to file ARR and Tariff Petitions relating to their distribution business for the 4th Control Period, on or before 15.12.2018.

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

9. APEPDCL and APSPDCL have filed the Aggregate Revenue Requirement (ARR) & Proposed Wheeling Tariffs for their Distribution business in respect of the 4th Control Period (FY2019-20 to FY 20123-24), before the Commission on 10th and 12th December, 2018 respectively.

10. The filings made by the licensees were uploaded on the Commission's website and by its letter dated 13.12.2018, the Commission directed the Licensees to issue a public notice in Telugu language in two Telugu daily newspapers and in English language in two English daily newspapers incorporating the ARR and FPT Schedules 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 of ARR and FPT in their official websites and to make available the copies of filings at their corporate offices and also at circle offices. Further, the Commission also directed the licensees 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 the headquarters of APEPDCL and APSPDCL and in 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 upto 5 PM on 25.01.2019 will also be considered while determining the ARR and wheeling tariffs for the Distribution business for the 4th Control Period.

11. In compliance with the directions of the Commission, the licensees have caused publication of public notices in Telugu Language in three (3) Telugu daily newspapers on 15.12.2018 and in English Language in five (5) English daily newspapers on 16.12.2018 (Annexure-A1 & A2) incorporating their ARR

& FPT Schedules along with other details as directed, inviting views/objections/ suggestions in respect of ARRs and FPTs 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 on the websites of the licensees.

Response to the Public Notice

12. In response to the public notice, the Commission received several objections /suggestions/views in writing and/or in person at its Office and during public hearings. As directed by the Commission, the licensees have communicated their written replies to the views/objections/suggestions received from various stakeholders.

Public Hearings

13. The Commission conducted public hearings at the following places as published in the public notice and as informed by the licensees to have the widest consultations possible and the benefit of maximum inputs in finalizing the ARR and wheeling tariffs for the Distribution business 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 till all the interested persons or their authorized representatives are exhausted.

14. 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 on ARRs and FPTs.

15. During the public hearings at the headquarters of the licensees and at Vijayawada in the Capital Region of the State, the Chairman & Managing Director of the licensee concerned made a brief presentation on their filings. During the public hearings at Hyderabad, the Director/Finance of the licensee concerned made a brief presentation on their filings. Then the participating stakeholders were heard in detail apart from receiving all written representations presented by them. Then the Chairman & Managing Director or the Director/Finance of the licensee concerned gave a detailed response to each of the issues/aspects raised by the objectors.

16. After the public hearings, a joint meeting of the State Coordination 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 ARRs and FPTs.

17. The views/objections/suggestions expressed by the stakeholders and/or their representatives (**Annexure-B**) in writing and/or in person and the replies provided by the licensees in writing and/or through oral responses during the public hearings held from 07.01.2019 to 25.01.2019 in respect of ARR and FPT filings 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 ARRs and wheeling tariffs for the Distribution business for the 4th Control Period.

Summary of Filings

18. The summary of the filings of ARRs and FPTs for the 4th Control Period covering FY2019-20 to FY2023-24 is as follows:

Resource Plan for the 4th Control Period

19. The Licensees have stated that as per Clause 9.1 of the Regulation 4 of 2005, the Resource Plans for the 4th Control Period were filed before the Commission

on 31st July 2018 by APEPDCL and on 2nd August 2018 by APSPDCL. The Resource Plans are stated to contain the following:

– Sales Forecast;
– Load Forecast;
– Loss Trajectory projections;
– Power Procurement Plan; and
– Distribution Plan (Capital Investment Plan)

Loss Trajectory

20. The licensees are stated to have undertaken various steps like strengthening of the network infrastructure, addition of network elements and vigorously undertaking the Energy Audit visits to reduce the losses and to keep a close tab on the losses.

21. Based on the historical performance and the loss reduction measures carried out in the State, the licensees have projected the loss for the period from FY2018-19 to FY2023-24 as given below:

APEPDCL:

Description	FY 2018-19*	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Annual LT Loss %	4.16%	4.13%	4.11%	4.08%	4.05%	4.02%
Annual 11 kV Loss %	3.33%	3.28%	3.25%	3.20%	3.15%	3.10%
Annual 33 kV Loss %	2.82%	2.81%	2.80%	2.79%	2.78%	2.77%

APSPDCL:

Description	FY 2018-19*	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Annual LT Loss %	4.40%	4.36%	4.31%	4.27%	4.23%	4.18%
Annual 11 kV Loss %	3.38%	3.35%	3.31%	3.28%	3.25%	3.21%
Annual 33 kV Loss %	3.35%	3.32%	3.28%	3.25%	3.22%	3.19%

**Distribution loss in % as approved by the Commission in Retail Tariff Order of FY2018-19*

Distribution Plan (Capital Investment Plan)

22. The licensees are stated to have prepared detailed capital investment plans for the 4th Control Period based on a comprehensive analysis of the state of the

existing network loading conditions and the expected future loading of the network during each year of the Control Period based on the projected load growth. The tables below provide the projected Capital Expenditure (including ongoing schemes) of the licensees from FY2018-19 to FY2023-24 under their spending. For the purpose of RRB computation, licensees are stated to have considered loans from IPDS, DDUGY, WB etc., as loans and not grants.

APEPDCL:

Item	FY19	FY20	FY21	FY22	FY23	FY24
Capital Expenditure Projected (Rs. Cr.)	1,414	1,372	991	1,103	1,286	1,462

APSPDCL:

Item	FY19	FY20	FY21	FY22	FY23	FY24
Capital Expenditure Projected (Rs. Cr.)	2,320	2,664	2,462	2,743	2,862	3,206

O&M expenses projection

23. Clause 6.3 (a) of Regulation 4 of 2005 provides the following for projection of the O&M costs: "The Operation and Maintenance (O&M) costs, which include employee-related costs, repair & maintenance costs and administrative & general costs, estimated for the Base Year and the year prior to the Base Year in complete detail together with the forecast for each year of the Control Period based on the norms proposed by the Distribution Licensee including indexation and other appropriate mechanisms…".

24. Licensees are stated to have adopted the method recommended by the Commission in the MYT order for the 3rd Control Period, which is as follows:

Employee expenses (EE) and Administrative & General (A&G) expenses

25. In the MYT order for the 3rd Control Period, Commission has recommended all the licensees to project EE and A&G expense based on the norms linked to number of Substations (SS), Line Length (Circuit KM), Number of consumers and Number of DTRs. The methodology for projecting employee expenses is that for each year, actual employee expenses (net of capitalization) is allocated to Substations, Line length, DTRs and Consumers in the ratio of 49%:21%:10%:20%. Accordingly, the ratios of Employee expenses per

Substation, Employee expenses per circuit km of line length, Employee expenses per DTR and Employee expenses per Consumer are arrived at. Same methodology is stated to have been adopted for projecting A&G expenses.

Repair and Maintenance (R&M) Expenses

26. In the 3rd Control Period, Commission has approved Repairs & Maintenance (R&M) cost as 2.05% of the opening balance of Gross Fixed Assets (GFA) pertaining to the year of consideration. The licenses are stated to be contemplating to step up the activities on periodical and preventive maintenance for keeping the distribution system in a tidy condition. The outages are being monitored as per international standards such as SAIFI & SAIDI etc. To meet such standards, the system downtimes are to be kept at very low and optimum levels. The present system is to be checked thoroughly and strict maintenance schedules and procedures are to be planned & implemented. Further, it is stated that the Commission has been providing Rs.5 Crores per year for enhancing the Safety provisions. Since these provisions are network related, these special provisions on safety are proposed to be accounted for in Network ARR under R&M expenditure with effect from FY2019-20. It is further stated that there is an increase of around 50% in the wages of the outsourcing employees deployed in Substations for carrying out operation & maintenance services. For the reasons stated above, enhancement of the R&M norm from the existing level of 2.05% to 2.50% is stated to be necessitated for the 4th Control Period. Summary of O&M projections with break-up are shown in the tables below:

APEPDCL:

Parameter	FY19 (RE)	FY20	FY21	FY22	FY23	FY24
Employee Cost (Rs. Cr.)	1,157	1,278	1,448	1,644	1,872	2,131
A&G Cost (Rs. Cr.)	103	121	138	156	178	203
R&M Cost (Rs. Cr.)	161	177	202	252	302	337
Total O&M Expenses (Rs. Cr.)	1,421	1,576	1,787	2,052	2,351	2,671

APSPDCL:

Parameter	FY19 (RE)	FY20	FY21	FY22	FY23	FY24
Employee Cost (Rs. Cr.)	2,143	2,416	2,712	3,053	3,446	3,901
A&G Cost (Rs. Cr.)	142	161	181	203	230	260
R&M Cost (Rs. Cr.)	456	497	558	652	783	917
Total O&M Expenses (Rs. Cr.)	2,741	3,074	3,451	3,909	4,458	5,078

The methodology is stated to have factored both inflationary adjustment and addition of new offices/ employees due to load growth.

Return on Capital Employed

27. The licensees are stated to have computed the RoCE as provided in Clause 15 of Regulation 4 of 2005 which specifies that the RoCE be computed by multiplying the Regulated Rate Base (RRB) by the Weighted Average Cost of Capital (WACC). The RoCE computed by the licensees is shown in the tables below:

APEPDCL:

Particulars	FY19	FY20	FY21	FY22	FY23	FY24
Return on Capital Employed (Rs. Cr.)	193	233	366	542	667	750
Regulatory Rate Base (Rs. Cr.)	1,687	2,005	3,052	4,477	5,470	6,126
Additions to GFA (Rs. Cr.)	641	1,018	1,993	1,988	1,411	1,587
Additions to Consumer Contribution (Rs. Cr.)	248	38	75	79	109	137
Working Capital (Rs. Cr.)	138	153	173	201	232	263
WACC	11.5%	11.6%	12.0%	12.1%	12.2%	12.2%
Cost of Debt	10.6%	10.8%	11.3%	11.5%	11.6%	11.7%
Return on Equity	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%

APSPDCL:

Particulars	FY19	FY20	FY21	FY22	FY23	FY24
Return on Capital Employed (Rs. Cr.)	517	617	830	1,191	1,618	1,919
Regulatory Rate Base (Rs. Cr.)	4,585	5,530	7,379	10,395	13,920	16,341
Additions to GFA (Rs. Cr.)	1,610	2,394	3,686	5,110	5,241	3,576
Additions to Consumer Contribution (Rs. Cr.)	234	223	210	194	175	153
Working Capital (Rs. Cr.)	283	316	355	404	465	533
WACC	11.3%	11.2%	11.2%	11.5%	11.6%	11.7%
Cost of Debt	10.4%	10.2%	10.3%	10.6%	10.8%	11.0%
Return on Equity	14%	14%	14%	14%	14%	14%

For RRB computation, licensees are stated to have considered the loans from IPDS, DDUGJY and WB as loans and not as grants. Licensees are stated to have considered the cost of debt as the weighted average of the debt rates for the ongoing loans and projected loans and the details are given in the tables below:

APEPDCL:

Particulars	FY19	FY20	FY21	FY22	FY23	FY24
Ongoing Loans (Opening balance) (Rs. Cr.)	397	540	499	459	407	361
Debt rate of Ongoing Loans	8.3%	8.5%	8.3%	8.1%	7.8%	7.5%
New Loans (Opening balance) (Rs. Cr.)	0	1,054	2,216	2,954	3,689	4,453
Debt rate of New Loans	11.5%	12.0%	12.0%	12.0%	12.0%	12.0%
Weighted Average of Debt rate	10.6%	10.8%	11.3%	11.5%	11.6%	11.7%

APSPDCL:

Particulars	FY19	FY20	FY21	FY22	FY23	FY24
Ongoing Loans (Opening balance) (Rs. Cr.)	11,001	10,833	9,961	8,692	7,632	6,816
Debt rate of ongoing Loans	10.3%	10.1%	10.0%	10.1%	10.0%	9.9%
New Loans (Opening balance) (Rs. Cr.)	0	800	2,188	3,671	5,438	7,386
Debt rate of New Loans	11.7%	11.6%	11.7%	11.8%	12.0%	12.0%
Weighted average of debt rate	10.4%	10.2%	10.3%	10.6%	10.8%	11.0%

Depreciation

28. The depreciation every year for the particular asset class is stated to have been calculated as per the formula given below considering the Depreciation rates for respective asset class of asset base and also Fully Depreciated Assets during the Control Period.

29. Depreciation for the year = (Opening balance of the gross fixed assets for the year – Fully Depreciated Assets till previous year) * Rate of depreciation.

30. The total depreciation for the year is stated to have been calculated by adding the yearly depreciation of each asset class. The Depreciation rates as per Ministry of Power guidelines are stated to have been adopted to arrive at the next 5 years depreciation. The depreciation rates are given below:

Asset Class	**Rate of Depreciation**
Buildings and Other Civil Works	3.02%
Battery Chargers	33.40%
Material Handling Equipment	7.84%
Meters / Meter Equipment	12.77%
Office Equipment and Air Conditioners	12.77%
Plant & Machinery and Lines, Cables & Network	7.84%
Capacitor Banks	5.27%
Furniture & Fixtures	12.77%
Vehicle – Car / Jeep / Scooter / Motor Cycle/ Lorry / Truck	33.40%
Computers and IT Equipment	12.77%
Intangible assets (Software, Goodwill etc.)	10.00%

31. The fully depreciated assets till the year are stated to have been deducted from the opening balance of the next year to calculate the depreciation. Depreciation computations of the licensees are given in the tables below:

APEPDCL:

Particulars (Rs. Cr.)	FY19 (RE)	FY20	FY21	FY22	FY23	FY24
Opening Balance of assets	6,430	7,071	8,090	10,083	12,071	13,482
Asset Additions during the Year	641	1,018	1,993	1,988	1,411	1,587
Fully Depreciated assets during the year	301	329	276	364	243	255
Depreciation During the Year	371	397	449	582	705	796

APSPDCL:

Particulars (Rs. Cr.)	FY19 (RE)	FY20	FY21	FY22	FY23	FY24
Opening Balance of assets	13,896	15,506	17,900	21,586	26,696	31,936
Asset Additions during the Year	1,610	2,394	3,686	5,110	5,241	3,576
Fully Depreciated assets during the year	92	158	591	908	534	414
Depreciation During the Year	799	922	1,103	1,355	1,699	2,084

Aggregate Revenue Requirement (ARR) for each year of the 4th Control Period

32. The computations of Aggregate Revenue Requirement (ARR) in Rs. Cr. of the licensees for the 4th Control Period are given in the tables below:

APEPDCL:

Particulars	FY19 (RE)	FY20	FY21	FY22	FY23	FY24
O&M Charges (Net)	1,421	1,576	1,787	2,052	2,351	2,671
Depreciation	371	397	449	582	705	796
Advance Against Depreciation	0	0	0	0	0	0
Taxes on Income	15	18	27	39	48	54
Other Expenditure	15	15	16	16	17	17
Special Appropriations	0	0	0	0	0	0
Total Expenditure	1,822	2,005	2,279	2,689	3,121	3,538
Less: IDC and expenses capitalized	33	71	140	134	75	52
Less: O&M expenses capitalized	0	0	0	0	0	0
Net Expenditure	1,789	1,934	2,139	2,555	3,046	3,485
Add Return on Capital Employed	193	233	366	542	667	750
Total Distribution ARR	1,983	2,167	2,505	3,097	3,713	4,236
Less: Wheeling Revenue from Third Party/Open Access/NTI (if any)	223	186	192	199	208	219
Revenue Requirement, (Net transferred to Retail Supply Business)	1,759	1,981	2,313	2,898	3,505	4,016

APSPDCL:

Particulars	FY19 (RE)	FY20	FY21	FY22	FY23	FY24
O&M Charges (Net)	2,741	3,074	3,451	3,909	4,458	5,078
Depreciation	799	922	1,103	1,355	1,699	2,084
Advance Against Depreciation	0	0	0	0	0	0
Taxes on Income	40	48	65	91	122	143
Other Expenditure	36	38	39	40	41	42
Special Appropriations	0	0	0	0	0	0
Total Expenditure	3,617	4,082	4,657	5,395	6,320	7,347
Less: IDC and expenses capitalized	222	302	385	407	325	190
Less: O&M expenses capitalized	0	0	0	0	0	0
Net Expenditure	3,396	3,780	4,273	4,988	5,995	7,157
Add Return on Capital Employed	517	617	830	1,191	1,618	1,919
Total Distribution ARR	3,913	4,398	5,103	6,179	7,614	9,076
Less: Wheeling Revenue from Third Party/Open Access/NTI (if any)	428	466	508	553	603	657
Revenue Requirement, (Net transferred to Retail Supply Business)	3,485	3,932	4,595	5,626	7,011	8,419

Wheeling Charges and Losses

33. The Licensees are stated to be striving to reduce the losses by the implementation of loss reduction measures like strengthening of the network infrastructure, addition of network elements and vigorously undertaking the Energy Audit visits to keep a close tab on the losses. The loss trajectories projected by the licensee are given in the tables below:

APEPDCL:

Parameter	FY 2018-19*	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Annual LT Loss %	4.16%	4.13%	4.11%	4.08%	4.05%	4.02%
Annual 11 kV Loss %	3.33%	3.28%	3.25%	3.20%	3.15%	3.10%
Annual 33 kV Loss %	2.82%	2.81%	2.80%	2.79%	2.78%	2.77%

APSPDCL:

Parameter	FY 2018-19*	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Annual LT Loss %	4.40%	4.36%	4.31%	4.27%	4.23%	4.18%
Annual 11 kV Loss %	3.38%	3.35%	3.31%	3.28%	3.25%	3.21%
Annual 33 kV Loss %	3.35%	3.32%	3.28%	3.25%	3.22%	3.19%

34. The licensees have proposed the following wheeling charges for each year of the 4th Control Period for their distribution business:

APEPDCL:

Voltage Level	FY20	FY21	FY22	FY23	FY24
33 kV (Rs./kVA/Month)	46	50	59	66	71
11 kV (Rs./kVA/Month)	383	418	488	549	631
LT (Rs./kVA/Month)	645	705	827	936	981

APSPDCL:

Voltage Level	FY20	FY21	FY22	FY23	FY24
33 kV (Rs./kVA/Month)	45	52	63	77	89
11 kV (Rs./kVA/Month)	583	602	664	761	792
LT (Rs./kVA/Month)	679	712	776	855	921

Proposed Billing Methodology:

- A consumer drawing energy at the 33kV level of the licensees' network would have to pay the wheeling charges for 33 kV.
- A consumer drawing energy at 11 kV level of the licensees' network would have to pay the wheeling charges of 11 kV.
- A consumer drawing energy at LT level of the licensees' network would have to pay the wheeling charges for LT.

Conclusion

35. The Commission has decided to consider the ARR and FPT filings submitted by the licensees, which are mentioned in brief in this Chapter, as the basis for determination of ARR and Wheeling Charges for distribution business for each year of the 4th Control Period with due weight being given to views / objections/ suggestions of stakeholders, as discussed in subsequent chapters of this order.

CHAPTER – II

OBJECTIONS, RESPONSES AND COMMISSION'S VIEWS

Consider waiver of Cross Subsidy Surcharge for Firm Renewable Energy (FRE) off take by OA Consumers.

36. M/s Greenco Energy Private Limited have stated that with the target of GoAP to achieve 18,000 MW of Variable Renewable Energy (VRE) capacity in the State by year 2022, it is important to also promote by incentives (at least with CSS waiver), Firm Renewable Energy (FRE) projects for OA customers. FRE would not just eliminate the involved 'hidden' grid balancing issues but also provide additional operational benefits to DISCOMs. FRE projects are Wind and/or Solar PV projects with co-located energy storage solutions that deliver firm and dispatchable power (as against infirm power) for either 24 hours a day (which is RTC power as defined in GoAP Hybrid Policy G.O.Ms.No.3 dated 3rd January, 2019) or for lesser than 24 hours per day. The Andhra Pradesh State has over 1.75 GW operational and 0.83 GW under implementation Captive Power Plants (CPPs) based on only Coal, Diesel and Gas. Given that Captive and OA users are also RPO obligated entities and must comply with the Long-term RPO trajectory issued by the MoP (21% by FY21; 10.5% by Solar & 10.5% by Wind), encouraging OA consumers meet their RPO obligations from FRE under Open Access (OA) (rather than from VRE) by way of CSS waiver offers following advantages:

a) Avoids the "hidden" power system cost (every kWh of VRE injection burdens the State power system with additional hidden cost of Rs.3.5/kWh as 'System Balancing Cost' that eventually gets reflected in DSM pool account of State),

b) FRE projects can offer commercially competitive power to Captive & OA users (over current alternatives), while also matching in the time and quantum of power the industry needs (even without using banking facility currently extended to Wind and Solar PV projects),

c) The Cross-Subsidy Surcharge (CSS) revenue per kWh paid by the OA customers of VRE is lesser than the hidden "Grid Balancing Cost" that

DISCOM bears with every kWh of VRE injection, and

d) FRE projects, as they have co-located Energy Storage solutions, can render additional grid ancillary and supportive functions to DISCOMs.

Consideration of CSS waiver to FRE generation off take by OA consumers will help the State with the benefits of a) promotion of FRE projects which will make Andhra Pradesh a more attractive destination for manufacturing of Energy Storage devices, b) Maintains long term grid balance/stability of APDISCOMs and APTRANSCO, c) Improves the health of State-owned Coal Power plants, for it reduces the need for them to operate in flexible and variable mode for grid balancing (which in turn, leads to reduction in wear & tear, reduced consumption of Equivalent Operation Hours), d) Strengthens the balance sheet of APDISCOMs & APTRANSCO by eliminating (hidden) balancing costs (which is more than the CSS revenue that they would have got from VRE generation sales transaction under OA) and e) Increases the adoption rate of Solar PV & Wind technologies in the State, which helps meeting the GoAP's VRE target of 18,000 MW by 2022 more sustainably both from the operational & financial perspective of the state power system.

The Commission is requested to consider granting complete waiver of CSS to OA consumers on the power consumed from FRE generating projects for the useful life of the project or 25 years, whichever is lower.

Smt. S. Jayasree, President, M/s Amrutha Swachanda Seva Society, Hyderabad has stated that while the power procurement plans of the DISCOMs address standard issues related to their business such as power procurement plan, loss trajectory and investment plan including procuring power from renewable energy technologies, they not at all have any provision for Firm Renewable Energy (FRE). With high share of infirm RE generation (14% in November, 2018) in the State of Andhra Pradesh, State power system can no longer ignore the impact, infirm VRE generation can have on DISCOMs' operations and financial health, essentially due to the additional grid balancing perspective. This has serious impact on the tariff for common customer as the grid balancing costs increase. Moreover, even with the large-scale adoption of infirm RE generation there is no reduction in emissions from Power generation in the State, as (for balancing the grid because of infirm RE generation) coal-based plants are often operated at varying loads increasing the coal-based emissions more than normal.

The Hybrid Policy issued by the GoAP vide G.O.Ms. No.3 dated 3rd January, 2019 is to achieve 5000 MW of capacity with minimum 40% CUF with an objective i) to reduce the variability of output power from wind solar hybrid plant; ii) providing higher energy output for a given capacity at delivery point, by installing additional capacity of wind and solar power in a wind solar hybrid plant and iii) ensuring availability of firm power.

She has further stated that continuous injection of only fluctuating Variable RE Generation in grid leads to (i) difficulty in balancing the demand-supply for SLDCs / RLDCs, (ii) Stranding thermal capacity with lower PLFs and (iii) frequent calls for ramp ups / downs by fossil fuel-based power plants. These events significantly induce inefficiencies that cause financial stress across both DISCOMs, generators, apart from resulting in higher carbon emissions.

'System Balancing Cost', currently a hidden cost, estimated by CEA (Central Electricity Authority) in December, 2017 to be Rs.1.10/kWh under a limited scope of study and up to Rs.3.5/kWh by Industry Experts, considering all total external costs. This cannot be ignored any more by DISCOMs (which are already financially stressed) in their drive to procure lowest cost Wind and/or Solar PV power at bus-bar and also in their pursuit to meet the RPO obligations. This is so because the additional drain of upto Rs.3.5/kWh of the 'System Balancing Cost' for VRE generation is saddling the State Power System, which incidentally is not directly reflecting in DISCOMs balance sheets. GoI has already recognized the critical need for promoting Storage and has already taken many transformational steps like a) Announcing the issuance of a NESM (National Energy Storage Mission) b) MNRE's Wind-Solar & Storage configuration in its Hybrid Policy notification in August, 2018.

Sri S. Venkateswarlu, Chief Functionary, M/s Neetha Swachanda Seva Society, Kurnool has stated that some of the inferences of the proposed power procurement from Non-conventional sources in the power procurement plans of APDISCOMs till FY2014 are that the share of renewables in the overall available energy is reaching around 25% by FY2024 from the level of 16.70% in FY2018.

Out of the 25% renewables, the intermittent renewables (Wind and Solar) almost constitute 97% share. Intermittent renewables are unreliable sources of power due to a) difficulty in balancing the demand b) Stranding thermal capacity with lower PLFs, c) Frequent calls for ramp-ups/downs by fossil fuel based power plants, an inefficient way to operate them, leading to net off the reduced emissions and d) these events significantly induce in-efficiencies that cause financial stress across both DISCOMs and generators, apart from resulting in higher carbon emissions.

Smt. S. Jayasree, M/s Amrutha Swachanda Seva Society and Sri S. Venkateswarlu, M/s Neetha Swachanda Seva Society have further stated that GoAP has issued a very comprehensive and progressive Hybrid Policy (G.O.Ms. No. 3 dated 3rd January, 2019) to achieve 5,000 MW of capacity with minimum 40% CUF with an objective (i) to reduce the variability of output power from wind solar hybrid plant, (ii) providing higher energy output for a given capacity at delivery point by installing additional capacity of wind and solar power in a wind solar hybrid plant, and (iii) ensuring availability of firm power Round the Clock (RTC) or for a particular period. The policy, *inter alia*, provides incentive of 50% CSS for projects within the State for the new hybrid projects, and gives priority to RTC projects. With the target to achieve 18000 MW of VRE capacity in the State by 2022, it is important also promote Firm Renewable Energy (FRE) by incentives (at least with CSS waiver). Allowing OA/Industrial consumers to meet their RPO Obligations via Open Access allows the utilities to focus better on their core functionalities, while outsourcing ownership of efficient RE Project operations to IPPs. While the Captive and OA consumers can currently meet their RPO obligations via either (a) purchase of RECs or (b) setting up stand-alone Wind or Solar PV projects (which inject infirm VRE generation) in the State, every kWh of VRE injection burdens the State power system with additional hidden cost of Rs.3.5/kWh as 'System Balancing Cost' that eventually gets reflected in DSM pool account of State (which is far more than the CSS revenue that the DISCOMs get) and REC purchases do not necessarily lead to reducing emissions in the State (while it does so nationally). FRE projects can offer commercially competitive power to Captive & OA users (over current alternatives), while also matching the time and quantum of power the industry needs (even without using banking facility currently extended to Wind and Solar PV projects).

APDISCOMs and APERC are requested to provide CSS waiver to FRE generation offtake by OA consumer to be applicable for the life of the FRE project or 25 years, whichever is less. Such a consideration will help the State with the benefits of a) Promotion of FRE projects making the State more attractive destination for manufacturing of Energy Storage devices, b) Access of cheaper power to Industries which in turn would allow industries in the State to be more competitive and thus supporting both "Make in Andhra Pradesh" & encourages greatly local employment in the State and c) Reduces Emissions in the State.

DISCOMs' Response: Licensees are obligated to consider concessions envisaged in Solar and Wind Policies of GoAP and to follow relevant regulations from time to time. Proposals on Cross Subsidy Surcharge (CSS) for FY2019-20 are filed before the APERC in accordance with the National Tariff Policy (NTP) issued by the Ministry of Power, Govt. of India limiting to 20% of average revenue realization. Any waiver will affect the finances of Licensee. GoAP support is required to Licensees in the event of any waiver/concessions.

Commission's view: Section 39 (2) (d) and Section 42 (2) of the Electricity Act 2003 provide for non-discriminatory open access to the transmission system of the State Transmission utility for use by any consumer as and when such open access is provided by the State Commission under Section 42 (2), which shall be on payment of the transmission charges and a surcharge thereof in addition to the charges for wheeling as may be determined by the State Commission. Both the provisions thus make it clear that such open access shall be allowed on payment of the surcharge in addition to the other charges, which surcharge shall be utilized for meeting the requirements of the current level of cross subsidy within the area of supply of the distribution licensee. Though the 3rd proviso to Section 42 (2) directs that such surcharge and cross subsidy surcharge shall be progressively reduced in the manner as may be specified by the State Commission and the 4th proviso to Section 42 (2) exempts captive generation plants from such surcharge over open access for carrying the electricity to the destination of his own use, the imposition and payment of such a surcharge under these two provisions appears to be mandatory from the use of the word 'shall'. That apart the National Electricity Policy which laid down the manner of levy of cross subsidy surcharge and additional surcharge was referred to in the National Tariff Policy, 2016, which at para 8.5.1 specified the surcharge formula and further stated about collection of such surcharge by the distribution licensee or the transmission licensee, as the case may be in para 8.5.3. Section 3 of the Electricity Act, 2003 enables the preparation of the National Electricity Policy and Tariff Policy and Section 86 (4) thereof directs the State Commission to be guided by the National Electricity Policy, National Electricity Plan and Tariff Policy published under Section 3. APERC (Terms and Conditions of Open Access) Regulation 2 of 2005 in clause 17.1 (iii) also makes open access users in the transmission and/or distribution system liable to pay to the distribution licensee the cross-subsidy surcharge as determined by the Commission from time to time under Section 42 (2) from which captive generation plants for own use are exempted. The Regulation also exempts third party sales by the solar power projects for 5 years from the date of commissioning with reference to G.O.Ms.No.8 dated 12.02.2015. These exemptions apart, imposition of cross subsidy surcharge in situations covered by the above referred to provisions is the statutory obligation of the Commission and the request for either not imposing such cross-subsidy surcharge or waiving the same in full or part by the Commission does not appear legally feasible. This is in addition to the financial difficulties on which the DISCOMs are relying on. Though G.O.Ms.No.3 Energy, Infrastructure & Investment (PR. II) Department, dated 03.01.2019 stated in para 9 (e) that 50% of the cross-subsidy surcharge shall be paid for third party sale provided the source of power is from Wind-Solar Hybrid Power Projects set up within the State, incorporation of the same in Regulation 2 of 2005, is yet to be considered. However, the Commission will faithfully comply with the statutory duty imposed by the 3rd proviso to Section 42(2) to progressively reduce such surcharge and Cross subsidies in the manner specified by it.

Proposed distribution cost is high

37. Sri M. Thimma Reddy, Convenor, People's Monitoring Group on Electricity Regulation, Hyderabad has stated that the claim of Rs.3932 Cr. towards distribution cost during the FY2019-20 by APSPDCL is 34.67% higher than that was reported to be incurred during the previous financial year. The energy requirement during the same period is expected to increase by 12.28%. When the fact that the energy requirement for FY2019-20 is over estimated is taken into account, it becomes clear that the proposed increase in distribution costs of APSPDCL is several times higher than the expected increase in power supply.

Similarly, APEPDCL claimed Rs.1,981 Cr. towards distribution cost during the FY2019-20. This is 11.78% higher than that was reported to be incurred during the previous financial year. During the same period energy requirement is expected to increase by 17.56%.

APSPDCL Response: The distribution cost projected to be incurred during FY2018-19 considering the actuals of H1 FY2018-19, is Rs.3485 Cr. The distribution cost filed for FY2019-20 is Rs.3932 Cr. which is 12.8% excess over that of FY2018-19 and not 34.67% as contended by the objector.

APEPDCL Response: Distribution cost cannot be inter-linked to growth in energy requirement. Distribution cost is incurred towards operating and maintaining the distribution network which is used by consumers of the distribution licensee as well as the captive and open access consumers.

Commission's view: A pragmatic reassessment of the estimated distribution cost of both the DISCOMs has been made keeping in view the perceptions of the learned objector and the needs of the DISCOMs.

Distribution expenditure needs to be closely scrutinized

38. Sri M. Thimma Reddy, Convenor, People's Monitoring Group on Electricity Regulation, Hyderabad has stated that as per the filings of APSPDCL for the 4th Control Period, while peak demand will be increasing by 38.59 percent, net ARR will be increasing by 114.11 percent, depreciation will be increasing by 126.03 percent and return on capital employed (RoCE) will be increased by 211.02 percent. This shows that increase in capital expenditure in distribution

infrastructure will be several times higher than the increase in peak power demand. This higher increase in distribution expenditure needs to be closely scrutinized and prudence of these investments needs to be checked.

In the case of APEPDCL, while peak demand for power will be increasing by 36.47 percent, net ARR will be increasing by 102.73 percent, depreciation will be increasing by 100.50 percent and Return on Capital Employed (RoCE) will be increasing by 221.89 percent which shows increase of capital cost several times higher than the increase in power demand. This higher increase in distribution expenditure needs to be closely scrutinized and prudence of these investments needs to be checked.

APSPDCL Response: The capital expenditure involves not only expenditure towards augmenting the existing network in order to meet the peak demand but also involves schemes for network strengthening, loss reduction, improvement of quality and reliability such as technology up gradation, providing power supply to BPL consumers through DDUGJY scheme, strengthening of urban infrastructure through IPDS schemes, HVDS scheme, procurement of smart meters, laying of UG cables, SCADA etc. Also, the effect of escalation of cost through wholesale price inflation needs to be taken into account while determining the capex. Hence, the depreciation and RoCE have increased in line with the enhanced capex.

APEPDCL Response: The increase in Net ARR is due to the impact of wage revision w.e.f. 01.04.2018 and proposed capex for schemes envisaged for meeting upcoming loads and expected industrial growth to be witnessed along the Vizag - Chennai Industrial Corridor. However, subsequently due to procurement of power from distributed solar and BLDC pump sets there are some changes to the schemes envisaged for investment. Also, in order to reduce the burden of Distribution Cost on the Consumers of Distribution Licensee and other OA consumers, the investment was deferred for some of the schemes and Capex was also phased to the subsequent years.

Commission's view: A delicate balancing act has been performed by the Commission in reasonably restricting the distribution cost observing all possible financial prudence while not sacrificing the minimum requirements to provide for strengthening and improving the infrastructure, progressive increase in O&M expenditure and the reasonably expected demand growth.

Fix benchmarks considering current performance

39. a) Sri M. Venugopala Rao, Senior Journalist & Convener, Centre for Power Studies, Hyderabad has stated that the submission of the DISCOMs in requesting the Commission to exercise suitable caution and recognise the current level of their performance before fixing up performance benchmarks is justifiable. As the DISCOMs have contended, loss reduction cannot be expected to carry forward the same trend in the 4th Control Period, with the same loss reduction as the initial state of their performance. Similarly, they have contended that, recognizing the different socio-economic and geographical conditions of the two DISCOMs, there should be sufficient flexibility in deriving different levels of norms.

DISCOM's Response: The observations of the Objector are appreciated and the Commission is prayed to approve the Loss reduction target as filed, since the targets are proposed based on reasonable estimates that depend on present ground realities.

Realistic targets to be set for distribution losses

b) Sri M. Venugopala Rao, Senior Journalist & Convener, Centre for Power Studies, Hyderabad has stated that there has been gradual progress in reducing distribution losses over the years, and the DISCOMs have proposed further reduction of losses. However, estimation of agricultural consumption continues to be problematic and controversial for various reasons. Even now, it can be asserted that some percentage of theft and pilferage is being shown as agricultural consumption. To the extent solar pump sets are being introduced for agriculture and old agricultural pump sets are being replaced with more efficient pump sets, there should be commensurate reduction in distribution losses. Similarly, distribution of decentralized solar power to agriculture also should result in reduction of distribution losses. To the extent solar rooftop consumption, various energy conservation measures etc. are taking place, distribution losses also should come down. Considering such factors, the

Commission is requested to make a realistic assessment while fixing targets for reduction of distribution losses for the 4th Control Period.

DISCOM's Response: All the above measures and initiatives are considered and examined while projecting the Loss reduction trajectory.

Commission's view: As suggested by the learned objector, a realistic assessment has been made of the losses and the targets.

Permit O&M Expenditure as per norms

40. Sri M. Venugopala Rao, Senior Journalist & Convener, Centre for Power Studies, Hyderabad has stated that compared to the projected total employee cost, the increase due to pay revision for outsourced employees is absolutely marginal. Compared to the requirements of the number of consumers, DTRs, length of lines and sub-stations, the number of employees required and their cost also should be commensurate. However, over the years, no such balance is being maintained. Past trends for the first three Control Periods and the projected trend of increase in O&M costs show that the percentage of employee cost in overall O&M cost has been increasing abnormally, that too, unrelated to the increase in the number of consumers, DTRs, sub-stations and length of lines. Simplistic apportionment of total projected O&M costs in the ratio of 49%:21%:10%:20% as expenses for sub-stations, line length, DTR and consumers, respectively does not provide any justifiable base for the total O&M costs on the basis of applicable O&M norms. The abnormal increase of employee cost, both in absolute terms and as a percentage of O&M cost confirm that periodical pay revisions are not prudent. The Commission has been allowing the financial impact of periodical wage revision for the employees of DISCOMs and other power utilities of the State Government though the rates of revision tended to be higher, irrespective of permissible norms of O&M expenses. If the authorities concerned display unwarranted benevolence at the cost of consumers of power in fixing wage revision even exceeding the demands made by the employees, as had happened in the past, it reflects an unhealthy tendency of monopoly in decision-making by the authorities concerned. The consequences of such unwarranted decisions would form the basis for fresh demands for future wage revisions. But for this kind of unquestioning approval

for passing on the expenditure on wage revision to the consumers without any prudence check, no organization can compete in the market and will become bankrupt, if such tendencies continue to operate periodically. The Commission is requested to determine and permit O&M expenditure including employee cost, as per applicable norms**.**

DISCOM's Response: Employees wage revision has been taken up as per the provisions of the Tripartite Agreement between the Utilities, Employee Associations & Unions and the State Govt. DISCOMs are striving to contain the O&M Costs which are being determined as per the norms within the limits specified by the Commission in the respective MYT Tariff Orders.

Commission's view: While the pitfalls pointed out by the learned objector do exist, pay / wage revision in consequence of tripartite agreement at periodical intervals and the scale and impact of such pay / wage revision are not matters within the purview or control of the Commission or for that matter, the utilities or the Government. However, implementation of such pay/wage revision being inevitable, ignoring or restricting the same in assessing the O&M expenditure will be closing our eyes to the reality and leaving the utilities in lurch in finding the ways and means to meet such expenditure. However, it may be noted that the escalation factors taken into account by the Commission are those stated above by the learned objector but not any pay / wage revision, which is expected to be absorbed by the escalation given by the Commission on the other above specified escalation factors. While progressive escalation of all costs is an inevitable truth, no better or alternative method for assessing the same could be found by the Commission than the time-tested method.

Consider the lowest depreciation rates

41. Sri M. Venugopala Rao, Senior Journalist & Convener, Centre for Power Studies, Hyderabad has stated that DISCOMs have submitted that the depreciation norms as per Ministry of Power guidelines have been assumed. They cannot calculate depreciation as they like contrary to the methodology or norms decided or permitted by the Commission. The Commission made it repeatedly clear on earlier occasions in its MYT tariff orders that depreciation has to be calculated on the basis of CERC rates only. Higher rates of

depreciation lead to frontloading of the tariff. Permitting recovery of depreciation charges over the useful lifespan of the assets would ensure a fair recovery of the same by the DISCOMs, though over a longer period of time. The Commission is requested to allow least possible depreciation rates or at least the lowest depreciation rates as per the norms of CERC or MoP, whichever is lower.

DISCOM'S Response: DISCOMs are proposing the depreciation norms as per the MoP rates. As contested by the objector, the DISCOMs did not calculate depreciation as they like, contrary to the methodology or norms decided or permitted by the Commission. As per the existing practice, the proceeds accrue on the head of depreciation account are used to repay the Loans. Whatever methodology the Commission going to specify, the DISCOM requests that the Annual depreciation amount be commensurate, at least, with the annual loan repayment obligation. Otherwise, a huge financial mismatch may arise and it may affect the debt service obligation of the DISCOMs and consequently credit rating. As per the provisions of the existing regulation, there is no scope for advance against depreciation to mark-up the uncovered portion of the debt servicing. In view of the above, APERC is requested to specify the methodology & rates of depreciation to cover the debt service obligation to the fullest extent

Commission's view: The rates of depreciation adopted by the Commission are those followed by the Central Electricity Regulatory Commission which are lower than those suggested by the Ministry of Power, Government of India, in compliance with Clause 17.3 of APERC Regulation 4 of 2005.

Transparency and Prudence in Capital Expenditure

42. Sri M. Venugopala Rao, Senior Journalist & Convener, Centre for Power Studies, Hyderabad has stated that as per the A.P. State Reorganisation Act, Government of India is providing/will have to provide special funds for development of the Amaravati capital region of A.P. Such development includes development of infrastructure also, including infrastructure for power sector. Therefore, any expenditure incurred for creating and augmenting distribution (and transmission) capacities for the new capital region of Amaravati should be adjusted from the funds being provided by the GoI and should not be allowed

to be included in the proposed capital expenditure of the DISCOMs for the 4th Control Period. Similarly, it is a standard practice that DISCOMs (and Transco) are collecting expenditure for creating or augmenting distribution and transmission capacities required for industrial corridors, real estate structures, etc. from the entities developing the same. Such expenditure should not be permitted to be included in the proposed capital expenditure of the DISCOMs.

The increase in the proposed capital expenditure during the 4th Control Period also brings to the fore the issue of prudence in expenditure. It needs to be examined thoroughly and ensured that the DISCOMs follow real competitive bidding for procurement of material and allotment of work. How the DISCOMs are showing estimates of capital expenditure for the proposed schemes and works to get the consent of the Commission and later revising the same capital expenditures substantially and the details and prices of the materials and competitive rates for the works allotted in comparison with market trends, are to be made public by the Commission. The Commission is requested to see that the DISCOMs follow the earlier directives to ensure transparency and prudence in their capital expenditure to safeguard larger consumer interest.

APSPDCL Response: The DISCOM has been incurring expenditure for strengthening of networks based on over loads and estimated upcoming loads in the jurisdiction of APSPDCL. The DISCOM has not provided any special allotment of Capital expenditure to Amaravathi Capital Region area in its MYT filings.

APEPDCL Response: APEPDCL has been following the Purchase manual and all standardised, approved procedure & competitive bidding guidelines for procurement of materials and allotment of works.

Commission's view: Receipt of any special or regular funds from the Government of India towards capital expenditure in Amaravati State capital region by the utilities under the Andhra Pradesh Reorganisation Act or otherwise or any expected receipt of such funds is not indicated by the DISCOMs. As such the estimated capital expenditure is arrived at on the basis of the regular ways and means, the projected needs and the accepted rules of financial prudence.

Underutilisation of existing capacities needs to be examined

43. Sri M. Venugopala Rao, Senior Journalist & Convener, Centre for Power Studies, Hyderabad has stated that due to inadequate supply of fuels like natural gas and coal, lesser rainfall and inadequate inflows into reservoirs and resultant shortfall in generation of hydel power etc., existing generation capacities could not be utilised as per the estimates made by the DISCOMs and AP Transco and permitted in the MYT orders of the Commission during the 3rd Control Period. Similar position may continue for the 4th Control Period also. The four gas-based projects of GVK extension (220 MW), Vemagiri (370 MW), Gautami (464 MW) and Konaseema (444.08 MW) continue to be stranded due to failure of the GoI to ensure supply of natural gas as per allocations. In other words, the distribution capacities already created for supplying power to be generated by these projects remain idle. PPAs with Spectrum (208.31 MW) and Lanco Kondapalli (355 MW) also expired and the transmission capacity created for them also remains idle. The installed capacity of LVS project (36.8 MW) will continue to be idle. Projected addition of NCE units during the 4th Control Period is unwarranted and cannot be taken for granted. Moreover, in view of the DISCOMs entering into long-term PPAs with NCE units especially solar and wind power units, leading to abnormal increase in availability of surplus power and need for backing down other thermal stations especially of AP Genco, in order to purchase must-run NCE, distribution capacities created for evacuating power from the plants being backed down remain unutilised to that extent. Therefore, while assessing the need for distribution capacity to supply the projected availability of power for the next financial year and the remaining period of the 4th Control Period, underutilisation of existing capacities, both in generation and distribution, need to be taken into consideration. Addition of new distribution capacities on the basis of projected additions of generation capacities, will lead to creation of idle distribution capacity, if installed capacities are not added or not utilized as projected. If adequate distribution capacity is not added and if new installed capacity is added as projected, DISCOMs will be found wanting in meeting requirements of distribution capacities to evacuate power to be generated by new generating units. Therefore, a careful and realistic examination of the

possibilities and requirements for addition of new generation capacities and distribution capacities is required to maintain prudent balance between generation capacities and requirement of distribution capacities. When the distribution capacity created by the DISCOMs remain unutilized, for the reasons explained above, among others, the DISCOMs can utilize such unutilized distribution capacity for supplying power from new projects with whom they had PPAs and got consents of the Commission, without additional capital and O&M expenditures to that extent. The Commission is requested to take necessary steps in this regard and give directions accordingly in the MYT order to be issued by it.

DISCOM's Response: The DISCOMs have been strengthening distribution networks based on over loads & upcoming loads only for optimum utilization.

Commission's view: Distribution capacity is created and distribution network is strengthened / expanded with reference to the load forecasts from time to time but not with reference to increase or decrease in generation capacity. However, still the aspects brought to notice by the learned objector are kept in view.

Proposals should be subjected to test w.r.t. load forecasts and resource plans

44. Sri M. Venugopala Rao, Senior Journalist & Convener, Centre for Power Studies, Hyderabad has requested the Commission not to give its consent for addition of distribution capacity and capital expenditure related thereto as proposed by the DISCOMs for the generation capacities or State peak demand proposed by them without the latter establishing the need for procuring power from proposed projects without entering into PPAs with them and submitting the same for consideration of the Commission well in time. All these proposals should be subjected to test on the anvil of realistic long-term load forecast and resource plan to be determined by the Commission after completing public hearings on the same.

DISCOMs' Response: In the purview of APERC.

Commission's view: The Commission has taken every care to synchronize the estimates, projections and plans in the load forecasts and resource plans etc., with the Multi Year Tariff orders for the 4th Control Period to ensure consistency, observe financial prudence and optimum utilization of available resources.

Review implementation of MYT Orders periodically and revise tariffs annually

45. Sri M. Venugopala Rao, Senior Journalist & Convener, Centre for Power Studies, Hyderabad has stated that Para 8.1 of National Tariff Policy says that implementation of Multi Year Tariff (MYT) framework "would minimize risks for utilities and consumers, promote efficiency and appropriate reduction of system losses and attract investments and would also bring greater predictability to consumer tariffs on the whole by restricting tariff adjustments to known indicators on power purchase prices and inflation indices. The framework should be applied for both public and private utilities." Experience has confirmed in the case of AP Transco, as also in the case of DISCOMs, that the claimed objectives of MYT framework are belied. The problems with the system of MYT and the need for dispensing with it was already explained earlier which the Commission has forwarded to nine authorities in GoAP and its Power and related entities and there was no further action. The Commission is requested to review implementation of MYT orders by the DISCOMs annually by holding public hearings and take further necessary action periodically, including revision of tariffs annually, if necessary.

DISCOM's Response: Under the purview of the Honourable Commission

Commission's view: Shifting from Multi Year Tariff regime to annual tariff regime is a larger issue on which the Commission went slow due to practically CERC and all other SERCs following only the MYT regime, the National Tariff Policy etc., being formulated with reference to MYT regime, the desirability and workability of annual tariff regime in Andhra Pradesh alone etc., which require a deeper study and research, apart from the statutory mandate of Section 61(f) of the Electricity Act, 2003 that the Commission shall be guided by Multi Year Tariff principles in specifying in terms and conditions for the determination of tariff which leaves no discretion to the Commission to resort to annual tariff regime. However, periodic reviews during the control period and at the end of the control period are permitted by clauses 21 and 22 of APERC Regulation 4 of 2005 to ensure smooth implementation of the MYT framework and address any practical issues, concerns and unexpected outcomes etc.

Revision of Multi – Year Tariff Regulation

46. Sri N. Sreekumar, Member Prayas Energy Group, Hyderabad has stated that the multi-year tariff process provides certainty to the wires cost incurred by the DISCOM. However, as part of the process, while estimating future costs, there seems to be no process to evaluate the performance of the previous period. Further, many of the norms and efficiency trajectories were suggested during the previous control period. Given the emerging trends and changes in the sector, it is suggested that many of the norms and the principle for estimation of costs be reevaluated and revised. Such a process would help estimate costs more efficiently and would also reduce the risk of build-up of liabilities in the future. Therefore, Commission is suggested to determine the Distribution costs for 4th Control Period on revised MYT regulations only and interim costs only be approved for FY2019-20.

Commission's view: The considerations that govern the determination of the questions involved in finalizing the MYT order can only be those that are specified in Regulation 4 of 2005 as of now read with the relevant statutory provisions, rules and regulations. The suggested changes should form part of the regulatory framework if they have to be considered and incorporated in making the MYT order. As and when such regulatory changes take place, periodic reviews under clause 21 of regulation 4 of 2005 can be under taken to achieve the objectives suggested by the learned objector.

CHAPTER - III

INVESTMENTS

47. In this chapter, the Commission has examined the investments proposed by the licensees in their ARR & FPT filings for 4th Control Period. The Commission, while examining their investment proposals for the 4th control period, has reckoned/considered all the views/objections/suggestions expressed by the stakeholders in writing and during public hearings, which have been elaborated in Chapter-II, to the extent they are relevant to the subject matter.

48. The licensees have stated that they have filed investment plans for the 4th Control Period which are the same as filed in resource plan already submitted to the Commission. The licensees have also submitted Business Plan along with ARR & FPT proposals for 4th control period same as in the resource plan. The total investments (including ongoing Schemes) proposed for the 4th control period are Rs.13937 Cr. in respect of APSPDCL and Rs.6212 Cr. in respect of APEPDCL.

49. The details of investments as per their ARR & FPT filings for the 4th control period is as hereunder:

Table No: 3.1
Filings: Investments - APSPDCL (Rs. Cr.)

S. No.	Item	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
1	Ongoing Schemes	750	339	228	-	-	1,317
2	Substations (New & Augmentation)	348	371	439	515	611	2,284
3	Metering & Associated equipment	160	250	290	296	220	1,216
4	DTR Additions	512	542	640	752	888	3,334
5	Lines, Cables & Network	570	623	746	888	1,064	3,891
6	Technology Upgradation and R&M	298	310	370	380	390	1,748
7	Civil works and Others	25	27	29	31	33	145
	Total (Rs. Cr.)	**2,664**	**2,462**	**2,743**	**2,862**	**3,206**	**13,937**

Table No: 3.2

Filings – Investments - APEPDCL (Rs. Cr.)

S. No.	Item	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
1	Ongoing Schemes	471	41	0.75	0.75	0.75	514
2	Substations (New & Augmentation)	226	283	332	390	446	1,677
3	Metering & Associated equipment	65	80	95	110	125	475
4	Distribution Transformer Additions	239	173	200	236	269	1,117
5	Lines, Cables & Network	249	275	319	375	431	1,649
6	Technology Upgradation and R&M	88	101	114	127	140	570
7	Civil works and Others	34	38	42	46	50	210
Total (Rs. Cr.)		**1,372**	**991**	**1,103**	**1,285**	**1,462**	**6,213**

50. The following methodology has been adopted by the licensees to arrive at the network elements for next 5 years in the control period and accordingly investments.

(i) Forecasting circle wise total Power Transformer (PTR) capacities and No. of PTRs:

- The company and circle wise non co-incident peak demands are arrived based on the year wise estimated energy requirement with projected loss trajectory on sales for the 4th control period and non- coincident load factors of the FY2017-18.

  Peak Demand (MW) = Energy Required/ (24*365/1000)/Load Factor.

- The non co-incident peak demands observed during the FY2017-18 have been used to calculate the diversity factor of PTRs in all circles as per the formula given below:

  PTR diversity factor = Total PTR Capacity/Non co-incident peak demand

- The PTR diversity factor calculated as above, has been adopted for each year of the control period.
- Based on the PTR diversity factor and non-coincident demands, the circle wise cumulative PTR capacities were arrived.
- The PTR capacity so arrived is divided by 5MVA (assumed for 33/11kV SS) to arrive no. of PTRs.

(ii) Forecasting circle wise total Distribution Transformer (DTR) capacities and No. of DTRs:

- Using the following formula, DTR to PTR ratios for each year of the control period has been arrived by taking FY2017-18 as a base.

  DTR to PTR capacity ratio for year t = (DTR to PTR capacity ratio for year t-1) * (LT/(LT+11kV) sales ratio for year t)/(LT/(LT+11kV) sales ratio for year t-1)
- Using the following formula, circle wise cumulative DTRs capacity were arrived.

  DTR capacity = DTR to PTR capacity ratio * forecasted PTR Capacity
- The DTR capacity so arrived is divided by 100 kVA (assumed DTR capacity) to arrive no. of DTRs.

(iii) Line Lengths estimation:

- The line length norms (a) LT km per 100 KVA DTR, (b)11 kV km per 100 kVA DTR and (c) 33kV km per 5MVA PTR have been arrived at based on the actual data of FY2017-18.
- The line length required at different voltage levels i.e. 33 kV, 11 kV and LT line have been estimated based on the assumption of maintaining High Tension (HT): Low Tension (LT) ratio of 1 [average of (a) LT km per 100 KVA DTR, (b)11 kV km per 100 kVA DTR] during the 4th control period for 11 kV and LT lines whereas current standards have been assumed to be continued for 33kV lines.

51. Based on the methodology described above, the total system capacity estimated is given in the tables below and the circle wise system capacities estimated by the licensees are shown in Annexures - C1 to C4:

Table No: 3.3

Filings: No. of PTRs & DTRs required - APSPDCL

Component	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
5 MVA 33/11 kV SS	241	245	276	308	347	1,663
100 kVA DTRs	18,630	18,780	21,110	23,610	26,550	127,760

Table No: 3.4

Filings: No. of PTRs & DTRs required - APEPDCL

Component	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
5 MVA 33/11 kV SS	178	123	135	152	165	753
100 kVA DTRs	6510	7810	8670	9780	10650	43420

Table No: 3.5

Filings: Line Lengths (km) - APSPDCL

Component	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
33 kV	1865	1891	2155	2423	2757	11091
11 kV	6829	7048	7972	8975	10163	40987
LT	6815	7032	7954	8955	10140	40896

Table No: 3.6

Filings: Line Lengths (km) - APEPDCL

Component	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
33 kV	1291	927	1018	1145	1244	5625
11 kV	2342	2741	3041	3402	3723	15249
LT	2342	2741	3041	3402	3723	15249

52. Further, in addition to the system capacity estimated, APSPDCL has proposed the following investments towards:

(a) Providing smart meters to the consumers whose consumption is more than 100 units - Rs. 2106 Cr. over a period of 10 years;
(b) Installation of smart meters for Agricultural DTRs - Rs.346 Cr. over a period of 5 years;
(c) Providing SCADA at newly erected substations in Vijayawada, Guntur & Nellore cities - Rs.318 Cr.;
(d) Providing SCADA at District headquarters - Rs.800 Cr.;
(e) Providing underground cable in the cities of Tirupati, Vijayawada & Guntur & capacity to meet unexpected load growth - Rs.1500 Cr.;
(f) Civil infrastructure development – Rs. 145 Cr.

53. Where as, APEPDCL, in addition to the system capacity estimated, has proposed the following investments towards:

(a) Metering & Associated equipment- Rs.475 Cr.;
(b) Technology Upgradation and R&M- Rs.570 Cr.;
(c) Civil works and others – Rs.210 Cr.

54. The following costs norms are considered by the licensees for investment estimations:

Table No: 3.7
Filings: Cost data for FY2017-18 - APSPDCL

Cost Item	**Value**	**Units**
LT Line	2.85	Rs. Lakhs/Km
DTR per Unit (100 kVA)	2.50	Rs. Lakhs/Unit
11 kV Line	3.08	Rs. Lakhs/Km
33/11kV SS per Unit (5 MVA)	130.91	Rs. Lakhs/Unit
33 kV Line	4.62	Rs. Lakhs/Km

Table No: 3.8
Filings: Cost data for FY2017-18 - APEPDCL

Cost Item	Value	Units
LT Line	3.49	Rs. Lakhs/km
DTR per Unit (100 kVA)	2.60	Rs. Lakhs/Unit
11 kV Line	3.61	Rs. Lakhs/km
33/11kV SS per Unit (5 MVA)	121.79	Rs. Lakhs/Unit
33 kV Line	4.59	Rs. Lakhs/km

55. The escalation factor of 5.16% is considered by the licensees for arriving the cost data norms for base year FY2018-19 and each year of the 4th control period. The escalation factor was calculated considering variation in WPI and CPI at a weightage of 60%:40% respectively.

56. It is also assumed that each sub-station capacity is 5MVA and each DTR capacity is 100 kVA.

Commission's Decision

57. The Commission while finalizing the investments for the 4th Control Period, has kept in view the following:

(i) As per the Section 42 of the Electricity Act, 2003 read with clause 22 of Regulation 10 of 2013, it shall be the duty of the Distribution Licensee to develop and maintain an efficient, coordinated and economical distribution system in his area of supply and to supply electricity in accordance with the provisions contained in the Act.

(ii) The Commission is guided by the Section 61 (c) of the Electricity Act, 2003, the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments while determining the tariff.

(iii) Paragraphs 18 and 19 of Distribution and Retail Supply License stipulates, subject to the availability of adequate generating and transmission capacity, the system is capable of providing consumers within its area of supply with an adequate, safe and economical supply of electricity, having regard to quality, continuity and reliability of service.

(iv) The resource plan and business plan submitted by the licensees in accordance with the Regulation 10 of 2013 for the 4th control period and an indicative over all investment plan for the 5th control period as per the guidelines for load forecasts, resource plans, and power procurement issued by the Commission in December, 2006.

(v) Historic investments made by the licensees after bifurcation of State.

58. The Commission after examining the investments with reference to the above points and methodology for arriving system capacity and computations of the investment, adopted the same methodology has adopted by the licensees with following changes to arrive at system capacity and investments:

(i) The diversity factors are considered uniformly at 2.0 for each year of the control period for all circles;

(ii) The cost data norms as provided by APSPDCL are considered for both the licensees.

59. With respect to the additional investments, the Commission has made the following changes:

APSPDCL:

(i) Smart Meters:

- As per the National Tariff policy, 2016, all the consumers shall be provided with smart meters whose consumption is more than 200 units. Accordingly, the Commission has limited the investments towards providing smart meters for Domestic consumers.
- Cost of the smart meter is taken as Rs. 2500 per single phase meter as per the data given in the ARR filings for Retail Supply Business for FY2018-19 as against Rs.5000 considered by the licensee.
- With respect to installation of smart meters for 4,33,000 nos. agricultural DTRs, the Commission had issued following direction in the Retail Supply Tariff Order for FY2018-19.

  "*The Commission directs both licensees to take up pilot projects for one selected Division each in their respective jurisdictions for progressively providing 100 percent smart meters to all AGL DTRs as per the National Tariff Policy at least within the next two years.*

In this regard, comprehensive proposals shall be submitted for approval to the Commission within a period of two months from the date of this order, covering cost details for installation of meters, remote meter reading and making available the DTR wise consumption details on the licensees' websites, as a single project for a continuous duration of 5 years."

The Commission is yet to receive compliance reports from the licensees on the above direction and hence, the investments proposed by the licensees under this head are not considered in this order. However, after submission of such compliance reports, the licensees are at liberty to approach the Commission with detailed action plan and accordingly the Commission will take appropriate action based on the results achieved in the pilot projects following a prescribed procedure.

(ii) SCADA and Underground cables:

The licensee has not submitted any Detailed Project Report (DPR) or any concrete proposals / estimates / time lines for laying underground cables and installation of SCADA. Hence, the investment is not considered at present. However, the licensee is at liberty to approach the Commission with detailed project report and necessity of taking up these works. After receipt of any such proposal from the licensee, the Commission will examine it and take appropriate action following the prescribed procedure. Any financial impact of which will be considered in the true-up for the 4th control period. In this regard the licensees are directed to strictly comply with clause 16.2 of Regulation 4 of 2005.

(iii) Investments towards unexpected load growth

The licensee has shown Rs. 600 Cr. for 4th control period towards its contribution with respect to schemes to be announced by GoI/Infrastructure requirement due to unexpected load growth in Aqua / Industries. The same has not been considered by the Commission as it is an unsubstantiated expectation as of now and can be provided for as and when needed in exercise of powers of reconsideration and review under clauses 16, 21 and 24 of Regulation 4 of 2005, if approached by the DISCOMs.

(iv) Civil Infrastructure Development:

The Commission has considered at 50% of the proposals to take care the needs of development of civil infrastructure as the licensee has not furnished any specific details or plans.

APEPDCL:

(i) Metering and associated equipment:

The licensee has not given any details under this head. Hence, the Commission has considered investments towards installation of smart meters as per National Tariff policy, 2016 in line with approval for APSPDCL.

(ii) Technology Upgradation and Civil Infrastructure Development:

The Commission has considered at 50% of the proposals to take care the needs of technological upgradation and development of infrastructure as the licensee has not indicated any specific details or plans.

60. With the changes as mentioned above, the Commission has estimated, the circle wise network capacity for the 4th control period and details are given in the **Annexures-D1 to D4.**

The Company wise network elements estimated by the licensees and estimated by the Commission are given in the tables below:

Table No: 3.9

Filed & Approved: No. of PTRs & DTRs required - APSPDCL

Component	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
Filed						
5 MVA 33/11 kV SS	241	245	276	308	347	1,663
100 kVA DTRs	18,630	18,780	21,110	23,610	26,550	127,760
Approved						
5 MVA 33/11 kV SS	192	216	243	271	303	1225
100 kVA DTRs	14,666	16,593	18,186	21,621	23,220	94285

Table No: 3.10

Filed & Approved: No. of PTRs & DTRs required - APEPDCL

Component	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
Filed						
5 MVA 33/11 kV SS	178	123	135	152	165	753
100 kVA DTRs	6510	7810	8670	9780	10650	43420
Approved						
5 MVA 33/11 kV SS	143	99	110	122	133	607
100 kVA DTRs	5,213	6,600	6,997	7,927	8,710	35448

Table No: 3.11

Filed & Approved: Line Lengths (km) - APSPDCL

Component	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
Filed						
33 kV	1865	1891	2155	2423	2757	11091
11 kV	6829	7048	7972	8975	10163	40987
LT	6815	7032	7954	8955	10140	40896
Approved						
33 kV	1405	1582	1786	1986	2226	8986
11 kV	5003	5605	6253	7350	7932	32143
LT	5003	5605	6253	7350	7932	32143

Table No: 3.12

Filing & Approved: Line Lengths (km) - APEPDCL

61.

Component	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
Filed						
33 kV	1291	927	1018	1145	1244	5625
11 kV	2342	2741	3041	3402	3723	15249
LT	2342	2741	3041	3402	3723	15249
Approved						
33 kV	1034	740	821	915	998	4508
11 kV	1,830	2,271	2,392	2,691	2,989	12174
LT	1,830	2,271	2,392	2,691	2,989	12174

62. As detailed above, The Commission has finalized the investments Rs.9239 Cr. in respect of APSPDCL as against Rs.13937 Cr. and Rs.4309 Cr. in respect of APEPDCL as against Rs.6213 Cr. The company wise investments approved by the Commission are shown in the tables below:

Table No: 3.13

Approved: Investments - APSPDCL (Rs. Cr.)

S. No.	Item	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
1	Ongoing Schemes	750	339	228	-	-	1,317
2	Substations (New & Augmentation)	264	312	370	434	511	1891
3	Metering & Associated equipment	55	55	55	55	55	275
4	Distribution Transformer Additions	405	459	529	629	710	2731
5	Lines, Cables & Network	400	472	554	679	775	2880
6	Technology Upgradation and R&M	0	0	0	0	0	0
7	Civil works and Others	25	27	29	31	33	145
Total		**1899**	**1663**	**1765**	**1827**	**2084**	**9,239**

Table No: 3.14

Approved: Investments - APEPDCL (Rs. Cr.)

S. No.	Item	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
1	Ongoing Schemes	471	41	0.75	0.75	0.75	514
2	Substations (New & Augmentation)	197	143	167	196	224	927
3	Metering & Associated equipment	60	60	60	60	60	300
4	Distribution Transformer Additions	144	182	203	230	266	1027
5	Lines, Cables & Network	173	196	220	260	302	1151
6	Technology Up-gradation and R&M	57	57	57	57	57	285
7	Civil works and Others	21	21	21	21	21	105
Total (Rs. Cr.)		**1123**	**701**	**729**	**825**	**931**	**4309**

63. The attention of the licensees is drawn to the clause 16.3 of Regulation No. 4 of 2005 which reads as below:

"The Commission may provide corrections in the ARR of the Distribution licensee for subsequent years of the control period to the extent of deviation from the investments approved as part of the Capital Investment plan. The distribution licensee shall justify the deviations beyond 10 percent for each individual scheme/project and any other material deviations from the capital investment plan including introduction of, or substitution of existing schemes / projects by new scheme/project(s)."

Therefore, the licensees may take appropriate action in this regard if there is any deviation beyond 10 percent on the investments approved.

64. The attention of the licensees is also drawn to the clause 37 (ii) of Regulation No. 10 of 2013 which reads as below:

"The licensee shall promptly notify the Commission of all the investments by 31st March of every year pertaining to the Distribution System which the licensee proposes to implement for subsequent financial year together with relevant details in brief, including the estimated cost of such investment schemes, which are in line with the investment plan. The licensee shall furnish to the Commission such further details and clarifications as to the investments proposed, as the Commission may require from time to time."

Therefore, the licensees are directed to strictly comply with the above regulation henceforth.

IPDS, DDUGJY and Power for All etc.

65. With reference to flagship programs like Integrated Power Development Scheme (IPDS), Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Power for All, the implementation of the schemes plays a crucial role in public service & development of the Discom's infrastructure and which are executed largely with the financial assistance from the Govt. The additional grants are linked to achievement of mile stones in execution of different projects. Getting additional grants indicate the Discom's performance. Therefore, the licensees are directed to submit the details of such additional grants received project wise while

submitting the true-up/ true-down claims of distribution business for the 3rd control period. The details of the schemes which are already executed and but not received additional grants for not achieving the milestones shall also be furnished with reasons for Commission's examination and necessary action.

SAIFI and SAIDI

66. The licensees have stated that the outages are being monitored with international standards such as System Average Interruption Frequency Index (SAIFI) and System Average Interruption Duration Index (SAIDI). The Commission appreciates the licensee's initiative and directed to submit quarterly reports on the outages in SAIFI & SAIDI indexes to the Commission henceforth for information and review.

67. The licensees shall submit an action plan to install smart meters to Domestic consumers in line with National Tariff Policy (NTP), 2016 as approved in this Order.

CHAPTER – IV

DISTRIBUTION LOSS TRAJECTORY

68. In this chapter, the Commission has examined the Distribution Loss trajectory proposed by the licensees in their ARR & FPT filings for 4th Control Period. Before undertaking the task, **the Commission wishes to place on record its appreciation for the consistent reduction in losses from year to year by both the APEPDCL and APSPDCL and the maintenance by APEPDCL the record of having the lowest percentage of losses in the Country with the APSPDCL not lagging far behind. The Commission takes this opportunity to congratulate the functionaries of both the DISCOMs from Junior Line Men to the Chairmen and Managing Directors for their sterling performance**. The Commission, while examining the loss trajectory for the 4th Control Period, has reckoned / considered all the views / objections / suggestions expressed by the stakeholders in writing and during public hearings, which have been elaborated in Chapter-II, to the extent they are relevant to the subject matter.

69. The licensees have proposed voltage wise losses in percent at three voltage levels LT, 11 kV and 33 kV to be paid in kind by the users of the distribution system in their respective licensed areas. Any person who utilizes the distribution system to wheel the electricity shall pay the wheeling charge and compensate for distribution losses in kind at the proposed level for each year of the Control Period.

70. The loss percentage proposed is based on estimated energy handled and losses at respective voltage levels with respect to total input for each year of the Control Period. The Loss trajectories filed by licensees are shown in the tables below:

Table No: 4.1
Filings: Distribution Loss Trajectory - APEPDCL

Voltage Level	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
LT	4.13%	4.11%	4.08%	4.05%	4.02%
11 kV	3.28%	3.25%	3.20%	3.15%	3.10%
33 kV	2.81%	2.80%	2.79%	2.78%	2.77%

Table No: 4.2
Filings: Distribution Loss Trajectory - APSPDCL

Voltage Level	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
LT	4.36%	4.31%	4.27%	4.23%	4.18%
11 kV	3.35%	3.31%	3.28%	3.25%	3.21%
33 kV	3.32%	3.28%	3.25%	3.22%	3.19%

Determination of loss trajectory:

71. The Commission while fixing the loss trajectory for the 4th Control Period has examined following:

- Targets proposed for reduction of distribution losses during the Control Period duly adhering to the licensees' standards of performance regulation
- The loss levels achieved by the licensees in 3rd Control Period up to H1 of FY2018-19 against the targets fixed by the Commission.
- The loss trajectory projected in the filings of the DISCOMs for the 4th Control Period.
- The capacity of the existing network.
- The Capital works in progress and the investments approved in this order.
- Loss reduction measures being followed and proposed by the licensees, viz. implementation of HVDS, Augmentation of Power Transformers, Procuring Star rated DTRs, Erection of line capacitor banks and intensive inspections for detection of pilferage of energy.

72. The Commission has examined the loss trajectory submitted by the licensees with reference to the above points and fixed the loss trajectory for the 4th Control Period for each licensee as shown in the tables below:

Table No: 4.3

Approved: Distribution Loss Trajectory - APEPDCL

Voltage	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
LT	4.01%	3.99%	3.97%	3.95%	3.93%
11 kV	3.20%	3.15%	3.10%	3.05%	3.00%
33 kV	2.79%	2.78%	2.77%	2.76%	2.75%

Table No: 4.4

Approved: Distribution Loss Trajectory - APSPDCL

Voltage	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
LT	4.26%	4.23%	4.20%	4.17%	4.14%
11 kV	3.27%	3.22%	3.17%	3.12%	3.07%
33 kV	3.20%	3.15%	3.10%	3.05%	3.00%

Energy Saving Certificates

73. The Commission notes that both licensees are designated consumers as per the Energy Conservation Act, 2011(52 of 2001) and accordingly, Central Government vide its notification SO1264(E) dated March,2016, under section 14 of the said Act had specified energy consumption norms and standards applicable for the period from 2016-17 to 2018-19 in relation to their level of consumption as a part of implementation of Perform, Achieve and Trade (PAT) scheme. There is potential to earn Energy Saving Certificates (EScert) if the losses achieved are less than norms specified by the Central Government. In this connection, the annual progress report, shall be submitted to the Commission henceforth for a review.

CHAPTER - V

AGGREGATE REVENUE REQUIREMENT

74. In this chapter, the Commission has examined the flings by the licensees in their ARR & FPT filings for 4th Control Period. The Commission, while examining their Aggregate Revenue Requirement for the 4th control period, has reckoned/considered all the views/objections/suggestions expressed by the stakeholders in writing and during public hearings, which have been elaborated in Chapter-II, to the extent they are relevant to the subject matter.

75. The distribution Licensees have estimated the Aggregate Revenue Requirement (ARR), i.e. the revenue requirement to meet the estimated distribution cost, for each year of the 4th Control Period from FY2019-20 to FY2023-24. The net ARR estimated for the 4th control period is Rs.29,583 Cr. in respect of APSPDCL and Rs.14,713 Cr. in respect of APEPDCL. The estimated ARR forms the basis for computation of the wheeling charges for each year of the 4th Control Period.

76. The revenue requirement consists of A) Depreciation, B) Return on Capital Employed (RoCE), C) Operation and Maintenance (O&M) costs and D) Taxes on Income & other Costs.

A. Depreciation

77. The licensees have computed depreciation for full year on the Opening balance of Gross Fixed Assets (GFA) after deducting fully depreciated assets till previous year at the depreciation rates specified by the MoP. The GFA and depreciation filed by the licensees are shown in the table below:

Table No: 5.1
Filings: GFA and Depreciation (Rs. Cr.)

Financial Year	APSPDCL		APEPDCL	
	GFA	Dep.	GFA	Dep.
2019-20	15,506	922	7071	397
2020-21	17,900	1103	8090	449
2021-22	21,586	1355	10,083	582
2022-23	26,696	1699	12,071	705
2023-24	31,936	2084	13,482	796
Total		**7,163**		**2,929**

Commission's decision:

78. The Commission has computed the GFA and Depreciation based on the following.

a) The gross fixed assets as estimated by the licensee for base year FY2018-19 based on their audited accounts for FY2017-18 were taken as the base for projecting the gross fixed assets for subsequent years in the 4th control period.

b) The opening value of assets for each year of the Control Period has been arrived taking into account approved capitalization schedules every year.

c) The value of fully depreciated assets, consumer contributions and grants as filed by the licensees are deducted & Depreciation rates as per the CERC regulations are considered as per the Regulation 4 of 2005 while calculating the depreciation.

79. Accordingly, the depreciation computed by the Commission in respect of APSPDCL is Rs.4725 Cr. as against Rs.7164 Cr. filed and in respect of APEPDCL is Rs.1884 Cr. as against Rs.2929 Cr. filed. The GFA & Depreciation computed, Licensee wise are given in the table below:

Table No: 5.2
Approved: GFA and Depreciation (Rs. Cr.)

Financial Year	APSPDCL		APEPDCL	
	GFA	Depreciation	GFA	Depreciation
2019-20	15505	667	7033	269
2020-21	17626	781	7865	308
2021-22	20610	918	9606	386
2022-23	24470	1086	11076	443
2023-24	28328	1273	12003	478
Total		**4725**		**1884**

Return on Capital Employed (RoCE)

80. The licensees are entitled to claim the Return on Capital Employed (RoCE) as per the Regulation 4 of 2005. The amount claimed is expected to meet the Cost

of Debt and Equity capital which are used for financing the assets in the distribution business. The three steps required to determine Return on Capital Employed are as follows:

a) Determination of i) Debt-Equity ratio, ii) Cost of debt and Return on Equity (iii) Working Capital (iv) Weighted Average Cost of Capital (WACC).

b) Determination of Regulatory Rate Base (RRB).

c) RoCE = Weighted Average Cost of Capital (WACC) * RRB

(i) Debt and Equity Ratio

As per the clause 15.1 of the Regulation 4 of 2005, the Debt/Equity (D/E) ratio shall be determined at the beginning of the Control Period after considering the Distribution licensee's proposals, previous years D/E mix, market conditions and other relevant factors.

Filings and Commission's Decision:
After examining the licensee's proposal and previous year D/E mix, the Commission approves the debt-equity mix of 75:25 percent throughout the Control Period, as filed by the licensee.

(ii) Cost of Debt and Return on Equity

Filings:

The Licensees have filed the Cost of Debt and Return on Equity (RoE) in percentage for each year of the control period as given below:

Table No: 5.3
Filings: Cost of debt and Return on Equity

Financial Year	APSPDCL		APEPDCL	
	Debt	Equity	Debt	Equity
2019-20	12.45%	14.00%	12.04%	14.00%
2020-21	12.13%	14.00%	12.29%	14.00%
2021-22	12.36%	14.00%	12.41%	14.00%
2022-23	12.74%	14.00%	12.48%	14.00%
2023-24	13.23%	14.00%	12.52%	14.00%

Commission's Decision:

81. As per clause 15.1 of Regulation 4 of 2005, the Cost of Debt shall be determined at the beginning of the Control Period after considering the Licensee's proposals, present cost of debt, market conditions, other relevant factors. Return on Equity shall be determined at the beginning of the Control Period after considering CERC norms, the Licensee's proposals, previous years D/E mix, risks associated with distribution & supply business, market conditions and other relevant factors.

82. After examining the licensee's proposal and other aspects mentioned in the Regulation, Commission has approved, the Cost of Debt at 10.3% and Return on Equity at 14% for each year of the 4th Control Period.

TABLE NO: 5.4
Approved: Cost of Debt and Return on Equity

Financial Year	APSPDCL		APEPDCL	
	Debt	**Equity**	**Debt**	**Equity**
2019-20	10.30%	14.00%	10.30%	14.00%
2020-21	10.30%	14.00%	10.30%	14.00%
2021-22	10.30%	14.00%	10.30%	14.00%
2022-23	10.30%	14.00%	10.30%	14.00%
2023-24	10.30%	14.00%	10.30%	14.00%

(iii) Working Capital

Filings:

The licensees have computed the working capital requirement by taking 30 days of O&M cost and 12% of Repairs and Maintenance (R&M) costs towards O&M stores for each year during the 4th Control Period. Accordingly, the working capital requirements filed by the licensees are given in the table below:

Table No: 5.5
Filings: Working Capital (Rs. Cr.)

Financial Year	APSPDCL	APEPDCL
2019-20	316	153
2020-21	355	173
2021-22	404	201
2022-23	465	232
2023-24	533	263

Commission's Decision:

As per the APERC Regulation 4 of 2005, working capital requirement for each year of the Control Period shall be considered equivalent of 1/12th days O&M expenses as allowed for that year.

Accordingly, Commission has approved the working capital equivalent of 30 days O & M expenses as approved in this order and not considered the carrying cost of O&M stores. The details are given in the table below:

Table No: 5.6

Approved: Working Capital (Rs. Cr.)

Financial Year	APSPDCL	APEPDCL
2019-20	250	128
2020-21	279	144
2021-22	312	163
2022-23	351	184
2023-24	396	206

(iv) Weighted Average Cost of Capital (WACC)

Filings:

The licensees have computed the Weighted Average Cost of Capital (WACC) considering the Debt-Equity ratio, cost of Debt and Return on Equity as stated supra using the following formula provided in Regulation 4 of 2005.

$$WACC= (D/E) *r_d/(1+D/E) +(r_e/(1+D/E))$$

The WACC filed by the licensees are given in the table below:

Table No: 5.7

Filings: Weighted Average Cost of Capital (WACC)

Financial Year	APSPDCL	APEPDCL
2019-20	11.84%	12.53%
2020-21	12.59%	12.72%
2021-22	12.77%	12.81%
2022-23	13.05%	12.86%
2023-24	13.43%	12.89%

Commission's Decision:

The Weighted Average Cost of Capital determined by the Commission shall remain unchanged during the control period as per the Regulation 4 of 2005. Accordingly, the WACC has been computed at the approved Debt-Equity ratio, Cost of Debt and Return on Equity as per the formula provided in the Regulation and the same are given in the table below:

Table No: 5.8
Approved: Weighted Average Cost of Capital (WACC)

Financial Year	APSPDCL	APEPDCL
2019-20	11.23%	11.23%
2020-21	11.23%	11.23%
2021-22	11.23%	11.23%
2022-23	11.23%	11.23%
2023-24	11.23%	11.23%

(b) Regulated Rate Base (RRB)

Filings:
The licensees have computed the RRB as per the procedure prescribed in the Regulation 4 of 2005 as per their proposed investments, depreciation, Working Capital and Consumer Contributions & Grants for the 4th Control Period. RRB computed by the licensees are given in the table below:

Table No: 5.9
Filings: Regulated Rate Base (Rs. Cr.)

Financial Year	APSPDCL	APEPDCL
2019-20	5,530	2,005
2020-21	7,379	3,052
2021-22	10,395	4,477
2022-23	13,920	5,470
2023-24	16,341	6,126

Commission's Decision:

83. Commission has computed the RRB as per the procedure prescribed in the Regulation 4 of 2005 with the approved investments, depreciation, Working Capital and Consumer Contributions & Grants as filed by the licensee for the 4th Control Period. The licensee wise RRB approved is given in the tables below and the detailed computations of RRB are given in the **Annexures-E1 & E2.**

Table No: 5.10
Approved: Regulated Rate Base (Rs. Cr.)

Financial Year	APSPDCL	APEPDCL
2019-20	5662.06	2016.09
2020-21	7302.79	2972.77
2021-22	9706.95	4173.07
2022-23	12418.70	4883.94
2023-24	14206.66	5296.93

With the above modifications in RRB and WACC calculations, the Commission computed the RoCE at Rs.2171 Cr in respect of APEPDCL as against Rs.2558 Cr. filed and at Rs.5535 Cr. in respect of APSPDCL as against Rs.6175 Cr. filed for the Control Period. The RoCE computed by the licensees and computed by the Commission are given in the following tables.

Table No: 5.11
Filings: Return on Capital Employed (Rs. Cr.)

Financial Year	APSPDCL	APEPDCL
2019-20	611	233
2020-21	823	366
2021-22	1,182	542
2022-23	1,607	667
2023-24	1,906	750
Total	**6,129**	**2,558**

Table No. 5.12

Approved: Return on Capital Employed (Rs. Cr.)

Financial Year	APSPDCL	APEPDCL
2019-20	636	226
2020-21	820	334
2021-22	1090	468
2022-23	1394	548
2023-24	1595	595
Total	**5535**	**2171**

C. Operation and Maintenance expenses

84. As per Clause 6.3 (a) of the Regulation 4 of 2005, "The Operation and Maintenance (O&M) costs which include employee-related costs, repair & maintenance costs and administrative & general costs, estimated for the Base Year and the year prior to the Base Year in complete detail, together with the forecast for each year of the Control Period based on the norms proposed by the Distribution Licensee including indexation and other appropriate mechanisms...".

85. In the MYT wheeling tariffs order for the 3rd control period, the Commission has allocated the Employee Expenses (EE) and A&G Expenses to No. of Substations at 49%, total line length at 21%, No. of DTRs at 10% and No. of Consumers at 20% to arrive at cost norms per Substation, per line length, per DTR and per Consumer.

86. Accordingly, the licensees have allocated the average of Employee and A&G expenses for the FY2013-14 to FY2017-18 in the above ratios for the FY2017-18 and arrived the norms. These norms are escalated at a rate of 5.16% [based on the 5 years Weighted Average of Wholesale Price Index (60%) and Consumer Price Index (40%) from FY2012-13 to FY2017-18] for estimating the norms for each year of the control period. The norms arrived by the licensees are given in the tables below:

Table No: 5.13

Filings: Norms for Employee Expenses

Item	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
APSPDCL					
Rs. per Substation	4,990,783	5,248,307	5,519,120	5,803,906	6,103,388
Rs. per Line (ckt.km)	9,615	10,112	10,633	11,182	11,759
Rs. per DTR	3,664	3,853	4,052	4,261	4,481
Rs. per Consumer	324	341	358	377	396
APEPDCL					
Rs. per Substation	6,423,677	6,755,139	7,103,704	7,470,256	7,855,721
Rs. per Line (ckt.km)	15,430	16,226	17,063	17,943	18,869
Rs. per DTR	5,701	5,996	6,305	6,630	6,973
Rs. per Consumer	348	366	384	404	425

Table No: 5.14

Filings: Norms for A&G Expenses

Item	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
APSPDCL					
Rs. per Substation	333,615	350,830	368,933	387,970	407,989
Rs. per Line (ckt. km)	650	684	719	756	795
Rs. per DTR	245	258	271	285	300
Rs. per Consumer	22	23	24	26	27
APEPDCL					
Rs. per Substation	610,461	641,961	675,086	709,921	746,553
Rs. per Line (ckt. km)	1,468	1,544	1,623	1,707	1,795
Rs. per DTR	542	570	600	631	663
Rs. per Consumer	33	35	37	38	40

87. The licensees have projected R&M expenses for each year of the 4th Control period at the rate of 2.55% of the Gross Fixed Assets. APSPDCL has added Rs.101Cr. each year additionally towards enhanced wages to outsourced employees.

88. The licensees have computed the Employee and A&G expenses by multiplying the norms with corresponding elements as estimated by them and R&M expenses as stated supra for the 4th control period and accordingly the total O&M costs arrived are as shown in the tables below:

Table No: 5.15
Filings: O&M Expenses - APSPDCL (Rs. Cr.)

Financial Year	Employee Cost	Administration & General Expenses	Repairs & Maintenance Cost	Total O&M
2019-20	2,416	161	497	3,074
2020-21	2,712	181	558	3,451
2021-22	3,053	203	652	3,909
2022-23	3,446	230	783	4,458
2023-24	3,901	260	917	5,078
Total				**19,970**

Table No: 5.16
Filings: O&M Expenses - APEPDCL (Rs. Cr.)

Financial Year	Employee Cost	Administration & General Expenses	Repairs & Maintenance Cost	Total O&M
2019-20	1,278	121	177	1,576
2020-21	1,448	138	202	1,787
2021-22	1,644	156	252	2,052
2022-23	1,872	178	302	2,351
2023-24	2,131	203	337	2,671
Total				**10,437**

Commission's Decision:

89. The Commission has examined the licensee's estimation and methodology adopted for arriving the O&M costs. The licensees have arrived the norms for Employee & A&G expense based on the methodology followed by the Commission in the MYT wheeling tariff order for 3rd control period. Hence, the methodology has been accepted and arrived the norms for Employee and A&G expenses based on the audited figures for the FY2017-18 as per the Regulation

4 of 2005. The norms arrived for FY2017-18 are escalated at the rate of 5.16 percent as filed by the licensees for base year and each year of the control period to take care of the inflation and they are multiplied with corresponding elements arrived based on the approved investments in this order to estimate the total Employee and A&G expenses. The R&M expenses are computed at the rate of 2.05 percent (the norm fixed in the MYT wheeling tariff order for 3rd control period) of approved gross fixed assets for each year. The norms estimated and O&M costs computed are given in the tables below:

Table No: 5.17

Approved: Norms for Employee Expenses

Item	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
APSPDCL					
Rs. per Substation	5,071,416	5,333,101	5,608,289	5,897,677	6,201,997
Rs. per Line (ckt. km)	9,774	10,278	10,809	11,366	11,953
Rs. per DTR	3,720	3,912	4,114	4,326	4,550
Rs. per Consumer	330	347	365	383	403
APEPDCL					
Rs. per Substation	6,535,337	6,872,560	7,227,184	7,600,107	7,992,273
Rs. per Line (ckt. km)	15,722	16,533	17,386	18,283	19,227
Rs. per DTR	5,800	6,100	6,414	6,745	7,093
Rs. per Consumer	354	372	391	412	433

Table No: 5.18

Approved: Norms for A&G Expenses

Item	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
APSPDCL					
Rs. per Substation	333,346	350,546	368,635	387,656	407,659
Rs. per Line (ckt. km)	650	683	718	756	795
Rs. per DTR	245	257	271	285	299
Rs. per Consumer	22	23	24	26	27
APEPDCL					
Rs. per Substation	630,091	662,604	696,794	732,748	770,558
Rs. per Line (ckt. km)	1,519	1,598	1,680	1,767	1,858
Rs. per DTR	560	589	619	651	685
Rs. per Consumer	34	36	38	40	42

Table No: 5.19
Approved: O&M Expenses - APSPDCL (Rs. Cr.)

Financial Year	Employee Cost	Administration & General Expenses	Repairs & Maintenance Cost	Total O&M
2019-20	2425	159	419	3003
2020-21	2704	177	462	3343
2021-22	3025	198	524	3747
2022-23	3393	222	603	4218
2023-24	3814	250	682	4746
Total				**19057**

Table No: 5.20
Approved: O&M Expenses - APEPDCL (Rs. Cr.)

Financial Year	Employee Cost	Administration & General Expenses	Repairs & Maintenance Cost	Total O&M
2019-20	1275	123	144	1542
2020-21	1427	138	161	1726
2021-22	1603	155	197	1955
2022-23	1804	174	227	2205
2023-24	2033	196	246	2475
Total				**9903**

D. Taxes on Income & other Costs:
Filings and Commission's decision:

90. The licensees have estimated the taxes on income based on MAT (Minimum Applicable Tax) @ 20.765% on the estimated equity. Commission has examined the proposals of Licensee for payment of income tax and computed the Income Tax to be payable for the Control Period on approved equity. The details of taxes estimated by the licensees and approved by the Commission are given in the table below:

Table No: 5.21

Filings & Approved: Income Tax (Rs. Cr.)

Year	APSPDCL		APEPDCL	
	FILED	APPROVED	FILED	APPROVED
2019-20	48	50	18	18
2020-21	65	64	27	26
2021-22	91	85	39	37
2022-23	122	109	48	43
2023-24	143	124	54	46
Total	**469**	**431**	**186**	**169**

91. The licensees have proposed the other expenses towards miscellaneous losses, write-offs and other contingencies etc. APSPDCL has proposed a total of Rs.199.40 Cr. and APEPDCL has proposed a total of Rs.81.60 Cr. for the total control period and the same are considered to meet any contingencies.

92. Further, there were many complaints/ suggestions received on damaged poles, leaning poles, loose spans etc., in the rural areas during the public consultation process while finalizing the Retail Supply Tariff order every year. Since the licensees have not shown any specific details towards other expenses, it is directed to utilize these approved amounts towards rectification of such works which are immediately to be attended in the larger interest and safety of the public.

Non-Tariff Income
Filings and Commission's decision:

93. The licensees have proposed non-tariff income based on the historical actuals. APSPDCL has proposed a total of Rs. 2786 Cr. and APEPDCL has proposed a total of Rs.1005 Cr. for the total control period and the same were considered.

Net Aggregate Revenue Requirement

94. The gross ARR requirement is the total of Depreciation Cost, Return on Capital Employed, O&M Cost and Taxes on Income & Other Costs less expenses capitalized. The net ARR requirement is the difference between the Gross ARR and the Non-tariff Income & Other Income.

Filings and Commission's decision

95. As detailed above, the net ARR approved by the Commission is Rs. 25767 Cr. in respect of APSPDCL as against Rs. 29532 Cr. filed and Rs. 12795 Cr. in

respect of APEPDCL as against Rs. 14713 Cr. filed. The net ARR estimated by the licensees and approved by the Commission are given in the tables below:

Table No: 5.22

Filings: Net Aggregate Revenue Requirement - APSPDCL (Rs. Cr.)

Sl. No.	Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
1	Operation and Maintenance Charges	3074	3451	3909	4458	5078	19970
2	Depreciation	922	1103	1355	1699	2084	7164
3	Taxes on Income	48	64	90	121	142	465
4	Other Expenditure	38	39	40	41	42	199
5	Special Appropriations	0	0	0	0	0	0
6	Total Expenditure	4082	4657	5394	6320	7346	27798
7	Expenses capitalized	302	385	407	325	190	1608
8	Net Expenditure (6)-(7)	3780	4272	4987	5995	7156	26190
9	Return on Capital Employed	611	823	1182	1607	1906	6129
10	**Gross ARR (8)+(9)**	**4391**	**5095**	**6169**	**7602**	**9062**	**32319**
11	Wheeling Revenue from Third Party / Open Access/NTI	466	508	553	603	657	2786
12	**Net ARR (10)-(11)**	**3925**	**4587**	**5616**	**6999**	**8405**	**29532**

Table No: 5.23

Approved: Net Aggregate Revenue Requirement - APSPDCL (Rs. Cr.)

Sl. No.	Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
1	Operation and Maintenance Charges	3003	3344	3746	4218	4746	19057
2	Depreciation	667	781	918	1086	1273	4724
3	Taxes on Income	50	64	85	109	124	431
4	Other Expenditure	38	39	40	41	42	199
5	Special Appropriations	0	0	0	0	0	0
6	Total Expenditure	3757	4227	4789	5453	6186	24412
7	Expenses capitalized	304	361	343	253	131	1392
8	Net Expenditure (6)-(7)	3452	3866	4446	5201	6054	23019
9	Return on Capital Employed	636	820	1090	1394	1595	5534
10	**Gross ARR (8)+(9)**	**4088**	**4685**	**5536**	**6595**	**7649**	**28553**
11	Wheeling Revenue from Third Party/ Open Access/NTI	466	508	553	603	657	2786
12	**Net ARR (10)-(11)**	**3622**	**4178**	**4983**	**5992**	**6992**	**25767**

Table No: 5.24

Filings: Net Aggregate Revenue Requirement - APEPDCL (Rs. Cr.)

Sl. No.	Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
1	Operation and Maintenance Charges	1576	1787	2052	2351	2671	10438
2	Depreciation	397	449	582	705	796	2929
3	Taxes on Income	18	27	39	48	54	185
4	Other Expenditure	15	16	16	17	17	82
5	Special Appropriations	0	0	0	0	0	0
6	Total Expenditure	2005	2279	2689	3121	3538	13633
7	Expenses capitalized	71	140	134	75	52	473
8	Net Expenditure (6)-(7)	1934	2139	2555	3046	3485	13160
9	Return on Capital Employed	233	366	542	667	750	2558
10	**Gross ARR (8)+(9)**	**2167**	**2505**	**3097**	**3713**	**4236**	**15718**
11	Wheeling Revenue from Third Party/ Open Access/NTI	186	192	199	208	219	1005
12	**Net ARR (10)-(11)**	**1981**	**2313**	**2898**	**3505**	**4016**	**14713**

Table No: 5.25

Approved: Net Aggregate Revenue Requirement - APEPDCL (Rs. Cr.)

Sl. No.	Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	Total for CP
1	Operation and Maintenance Charges	1542	1726	1954	2205	2475	9903
2	Depreciation	269	308	386	443	478	1884
3	Taxes on Income	18	26	37	43	46	169
4	Other Expenditure	15	16	16	17	17	82
5	Special Appropriations	0	0	0	0	0	0
6	Total Expenditure	1844	2076	2393	2708	3017	12038
7	Expenses capitalized	69	127	113	60	40	409
8	Net Expenditure (6)-(7)	1775	1949	2280	2648	2977	11629
9	Return on Capital Employed	226	334	468	548	595	2171
10	**Gross ARR (8)+(9)**	**2001**	**2283**	**2748**	**3196**	**3571**	**13800**
11	Wheeling Revenue from Third Party/ Open Access/NTI	186	192	199	208	219	1005
12	**Net ARR (10)-(11)**	**1815**	**2091**	**2549**	**2988**	**3352**	**12795**

96. Section 51 of the Electricity Act, 2003 read with Clause 28 of Regulation 10 of 2013 enables the Distribution Licensee to take up other business for optimum utilization of their assets with prior intimation to the Commission. Since the Licensees are having a large developed network of power to the nook and corner of the state, the Commission hereby directs to furnish the details of other businesses conceived to be taken up by it. If no steps are taken so far, the licensee may submit the possibility of taking up other businesses including better utilization of their unutilized properties and constraints if any in this regard, within three months from the date of issue of this Order.

CHAPTER - VI
WHEELING CAPACITY IN MW

97. In this chapter, the Commission has examined the flings by the licensees in their ARR & FPT filings for 4th Control Period. The Commission, while examining wheeling capacity for the 4th control period, has reckoned/considered all the views/objections/suggestions expressed by the stakeholders in writing and during public hearings, which have been elaborated in Chapter-II, to the extent they are relevant to the subject matter.

98. The year wise, voltage wise wheeling charges are computed based on the total demand anticipated at each voltage level for that year. For arriving the total demand at each voltage, the licensees have first arrived the contracted demand at each voltage. For this purpose, the licensees have captured the historical Contracted Demand of 33 kV and 11 kV. For projecting the contracted demand at LT side, the coincident demand of LT category has been considered due to high diversity factor in LT connected load and the restricted supply given to agricultural consumers. Considering the historical growth of the above, the licensees have projected the Contracted Demand of 33 kV and 11kV and Coincident demand of LT for each year of the 4th control period as shown in the table given below:

Table No: 6.1
Filings: Voltage Wise Wheeling Demand in MVA

FY →	2019-20	2020-21	2021-22	2022-23	2023-24
APEPDCL					
33 kV	677	751	833	924	1,025
11 kV	937	1,018	1,107	1,204	1,309
LOW TENSION	1,952	2,076	2,208	2,348	2,497
APSPDCL					
33 kV	986	1,002	1,018	1,034	1,051
11 kV	1,305	1,367	1,432	1,500	1,572
LOW TENSION	3,639	4,151	4,736	5,402	6,162

99. The licensees have arrived the total demand at each voltage level, for the purpose of allocation of total assets voltage wise and computing wheeling charges, adopted the following method considering the loss trajectory as filed:

i) The Demand at 33 KV contributed from all voltages was computed by adding up the following:

- Grossed up 33 kV Contracted Demand with 33 kV losses;
- Grossed up 11 kV Contracted Demand with 11 kV losses and further by 33 kV losses;
- Coincident Demand of LT was grossed up with LT, 11kV and 33 kV losses.

ii) The Demand at 11 kV contributed from all the voltages was computed by adding the following:

- Grossed up 11 kV Contracted Demand with 11 kV losses;
- Coincident Demand of LT was grossed up with LT and 11kV losses.

iii) The Demand at LT is the estimated Coincident demand of LT plus grossed up with LT losses.

The total wheeling input demands at 33kV, 11 kV and LT voltages computed by the licensees are given in the table below:

Table No: 6.2
Filings: Total wheeling Input Demand in MVA.

FY →	2019-20	2020-21	2021-22	2022-23	2023-24
APEPDCL					
At 33 kV from all Voltages	3,860	4,158	4,480	4,829	5,205
At 11 kV from all Voltages	3,074	3,291	3,522	3,770	4,036
At LT Voltages	2,037	2,165	2,302	2,447	2,602
APSPDCL					
At 33 kV from all Voltages	6,488	7,136	7,869	8,695	9,626
At 11 kV from all Voltages	5,287	5,901	6,595	7,380	8,268
At LT Voltages	3,805	4,339	4,947	5,640	6,431

Commission's Decision:

100. The Commission has examined the filings and approved the forecasted contracted demands as filed by the licensees at the respective voltage levels since the estimation of demands is in accordance with the methodology adopted by the Commission in the order for wheeling charges for 3rd control period. But, the total wheeling input demands at 33kV, 11 kV and LT voltages are computed based on the approved loss trajectory in the chapter-IV of this order by the Commission. The total wheeling input demands at 33kV, 11 kV and LT voltages computed by the Commission is given in the table below:

Table No: 6.3

Approved: Total wheeling Input Demand in MVA.

FY →	2019-20	2020-21	2021-22	2022-23	2023-24
APEPDCL					
At 33 kV from all Voltages	3,853	4,151	4,473	4,821	5,197
At 11 kV from all Voltages	3,069	3,284	3,516	3,764	4,030
At LT Voltage	2,034	2,163	2,299	2,445	2,599
APSPDCL					
At 33 kV from all Voltages	6,471	7,117	7,845	8,666	9,592
At 11 kV from all Voltages	5,278	5,891	6,584	7,367	8,253
At LT Voltage	3,801	4,335	4,943	5,637	6,428

CHAPTER - VII

WHEELING TARIFFS

101. The licensees have computed the wheeling tariffs by using the estimated ARR and demands at 33 kV, 11 kV and LT and these charges are to be collected from the users of distribution system in their respective licensed areas. The licensees have proposed to apply the losses in kind for the energy handled in addition to the wheeling tariffs.

102. The estimated net ARR is apportioned among three voltage classes. Employee and A&G expenses are allocated based on number of consumers, DTRs, substations and line lengths. The R&M expenses, depreciation, RoCE and Taxes & other expenses are allocated based on assets utilisation (Annexures – F1 & F2) at the respective voltage levels. Accordingly, the licensees have computed the wheeling tariffs in terms of Rs./kVA/month for each year of the control period using the apportioned net ARR (Annexures – G1 & G2) with estimated demands in kVA at 33 kV, 11 kV and LT as per the formulas given below:

Wheeling tariffs at 33kV (Rs./kVA/month)	$\dfrac{\text{ARR apportioned to 33 kV}}{\text{Contracted\_Demand at 33kV} * 12}$
Wheeling tariffs at 11kV (Rs./kVA/month)	$\dfrac{\text{ARR apportioned to 11 kV}}{\text{Contracted\_Demand at 11kV} * 12}$
Wheeling tariffs at LT (Rs./kVA/month)	$\dfrac{\text{ARR apportioned to LT}}{\text{Contracted\_Demand at LT} * 12}$

103. The wheeling charges so computed by the licensees at different voltage levels are given in the tables below:

Table No: 7.1

Filings: Wheeling Tariffs (Rs./kVA/Month) - APEPDCL

Voltage →	33 kV	11 kV	LT
FY2019-20	46.31	383.50	645.41
FY2020-21	50.43	418.11	705.13
FY2021-22	58.94	487.81	826.90
FY2022-23	66.39	549.09	936.06
FY2023-24	70.79	630.60	980.59

Table No: 7.2

Filings: Wheeling Tariffs (Rs. /kVA/Month) – APSPDCL

Voltage →	33 kV	11 kV	LT
FY2019-20	45.41	583.25	678.92
FY2020-21	52.15	601.81	711.71
FY2021-22	63.12	664.42	775.58
FY2022-23	77.02	761.20	855.44
FY2023-24	89.24	791.62	921.44

Commission's Decision

104. The Commission shall determine the full cost tariffs for wheeling of energy to enable the licensees to recover the approved net ARR amount for distribution business as per Regulation 4 of 2005.

105. The Commission has examined the method of computation adopted by licensees to arrive at wheeling tariffs at each voltage level based on allocation of ARR amount among three voltages and demands at each voltage.

106. After examination, the wheeling charges are computed based on the following:

i) The contracted demands at each voltage level as approved in Chapter-VI in this order are considered, which are given in the table below:

Table No: 7.3

Approved: Voltage Wise Wheeling Demand in MVA

FY →	2019-20	2020-21	2021-22	2022-23	2023-24
APEPDCL					
33 kV	677	751	833	924	1,025
11 kV	937	1,018	1,107	1,204	1,309
LT Voltage	1,952	2,076	2,208	2,348	2,497
APSPDCL					
33 kV	986	1,002	1,018	1,034	1,051
11 kV	1,305	1,367	1,432	1,500	1,572
LT Voltage	3,639	4,151	4,736	5,402	6,162

ii) The voltage wise asset base (GFA) for each year of the control period has been computed based on the opening GFA and approved physical assets addition to the respective voltages.

iii) The asset base at 33kV is used by consumers at 33kV, 11kV and LT. The asset base at 11kV is used by consumers at 11kV and LT. The asset base at LT is only used by consumers at LT. Accordingly, the total asset base at each voltage level approved by the Commission has been apportioned based on individual level voltage contribution to total input demands at respective voltage levels. The Discom wise approved asset base, voltage wise utilization is given in the tables below:

Table No: 7.4

Approved: Voltage wise Asset Base utilisation (Rs. Cr.) - APEPDCL

	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
33 kV	159	200	238	265	296
11 kV	1,703	2,110	2,468	2,713	2,986
LT	6,002	7,295	8,370	9,025	9,742
Total Assets	**7,865**	**9,606**	**11,076**	**12,003**	**13,024**

Table No: 7.5

Approved: Voltage wise Asset Base utilisation (Rs. Cr.) - APSPDCL

	FY 2019-20	**FY 2020-21**	**FY 2021-22**	**FY 2022-23**	**FY 2023-24**
33 kV	352	380	416	443	439
11 kV	3,294	3,621	4,036	4,381	4,437
LT	13,980	16,609	20,018	23,504	25,767
Total Assets	**17,626**	**20,610**	**24,470**	**28,328**	**30,644**

iv) The net ARR approved by the Commission is apportioned in the ratio of the asset base utilization by the respective voltage level consumers. The Discom wise approved ARR apportioned to different voltage levels is given in the tables below:

Table No: 7.6

Approved: Voltage wise net ARR Apportioned (Rs. Cr.) - APEPDCL

	FY 2019-20	**FY 2020-21**	**FY 2021-22**	**FY 2022-23**	**FY 2023-24**
33 kV	37	44	55	66	76
11 kV	393	459	568	675	768
LT	1,385	1,588	1,926	2,247	2,507
Net ARR	**1,815**	**2,091**	**2,549**	**2,988**	**3,352**

Table No: 7.7

Approved: Voltage wise net ARR Apportioned (Rs. Cr.) - APSPDCL

	FY 2019-20	**FY 2020-21**	**FY 2021-22**	**FY 2022-23**	**FY 2023-24**
33 kV	72	77	85	94	100
11 kV	677	734	822	927	1,012
LT	2,873	3,367	4,076	4,972	5,879
Net ARR	**3,622**	**4,178**	**4,983**	**5,992**	**6,992**

v) The apportioned ARR and approved contracted demands at each voltage level has been used to compute the wheeling charges as per the formulas stated earlier in this chapter in this regard.

vi) Accordingly, the wheeling tariffs are computed.

Wheeling Tariffs Schedule

107. For each year of the control period, the wheeling tariffs and applicable losses for wheeling of electricity corresponding to entry and exit points at different voltage levels based on the loss levels approved in chapter-IV are given in the tables below:

Table No: 7.8
Approved: Wheeling Tariffs (Rs./kVA/Month) - APEPDCL

Voltage ↓	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
33 kV	45.24	48.38	54.73	59.51	61.92
11 kV	349.71	375.94	427.50	467.43	489.07
LT	591.25	637.42	726.98	797.29	836.76

Table No: 7.9
Approved: Losses corresponding to entry and exit points - APEPDCL

Drawn at ↓	Supply at														
	FY2019-20			FY2020-21			FY2021-22			FY2022-23			FY2023-24		
	LT	11kV	33kV	LT	11kV	33kV	LT	11kV	33kV	LT	11kV	33kV	LT	11kV	33kV
LT	4.01%	7.08%	9.67%	3.99%	7.01%	9.60%	3.97%	6.95%	9.52%	3.95%	6.88%	9.45%	3.93%	6.81%	9.37%
11kV	7.08%	3.20%	5.90%	7.01%	3.15%	5.84%	6.95%	3.10%	5.78%	6.88%	3.05%	5.73%	6.81%	3.00%	5.67%
33 kV	9.67%	5.90%	2.70%	9.60%	5.84%	2.78%	9.52%	5.78%	2.77%	9.45%	5.73%	2.76%	9.37%	5.67%	2.75%

Table No: 7.10
Approved: Wheeling Tariffs (Rs./kVA/Month) - APSPDCL

Voltage ↓	FY2019-20	FY2020-21	FY2021-22	FY2022-23	FY2023-24
33 kV	61.16	64.11	69.34	75.44	79.48
11 kV	432.38	447.58	478.38	514.76	536.83
LT	657.79	675.84	717.35	766.95	795.08

Table No: 7.11

Approved: Losses corresponding to entry and exit - APSPDCL

Drawn at ↓	Supply at														
	FY2019-20			FY2020-21			FY2021-22			FY2022-23			FY2023-24		
	LT	11kV	33kV	LT	11kV	33kV	LT	11kV	33kV	LT	11kV	33kV	LT	11kV	33kV
LT	4.26%	7.39%	10.35%	4.23%	7.31%	10.23%	4.20%	7.24%	10.11%	4.17%	7.16%	9.99%	4.14%	7.08%	9.87%
11kV	7.39%	3.27%	6.37%	7.31%	3.22%	6.27%	7.24%	3.17%	6.17%	7.16%	3.12%	6.07%	7.08%	3.07%	5.98%
33 kV	10.35%	6.37%	3.20%	10.23%	6.27%	3.15%	10.11%	6.17%	3.10%	9.99%	6.07%	3.05%	9.87%	5.98%	3.00%

Note on Wheeling Tariffs and Distribution losses:

i) All the distribution system users shall pay wheeling charges and bear losses in kind.

ii) The distribution licensees shall deliver the quantum of energy given to it for wheeling, reduced by the distribution losses as approved in this order based on entry and exit points.

iii) If the entry and exit points are of the same voltage, the wheeling charges corresponding to that voltage shall be collected. If the entry and exit points are at different voltages, the wheeling charges corresponding to the lowest voltage shall be collected.

iv) The wheeling tariffs payable and energy losses to be borne shall be related to the contracted capacity in KW at the entry point. For the purpose of collection of wheeling charges, 1 kVA is equal to 1 kW.

v) The wheeling tariffs/charges are to be levied as per terms and conditions approved by the Commission from time to time.

vi) If the wheeling involves transmission of electricity through transmission system of a transmission licensee, the consumer or the supplier as the case may be has to pay the applicable transmission charges and transmission losses in kind also. Transmission system is considered to be involved in the wheeling of electricity in the following cases:

(a) Entry/Exit point is connected to the EHT system and Exit/Entry point is at any Discom.

(b) The Entry and Exit points are located in different DISCOMs.
If the wheeling of electricity is through the distribution system of more than one distribution licensee, the wheeling tariffs/charges shall be payable to the distribution licensee of the area where the electricity is delivered.

vii) The other conditions applicable for levy and collection of these charges shall be as per the provisions of the Andhra Pradesh Electricity Regulatory Commission Terms and Conditions of Open Access to Intra- state Transmission and Distribution networks, (Regulation No.2 of 2005) and the Interim Balancing and Settlement code (Regulation 2 of 2006) as amended from time to time.

108. The wheeling charges and losses in kind fixed (based on Entry and Exit points) for each year of the control period are applicable from 1st April to 31st March of the respective years.

Commission's intervention

109. If the actual recovery of revenue through Distribution Tariffs is less than the actual cost by more than 10 percent, the DISCOMs may file the details with the Commission seeking a remedy for under recovery of the cost in accordance with the procedure prescribed by APERC Regulation 4 of 2005. The Commission, upon examination of these details may pass an appropriate Order or show the ways and means to address issue of the under recovery of the cost.

This Order is signed on the 15th day of April, 2019.

Sd/- **P. Rama Mohan** **Member**	**Sd/-** **Dr. P. Raghu** **Member**	**Sd/-** **Justice G. Bhavani Prasad** **Chairman**

ANNEXURE – A1

Public Notice Issued in Newspapers in Telugu on 15-12-2018

గౌరవనీయ ఆంధ్రప్రదేశ్ ఎలక్ట్రిసిటీ రెగ్యులేటరీ కమీషన్ (APERC) వారి సమక్షములో

డోర్ నెం.11-4-660, 4వ అంతస్థు, సింగరేణి భవన్, రెడ్‌హిల్స్, హైదరాబాద్ - 500 004.

(E/D) ఈస్టర్న్ పవర్ డిస్ట్రిబ్యూషన్ కంపెనీ ఆఫ్ ఆంధ్రప్రదేశ్ లిమిటెడ్

బహిరంగ ప్రకటన

1. ఇందుమూలంగా ఏపిఈపిడిసియల్ పరిధిలోని యావన్మందికి తెలియజేయునది ఏమనగా ప్రభుత్వ యాజమాన్యంలోని డిస్ట్రిబ్యూషన్ మరియు రిటైల్ సప్లయి లైసెన్స్ నెం.12/2000 కలిగి ఉన్న పంపిణీ సంస్థ "ఈస్టర్న్ పవర్ డిస్ట్రిబ్యూషన్ కంపెనీ ఆఫ్ ఆంధ్రప్రదేశ్ లిమిటెడ్ (ఏపిఈపిడిసియల్)", నాల్గవ నియంత్రణ కాలం మొత్తానికి అనగా ఆ॥సం॥ 2019-20 నుండి 2023-24 వరకు పంపిణీ వ్యాపారమునకు గాను మరియు వ్యాపార ప్రణాళికకు గాను సమగ్ర ఆదాయ అవశ్యకత (ఎఆర్ఆర్) మరియు వీలింగ్ ధార్జీల టారిఫ్ (ఎఫ్‌పిటి) ప్రతిపాదనలను తేది.10.12.2018న ఆంధ్రప్రదేశ్ ఎలక్ట్రిసిటీ రెగ్యులేటరీ కమీషన్ (ఏపిఈఆర్‌సి) వారికి సమర్పించడమైనది. ఈ ప్రతిపాదనలను గౌరవనీయులైన కమీషను వారిచే ఓ.పి.నెం.28/2018గా నమోదు చేయబడినది.
2. పైన 1వ పేరాలో పేర్కొన్న ప్రతిపాదనల ప్రతులు చీఫ్ జనరల్ మేనేజర్ (పి.పి.ఎ, ఆర్.ఎ & క్యూ.సి) "ఈస్టర్న్ పవర్ డిస్ట్రిబ్యూషన్ కంపెనీ ఆఫ్ ఆంధ్రప్రదేశ్ లిమిటెడ్ (ఏపిఈపిడిసియల్)", ప్రధాన కార్యాలయం, పి & టి కాలనీ, సీతమ్మధార, విశాఖపట్నం-530013 మరియు శ్రీకాకుళం, విజయనగరం, విశాఖపట్నం, రాజమహేంద్రవరం మరియు ఏలూరు సర్కిల్‌లలో ఉన్న సూపరింటెండెంట్ ఇంజనీర్ వారి కార్యాలయం వద్ద లభ్యమగును. ఆసక్తి గల వారు ఈ బహుళ వార్షిక ఎ.ఆర్.ఆర్ ప్రతిపాదనలు మరియు టారిఫ్ ప్రతిపాదనలను కార్యాలయ పనివేళలలో ఉచితంగా పరిశీలించవచ్చు. ఈ ప్రతిపాదనలు డిస్ట్రిబ్యూషన్ కంపెనీ వారి వెబ్‌సైట్ www.apeasternpower.com లో లభించును మరియు వీటిని www.aperc.gov.in వెబ్‌సైట్‌లో కూడా పరిశీలించవచ్చును. ప్రచురించబడిన తేదీ నుండి కాపీ ఒక్కింటికి రూ. 100/- (వ్యక్తిగతంగా నగదు రూపేనా లేదా పే ఆఫీసర్, ఏపిఈపిడిసియల్, విశాఖపట్నం వారి పేరున డిడి రూపేనా) చెల్లించిన మీదట ఈ ప్రతిపాదనలను పైన తెలిపిన కార్యాలయాల నుండి పొందవచ్చును. ఈ ప్రతిపాదనల యొక్క సంక్షిప్త సమాచార ప్రతులను ఇంగ్లీష్‌లో లేదా తెలుగులో కాపీ ఒక్కింటికి రూ.10/- (వ్యక్తిగతంగా నగదు రూపేనా లేదా పే ఆఫీసర్, ఏపిఈపిడిసియల్ విశాఖపట్నం వారి పేరున డిడి రూపేనా) చొప్పున చెల్లించి పై వివరించిన కార్యాలయాలలో పొందవచ్చును.
3. డిస్ట్రిబ్యూషన్ కంపెనీ ప్రతిపాదించిన బహుళ వార్షిక సమగ్ర ఆదాయ అవశ్యకత ప్రతిపాదనలు మరియు టారిఫ్ ప్రతిపాదనల (ఎ.ఆర్.ఆర్ & ఎఫ్‌పిటి)పై సూచనలు/అభ్యంతరాలు/సలహాలు ఏవైనా ఉన్నయెడల వాటిని సంబంధిత ఆధారాలతో జతపరిచి తేది.07.01.2019 సా॥ 5.00 గం॥ల లోపుగా అందే విధంగా రిజిస్టర్ పోస్ట్ ద్వారా లేదా వ్యక్తిగతంగా గాని సదరు అభ్యంతరాల ప్రతులను ఏపిఈపిడిసియల్, కార్పొరేట్ కార్యాలయంలోని చీఫ్ జనరల్ మేనేజర్ (పి.పి.ఎ, ఆర్.ఎ & క్యూ.సి) "ఈస్టర్న్ పవర్ డిస్ట్రిబ్యూషన్ కంపెనీ ఆఫ్ ఆంధ్రప్రదేశ్ లిమిటెడ్ (ఏపిఈపిడిసియల్)", పి & టి కాలనీ, సీతమ్మధార, విశాఖపట్నం - 530013 గారికి పంపుతూ అట్లు పంపిన వాటి నకలును మరియు ప్రతిని పంపిన రుజువును కమీషన్ సెక్రటరీ, ఏపిఈఆర్‌సికి పైన తెలిపిన చిరునామాకు పంపగలరు. సదరు సూచనలు/అభ్యంతరాలు/సలహాలు నివేదికలు నివేదించు వారి సంతకం(లు) పూర్తి పేరు(లు) మరియు పోస్టల్ చిరునామా(లు) పొందుపరచవలెను. ఏదైనా సంస్థ లేదా ఏదైనా వినియోగదారుల కేటగిరీ తరుపున సూచనలు/అభ్యంతరాలు/సలహాలు ఇవ్వదలచినచో ఆ విషయం కూడా నివేదికలో స్పష్టీకరించవలెను. తమ వాదనలను గాని / అభ్యంతరాలను గాని వ్యక్తి గతంగా విన్నవించుకోదలచుకుంటే ప్రత్యేకంగా పేర్కొనవలెను. సూచనలు/అభ్యంతరాలు/సలహాల వివరాలను ఈ క్రింద తెలుపబడిన పట్టికలో పొందుపరచి జతపరచవలెను.

అభ్యంతర దారుని పేరు, పూర్తి చిరునామా & ఫోన్ నెంబరు	సూచనలు/ అభ్యంతరాలు/ సలహాల సంక్షిప్త వివరాలు	ఏపిఈపిడిసియల్ ప్రతిపాదనల మీద అభ్యంతరాలు	ఏపిఈపిడిసియల్ కార్పొరేట్ కార్యాలయంనకు అభ్యంతర ప్రతిని & పంపిన రుజువును జతపరచడమైనది (అవును/కాదు)	అభ్యంతరదారు వ్యక్తిగతంగా విన్నవించదల్చు కున్నారా (అవును/కాదు)

4. నాల్గవ నియంత్రణ కాలం మొత్తానికి అనగా ఆర్థిక సంవత్సరము 2019-20 నుండి 2023-24 వరకు పంపిణీ వ్యాపారమునకు గాను మరియు వ్యాపార ప్రణాళికకు గాను డిస్కమ్ వారు ప్రతిపాదించిన బహుళ వార్షిక ఎఆర్ఆర్ మరియు టారిఫ్ ప్రతిపాదనలను ఈ క్రింది షెడ్యూల్‌లో పొందుపరచడమైనది.

(S/D) సదరన్ పవర్ డిస్ట్రిబ్యూషన్ కంపెనీ ఆఫ్ ఆంధ్రప్రదేశ్ లిమిటెడ్

బహిరంగ ప్రకటన

1. ఇందుమూలంగా ఏపిఎస్‌పిడిసిఎల్ పరిధిలోని యావన్మందికి తెలియజేయునది ఏమనగా ప్రభుత్వ యాజమాన్యంలోని డిస్ట్రిబ్యూషన్ మరియు రిటైల్ సప్లయి లైసెన్స్ నెం.15/2000 కలిగి ఉన్న పంపిణీ సంస్థ "సదరన్ పవర్ డిస్ట్రిబ్యూషన్ కంపెనీ ఆఫ్ ఆంధ్రప్రదేశ్ లిమిటెడ్ (ఏపిఎస్‌పిడిసిఎల్)", నాల్గవ నియంత్రణ కాలం మొత్తానికి అనగా ఆ॥సం॥ 2019-20 నుండి 2023-24 వరకు పంపిణీ వ్యాపారమునకు గాను మరియు వ్యాపార ప్రణాళికకు గాను సమగ్ర ఆదాయ అవశ్యకత (ఎఆర్ఆర్) మరియు వీలింగ్ ధార్జీల టారిఫ్ (ఎఫ్‌పిటి) ప్రతిపాదనలను తేది.12.12.2018న ఆంధ్రప్రదేశ్ ఎలక్ట్రిసిటీ రెగ్యులేటరీ కమీషన్ (ఏపిఈఆర్‌సి) వారికి సమర్పించడమైనది. ఈ ప్రతిపాదనలను గౌరవనీయులైన కమీషను వారిచే ఓ.పి.నెం.29/2018గా నమోదు చేయబడినది.
2. పైన 1వ పేరాలో పేర్కొన్న ప్రతిపాదనల ప్రతులు చీఫ్ జనరల్ మేనేజర్ (ఆర్.ఎ.సి) "సదరన్ పవర్ డిస్ట్రిబ్యూషన్ కంపెనీ ఆఫ్ ఆంధ్రప్రదేశ్ లిమిటెడ్ (ఏపిఎస్‌పిడిసిఎల్)" ప్రధాన కార్యాలయం, డోర్ నెం. 19-13-65/ఎ, శ్రీనివాసపురం, తిరుచానూర్ రోడ్డు, తిరుపతి - 517503 మరియు విజయవాడ, గుంటూరు, ఒంగోలు, నెల్లూరు, తిరుపతి, కడప, అనంతపురం మరియు కర్నూలు సర్కిల్‌లలో ఉన్న సూపరింటెండింగ్ ఇంజనీర్ వారి కార్యాలయం వద్ద లభ్యమగును. ఆసక్తి గల వారు ఈ బహుళ వార్షిక ఎ.ఆర్.ఆర్. మరియు టారిఫ్ ప్రతిపాదనలను కార్యాలయ పనివేళలలో ఉచితంగా పరిశీలించవచ్చు, ఈ ప్రతిపాదనలు డిస్ట్రిబ్యూషన్ కంపెనీ వారి వెబ్‌సైట్ www.apspdcl.inలో లభించును మరియు వీటిని www.aperc.gov.in వెబ్‌సైట్‌లో కూడా పరిశీలించవచ్చును. ప్రచురించబడిన తేదీ నుండి కాపీ ఒక్కింటికి రూ.100/- (వ్యక్తిగతంగా నగదు రూపేనా లేదా అకౌంట్స్ ఆఫీసర్ /సిపిఆర్/ ఏపిఎస్‌పిడిసిఎల్, తిరుపతి వారి పేరున డిడి రూపేనా) చెల్లించిన మీదట ఈ ప్రతిపాదనలను పైన తెలిపిన కార్యాలయాల నుండి పొందవచ్చును. ఈ ప్రతిపాదనల యొక్క సంక్షిప్త సమాచార ప్రతులను ఇంగ్లీష్‌లో లేదా తెలుగులో కాపీ ఒక్కింటికి రూ.10/- (వ్యక్తిగతంగా నగదు రూపేనా లేదా అకౌంట్స్ ఆఫీసర్ /సిపిఆర్/ ఏపిఎస్‌పిడిసిఎల్ తిరుపతి వారి పేరున డిడి రూపేనా) చొప్పున చెల్లించి పై వివరించిన కార్యాలయాలలో పొందవచ్చును.
3. డిస్ట్రిబ్యూషన్ కంపెనీ ప్రతిపాదించిన బహుళ వార్షిక సమగ్ర ఆదాయ అవశ్యకత ప్రతిపాదనలు మరియు టారిఫ్ ప్రతిపాదనల (ఎ.ఆర్.ఆర్ & ఎఫ్‌పిటి)పై సూచనలు/అభ్యంతరాలు/సలహాలు ఏవైనా ఉన్నయెడల వాటిని సంబంధిత ఆధారాలతో జతపరిచి తేది.07.01.2019 సా॥ 5.00 గం॥ల లోపుగా అందే విధంగా రిజిస్టర్ పోస్ట్ ద్వారా లేదా వ్యక్తిగతంగా గాని సదరు అభ్యంతరాల ప్రతులను ఏపిఎస్‌పిడిసిఎల్ కార్పొరేట్ కార్యాలయంలోని చీఫ్ జనరల్ మేనేజర్ (ఆర్.ఎ.సి) "సదరన్ పవర్ డిస్ట్రిబ్యూషన్ కంపెనీ ఆఫ్ ఆంధ్రప్రదేశ్ లిమిటెడ్ (ఏపిఎస్‌పిడిసిఎల్)", ప్రధాన కార్యాలయం, డోర్ నెం.19-13-65/ఎ, శ్రీనివాసపురం, తిరుచానూర్ రోడ్డు, తిరుపతి - 517503 గారికి పంపుతూ అట్లు పంపిన వాటి నకలును మరియు ప్రతిని పంపిన రుజువును కమీషన్ సెక్రటరీ, ఏపిఈఆర్‌సికి పైన తెలిపిన చిరునామాకు పంపగలరు. సదరు సూచనలు/అభ్యంతరాలు/సలహాలు నివేదించు వారి సంతకం(లు) పూర్తి పేరు(లు) మరియు పోస్టల్ చిరునామా(లు) పొందుపరచవలెను. ఏదైనా సంస్థ లేదా ఏదైనా వినియోగదారుల కేటగిరీ తరుపున సూచనలు/అభ్యంతరాలు/సలహాలు ఇవ్వదలచినచో ఆ విషయం కూడా నివేదికలో స్పష్టీకరించవలెను. తమ వాదనలను గాని / అభ్యంతరాలను గాని వ్యక్తి గతంగా విన్నవించుకోదలచుకుంటే ప్రత్యేకంగా పేర్కొనవలెను. సూచనలు/అభ్యంతరాలు/సలహాల వివరాలను ఈ క్రింద తెలుపబడిన పట్టికలో పొందుపరచి జతపరచవలెను.

అభ్యంతర దారుని పేరు, పూర్తి చిరునామా & ఫోన్ నెంబరు	సూచనలు/ అభ్యంతరాలు/ సలహాల సంక్షిప్త వివరాలు	ఏపిఎస్‌పిడిసిఎల్ ప్రతిపాదనల మీద అభ్యంతరాలు	ఏపిఎస్‌పిడిసిఎల్ కార్పొరేట్ కార్యాలయంనకు అభ్యంతర ప్రతిని & పంపిన రుజువును జతపరచడమైనది (అవును/కాదు)	అభ్యంతరదారు వ్యక్తిగతంగా విన్నవించదల్చు కున్నారా (అవును/కాదు)

4. నాల్గవ నియంత్రణ కాలం మొత్తానికి అనగా ఆర్థిక సంవత్సరము 2019-20 నుండి 2023-24 వరకు పంపిణీ వ్యాపారమునకు గాను మరియు వ్యాపార ప్రణాళికకు గాను డిస్కమ్ వారు ప్రతిపాదించిన బహుళ వార్షిక ఎఆర్ఆర్ మరియు టారిఫ్ ప్రతిపాదనలను ఈ క్రింది షెడ్యూల్‌లో పొందుపరచడమైనది.

షెడ్యూల్

నియంత్రణ కాలం మొత్తానికి అనగా ఆర్థిక సంవత్సరం 2019-20 నుండి 2023-24 వరకు ప్రతిపాదించిన పంపిణీ వ్యాపారపు ధరలు

ఈస్టర్న్ పవర్ డిస్ట్రిబ్యూషన్ కంపెనీ ఆఫ్ ఏపి లిమిటెడ్

క్ర.సం.	వివరములు	2019-20	2020-21	2021-22	2022-23	2023-24
ఎ)	ఏఆర్ఆర్, వీలింగ్ ధరలు మరియు పంపిణీ నష్టాలు (%)					
1.	ఏఆర్ఆర్, (రూ.కోట్లలో)	1981	2313	2898	3505	4016
2.	వీలింగ్ ధరలు					
	33కెవి (రూ./కెవిఎ/నెల)	46	50	59	66	71
	11కెవి (రూ./కెవిఎ/నెల)	383	418	488	549	631
	ఎల్‌టి (రూ./కెవిఎ/నెల)	645	705	827	936	981
3.	పంపిణీ నష్టాలు (%)					
	33కెవి	2.81	2.80	2.79	2.78	2.77
	11కెవి	3.28	3.25	3.20	3.15	3.10
	ఎల్‌టి	4.13	4.11	4.08	4.05	4.02
బి)	పంపిణీ నష్టాలను తగ్గించుకునే మార్గసూచి(%)					
1.	ఇహెచ్‌టి వినియోగం మినహాయించుకొని	7.97	8.19	8.15	8.10	8.06
సి)	మూలధన పెట్టుబడులు					
1.	మూలధన పెట్టుబడులు (రూ.కోట్లలో)	1372	991	1103	1286	1462

నియంత్రణ కాలం మొత్తానికి అనగా ఆర్థిక సంవత్సరం 2019-20 నుండి 2023-24 వరకు ప్రతిపాదించిన పంపిణీ వ్యాపారపు ధరలు

సదరన్ పవర్ డిస్ట్రిబ్యూషన్ కంపెనీ ఆఫ్ ఏపి లిమిటెడ్

క్ర.సం.	వివరములు	2019-20	2020-21	2021-22	2022-23	2023-24
ఎ)	ఏఆర్ఆర్, వీలింగ్ ధరలు మరియు పంపిణీ నష్టాలు (%)					
1.	ఏఆర్ఆర్, (రూ.కోట్లలో)	3932	4595	5626	7011	8419
2.	వీలింగ్ ధరలు					
	33కెవి (రూ./కెవిఎ/నెల)	45	52	63	77	89
	11కెవి (రూ./కెవిఎ/నెల)	583	602	664	761	792
	ఎల్‌టి (రూ./కెవిఎ/నెల)	679	712	776	855	921
3.	పంపిణీ నష్టాలు (%)					
	33కెవి	3.32	3.28	3.25	3.22	3.19
	11కెవి	3.35	3.31	3.28	3.25	3.21
	ఎల్‌టి	4.36	4.31	4.27	4.23	4.18
బి)	పంపిణీ నష్టాలను తగ్గించుకునే మార్గసూచి(%)					
1.	ఇహెచ్‌టి వినియోగం మినహాయించుకొని	9.43	9.33	9.25	9.18	9.09
సి)	మూలధన పెట్టుబడులు					
1.	మూలధన పెట్టుబడులు (రూ.కోట్లలో)	2664	2462	2743	2862	3206

5. ఆంధ్రప్రదేశ్ ఎలక్ట్రిసిటీ రెగ్యులేటరీ కమీషన్ వారు నాల్గవ నియంత్రణ కాలం మొత్తానికి అనగా ఆర్థిక సంవత్సరం 2019-20 నుండి 2023-24 వరకు బహుళ వార్షిక ఎ.ఆర్.ఆర్ & ఎఫ్‌పిటి ప్రతిపాదనలను రిటైల్ సప్లయి వ్యాపారమునకుగాను ఎ.ఆర్.ఆర్ & ఎఫ్‌పిటి ప్రతిపాదనలతో పాటు ప్రజాభిప్రాయ సేకరణ జరుపబడును. తేదీ.25.01.2019న మాత్రము హైదరాబాదులో డిస్కమ్స్ వారు మరియు ఏపీట్రాన్స్‌కో వారు సమర్పించిన బహుళవార్షిక ఎ.ఆర్.ఆర్ & ఎఫ్‌పిటి ప్రతిపాదనలపై ప్రత్యేకంగా బహిరంగ విచారణ జరుపబడును. ఈ క్రింది పేర్కొన్న ప్రదేశాలలో బహిరంగ విచారణ ఏర్పాటు చేయడమైనది.

క్రమ సంఖ్య	స్థలము /బహిరంగ విచారణ జరుగు ప్రదేశము	తేదీ మరియు వారము
1	కాన్ఫరెన్స్‌హాల్, ఏపిటిసి భవనం, కార్పొరేట్ కార్యాలయం, ఏపిఈపిడిసియల్, పి & టి కాలనీ, సీతమ్మధార, విశాఖపట్నం-530013	07.01.2019 (సోమ వారం)
2	O/o సూపరింటెండింగ్ ఇంజనీర్ వారి కార్యాలయం, ఆపరేషన్, విజయవాడ, ఏపిఎస్‌పిడిసిఎల్, పిడబ్ల్యూడి గ్రౌండ్ ఎదురుగా, సిఎమ్ క్యాంప్ ఆఫీస్ ప్రక్కన, విజయవాడ	08.01.2019 (మంగళ వారం)
3	కాన్ఫరెన్స్‌హాల్, కార్పొరేట్ కార్యాలయం (విద్యుత్ నిలయం), ఏపిఎస్‌పిడిసిఎల్, డి.నెం.19-13-65/ఎ, శ్రీనివాస కళ్యాణ మండపములు వెనుక, శ్రీనివాసపురం, తిరుచానూర్ రోడ్, తిరుపతి	09.01.2019 (బుధ వారం)
4	O/o ఏపీఈఆర్‌సి, డి.నెం.11-4-660, 4వ అంతస్థు, సింగరేణి భవనం, రెడ్‌హిల్స్, హైదరాబాద్-500004.	18.01.2019 (శుక్ర వారం)
5	O/o ఏపీఈఆర్‌సి, డి.నెం.11-4-660, 4వ అంతస్థు, సింగరేణి భవనం, రెడ్‌హిల్స్, హైదరాబాద్-500004 (ప్రత్యేకంగా లైసెన్సీదారులు అందరు సమర్పించిన బహుళ వార్షిక ఎఆర్ఆర్ ప్రతిపాదనలపై మాత్రమే)	25.01.2019 (శుక్ర వారం)

• పైన పేర్కొన్న తేదీలలో బహిరంగ విచారణ జరుపు సమయం : ఉ॥10.00 గం॥ల నుండి మ॥1-00 గంట వరకు మరియు మ॥2-00 గం.ల నుండి ఆసక్తి గల వ్యక్తులు మరియు వార సూచించిన వ్యక్తులు అభ్యంతరాల వ్యక్తీకరణ పూర్తి అయ్యేంతవరకు జరుపబడును.

ఆంధ్రప్రదేశ్ డిస్కమ్‌లు సమర్పించిన బహుళ వార్షిక ఎఆర్ఆర్ & ఎఫ్‌పిటి ధరల ప్రతిపాదనల మీద ఆసక్తి గల వ్యక్తులు/సంఘాలు/వాటాదారులు/అభ్యంతరదారులు వారు నేరుగా గాని లేదా వారి అధికార ప్రతినిధులు గాని పైన పేర్కొన్న తేదీలలో గౌరవ కమీషన్ ముందు హాజరయి వారి సూచనలు/అభ్యంతరాలు/సలహాలు తెలియజేయగలరు.

ఏవైనా సూచనలు/అభ్యంతరాలు/సలహాలు గౌరవ కమీషను వారు నిర్దేశించిన గడువు తేదీ 07.01.2019 తరువాత కూడా అనగా ప్రత్యేకించి ఏపీడిస్కమ్స్ మరియు ఏపీట్రాన్స్‌కో వారు సమర్పించిన బహుళ వార్షిక ఎఆర్ఆర్ & ఎఫ్‌పిటి కొరకు నిర్దేశించిన గడువు తేదీ.25.01.2019 సా॥5.గం.ల వరకు స్వీకరించి వాటిని నాల్గవ నియంత్రణా కాలం మొత్తానికి బహుళ వార్షిక ఎఆర్ఆర్ & ఎఫ్‌పిటి నిర్ణయించుటకు పరిగణలోకి తీసుకొనబడును

6. ఏపీడిస్కమ్స్ సమర్పించిన రిటైల్ సప్లయి వ్యాపారమునకు గాను ఎఆర్ఆర్ & ఎఫ్‌పిటి ప్రతిపాదనలతో పాటు నాల్గవ నియంత్రణ కాలం మొత్తానికి సంబంధించిన బహుళ వార్షిక ఎఆర్ఆర్ మరియు టారిఫ్ ప్రతిపాదనలపై కూడా విద్యుత్ రెగ్యులేటరీ కమీషన్ వారు తేది.10.01.2019న 13వ రాష్ట్ర సలహా సంఘం (ఎస్ఎసి) మరియు 8వ రాష్ట్ర సమన్వయ ఫోరం (ఎస్‌సిఎఫ్) సంయుక్త సమావేశములు కాన్ఫరెన్స్‌హాల్, కార్పొరేట్ ఆఫీస్ (విద్యుత్ నిలయం), ఏపిఎస్‌పిడిసిఎల్, తిరుపతిలో జరుపబడును.

తేది: 15-12-2018
స్థలం: విశాఖపట్నం

చైర్మన్ & మేనేజింగ్ డైరెక్టర్
ఈస్టర్న్ పవర్ డిస్ట్రిబ్యూషన్ కంపెనీ ఆఫ్ ఆంధ్రప్రదేశ్ లిమిటెడ్

తేది: 15-12-2018
స్థలం: తిరుపతి

చైర్మన్ & మేనేజింగ్ డైరెక్టర్
సదరన్ పవర్ డిస్ట్రిబ్యూషన్ కంపెనీ ఆఫ్ ఆంధ్రప్రదేశ్ లిమిటెడ్

ANNEXURE – A2

Public Notice Issued in Newspapers in English on 16-12-2018

THE HONOURABLE ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION (APERC)

D.No. 11-4-660, 4th Floor, Singareni Bhavan, Red Hills, HYDERABAD - 500 004.

SOUTHERN POWER DISTRIBUTION COMPANY OF ANDHRA PRADESH LIMITED (APSPDCL)

PUBLIC NOTICE

1. Notice is hereby given to all that the Distribution Licensee viz. Southern Power Distribution Company of A.P Limited (APSPDCL) holding Distribution and Retail Supply License No. 15 / 2000, has on **12-12-2018**, filed before the Andhra Pradesh Electricity Regulatory Commission (APERC) the Multi Year Aggregate Revenue Requirement (ARR) and Filing for Proposed Tariff (FPT) (Wheeling Tariff) for its Distribution Business and Business Plan for 4th Control Period (FY2019-20 to FY2023-24). The filings have been taken on record by the Hon'ble Commission in O.P.Nos 29 of 2018.
2. Copies of the filings are available in the Office of the **Chief General Manager (RAC) of Southern Power Distribution Company's headquarters at 19-13-65/A, Vidyut Nilayam, Srinivasapuram, Tirupati-517503 and Superintending Engineers, in-charge of operation circles of the Distribution Company at Vijayawada, Guntur, Ongole, Nellore, Tirupati, Kadapa, Anantapur & Kurnool.** 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.apspdcl.in** and the same may also be accessed at **www.aperc.gov.in**. A copy of the filings, can be obtained from the above offices from the date of publication on payment of Rs.100/- (by way of cash in person / D.D drawn in favour of the Accounts Officer / CPR / APSPDCL / Tirupati). Also a summary of Multi Year ARR and FPT in English or Telugu can be separately obtained on payment of Rs.10/- (by way of cash in person / D.D drawn in favour of the Accounts Officer / CPR / APSPDCL / Tirupati).
3. Views/objections/suggestions if any, on the Multi Year ARR&FPT filings for 4th Control Period proposed by APDISCOMs for their Distribution Business & Business Plan, together with supporting material may be sent to the **Chief General Manager (RAC) of Southern Power Distribution Company's headquarters at 19-13-65/A, Vidyut Nilayam, Srinivasapuram, Tirupati-517503** 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)	Objections against Proposals of APSPDCL	Whether copy of objection & proof of delivery at Licensee's office enclosed (Yes/No)	Whether Objector wants to be heard in person (Yes/No)

4. The Multi Year ARR & FPT schedule for Distribution Business and Business Plan for 4th Control Period (FY2019-20 to FY2023-24) proposed by the APSPDCL is given below:

SCHEDULE

Proposed Tariff for Distribution Business for 4th Control Period i.e., FY 2019-20 to FY 2023-24 for Southern Power Distribution Company of A.P Limited

S.No	Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
A) ARR, Wheeling charges and wheeling losses (%)						
1.	ARR (Rs. Crores)	3932	4595	5626	7011	8419
2.	Wheeling Charges					
	33 KV (Rs./KVA/Month)	45	52	63	77	89
	11 KV (Rs./KVA/Month)	583	602	664	761	792
	LT (Rs./KVA/Month)	679	712	776	855	921
3.	Wheeling Losses (%)					
	33 KV	3.32%	3.28%	3.25%	3.22%	3.19%
	11 KV	3.35%	3.31%	3.28%	3.25%	3.21%
	LT	4.36%	4.31%	4.27%	4.23%	4.18%
B) Distribution Loss Reduction Trajectory (%)						
1.	Excluding EHT sales	9.43%	9.33%	9.25%	9,18%	9.09%
C) Capital Investments						
1.	Capital Investments (Rs. Crs.)	2664	2462	2743	2862	3206

Date : 16.12.2018

Place : Tirupati

CHAIRMAN & MANAGING DIRECTOR
APSPDCL

EASTERN POWER DISTRIBUTION COMPANY OF ANDHRA PRADESH LIMITED (APEPDCL)

PUBLIC NOTICE

1. Notice is hereby given to all that the Distribution Licensee viz. Eastern Power Distribution Company A.P. Limited (APEPDCL) holding Distribution and Retail Supply License No. 12/2000, has on **10-12-2018**, filed before the Andhra Pradesh Electricity Regulatory Commission (APERC) the Multi Year Aggregate Revenue Requirement (ARR) and Filing for Proposed Tariff (FPT) (Wheeling Tariff) for its Distribution Business and Business Plan for 4th Control Period (FY2019-20 to FY2023-24). The filings have been taken on record by the Hon'ble Commission in O.P.Nos.28 of 2018.
2. Copies of the filings are available in the Office of the **Chief General Manager (PPA, RA & QC) of the Eastern Power Distribution Company's head quarters at P&T Colony, Seethammadhara, Visakhapatnam - 530013 and all Superintending Engineers, in-charge of Operation circles of the Distribution Company at Srikakulam, Vizianagaram, Visakhapatnam, Rajamahendravaram and Eluru.** 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.apeasternpower.com** 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/- (by way of cash in person / D.D. drawn in favour of the Pay Officer/ APEPDCL/ Visakhapatnam). Also a summary of Multi Year ARR and FPT in English or Telugu can be separately obtained on payment of Rs.10/- (by way of cash in person / D.D. drawn in favour of the Pay Officer/ APEPDCL/Visakhapatnam).
3. Views/objections/suggestions if any, on the Multi Year ARR & FPT filings for 4th Control Period proposed by APDISCOMs for their Distribution Business & Business Plan, together with supporting material may be sent to the **Chief General Manager (PPA, RA & QC) of the Eastern Power Distribution Company's head quarters at P&T Colony, Seethammadhara, Visakhapatnam - 530013** 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)	Objections against Proposals of APEPDCL	Whether copy of objection & proof of delivery at Licensee's office enclosed (Yes/No)	Whether Objector wants to be heard in person (Yes/No)

4. The Multi Year ARR & FPT schedule for Distribution Business and Business Plan for 4th Control Period (FY2019-20 to FY2023-24) proposed by the APEPDCL is given below:

Proposed Tariff for Distribution Business for 4th Control Period i.e., FY 2019-20 to FY 2023-24 for Eastern Power Distribution Company of A.P. Ltd

S.No	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A) ARR, Wheeling Charges and Wheeling Losses (%)						
1.	ARR (Rs. Crores)	1981	2313	2898	3505	4016
2.	Wheeling Charges					
	33 KV (Rs./KVA/Month)	46	50	59	66	71
	11 KV (Rs./KVA/Month)	383	418	488	549	631
	LT (Rs./KVA/Month)	645	705	827	936	981
3.	Wheeling Losses (%)					
	33 KV	2.81%	2.80%	2.79%	2.78%	2.77%
	11 KV	3.28%	3.25%	3.20%	3.15%	3.10%
	LT	4.13%	4.11%	4.08%	4.05%	4.02%
B) Distribution Loss Reduction Trajectory (%)						
1.	Excluding EHT sales	7.97%	8.19%	8.15%	8.10%	8.06%
C) Capital Investments						
1.	Capital Investments (Rs. Crs.)	1372	991	1103	1286	1462

Date : 16.12.2018

Place : Visakhapatnam

CHAIRMAN & MANAGING DIRECTOR
APEPDCL

5. Hon'ble Commission will conduct Public hearings on said Multi Year ARR&FPT for 4th Control Period (FY2019-20 to FY2023-24) proposals along with ARR and FPT proposals on Retail Supply Business. However, 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, 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, (Vidyuth Nilayam), APSPDCL, Behind Srinivasa Kalyanamandapams, 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 (Exclusive for MYT proposals of all licensees)	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 APDISCOMs.

The views / Objections/suggestions submitted to the Hon'ble Commission beyond the stipulated date 07-01-2019 up to 5PM 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 APDISCOMs 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, Tirupati on Multi Year ARR and Tariff proposals along with ARR and FPT proposals on Retail Supply Business of APDISCOMs for the 4th Control Period.

ANNEXURE – B
LIST OF OBJECTORS

S.NO.	NAME & ADDRESS OF THE OBJECTOR
1	M/s. Greenco Energy Private Limited, Regd. Office: Plot No.1071, Road No.44, Jubilee Hills, Hyderabad – 500 033
2	Smt. S. Jayasree, President, M/s. Amrutha Swachanda Seva Society, (Environment Management Development Organization) #12/15/104/1/A, Bharath Nagar, Moosapet, Hyderabad-500 018.
3	Sri S. Venkateswarulu, M/s. Neetha Swachanda Seva Society, (Environmental Management Development Organisation), #40/321-6-A1, Sanjeeva Sadan, Abdullah Khan Estate, Kurnool – 518 001
4	Sri M. Thimma Reddy, Convenor, People's Monitoring Group on Electricity Regulation, 139, Kakatiya Nagar, Hyderabad – 500 008.
5	Sri M. Venugopala Rao, Senior Journalist & Convener, Centre for power Studies, H.No.7-1-408 to 413, F:203, Sri Sai Darsan Residency, Balkampet Road, Ameerpet, Hyderabad – 500 016.
6.	Sri N. Sreekumar, Member - Prayas Energy Group, 405, Divya Enclave, 12-5-34, Vijayapuri, Tarnaka, Hyderabad - 500 017

ANNEXURE – C1
Filings: Total No. PTRs & DTRs - APEPDCL

FY⟶	2019-20	2020-21	2021-22	2022-23	2023-24	Filed for CP
Srikakulam						
No of 5 MVA 33/11 kV SS	11	13	14	16	17	**71**
No of 100 kVA DTRs	580	650	730	800	890	**3,650**
Vizianagaram						
No of 5 MVA 33/11 kV SS	13	14	15	17	19	**78**
No of 100 kVA DTRs	660	740	820	900	1,000	**4,120**
Visakhapatnam						
No of 5 MVA 33/11 kV SS	22	24	26	28	31	**131**
No of 100 kVA DTRs	1,620	1,790	1,960	2,150	2,350	**9,870**
Rajahmundry						
No of 5 MVA 33/11 kV SS	30	33	37	41	45	**186**
No of 100 kVA DTRs	1,850	2,070	2,300	2,570	2,840	**11,630**
Eluru						
No of 5 MVA 33/11 kV SS	102	39	43	50	53	**287**
No of 100 kVA DTRs	1,800	2,560	2,860	3,360	3,570	**14,150**

ANNEXURE - C2

Filings: Total No. of PTRS & DTRS-APSPDCL

FY⟶	2019-20	2020-21	2021-22	2022-23	2023-24	Filed for CP
Vijayawada						
No of 5 MVA 33/11 kV SS	44	50	57	64	73	**287**
No of 100 kVA DTRs	3,480	3,970	4,520	5,130	5,840	**22,940**
Guntur						
No of 5 MVA 33/11 kV SS	39	44	51	58	66	**258**
No of 100 kVA DTRs	2,830	3,210	3,650	4,130	4,700	**18,520**
Ongole						
No of 5 MVA 33/11 kV SS	23	25	28	30	33	**139**
No of 100 kVA DTRs	1,610	1,760	1,930	2,100	2,290	**9,690**
Nellore						
No of 5 MVA 33/11 kV SS	28	33	38	44	51	**194**
No of 100 kVA DTRs	2,450	2,840	3,270	3,760	4,350	**16,670**
Tirupati						
No of 5 MVA 33/11 kV SS	33	36	39	42	46	**196**
No of 100 kVA DTRs	1,960	2,120	2,310	2,490	2,690	**11,570**
Kadapa						
No of 5 MVA 33/11 kV SS	19	21	23	26	29	**118**
No of 100 kVA DTRs	1,450	1,630	1,820	2,020	2,260	**9,180**
Anantapur						
No of 5 MVA 33/11 kV SS	40	20	22	24	27	**133**
No of 100 kVA DTRs	3,520	1,760	1,950	2,140	2,370	**11,740**
Kurnool						
No of 5 MVA 33/11 kV SS	15	16	18	20	22	**91**
No of 100 kVA DTRs	1,330	1,490	1,660	1,840	2,050	**8,370**

ANNEXURE - C3
Filings: Line Lengths (km)-APEPDCL

FY⟶	2019-20	2020-21	2021-22	2022-23	2023-24	Filed for CP
Srikakulam						
33 kV	100	118	127	145	154	644
11kV	382	428	481	527	586	2404
LT	382	428	481	527	586	2404
Vizianagaram						
33 kV	98	105	113	128	143	587
11kV	330	370	410	450	500	2060
LT	330	370	410	450	500	2060
Visakhapatnam						
33 kV	154	168	182	196	217	917
11kV	638	705	772	847	926	3888
LT	638	705	772	847	926	3888
Rajahmundry						
33 kV	247	271	304	337	370	1529
11kV	573	642	713	796	880	3604
LT	573	642	713	796	880	3604
Eluru						
33 kV	692	265	292	339	360	1948
11kV	419	596	665	782	831	3293
LT	419	596	665	782	831	3293

ANNEXURE - C4

Filings: Line Lengths (km)-APSPDCL

FY⟶	2019-20	2020-21	2021-22	2022-23	2023-24	Filed for CP
Vijayawada						
33 kV	313	355	405	455	519	2047
11kV	1,502	1,713	1,951	2,214	2,521	9901
LT	1,502	1,713	1,951	2,214	2,521	9901
Guntur						
33 kV	266	300	347	395	456	1764
11kV	944	1,071	1,217	1,377	1,567	6176
LT	944	1,071	1,217	1,377	1,567	6176
Ongole						
33 kV	365	411	477	542	626	2421
11kV	1,571	1,782	2,026	2,292	2,609	10280
LT	1,571	1,782	2,026	2,292	2,609	10280
Nellore						
33 kV	183	199	223	239	263	1107
11kV	445	486	533	580	633	2677
LT	445	486	533	580	633	2677
Tirupati						
33 kV	168	198	228	264	306	1164
11kV	559	648	746	857	992	3802
LT	559	648	746	857	992	3802
Kadapa						
33 kV	107	118	130	147	164	666
11kV	290	326	364	404	452	1836
LT	276	310	346	384	429	1745
Anantapur						
33 kV	323	161	177	194	218	1073
11kV	1,095	548	607	666	737	3653
LT	1,095	548	607	666	737	3653
Kurnool						
33 kV	140	149	168	187	205	849
11kV	423	474	528	585	652	2662
LT	423	474	528	585	652	2662

ANNEXURE - D1

Approved: Total No. PTRs & DTRs - APEPDCL

FY⟶	2019-20	2020-21	2021-22	2022-23	2023-24	Filed for CP
Srikakulam						
No of 5 MVA 33/11 kV SS	7	8	9	10	11	**45**
No of 100 kVA DTRs	360	400	460	480	540	**2,240**
Vizianagaram						
No of 5 MVA 33/11 kV SS	9	10	11	12	14	**56**
No of 100 kVA DTRs	488	484	542	669	667	**2,849**
Visakhapatnam						
No of 5 MVA 33/11 kV SS	21	23	25	27	30	**127**
No of 100 kVA DTRs	1,474	1,943	1,777	1,919	2,530	**9,643**
Rajahmundry						
No of 5 MVA 33/11 kV SS	24	27	30	34	37	**152**
No of 100 kVA DTRs	1,354	1,737	1,931	2,177	2,115	**9,315**
Eluru						
No of 5 MVA 33/11 kV SS	82	30	34	40	42	**228**
No of 100 kVA DTRs	1,536	2,037	2,287	2,683	2,858	**11,401**

ANNEXURE - D2

Approved: Total No. of PTRS & DTRS - APSPDCL

FY⟶	2019-20	2020-21	2021-22	2022-23	2023-24	Filed for CP
Vijayawada						
No of 5 MVA 33/11 kV SS	44	50	57	64	73	**287**
No of 100 kVA DTRs	3,416	3,850	4,409	5,514	5,685	**22,875**
Guntur						
No of 5 MVA 33/11 kV SS	34	39	45	51	58	**228**
No of 100 kVA DTRs	2,351	3,004	3,043	3,878	3,935	**16,211**
Ongole						
No of 5 MVA 33/11 kV SS	18	20	22	23	26	**108**
No of 100 kVA DTRs	1,342	1,244	1,629	1,459	1,908	**7,582**
Nellore						
No of 5 MVA 33/11 kV SS	24	28	32	37	42	**164**
No of 100 kVA DTRs	2,040	2,380	2,754	3,127	3,603	**13,904**
Tirupati						
No of 5 MVA 33/11 kV SS	27	30	32	34	37	**160**
No of 100 kVA DTRs	1,700	1,850	1,571	2,122	2,295	**9,538**
Kadapa						
No of 5 MVA 33/11 kV SS	14	16	18	20	22	**91**
No of 100 kVA DTRs	1,148	1,275	1,434	1,626	1,753	**7,236**
Anantapur						
No of 5 MVA 33/11 kV SS	18	20	22	24	27	**112**
No of 100 kVA DTRs	1,599	1,812	1,990	2,167	2,380	**9,948**
Kurnool						
No of 5 MVA 33/11 kV SS	12	13	15	16	18	**75**
No of 100 kVA DTRs	1,071	1,178	1,357	1,726	1,660	**6,992**

ANNEXURE - D3

Approved: Line Lengths (km) – APEPDCL

FY⟶	2019-20	2020-21	2021-22	2022-23	2023-24	Filed for CP
Srikakulam						
33 kV	65	73	83	87	98	**406**
11kV	238	264	304	317	356	**1478**
LT	238	264	304	317	356	**1478**
Vizianagaram						
33 kV	66	75	84	90	102	**418**
11kV	244	242	271	334	333	**1425**
LT	244	242	271	334	333	**1425**
Visakhapatnam						
33 kV	149	163	177	191	210	**889**
11kV	575	758	693	748	987	**3761**
LT	575	758	693	748	987	**3761**
Rajahmundry						
33 kV	201	224	247	276	302	**1249**
11kV	420	538	599	675	656	**2888**
LT	420	538	599	675	656	**2888**
Eluru						
33 kV	553	206	231	271	285	**1546**
11kV	353	469	526	617	657	**2622**
LT	353	469	526	617	657	**2622**

ANNEXURE - D4

Approved: Line Lengths (km) - APSPDCL

FY⟶	2019-20	2020-21	2021-22	2022-23	2023-24	Filed for CP
Vijayawada						
33 kV	313	353	405	456	516	2043
11kV	1469	1656	1896	2371	2445	9836
LT	1469	1656	1896	2371	2445	9836
Guntur						
33 kV	234	267	305	349	398	1553
11kV	776	991	1004	1280	1299	5350
LT	776	991	1004	1280	1299	5350
Ongole						
33 kV	165	183	202	217	239	1006
11kV	745	690	904	810	1059	4208
LT	745	690	904	810	1059	4208
Nellore						
33 kV	191	223	258	293	338	1304
11kV	561	654	757	860	991	3824
LT	561	654	757	860	991	3824
Tirupati						
33 kV	163	178	192	206	223	962
11kV	391	425	361	488	528	2194
LT	391	425	361	488	528	2194
Kadapa						
33 kV	81	90	102	115	124	512
11kV	224	249	280	317	342	1411
LT	224	249	280	317	342	1411
Anantapur						
33 kV	145	165	181	197	216	904
11kV	496	562	617	672	738	3084
LT	496	562	617	672	738	3084
Kurnool						
33 kV	112	123	142	153	172	702
11kV	343	377	434	552	531	2237
LT	343	377	434	552	531	2237

ANNEXURE - E1

Approved- Regulated Rate Base – APEPDCL

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Assets	**7,865**	**9,606**	**11,076**	**12,003**	**13,024**
OCFA Opening Balance	7,033	7,865	9,606	11,076	12,003
Additions to OCFA	832	1,741	1,470	927	1,021
Depreciation	**3,586**	**3,894**	**4,280**	**4,723**	**5,201**
Opening Balance	3,317	3,586	3,894	4,280	4,723
Depreciation during the Year	269	308	386	443	478
Consumer Contributions	2,128	2,203	2,283	2,392	2,529
Cons Contributions Opening Balance	2,090	2,128	2,203	2,283	2,392
Additions to Cons Contributions	38	75	79	109	137
Working Capital	**128**	**144**	**163**	**184**	**206**
Change in Rate Base	**262**	**679**	**502**	**188**	**203**
Regulated Rate Base	**2,016**	**2,973**	**4,173**	**4,884**	**5,297**

ANNEXURE - E2

Approved- Regulated Rate Base – APSPDCL

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Assets	**17,626**	**20,610**	**24,470**	**28,328**	**30,644**
OCFA Opening Balance	15,505	17,626	20,610	24,470	28,328
Additions to OCFA	2,121	2,984	3,859	3,858	2,316
Depreciation	**8,338**	**9,119**	**10,037**	**11,122**	**12,395**
Opening Balance	7,671	8,338	9,119	10,037	11,122
Depreciation during the Year	667	781	918	1,086	1,273
Consumer Contributions	**3,261**	**3,471**	**3,665**	**3,839**	**3,992**
Cons Contributions Opening Balance	3,038	3,261	3,471	3,665	3,839
Additions to Cons Contributions	223	210	194	175	153
Working Capital	**250**	**279**	**312**	**351**	**396**
Change in Rate Base	**615**	**997**	**1,374**	**1,299**	**445**
Regulated Rate Base	**5,662**	**7,303**	**9,707**	**12,419**	**14,207**

ANNEXURE - F1

Filings: Voltage wise Asset Base utilisation - (Rs. Cr.) - APEPDCL

	FY2019-20	FY2020-21	FY2021-22	FY2022-23	FY2023-24
33 kV	164	210	259	297	342
11 kV	1,750	2,213	2,688	3,046	3,452
LT	6,176	7,660	9,124	10,139	11,274
Total	**8,090**	**10,083**	**12,071**	**13,482**	**15,068**

ANNEXURE - F2

Filings: Voltage wise Asset Base utilisation - (Rs. Cr.) - APSPDCL

	FY2019-20	FY2020-21	FY2021-22	FY2022-23	FY2023-24
33 kV	357	398	453	498	508
11 kV	3,343	3,790	4,401	4,937	5,141
LT	14,201	17,398	21,841	26,501	29,864
Total	**17,900**	**21,586**	**26,696**	**31,936**	**35,513**

ANNEXURE- G1

Filings: Voltage wise net ARR Apportioning (Rs. Cr.) – APEPDCL

	FY2019-20	FY2020-21	FY2021-22	FY2022-23	FY2023-24
33 kV	38	45	59	74	87
11 kV	431	511	648	793	991
LT	1,512	1,757	2,191	2,638	2,938
Total	**1,981**	**2,313**	**2,898**	**3,505**	**4,016**

ANNEXURE - G2

Filings: Voltage wise net ARR Apportioning (Rs. Cr.) – APSPDCL

	FY2019-20	FY2020-21	FY2021-22	FY2022-23	FY2023-24
33 kV	54	63	77	96	113
11 kV	913	987	1,142	1,370	1,493
LT	2,965	3,546	4,407	5,545	6,813
Total	**3,932**	**4,595**	**5,626**	**7,011**	**8,419**

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GLOSSARY

AAD	Advance Against Depreciation
ABC	Aerial bunched cables
A&G costs	Administrative and General costs
APERC	Andhra Pradesh Electricity Regulatory Commission
APEPDCL/EPDCL	Eastern Power Distribution Company of A.P Limited
APSPDCL/SPDCL	Southern Power Distribution Company of A.P Limited
APGENCO	Generation Corporation of Andhra Pradesh Limited
APGPCL	A.P. Gas Power Corporation Limited
APPCC	AP Power Coordination Committee
ARR	Aggregate Revenue Requirement
BST	Bulk Supply Tariff
CEA	Central Electricity Authority
Central Act	The Electricity Act 2003 (Act 36 of 2003),
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
COD	Commercial Date of Operation
CoS	Cost of Supply
CWIP	Capital Works-in-Progress
DISCOMs	Distribution Companies
DSM	Demand side management
DTR	Distribution Transformer
EHT	Extra High Tension
ERCs	Electricity Regulatory Commissions
FoR	Forum of Regulators
FPT	Filing of Proposal for Tariff
GoAP	Government of Andhra Pradesh
GoI	Government of India
HDPE	High Density Poly Ethelene
HT	High Tension
HVDS	High Voltage Distribution system
IDC	Interest during construction

IPPs	Independent Power Producers
ISI	Indian Standards Institute
KW	Kilo Watt
LV	Low voltage
MU	Million units
NCE	Non-conventional energy
O&M	Operations & Maintenance
OCFA	Original Cost of Fixed Assets
O.P.	Original Petition
PGCIL	Power Grid Corporation of India Limited
PPAs	Power Purchase Agreements
RAC	Regulatory Affairs Cell
Reform Act	A.P. Electricity Reform Act 1998
ROCE	Return on capital employed
RoE	Return on Equity
RST	Retail Supply Tariff’
SAC	State Advisory Committee
SD	Security Deposit
SERCs	State Electricity Regulatory Commissions
SI	System Improvement
SLDC	State Load Despatch Centre
WACC	Weighted Average Cost of Capital