



# Analysis of ARR and Tariff Proposal of TPSODL for FY 2021-22- Public hearing

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DATE : 23 FEBRUARY 2022

BY

**WORLD INSTITUTE OF SUSTAINABLE ENERGY**

(CONSUMER COUNSEL)

PUNE

# Demand Forecasting

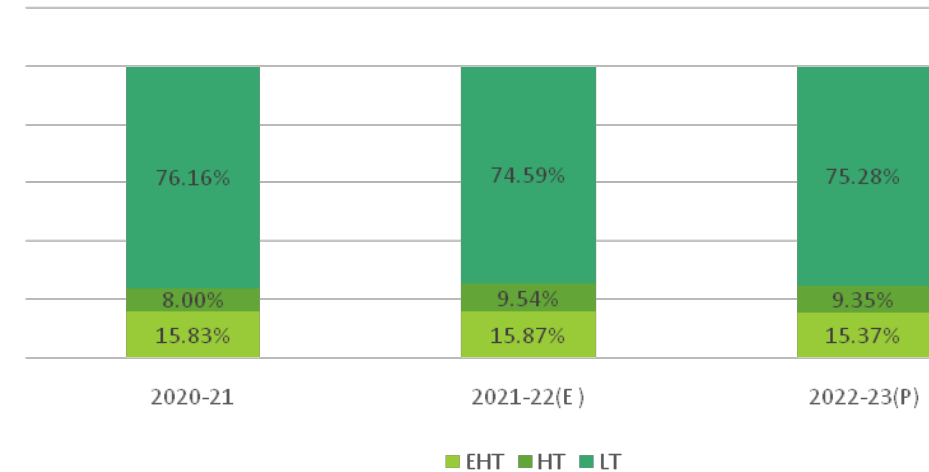
|                  | Sales (MUs)     |                 |          |           |                 |   |  | Consumers (Nos) |              |              |                 |
|------------------|-----------------|-----------------|----------|-----------|-----------------|---|--|-----------------|--------------|--------------|-----------------|
|                  | FY 2020-21 (MU) | FY 2021-22 (MU) |          |           | FY 2022-23 (MU) |   |  | 1 April 2020    | 1 April 2021 | 1 April 2022 | % of April 2020 |
|                  | Actual          | Proposed        | Approved | Estimated | Projected       | Projected % over approved of FY 2020-21 | Projected % over revised of FY 2020-21 |                 |              |              |                 |
| LT               | 2,108.90        | 2,108.90        | 2,363.14 | 2,184.97  | 2,354.46        | -0.37%                                  | 7.76%                                  | 2,277,588       | 2,339,393    | 2,451,448    | 4.79%           |
| HT               | 221.61          | 230.71          | 230.71   | 279.51    | 292.45          | 26.76%                                  | 4.63%                                  | 1,620           | 1,707        | 1,811        | 6.09%           |
| EHT              | 438.42          | 414.40          | 481.15   | 464.96    | 480.79          | -0.07%                                  | 3.40%                                  | 15              | 16           | 18           | 12.00%          |
| Total            | 2,768.93        | 3,042.84        | 3,075.00 | 2,929.44  | 3,127.70        | 1.71%                                   | 6.77%                                  | 2,279,223       | 2,341,116    | 2,453,277    | 4.79%           |
| Share % of Total | 76.16%          | 69.31%          | 76.85%   | 74.59%    | 75.28%          |   |  |                 |              |              |                 |
| Per purchase     | 3,599.29        | 4,030.00        | 4,100.00 | 3,599.29  | 4,170.00        |   |  |                 |              |              |                 |

- In FY 2022-23, LT consumer growth is 4.79%, and HT consumer growth is 6.09%.
- HT number of consumers are increasing every year. In last financial year about 87 consumers added but sales projections are slightly increasing from 279.51 to 292.45MU.
- LT sales need to be rationalized. LT projected for FY 22-23 are 7.76% higher against FY2020 revised.
- About 75% of the total sales is toward consumers

# Electricity Consumption Pattern

|                                | 2020-21    | 2021-22(E ) | 2022-23(P) |
|--------------------------------|------------|-------------|------------|
| LT consumers                   | 2,277,588  | 2,339,393   | 2,451,448  |
| LT consumption (MU)            | 2,108.90   | 2,184.97    | 2,354.46   |
| LT consumer use per month (U)  | 77.16      | 77.83       | 80.04      |
| HT consumers                   | 1,620      | 1,707       | 1,811      |
| HT consumption (MU)            | 221.61     | 279.51      | 292.45     |
| HT consumer use per month (U)  | 11399.69   | 13645.28    | 13457.11   |
| EHT consumers                  | 15.00      | 16.00       | 18.00      |
| EHT consumption (MU)           | 438.42     | 464.96      | 480.79     |
| EHT consumer use per month (U) | 2435666.67 | 2421666.67  | 2225879.63 |
| Total consumption              | 2,768.93   | 2,929.44    | 3,127.70   |

Consumer Categorywise % Sales



LT, HT and EHT sales percentage within the FY is almost constant.

see has 75% LT sales

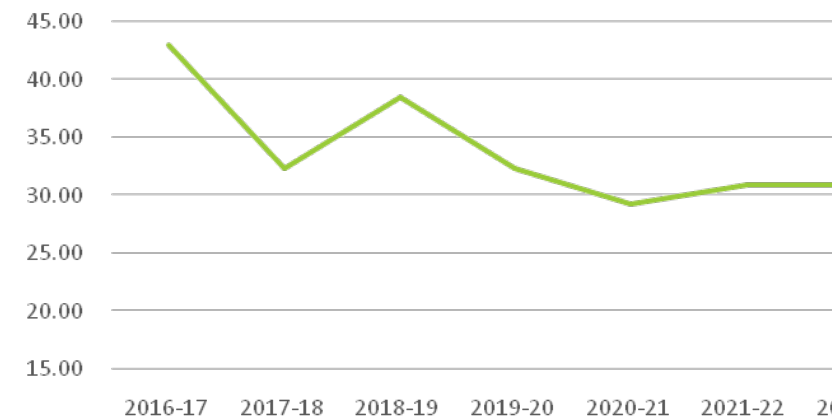
see has proposed substantial increase in HT Irrigation, Pumping and Agriculture sales as 2.25MU in 20-21, 5MU in 21-22 and 10 MU in 22-23

# BPL (Kutir Jyoti) Consumers and Consumption Trend

|    | No of Consumers | % increase in no of consumers Over past year | Consumption (MU) | % increase in consumption from past year | Consumption per consumer per month (in Unit) |
|----|-----------------|--|------------------|--|--|
| 17 | 404,454         | 40.82%                                       | 209              | 45.94%                                   | 43.06  |
| 18 | 363,322         | -10.17%                                      | 141              | -32.54%                                  | 32.34  |
| 19 | 326,639         | -10.10%                                      | 151              | 7.09%                                    | 38.52  |
| 20 | 399,506         | 22.31%                                       | 155              | 2.65%                                    | 32.33  |
| 21 | 364,416         | -8.78%                                       | 127.8            | -17.55%                                  | 29.22  |
| 22 | 269,612         | -26.02%                                      | 100              | -21.75%                                  | 30.91  |
| 23 | 269,612         | 0.00%  | 100              | 0.00%                                    | 30.91  |

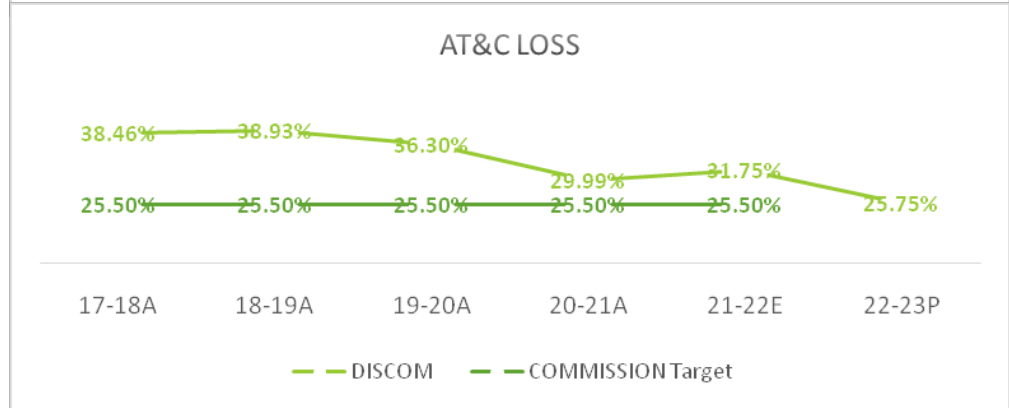
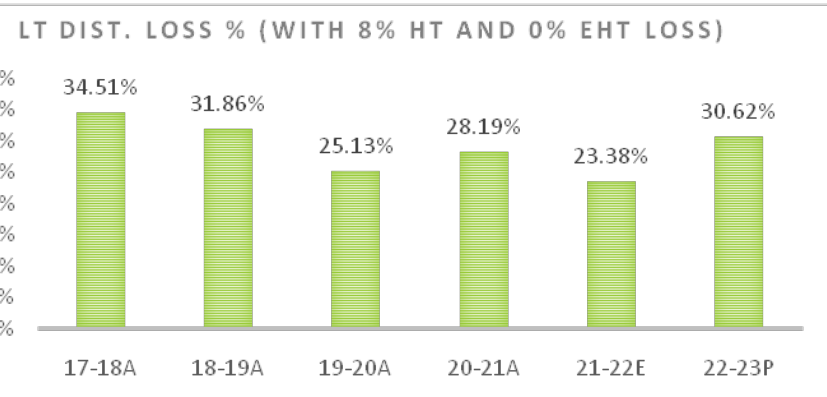
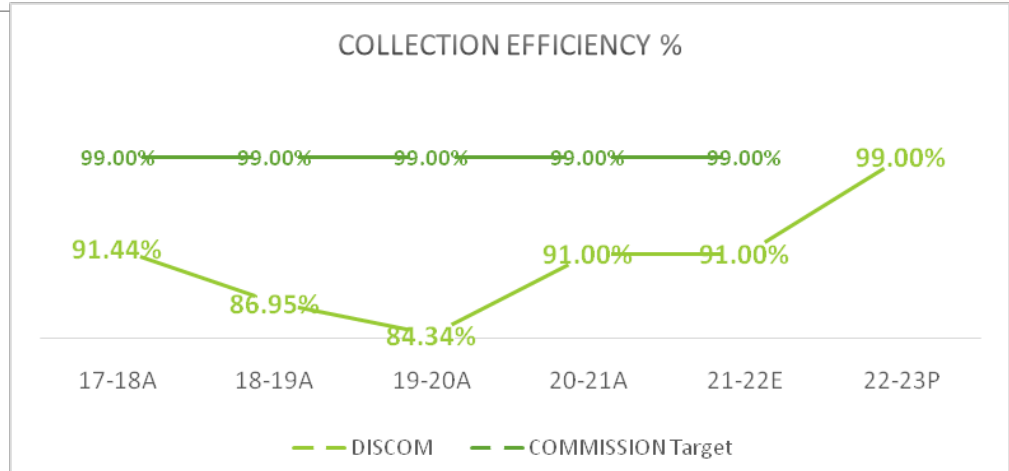
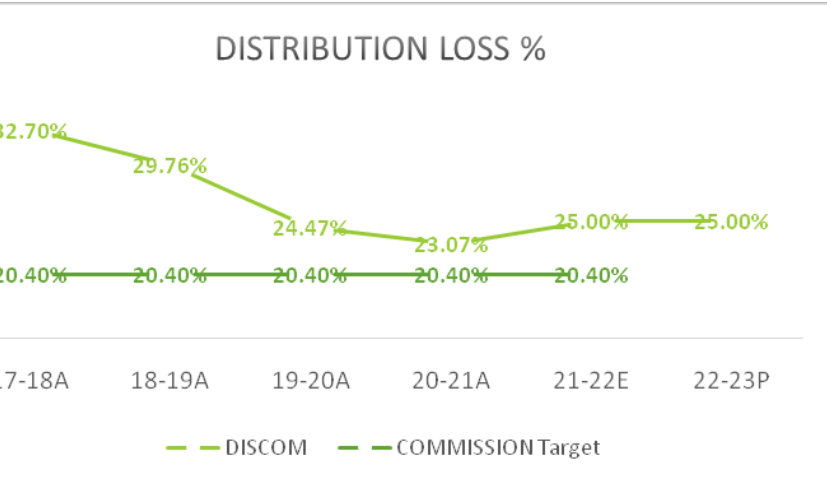
| LT Consumers | Kutir Jyoti Consumers | Kutur Jyoti Consumers Out of LT % | LT Sales in MU | Kutir Jyoti sales in MU | Kutur Jyoti Sales as % of Total LT |
|--------------|-----------------------|-----------------------------------|----------------|-------------------------|------------------------------------|
| 2,277,588    | 364,416               | 16.00%                            | 2,108.90       | 127.8                   | 6.06%                              |
| 2,339,393    | 269,612               | 11.52%                            | 2,184.97       | 100                     | 4.58%                              |
| 2,451,448    | 269,612               | 11.00%                            | 2,354.46       | 100                     | 4.25%                              |

Avg Monthly Consumption of Kutur Jyoti Consumers (MU)



Average monthly consumption of BPL consumers needs to be kept up to 30 kWh per month.. BPL consumers are reducing. Genuine BPL consumers should not be deprived from BPL category tariff and DISCOM should take prudent check of annual consumption of BPL category consumer before changing its consumer category

# Overall Losses



AT&C and Distribution loss have decreasing trend though approval is constant. The gap of approve and actual needs to reduce further and lower approval target is needed. Considering the increasing electronic payment the collection efficiency should improve. The collection efficiency achieved in 20-21 was of 91% as against the

- proposed collection efficiency of 99% in ensuing FY. He
- Collection efficiency projections for ensuing year are h
- The HT loss of 8% needs to be revised as they are cons
- for long period .
- LT Distribution losses are about 30% if the HT loss of 8
- and EHT loss of 0% is considered.

# ARR Proposal for FY 2022-23 (Rs. Cr)

| Cost/Income Component                  | ARR Approved for FY 2021-22 | ARR for FY 2022-23 | Percentage of total Dist Cost | % Rise over Approved ARR |
|--|-----------------------------|--------------------|-------------------------------|--------------------------|
| 1 Total Power Purchase Cost            | 964.22                      | 980.66             | 49.01%                        | 1.02%                    |
| 2 <b>Employee Cost</b>                 | <b>404.76</b>               | <b>578.76</b>      | <b>28.93%</b>                 | <b>42.75%</b>            |
| 3 Repair & Maintenance Cost            | 55.36                       | 137.91             | 6.89%                         | 149.67%                  |
| 4 Administrative & General Expenses    | 45.13                       | 113.82             | 5.69%                         | 152.43%                  |
| 5 Bad & Doubtful Debt including Rebate | 12.21                       | 16.19              | 0.81%                         | 32.67%                   |
| 6 Depreciation                         | 21.47                       | 44.29              | 2.21%                         | 106.15%                  |
| 7 Interest on Loan                     | 11.6                        | 64.81              | 3.24%                         | 458.71%                  |
| 8 Return on Equity                     | 32                          | 64.45              | 3.22%                         | 101.41%                  |
| 9 Tax on ROE                           | 0                           | 0                  | 0.00%                         |                          |
| 10 Special Appropriation Carrying Cost | 0                           | 0                  | 0.00%                         |                          |
| <b>Total Dist Cost</b>                 | <b>1546.75</b>              | <b>2000.89</b>     | <b>100.00%</b>                | <b>29.74%</b>            |
| 11 Less Misc Receipts                  | 25.56                       | 35.16              |                               | 37.25%                   |
| <b>Total ARR Requirement</b>           | <b>1521.19</b>              | <b>1965.73</b>     |                               | <b>29.55%</b>            |
| Total Revenue                          | 1522.73                     | 1618.55            |                               | 6.63%                    |
| <b>GAP at Existing tariff (+/-)</b>    | <b>1.54</b>                 | <b>-347.18</b>     |                               |                          |

# Employee Expenses

| Employee Expenses (Rs.Cr.) |          |          |        |
|----------------------------|----------|----------|--------|
| Year                       | Proposed | Approved | Actual |
| 15-16                      | 285      | 208      | 249    |
| 16-17                      | 323      | 190      | 286    |
| 17-18                      | 385      | 225      | 318    |
| 18-19                      | 368      | 254      | 397    |
| 19-20                      | 398      | 358      | 389    |
| 20-21                      | 398.68   | 370.88   | 363.60 |
| 21-22                      | 416.27   | 404.76   | 443.68 |
| 22-23                      | 578.76   |          |        |

|                          | No. of Employees |               |               |               | Total |
|--------------------------|------------------|---------------|---------------|---------------|-------|
|                          | Executive        |               | Non-Executive |               |       |
|                          | Technical        | Non-Technical | Technical     | Non-Technical |       |
| Southern ODL             |                  |               |               |               |       |
| AS ON 01-4-21            | 295              | 92            | 1128          | 454           | 1769  |
| Recruitment during 21-22 | 0                | 0             | 0             | 3             | 3     |
| Retirement during 21-22  | 4                | 4             | 72            | 30            | 80    |
| AS ON 31-3-22            | 291              | 88            | 1056          | 427           | 1862  |
| Recruitment during 22-23 | 0                | 0             | 0             | 0             | 0     |
| Retirement during 22-23  | 3                | 1             | 55            | 19            | 68    |
| AS ON 31-3-23            | 288              | 87            | 1001          | 408           | 1784  |

The number of employees have reduced from 1969 (from April 21 to 1784 in (April 23). Despite reduction in employees the employee cost is increasing

7<sup>th</sup> pay commission arrear Rs. 28.61Cr. may be reviewed based upon government notification

- Actual employee expenses is well above the approved cost in current FY.
- The licensee is outsourcing many activities and also introduction of IT enables services and e-payments should reduce employee cost

# Administrative and General Expenses (Rs. Cr.)

| Year  | Proposed | Approved | Actual |
|-------|----------|----------|--------|
| 15-16 | 58.28    | 22.52    | 22.19  |
| 16-17 | 65.73    | 39.42    | 29.03  |
| 17-18 | 59.06    | 26.12    | 34.59  |
| 18-19 | 65.77    | 29.95    | 37.96  |
| 19-20 | 76.72    | 33.95    | 27.41  |
| 20-21 | 85.22    | 35.49    | 38.33  |
| 21-22 | 58.23    | 45.13    | 72.72  |
| 22-23 | 113.82   |          |        |

- A&G Expenses approved in FY 2021-22 were 72.72Cr and Licensee requested for 113.82Cr as A&G Expenses. The proposed Expense is 156% higher.
- As per Regulation A&G expenses were approved as 7% over the existing A&G expenses and some additional expenses are allowed as per Regulation allowed.
- However, there are lot of irregularities observed in the A&G expenditure heads and proposed expenditures.
- For current FY Licensee has proposed 72.72 Cr which is much above the 45.13Cr approved A&G. A&G being controllable expenses such as salary expenditure over approval can not be accepted.

| Particulars                                | Previous Year | Actual for 1st six months of Current Year | Current Year | Ensuing Year |
|--|---------------|---|--------------|--------------|
|  | 20-21         | 21-22                                     | 21-22        | 22-23        |
| Rates & Taxes                              | 0.08          | 0.80                                      | 1.59         | 1.70         |
| Postage                                    | 0.33          | 1.40                                      | 2.81         | 3.00         |
| Telephone & Telegram                       | 0.05          | 0.39                                      | 0.78         | 0.80         |
| Professional charges / consultancy         | 6.65          | 3.39                                      | 4.91         | 5.50         |
| Repairs and maintenance                    | 0.37          | 0.61                                      | 1.23         | 10.00        |
| Computer Billing (and Database Mgmt) & ERP |               |   | 6.00         | 11.90        |
| Others                                     |               |   | 22.48        | 30.20        |



# Repair and Maintenance Costs

| FY    | Proposed | Approved | Actual | Particulars                                      | Previous Year | Actual for first six months of current | Current Year | E |
|-------|----------|----------|--------|--|---------------|--|--------------|---|
|       |          |          |        |  | 2020-21       | 2021-22                                |              |   |
| 17-18 | 109.78   | 34.91    | 6.74   |  |               |  |              |   |
| 18-19 | 125.46   | 39.19    | 6.78   |  |               |  |              |   |
| 19-20 | 73.88    | 44       | 4.59   |  |               |  |              |   |
| 20-21 | 85.01    | 45.96    | 6.20   | Civil repairs & maintenance                      | 0.75          | 0.08                                   | 7.08         |   |
|       |          |          |        | Distribution line repairs & maintenance          | 1.25          | 0.89                                   | 45.84        |   |
|       |          |          |        | Consumer service maintenance                     | 0.18          |  | 0.00         |   |
|       |          |          |        | Transformer maintenance                          | 3.27          | 4.26                                   | 19.91        |   |
|       |          |          |        | Other repairs & maintenance                      | 0.76          | 0.78                                   | 9.84         |   |
|       |          |          |        | Additional Repair & Maintenance for RGGVY & BGJY |               |  | 0.00         |   |
|       |          |          |        | <b>TOTAL</b>                                     | <b>6.20</b>   | <b>6.01</b>                            | <b>82.67</b> |   |

Drastic hike in R&M expenses proposed by licensee for the ensuing year. However, licensee is continuously underspending the R&M expenses.

Distribution line maintenance has proposed to be increasing from 1.25 Cr in 20-21 to 45.84 Cr in FY 21-22 to Rs 74.57Cr in FY 22-23.

- The Current years R&M is proposed to be above the commissions approved R&M for 21-22 which is not acceptable.
- Increased R&M should reflect increase in reliability and quality power further should reduce the AT&C losses.

# Observation of other components

## ○ Provision for Bad Debt :

- **Rs. 16.19 Cr proposed for FY 2022-23 considering collection efficiency of 99%**
- The licensee has submitted, to consider the bad debts equivalent to 1% of receivables .
- “The Business Plan order of the Commission dated 20.03.2010 approved collection efficiency of 99% for FY 2011-12 and FY 2012-13. The benchmark of collection efficiency would continue to be at the level of 99% during the third control period also. Accordingly the Bad and Doubtful debt during the third control period would also be allowed 1% of the total annual revenue billing in HT and LT sales only.”
- **Accordingly, Rs. 12.98Cr. (1% of LT and HT revenue, 1075.88 + 222.74 ) may be allowed.**
- Licensee shall audit the receivables, collect receivables and fund the working capital requirements instead of putting the financial burden on the consumers due to provision of huge bad debts.

## ○ Depreciation

- **Licensee has proposed Rs. 44.29Cr. towards depreciation compared to the previous year approval of Rs. 21.47Cr.**
- Depreciation has been provided only on assets available at the beginning of the year and no depreciation has been provided on assets created during the year. The method adopted for calculating depreciation is Straight Line Method (SLM) at pre-92 rates.
- The depreciation should be calculated on the approved asset base as on 1.04.2021 at Pre-92 rate for the assets inherited from SOUTHCO. Commission may undertake prudence check before allowing the costs. As regards the assets to be added by TPSODL the depreciation rates will be as per pre 99 rates notified by the GoI as per the vesting Order.
- As per Regulation 7.56 of RST Regulations 2014, depreciation should not be allowed on the assets funded by Consumer contribution and capital subsidies / grants.

# Tariff Rationalization Measures



## Inclusion of NALCO and IMFA as consumer of TPSODL

NALCO and IMFA are EHT consumers being located within the licensee area of TPSODL are at present consumers of GRIDCO. Licenseses requested to transfer these two consumers under its EHT consumers portfolio

NALCO and IMFA were transferred to GRIDCO as a part of reform programme and the CGPs were pre-existing by virtue special long term agreement made even prior to coming up of DISCOMs in 1999.

Post reforms both the CGPs remained with CESU (now TPCODL) area and the industries were located in SOUTHCO area (now TPSODL). Both the industries were paying the transmission charges of OPTCL.

As per clause 5.1(a) of the Transmission and bulk supply license, GRIDCO is permitted to enter in to an agreement ancillary services including the emergency power supply. The emergency drawl of power by CGPs is minimal on the contrary the injection by CPP's is more.

The arrangement of generating plant i.e. CGP and Industries is at different place is of a peculiar nature and different from other industries having captive CGPs within the premises of industries. Due to this peculiarity the power supply for both the companies was kept with GRIDCO through an MOU signed during the OSEB period. GRIDCO collects revenue at the rate of emergency power approved by Hon. Commission for excess drawl at consumption point. The entire activity was kept in isolation with the distribution company and hence the NALCO and IMFA are not the consumers of DISCOM. Accordingly, the revenue collected by GRIDCO from NALCO and IMFA by way of sale of emergency power is being adjusted in ARR of GRIDCO.

**Hon. Commission had disposed-off the claims of SOUTHCO and CESU vide case no 34 of 200 and 26 of 2001 and 27 of 2001 in the order dated 31.07.2001 and hence the licensees request in the petition of ARR be rejected in this regards.**

# Tariff Rationalization Measures

## Withdrawal of TOD Benefit

Introduction of TOD benefit would be a double benefit for the same cause which may kindly be withdrawn. Introduction of Frequency based Tariff Significance of OFF Peak Hour (TOD) consumption has been Lost.

Consumers are benefiting from Frequency Based Tariff.

Being Permitted, Utilities BSP may also be permitted to reduce for TOD Consumption in OFF Peak Hour. Consumers with CD above, also availing off Peak Hour Benefit with Drawl up to 120% of CD without Penalty.

**330 and Annexure B xi, T.O. FY 2020-21)** ABT has been implemented for DISCOM Utilities and they are supposed to get the benefit. Over drawal facility is available to make the load curve flat during off peak hours. ToD benefit is implemented in Odisha for the consumers who are capable of segregating their load drawal into peak and off-peak hours. Three phase consumers with static meters are allowed to avail TOD rebate excluding Public Lighting and emergency supply to CGP @ 20 paisa/unit for energy consumed during off peak hours. Off peak hours has been defined as 12 Midnight to 6 AM of next day.

## Recovery of Cost of the Meter

Statutory levy required to be collected in addition to meter rent. Statutory levy indicates collection of GST. Now, consumers are being billed on a monthly basis along with meter rent, statutory dues i.e. GST also due on the basis of monthly/bi monthly billing. Alternately abolish the recovery of meter rent and revise the ARR of the licensee after factor in the same.

**284 T.O. FY 2019-20)** Meter rent for meter supplied by DISCOM Utilities shall be collected for a period of 60 months only. After it is collected for sixty months, meter rent collection should be discontinued and excess collected, if any, shall be adjusted in subsequent energy bills. In addition to Meter rent any other applicable taxes and duties levied by Government shall also be payable by consumers to the Government.

# Tariff Rationalization Measures

## Demand charges to HT medium category consumers

Due to a wide gap in the demand charges, consumers under HT medium category just below 110kVA are always trying to avail demand benefits although their load is more than 110 kVA. To curb such disparity UTILITY has submitted to fix demand charges for HT medium category consumers @Rs. 250 per kVA. Consumers having transformer more than 100 kVA and billed under <110kVA should be brought into large industry category of consumer.

**331 T.O. FY 2020-21)** The demand charges for HT medium category of consumers are a separate category of consumers who have load up to 110 KVA. They are small industrial consumers. Their viability cannot be compared with large industry consumer. Therefore, the Commission have been consciously keeping demand charges lower for this category than that of large industry category.

## Levy of Demand charges on the basis of Installed Capacity instead of Contract Demand

Presently the demand charges are Rs 250 per kVA per month on the basis of 80% of the CD or MD whichever is higher. Licensee proposes to increase the demand charges or proposed to make it applicable for 85% of CD instead of present 80% CD

**Fixed charges can not be recovered through the monthly demand charges.**

# Tariff Rationalization Measures

## Additional 5 Paise rebate to Rural Domestic Consumers

Additional 5 Paise/unit rebate is offered to rural domestic consumers availing power through correct energy meter. Same is being proposed to be increased to 10 Paise per unit in addition to existing prompt and digital payment rebate.

This is a good proposal to attract and improve the billing efficiency.

About 14% of the rural consumers are being supplied with defective meters. Further, bad debt are more in domestic consumers.

Increased incentive to consumers should help the licensee to recover timely electricity bill payments

## Introduction of amnesty arrear Clearance Scheme for LT Non Industrial Category of Consumers

Licensee is having outstanding of More than 1499 Cr under LT non industrial category as on Sept 19. Out of this about 351 Cr are under new connection category. Consumers are trying to get new connection after disconnection of the earlier meter.

New connection should be released if the consumers is having earlier unpaid bills or arrears.



# Thank You

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