



TRANSMISSION CORPORATION OF TELANGANA LIMITED  
Vidyut Soudha, Somajiguda, Hyderabad – 82.

From  
The Chief Engineer  
(Comml.&RAC)  
TSTRANSCO  
Vidyut Soudha,  
Hyderabad – 82.

To,  
Sri M. Venugopala Rao  
Senior Journalist, & Convener,  
Centre for Power Studies, H.No.1-100/MP/101,  
Monarch Prestige, Journalist' Colony,  
Serilingampally Mandal, Hyderabad - 500032

Lr.No.CE(Comml.&RAC)/SE(Plg.)/DE(RAC)/F.RSP-'24-'34 REPLIES/D.No.55/23, Dt.12.07.2023

Sir,

Sub: - Resource plan petition of TSTRANSCO for the 5<sup>th</sup> Control Period (FY2024-2029) & 6<sup>th</sup> Control Period (FY2029-2034) of TSTRANSCO – Objections/Comments received from Sri M. Venugopala Rao, Hyderabad – Replies furnished – Reg.

Ref: (1) e-mail dated 28-06-2023 from Sri M. Venugopala Rao, Hyderabad.  
(2) Public Notice Dt. 18-05-2023 & 06-06-2023  
(3) Resource plan petition of TSTRANSCO (O.P.No.09-of-2023 of TSERC)

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I am directed to communicate the replies of TSTRANSCO against your Objections/Comments received vide e-mail cited in Ref. (1), at the Annexure enclosed herewith.

Please, acknowledge the receipt of the same.

Encl: As above



*(Qant 17/12)*  
CHIEF ENGINEER *3/5*  
(Comml.&RAC)  
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Mobile: 8985041522

Copy submitted to

✓ The Secretary, TSERC, Singareni Bhavan, Red Hills, Hyderabad. (w.e.)

Copy to

Chief Engineer(PowerSystems)/TSTRANSCO/VS/Hyd.

PS to Joint Managing Director (Finance, Comml. & HRD)/TSTRANSCO/VS/Hyd.

**Replies of TSTRANSCO to the Objections & Suggestions of Sri M. Venugopala Rao, Senior Journalist, Hyderabad  
on Resource Plan Petition filed TSTRANSCO for 5<sup>th</sup> & 6<sup>th</sup> Control Period (O.P. No. 09 of 2023 of TSERC)**

| Sl. No              | Objections/Suggestions   | Reply of TSTRANSCO                   |          |           |         |         |         |                    |  |  |  |  |  |                  |          |          |          |           |  |  |           |  |  |  |  |              |  |  |  |  |  |               |       |       |       |       |  |  |       |  |  |  |  |                    |        |        |        |        |        |                    |       |       |       |       |  |  |       |  |  |  |  |                     |  |  |  |  |  |                                      |
|---------------------|--|--------------------------------------|----------|-----------|---------|---------|---------|--------------------|--|--|--|--|--|------------------|----------|----------|----------|-----------|--|--|-----------|--|--|--|--|--------------|--|--|--|--|--|---------------|-------|-------|-------|-------|--|--|-------|--|--|--|--|--------------------|--------|--------|--------|--------|--------|--------------------|-------|-------|-------|-------|--|--|-------|--|--|--|--|---------------------|--|--|--|--|--|--------------------------------------|
| 1                   | <p>We thank the Hon'ble Commission for deciding to hold public hearing on the subject issue. There is no response from the Hon'ble Commission to extent time for filing submissions on the subject issues. We have concentrated on the load forecasts, etc., of TS DISCOMs for filing submissions, with second extension of time up to 15.7.2023 which information is uploaded in the website of the Commission belatedly. As such, time is found to be inadequate to study and analyse the subject issues in detail.</p>  | <p>Submission to the Commission.</p> |          |           |         |         |         |                    |  |  |  |  |  |                  |          |          |          |           |  |  |           |  |  |  |  |              |  |  |  |  |  |               |       |       |       |       |  |  |       |  |  |  |  |                    |        |        |        |        |        |                    |       |       |       |       |  |  |       |  |  |  |  |                     |  |  |  |  |  |                                      |
| 2                   | <p>For the state of Telangana TSTRANSCO has presented the following forecasts for the 5<sup>th</sup> control period:</p> <table border="0" data-bbox="188 861 1003 1463"> <thead> <tr> <th></th> <th>2024-25</th> <th>2025-26</th> <th>2026-27</th> <th>2027-28</th> <th>2028-29</th> </tr> </thead> <tbody> <tr> <td>Energy requirement</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>At grid level MU</td> <td>85357.52</td> <td>90216.22</td> <td>95332.94</td> <td>100951.93</td> <td></td> </tr> <tr> <td></td> <td>106858.16</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Peak load at</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Grid level MW</td> <td>17639</td> <td>18644</td> <td>19706</td> <td>20868</td> <td></td> </tr> <tr> <td></td> <td>22092</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Annual load factor</td> <td>55.24%</td> <td>55.24%</td> <td>55.23%</td> <td>55.22%</td> <td>55.22%</td> </tr> <tr> <td>Transmission loss%</td> <td>2.48%</td> <td>2.46%</td> <td>2.44%</td> <td>2.42%</td> <td></td> </tr> <tr> <td></td> <td>2.40%</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Energy availability</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> |                                      | 2024-25  | 2025-26   | 2026-27 | 2027-28 | 2028-29 | Energy requirement |  |  |  |  |  | At grid level MU | 85357.52 | 90216.22 | 95332.94 | 100951.93 |  |  | 106858.16 |  |  |  |  | Peak load at |  |  |  |  |  | Grid level MW | 17639 | 18644 | 19706 | 20868 |  |  | 22092 |  |  |  |  | Annual load factor | 55.24% | 55.24% | 55.23% | 55.22% | 55.22% | Transmission loss% | 2.48% | 2.46% | 2.44% | 2.42% |  |  | 2.40% |  |  |  |  | Energy availability |  |  |  |  |  | <p>Submission to the Commission.</p> |
|                     | 2024-25  | 2025-26                              | 2026-27  | 2027-28   | 2028-29 |         |         |                    |  |  |  |  |  |                  |          |          |          |           |  |  |           |  |  |  |  |              |  |  |  |  |  |               |       |       |       |       |  |  |       |  |  |  |  |                    |        |        |        |        |        |                    |       |       |       |       |  |  |       |  |  |  |  |                     |  |  |  |  |  |                                      |
| Energy requirement  |  |                                      |          |           |         |         |         |                    |  |  |  |  |  |                  |          |          |          |           |  |  |           |  |  |  |  |              |  |  |  |  |  |               |       |       |       |       |  |  |       |  |  |  |  |                    |        |        |        |        |        |                    |       |       |       |       |  |  |       |  |  |  |  |                     |  |  |  |  |  |                                      |
| At grid level MU    | 85357.52   | 90216.22                             | 95332.94 | 100951.93 |         |         |         |                    |  |  |  |  |  |                  |          |          |          |           |  |  |           |  |  |  |  |              |  |  |  |  |  |               |       |       |       |       |  |  |       |  |  |  |  |                    |        |        |        |        |        |                    |       |       |       |       |  |  |       |  |  |  |  |                     |  |  |  |  |  |                                      |
|                     | 106858.16  |                                      |          |           |         |         |         |                    |  |  |  |  |  |                  |          |          |          |           |  |  |           |  |  |  |  |              |  |  |  |  |  |               |       |       |       |       |  |  |       |  |  |  |  |                    |        |        |        |        |        |                    |       |       |       |       |  |  |       |  |  |  |  |                     |  |  |  |  |  |                                      |
| Peak load at        |  |                                      |          |           |         |         |         |                    |  |  |  |  |  |                  |          |          |          |           |  |  |           |  |  |  |  |              |  |  |  |  |  |               |       |       |       |       |  |  |       |  |  |  |  |                    |        |        |        |        |        |                    |       |       |       |       |  |  |       |  |  |  |  |                     |  |  |  |  |  |                                      |
| Grid level MW       | 17639  | 18644                                | 19706    | 20868     |         |         |         |                    |  |  |  |  |  |                  |          |          |          |           |  |  |           |  |  |  |  |              |  |  |  |  |  |               |       |       |       |       |  |  |       |  |  |  |  |                    |        |        |        |        |        |                    |       |       |       |       |  |  |       |  |  |  |  |                     |  |  |  |  |  |                                      |
|                     | 22092  |                                      |          |           |         |         |         |                    |  |  |  |  |  |                  |          |          |          |           |  |  |           |  |  |  |  |              |  |  |  |  |  |               |       |       |       |       |  |  |       |  |  |  |  |                    |        |        |        |        |        |                    |       |       |       |       |  |  |       |  |  |  |  |                     |  |  |  |  |  |                                      |
| Annual load factor  | 55.24%   | 55.24%                               | 55.23%   | 55.22%    | 55.22%  |         |         |                    |  |  |  |  |  |                  |          |          |          |           |  |  |           |  |  |  |  |              |  |  |  |  |  |               |       |       |       |       |  |  |       |  |  |  |  |                    |        |        |        |        |        |                    |       |       |       |       |  |  |       |  |  |  |  |                     |  |  |  |  |  |                                      |
| Transmission loss%  | 2.48%  | 2.46%                                | 2.44%    | 2.42%     |         |         |         |                    |  |  |  |  |  |                  |          |          |          |           |  |  |           |  |  |  |  |              |  |  |  |  |  |               |       |       |       |       |  |  |       |  |  |  |  |                    |        |        |        |        |        |                    |       |       |       |       |  |  |       |  |  |  |  |                     |  |  |  |  |  |                                      |
|                     | 2.40%  |                                      |          |           |         |         |         |                    |  |  |  |  |  |                  |          |          |          |           |  |  |           |  |  |  |  |              |  |  |  |  |  |               |       |       |       |       |  |  |       |  |  |  |  |                    |        |        |        |        |        |                    |       |       |       |       |  |  |       |  |  |  |  |                     |  |  |  |  |  |                                      |
| Energy availability |  |                                      |          |           |         |         |         |                    |  |  |  |  |  |                  |          |          |          |           |  |  |           |  |  |  |  |              |  |  |  |  |  |               |       |       |       |       |  |  |       |  |  |  |  |                    |        |        |        |        |        |                    |       |       |       |       |  |  |       |  |  |  |  |                     |  |  |  |  |  |                                      |

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|   | <p>121683.69      128247.74      127966.87      127544.21<br/>126839.54</p> <p>Energy surplus/<br/>Deficit MU</p> <p>36326.17      38031.52      32633.94      26592.28<br/>19981.38</p>   |  |
| 3 | <p>TSTRANSCO has submitted that the purpose of Resource Plan is to present a comprehensive summary of the process, assumptions, methodology, Transmission network expansion plan and investment required to ensure necessary Transmission system suitably to meet the demand growth anticipated during FY 2028-29. The proposed Transmission system required for the FY 2028-29 ending in the 5th Control Period is accessed for the estimated peak load of 20486 MW and additional Generation evacuation, it has explained. Under transmission resource plan, it has proposed an investment of Rs.3001.85 Crore during the 5<sup>th</sup> control period, based on the estimated peak load and additional generation evacuation, which is not explained with details. While energy requirement projected to be increasing by about 5000 MU per annum during the 5<sup>th</sup> control period, availability of energy is projected to be stagnating during the last four years of the same control period, with availability of abnormal quantum of surplus power every year.</p> | <ul style="list-style-type: none"> <li>• TSTRANSCO has planned the transmission system for the 5<sup>th</sup> Control Period (FY 2024-25 to FY 2028-29) for an investment of Rs.3001.85 Crore to meet the year wise load growth, system strengthening, and to meet the upcoming bulk loads such as Integrated Steel Plant, Kollur and Dandu Malkapur.</li> <li>• The transmission system was planned considering the various assumptions and standards of CEA Transmission Planning criteria, 2023 such as Loading Limits of Transmission Lines, Maximum Capacity reached on Substations, Voltage Limits, Contingency Criteria, Maximum Short Circuit Level. The copy of the relevant extract of CEA Transmission Planning criteria, 2023 is herewith enclosed.</li> <li>• The quantum of surplus energy during FY 2024-25 is due to the addition of new generating plants of Yadadri Thermal Power Station with installed capacity of 4000 MW (5x800 MW) with estimated CODs of Unit#1 Dec'2023, Unit#2 Mar'2024, Unit#3 May'2024, Unit#4 July'2024 ,Unit#5 Sept'2024 and Telangana STTP with installed capacity of 1600 MW (2x800 MW) Unit-I is ready for synchronisation and Unit-II is being made ready. The above said generating stations are planned to meet the estimated Peak demand as well as future energy requirement.</li> <li>• The quantum of surplus energy in the FY 2024-25 is 36326.17 MU will be gradually reduced to 19981.38 MU during FY 2028-29.</li> </ul> |

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| <p>4</p> | <p>Guidelines for load forecasts, resource plans and power procurement issued in December .2006 by APERC and adopted by TSERC rightly underline the imperative of ensuring “an adequate, safe, and economical supply of electricity” to the consumers. It is also emphasized that “the power procurement plan shall be an optimal least-cost portfolio of long-term and short-term (least financial cost,” “with the ultimate objective being to make available secure and reliable power supply at economically viable rates to all consumers,” “to optimise trade-off between price risk and demand variation,” “fuel diversity in power procurement,” “supplier diversity and viability,” “the plan for additional power procurement indicating portfolio mix of unit sizes, technology and fuel type, capacity contracted to meet peak/off-peak and seasonal load,” etc. In other words, the following points, among others, should be the objectives of load forecast, and resource and investment plans of the licensees:</p> | <p>As per<br/> “ Guidelines for load forecasts, resource plans and power procurement issued in December 2006 by APERC and adopted by TSERC “</p>   |
| <p>5</p> | <p>Availability of abnormal quantum of surplus power during the 5<sup>th</sup> control period will have the following consequences detrimental to larger consumer interest:</p> <hr/> <p>a) If surplus power cannot be sold in the market profitably or at least without any loss, it will have to be backed down and hefty fixed charges have to be paid there for, with</p>   | <ul style="list-style-type: none"> <li>➤ The Peak power availability (MW) must be ensured to meet the Peak demand, which would occur during a specific period of time (Morning Peak and Evening Peak), whereas the Energy Availability (MU) should be ensured to meet the energy demand over a day’s period.</li> <li>➤ The Demand would be projected considering major increase in Loads and certain percentage increase in Category-wise Loads, which may incident or not in actual scenario. But TSDISCOMs would need to ensure projected Peak power Availability. Hence, during any Financial Year, the surplus power may be available for some of the days mostly on Non – RTC Period.</li> </ul> |

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| <p>associated technical and financial problems, as has been the experience during the 4h control period.</p>   | <p>➤ The surplus power would be dealt in following two ways</p> <ul style="list-style-type: none"> <li>(i) Bidding the surplus power in Power Exchanges at profitable price duly analyzing the day to day market trends.</li> <li>(ii) TSDISCOMs enter into Banking PSAs with other utilities under Banking arrangement, for off-taking the power in deficit period and returning the availed power during surplus power period, so as to utilize the surplus power in a most economical way.</li> </ul>   |
| <p>b) If transmission and distribution capacities are added based on total availability of energy/installed capacity, it will lead to over-investment and under-utilisation of capacities added.</p>   | <ul style="list-style-type: none"> <li>• TSTRANSCO has planned the transmission system based on the estimated Peak Demand, but not on the energy availability. The surplus power during light load conditions will be exported through Inter-State transmission system (ISTS) as the load is dynamic in nature. Further, the optimal transmission system was planned duly considering the various assumptions and standards of CEA Transmission Planning criteria, 2023 which will not certainly lead to over-investment. Further, under utilization is also very rare except in case of sudden climate changes and cyclone storm situations. Therefore, it is not desirable to consider under-utilization situation in the planning.</li> </ul> |
| <p>c) Depending on the kind of approvals given/to be given by the Hon'ble Commission, avoidable additional burdens will be imposed on consumers at large for availability of abnormal quantum of surplus power and under-utilization of transmission and distribution capacities created so far and proposed to be added during the 5<sup>th</sup> control period exceeding requirements</p> |  |

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| 8 | <p>The regulatory process of the Commission should not facilitate concealing of all the relevant information from public gaze and consumers of power at large are entitled to know the reality, as they are, and will be, bearing all the burdens relating to the expenditures being and proposed to be incurred by the power utilities of GoTS and approved by the Commission. The prudence check by the Hon'ble Commission should cover how the process of tendering, their terms and conditions, for selection of bidders for purchases being made by the power utilities of the state government and prices and charges being finalised by them for purchase of materials and maintenance charges with required comparative study based on results and experience in other states and market trends relating to the issues concerned and the details be made public. Experience confirms that successive Commissions have been avoiding making such information public.</p> | <p>Submission to the Commission</p>   |
| 9 | <p>TSTRANSCO has to explain whether it is going to add transmission capacity based on the projected availability of total power or in accordance with the projected requirement. It has to explain how it added transmission capacity during the 4<sup>th</sup> control period and to what extent it has been really required to meet demand, in the face of availability of abnormal quantum of surplus power. Going by the projections of availability of power during the 5<sup>th</sup> control period, with almost no addition of generating capacity, TSTRANSCO must have already added transmission capacity as per availability during the 4<sup>th</sup> control period and some of the works must be under execution. Under such a</p>  | <ul style="list-style-type: none"> <li>• The transmission system is planned suitably time to time to meet the estimated Peak demand arrived from projected energy requirement. Telangana state Peak demand during the state formation was 5661 MW on 06.06.2014 is now has been increased to 15497 MW on 30.03.2023. Telangana state energy per capita consumption was increased from 1196 units (2014) to 2140 units (2023), which is almost doubled.</li> <li>• To meet the abnormal load growth during 3<sup>rd</sup> control period (FY 2014-15 to FY 2018-19) and 4<sup>th</sup> control period (FY 2019-20 to FY 2023-24), to overcome the huge power deficit and to maintain quality and reliable power supply to the consumers, generating stations such as BTPS (4x270 MW), KTPS- VII stage (1x800 MW), Yadadri Thermal Power</li> </ul> |

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|    | <p>situation, TSTRANSCO has to provide justification for its proposed investment plan in terms of evacuating the projected requirement for power.</p>   | <p>Station (5x800 MW), Telangana STPP (2x800 MW)for which transmission network was planned on war footing basis to avoid the power evacuation problems from the above generating stations scheduled for commissioning.</p> |
| 10 | <p>I request the Hon'ble Commission to provide me an opportunity to make further submissions during the public hearing on the subject issues, after receiving responses of TSTRANSCO to my submissions.</p> | <p>Submission to the Commission</p>  |



TRANSMISSION CORPORATION OF TELANGANA LIMITED  
Vidyut Soudha, Somajiguda, Hyderabad – 82.

From  
The Chief Engineer  
(Comml.&RAC)  
TSTRANSCO  
Vidyut Soudha,  
Hyderabad – 82.

To,  
The Secretary,  
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#11-4-660, 5<sup>th</sup> floor,  
Singareni Bhavan, Red Hills,  
Hyderabad - 500004

Lr.No.CE(Comml.&RAC)/SE(Plg.)/DE(RAC)/F.RSP-'24-'34/D.No.92/23, Dt.06.11.2023

Sir,

Sub: TSTRANSCO – Resource Plan petition filed by TSTRANSCO (O.P. No. 09 of 2023 & I.A. No. 06 of 2023 of TSERC) – Objections/Suggestions of Sri M. Venugopala Rao on TSTRANSCO Resource Plan filings – Replies furnished – Reg.

Ref: 1. O.P. No. 09-of-2023 & O.P. No. 06-of-2023  
2. Copy of e-mail dated. 5-10-2023 of Sri M. Venugopala Rao, Senior Journalist, Hyderabad

\* \* \*

The replies of TSTRANSCO against Objections/Suggestions of Sri M. Venugopala Rao, Senior Journalist, Hyderabad on Resource Plan petition filed by TSTRANSCO (O.P. No. 09 of 2023 & I.A. No. 06 of 2023 of TSERC) are enclosed herewith.

Please, acknowledge the receipt of the same.

Encl: As above

  
D. Praveen Maurice  
CHIEF ENGINEER  
(Comml.&RAC)

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Copy communicated to

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H.No.1-100/MP/101, Monarch Prestige, Journalist' Colony,  
Serilingampally Mandal, Hyderabad - 500032. (w.e.)

Copy to

Chief Engineer(Power System)/TSTRANSCO/VS/Hyd.  
PS to Joint Managing Director (Finance, Comml. & HRD)/TSTRANSCO/VS/Hyd.

**TSTRANSCO's Replies to Sri M. Venugopala Rao, Senior Journalist, Hyderabad**

**in O.P.No.9 of 2023 & I.A. No.6 of 2023 of the Hon'ble TSERC**

(TSTRANSCO Resource Plan for 5<sup>th</sup> Control period & 6<sup>th</sup> Control period)

| Sl. No.                      | Objection/Suggestion   | Reply of TSTRANSCO |            |               |                |         |         |                        |           |           |           |           |           |                       |          |          |          |           |           |                   |          |          |          |          |          |   |            |   |  |  |  |  |                    |  |  |  |  |         |         |         |         |         |                     |       |        |       |       |       |                    |       |       |       |        |        |                          |             |             |            |               |                |                              |    |    |    |     |      |
|------------------------------|--|--------------------|------------|---------------|----------------|---------|---------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------------------|----------|----------|----------|-----------|-----------|-------------------|----------|----------|----------|----------|----------|---|------------|---|--|--|--|--|--------------------|--|--|--|--|---------|---------|---------|---------|---------|---------------------|-------|--------|-------|-------|-------|--------------------|-------|-------|-------|--------|--------|--------------------------|-------------|-------------|------------|---------------|----------------|------------------------------|----|----|----|-----|------|
| 1                            | <p>In the revised resource plan, TSTRANSCO has shown availability of surplus power during the fifth control period as given below:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">2024-25</th> <th style="text-align: center;">2025-26</th> <th style="text-align: center;">2026-27</th> <th style="text-align: center;">2027-28</th> <th style="text-align: center;">2028-29</th> </tr> </thead> <tbody> <tr> <td>1. Energy Availability</td> <td style="text-align: right;">120222.65</td> <td style="text-align: right;">126791.41</td> <td style="text-align: right;">126440.73</td> <td style="text-align: right;">126018.08</td> <td style="text-align: right;">121516.01</td> </tr> <tr> <td>2. Energy Requirement</td> <td style="text-align: right;">84996.88</td> <td style="text-align: right;">89766.97</td> <td style="text-align: right;">94773.75</td> <td style="text-align: right;">100285.88</td> <td style="text-align: right;">105956.88</td> </tr> <tr> <td>3. Surplus energy</td> <td style="text-align: right;">35225.77</td> <td style="text-align: right;">37024.22</td> <td style="text-align: right;">31666.98</td> <td style="text-align: right;">25732.20</td> <td style="text-align: right;">15559.03</td> </tr> </tbody> </table> <p>In the revised resource plan, TRANSCO has reduced availability of surplus power during the 5<sup>th</sup> control period by about 1000 MU per annum compared to the surplus projected by it in the earlier resource plan submitted by it to the Commission. While TSDISCOMs have tried to show in their replies given to our submissions after the earlier public hearing that there will be no availability of surplus power during the 5<sup>th</sup> control period based on their subsequent presumptions, TSTRANSCO has shown that there will be a marginal reduction only in the projected availability of surplus power as per its revised resource plan compared to the surplus projected in its earlier resource plan. Our earlier submission dated 28.06.2023 hold good for the revised</p> |                    | 2024-25    | 2025-26       | 2026-27        | 2027-28 | 2028-29 | 1. Energy Availability | 120222.65 | 126791.41 | 126440.73 | 126018.08 | 121516.01 | 2. Energy Requirement | 84996.88 | 89766.97 | 94773.75 | 100285.88 | 105956.88 | 3. Surplus energy | 35225.77 | 37024.22 | 31666.98 | 25732.20 | 15559.03 | <p>A) Due to the Combined impact of delay of commissioning of new generating stations, LIS projections received from I&amp;CAD Department and availability as per historical actual PLFs, the Discoms had revised the energy surplus / deficit as per the Additional Information submitted by the Discoms vide their letter dated 16-09-2023 as follows.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <thead> <tr> <th rowspan="3" style="text-align: center;">Particular</th> <th colspan="5" style="text-align: center; background-color: #f2f2f2;">Impact of Energy Balance in Telangana State</th> </tr> <tr> <th colspan="5" style="text-align: center;">5th Control Period</th> </tr> <tr> <th style="text-align: center;">2024-25</th> <th style="text-align: center;">2025-26</th> <th style="text-align: center;">2026-27</th> <th style="text-align: center;">2027-28</th> <th style="text-align: center;">2028-29</th> </tr> </thead> <tbody> <tr> <td>Energy Availability</td> <td style="text-align: right;">93191</td> <td style="text-align: right;">100071</td> <td style="text-align: right;">99840</td> <td style="text-align: right;">99136</td> <td style="text-align: right;">96449</td> </tr> <tr> <td>Energy Requirement</td> <td style="text-align: right;">90587</td> <td style="text-align: right;">94885</td> <td style="text-align: right;">99371</td> <td style="text-align: right;">104310</td> <td style="text-align: right;">109354</td> </tr> <tr> <td><b>Surplus/(Deficit)</b></td> <td style="text-align: right;"><b>2604</b></td> <td style="text-align: right;"><b>5186</b></td> <td style="text-align: right;"><b>469</b></td> <td style="text-align: right;"><b>(5174)</b></td> <td style="text-align: right;"><b>(12905)</b></td> </tr> <tr> <td>% of Surplus to Availability</td> <td style="text-align: center;">3%</td> <td style="text-align: center;">5%</td> <td style="text-align: center;">0%</td> <td style="text-align: center;">-5%</td> <td style="text-align: center;">-12%</td> </tr> </tbody> </table> <p>B) In spite of repeated requests to the Ministry of Power, Govt. of India for 100 % power allocation to Telangana state from TSTPP as per the AP Re-organisation Act, 2014, the MOP has clarified that the request cannot be acceded to since cabinet accorded approval for allocation</p> | Particular | Impact of Energy Balance in Telangana State |  |  |  |  | 5th Control Period |  |  |  |  | 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 | Energy Availability | 93191 | 100071 | 99840 | 99136 | 96449 | Energy Requirement | 90587 | 94885 | 99371 | 104310 | 109354 | <b>Surplus/(Deficit)</b> | <b>2604</b> | <b>5186</b> | <b>469</b> | <b>(5174)</b> | <b>(12905)</b> | % of Surplus to Availability | 3% | 5% | 0% | -5% | -12% |
|                              | 2024-25  | 2025-26            | 2026-27    | 2027-28       | 2028-29        |         |         |                        |           |           |           |           |           |                       |          |          |          |           |           |                   |          |          |          |          |          |   |            |   |  |  |  |  |                    |  |  |  |  |         |         |         |         |         |                     |       |        |       |       |       |                    |       |       |       |        |        |                          |             |             |            |               |                |                              |    |    |    |     |      |
| 1. Energy Availability       | 120222.65  | 126791.41          | 126440.73  | 126018.08     | 121516.01      |         |         |                        |           |           |           |           |           |                       |          |          |          |           |           |                   |          |          |          |          |          |   |            |   |  |  |  |  |                    |  |  |  |  |         |         |         |         |         |                     |       |        |       |       |       |                    |       |       |       |        |        |                          |             |             |            |               |                |                              |    |    |    |     |      |
| 2. Energy Requirement        | 84996.88   | 89766.97           | 94773.75   | 100285.88     | 105956.88      |         |         |                        |           |           |           |           |           |                       |          |          |          |           |           |                   |          |          |          |          |          |   |            |   |  |  |  |  |                    |  |  |  |  |         |         |         |         |         |                     |       |        |       |       |       |                    |       |       |       |        |        |                          |             |             |            |               |                |                              |    |    |    |     |      |
| 3. Surplus energy            | 35225.77   | 37024.22           | 31666.98   | 25732.20      | 15559.03       |         |         |                        |           |           |           |           |           |                       |          |          |          |           |           |                   |          |          |          |          |          |   |            |   |  |  |  |  |                    |  |  |  |  |         |         |         |         |         |                     |       |        |       |       |       |                    |       |       |       |        |        |                          |             |             |            |               |                |                              |    |    |    |     |      |
| Particular                   | Impact of Energy Balance in Telangana State  |                    |            |               |                |         |         |                        |           |           |           |           |           |                       |          |          |          |           |           |                   |          |          |          |          |          |   |            |   |  |  |  |  |                    |  |  |  |  |         |         |         |         |         |                     |       |        |       |       |       |                    |       |       |       |        |        |                          |             |             |            |               |                |                              |    |    |    |     |      |
|                              | 5th Control Period   |                    |            |               |                |         |         |                        |           |           |           |           |           |                       |          |          |          |           |           |                   |          |          |          |          |          |   |            |   |  |  |  |  |                    |  |  |  |  |         |         |         |         |         |                     |       |        |       |       |       |                    |       |       |       |        |        |                          |             |             |            |               |                |                              |    |    |    |     |      |
|                              | 2024-25  | 2025-26            | 2026-27    | 2027-28       | 2028-29        |         |         |                        |           |           |           |           |           |                       |          |          |          |           |           |                   |          |          |          |          |          |   |            |   |  |  |  |  |                    |  |  |  |  |         |         |         |         |         |                     |       |        |       |       |       |                    |       |       |       |        |        |                          |             |             |            |               |                |                              |    |    |    |     |      |
| Energy Availability          | 93191  | 100071             | 99840      | 99136         | 96449          |         |         |                        |           |           |           |           |           |                       |          |          |          |           |           |                   |          |          |          |          |          |   |            |   |  |  |  |  |                    |  |  |  |  |         |         |         |         |         |                     |       |        |       |       |       |                    |       |       |       |        |        |                          |             |             |            |               |                |                              |    |    |    |     |      |
| Energy Requirement           | 90587  | 94885              | 99371      | 104310        | 109354         |         |         |                        |           |           |           |           |           |                       |          |          |          |           |           |                   |          |          |          |          |          |   |            |   |  |  |  |  |                    |  |  |  |  |         |         |         |         |         |                     |       |        |       |       |       |                    |       |       |       |        |        |                          |             |             |            |               |                |                              |    |    |    |     |      |
| <b>Surplus/(Deficit)</b>     | <b>2604</b>  | <b>5186</b>        | <b>469</b> | <b>(5174)</b> | <b>(12905)</b> |         |         |                        |           |           |           |           |           |                       |          |          |          |           |           |                   |          |          |          |          |          |   |            |   |  |  |  |  |                    |  |  |  |  |         |         |         |         |         |                     |       |        |       |       |       |                    |       |       |       |        |        |                          |             |             |            |               |                |                              |    |    |    |     |      |
| % of Surplus to Availability | 3%   | 5%                 | 0%         | -5%           | -12%           |         |         |                        |           |           |           |           |           |                       |          |          |          |           |           |                   |          |          |          |          |          |   |            |   |  |  |  |  |                    |  |  |  |  |         |         |         |         |         |                     |       |        |       |       |       |                    |       |       |       |        |        |                          |             |             |            |               |                |                              |    |    |    |     |      |

projections of TSTRANSCO in its revised resource plan and, as such, we are not repeating the same here. This surplus is after considering availability of 1390.813 MW from TSTPP of NTPC, instead of the earlier 1600 MW for Telangana, thereby giving up the claim for allocation of total capacity of the project for the state. Future addition of NCE is taken into account @4% per annum on the total solar energy availability during the 5<sup>th</sup> control period. In addition to the existing major lift irrigation schemes of Kaleshwaram LI load of 5068 MW, flood flow canal loads of 156 MW and Sita Rama LI loads of 650 MW, the proposed Palamur-Rangareddy LI loads of 5375 MW and additional 1 TMC loads t Link-II and Link-IV of Kaleshwaram LI scheme including Manchippa, Yacharam Thanda and New Manchippa of 3013 MW are taken into account for projecting availability and requirement of energy during the 5<sup>th</sup> control period.

of 85% power to Telangana from TSTPP. Further, SRPC vide letters dated 28.07.2023 and 28.09.2023 has allocated 1.926% from the balance 15% unallocated quota to Telangana and remaining power in the unallocated quota is allocated to the other needy states. Thus the total share to Telangana state would be tentatively 86.926% only i.e., 1390.813 MW out of 1600 MW.

C)

- (i) The Proposed Additional 1 TMC loads at Link-I & Link-IV of Kaleshwaram LI Schemes including Manichippa, YacharamThanda & New Manichippa loads were considered for 5<sup>th</sup> control period. These works may be completed during 2024-25 as per the progress.
- (ii) Lift Irrigation works are Deposit Contributory works which are funded by Govt., of Telangana and certain LI works which were proposed during 4<sup>th</sup> control period were not completed and are under progress as these works are depended on the progress of I&CAD pump house works. Further LIS at Dharmasagar in Warangal District proposed during 4<sup>th</sup> control period was not taken up as there is no response from I&CAD department for executing the same.
- (iii) The true up of the LI Works proposed during 4<sup>th</sup> control period were submitted year on year.

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In the revised resource plan also, TSTRANSCO has not given any information and analysis of implementation of its resource plan for the 4<sup>th</sup> control period. It has simply revised the projected capital cost under the revised resource plan for the 5<sup>th</sup> control period to Rs.3781.65 crore against the earlier projected Rs.3322.34 crore, The investment plan does not include the cost of lift irrigation substations and associated lines, as they are going to be funded by the department of irrigation. Proposals of TSTRANSCO show that most of the proposed investments are for strengthening the existing system. In view of the same, analysis of the implementation of TRANSCO's resource plan for the 4<sup>th</sup> control period gains added importance to ascertain whether requirement of transmission capacity for the 5<sup>th</sup> control period has already been added, with the projections of requirements for the 4<sup>th</sup> control period turning out to be unrealistic and inflated. Second, whether the proposed projects and works have been implemented in scheduled timelines and within the limits of approved costs also need to be examined. Whether transmission capacity has been added to meet peak demand actually reached during the 4<sup>th</sup> control period or exceeded it substantially also needs to be examined. If the resource plan has been implemented as projected/approved for the 4<sup>th</sup> control period, with substantial shortfall, it implies that TSTRANSCO must have collected transmission tariffs more than what has been due and such variation in revenue needs to be trued down. Appropriate lessons need to be drawn from the experience during the 4<sup>th</sup> control period for preparing and finalizing its resource plan for the 5<sup>th</sup> control period. Therefore, we once gain request the Hon'ble Commission to direct TSTRANSCO to submit analysis of implementation of its resource plan for the 4<sup>th</sup> control period and provide us the same to enable us to study it and make further submissions.

Analysis of implementation of Resource Plan for the 4<sup>th</sup> control period is as follows :

|               | <b>Completed</b> | <b>Works in progress</b> | <b>Carry forward to 5<sup>th</sup> Control Period</b> | <b>Cancelled</b> |
|---------------|------------------|--------------------------|---|------------------|
| 220kV Schemes | 38%              | 13%                      | 21%   | 28%              |
| 132kV Schemes | 32%              | 14%                      | 34%   | 20%              |

In respect of 400kV Transmission schemes including 400kV LIS, against the total forecasted amount for the first 4 years of 4<sup>th</sup> Control Period (FY2019-20 to FY 2022-23), the actual expenditure is within the proposed forecasted amount and there is no cost overrun in Project cost. No forecasted amount is proposed during last year of 2023-24. However the spillover of forecasted project cost during the first 4 years is proposed to be met during the year 2023-24 of 4<sup>th</sup> Control Period.

2) The Peak Load reached (MW) has been on par with the Resource Plan projections. The actual vs projected peak load (in MW) is as shown below :

| Particulars                                    | Unit | 2019-20    | 2020-21    | 2021-22    | 2022-23    |
|--|------|------------|------------|------------|------------|
| Peak Load (MW) at Grid Level - Projected       | MW   | 13168      | 13810.04   | 14919.42   | 16013.62   |
| Peak Load reached (MW) at Grid Level - Actuals | MW   | 13168      | 13688      | 14160      | 15497      |
| Date   |      | 28.02.2020 | 26.03.2021 | 29.03.2022 | 30.03.2023 |

3) Also, the actual addition of infrastructure (EHT sub-stations, Power Transformers and transmission lines) against the projected growth in the Resource Plan for the 4<sup>th</sup> control period is as follows:

| Item  | Total Added during 2019-24 (up to 10/23) | Proj as per RP for 2019-24 |
|---|--|----------------------------|
| EHT Sub-stations (incl. LIS , Bulk Loads & Generators)                                  |  |                            |
| 400 KV  | 10                                       | 7                          |
| 220 KV  | 22                                       | 23                         |
| 132 KV  | 18                                       | 51                         |
| <b>Total :</b>  | <b>50</b>                                | <b>81</b>                  |
| Power Transformers (PTRs-Nos.)  | <b>227</b>                               | <b>154</b>                 |
| Transmission Lines (in CKm)<br>(incl. LIS , Bulk Loads, Generators & Inter-state Lines) |  |                            |
| 400 KV  | 1845                                     | 1968.39                    |
| 220 KV  | 1838                                     | 1657.55                    |
| 132 KV  | 1155                                     | 1948.93                    |
| <b>Total:</b>   | <b>4838</b>                              | <b>5574.87</b>             |

|   |   |  |
|---|---|--|
|   |   | <p>The works during the FY2020-21 and FY2021-22 were affected by Covid pandemic.</p> <p>4) The variation in revenue due to Resource Plan projections and actual expenditure is being monitored by the TSERC and the same is being adjusted annually by truing up/truing down against the Annual Performance Review (True up) filings made by TSTRANSCO for each year of the 4<sup>th</sup> Control Period by the Hon'ble Commission.</p> |
| 3 | <p>We request the Hon'ble Commission to provide us an opportunity to make further submissions after receiving responses of TSTRANSCO to our submission and during the public hearing.</p> |  |