**Replies to the Objections/Suggestions raised on ARR & Wheeling Tariff Proposals for 4th Control Period from FY 2019-20 to FY 2023-24 raised by Sri M. Thimma Reddy, Convener, People's Monitoring Group on Electricity Regulation, Hyderabad – 500 032**

| Sl. No. | Summary of Objections / Suggestions | Response of the Licensee |
|---|---|---|
| 2.1 | **Information Gap**<br>According to Regulation 4 of 2005 as part of ARR and FPT filings information related to base year and each year of the Control Period needs to be provided. In the case of operation and maintenance (O&M) costs information related to the base year and year prior to the base year in complete detail together with the forecast for each year of the Control Period shall be provided (Clause 6.3). Base Year information is not provided in the case of several items. In the case of O&M costs while information related to the base year and also year prior to the base year in complete detail is expected to be provided no such information is made available in the present filings. | The line item wise cost & Revenue breakup of Aggregate Revenue Requirement for the Base year (FY 2018-19) in detail is provided by the DISCOM in the MYT Distribution Business Formats enclosed to the ARR Fillings from Page No. 43 to 94. The details include actual O&M break up , Scheme wise Capital expenditure, Fixed Asset Particulars & corresponding depreciation, Loans , Consumer grants , load & losses achieved , wheeling revenue etc. These are also provided in the filing write-up to substantiate the projections for the 4th MYT Control Period. The details of prior year to the Base Year is provided as an additional information as a part of True-Up to the Hon'ble Commission on 22.01.2020 which is also placed in the TSNPDCL website. |
| 2.2.1<br>-<br>2.2.5 | According to Clauses 9.1 and 9.2 of Regulation 4 of 2005 the DISCOMs shall file a Resource Plan, containing Sales Forecast, Load, Forecast, Power Procurement Plan and a Distribution Plan (Capital Investment Plan), on 1' April of the year preceding the first year of the Control Plan and the Commission shall approve it as per Guidelines on it. According to Clause 6.3a of this Regulation Capital Investment Plan with capitalisation schedule covering each year of the Control period shall be consistent with | The DISCOM has submitted the Resource Plan filings on 31.10.2018 before Hon'ble Commission which includes Sales Forecast, Loss Trajectory, Load Forecast and Distribution Plan in accordance to the Guidelines for Load Forecast, Resource Plan and Power Procurement, 2006 and in concurrence to the Regulation 4 of 2005. Due to pending approval of the Hon'ble Commission, the licensee has adopted the Distribution Plan submitted under Resource Plan filings for projection of ARR expenditure for 4th MYT Control Period. The existing regulation does not mandate any public hearing process to approve the Load forecast and Resource Plan. |

the Commission's approved Resource Plan.

TSDISCOMs in their filings claimed that their submissions are in consonance with the Resource Plan for the 4th Control Period.

As the present ARR and FTP are based on the Resource Plans of the TSDISCOMs it will not be possible to assess the ARR and FTP without access to the Resource Plans filed by the TSDISCOMs. In the present filings TSDISCOMs have only provided summary figures. We request the Commission to direct the .TSDISCOMs to make these Resource Plans related to 4th Control Period available to the public

The above Regulation also mandates that the ARR is consistent with the Commission's approved Resource

| Tear | DISCOM | Base Capital Exp | Employee Cost | R&M Cost | ARR transferred to RSB |
|---|---|---|---|---|---|
| 2019-20 | NPDCL | 849 | 1,859 | 94 | 2,614 |
| | SPDCL | 1,107 | 2,469 | 161 | 3,935 |
| | Total | 1,956 | 4,328 | 255 | 6,549 |
| 2020-21 | NPDCL | 1,300 | 2,130 | 118 | 3,153 |
| | SPDCL | 1,175 | 2,699 | 192 | 4,465 |
| | Total | 2,475 | 2,829 | 310 | 7,618 |
| 2021-22 | NPDCL | 1,515 | 2,447 | 145 | 3,825 |
| | SPDCL | 1,590 | 2,978 | 214 | 4,927 |
| | Total | 3,105 | 5,425 | 359 | 8,752 |
| 2022-23 | NPDCL | 2,093 | 2,894 | 176 | 4,649 |
| | SPDCL | 1,977 | 3,328 | 240 | 5,544 |
| | Total | 4,070 | 6,222 | 416 | 10,193 |
| 2023-24 | NPDCL | 1,939 | 3,319 | 213 | 5,555 |
| | SPDCL | 2,102 | 3,704 | 273 | 6,250 |
| | Total | 4,041 | 7,023 | 486 | 11,805 |

Plan (Clause 6.3a). It implies that the Resource Plan in

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<tr><td></td><td>question needs to be approved by the Commission prior to the ARR and FTP. We request the Commission to conduct a public process to approve the same given its importance in the overall tariff setting.</td><td></td></tr>
<tr><td>3.1 – 3.3</td><td>Electricity Load during 4th Control Period(MW)
<table>
<tr><th>DISCOM</th><th>2019-20</th><th>2020-21</th><th>2021-22</th><th>2022-23</th><th>2023-24</th></tr>
<tr><td>NPDCL</td><td>2,829</td><td>2,940</td><td>3,043</td><td>3,145</td><td>3,248</td></tr>
<tr><td>SPDCL</td><td>7,428</td><td>7,898</td><td>8,230</td><td>8,540</td><td>8,863</td></tr>
<tr><td>Total</td><td>10,257</td><td>10,838</td><td>11,273</td><td>11,685</td><td>12,111</td></tr>
</table>
<br>The above table shows that during the 4th control period total electricity load at 33 kV level (including losses) in Telangana is projected to increase by 18.08%. While in the case of NPDCL it is projected to increase by 14.81% in the case of SPDCL it is 19.28%.<br><br>During the 4th Control Period distribution expenditure (ARR transferred to retail supply business) is projected to increase by 80.26% in Telangana. When compared to the growth in electricity load in the state it is nearly 5 times higher. The increase in distribution expenditure includes 62.27% increase in employee costs, 90.59% increase in R&M costs and 106.60% increase in base capital expenditure. The Commission needs to see that the distribution expenditure during the 4thControl Period is undertaken according to prudent norms.</td><td>The load (in MW) represented in the table are the loads computed by considering 80% of contracted demand for HT Voltages and 20% of the contracted demands for LT voltages in view of diversity factor.<br>The base capital expenditure is projected based on the demand forecast for the next 5 years submitted in the Resource plan filings and the existing network infrastructure parameters & its loading pattern. The capital expenditure plan is prepared taking the overloading of the existing network units, proposed network infrastructure to cater to new loads and the cost escalation factor to cover the increase in material & labor costs during 5-year control period.<br>Clause 14.3 of MYT Regulation 4 of 2005 stipulates that, “The composite O&M expenses permissible towards revenue requirement for each year of the Control Period shall be determined, by using pre-determined norms or formulae for this purpose. These norms or formulae shall be determined by the Commission based on Distribution Licensee’s submissions in this regard, previous years’ actual expenses and any other factors considered relevant by the Commission.”<br>The Operation & Maintenance costs which comprises Employee cost (EC), Administration & General Expenses (A&G) and Repairs & Maintenance (R&M) costs are projected based on the norms envisaged by the Hon’ble Commission in the MYT Order dated 27.03.2015 which is in accordance to the Regulation. The Employee cost, A&G and R&M costs are linked to capital investments proposed for the control period. The overall growth in O&M costs in the previous control period and the ensuing control period is tabulated below</td></tr>
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| Details | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | Total | Growth rate (CAGR) |
|---|---|---|---|---|---|---|---|
| EC ( Rs.Cr) | 990 | 720 | 1387 | 1804 | 2135 | 7,036 | 23.13% |
| A&G ( Rs.Cr) | 75 | 88 | 316 | 197 | 143 | 819 | 18.13% |
| R&M ( Rs.Cr) | 250 | 273 | 139 | 109 | 127 | 898 | -9.84% |
| Total | **1315** | **1081** | **1842** | **2110** | **2405** | **8753** | 16.58% |
| Y-o-Y growth | | -17.8% | 70.4% | 14.5% | 14.0% | | |

It is to be noted that the negative growth reflected in A&G, R&M expenses is mainly due to reclassification of expenses towards Remuneration paid to outsourcing employees from R&M to A&G during 2016-17 and from A&G to EC from 2017-18 on account of regularization of employees in accordance to the High Court orders.

| Details | 2019-20 | 2020-21 | 2022-23 | 2023-24 | 2024-25 | Total | Growth rate (CAGR) |
|---|---|---|---|---|---|---|---|
| EC | 1859 | 2130 | 2447 | 2894 | 3319 | 12649 | 15.70% |
| A&G | 96 | 110 | 127 | 150 | 172 | 655 | 15.70% |
| R&M | 94 | 118 | 145 | 176 | 213 | 746 | 25.30% |
| Total | **2050** | **2358** | **2718** | **3220** | **3704** | **14050** | **16.14%** |
| Y-o-Y growth | | 15.1% | 15.3% | 18.5% | 15.0% | | |

It can be seen from the tables above, the Overall growth in O&M expenses in the 3rd control period happens to be 16.5% whereas the overall growth projected in the 4th Control period is 16% which is rational and close to the actual trend.

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| 3.4 | More than Rs. 12,000 Crore were reported to have been spent in Telangana during 2017-18 to improve distribution network to facilitate 24 X 7 power supply to agriculture sector high expenditure was incurred in the recent past to improve distribution in the state. When such high expenditure was incurred in the recent past to improve distribution network in the state the new proposals on distribution network expansion needs to be assessed more carefully. | The amount invested by DISCOM for strengthening of Distribution network to provide 24x7 power supply to agriculture sector is Rs. 755 crores.<br><br>The distribution network expansion proposed by the DISCOM in the resource plan filings comprises the plan for new Substation Additions due to overloading of existing Substations, Substation addition due to overloaded feeders, New PTR Additions in existing Substations, and PTR up-gradation , Feeder Additions in Existing Substations, DTR Additions to cater to the future load growth and network strengthening. |
| 3.5 | When the issue of disproportionate expenditure on distribution business is raised Licensees tend to argue that the capital expenditure involves not only expenditure towards augmenting the existing network to meet peak demand but also involves works for network strengthening, renovation and modernization, etc,. In the present filing works related to network strengthening and R&M appear under different heads like other capital expenditure as a part of total capital expenditure, R&M works as a part of O&M expenditure and special appropriation for safety measures. It has to be seen that there is no duplication of work and expenditure incurred has impact on the ground | The capital expenditure plan proposed by the DISCOM in the Filings comprises of two parts. One is Base Capital expenditure and the second is Other Capital Expenditure. Base capital expenditure covers the Sub-station, PTR, Feeder, DTR up-gradations and additions to meet the projected load growth and network strengthening. Other capital expenditure mainly covers the expenditure for AT&C Loss reduction, Reliability improvement & contingency schemes, Renovation & Modernisation of existing assets, civil infrastructure developments, new consumer additions~~,~~ Technology upgradation, Land cost for erection of new substations & road cutting charges for laying cables.<br><br>The expenditure shown in the other capital expenditure is additional to the Base capital expenditure which is proposed to meet the specific goals. The R&M shown under Other Capex is investment for Renovation & Modernisation of existing assets while R&M costs shown under O&M expenditure head is Repairs & Maintenance costs which are to be incurred for maintenance and repair of the assets setup in the system.<br><br>Further, the special appropriation costs shown under the head "Special appropriation for Safety measures" is to ensure safety of the consumers and the employees who work near the network system. |

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<tr><td></td><td></td><td>Hence there is no duplication of costs proposed in the Filings; instead the costs are divided under different heads according to the purpose it relates to.</td></tr>
<tr><td>4.1</td><td>In the present filings Licensees have considered cost of debt as 11% for long term loans and 11.5% for working capital loans during the 4th Control Period. As rate of interest in the financial markets in the country is coming down the rate of interest proposed by the Licensees appears to be on higher side. APERC in its Order, one year back, on wheeling charges for the 4th Control Period adopted 10.53% as rate of interest on debt contracted by APDISCOMs. In the meantime, RBI reduced the repo rate several times. In keeping with these developments, we request the TSERC to adopt lower interest rate than the one proposed by TSDISCOMs</td><td>The Distribution schemes are majorly funded by the REC & PFC institutions. Hence these lending rates form the basis for estimating cost of debt. The lending rates of REC and the Bank Repo rates in the last 5 years is tabulated below
<table>
<tr><th>FY</th><th>Bank Repo Rate</th><th>Average DISCOM lending rate from REC for long term loans</th></tr>
<tr><td>2014-15</td><td>8% -7.5%</td><td>11.65%</td></tr>
<tr><td>2015-16</td><td>7.5 % - 6.75%</td><td>11.93%</td></tr>
<tr><td>2016-17</td><td>6.75% - 6.25%</td><td>11.09%</td></tr>
<tr><td>2017-18</td><td>6.25% - 6%</td><td>10.49%</td></tr>
<tr><td>2018-19</td><td>6%-6.25%</td><td>10.90%</td></tr>
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This shows that the DISCOM lending rates are showing mixed trend over the years and on an average it stood at 11.21% p.a. Hence the cost of debt for new loans considered in the DISCOM is 11% which is in-line with the current state of financial affairs.</td></tr>
<tr><td>4.2</td><td>The present filings show that the TSDISCOMs are expecting Return on equity at 14% for the 4th Control period as per the approved norm for the third control period. Return on equity is linked to the rate of interest. As the rate of interest is coming down return on equity also needs to be reduced and brought down to below 14%. As there is no risk to the DISCOMs in this regard and total costs are being recovered under the present Regulatory framework we propose return on equity at 12%</td><td>In accordance with Section 3 of the Electricity Act, 2003, the Ministry of Power, Government of India notified the Tariff Policy ,2016. The Tariff Policy stipulates as under:<br>"5.0 GENERAL APPROACH TO TARIFF<br>5.11 Tariff policy lays down following framework for performance based cost of service regulation in respect of aspects common to generation, transmission as well as distribution. These shall not apply to competitively bid projects as referred to in para 6.1 and para 7.1 (6). Sector specific aspects are dealt with in subsequent sections.<br>a) Return on Investment<br>Balance needs to be maintained between the interests of consumers and the</td></tr>
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| | | *need for investments while laying down rate of return. Return should attract investments at par with, if not in preference to, other sectors so that the electricity sector is able to create adequate capacity. The rate of return should be such that it allows generation of reasonable surplus for growth of the sector.*<br>*The Central Commission would notify, from time to time, the rate of return on equity for generation and transmission projects keeping in view the assessment of overall risk and the prevalent cost of capital which shall be followed by the SERCs also.* ***The rate of return notified by CERC for transmission may be adopted by the State Electricity Regulatory Commissions (SERCs) for distribution with appropriate modification taking into view the higher risks involved.****…….*<br>*…….*<br>*The State Commission may consider 'distribution and supply margin' as basis for allowing returns in distribution business at an appropriate time..*"<br><br>The Return on Equity determined by the CERC for Transmission projects vide its Tariff Regulations,2019 is 15.5%. The Hon'ble Commission has determined the Return on Equity of 14% for Distribution Business and 2% of supply margin for Retail supply business in the MYT order dt. 27.03.2015. In accordance to the NTP guidelines and the Hon'ble Commission regulations & orders, the licensee has claimed 14% Return on Equity. |
| 4.3 | In SPDCL filings while on page 14 escalation factor is mentioned as 4.68% on page 29 escalation factor is mentioned as 5.42% while claiming to follow identical methodology. We request the Commission to adopt 4.68% as the escalation factor to compute capital cost | The escalation factor of 4.68% proposed on is based on the CPI & WPI indices for the period **2012 to 2017** which is considered in the Resource Plan filings that was filed before Hon'ble Commission on 31.10.2018.<br><br>However the escalation factor of 5.42% proposed on is based on the CPI & WPI indices for the period **2012 to 2018** for computation of O&M expenses.<br>As the periods under consideration are different and the submissions are at different dates, the escalation factor has varied and the DISCOM has |

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| | | considered the updated data with 2018 values in its MYT filings for O&M expenses projections. |
| 5.1 | **<u>Targets for distribution losses:-</u>**<br><br>Targets for distribution losses: 5.1 The distribution losses projected by TSDISCOMs for the 4th control period in some cases are higher than that approved by the Commission for the third control period or equal to the levels already achieved during the third control period. In the case of SPDCL the Commission approved 5% LT losses for the 3 Control Period. But SPDCL has shown that it had achieved 6.05% LT losses during 2018-19 and projected to bring down these losses to 5.93% to 5.47% during the 4th Control Period. Similarly, while the Commission prescribed 4.25% 11 kV losses SPDCL achieved 4.70% in 2018--19 and projected to bring it down to 4.47% in 2023-24. NPDCL projected to bring down distribution losses by 0.01% only at the end of the 4th Control period compared to the levels achieved in 2018-19. Given the huge investments made in expanding and strengthening of distribution network and human resources there should be commensurate reduction in distribution losses | As per clause 5.3 (h)(2) of National Tariff Policy "In cases where operations have been much below the norms for many previous years the initial starting point in determining the revenue requirement and the improvement trajectories should be recognized at "relaxed" levels and not the "desired" levels." Hence TSNPDCL has considered the actual losses achieved in FY 2018-19 as basis for projection of loss trajectory for $4^{th}$ MYT Period. The DISCOM has achieved the stringent loss targets approved by the Hon'ble Commission for $3^{rd}$ MYT Period due to extensive loss reduction measures taken during the period.<br><br>The licensee has implemented various loss reduction measures like strengthening of the network infrastructure, addition of network elements, and vigorously undertaking the Energy Audit to keep a close tab on the losses. Achieving slight reduction in losses after reaching certain bench mark levels will be quite ambitious and requires huge capital investments backed by technology upgradation. Thus the Discom has proposed investments commensurate to load growth including loss reduction. |
| 6.1 | **<u>Safety issues:</u>**<br>Over the years number of deaths due to electrocution have been increasing. Sagging conductors, unsafe DTRs and absence of technical help at the grass roots level are some of the important reasons for these avoidable deaths. It is welcome measure that the DISCOMs have designated officers at the Circle level as Safety Officers. Along with this, it has to be seen that capital investments | As per the directions of Hon'ble TSERC, TSNPDCL has taken all preventive measures to avoid accidents. The measures taken are :<br><br>a) Intermediate Poles are erected wherever there are loose spans/Sagging conductors<br>b) Rectification of Low level road crossings and raising of low height lines<br>c) Providing of proper earthing/plinth raising/fencing around DTRs where unsafe DTR existing. |

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| | made and R&M works taken up results in decline in deaths due to electrocution. All these years though thousands of crores of rupees were spent on expansion and modernisation of T&D network there was no let up in the deaths due to electrocution. | d) Rectification of DTR Structures, AB Switches, HG Fuses.<br>e) Safety week is conducted to create awareness among the consumers about the precautionary measures to be taken. Also farmers are being educated by the local staff and advised not to meddle with live electrical equipment.<br>f) providing fuse controls to DTRs<br>g) Rectification of damaged stay wires/stud poles<br><br>Also to mention that almost 80% of accidents occurred due to consumer faults ( insulation failure , faulty domestic wiring, repairing of starter service wire etc.) , to reduce these accidents Licensee has undertake various awareness activities such as safety week, pamphlets distribution and wall posters on electrical safety on public places etc.<br>And further ensuring keen monitoring of Distribution network, keeping in view of aging of existing network and proposing proper plan of action time to time to strengthening and maintaining the Distribution Network in healthy condition to reduce fatal deaths due to electrocution. |
| 6.2 | In safety related issues along with investments on T&D network staffing patterns also play an important role. In rural areas there is lack of technical staff at the ground level. In the absence of adequate number of line men in rural areas consumers, mostly farmers, are trying to attend to the repairs to the DTRs and conductors on their own and meeting with accidents. While officer level posts are being filled up there are vacancies in the case of technical staff at the ground level, particularly in rural areas. While examining O&M costs staffing pattern also needs to be examined. | As per the departmental administrative procedures, the O&M staff are being allotted to the operation sections. Where the posts are vacant, vacancies are filled in a phased manner and also the services of artisans are utilizing for maintenance work. Keeping in view of absence of adequate number of O&M Staff at the ground level,<br>Recently TSNPDCL has recruited 2284 Nos. JLM's to strengthen the organization at ground level and consumers/farmers are informed that if any grievance arises may be intimated to the concerned AE/Operation or Toll free No. 18004250028/ 1912 for early rectification. **"The farmers are requested not to climb the pole or not to make any repairs to the DTRs and conductors on their own".** |

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| 6.3 | In response to the Commission's directive to run neutral wire from 33/11 kV SS to single phase transformers both existing and new installations without resorting to use of earth as return conductor TSDISCOMs submitted as follows: "Since the hamlets are spread over at distant places, running a neutral wire from 33/11 kV Sub-station is very expensive Hence, it as been decided, earthing of neutral at intermediate cations,needs additional expenditure' • decided to provide local ground earthing by maintaining the earth resistance as per REC construction standards." At the same time SPDCL as a part of Special Appropriations for Safety Measures proposed Rs. 4 crore each year of the 4th Control period towards running of neutral wire from SS. NPDCL proposed about Rs. 7 crore each under Other heading. This may be towards running of neutral wire from SS. The Commission has to see that its directive on running neutral wire is complied with by TSDISCOMs strictly | Field officers were instructed to ensure to provide local ground earthing by maintaining the earth resistance as per the REC Construction standards wherever 1-Ph DTRs are existing in the villages and continuously pursuing for the compliance. |
| 7.1 | Non-transparent erection of substations, transmission towers and drawing of transmission lines is leading to consternation among farmers from whom huge chunks of land is being acquired for these installations. Farmers are not being compensated adequately, as allowed under the existing rules and regulations. Farmers are being made to run from pillar to post to claim their legitimate compensation. The central government rules have empowered the Commission to see that farmers get adequate compensation with in time. The Commission is requested to see that farmers are not harassed and that they get their compensation at the earliest. | ----- |

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| 8.1 | Following the norms set by the Regulation 4 of 2005 True up of distribution business of Licensees of the 3rd control period has to be taken up. According to TSSPDCL annual accounts for base year [2018-19] have been finalized (p.iv para 13). As the necessary information is available with the DISCOMs we request the Commission to direct the TSDISCOMs to file true up/down claims for the 3$^{rd}$controlperiod. | The TSNPDCL has submitted true-up claims for the 3$^{rd}$ Control Period as a part of Additional information to the MYT filings for 4$^{th}$ Control Period on 22.01.2020 which is also placed in the TSNPDCL website. |