

## **2<sup>nd</sup> Regulatory Research Camp**

# **Regulatory Framework for Distribution ARR and Tariff Determination**

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# **Power Distribution Regulations in Andhra Pradesh**

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# Evolution of Regulatory regime

- ✓ APERC came into existence w.e.f March 1999, pursuant to AP Power Sector Reforms Act.
- ✓ Up to the Financial Year 2005, annual tariff regime
- ✓ Multi Year Tariff Regulation issued in the year 2005, setting up the Control periods – pursuant to the Electricity Act 2003.
- ✓ PPAs have been vested with Distribution Companies in 2005
- ✓ As per the provisions of the Electricity Act 2003, Distribution segment is decomposed into Wheeling Activity & Retail Supply activity
- ✓ First control period is of 3 years from 2006-09. Later Control period is of 5 Years.
- ✓ Three Control periods have elapsed since then
- ✓ Fourth Control period Tariff Orders were also issued.
- ✓ In view of the practical problems , uncertainties associated with projection of Power Purchase Cost on Long Term/Multi-Year basis, the DISCOMs are seeking exemption from filing of Retail Supply Tariffs on Multi Year Basis & the Hon'ble Regulatory Commission is granting the same.

# Major Cost Components in Distribution ARR

**ARR = Allowable Expenses (Prudently incurred expenditure including Reasonable Return) – Non-Tariff Income**

## **Network Activity / Wheeling of Power:**

- Transmission Cost
- Load Dispatch Charges
- Operation & Maintenance (O&M) Expenses
- Return on Capital Employed (ROCE)
- Depreciation
- Other Expenditure.
- Taxes on Income
- Non-Tariff Income

## **Retail Sale of Electricity :**

- Power Purchase Cost
- Network Expenditure
- Interest on Security Deposit.
- Other Costs
- Non-Tariff Income

## Various Regulations issued by APERC Governing Dist./RS Tariffs

Type (Principle Regulation/Amendment)	Title of the Document	Document No.	Date of Issue
Principal Regulation:	Terms and conditions for determination of tariff for supply of electricity by a generating company to a distribution licensee and purchase of electricity by distribution licensees read with Fixation of Control Period notification dated 01.02.2010	APERC Regulation 1 of 2008	1st September 2008
Principal Regulation:	Terms and Condition for Determination of Tariff for Transmission of Electricity.	APERC - Reg.No. 5 of 2005:	30-11-2005
Amendment Regulation	First Amendment to the APERC Terms and Conditions for Determination of Tariff for Transmission of Electricity - Regulation No. 5 of 2005	APERC - Reg.No. 1 of 2019:	16-02-2019
Principal Regulation:	Terms and Conditions for Determination of Tariff for Wheeling and Retail Sale of Electricity	APERC-Reg.No. 4 of 2005:	14-11-2005
Amendment Regulation	First Amendment to Terms and Conditions for Determination of Tariff for Wheeling and Retail Sale of Electricity	APERC Regulation 1 of 2014	7/3/2014
Principal Regulation:	Levy and Collection of Fees and Charges by State Load Despatch Centre	APERC - Reg.1 of 2006:	27-07-2006

# Resource Plan

- As per the Distribution Tariffs regulation, each Distribution Licensee shall have to file Resource Plan by 1<sup>st</sup> April of the Year preceding the first year of the Control Period.
- Resource Plan consists of
  - Load Forecast
  - Power Procurement Plan
  - Investment Plan
- The Commission shall adopt Load Sales forecast, Loss Trajectory and Power procurement plan approved as part of the Resource Plan for the purpose of determining the Power purchase cost requirement.

# Regulation on O&M Cost

- The Commission in the W&RST Regulation has considered it appropriate to fix O&M costs by using pre-determined norms or formulae, based on the submissions of the Licensee. The O&M cost for the Base Year is determined on the basis of latest audited accounts, best estimates of Licensee for the O&M expenses for relevant years and other factors considered relevant.
- The Licensee can also propose the required indexation for projecting the O&M costs over the relevant control period. Using pre -determined norms or formulae the O&M expenses for the Base Year will be used for projecting the expenses for each year of the Control period.

# Regulation on Depreciation

- Depreciation allowance for each year of the Control Period shall be determined generally based on methodology, Rates and other terms as may be decided by the CERC from time to time.
- Depreciation shall be charged from 1<sup>st</sup> April of the following year of Asset put into operation.

# Formation of Two States

**Earstwhile AP State has been bifurcated into Two States  
with effect from 2<sup>nd</sup> June 2014 (Starting of third Control Period)**

## Telangana



## ANDHRA PRADESH



**By the time of formation Distribution MYT Order has been issued but  
Retail Supply Tariff Order was kept on hold.**





## Major Parameters considered for fixing up of Norms for O&M Expenditures

- Norm based methodology to project O&M expenses year has been considered from 2<sup>nd</sup> Control Period.
- This method accounts for both inflationary impact on existing O&M expenses and increase in expenses due to addition of
- Network elements, Employees and Establishment.
- The proposed methodology in 2<sup>nd</sup> & third CPs correlates expenses to sales (DISCOM and open access) and Gross fixed assets.

# Major Parameters considered for fixing up of Norms for O&M Expenditures

From 3<sup>rd</sup> CP onwards , parameters considered by the Commission, Indexed to WPI & CPI are as following:

- No. of Substations
  - Length of Lines
  - No. of Distribution Transformers
  - No. of Consumers.
- Other parameters that can be considered:
    - ✓ Contracted Load/Demand
    - ✓ No. of Consumers/Employee
    - ✓ Load densities - MW/Sq.KM, Urban, Semi-Urban, Rural, Interior areas etc.

# Major Changes in Retail Supply Tariffs

- Even though as per the MYT Regulation RST is to be determined on Control period basis, but they are still continue on Annual basis.
- Quarterly FSA has been replaced with Annual True-Up of Power Purchase Costs w.e.f. 2014.
- CoS methodology has been changed from Category wise embedded to Voltage wise Average from FY 2018-19

# Structural Change in Retail Supply Tariffs w.e.f FY 2019-20

- Simplification of tariff categories & rationalization of Tariff structure.
- Earlier there are eight (8) categories in LT Supply and another eight (8) categories in HT Supply.
- In accordance with the draft amendment to the Tariff Policy & the suggestions of the earlier Committee constituted by the Ministry of Power, Government of India for simplification of tariff structure / reduction of tariff categories of the consumers, the APERC has attempted the simplification of tariff categories.
- The existing 16 Categories, 51 Sub-categories and 25 Slabs are now reduced to 5 Categories, 30 Sub-Categories and 21 slabs.

# Latest Tariff Categories in Retail Supply Tariffs w.e.f FY 2019-20

- Domestic
- Commercial & Others
- Industry
- Institutional
- Agriculture & Related.

## Revenue Requirement and Revenue Gap determined by the Commission for FY 2019-20

S.N o.	Item	Licensee		
		SPDCL	EPDCL	TOTAL
1	Aggregate Revenue Requirement	22961.68	12895.71	35857.39
2	Revenue from Tariff including NTI	16864.85	11486.32	28351.17
3	Revenue from CSS	78.15	25.80	103.95
4	Revenue from sale of RECs	241.00	97.00	338.00
<b>5</b>	<b>Revenue Gap (1-2-3-4)</b>	<b>5777.68</b>	<b>1286.59</b>	<b>7064.27</b>

## Retail Supply ARR approved by the Commission for FY 2019-20

S. No.	Item	Approved by Commission (Rs. Cr.)		
		SPDCL	EPDCL	STATE
1	Transmission Cost	1057.89	551.51	1609.40
2	SLDC Cost	40.42	21.07	61.49
3	Distribution Cost	3682.44	1801.07	5483.51
4	PGCIL Cost	966.23	503.77	1470.00
5	ULDC Cost	2.94	1.53	4.47
<b>6</b>	<b>Network and SLDC Cost (1+2+3+4+5)</b>	<b>5749.92</b>	<b>2878.95</b>	<b>8628.87</b>
7	Power Purchase / Procurement Cost	16805.8	9624.57	26430.37
8	Interest on consumer security deposits	179.24	121.72	300.96
9	Supply Margin in Retail Supply Business	27.65	10.03	37.68
10	Other Costs	126.62	224.01	350.63
<b>11</b>	<b>Supply Cost (7+8+9+10)</b>	<b>17139.31</b>	<b>9980.33</b>	<b>27119.64</b>
<b>12</b>	<b>True-up for FY2015-16</b>	<b>72.45</b>	<b>36.43</b>	<b>108.88</b>
<b>13</b>	<b>Aggregate Revenue Requirement (6+11+12)</b>	<b>22961.68</b>	<b>12895.71</b>	<b>35857.39</b>



# Queries & Answers

**THANK YOU**