**SOUTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LIMITED & NORTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LIMITED**

**RESPONSES TO OBJECTIONS / SUGGESTIONS**

**On**

**Filing of Resource Plan and Business Plan for 5th and 6th Control Periods**

**(FY 2024-25 to FY 2028-29 &**

**FY 2029-30 to FY 2033-34)**

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| **S.No.** | **Name and Address of the Objector** | **Pg.No.** |
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| **1.** | **M. Venugopala Rao, Senior Journalist & Convener, Centre for Power Studies, H.No.1-100/MP/101, Monarch Prestige, Journalists’ Colony, Serilingampally Mandal, Hyderabad - 500 032** | |
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| **S.No** | **Objections** | **TS Discoms Responses** |
| 1 | Replies given by DISCOM are generalized response. | TS Discoms provided the basis and supporting information wherever possible in the detailed justification note. |
| 2 | Certain factors cannot be forecasted, that’s why previous CP experience needs to be analyzed. | TS Discoms welcome the comments of the stakeholder |
| 3 | Abnormal quantum of Surplus power in 5th CP shown. But when it is questioned, DISCOM is relying on hypothetical factors without any substance to reduce the surplus. | TS Discoms provided the circumstances which will impact the energy balance along with the supporting information |
| 4 | Does Merit order principle apply to PPAs in force or any other source of power. Surplus situation being created by DISCOM. | MoD is being implemented for all the generation sources with which the Discoms have tied up. However, in certain situations, some of the generation sources with higher variable costs are backed down to purchase the lower cost power available in exchange and the ultimate benefit is being passed on to consumers. |
| 5 | No statistics provided on surplus/deficit in 4th CP etc. DISOCMs not serious in planning. | Discoms could not submit the Power Procurement plan in Resource Plan for 4th Control Period which specifically shows the surplus quantum for the Control Period. As regards to the submissions of energy balance made in ARR filings for FY 2022-23 and FY 2023-24, TS Discoms submit that there was no significant surplus quantum shown in the filings or in quantum approved by the Hon’ble Commission, however, in actual there was always a deficit and purchase from short term markets have been done. |
| 6 | LIS schemes as proposed by ICAD is very higher. Comparison shows actual sales very low as compared to projections. Realistic assessment needs to be done. Revised data given is same (approx. 10000 MU) for the next CP in all years. What is the point in taking 10% growth rate? | It is respectfully submitted that the projections of sales for LIS schemes were made with end use method where the sales projections are sought from the respective consumers/categories.  TS Discoms have received the sales projection from I&CAD for FY 2023-24 and FY 2024-25 only even though the TS Discoms have sought for year wise projection for the period from FY 2023-24 to FY 2033-34. In the absence of such year wise projection for the period from FY 2025-26 till FY 2033-34, TS Discoms have considered the sales projection for FY 2025-26 till FY 2033-34 as equal to the sales projection submitted for FY 2024-25 |
| 7 | Surplus power backed down and corresponding fixed charges paid in 4th CP not provided saying there was no surplus. How no surplus is possible. | It is submitted that in FY 2022-23, 869 MU of surplus power was sold, earning a revenue of Rs 496 Cr for TS DISCOMs. |
| 8 | How DISCOMs have planned for availability of power in next CP, on whose authority. Who will take responsibility for such a situation? | TS Discoms have filed the Power Procurement Plan for 5th and 6th Control Period as per the Guidelines/Regulations prescribed by the Hon’ble Commission. |
| 9 | Delay in project commissioning in 4th CP cannot be again assumed in 5th CP. | TS Discoms have considered the availability of power from new generating stations as per the schedules received from respective new generating station. |
| 10 | Surplus shown even after expiry of some of the PPAs and curtailment of power purchase from CSPDCL. | Power availability from CSSPDCL has been considered in the original RP submissions till the period the PPA is existing. |
| 11 | How actual PLF can be taken for projection, as PLF is dynamic and will change. | By considering the historical average actual PLFs, TS Discoms believe that due weightage has been given to the historical factors which led to the lower availability of power in 4th Control Period  However, it is submitted that in the RP filings, the availability was calculated on Normative PLF. Only in the Annexure II (Justification of Energy Balance during 5th & 6th Control Period), the actual historical PLF’s was used for projection. |
| 12 | Supporting information giving the reasons for paying higher fixed charges paid to CGS stations needs to be given. | TS Discoms in the justification note have already submitted that the higher fixed charges for CGS Stations than the approved are on account of true up of ARR for previous Control Period. Another reason for higher fixed charges could be due to revision of tariff for current Control Period by Hon’ble CERC. |
| 13 | Artificial coal shortage is being created by Govt. No response from central govt. on the matter. State govt. should question govt. of India. | The objections pointed are out of the purview of TS Discoms. |
| 14 | DISCOMs are preferring market purchase instead of facilitating AP GENCO. | TS Discoms submit that the purchase from market is being made only in order to match supply and demand. Further, as seen from the historical PLFs, TS Genco have higher plf than CGS plants. |
| 15 | What is the role of state govt. in controlling irrational price of SCCL? | The objections pointed are out of the purview of TS Discoms. |
| 16 | Transmission constraints: Discoms do not substantiate with data ,only sweeping statement made. when and where was transmission constraint? If power is available and not being transmitted due to constraints and there is no power cut, it means that there is surplus. No remedial measures suggested to remove constraints. | It is submitted as one of many reasons which might have resulted in lower actual PLFs. |
| 17 | Higher generation from Hydel is beneficial. | No comments |
| 18 | Forced outages in generating station is occasional not regular. Accordingly, spinning reserve is there to cover forced outages. | It is submitted as one of many reasons which might have resulted in lower actual PLFs. |
| 19 | Revision of surplus done by DISCOM but TS TRANSCO has also revised but revision of both TS DISCOM and TS TRANSCO does not match. which one is correct? | It is submitted that in the revised submission, TS TRANSCO used a revised schedule of CODs of few plants. However, TSDISCOMs used original schedule in the RP filings. |
| 20 | Demand fluctuation will always be there, but it cannot lead to such huge surplus | Discoms always strive to maintain the energy balance of the State which is affordable to the end consumers. Historically TS DISCOMS have been dependent on the market. Between September 2022 – September 2023 State demand increased by 50%.  Further, the consumption reduces by 50 MU in just one rainy day. |
| 21 | If banking is real and beneficial, then there is no need to purchase from market. No facts and figures on banking given.  What is the loss/profit, requirement etc. data not given. | For meeting the demand of Telangana during the period 01.02.2023 to 31.03.2023 TS Discoms have signed a banking agreement with MPPMCL (Madhya Pradesh) and such power utilized by TS Discoms is agreed to be returned during the period from 01.11.2023 to 15.12.2023.  Similarly for meeting the peak demand during the period 15.02.2024 to 15.04.2024, TS Discoms have entered into banking agreements with Punjab State Discoms, and such power utilized by TS Discoms is agreed to be returned during. 01.06.2023 to 15.07.2023. |
| 22 | In banking also, power purchase by DISCOM will be at higher rate as surplus power is only banked by DISCOMs of other states. | It is submitted that in a banking arrangement, there is merely an exchange of power. There is no ‘buying’ of power in a banking arrangement. |
| 23 | Measures to control surplus needs to be evaluated. PUSHP portal is only for information sharing purpose. No data /statistics regarding PUSHP given by DISCOM. | It is to be observed that the load patterns of a DISCOM vary with that of other DISCOMs and in fact the load patterns of DISCOMs which are under the same State are also different and, in such circumstances, the PUShP platform can be looked at by the Utilities.  For instance, for meeting the peak demand of Telangana State in peak season it has signed a banking agreement with Madhya Pradesh and Punjab utilities, alternatively Telangana Discoms can avail the power from PUShP platform. |
| 24 | When did the DISCOM sell surplus power? Did the DISCOM get any profit from selling surplus power. Data not given | It is to be noted that the operation of power system happens in time block of 15 min and accordingly the energy availability power and energy requirement are planned wherein in certain time blocks there is a surplus and in certain time blocks there is deficit of power.  The revenue from the sale of surplus power in certain time blocks of one DISCOM is realized on account of variation in the load pattern of other DISCOM(s) for which there is a power deficit in such time blocks. This type of situation i.e., overlapping of surplus time blocks of one DISCOM with deficit time block of another DISCOM may occur in peak season or off-peak season of TS Discoms.  It is further to be noted that for selling the surplus quantum available with the TS Discoms they have to schedule such quantum i.e., the surplus energy available is bought and then sold in the exchange where it is getting higher per unit cost than the per unit purchase cost of TS Discoms. Considering this the sale of surplus power is always profitable. |
| 25 | When Battery storage system will come, nobody knows. There is no certainty on its cost effectiveness and viability. Such Factors should not be considered. | As submitted in the Justification for the Energy Balance scenario of 5th and 6th Control Period, BESS system is one of the many possibilities to better utilize resultant surplus power in the times blocks/ days / months.  Further it is to be noted that TS Discoms before taking up the BESS Systems shall weigh the cost effectiveness and viability of such arrangement. |
| 26 | Prices of Pre-paid meters is not less. whether permission of TSERC taken for tendering of Pre-paid meters and prudence check was done.  Request TSERC to call all files related to Pre-paid metering and examine them. DISCOMs cannot force the consumers to install pre-paid meters. TSERC should protect consumer interest. | TS Discoms shall comply with the directions of the Hon’ble Commission. |
| 27 | Commission should exercise its discretionary powers and not follow the rules made by MoP/ Govt. without scrutiny and is against the interest of the consumers. Rules made by MoP are not binding. | TS Discoms shall comply with the directions of the Hon’ble Commission. |

**2. Response to Prayas (Energy Group)**

| **2** | **Prayas (Energy Group), Unit III A&B, Devgiri, Joshi Rail Museum Lane, Kothrud, Pune,Maharashtra, 411038, India Phone: +91-9440328906, +91-20-25420720, Fax: 91-20-2543 9134** | |
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| **S.No.** | **Summary of Objections / Suggestions** | **Response of the Licensee** |
| **1.** | **Demand forecast**  We thank the DISCOMs for providing analysis of historical sales in their replies dated 16/9/2023. We also thank the TSERC for uploading additional information, with SPDCL data on circle -wise, category -wise sales data and network data; and NPDCL data on sales, NCE PPAs, load curves etc. There is indeed a lot of data that is provided, which we have not been able to completely study. But it is still not clear how this data has led to the demand projections given in the resource plan | No Comments |
| **a** | LT agriculture: DISCOMs have not given replies to the doubts on the method used to arrive at 5% growth rate, in our submission dated 27/06/2023. The only reference is on page 6/31 of Annexure I that LT agriculture sales has increased in 2022-23, due to 24 x7 supply to agriculture introduced in January 2018^2  Our submission had asked for the basis for taking 5% growth rate in 5th and 6th control period. To quote from our submission: The YoY growth of agriculture consumption reported by DISCOMs has been negative for the past three years. This was also highlighted during the FY24 Retail Tariff process. Section 4.16 of the FY24 Retail Tariff order of TSERC covers this aspect. It mentions that DISCOMs have admitted that “…consumption under LT-V category would not further increase given the fall in use of borewells and a rise in canal-based cultivation …”. *From historical data, it is clear that the average capacity has stabilised at 5 hp and hours of pumping at 2000 hours. DISCOM petitions assume that both the number of consumers and average connected load would increase by around 2.5% YoY, thus resulting in 5% YoY consumption growth, while maintaining hours of operation to around 2000. The basis for these assumptions need to be explained.*  We request the DISCOMs to provide the basis for their sales forecast for LT Agriculture. | It is submitted that every year new Agriculture supply connections are released by TS DISCOMs (approximately 50000 no. each for TSSPDCL & TSNPDCL).  Using the same methodology used by the Commission for projectiong LT V sales (Commission considers an operationl period of 180 Days, 12 Hours and 10 hours of usage for TSSPDCL & TSNPDCL), TSDISCOMs considered operationsal period of 180 days and 12 Hours and 12 Hours usage for TSSPDCL & TSNPDCL respectively while projecting incremental sales by new connections. The increased operational period and usage is on account of increase in area of cultivation under paddy crops from the past few years.  Further, every few years, rewinding is done for the agriculture pumps. This rewinding increases the consumption of the pumps which also contributes in higher consumption.  Considering both factors as presented above, a nominal growth rate of 5% was taken to arrive at the LT V sales during the 5th & 6th Control period. |
| **b** | HT – Lift Irrigation: It is good that the DISCOMs have given some details for this in Annexure II of the reply by DISCOMs. But it is unfortunate that the DISCOMs have notbeen able to provide a realistic sales forecast. Since this category has a crucial contribution to system demand (and hence network & power purchase), realistic demand projection becomes very important. From data given in Annexure I and II, it is clear that this has not happened.  Figure 1 gives different sales figures for this category from different sources – namely the previous resource plan filings for 4th and 5th control periods (FY19-FY29), actuals (FY19FY23), current projections for 5th control period (FY24-FY29) and I &CAD projections given to DISCOMs as part of the current resource plan preparation (FY24-29).  **Figure 1: The many numbers for Lift Irrigation sales**    Source: Compiled by Prayas (Energy Group) from Annexure I and II of DISCOM replies dated 16/09/2023  From Figure 1, it can be seen that projections in the previous resource plan was extremely ambitious. As mentioned in Annexure I, this resource plan did not go through regulatory scrutiny and public consultations due to many reasons. DISCOMs could clarify if the network expansion and power purchase were planned on such projections. From Figure 1, it can also be seen that actual sales (FY19-FY23) were much lower – 20% of projections in FY19 and 8% in FY23. The dotted line indicates the sales projections in the current petition and the line above it is the projections by the I&CAD department. I&CAD department projections suggest that the whole LI demand is expected from FY25 onwards.  While it is true that the current projection is sober compared to the previous, basis for the projection is not very clear. As stated in Annexure II, the projection is based on 10% growth rate on some base year sales. As we had mentioned in our submission dated 27/06/2023, projection of sales to this category should depend on number of pumps operational, completion of reservoirs & canals and hours of pumping. We feel that DISCOMs can improve the forecast of sales for this category. For example, Table 1 gives the data on sales to this category in FY23.  **Table 1: Sales to Lift Irrigation, FY23**   |  |  |  | | --- | --- | --- | | LI sales FY23 | MU | % of Filed | | DISCOM Filing | 14,962 |  | | RC Approved | 7,603 | 51 | | Actual | 4,421 | 30 |   Source: Compiled by Prayas (Energy Group) from Annexure I and II of DISCOM replies dated 16/09/2023  It can be seen from the last column that RC approved figure is 50% of the DISCOM filing and actual is 30%. DISCOM could explain why the TSERC figure is much closer to actual sales and why it could not adapt methods used by TSERC to arrive at more realistic forecast.  We request the DISCOMs to provide the basis for arriving at 10% growth rate and also request TSERC to conduct a closer scrutiny of LI sales projections. | It is submitted that considering that there was no clear trend in the in TSDISCOMs historical sales growth in the HT IV category in 132 kv level, the additional loads in this category was sought from the ICAD department itself. The ICAD department in order to project the consumption of HT IV categories, considers the no. of pumps, no. of days, and number of hours of operation.  Further, in FY 2022-23 on account of good monsoon, the consumption of this category was low.  It is further submitted that the sales to HT IV(A) category filed in the RST petition for FY 2022-23 and approved by the Hon’ble Commission are 13826.38 MU and 6467.68 MU respectively. Further, the actual sales to lift irrigation as shown by stakeholders as 4421 MU includes the sales of HT IV(B) (CPW Schemes) category as well. The actual sales to this category for TS DISCOMs for FY 2022-23 is 3240 MU. |
| **c** | Domestic and HT Industry: DISCOMs have not provided answers to the questions on forecast for these categories, raised in our submission dated 27/06/2023. |  |
| **d** | RESCO, Sircilla: Sircilla RESCO is distributing power in its area of operation through a license issued by the Commission though it falls within the area of TSNPDCL’s area. RESCO, Sircilla also needs to submit a detailed load forecast for its area of operation. TSNPDCL in its submission has merely stated as follows, *“the consumption pattern of the Resco is in line with TSNPDCL’s consumption of all LT consumer categories.”* No data is presented in support of this statement. Request the Commission to direct RESCO, Sircilla to file its detailed load forecast for the control periods under examination. | Currently, TSNPDCL has considered the growth rate (growth rate of FY 2023-24 over FY 2022-23) of LT category of the Karimnagar circle in which RESCO is situated. |
| **e** | Load curve and load duration curve: We had requested for load curves for the whole state for typical demand days (say maximum, minimum, average demand) and load duration curves. Examining actuals in 4th control period and projections in 5th control period will help to assess required generation – base, and peak. Page 17/31 of Annexure I gives yearly peak load data for DISCOM. But other requested data has not been provided by DISCOMs. Spread sheet files in Additional submissions of DISCOMs (Annexure II in Additional information 3 of SPDCL and Annexure 4 – load profiles of NPDCL) provide hourly sales data for all categories. DICSOMs indicate that they have used hourly demand data for 365 days to arrive at the daily load curve. Figure 2 gives the hourly load curve for LT agriculture for the state using data from these Annexures.  Figure 2: Daily demand curve for LT Agriculture for TS    Source: Compiled by Prayas (Energy Group) from data provided in Additional information  If this is indeed representative curve for a day in a year, the area under the curve, 43.27 MU is the average daily agriculture demand, which translates to 15,793 MU for a year (365 days). This is much less that the current and projected agriculture demand. DISCOMs need to explain this anomaly. A proper assessment of consumption pattern requires analysis of hourly data for typical days in a year or category wise load duration curves. Since hourly data is available, DISCOMs should provide load duration curves for past years for the whole state and expected curves for at least next few years in the 5th control period. | Load curve submitted is not for a single day but is a result of demands in year as a total.    The Discoms as first step collected the feeder and substation wise actual demand data for each of the sub-divisions and circle for entire area of operation for all days of the year (365 days). Further, a series of operations on this data will form annual load curves for all consumer categories.  Hence Load curve submitted is not for a single day but is a result of demands in year as a total. |
| **2.** | **Power Purchase**  Resource plan projects significant surplus in 5th control period and reducing surplus in 6th. As we had pointed out in earlier submission, surplus, as a percentage of energy availability is 30.2% in FY25, reducing to 13.2% by FY29. There is 3.3% surplus in FY30, and shortage of 22.7% by FY34. Table 1 of Annexure II of the replies also gives the details, but there appears to be a typo in its last row – “% of Surplus to Availability”. The figures given are actually % Surplus of requirement.  Annexure II indicates that mismatch in Lift Irrigation sales, delay in commissioning power plants and variation between normative and actual PLF as the three reasons for the energy requirement mismatch. It also indicates that there have been significant market purchases in FY20, FY21, FY22 and FY23. Market purchase has been between 9 to 13% of total energy available (including markets). It can also be seen that the quantum of market purchase has been 4 to 7 times the TSERC approved value and 2-3 times the DISCOM filed value. It appears that DISCOMs are depending on market to manage demand-supply imbalance.  As of now the proportion of renewable in total energy available is only about 10%. If this proportion increases, the grid balancing challenge would be higher. There would also a need to avoid renewable energy curtailment. This is reason why we had enquired about the plans for storage options like BESS or Pumped storage in TS. In their replies dated 16/9/2023, DISCOMs state: “TS Discoms shall explore the Battery energy storage systems for utilizing the surplus energy and feeding back to the system during the period of peak hours thereby reducing the dependency on the short-term power purchases to balance the demand and supply.” This answer may be relevant for pumped storage hydro, since using BESS to manage such high surplus is not yet an economic option. As mentioned in our earlier submission, TS utilities should use modelling tools to plan capacity addition and optimal utilisation, while meeting reliability constraints.  The need for better forecasting of lift irrigation sales has been covered in section 1. It is unfortunate that DISCOMs are not able to access realistic schedules of commissioning of power plants. But DISCOM could explain how the delay in commissioning power plants has led to surplus in 5th control period.  As for PLF, actual PLF of most thermal stations in the country are below normative values due to many reasons. Reasons include the increasing share of cheaper renewable power (especially in few hours in the year), change in demand profile and reduction of shortages. These trends are present for the past few years and is likely to continue. As we had pointed out in our earlier submission, though there are variations in monthly PLF, annual PLF of many TS thermal plants are close to normative value. In any case, we feel that taking the average actual PLF of past three years is a better option rather than the normative PLF. A mid-term review of resource plan can be used for any course corrections, due to wide variations in actual PLF.  The case of reduction in Chhattisgarh power purchase (CSPDCL) was raised in our previous submission. We thank the DISCOMs for making it clear that power purchase from this station has been low, due to ongoing ATE case (filed by TS DISCOMs), non-payment of dues etc. DISCOMs need to make it clear why it filed an appeal against the CSERC order in ATE in 2018, when CSPDCL power appears to be having low total cost and variable cost. As per the Pooled power purchase cost order of TSERC (dated 22/09/2022), the APPC for TS for FY23 is Rs 4.5/Unit (FC of 1.9 + VC of 2.6), whereas CSPDCL total cost is Rs.3.9/Unit (2.7 FC + 1.2 VC). We request DISCOMs to clarify if the power cost of CSPDCL quoted here is only the cost of generation and if so, give information on any additional charges like transmission charges, cess, fuel cost adjustment, trade margin (which we understand was waived) etc. Were the DISCOMs paying the fixed charges when the power purchase was reduced? Section on FY23 in Annexure I mentions that all dues to CSPDCL has been settled, but still CSPDCL is scheduling zero energy. Can anything be done about this? DISCOM could also explain why it could not take timely steps to avail of this apparently cheaper power supply option. The PPA term, as we understand, ends only in 2027.    Surplus power sale: In their reply, DISCOMs have given three options to handle surplus power – banking arrangement with other states, use of PUShP platform and power exchange. Arrangement of surplus in such high volumes would be possible only if there are potential buyers when TS has surplus. As can be seen from the generation mix and mentioned in our previous submission, TS has significant thermal power surplus, which is base power available for 24 hours, except when thermal units are under maintenance or there is coal shortage. This implies that surplus power would be available in most of the time blocks in the year. Many states have similar surplus, and for the RE rich states, surplus is during the day time (solar), or during monsoon season (wind). Also, the generation cost of the recent TSGENCO power plants are over Rs 5/Unit, whereas the APPC for TS and AP were close to Rs 4.5/Unit. Who will require such costly base load power? What are the specific plans of DISCOMs to sell the surplus power? Which DISCOMs would be ready to enter into banking (or is it swapping) arrangement?  DISCOM could clarify if any potential buyers have been identified and if so provide the details of the quantum and price.  Announcement of HPDAM to sell high price power (greater than Rs 12/Unit) in the exchange and the surplus power portal was announced by MoP in March 2023. Replies by DISCOMs state that *“TS Discoms, have already utilized the services of PUShP platform in order to meet its requirements in the month of May 2023.”*  Term ahead market could be another option to sell surplus power and DISCOM reply mentions the possibility of using market.  We request the DISCOMs to provide details of the power sold through PUShP in May 2023, and any plans to sell surplus power through swapping/banking or exchange. Will it be possible to claim true-up charges in such arrangements? If not, what is the plan of DISCOMs to claim true-up?  No power purchase cost optimisation: In addition to the 2005 Regulations, the 2006 APERC Guidelines on load forecast, resource plan and power procurement should be used to prepare this petition. According to Clause 3.1.3 of the Guidelines *“Each Licensee must be able to demonstrate, through a process of integrated resource planning, that it has examined the economic technical, system and environmental aspects of all available reasonable options to satisfy the load and energy service needs of its consumers in its area of supply, and that such examination has been carried out in accordance with these Guidelines.”* According to Clause 3.3.2 of the Guidelines *“The Power Procurement Plan shall be* *an optimal least-cost portfolio of long-term and short-term plans (…), with the ultimate objective being to make available secure and reliable power supply at economically viable rates to all consumers while satisfying Power Supply Planning and Security Standards.”*  An examination of the submissions shows that there is no attempt at integrated resource planning and optimal least-cost power procurement. This was pointed in our previous submission and DISCOMs, in their reply dated 16/9/2023 have stated that: *“Discoms have noted the objections and shall improve in future submissions”.*  Significant surplus in power availability during the 5th control period is a pointer towards this lack of integrated, optimal and least-cost planning. Hence, without waiting for a future submission, we request the DISCOMs and TSERC to make the best efforts to improve demand forecasts and power purchase planning to optimise costs. As a first step, different scenarios could be envisaged and DISCOMs could calculate the average cost of supply and total cost for these. As the second step, TSERC could revise the 2006 guidelines and ensure that DISCOMs improve the planning process. | As pointed by the stakeholder, it a typo.  As pointed by the stakeholder, there was an increase in the quantum of purchase of power from market/exchanges and the same was done in order to compensate the lower availability of power from contracted sources. It is submitted that TS Discoms have also been signing Banking agreements with other State(s) utilities from the past 4 years and currently there are two active Banking agreements with Madhya Pradesh and Punjab.  As regards to plans for stotage options, TS Discoms submit that they are already utilizing the Pumped Hydro Storage option (Nagarjuna Sagar) for meeting its demand and shall explore such options in future.  As regards to the submission of stakeholder on using modelling tools to plan capacity addition and optimal utilization, TS Discoms submit that they are already doing work on multiple fronts for developing a tool to help them in demand forecast so that optimal utilization of resources and capacity addition can be planned and information in this regard is provided in responses to the additional information part 3.  As regards to the delay in Commissioning of new generating stations, TS Discoms respectfully submit that the schedule of commissioning as provided by the respective generating station has been considered in the Resource Plan filings and further submissions.  TS Discoms welcome the acknowledgement of stakeholder to consider the average actual PLFs rather than normative PLFs.  It is submitted that Rs 3.90 per kwh is the ad hoc tariff and it has not been finalized by the ERC. Further, the landed cost at TS pheriphery will also include the ISTS transmission charges over and above the FC and VC.  There is also a billing dispute over some claims by CSPDCL. Further, it is submitted that no fixed charges were paid during FY 2022-23 and only certain payments like Late payment charges were paid. Futher, once the dispute is resolved, the dispatch from CSPDCL will once again commence.    For meeting the demand of Telangana during the period 01.02.2023 to 31.03.2023 TS Discoms have signed a banking agreement with MPPMCL (Madhya Pradesh) and such power utilized by TS Discoms is agreed to be returned during the period from 01.11.2023 to 15.12.2023.  Similarly for meeting the peak demand during the period 15.02.2024 to 15.04.2024, TS Discoms have entered into banking agreements with Punjab State Discoms, and such power utilized by TS Discoms is agreed to be returned during. 01.06.2023 to 15.07.2023.  It is submitted that TSDISCOMs purchased power from the PUSHp platform in May, 2023 and not sold through it.  In order to optimize the power purchase cost, the TSDISCOMs entered in to PPA’s with cheaper Solar power plants. The per unit cost of energy from these plants varies from 2.45 Rs/kwh to 2.86 Rs/kWh which are much cheaper than the thermal firm sources.  Further, in order to reduce the burden of ISTS charges, TSDISCOMs are striving to purchase power from State Gencos (TSGENCO – YTPS) and other power plants within the state of Telangana. |
| **a** | Clarifications on network planning and investments  We thank the DISCOMs for providing year-wise data on losses, reliability, DT failure etc. But data related to safety is not provided in the replies. We had also requested DISCOMs to link the network investments to such performance metrics – demand growth, reliability, losses, voltage profile, accidents etc.  We also seek responses from DISCOMs on few other network proposals, as below.  TSNPDCL in its filing (p.78) proposes conversion of single-phase agriculture DTRs to 3 phase agriculture DTRs to reduce technical losses. From this filing it is not clear why the DISCOM wants to shift from single phase HVDS DTRs. In the first place, HVDS transformers were introduced to address high technical losses/theft. What prompted the TSNPDCL to take up this conversion is not clear.  TSNPDCL also has the following proposal *“Provision of alternate supply for LT consumers: In the event of a distribution transformer failure, it is necessary to have an alternate LT supply from adjacent DTRs to the existing LT lines. Hence 6,500 KM of LT line is proposed for above purpose, which would incur an amount of Rs. 390 Crores during the current fiscal year and ensuing control periods (5th& 6th).”* (p.81) The Regulations on Standards of Performance provide the time limit within which problems related to DTRs need to be addressed. Given this the expenditure on alternate LT supply line from adjacent DTR may not be needed. Also, whether the adjacent DTR has the capacity to take additional load of another DTR is an issue.  From TSSPDCL’s filing it is not clear whether it has similar proposals. | **Data related to safety will be provided to Hon’ble TSERC.**  The network investments are proposed keeping in consideration the improvement required in performance metrics such as reliability, losses, customer service, current network situation, technical specifications/contours etc. and demand growth.  With respect to the conversion of single phase AGL DTRs to 3 Phase AGL DTRs, it is to inform that TSNPDCL has high AGL consumer sales and accordingly the licensee feels essential to convert existing S-Ph AGL DTRs to 3-Ph AGL DTR’s to reduce technical losses. The Licensee is also providing 24-hour power supply to Agricultural consumers which requires capacity enhancement to avoid overloading of the DTRs and maintain the voltage profile within permissible limits. Further 2nd and 3rd Harmonic are nullified. This conversion also has an positive effect on life of Power Transformers. It will further have positive effect on load balancing between the phases further improving the voltage profile.  Further, the licensees are obligated to provide uninterrupted quality power supply to the consumers with minimum interruptions and restoration time possible. With this intention, the provision of alternate supply for LT consumers has been proposed. In the event of failure of DTRs, the alternate supply from adjacent DTRs to the existing lines will result in uninterrupted power supply to the consumers thereby increasing consumer satisfaction and avoiding revenue loss to the DISCOM. It will also lead to distribution of loads/load balancing resulting in less line losses.  TSSPDCL has also proposed investment for Alternate supply at LT level under Other Capex in the petition. |
| **b** | Suggestions on Process improvement: In our submission dated 27/6/2023, we had made many suggestions on process improvement. DISCOMs have not given any replies and some of the points are under the purview of TSERC.  We had suggested that DISCOMs should optimise power purchase cost under different scenarios and provide average cost of supply and total cost, so that consumers can understand the implications of the plan. As mentioned in previous paragraph, this has not been done, with the DISCOM replying that they would do in the next plan.  DISCOMs have cited non-functioning of TSERC and election code of conduct as reasons for not being able to file resource plan for 4th and 5th control periods. This is indeed unfortunate for the TS power sector and consumers, since power purchase decisions and network expansion were carried out without a plan approved by TSERC, through a transparent participative process. We request the DISCOMs and TSERC to examine the need to suspend the whole regulatory process due to elections. The experience from other states have been mixed, with some states continuing the process, some with- holding final order on crucial and few like TS, not even initiating it.  Information on 4th control period has been provided only after it was raised in the public hearing on 01/09/2023. Review of previous control period should be made mandatory when a new plan is being prepared. A mid-term review of the plan should also be conducted, perhaps in the 2nd or 3rd year, and it could be combined with the retail tariff process. | Discoms will explore all possibilities of process improvement and implement them. |

| **S. No** | **Objections** | **TS Discoms Responses** | |
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| **3.** | **The Federation of Telangana Chambers of Commerce and Industry, Federation House, Federation Marg, 11-6-841, Red Hills, Hyderabad 500004, Telangana, India. Tel: 91-40-23395515 to 22 (8 lines), Fax: 91-40-23395525, e-Mail:** [**info@ftcci.in**](mailto:info@ftcci.in)**; Website: www.ftcci.in** | |
| 1 | **INTRODUCTORY COMMENT**  A Business plan and investment plan for 5th & 6th CP has been made without a review of 4th CP performance. | Review of the 4th Control Period has been submitted to the Hon’ble Commission and the stakeholders. | |
|  | A demand forecast has been made on a trend analysis which considering changing consumption patterns amongst consumer categories is likely to be unreliable and when modern forecasting tools including AI should be adopted . | The Resource Plan filings have been made considering the Regulations and Guidelines. It is humbly submitted that over the past years, the projections carried out have been in line with the actual scenario. | |
|  | No plans mentioned for arrangements to sell surplus power in 5th CP and to augment supply in 6TH CP to meet the shortage despite a proposed investment of over Rs 73,000 CR. during the 5th and 6th CP. | In the ‘Justification for the Energy Balance of 5th and 6th Control Periods’ provided to the Hon’ble Commission and stakeholders, TSDISCOMS provided a list of possibilities to better utilize the resultant surplus in 5th Control period. | |
|  | INTRODUCTORY COMMENT : Our queries on the shortages in 6th CP AND Surplus in 5TH CP despite a huge investment of Rs 73,000 CR. is not clear or satisfactory specifically replies to a & b would appear to be an attempt at stonewalling.  In fact DISCOM replies for our c & d paragraphs is exactly our apprehension of levy of fixed charges on assets with SHORTAGE OF ENERGY TO SUPPLY.    Their reply “Considering the above stated time constraints and challenges of ensuring demand of electricity, DISCOMS have to plan their power generation sources and in discharge of the same TS DISCOMS HAVE SIGNED ALL THE PPAs and subsequently approached Hon’ble commission for approval of the same“.  Above reply is not clear or satisfactory.  No reply to our query in paragraph (h) an expenditure of Rs 2104 CR. by TSTRANSCO during FY23-24 & 23-24 is it part of 4th CP as a budget AVAILABLE or IS IT AN OVERRUN ?  The reply to paragraph (I) is NOT clear. BASE EXPENDITURE of Rs 836.96 during FY23-24 is being insisted as 5th CP? | The Capital Expenditure plan proposed by TS DISCOMs is not dependent on load growth only as is being understood by the stakeholder, but also depends on number of factors.  Some of these factors are, including but not limited to the following:   * Current loading of existing feeders/sub-stations/PTRs. * Load growth of the system * TS DISCOMs always endeavor to provide quality and reliable power supply with a focus on reducing the losses and improving the safety and efficiency of the system * Further , the existing system needs to be renovated and modernized simultaneously to cater to the needs of the consumer and to further improve the sustainability of the organization. All such factors are considered in the proposal for capital expenditure. * Current loading of existing feeders/sub-stations/PTRs   It is submitted that Fixed charges are only paid to the Generators if the plant shows availability. Further, the shortage in energy to supply is considering the increase in the demand.  The Power purchase plan has been provided in the Resource Plan.  During the 6th Control Period, the Discoms have an energy deficit scenario. Discoms expect to meet the energy deficit by means of following measures.   * Discoms are planning to enter PPA with Singareni CCL unit 3 (800 MW) capacity and this unit is expected to be Commissioned during FY 2026-27. There is a scope for installation of 1600 MW additional capacity for Singareni CCL (Unit 4 & 5) * Currently Discoms are allotted 86.92% share from TSTPP (1600 MW) plant. The negotiations are going on to allot the remaining share as well to TS Discoms only. There is a scope for installation of 2400 MW (3x800 MW each) additional capacity for Telangana STPP. * The availability from CGS stations for 1019 MW (incl Simhadri 539 MW) is reduced during 6th Control Period due to expiry of PPAs. TS Discoms would ensure the cost effectiveness and would explore option of extending PPAs if required.   (h) Point h doesn’t pertain to TSDISCOMS  (i) The amount shown under Base Capital Expenditure for FY 23-24 is just a projection figure (for FY 2023-24). This figure forms the basis on which projection of 5th CP has been done. It is not an over run of the approved capex of 4th CP in any way. | |
| 2 | **OUR APPREHENSIONS OUR STATE ELECTRICITY PLANS**  It is trite to say that a sound business plan is a result of through demand forecasting. ANNEXURE 11 Table 1 given in “JUSTIFICATION for the Energy balance of 5th and 6th Control Period is actually the concern if this happens and there are no takers for surplus energy all through the year. The DISCOMS HAVE ADMITTED to this if “Projected sales from I& CAD for LIS IN 5TH AND 6TH CP” should be taken into taken after studying actual vs. Forecast on 4TH & 5TH CP in TABLE 2 ,3 ,4,5 AND 6. The given data realistically that makes we consumers bear the pass-through costs apprehensive. Our concern is what happens if surplus over availability is THE SCENERIO as in Table 6? Possibilities of delay in commissioning of generation capacity or low PLF are there but these should be overcome for least cost to consumer with alternative consumption too rather than low PLF and low demand. Solution is reliable, at 3 sigma or at least 98% plus accuracy forecast with modern forecasting tools. We are not convinced that trend methods are effective methods since we are not in an era of energy shortage and surplus consumers. Today we are looking at a scenario of alternative sources of energy availability with consumer looking for cheaper energy cost, so efficient forecasting methods is imperative. | The Resource Plan filings have been made considering the Regulations and Guidelines. It is humbly submitted that over the past years, the projections carried out have been in line with the actual scenario. | |
|  | The forecasting of for LT-V Agriculture at 5% YOY is contrary to Section 4.16 in T.O FY 23-24 “  ‘’CONSUMPTION under LT-V will not go up given that use of bore wells has come down and a rise in canal irrigation “  Growth of HT –industry due to mega textile needs to be verified.  Considering that 80% of the demand is dependent on LIS,HT industry, LT-V and Domestic LT, the prayer to the honorable commission is that the demand forecast has to be subjected to greater rigor of veracity and more advanced forecasting tools to take a decision on rs 73,906 cr. investment. | It is to be noted that the projection of sales for the agricultural category is difficult and as regards to the submissions of TS Discoms in RST filings for FY 2023-24, along with the submissions made in respect of agricultural sales, the DISCOMs have also requested the Hon’ble Commission to consider the actual sale during the time of true up in case the actual sales emerge to be higher than the projected sales.  Further, the actual sales in LT V consumer category are usually higher than approved by the Hon’ble Commission.  The Discoms in the Resource Plan petition have projected the Agricultural Sales considering nominal growth rates in view of the regular sales and the irrigation lands still to be cultivated which needs pumping water.  No Comment  The suggestion by the stakeholder is noted. | |
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| 3 | **STATE ELECTRICITY PLAN FOR 5TH AND 6TH CP WITHOUT A REVIEW OF THE 4TH CP**  DISCOMs have sent a “Detailed Analysis of 4th Control Period “, IN ANNEXURE -1 in their reply dated 16-09-2023. Normally a detailed analysis, as a Review should include:   1. **A techno-commercial Performance parameter review of Target vs actual.** 2. **A detailed APPROVED project wise status report on completion date vs. actual position, say June 2023.** 3. **A detailed APPROVED project wise Status note of Financial budget allocated as approved to current incurred with a report on any over run on time and cost (CAPEX STATUS) , with reasons for any time-cost over-runs and action proposed to avoid the same for 5TH & 6TH CPs.**   We have gone through the 31 pages of the ANNEXURE -1 and below are our comments:   * 1. Review of Techno commercial Parameters: There are some significant positives and in a few other with scope to improve. * AT&C loss. ( Page 20 ,paragraph 6) From a good 8.49% in FY 2O-21 ,it deteriorated to 19.72% in FY 22-23 .Reason given “is due to low collection efficiency on account of Government receivables “ * T&D LOSS, is at an impressive 12.06%. * Both SAIDI & SAIFI have improved to 797 &30.48 respectively in FY22-23 * DTR failure rate is at 7.86%, which definitely has to be at less than 1%. * Average hours of supply is reported to be at 23:58 hrs. This good and shows great effort by the team of TSDISCOMs.   1. Projects Approved In 4th Cp And Their Status In Terms Of Completion - We regret this all-important project target completion date and current status is not reported and silent on its current status.   2. Capex Approved Project Wise And Current Status - There a passing mention of a need for CAPEX IN PAGE 24 AND in Page 26 & 27 A TABLE showing % variation of CAPEX actual minus approved up to 2022-23 as -47% to -67%.   The explanation is vague and status of % completion in physical terms to % financial terms is not mentioned much less detailed.  In summary we regret to say the 31 plus 14 pages of 4th cp review is trying to make us miss the forest for the wood totally unsatisfactory.  **OUR PRAYERS**   * In the absence of a proper 4th control period review we believe this application for RESOURCE PLAN for 5th and 6th CP deserves to be rejected. * We request the Honorable commission to direct the RS 45000 CR. annual revenue earning utilities (DISCOMS AND TRANSCO) to conduct a more rigorous demand forecasting to justify an investment proposal for Rs 75000 CR. | Regarding the Government receivables, it is humbly submitted that the TS DISCOMs are continously pursuing the matter with HOD’s of State Government authorities.  No Comment  No Comment  The suggestion by the stakeholder is noted.  In accordance to the directive given to TS DISCOMS in MYT ARR order dated 29.04.2020 for Distribution Business for 4th Control period, DISCOMs were directed to submit the requisite supporting documents such as Physical Completion Certificates (PCCs), Financial Completion Certificates (FCCs) etc. as mandated in the investment approval guidelines. TS DISCOMs are submitting the above-mentioned documents to the Hon’ble Commission yearly. | |
| **FTCII submission during the Public Hearing dated 18 Oct 2023** | | | |
| 1 | DISCOMs should sit with Consumers for making business plan. | The Resource Plan filings have been made considering the Regulations and Guidelines. | |
| 2 | Similarly, in the NPDCL submissions (page xii) under paragraph BASE CAPITAL EXPENDITURE an amount of Rs 836.96, not part of 5th CP, IS SHOWN FOR FY 23- 24. Is it an over-run in the approved 4TH CP? | The amount shown under Base Capital Expenditure for FY 23-24 is just a projection figure (for FY 2023-24).  This figure forms the basis on which projection of 5th CP has been done. It is not an over run of the approved capex of 4th CP in any way. | |
| 3 | How can DISCOMs depend on projected sales of ICAD dept. | End-user method is generally used for projecting the sales in certain consumer categories like HT-IV Irrigation because of high dependence of demand on the end-use and to take into consideration the new initiatives by the Govt. which have significant impact on the sales projections. | |
|  | LT V has 5% year and year growth considered but in earlier filings/order it was mentioned that the sales of Agri will not go up due to increase in canal irrigation | it is to be noted that the projection of sales for the agricultural category is difficult and as regards to the submissions of TS Discoms in RST filings for FY 2023-24, along with the submissions made in respect of agricultural sales, the DISCOMs have also requested the Hon’ble Commission to consider the actual sale during the time of true up in case the actual sales emerge to be higher than the projected sales. | |
| 4 | Decent Market survey needs to be done by DISCOM before framing resource plan. | The Resource Plan filings have been made considering the Regulations and Guidelines. | |
| 5 | Demand forecast needs to be examined rigorously. Modern tools may be used to forecast the parameters. | The Resource Plan filings have been made considering the Regulations and Guidelines. | |
| 6 | Detailed project wise review required, actual vs projected, budget approved etc. | In accordance to the directive given to TS DISCOMS in MYT ARR order dated 29.04.2020 for Distribution Business for 4th Control period, DISCOMs were directed to submit the requisite supporting documents such as Physical Completion Certificates (PCCs), Financial Completion Certificates (FCCs) etc. as mandated in the investment approval guidelines. TS DISCOMs are submitting the above-mentioned documents to the Hon’ble Commission yearly. | |
| 7 | SAIFI & SAIDI can improve further. DTR failure rate can also improve further. | The suggestions listed by the Stakeholder are noted. | |
| 8 | List of projects approved, status of completion , completion date , budget approved, expense record etc. should be a part of the business plan/resource plan. Data not given of capex (Actual vs projected) | In accordance to the directive given to TS DISCOMS in MYT ARR order dated 29.04.2020 for Distribution Business for 4th Control period, DISCOMs were directed to submit the requisite supporting documents such as Physical Completion Certificates (PCCs), Financial Completion Certificates (FCCs) etc. as mandated in the investment approval guidelines. TS DISCOMs are submitting the above-mentioned documents to the Hon’ble Commission yearly. | |
| 9 | MoP approval may be required for resource plan/ business plan although DISCOM has denied. | MOP approval is not required. Further, the Resource Plan filed by the petitioner only includes Capex projected and doesn’t include the financing details. | |