

# **Introduction**

## **Filings based on Multi-Year Tariff (MYT) Principles**

The Andhra Pradesh Electricity Regulatory Commission framed the “Terms and Conditions for determination of Tariff for Wheeling and retail supply of electricity” Regulation 4 of 2005 and First Amendment Regulation 2014 (“Regulation 1”), lays down the principles for determination of Aggregate Revenue Requirement (ARR) for (a) Distribution Business and (b) Retail Supply Business of the licensees. The ARR so determined for each of the businesses will form the basis for fixation of charges for wheeling and for retail sale of electricity.

In the Regulation, the Commission has also laid down the procedures for filing under multi-year tariff principles. The multi-year period is defined as the Control Period and the first Control Period is defined as the three year period starting from financial year 2006-07 and continuing till the end of financial year 2008-09. The second control period was defined as the five year period starting from FY 2009-10 to FY 2013-14. The third control period was defined as the five year period starting from FY 2014-15 to FY 2018-19. The current filing pertains to the fourth Control Period (FY 2019-20 to FY 2023-24). The Commission has specified in Para 6.2 of the Regulation the following procedure for ARR filing for the distribution and retail supply business:

*“The ARR filing for the Distribution business shall be for the entire Control Period. For the Retail Supply business the ARR filing will be on annual basis for the first control period and the entire control period for the subsequent control periods.”*

Hon’ble APERC vide its letter No. APERC/Secy/F:T-99/D.No.716/2022, Date:15.11.22 has directed the APDISCOMS to file the ARR & FPT of Retail Supply Business for FY 2023-24 within the time schedule prescribed. Accordingly, the current filing is being done following the principles laid down under Regulation for determination of the ARR for the retail supply business for the year FY 2023-24, which is the last year of the Fourth Control period.

## **Filing Contents**

The filing is structured in the following way:

**Expenditure Projections**

* + Power Purchase and Procurement Cost
	+ Transmission Charges
	+ PGCIL & ULDC Charges
	+ SLDC Charges
	+ Distribution Cost
	+ Interest on Consumer Security Deposits
	+ Supply Margin
	+ Other Costs
	+ Aggregate Revenue Requirement for Retail Supply Business

**Revenue Projections**

* + Sales Forecast
	+ Revenue from Current Tariffs
	+ Non-tariff Income at Current Charges
	+ Revenue from Cross Subsidy Surcharge

**Revenue Gap**

* + Revenue Deficit / Surplus at Current Tariff and Charges
	+ Proposals to handle the Deficit / Surplus
	+ Government Subsidy Requirement

**Other Filings**

* **Cross Subsidy Surcharge**

The sales forecast has been used to determine the revenue from tariff for retail sale of electricity for the last year of the fourth control period i.e. FY 2023-24 and the energy input required for meeting the demand. The power procurement plan is based on the availability of the generation sources during FY 2023-24, cost of procurement (fixed, variable and others) and the merit order dispatch of various sources to meet the demand expected during various months.

# **Analysis of expected performance for Current Year FY 2022-23 for Retail Supply Business**

## Introduction

This chapter analyses the performance of the licensee during the Current Year as compared to the previous year. Only the key operating and financial parameters have been considered for this analysis.

## Operating Performance

### Energy Balance

|  |  |  |
| --- | --- | --- |
| **Particulars** | **FY 2021-22** | **FY 2022-23** |
| **APERC Order** | **Actuals** | **APERC Order** | **Actuals** |
| **MU** | **%** | **MU** | **%** | **MU** | **%** | **MU** | **%** |
| Metered Sales (incl.EHT) | 12366.74 | 79.19% | 12366.74 | 79.19% | 12366.74 | 79.19% | 12366.74 | 79.19% |
| LT Agricultural Sales | 2025.02 | 12.97% | 2025.02 | 12.97% | 2025.02 | 12.97% | 2025.02 | 12.97% |
| **Total Sales** | **14391.76** | **92.15**% | **14391.76** | **92.15**% | **14391.76** | **92.15**% | **14391.76** | **92.15**% |
| EHT Sales | 610.67 |  | 610.67 |  | 610.67 |  | 610.67 |  |
| DISCOM Input (Exc. EHT Sales) | 15006.76 |  | 15006.76 |  | 15006.76 |  | 15006.76 |  |
| **DISCOM Losses (Exc. EHT Sales)** |  | **8.17**% |  | **8.17**% |  | **8.17**% |  | **8.17**% |
| DISCOM Input | 15617.43 |  | 15617.43 |  | 15617.43 |  | 15617.43 |  |
| **Loss Including EHT Sales %** |  | **7.85**% |  | **7.85**% |  | **7.85**% |  | **7.85**% |

### Distribution Loss

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **Actual** | **No. of 11 KV****T&MHQ feeders for which energy audit done** | **11 KV 2 MVAR capacitor banks added to the system** | **Additional 33/11 KV sub-stations charged** |
| **Excl. EHT (%)** | **Incl. EHT (%)** |
| FY 2017-18 | 9.56 | 8.31 | 822 | 35 | 90 |
| FY 2018-19 | 9.45 | 8.26 | 826 | 23 | 55 |
| FY 2019-20 | 8.33 | 7.96 | 834 | 18 | 58 |
| FY 2020-21 | 8.62 | 8.29 | 861 | 0 | 19 |
| FY 2021-22 | 8.55 | 8.05 | 870 | 3 | 12 |
| 2022-23 (H1) | 8.64 | 8.12 | 928 | 2 | 6 |

As seen from the table shown in para 2.2.2, the expected losses (excluding EHT sales) for the FY 2022-23 is 8.64 %. The licensee has taken following steps to reduce the losses.

* Strict monitoring of feeders to ensure the assured number of hours of supply to agricultural sector.
* Reduction of both technical and commercial losses by vigorously conducting 11 KV feeder wise energy audits of 928 feeders in the company.
* Erection of additional sub-stations, DTRs and bifurcation of feeders etc.
* Conversion of balance agricultural pump sets to HVDS.
* Replacing the defective meters with IRDA port meters and smart meters.

In the FY 2020-21, 19 additional 33/11 KV sub-stations were charged and for the year FY 2021-22, 12 additional 33/11 KV sub-stations are charged. For the FY 2022-23, 99 no. 33/11 KV Sub-stations are under proposal out of which 6 were already charged to reduce the burden on over-loaded sub-stations, 33 KV & 11 KV lines and to maintain better voltage profiles at the consumers’ end.

### Metered Sales

As can be seen from the table of energy balance, the percentage of actual metered sales is increased by 0.43% in FY 2021-22than approved tariff order sales. In FY 2022-23, the metered sales are expected to decrease by 0.14% due to reduction in consumption of sales.

### Agricultural Sales

In the previous FY 2021-22, the actual consumption is 1881.56 MU as against the approved 2025.02 MU. In the current FY 2022-23, the agriculture consumption is 813.03 MU for the first half, and the projection for the entire year is 1962.76 MU, which is less than the approved agricultural sales

## Financial Performance

### Revenues

For the key categories, the licensee has estimated the revenue as below:

The actual revenue during the FY 2021-22 is Rs.7537.81 Crs (including non-tariff income). The NTI during the FY 2021-22 is Rs.373.72 Crs. During FY 2022-23, the estimated revenue from sale of power (inclusive of Non-tariff income) is Rs. 8455.98 crores. The expected NTI during FY 2022-23 is Rs.392.40 crores.

**(Rs. in Crs)**

| **Sl.No** | **Category** | **FY 2021-22** | **FY 2022-23** |
| --- | --- | --- | --- |
| **APERC Target** | **Actuals** | **APERC Target** | **Revised Estimate** |
| **A** | **LT** |  |  |  |  |
| 1 | Domestic | 2471.94 | 2063.71 | 2880.46 | 2744.86 |
| 2 | Commercial & Others | 1140.99 | 971.96 | 1008.87 | 1129.27 |
| 3 | Industry | 433.14 | 413.09 | 461.10 | 420.77 |
| 4 | Institutional | 240.36 | 240.04 | 251.63 | 251.87 |
| 5 | Agriculture & Related | 505.08 | 538.06 | 572.17 | 517.29 |
| **Total** | **4579.96** | **4791.51** | **4226.86** | **5174.23** |
| **B** | **HT** |  |  |  |  |
| 1 | Domestic | 19.14 | 10.23 | 10.34 | 11.06 |
| 2 | Commercial & Others | 600.77 | 427.22 | 433.58 | 530.22 |
| 3 | Industry | 2203.57 | 2442.90 | 2550.28 | 2325.04 |
| 4 | Institutional | 296.93 | 383.54 | 333.35 | 472.46 |
| 5 | Agriculture & Related | 73.48 | 47.06 | 67.61 | 53.13 |
| **Total** | **3674.59** | **3193.89** | **3310.95** | **3395.18** |
| **Grand Total** | **8254.55** | **7985.41** | **7537.81** | **8569.41** |

### Expenditure and Revenue Gap

The following table provides an overview of APCPDCL’s financial performance for the current year 2022-23 and compares it with the APERC orders:

**(Rs. in Crs)**

| **Sl. No** | **Particulars** | **Approved** | **Present Estimate** |
| --- | --- | --- | --- |
| 1 | Transmission Cost | 696.13 | 696.13 |
| 2 | SLDC Cost | 9.10 | 9.10 |
| 3 | Distribution Cost | 2201.51 | 2201.51 |
| 4 | PGCIL Expenses | 189.40 | 300.68 |
| 5 | ULDC Charges | 1.17 | 0.74 |
| **6** | **Network and SLDC Cost (1+2+3+4+5)** | **3097.31** | **3,208.16** |
| 7 | Power Purchase / Procurement Cost | 7253.54 | 7801.26 |
| 8 | Additional Interest on Pension bonds of APGenco order | 230.53 | 230.53 |
| 9 | Interest on Consumer Security Deposits | 53.71 | 80.28 |
| 10 | Supply Margin in Retail Supply Business | 22.72 | 22.72 |
| 11 | Other Costs, if any | 5.25 | 6.16 |
| **12** | **Supply Cost (7+8+9+10+11)** | **7565.75** | **8,140.95** |
| **13** | **Aggregate Revenue Requirement (6+12)** | **10663.06** | **11,349.11** |
| 14 | True-up for 2019-20 | 512.04 |  |
| 15 | True-down for FY 2020-21 | -864.33 |  |
| 16 | Provisional True down made in FY 2021-22 RST order | 486.43 |  |
| 17 | **Net Power Purchase Cost variations for two years (14+15+16)** | **134.14** |  |
| 18 | **Net ARR (13+17)** | **10797.20** | **11,349.11** |
| 19 | Income from tariff  | 8178.34 | **8063.58** |
| 20 | Non-Tariff income (NTI) | 391.07 | **392.40** |
| 21 | Income from Cross Subsidy Surcharge (CSS) | 29.95 | **28.74** |
| 22 | **Total Revenue (19+20+21)** | **8599.36** | **8484.72** |
| 23 | **Revenue Gap (22-18)** | **(2197.84)** | **(2864.39)** |
| 24 | **Concessions extended to various categories of consumers** | **511.89** |  |
| 25 | **Net subsidy from Distribution business and Retail Supply Business forego FY 2019-20 & FY 2020-21 to be adjusted** | **(45.69)** |  |
| 26 | **Total Revenue Gap for FY 2022-23** | **(2664.04)** | **(2864.39)** |
| 27 | **Subsidy** | **2664.04** | **2664.04** |
| 28 | **Net Gap** | **0.00** | **(200.35)** |

# **Power Purchase Cost for Current Year (FY 2022-23) Second Half and Ensuing Year (FY 2023-24)**

Based on the availability, requirement and costs for each source, the summary of power purchase cost for APDISCOMS for the current financialyear FY 2022-23 & for FY 2023-24 is tabulated as below:

|  |
| --- |
| **APCPDCL - FY 2022-23 RE: Source Wise Power Purchase Cost** |
| **Source** | **Despatch (MU)** | **Fixed Cost (Rs CRs)** | **Variable Cost (Rs Crs)** | **Total Cost (Rs Crs)** |  | **FC-Rs/Unit** | **VC-Rs/Unit** | **TC-Rs/Unit** |
| AP Genco-Thermal | 4309.07 | 547.79 | 1502.26 | 2050.05 |  | 1.27 | 3.49 | 4.76 |
| AP Genco-Hydro | 838.11 | 146.60 | 0.00 | 146.60 |  | 1.75 | 0.00 | 1.75 |
| Joint Sector | 2085.17 | 466.58 | 673.75 | 1140.33 |  | 2.24 | 3.23 | 5.47 |
| CGS | 3262.84 | 366.31 | 1168.48 | 1534.79 |  | 1.12 | 3.58 | 4.70 |
| IPPs | 2173.84 | 320.08 | 563.51 | 883.59 |  | 1.47 | 2.59 | 4.06 |
| NCE & RE | 178.34 | 5.79 | 110.26 | 116.06 |  | 0.32 | 6.18 | 6.51 |
| Market & Others | 894.03 | 1.96 | 777.11 | 779.07 |  | 0.02 | 8.68 | 8.70 |
| D-D | 2451.94 |  0.00 | 1150.77 | 1150.77 |  | 0.00 | 4.69 | 4.69 |
| **Total** | **16193.42** | **1855.11** | **5946.15** | **7801.26** |  | **1.15** | **3.67** | **4.82** |
| **APCPDCL - FY 2023-24 ARR Proposals: Source Wise Power Purchase Cost** |
| **Source** | **Despatch (MU)** | **Fixed Cost (Rs CRs)** | **Variable Cost (Rs Crs)** | **Total Cost (Rs Crs)** |  | **FC-Rs/Unit** | **VC-Rs/Unit** | **TC-Rs/Unit** |
| AP Genco-Thermal | 4406.73 | 942.68 | 1451.18 | 2393.85 |  | 2.14 | 3.29 | 5.43 |
| AP Genco-Hydro | 744.61 | 150.07 | 0.00 | 150.07 |  | 2.02 | 0.00 | 2.02 |
| Joint Sector | 3154.21 | 655.62 | 990.42 | 1646.05 |  | 2.08 | 3.14 | 5.22 |
| CGS | 2997.57 | 367.45 | 880.60 | 1248.05 |  | 1.23 | 2.94 | 4.16 |
| IPPs | 3305.36 | 498.92 | 840.56 | 1340.65 |  | 1.51 | 2.54 | 4.06 |
| NCE & RE | 164.64 | 5.36 | 103.82 | 109.18 |  | 0.33 | 6.31 | 6.63 |
| Market & Others | 0.00 | 0.00 | 0.00 | 0.00 |  | 0.00 | 0.00 | 0.00 |
| D-D | 2454.15 | 0.00 | 1125.46 | 1125.46 |  | 0.00 | 4.59 | 4.59 |
| **Total** | **17227.28** | **2621.26** | **5392.05** | **8013.31** |  | **1.52** | **3.13** | **4.65** |

# **Losses**

## DISCOM losses

The DISCOM voltage-wise losses for FY 2022-23 (H2) is projected to reduce by 0.01% over previous year and for FY 2023-24, losses are projected to reduce further 0.01% over the losses of FY 2022-23. The table given below provides the voltage level losses for projecting APCPDCL energy requirement for FY 2022-23 (H2), FY 2023-24.

|  |  |  |
| --- | --- | --- |
| **Voltage Level** | **FY 2022-23 (H2)** | **FY 2023-24** |
| **33 KV** | 3.13% | 3.12% |
| **11 KV** | 3.18% | 3.17% |
| **LT** | 3.75% | 3.74% |

The following table gives the details of losses projected by APCPDCL for FY 2022-23 and FY 2023-24.

|  |  |  |
| --- | --- | --- |
|  | **FY 2022-23** | **FY 2023-24** |
|  | **Excl. EHT** | **Incl. EHT** | **Excl. EHT** | **Incl. EHT** |
| Approved by APERC | 8.40% | 7.98% |  |  |
| Projection of APCPDCL | 8.64% | 8.12% | 8.60% | 8.05% |

## TRANSCO losses:

The Transmission losses including external PGCIL Losses for H2 FY 2022-23 and FY 2023-24 have been taken as given below.

|  |  |  |
| --- | --- | --- |
|  | **H2 FY 2022-23** | **FY 2023-24** |
| **Transmission Losses**  | **3.73%** | **3.75%** |

# Expenditure Projections for APCPDCL

## Power Purchase and Procurement Cost:

The Energy dispatch from various generating stations to APCPDCL is estimated for the FY 2022-23 as 16193.33 MU and for FY 2023-24 as 17227.28 MU. The cost of this energy would be Rs.7801.26 Crs for FY 2022-23 and Rs.8013.31 Crs for FY 2023-24.

|  |  |  |  |
| --- | --- | --- | --- |
| **Particulars** | **Units** | **FY 2022-23** | **FY 2023-24** |
| Power Purchase from generators | (in MU) | 16193.33 | 17227.28 |
| Power Purchase Cost from Generators | (in Rs. Crores) | 7801.26 | 8013.31 |

## APTransco Charges

**Transmission Cost:** The Transmission cost has been computed based on the Transmission tariff Order for the fourth control period (FY 2019-20 to FY 2023-24) and is tabulated below.

**Form - 1.1 – Transmission Cost**

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Load not eligible for Open Access** | **Open Access** | **Total Cost (Rs. Crs.)** |
| **Load Eligible for Open Access** |
| **MW** | **Tariff (Rs./kW/ month)** | **Cost (Rs. Crs.)** | **MW** | **Tariff (Rs./kW/ month)** | **Cost (Rs. Crs.)** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| 2020-21 | 2079.26 | 138.88 | 346.52 | 785.01 | 138.88 | 130.83 | **477.35** |
| Adjustment | **-67.18** |
| Total | **410.17** |
| 2021-22 | 2264.74 | 154.54 | 419.99 | 824.26 | 154.54 | 152.86 | **572.85** |
| Adjustment | **-62.63** |
| Total | **510.22** |
| 2022-23 | 2472.52 | 173.79 | 515.64 | 865.48 | 173.79 | 180.49 | **696.13** |
| 2023-24 | 2705.75 | 188.38 | 611.65 | 908.75 | 188.38 | 205.43 | **817.08** |

## PGCIL Charges

The PGCIL charges of APCPDCL for FY 2022-23 & FY 2023-24 are as shown in the table below.

**(Rs. in Crs)**

|  |  |  |
| --- | --- | --- |
| **Particulars in Crs** | **FY 2022-23** | **FY 2023-24** |
| PGCIL Expenses | 300.68 | 364.10 |

## ULDC Charges

The ULDC charges of APCPDCL for FY 2022-23 & FY 2023-24 are as shown in the table below.

**(Rs. in Crs)**

|  |  |  |
| --- | --- | --- |
| **Particulars in Crs** | **FY 2022-23** | **FY 2023-24** |
| ULDC Expenses | 0.74 | 0.74 |

## SLDC Charges

The SLDC cost has been computed based on the SLDC Tariff Order for the fourth control period (FY 2019-20 to FY 2023-24) and is tabulated.

**Form – 1.2 SLDC Charges**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Annual Fee** | **Charges** | **Total Cost (Rs. Crs.)** |
| **MW** | **Tariff (Rs./MW/ year)** | **Cost(Rs. Crs.)** | **MW** | **Tariff (Rs./MW/ year)** | **Cost(Rs. Crs.)** |
| **2020-21** |
| **Load not eligible for Open Access** | 4229.90 | 2838.01 | **1.20** | 4229.90 | 2058.18 | **10.45** | **11.65** |
| **Load eligible for Open Access** | 785.01 | 2838.01 | **0.22** | 785.01 | 2058.18 | **1.94** | **2.16** |
| **Total** | **5014.91** |  | **1.42** | **5014.91** |  | **12.39** | **13.81** |
| **2021-22** |
| **Load not eligible for Open Access** | 1979.85 | 3792.02 | **0.75** | 1979.85 | 2086.32 | **4.96** | **5.71** |
| **Load eligible for Open Access** | 824.26 | 3792.02 | **0.31** | 824.26 | 2086.32 | **2.06** | **2.37** |
| **Total** | **2804.11** |  | **1.06** | **2804.11** |  | **7.02** | **8.08** |
| **2022-23** |
| **Load not eligible for Open Access** | 2087.52 | 4997.87 | **1.04** | 2087.52 | 2150.21 | **5.39** | **6.43** |
| **Load eligible for Open Access** | 865.48 | 4997.87 | **0.43** | 865.48 | 2150.21 | **2.23** | **2.67** |
| **Total** | **2953.00** |  | **1.48** | **2953.00** |  | **7.62** | **9.10** |
| **2023-24** |
| **Load not eligible for Open Access** | 2124.75 | 6382.27 | **1.36** | 2124.75 | 2235.65 | **5.70** | **7.06** |
| **Load eligible for Open Access** | 908.75 | 6382.27 | **0.58** | 908.75 | 2235.65 | **2.44** | **3.02** |
| **Total** | **3033.50** |  | **1.94** | **3033.50** |  | **8.14** | **10.07** |

## Distribution Costs

The Distribution cost has been computed based on the MYT Tariff Order for the fourth control period (FY 2019-20 to FY 2023-24) and is tabulated below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Financial Year** | **Load not eligible for Open Access** | **Open Access** | **Grand Total** |
| **Load Eligible for Open Access** |
| **MW** | **Tariff (Rs./kW/ month)** | **Cost (Rs. Crs.)** | **MW** | **Tariff (Rs./kW/ month)** | **Cost (Rs. Crs.)** |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8=4+7** |
| 2020-21 | 2020.94 |   | 1479.79 | 365.00 |   | 49.05 | **1528.83** |
| **Adjustment** | **-124.40** |
| **Total** | **1404.43** |
| 2021-22 | 2256.89 |   | 1769.24 | 372.78 |   | 54.48 | **1823.72** |
| **Adjustment** | **-74.04** |
| **Total** | **1749.68** |
| 2022-23 | 2530.89 |  | 2140.21 | 384.92 |  | 61.30 | **2201.51** |
| 2023-24 | 3029.89 |  | 2517.00 | 404.17 |  | 61.14 | **2578.15** |

## Interest on Consumer Security Deposits

Interest on Security Deposit is calculated based on the past trend. The interest is calculated @ 5.65% per annum as published in RBI Bulletin in October-22 for FY 2022-23 & FY 2023-24 on the average of opening and closing balances.

**Form 1.5: Computation of Interest on Consumer Security Deposit is given below**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Revenue Requirement Item (Rs. Crs.)** | **FY 2020-21** | **FY 2021-22** | **FY 2022-23** | **FY 2023-24** |
| A | Opening Balance | 1189.03 | 1227.21 | 1354.22 | 1487.58 |
| B | Additions during the Year | 79.68 | 147.86 | 155.25 | 163.02 |
| C | Deductions during the Year | 41.50 | 20.85 | 21.89 | 22.99 |
| **D** | **Closing Balance** | **1227.21** | **1354.22** | **1487.58** | **1627.61** |
| **E** | **Average Balance ((A+D)/2)** | **1208.12** | **1290.72** | **1420.90** | **1557.59** |
| F | Interest @ % p.a. \* | 4.29 | 4.09 | 5.65 | 5.65 |
| **G** | **Interest Cost (E\*F)** | **51.87** | **52.85** | **80.28** | **88.00** |

As per APERC Regulation 6 of 2004 stipulates "*Security Deposit amount shall be two months charges in case of monthly billing and 3 months charges for bi-monthly billing*".

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"*The interest accruing to the credit of the consumer shall be adjusted annually against the amounts outstanding from the consumer to the Licensee as on 1st May of every year and the amounts becoming due from the consumer to the Licensee immediately thereafter*."

## Supply Margin

As per the present practice the Hon’ble APERC has been allowing Retail Supply Margin (RSM) on the basis of 2% additional Return on the equity portion of approved Regulated Rate Base (RRB). The Hon’ble Commission has approved RRB for APSPDCL in MYT order dated: 15-04-2019. Further, the Hon’ble Commission vide its proceedings dated: 26-8-2020 has communicated its approval for apportioning ratio between APCPDCL & APSPDCL as 36.59 % & 63.41%. The above ratio was taken while computing supply margin for APCPDCL.

**Rs. in Crores**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Particulars** | **FY 2020-21** | **FY 2021-22** | **FY 2022-23** | **FY 2023-24** |
| Supply Margin amount | 13.05 | 13.36 | 22.72 | 25.99 |

## Other Costs

**The licensee has projected the following expenditure under other costs:**

1. Grants to APSEEDCO for promotion of Energy Conservation
2. Reserve fund towards relief to victims of electrical accidents
3. Revision of tariffs for FY 2018-19 at 220 KV voltage level in view of order dt:16.08.2022 issued by Hon’ble APERC in O.P. NO.60 of 2017

**The details of other cost projected for FY 2022-23 & FY 2023-24 (Rs. in Crs):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | **FY 2020-21** | **FY 2021-22** | **FY 2022-23 (Projected)** | **FY 2023-24** |
| Other-AGL Solar pump sets | 0.57 | 0.00 | 0.00 | 0.00 |
| Other-EE Pumps | 8.13 | -0.13 | 0.00 | 0.00 |
| Other-DELP | 1.45 | 0.00 | 0.00 | 0.00 |
| Other-Safety Expenses | 0.42 | 0.35 | 0.37 | 0.39 |
| Other-EE Grants (APSEEDCO) | 0.00 | 1.00 | 1.00 | 1.00 |
| Other-Compensation (CGRF & Electrical accidents) | 4.42 | 3.07 | 4.00 | 4.00 |
| Other-Financial impact on account of extension of time line for payment of CC bills due Covid-19 |  |   | 0.79 |   |
| Revision of tariffs for FY 2018-19 at 220 KV voltage level in view of order dated: 16.08.2022 issued by Hon’ble APERC in O.P. NO.60 of 2017 |  |   |   | 0.00 |
| **Total** | **14.99** | **4.29** | **6.16** | **5.39** |

## Summary of ARR:

**Aggregate Revenue Requirement (ARR) for Retail Supply Business (Form-1)**

**(Rs. in Crores)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl. No** | **Particulars** | **FY 2020-21** | **FY 2021-22** | **FY 2022-23** | **FY 2023-24** |
| 1 | Transmission Cost | 410.17 | 510.22 | 696.13 | 817.08 |
| 2 | SLDC Cost | 13.81 | 8.08 | 9.10 | 10.07 |
| 3 | Distribution Cost | 1,404.43 | 1,749.68 | 2201.51 | 2578.15 |
| 4 | PGCIL Expenses | 247.30 | 212.06 | 300.68 | 364.10 |
| 5 | ULDC Charges | 3.68 | 0.86 | 0.74 | 0.74 |
| 6 | **Network and SLDC Cost (1+2+3+4+5)** | **2,079.39** | **2,480.90** | **3,208.16** | **3,770.14** |
| 7 | Power Purchase / Procurement Cost | 6,347.00 | 7055.19 | 7801.26 | 8013.31 |
| 8 | Addl. Interest on Pension bonds of APGenco | 221.65 | 222.73 | 230.53 | 238.09 |
| 9 | Interest on Consumer Security Deposits | 51.87 | 52.85 | 80.28 | 88.00 |
| 10 | Supply Margin in Retail Supply Business | 13.05 | 13.36 | 22.72 | 25.99 |
| 11 | Interest on Working Capital- net of CSD | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 | Other Costs, if any | 14.99 | 4.29 | 6.16 | 5.39 |
| 13 | **Supply Cost (7+8+9+10+11+12)** | **6,648.56** | **7,348.41** | **8,140.95** | **8,370.78** |
| 14 | **Aggregate Revenue Requirement (6+13)** | **8,727.95** | **9,829.31** | **11,349.11** | **12,140.92** |

# **Revenue Projections**

## Sales Forecast

**Category wise & Voltage wise Sales in MU:**

| **Category** | **2018-19** | **2019-20** | **2020-21** | **2021-22**  |
| --- | --- | --- | --- | --- |
| **Actuals** |
| **LT Category** | **8813.24** | **9067.77** | **9518.26** | **9989.94** |
| Domestic | 4293.09 | 4639.44 | 5131.72 | 5337.63 |
| Commercial & Others | 918.59 | 958.91 | 781.21 | 914.63 |
| Industry | 476.31 | 460.21 | 458.61 | 481.91 |
| Institutional | 283.21 | 288.40 | 291.45 | 303.80 |
| Agriculture & Related | 2842.05 | 2720.81 | 2855.27 | 2951.98 |
| **HT Category at 11 KV** | **1291.81** | **1318.77** | **1142.05** | **1319.16** |
| HT I (B): Townships, Colonies, Gated Communities and Villas | 8.58 | 8.96 | 9.12 | 10.67 |
| HT II (A) : Commercial |   |   |   |   |
| (ii) Major | 257.01 | 273.47 | 153.23 | 237.20 |
| Time of Day Tariffs (6 PM to 10 PM) | 65.06 | 70.35 | 62.36 | 58.49 |
| (iv) Function Halls / Auditoriums | 6.80 | 7.51 | 3.60 | 5.85 |
| HT II (B) : Start up power | 0.00 | 0.06 | 0.02 | 0.03 |
| HT II (C): Electric Vehicles (Evs) / Charging stations | 0.00 | 0.00 | 0.00 | 0.00 |
| HT II (D) : Green Power | 0.00 | 0.00 | 0.34 | 0.03 |
| HT III (A): Industry | 358.34 | 368.11 | 336.28 | 199.43 |
| Time of Day Tariffs Peak (6 AM to 10 AM & 6 PM to 10 PM) | 248.03 | 245.33 | 230.97 | 268.32 |
| Time of Day Tariffs Off Peak (10 PM to 6 AM) | 236.70 | 233.54 | 220.30 | 416.21 |
| Industrial Colonies | 1.61 | 0.80 | 0.79 | 0.53 |
| HT III (B): Seasonal Industries  | 1.95 | 2.04 | 3.43 | 0.03 |
| HT III (C): Energy Intensive Industries | 0.68 | 0.75 | 0.81 | 0.99 |
| HT IV (A): Utilities  | 15.92 | 16.91 | 29.95 | 40.40 |
| HT IV (B): General Purpose | 30.89 | 31.43 | 26.70 | 32.91 |
| HT IV (C): Religious Places | 1.42 | 1.56 | 1.14 | 1.39 |
| HT IV (D) : Railway Traction  | 0.00 | 0.00 | 0.00 | 0.00 |
| HT V (B) : Aquaculture and Animal Husbandry | 16.12 | 19.73 | 23.10 | 18.05 |
| HT V (E) : Government / Private Lift Irrigation  | 42.71 | 38.21 | 39.91 | 28.61 |
| **HT Category at 33 KV** | **1909.57** | **1665.86** | **1516.57** | **1801.93** |
| HT I (B): Townships, Colonies, Gated Communities and Villas | 2.21 | 2.29 | 2.59 | 2.49 |
| HT II (A) : Commercial |  |  |   |   |
| (ii) Major | 69.48 | 72.13 | 42.15 | 50.04 |
| Time of Day Tariffs (6 PM to 10 PM) | 16.04 | 16.95 | 17.11 | 12.87 |
| (iv) Function Halls / Auditoriums | 0.00 | 0.00 | 0.00 | 0.00 |
| HT II (B) : Start up power | 0.93 | 2.75 | 1.00 | 2.75 |
| HT II (C): Electric Vehicles (Evs) / Charging stations | 0.00 | 0.00 | 0.00 | 0.00 |
| HT II (D) : Green Power | 0.00 | 0.00 | 0.00 | 0.00 |
| HT III (A): Industry | 571.05 | 458.94 | 341.70 | 300.71 |
| Time of Day Tariffs Peak (6 AM to 10 AM & 6 PM to 10 PM) | 574.33 | 497.46 | 533.42 | 655.68 |
| Time of Day Tariffs Off Peak (10 PM to 6 AM) | 608.04 | 561.80 | 534.85 | 719.96 |
| Industrial Colonies | 12.16 | 11.19 | 9.40 | 11.88 |
| HT III (B): Seasonal Industries  | 0.97 | 0.65 | 3.52 | 0.00 |
| HT III (C): Energy Intensive Industries | 9.67 | 0.60 | 0.00 | 6.60 |
| HT IV (A): Utilities  | 0.00 | 0.00 | 0.00 | 0.00 |
| HT IV (B): General Purpose | 9.76 | 11.23 | 8.15 | 16.40 |
| HT IV (C): Religious Places | 0.00 | 0.00 | 0.00 | 0.00 |
| HT IV (D) : Railway Traction  | 0.00 | 0.00 | 0.00 | 0.00 |
| HT V (B) : Aquaculture and Animal Husbandry | 0.00 | 0.00 | 0.00 | 0.00 |
| HT V (E) : Government / Private Lift Irrigation  | 34.92 | 29.88 | 22.68 | 22.53 |
| **HT Category at 132 KV** | **701.54** | **598.82** | **538.22** | **899.41** |
| HT I (B): Townships, Colonies, Gated Communities and Villas | 0.00 | 0.00 | 0.00 | 0.00 |
| HT II (A) : Commercial |  |  |   |   |
| (ii) Major | 0.00 | 0.00 | 0.00 | 0.00 |
| Time of Day Tariffs (6 PM to 10 PM) | 0.00 | 0.00 | 0.00 | 0.00 |
| (iv) Function Halls / Auditoriums | 0.00 | 0.00 | 0.00 | 0.00 |
| HT II (B) : Start up power | 0.00 | 0.00 | 0.00 | 0.00 |
| HT II (C): Electric Vehicles (Evs) / Charging stations | 0.00 | 0.00 | 0.00 | 0.00 |
| HT II (D) : Green Power | 0.00 | 0.00 | 0.00 | 0.02 |
| HT III (A): Industry | 122.78 | 82.57 | 92.89 | 98.76 |
| Time of Day Tariffs Peak (6 AM to 10 AM & 6 PM to 10 PM) | 128.71 | 94.55 | 107.95 | 174.01 |
| Time of Day Tariffs Off Peak (10 PM to 6 AM) | 162.14 | 117.36 | 119.61 | 227.48 |
| Industrial Colonies | 6.31 | 6.00 | 4.85 | 5.65 |
| HT III (B): Seasonal Industries  | 0.00 | 0.00 | 0.00 | 0.00 |
| HT III (C): Energy Intensive Industries | 0.00 | 0.00 | 0.00 | 0.00 |
| HT IV (A): Utilities  | 0.00 | 0.00 | 0.00 | 0.00 |
| HT IV (B): General Purpose | 0.00 | 0.00 | 0.00 | 0.00 |
| HT IV (C): Religious Places | 0.00 | 0.00 | 0.00 | 0.00 |
| HT IV (D) : Railway Traction  | 281.62 | 297.40 | 211.96 | 392.60 |
| HT V (B) : Aquaculture and Animal Husbandry | 0.00 | 0.00 | 0.00 | 0.00 |
| HT V (E) : Government / Private Lift Irrigation  | 0.00 | 0.95 | 0.96 | 0.89 |
| **Total (LT+HT)** | **12716.17** | **12651.22** | **12715.10** | **14010.44** |

| **Category** | **2022-23** | **2023-24** |
| --- | --- | --- |
| **Revised Estimate** | **Forecast** |
| **LT Category** | **10394.70** | **10965.33** |
| Domestic | 5414.72 | 5685.46 |
| Commercial & Others | 1082.86 | 1120.76 |
| Industry | 486.95 | 523.25 |
| Institutional | 319.69 | 335.67 |
| Agriculture & Related | 3090.47 | 3300.19 |
| **HT Category at 11 KV** | **1440.11** | **1571.73** |
| HT I (B): Townships, Colonies, Gated Communities and Villas | 11.76 | 12.12 |
| HT II (A) : Commercial |   |   |
| (ii) Major | 300.67 | 315.71 |
| Time of Day Tariffs (6 PM to 10 PM) | 83.60 | 87.78 |
| (iv) Function Halls / Auditoriums | 9.69 | 10.17 |
| HT II (B) : Start up power | 0.01 | 0.01 |
| HT II (C): Electric Vehicles (Evs) / Charging stations | 0.00 | 0.00 |
| HT II (D) : Green Power | 0.03 | 0.04 |
| HT III (A): Industry |   |   |
| Time of Day tariff (TOD) (High Grid Demand) (Feb'23, Mar'23), (Apr-May'22) & (Sep'22-Oct'22) |   |   |
| Peak (06 to 10) & (18 to 22) | 145.20 | 165.75 |
| Off Peak (10-15) & (00-06) | 126.53 | 142.45 |
| Normal (15-18) & (22-24) | 150.90 | 168.76 |
| Time of Day tariff (TOD) (Low Grid Demand) (Jun'22, Aug'22), (Nov'22-Jan'23) |   |   |
| Peak (06 to 10) & (18 to 22) | 148.05 | 159.12 |
| Off Peak (10-15) & (00-06) | 137.25 | 147.54 |
| Normal (15-18) & (22-24) | 146.28 | 157.32 |
| Industrial Colonies | 0.64 | 0.66 |
| HT III (B): Seasonal Industries  | 0.30 | 0.31 |
| HT III (C): Energy Intensive Industries | 1.10 | 1.16 |
| HT IV (A): Utilities  | 78.58 | 82.51 |
| HT IV (B): General Purpose | 44.40 | 47.95 |
| HT IV (C): Religious Places | 1.86 | 1.96 |
| HT IV (D) : Railway Traction  | 0.00 | 0.00 |
| HT V (B) : Aquaculture and Animal Husbandry | 19.33 | 20.30 |
| HT V (E) : Government / Private Lift Irrigation  | 33.92 | 50.13 |
| **HT Category at 33 KV** | **1540.99** | **1650.95** |
| HT I (B): Townships, Colonies, Gated Communities and Villas | 2.39 | 2.46 |
| HT II (A) : Commercial |   |   |
| (ii) Major | 72.86 | 77.96 |
| Time of Day Tariffs (6 PM to 10 PM) | 17.32 | 18.54 |
| (iv) Function Halls / Auditoriums | 0.00 | 0.00 |
| HT II (B) : Start up power | 1.60 | 1.76 |
| HT II (C): Electric Vehicles (Evs) / Charging stations | 0.00 | 0.00 |
| HT II (D) : Green Power | 0.00 | 0.00 |
| HT III (A): Industry |   |   |
| Time of Day tariff (TOD) (High Grid Demand) (Feb'23, Mar'23), (Apr-May'22) & (Sep'22-Oct'22) |   |  |
| Peak (06 to 10) & (18 to 22) | 271.18 | 277.20 |
| Off Peak (10-15) & (00-06) | 290.79 | 302.48 |
| Normal (15-18) & (22-24) | 151.19 | 172.02 |
| Time of Day tariff (TOD) (Low Grid Demand) (Jun'22, Aug'22), (Nov'22-Jan'23) |   |  |
| Peak (06 to 10) & (18 to 22) | 272.07 | 284.14 |
| Off Peak (10-15) & (00-06) | 301.85 | 302.40 |
| Normal (15-18) & (22-24) | 93.61 | 143.48 |
| Industrial Colonies | 12.14 | 12.56 |
| HT III (B): Seasonal Industries  | 0.00 | 0.00 |
| HT III (C): Energy Intensive Industries | 8.34 | 8.51 |
| HT IV (A): Utilities  | 0.00 | 0.00 |
| HT IV (B): General Purpose | 21.22 | 22.28 |
| HT IV (C): Religious Places | 0.00 | 0.00 |
| HT IV (D) : Railway Traction  | 0.00 | 0.00 |
| HT V (B) : Aquaculture and Animal Husbandry | 0.00 | 0.00 |
| HT V (E) : Government / Private Lift Irrigation  | 24.44 | 25.17 |
| **HT Category at 132 KV** | **948.25** | **1058.50** |
| HT I (B): Townships, Colonies, Gated Communities and Villas | 0.00 | 0.00 |
| HT II (A) : Commercial |   |   |
| (ii) Major | 0.00 | 0.00 |
| Time of Day Tariffs (6 PM to 10 PM) | 0.00 | 0.00 |
| (iv) Function Halls / Auditoriums | 0.00 | 0.00 |
| HT II (B) : Start up power | 0.25 | 0.24 |
| HT II (C): Electric Vehicles (Evs) / Charging stations | 0.00 | 0.00 |
| HT II (D) : Green Power | 0.02 | 0.02 |
| HT III (A): Industry |   |   |
| Time of Day tariff (TOD) (High Grid Demand) (Feb'23, Mar'23), (Apr-May'22) & (Sep'22-Oct'22) |   |   |
| Peak (06 to 10) & (18 to 22) | 87.68 | 100.48 |
| Off Peak (10-15) & (00-06) | 105.11 | 120.48 |
| Normal (15-18) & (22-24) | 60.47 | 82.07 |
| Time of Day tariff (TOD) (Low Grid Demand) (Jun'22, Aug'22), (Nov'22-Jan'23) |   |   |
| Peak (06 to 10) & (18 to 22) | 84.11 | 91.21 |
| Off Peak (10-15) & (00-06) | 97.48 | 105.73 |
| Normal (15-18) & (22-24) | 54.43 | 74.10 |
| Industrial Colonies | 6.15 | 6.36 |
| HT III (B): Seasonal Industries  | 0.00 | 0.00 |
| HT III (C): Energy Intensive Industries | 0.00 | 0.00 |
| HT IV (A): Utilities  | 0.00 | 0.00 |
| HT IV (B): General Purpose | 0.00 | 0.00 |
| HT IV (C): Religious Places | 0.00 | 0.00 |
| HT IV (D) : Railway Traction  | 451.97 | 477.18 |
| HT V (B) : Aquaculture and Animal Husbandry | 0.00 | 0.00 |
| HT V (E) : Government / Private Lift Irrigation  | 0.58 | 0.64 |
| **HT Category at 220 KV** | **0.00** | **0.00** |
| HT I (B): Townships, Colonies, Gated Communities and Villas | 0.00 | 0.00 |
| HT II (A) : Commercial |   |   |
| (ii) Major | 0.00 | 0.00 |
| Time of Day Tariffs (6 PM to 10 PM) | 0.00 | 0.00 |
| (iv) Function Halls / Auditoriums | 0.00 | 0.00 |
| HT II (B) : Start up power | 0.00 | 0.00 |
| HT II (C): Electric Vehicles (Evs) / Charging stations | 0.00 | 0.00 |
| HT II (D) : Green Power | 0.00 | 0.00 |
| HT III (A): Industry |   |   |
| Time of Day tariff (TOD) (High Grid Demand) (Feb'23, Mar'23), (Apr-May'22) & (Sep'22-Oct'22) |   |   |
| Peak (06 to 10) & (18 to 22) | 0.00 | 0.00 |
| Off Peak (10-15) & (00-06) | 0.00 | 0.00 |
| Normal (15-18) & (22-24) | 0.00 | 0.00 |
| Time of Day tariff (TOD) (Low Grid Demand) (Jun'22, Aug'22), (Nov'22-Jan'23) |   |   |
| Peak (06 to 10) & (18 to 22) | 0.00 | 0.00 |
| Off Peak (10-15) & (00-06) | 0.00 | 0.00 |
| Normal (15-18) & (22-24) | 0.00 | 0.00 |
| Industrial Colonies | 0.00 | 0.00 |
| HT III (B): Seasonal Industries  | 0.00 | 0.00 |
| HT III (C): Energy Intensive Industries | 0.00 | 0.00 |
| HT IV (A): Utilities  | 0.00 | 0.00 |
| HT IV (B): General Purpose | 0.00 | 0.00 |
| HT IV (C): Religious Places | 0.00 | 0.00 |
| HT IV (D) : Railway Traction  | 0.00 | 0.00 |
| HT V (B) : Aquaculture and Animal Husbandry | 0.00 | 0.00 |
| HT V (E) : Government / Private Lift Irrigation  | 0.00 | 0.00 |
| **Total (LT+HT)** | **14324.05** | **15246.52** |

## Revenue from Current Tariffs

 The table below provides the category-wise revenue for FY 2022-23 and FY 2023-24:

 **Category-wise revenue projection (Excl. NTI) (Form-5) (Rs. Crores)**

| **Category** | **2022-23** | **2023-24** |
| --- | --- | --- |
| **LT Category** | **4796.40** | **5082.11** |
| Domestic | 2572.97 | 2758.83 |
| Commercial & Others | 1094.89 | 1142.19 |
| Industry | 405.31 | 435.57 |
| Institutional | 241.72 | 253.00 |
| Agriculture & Related | 481.49 | 492.53 |
| **HT Category at 11 KV** | **1404.38** | **1526.15** |
| HT I (B): Townships, Colonies, Gated Communities and Villas | 8.74 | 9.19 |
| HT II (A) : Commercial |  | 0.00 |
| (ii) Major | 341.38 | 358.78 |
| Time of Day Tariffs (6 PM to 10 PM) | 72.31 | 75.93 |
| (iv) Function Halls / Auditoriums | 12.10 | 12.71 |
| HT II (B) : Start up power | 0.02 | 0.02 |
| HT II (C): Electric Vehicles (Evs) / Charging stations | 0.00 | 0.00 |
| HT II (D) : Green Power | 0.04 | 0.05 |
| HT III (A): Industry |  | 0.00 |
| Time of Day tariff (TOD) (High Grid Demand) (Feb'23, Mar'23), (Apr-May'22) & (Sep'22-Oct'22) |  | 0.00 |
| Peak (06 to 10) & (18 to 22) | 373.25 | 410.73 |
| Off Peak (10-15) & (00-06) | 70.22 | 79.06 |
| Normal (15-18) & (22-24) | 95.07 | 106.32 |
| Time of Day tariff (TOD) (Low Grid Demand) (Jun'22, Aug'22), (Nov'22-Jan'23) |  | 0.00 |
| Peak (06 to 10) & (18 to 22) | 108.08 | 116.16 |
| Off Peak (10-15) & (00-06) | 76.17 | 81.88 |
| Normal (15-18) & (22-24) | 92.16 | 99.11 |
| Industrial Colonies | 0.45 | 0.46 |
| HT III (B): Seasonal Industries  | 0.38 | 0.38 |
| HT III (C): Energy Intensive Industries | 0.64 | 0.68 |
| HT IV (A): Utilities  | 72.46 | 78.64 |
| HT IV (B): General Purpose | 47.20 | 50.27 |
| HT IV (C): Religious Places | 1.00 | 1.06 |
| HT IV (D) : Railway Traction  | 0.00 | 0.00 |
| HT V (B) : Aquaculture and Animal Husbandry | 7.98 | 8.36 |
| HT V (E) : Government / Private Lift Irrigation  | 24.73 | 36.36 |
| **HT Category at 33 KV** | **1208.80** | **1297.04** |
| HT I (B): Townships, Colonies, Gated Communities and Villas | 1.87 | 1.92 |
| HT II (A) : Commercial |  | 0.00 |
| (ii) Major | 72.73 | 80.62 |
| Time of Day Tariffs (6 PM to 10 PM) | 13.77 | 14.74 |
| (iv) Function Halls / Auditoriums | 0.00 | 0.00 |
| HT II (B) : Start up power | 2.10 | 2.30 |
| HT II (C): Electric Vehicles (Evs) / Charging stations | 0.00 | 0.00 |
| HT II (D) : Green Power | 0.00 | 0.00 |
| HT III (A): Industry |  | 0.00 |
| Time of Day tariff (TOD) (High Grid Demand) (Feb'23, Mar'23), (Apr-May'22) & (Sep'22-Oct'22) |  | 0.00 |
| Peak (06 to 10) & (18 to 22) | 433.37 | 454.94 |
| Off Peak (10-15) & (00-06) | 148.30 | 154.26 |
| Normal (15-18) & (22-24) | 88.45 | 100.63 |
| Time of Day tariff (TOD) (Low Grid Demand) (Jun'22, Aug'22), (Nov'22-Jan'23) |  | 0.00 |
| Peak (06 to 10) & (18 to 22) | 186.37 | 194.64 |
| Off Peak (10-15) & (00-06) | 153.94 | 154.22 |
| Normal (15-18) & (22-24) | 54.76 | 83.93 |
| Industrial Colonies | 8.50 | 8.79 |
| HT III (B): Seasonal Industries  | 0.00 | 0.00 |
| HT III (C): Energy Intensive Industries | 4.46 | 4.55 |
| HT IV (A): Utilities  | 0.00 | 0.00 |
| HT IV (B): General Purpose | 22.66 | 23.43 |
| HT IV (C): Religious Places | 0.00 | 0.00 |
| HT IV (D) : Railway Traction  | 0.00 | 0.00 |
| HT V (B) : Aquaculture and Animal Husbandry | 0.00 | 0.00 |
| HT V (E) : Government / Private Lift Irrigation  | 17.53 | 18.05 |
| **HT Category at 132 KV** | **654.00** | **719.82** |
| HT I (B): Townships, Colonies, Gated Communities and Villas | 0.00 | 0.00 |
| HT II (A) : Commercial |  | 0.00 |
| (ii) Major | 0.00 | 0.00 |
| Time of Day Tariffs (6 PM to 10 PM) | 0.00 | 0.00 |
| (iv) Function Halls / Auditoriums | 0.00 | 0.00 |
| HT II (B) : Start up power | 0.31 | 0.30 |
| HT II (C): Electric Vehicles (Evs) / Charging stations | 0.00 | 0.00 |
| HT II (D) : Green Power | 0.03 | 0.02 |
| HT III (A): Industry | 0.00 | 0.00 |
| Time of Day tariff (TOD) (High Grid Demand) (Feb'23, Mar'23), (Apr-May'22) & (Sep'22-Oct'22) |  |  |
| Peak (06 to 10) & (18 to 22) | 128.71 | 143.25 |
| Off Peak (10-15) & (00-06) | 48.88 | 56.02 |
| Normal (15-18) & (22-24) | 32.65 | 44.32 |
| Time of Day tariff (TOD) (Low Grid Demand) (Jun'22, Aug'22), (Nov'22-Jan'23) |  |  |
| Peak (06 to 10) & (18 to 22) | 53.83 | 58.37 |
| Off Peak (10-15) & (00-06) | 45.33 | 49.16 |
| Normal (15-18) & (22-24) | 29.39 | 40.02 |
| Industrial Colonies | 4.30 | 4.45 |
| HT III (B): Seasonal Industries  | 0.00 | 0.00 |
| HT III (C): Energy Intensive Industries | 0.00 | 0.00 |
| HT IV (A): Utilities  | 0.00 | 0.00 |
| HT IV (B): General Purpose | 0.00 | 0.00 |
| HT IV (C): Religious Places | 0.00 | 0.00 |
| HT IV (D) : Railway Traction  | 310.15 | 323.44 |
| HT V (B) : Aquaculture and Animal Husbandry | 0.00 | 0.00 |
| HT V (E) : Government / Private Lift Irrigation  | 0.42 | 0.46 |
| **HT Category at 220 KV** | **0.00** | **0.00** |
| HT I (B): Townships, Colonies, Gated Communities and Villas | 0.00 | 0.00 |
| HT II (A) : Commercial |  |  |
| (ii) Major | 0.00 | 0.00 |
| Time of Day Tariffs (6 PM to 10 PM) | 0.00 | 0.00 |
| (iv) Function Halls / Auditoriums | 0.00 | 0.00 |
| HT II (B) : Start up power | 0.00 | 0.00 |
| HT II (C): Electric Vehicles (Evs) / Charging stations | 0.00 | 0.00 |
| HT II (D) : Green Power | 0.00 | 0.00 |
| HT III (A): Industry |  |  |
| Time of Day tariff (TOD) (High Grid Demand) (Feb'23, Mar'23), (Apr-May'22) & (Sep'22-Oct'22) |  |  |
| Peak (06 to 10) & (18 to 22) | 0.00 | 0.00 |
| Off Peak (10-15) & (00-06) | 0.00 | 0.00 |
| Normal (15-18) & (22-24) | 0.00 | 0.00 |
| Time of Day tariff (TOD) (Low Grid Demand) (Jun'22, Aug'22), (Nov'22-Jan'23) |  |  |
| Peak (06 to 10) & (18 to 22) | 0.00 | 0.00 |
| Off Peak (10-15) & (00-06) | 0.00 | 0.00 |
| Normal (15-18) & (22-24) | 0.00 | 0.00 |
| Industrial Colonies | 0.00 | 0.00 |
| HT III (B): Seasonal Industries  | 0.00 | 0.00 |
| HT III (C): Energy Intensive Industries | 0.00 | 0.00 |
| HT IV (A): Utilities  | 0.00 | 0.00 |
| HT IV (B): General Purpose | 0.00 | 0.00 |
| HT IV (C): Religious Places | 0.00 | 0.00 |
| HT IV (D) : Railway Traction  | 0.00 | 0.00 |
| HT V (B) : Aquaculture and Animal Husbandry | 0.00 | 0.00 |
| HT V (E) : Government / Private Lift Irrigation  | 0.00 | 0.00 |
| **Total (LT+HT)** | **8063.58** | **8625.12** |

# Average Revenue Realized vs Average CoS break up for APCPDCL in FY 2023-24:

* Average Revenue Realization (ARR) for FY 2023-24 through proposed tariffs is Rs.7.96/kWh
* Average Cost of Supply (CoS) for APCPDCL - Rs. 7.96 /kWh
* Average CoS break-up (per unit of Sales) for APCPDCL is as follows:-

|  |  |  |  |
| --- | --- | --- | --- |
| **Particulars** | **FY 2022-23Approved (Rs./Unit)** | **FY 2022-23Projected (Rs./Unit)** | **FY 2023-24Projected (Rs./Unit)** |
| Power Purchase cost | 4.24 | 4.82 | 4.65 |
| T&D Loss Cost | 0.52 | 0.63 | 0.60 |
| Network Cost | 2.03 | 2.24 | 2.47 |
| Other Cost | 0.29 | 0.24 | 0.23 |
| **Cost of Service** | **7.09** | **7.92** | **7.96** |

 **The estimated revenue gap for the licensee for FY 2023-24 is as follows:**

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Particulars** | **FY 2023-24** |
| **A** | Aggregate Revenue Requirement (Rs. Crs.) | 12140.92 |
| **B** | Total Revenue through full cost recovery tariff (Rs. Crs.) | 12140.92 |
| **B-A** | **Net Revenue Gap (Rs. Crs.)** | **0.00** |

# Cost of Service for FY 2023-24

The Licensee has been filing Cost of service (CoS) in embedded cost methodology. As per the directions, the study of various CoS methods was done and report submitted to Hon’ble Commission. In Tariff order FY 2019-20, the Hon’ble commission having examined the report on various methods of CoS finally decided to adopt the same Voltage wise CoS methodology as in FY 2018-19 for arriving at the Cost of Service for FY 2019-20, FY 2020-21, FY 2021-22 & FY 2022-23 also, considering the under lying complex exercise involved in data collection etc. in arriving CoS though the embedded cost methodology is robust. Thus, considering the inferences drawn by the Commission, the Licensee is adopting Hon’ble Commission’s approach in arriving CoS for FY 2023-24.

Based on the energy sales and the apportioned ARR at the respective voltage levels, the Licensee has calculated Cost of Service per unit for different voltage levels for FY 2023-24 as shown in the Table below:

|  |  |
| --- | --- |
| **Particulars** | **FY 2023-24** |
| LT Level | 8.11 |
| 11 KV Level | 7.81 |
| 33 KV Level | 7.56 |
| 132 KV Level  | 7.32 |
| 220 KV Level and above | 0.00  |
| **Average** | **7.96** |

# Subsidies to be received and expected to be received

The Government of Andhra Pradesh is providing subsidies to various categories of consumers as given below:

**(Rs. in Crs)**

|  |
| --- |
| **Govt. Subsidy Dues** |
|  | **FY 2021-22 APCPDCL** | **FY 2022-23 (H1) APCPDCL** |
| **Description** | **Opening Balance** | **Demand** | **Collection** | **Closing Balance** | **Opening Balance** | **Demand** | **Collection** | **Closing Balance** |
| Tariff Subsidy (Agriculture and Domestic)  | 2406.25 | 1495.50 | 1680.49 | 2221.26 | 2221.26 | 1076.08 | 904.18 | 2393.16 |
| SC Subsidy under Jagjeevan jyothi scheme(G.O.RT.No(SW)143 dt29.08.18 &G.O.MS.No.91,Dt.24.07.2019 | 199.33 | 179.54 | 86.87 | 292.01 | 292.01 | 95.74 | 0.00 | 387.75 |
| ST Subsidy under Jagjeevanjyothi scheme(GORT.No(SW)143 dt29.08.18 &G.O.MS.No.94,Dt.25.07.2019 | 44.95 | 26.45 | 26.49 | 44.92 | 44.92 | 13.26 | 0.00 | 58.18 |
| Incentives to aqua farmers | 313.67 | 291.71 | 157.34 | 448.04 | 448.04 | 36.12 | 155.15 | 329.01 |
| Power looms | 2.35 | 0.00 | 0.00 | 2.35 | 2.35 | 0.00 | 0.00 | 2.35 |
| Hand looms (HOW) |   |   |   |   | 0.00 | 0.01 | 0.00 | 0.01 |
| Saloons run by Nayee Brahmin (NBC) |   |   |   |   | 0.00 | 0.03 | 0.00 | 0.03 |
| Rolled gold covering industry | 0.76 | 0.81 | 0.00 | 1.57 | 1.57 | 0.47 | 0.00 | 2.04 |
| **Total (to be received from GoAP)** | **2967.32** | **1994.01** | **1951.18** | **3010.15** | **3010.15** | **1221.71** | **1059.33** | **3172.52** |

# Tariff Proposals for FY 2023-24

The Licensees proposes to continue with same five main categories in LT as well as five main categories in HT as approved by the Honourable Commission during FY 2023-24.

**Retail Supply Tariff Proposals for FY 2023-24**

| **Category** | **Group** | **Sub -Category** | **Fixed Charges (Rs/KW/Month or Rs/KVA/ Month)** | **Proposed Energy Charges** | **Full Cost Recovery Energy Charges as per the directions of GoAP (Rs./Unit)** |
| --- | --- | --- | --- | --- | --- |
| **LT Power Supply** |
| I : Domestic  | A | 0-30 | 10 | 1.90 | 4.14 |
| I : Domestic  | A | 31-75 | 3.00 | 4.66 |
| I : Domestic  | A | 76-125 | 4.50 | 6.10 |
| I : Domestic  | A | 126-225 | 6.00 | 7.84 |
| I : Domestic  | A | 226-400 | 8.75 | 8.75 |
| I : Domestic  | A | >400 | 9.75 | 9.75 |
| II : Commercial & Others | A (ii) | 0-50 | 75 | 5.40 | 5.40 |
| II : Commercial & Others | A (ii) | 51-100 | 7.65 | 7.65 |
| II : Commercial & Others | A (ii) | 101-300 | 9.05 | 9.05 |
| II : Commercial & Others | A (ii) | 301-500 | 9.60 | 9.60 |
| II : Commercial & Others | A (ii) | Above 500 Units | 10.15 | 10.15 |
| II : Commercial & Others | A (iii) | Advertising Hoardings | 100 | 12.25 | 12.25 |
| II : Commercial & Others | A (iv) | Function halls / Auditoriums | - | 12.25 | 12.25 |
| II : Commercial & Others | B | Startup Power | - | 12.25 | 12.25 |
| II : Commercial & Others | C | Electric Vehicles / Charging Stations | - | 6.70 | 6.70 |
| II : Commercial & Others | D | Green Power | - | 12.25 | 12.25 |
| III : Industry | A | Industry (General) | 75 | 6.70 | 6.70 |
| III : Industry | B | Seasonal Industries (Off-Season) | 75 | 7.45 | 7.45 |
| III : Industry | D | Cottage Industries upto 10 HP \* | 20 | 3.75 | 3.75 |
| IV : Institutional | A | Utilities | 75 | 7.00 | 7.00 |
| IV : Institutional | B | General Purpose | 75 | 7.00 | 7.00 |
| IV : Institutional | C | Religious Places | 30 | 5.00 | 5.00 |
| V:Agriculture | A (i) | Corporate farmers | - | 3.50 | 7.57 |
| V:Agriculture | A (ii) | Non-Corporate farmers | - | - | 8.03 |
| V:Agriculture | A (iii) | Salt farming units upto 15 HP | - | 2.50 | 7.62 |
| V:Agriculture | A (iv) | Sugarcane crushing | - | - | 6.66 |
| V:Agriculture | A (v) | Rural Horticulture Nurseries | - | - | 7.76 |
| V:Agriculture | A (vi) | Floriculture in Green House | 75 | 4.50 | 4.50 |
| V:Agriculture | B | Aquaculture and Animal Husbandry | 30 | 3.85 | 7.50 |
| V:Agriculture | D | Agro based Cottage Industries upto 10HP | 20 | 3.75 | 7.45 |
| V:Agriculture | E | Government / Private Lift Irrigation Schemes | - | 6.40 | 7.75 |

|  |
| --- |
| **HT Power Supply** |
| **Category** | **Group** | **Sub-Category** |  | **Proposed Energy Charges** | **Full Cost Recovery Energy charges as per the directions of GoAP (Rs./unit)** |
|  | **11 kV** | **33 kV** | **132 kV** | **220 kV** | **11 kV** | **33 kV** | **132 kV** | **220 kV** |
| I - Domestic | B | Township, Colonies, Gated Communities and Villas | 75 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| II - Commercial  | A (i) | Commercial | 475 | 7.65 | 6.95 | 6.70 | 6.65 | 7.65 | 6.95 | 6.70 | 6.65 |
| II - Commercial  | A (i) | Time of Day Tariff (TOD)-Peak (6 PM to 10 PM) | 8.65 | 7.95 | 7.70 | 7.65 | 8.65 | 7.95 | 7.70 | 7.65 |
| II - Commercial  | A (iii) | Function halls / Auditoriums | - | 12.25 | 12.25 | 12.25 | 12.25 | 12.25 | 12.25 | 12.25 | 12.25 |
| II - Commercial  | B | Startup Power | - | 12.25 | 12.25 | 12.25 | 12.25 | 12.25 | 12.25 | 12.25 | 12.25 |
| II - Commercial  | C | Electric Vehicles / Charging Stations | - | 6.70 | 6.70 | 6.70 | 6.70 | 6.70 | 6.70 | 6.70 | 6.70 |
| II - Commercial  | D | Green Power | - | 12.25 | 12.25 | 12.25 | 12.25 | 12.25 | 12.25 | 12.25 | 12.25 |
| III - Industry | A | Industry (General) | 475 | - | - | - | - | - | - | - | - |
| III - Industry | A | Time of Day Tariff (TOD) (High Grid Demand)(Feb'24, Mar'24), (Apr-May'23) & (Sep'23-Oct'23) |   |   |   |   |   |   |   |   |
| III - Industry | A | Peak (06-10) & (18-22) | 7.80 | 7.35 | 6.90 | 6.85 | 7.80 | 7.35 | 6.90 | 6.85 |
| III - Industry | A | Off-Peak (10-15) & (00-06) | 5.55 | 5.10 | 4.65 | 4.60 | 5.55 | 5.10 | 4.65 | 4.60 |
| III - Industry | A | Normal (15-18) & (22-24) | 6.30 | 5.85 | 5.40 | 5.35 | 6.30 | 5.85 | 5.40 | 5.35 |
| III - Industry | A | Time of Day Tariff (TOD) (Low Grid Demand)(Jun'23-Aug'23) & (Nov'23-Jan'24) |   |   |   |   |   |   |   |   |
| III - Industry | A | Peak (06-10) & (18-22) | 7.30 | 6.85 | 6.40 | 6.35 | 7.30 | 6.85 | 6.40 | 6.35 |
| III - Industry | A | Off-Peak (10-15) & (00-06) | 5.55 | 5.10 | 4.65 | 4.60 | 5.55 | 5.10 | 4.65 | 4.60 |
| III - Industry | A | Normal (15-18) & (22-24) | 6.30 | 5.85 | 5.40 | 5.35 | 6.30 | 5.85 | 5.40 | 5.35 |
| III - Industry | A | Industrial Colonies | - | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| III - Industry | B | Seasonal Industries (Off-Season) | 475 | 7.65 | 6.95 | 6.70 | 6.65 | 7.65 | 6.95 | 6.70 | 6.65 |
| III - Industry | C | Energy Intensive Industries | 475 |   |   |   |   |   |   |   |   |
| III - Industry | C | Time of Day Tariff (TOD) (High Grid Demand)(Feb'24, Mar'24), (Apr-May'23) & (Sep'23-Oct'23) |   |   |   |   |   |   |   |   |
| III - Industry | C | Peak (06-10) & (18-22) | 7.30 | 6.85 | 6.45 | 6.40 | 7.30 | 6.85 | 6.45 | 6.40 |
| III - Industry | C | Off-Peak (10-15) & (00-06) | 5.05 | 4.60 | 4.20 | 4.15 | 5.05 | 4.60 | 4.20 | 4.15 |
| III - Industry | C | Normal (15-18) & (22-24) | 5.80 | 5.35 | 4.95 | 4.90 | 5.80 | 5.35 | 4.95 | 4.90 |
| III - Industry | C | Time of Day Tariff (TOD) (Low Grid Demand)(Jun'23-Aug'23) & (Nov'23-Jan'24) |   |   |   |   |   |   |   |   |
| III - Industry | C | Peak (06-10) & (18-22) | 6.80 | 6.35 | 5.95 | 5.90 | 6.80 | 6.35 | 5.95 | 5.90 |
| III - Industry | C | Off-Peak (10-15) & (00-06) | 5.05 | 4.60 | 4.20 | 4.15 | 5.05 | 4.60 | 4.20 | 4.15 |
| III - Industry | C | Normal (15-18) & (22-24) | 5.80 | 5.35 | 4.95 | 4.90 | 5.80 | 5.35 | 4.95 | 4.90 |
| IV - Institutional | A | Utilities | 475 | 7.65 | 6.95 | 6.70 | 6.65 | 7.65 | 6.95 | 6.70 | 6.65 |
| IV - Institutional | B | General Purpose | 475 | 7.95 | 7.25 | 7.00 | 6.95 | 7.95 | 7.25 | 7.00 | 6.95 |
| IV - Institutional | C | Religious Places | 30 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| IV - Institutional | D | Railway Traction | 350 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 | 5.50 |
| V- Agriculture | B | Aquaculture and Animal Husbandry | 30 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 | 3.85 |
| V- Agriculture | E | Government / Private Lift Irrigation Schemes | - | 7.15 | 7.15 | 7.15 | 7.15 | 7.15 | 7.15 | 7.15 | 7.15 |

# Revenue Impact:

The overall revenue gain due to above proposed tariff is Rs. 2.24 Crs. as shown in the table below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **LT Supply** | **HT Supply** | **Total Impact (LT+HT) (Rs. in Crs)** |
| **FY 2023-24 as per present tariffs (Crs.)** | **FY 2023-24 as per proposed tariffs (Crs.)** | **Impact** | **FY 2023-24 as per present tariffs (Crs.)** | **FY 2023-24 as per proposed tariffs (Crs.)** | **Impact** |
| Domestic | 2,758.83 | 2,758.83 | 0.00 | 11.11 | 11.11 | 0.00 | 0.00 |
| Commercial & Others | 1,142.19 | 1,142.19 | 0.00 | 545.47 | 545.47 | 0.00 | 0.00 |
| Industry | 435.57 | 435.57 | 0.00 | 2,446.35 | 2,448.59 | 2.24 | 2.24 |
| Institutional | 253.00 | 253.00 | 0.00 | 476.85 | 476.85 | 0.00 | 0.00 |
| Agriculture & Related | 492.53 | 492.53 | 0.00 | 63.23 | 63.23 | 0.00 | 0.00 |
| **Total** | **5,082.11** | **5,082.11** | **0.00** | **3,543.01** | **3,545.25** | **2.24** | **2.24** |

# Determination of Cross Subsidy Surcharge for FY 2023-24

The category-wise CSS computation for APCPDCL for FY 2023-24 is as follows:

| **Cat.** | **Sub-Cat.** | **HT-Category** |  **Average Revenue Realization (Only Demand & Energy Charges)** **(T)** |  **Per Unit Cost of Power Purchase** **(C)** |  **Wheeling Charges** **(D)** |  **Applicable Loss** **(L)** |  **Cost of Regulatory Asset** **(R)**  |  **CSS (Rs./ Unit)****(S)** |  **20 % of Average Revenue Realization**  |  **Applicable CSS (Rs./ Unit)**  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **11KV** |  |  |  |  |  |  |  |  |
| I | B | Townships, Colonies, Gated Communities and Villas | 7.54 | 4.65 | 1.33 | 9.71 | 0.00 | 1.06 | 1.51 | 1.06 |
| II | A | Commercial | 10.72 | 4.65 | 1.33 | 9.71 | 0.00 | 4.24 | 2.14 | 2.14 |
| II | A (iii) |  Function Halls / Auditoriums | 12.25 | 4.65 | 1.33 | 9.71 | 0.00 | 5.77 | 2.45 | 2.45 |
| II | B |  Start up power | 12.25 | 4.65 | 1.33 | 9.71 | 0.00 | 5.77 | 2.45 | 2.45 |
| II | D | Green Power | 12.25 | 4.65 | 1.33 | 9.71 | 0.00 | 5.77 | 2.45 | 2.45 |
| III | A | Industry | 9.45 | 4.65 | 1.33 | 9.71 | 0.00 | 2.97 | 1.89 | 1.89 |
| III | B | Seasonal Industries  | 12.26 | 4.65 | 1.33 | 9.71 | 0.00 | 5.78 | 2.45 | 2.45 |
| III | C | Energy Intensive Industries | 7.20 | 4.65 | 1.33 | 9.71 | 0.00 | 0.72 | 1.44 | 0.72 |
| IV | A | Utilities  | 9.51 | 4.65 | 1.33 | 9.71 | 0.00 | 3.03 | 1.90 | 1.90 |
| IV | B | General Purpose | 10.45 | 4.65 | 1.33 | 9.71 | 0.00 | 3.97 | 2.09 | 2.09 |
| V | E | Government / Private Lift Irrigation  | 7.15 | 4.65 | 1.33 | 9.71 | 0.00 | 0.67 | 1.43 | 0.67 |
|   |   | **33 KV** |  |  |  |  |  |  |  |  |
| I | B | Townships, Colonies, Gated Communities and Villas | 7.74 | 4.65 | 0.58 | 6.75 | 0.00 | 2.17 | 1.55 | 1.55 |
| II | A | Commercial | 9.87 | 4.65 | 0.58 | 6.75 | 0.00 | 4.30 | 1.97 | 1.97 |
| II | B |  Start up power | 12.25 | 4.65 | 0.58 | 6.75 | 0.00 | 6.68 | 2.45 | 2.45 |
| III | A | Industry | 7.70 | 4.65 | 0.58 | 6.75 | 0.00 | 2.13 | 1.54 | 1.54 |
| III | C | Energy Intensive Industries | 7.43 | 4.65 | 0.58 | 6.75 | 1.00 | 0.86 | 1.49 | 0.86 |
| IV | B | General Purpose | 10.51 | 4.65 | 0.58 | 6.75 | 0.00 | 4.93 | 2.10 | 2.10 |
| V | E | Government / Private Lift Irrigation  | 7.15 | 4.65 | 0.58 | 6.75 | 0.00 | 1.58 | 1.43 | 1.43 |
|   |   | **132 KV** |  |  |  |  |  |  |  |  |
| III | A | Industry | 6.81 | 4.65 | 0.47 | 3.75 | 0.00 | 1.51 | 1.36 | 1.36 |
| IV | D | Railway Traction  | 6.78 | 4.65 | 0.47 | 3.75 | 0.00 | 1.47 | 1.36 | 1.36 |
| V | E | Government / Private Lift Irrigation  | 7.15 | 4.65 | 0.47 | 3.75 | 0.00 | 1.84 | 1.43 | 1.43 |
|  |  | **220 KV** |  |  |  |  |  |  |  |  |
|  |  | -Nil- |

# Additional Surcharge

The Licensee will attempt to make supplemental submissions for determination of additional surcharge at a later date.

# Prayer

Based on the information available, the applicant has made sincere efforts to comply with the Regulation of the Hon’ble Commission and discharge its obligations to the best of its abilities. However, should any further material information become available in the near future, the applicant shall file such additional information and consequently amend/ revise the application.

In the aforesaid facts and circumstances, the Applicant requests that this Honourable Commission may be pleased to:

1. Take the accompanying ARR, Tariff Proposal, Cross Subsidy Surcharge for FY 2023-24 of APCPDCL on record and treat it as complete;
2. Grant suitable opportunity to APCPDCL within a reasonable time frame to file additional material information that may be subsequently available;
3. Consider and approve APCPDCL’s ARR and Tariff application including all requested regulatory treatments in the filing;
4. Pass such order as the Honourable Commission may deem fit and proper in the facts and circumstances of the case