



**TELANGANA STATE ELECTRICITY REGULATORY COMMISSION**  
**5<sup>th</sup> Floor, Singareni Bhavan, Red Hills, Hyderabad-500 004**

O. P. No. 5 of 2016

Dated: 05.07.2016

**Present**

Sri Ismail Ali Khan, Chairman  
Sri H. Srinivasulu, Member  
Sri L. Manohar Reddy, Member

Between

The Chairman & Managing Director  
Southern Power Distribution Company of  
Telangana State Limited, Corporate Office,  
Mint Compound, Hyderabad.

The Chairman & Managing Director  
Northern Power Distribution Company of  
Telangana State Limited, Vidyut Bhavan,  
Nakkalagutta, Hanumakonda,  
Warangal.

... Petitioner

And

Nil

... Respondent

This petition has come up for hearing on 15.06.2016. Sri Y. Rama Rao, Counsel for the petitioner appeared along with Smt. Priya Iyengar, Advocate on 15.06.2016.

**ORDER**

This petition is filed under Section 86 (1) (b) and Section 62 of Electricity Act, 2003 read with Regulation 8 of APERC (Conduct of Business) Regulations, 1999, Regulation 6 (b) (1) of APERC RPPO Regulation 1 of 2012 as adopted by TSERC vide regulation No. 1 of 2014, dated 10.12.2014, for computation of pooled cost of power purchase of the year 2014-15 to be considered for the year 2015-16.

2. The petitioners stated that the APERC, in exercise of the powers conferred under Section 61, 66, 86 (1) (e) read with Sec 181 of the Act, 2003, notified Regulation No. 1 of 2012, dated 21.03.2012. The Commission after its formation during 2014 and also with the powers conferred under section 181 of Act, 2003, A. P. Reforms Act 1998 and Andhra Pradesh Reorganization Act, 2014 etc., issued Regulation called as TSERC (Adoption) Regulations. The said Regulation No. 1 of 2014, dated 10.12.2014, adopted all regulations, decisions, directions or orders, all the licenses and practice directions etc., issued by the erstwhile APERC as in existence and in force should apply as mutatis-mutandis, until any of the Regulation / order / direction etc, are altered, repealed or amended having the jurisdiction of State of Telangana.

3. The petitioners stated that as on date, the Regulation 1 of 2012, that is Renewable Power Purchase Obligation that is RPPO (compliance by purchase of renewable energy / renewable energy certificates) Regulation issued by erstwhile APERC is still in force in the State of Telangana. It is further stated that as per the said regulation 'pooled cost of power purchase' means the weighted average pooled price at which the distribution licensee has purchased electricity in the previous year from all the long-term energy suppliers, excluding the purchases based on liquid fuel: The said RPPO Regulation at Section 3, inter-alia, stipules as follows which is extracted below.

“.....  
3.1 *Every Distribution Licensee shall purchase Renewable energy sources, at the generic tariff rates determined by the Commission, for purchase of electricity from different types of renewable energy sources, a quantum of not less than 5% of its consumption of energy, during each of the years from 2012-13 to 2016-17 (each year commencing from 1<sup>st</sup> April of the Calendar Year and ending on 31<sup>st</sup> March of the subsequent Calendar Year), provided that the purchase of Renewable Energy Certificates issued under the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issue of Renewable Energy Certificate for Renewable Energy Generation) Regulation, 2010 as amended from time to time, shall also be treated as fulfillment of the Renewable Power Purchase Obligation (RPPO) prescribed herein;*

*Provided that a minimum of 0.25 percentage point out of the 5% Renewable Power Purchase Obligation (RPPO) above specified, shall be procured from generation based on solar as renewable energy sources.”*

4. The petitioners stated that as seen from the stipulations provided under the Regulation 1 of 2012, the obligated entities, including state licensees shall have to purchase the renewable energy certificates from Power Exchange of India to the extent quantity, left over after meeting its renewable energy from all NCE sources in the state at the generic tariff or tariff agreed to by erstwhile ERC. Alternatively, the renewable energy developer engaged in business of generation of energy in renewable energy certificates mechanism, is eligible to get renewable energy certificates from the state nodal agency (SLDC) as per MNRE notified new and renewable energy technologies, subject to fulfillment of terms and conditions for REC accreditation.

5. The petitioners stated that accordingly, the RE generator engaged in the business of renewable energy certificates, as per Regulation No. 1 of 2012, inter-alia, may conclude a long term power purchase agreement (REC PPA) at 'pooled cost' that may be determined by State ERC, year on year. The clause 6 of Regulation stipulates as to the procedure for determination of 'pooled cost' for a particular year upon submission of petition by DISCOMS on or before 30<sup>th</sup> April of that year.

6. The petitioners stated that apart from the above, the Government of Telangana (GoTS) launched Telangana State Solar Power Policy, 2015 in line with its prestigious TS-iPASS (Industrial Policy) w.e.f. 01.06.2015, wherein the 'Solar net metering facility, besides others, was announced for a period of 25 years. As per the said policy, the consumer who adopts the solar net metering facility would be paid at the tariff of 'pooled cost' determined by TSERC, subject to monthly billing and settlement in a year.

7. The petitioners stated that notwithstanding the above, as per Regulation No. 2 of 2006 read with Regulation No. 1 of 2014 of APERC and as adopted by TSERC, the unutilized banked energy as on 31<sup>st</sup> January for the period from 1<sup>st</sup> April to end of 31<sup>st</sup> January of each financial year, shall be purchased by TSDISCOMS at 50% of the pooled cost applicable for that financial year, as determined by the Commission from

renewable energy power plants, viz., mini hydel, wind and solar falls under the jurisdiction of distribution licensee.

8. The petitioners stated the details of the purchased electricity in the previous year 2014-15 from all the long-term energy suppliers, excluding the purchases based on liquid fuel purchases, the purchases from the traders, short-term purchases and purchases from the renewable sources.

9. The petitioners have stated the Commission is prayed to pass necessary orders:

“For determination of ‘pooled cost’ for the financial year 2014-15 to be considered for FY 2015-16 to enable TSDISCOMS to enter into REC PPAs / net metering agreement with the NCE solar sources for supply of electricity at ‘pooled cost’ for the existing and upcoming projects in the year 2015-16 in the DISCOMs area and payment of 50% of pooled cost to the RE generator mentioned in Regulation No. 2 of 2006 read with Regulation 2 of 2014 of APERC and as adopted by TSERC by its adoption Regulation No. 1 of 2014.”

10. We have heard the counsel for the petitioner and also perused the filing made by the petitioners.

11. In order to decide the matter we may gainfully refer to the relevant provision in the Regulation No. 2 of 2012 as adopted by the Commission in regulation No. 1 of 2014.

“Pooled Cost of Power Purchase’ means the Weighted Average Pooled price at which the Distribution Licensee has purchased electricity in the previous year from all the long term energy suppliers excluding the purchases based on liquid fuel.

Provided that the purchases from traders, short-term purchases and purchases from renewable sources shall not be taken into account while determining Pooled Cost of Power Purchase.”

12. Accordingly, the data furnished by TSDISCOMS in the above petition has been examined applying the definition of Pooled Cost of Power Purchase under the clause

2(k) extracted supra. Based on the above, the Commission hereby determines the Pooled Cost of Power Purchase for FY: 2014-15 to be considered for FY: 2015-16 as Rs.3.55 / kWh. The details of calculation are shown in the annexure to this order.

This order is corrected and signed on this the 5<sup>th</sup> July, 2016.

**Sd/-**  
**(L. MANOHAR REDDY)**  
**MEMBER**

**Sd/-**  
**(H. SRINIVASULU)**  
**MEMBER**

**Sd/-**  
**(ISMAIL ALI KHAN)**  
**CHAIRMAN**

**//CERTIFIED COPY//**

| Name of the developer              | Particulars of payment head | Total PP Cost for pooled cost 2014-15 |                    |                    |                    | VC Rate/Kwh  | FC Rate/Kwh  | Avg Rate/Kwh |
|------------------------------------|-----------------------------|---------------------------------------|--------------------|--------------------|--------------------|--------------|--------------|--------------|
|                                    |                             | Energy                                | Fixed Cost         | Variable Cost      | Total              |              |              |              |
| <b>AFGENCO Thermal</b>             |                             |                                       |                    |                    |                    |              |              |              |
| Dr. NTPS (I,II; & III)             | Energy Charges              | 4464539394                            | 2661228635         | 13409294028        | 16070522663        | 3.004        | 0.596        | 3.600        |
| Dr. NTPS St.IV                     | Energy Charges              | 1867312665                            | 2781568217         | 5399621775         | 8181189992         | 2.892        | 1.490        | 4.381        |
| RTPP Stage-I                       | Energy Charges              | 1306175302                            | 1225165237         | 4706269689         | 5931434926         | 3.603        | 0.938        | 4.541        |
| RTPP Stage-II                      | Energy Charges              | 1488547742                            | 2251919352         | 5082193611         | 7334112963         | 3.414        | 1.513        | 4.927        |
| RTPP Stage-III                     | Energy Charges              | 695091298                             | 1708070635         | 2409582315         | 4117652950         | 3.467        | 2.457        | 5.924        |
| <b>Total APGENCO Thermal</b>       |                             | <b>9821666402</b>                     | <b>10627952076</b> | <b>31006961418</b> | <b>41634913493</b> | <b>3.157</b> | <b>1.082</b> | <b>4.239</b> |
| <b>TS GENCO Thermal</b>            |                             |                                       |                    |                    |                    |              |              |              |
| KTPS-ABC                           | Energy Charges              | 2179730196                            | 2006985756         | 5614287141         | 7621272897         | 2.576        | 0.921        | 3.496        |
| KTPS-V                             | Energy Charges              | 1712221593                            | 1209860343         | 3565125294         | 4774985637         | 2.082        | 0.707        | 2.789        |
| KTPS-VI                            | Energy Charges              | 2031268151                            | 3158831149         | 6094645258         | 9253476407         | 3.000        | 1.555        | 4.556        |
| RTS-B                              | Energy Charges              | 96755798                              | 291456057          | 80939482           | 372395538          | 0.837        | 3.012        | 3.849        |
| KTPP St.I                          | Energy Charges              | 2134522658                            | 3657870225         | 4860194196         | 8518064421         | 2.277        | 1.714        | 3.991        |
| <b>Total TSGENCO Thermal</b>       |                             | <b>8154498397</b>                     | <b>10325003530</b> | <b>20215191371</b> | <b>30540194901</b> | <b>2.479</b> | <b>1.266</b> | <b>3.745</b> |
| <b>Total Thermal</b>               |                             | <b>17976164798</b>                    | <b>20952955606</b> | <b>51222152788</b> | <b>72175108394</b> |              |              |              |
| <b>APGENCO Hydel</b>               |                             |                                       |                    |                    |                    |              |              |              |
| Machkund (AP share)                | Energy Charges              | 102164601                             | 81257085           | 0                  | 81257085           | 0.000        | 0.795        | 0.795        |
| T.B.Dam (AP share)                 | Energy Charges              | 72703494                              | 55743650           | 0                  | 55743650           | 0.000        | 0.767        | 0.767        |
| Upper Sileru                       | Energy Charges              | 59972295                              | 46728421           | 0                  | 46728421           | 0.000        | 0.779        | 0.779        |
| Lower Sileru                       | Energy Charges              | 164143314                             | 89574175           | 0                  | 89574175           | 0.000        | 0.546        | 0.546        |
| Donkarai                           | Energy Charges              | 16377389                              | 4869075            | 0                  | 4869075            | 0.000        | 0.297        | 0.297        |
| Srisaillam RBPH                    | Energy Charges              | 57428061                              | 164152862          | 0                  | 164152862          | 0.000        | 2.858        | 2.858        |
| NSRCPH                             | Energy Charges              | 0                                     | 15614617           | 0                  | 15614617           | 0.000        | 0.000        | 0.000        |
| Penna Ahibilam                     | Energy Charges              | -45828                                | 9843086            | 0                  | 9843086            | 0.000        | -214.782     | -214.782     |
| Mini Hydel (Chettipeta)            | Energy Charges              | 450130                                | 5981406            | 0                  | 5981406            | 0.000        | 13.288       | 13.288       |
| Ramagiri Wind Mills                | Energy Charges              | -310                                  | 0                  | 0                  | 0                  | 0.000        | 0.000        | 0.000        |
| Adv. Income Tax                    | Energy Charges              | 0                                     |                    |                    | 0                  |              |              |              |
| Incentive                          | Energy Charges              | 0                                     |                    |                    | 0                  |              |              |              |
| Others (20% Adj.)                  | Energy Charges              | 0                                     |                    |                    | 0                  |              |              |              |
| <b>Total APGENCO Hydel</b>         |                             | <b>473193144</b>                      | <b>473764377</b>   | <b>0</b>           | <b>473764377</b>   | <b>0.000</b> | <b>1.001</b> | <b>1.001</b> |
| <b>TS GENCO Hydel</b>              |                             |                                       |                    |                    |                    |              |              |              |
| N.SAGAR                            | Energy Charges              | 1014916146                            | 1261511637         | 0                  | 1261511637         | 0.000        | 1.243        | 1.243        |
| NSLCPH                             | Energy Charges              | 43484713                              | 92800859           | 0                  | 92800859           | 0.000        | 2.134        | 2.134        |
| Pochampadu Stage-I                 | Energy Charges              | 7431411                               | 118433350          | 0                  | 118433350          | 0.000        | 15.937       | 15.937       |
| Srisaillam LBPH                    | Energy Charges              | 1768559201                            | 4698230437         | 0                  | 4698230437         | 0.000        | 2.657        | 2.657        |
| Pochmpadu Stage-II                 | Energy Charges              | 2632584                               | 0                  | 0                  | 0                  | 0.000        | 0.000        | 0.000        |
| Jurala HES (6)                     | Energy Charges              | 210461368                             | 643921783          | 0                  | 643921783          | 0.000        | 3.060        | 3.060        |
| Pochmpadu St-IV                    | Energy Charges              | 509684                                | 46493981           | 0                  | 46493981           | 0.000        | 91.221       | 91.221       |
| Singur                             | Energy Charges              | 5201611                               | 79610415           | 0                  | 79610415           | 0.000        | 15.305       | 15.305       |
| Nizam Sagar                        | Energy Charges              | 4209756                               | 43874595           | 0                  | 43874595           | 0.000        | 10.422       | 10.422       |
| Mini Hydel (Peddapalli,)           | Energy Charges              | 829405                                | 35630833           | 0                  | 35630833           | 0.000        | 42.960       | 42.960       |
| Mini Hydel (Palair)                | Energy Charges              | 0                                     | 7807219            | 0                  | 7807219            |              |              |              |
| <b>Total TS GENCO Hydel</b>        |                             | <b>3058235879</b>                     | <b>7028315109</b>  | <b>0</b>           | <b>7028315109</b>  | <b>0.000</b> | <b>2.298</b> | <b>2.298</b> |
| <b>Total Hydel</b>                 |                             | <b>3531429024</b>                     | <b>7502079486</b>  | <b>0</b>           | <b>7502079486</b>  | <b>0.000</b> | <b>2.124</b> | <b>2.124</b> |
| <b>APGenco Total</b>               |                             | <b>10294859546</b>                    | <b>11101716453</b> | <b>31006961418</b> | <b>42108677871</b> | <b>3.012</b> | <b>1.078</b> | <b>4.090</b> |
| <b>TSGenco Total</b>               |                             | <b>11212734276</b>                    | <b>17353318639</b> | <b>20215191371</b> | <b>37568510010</b> | <b>1.803</b> | <b>1.548</b> | <b>3.351</b> |
| <b>GENCO Total</b>                 |                             | <b>21507593822</b>                    | <b>28455035092</b> | <b>51222152788</b> | <b>79677187880</b> | <b>2.382</b> | <b>1.323</b> | <b>3.705</b> |
| <b>Central Generating Stations</b> |                             |                                       |                    |                    |                    |              |              |              |
| NTPC(SR)-I&II                      | Capacity charges            | 2823812827                            | 1593133946         | 6937928981         | 8531062927         | 2.457        | 0.564        | 3.021        |
| NTPC(SR) Stage-III                 | Capacity charges            | 714299916                             | 657969301          | 1813767413         | 2471736714         | 2.539        | 0.921        | 3.460        |
| <b>Total NTPC (SR)</b>             |                             | <b>3538112744</b>                     | <b>2251103247</b>  | <b>8751696393</b>  | <b>11002799641</b> | <b>2.474</b> | <b>0.636</b> | <b>3.110</b> |
| NTPC (ER) Farakka                  | Capacity charges            | 0                                     | -864119            | -446945            | -1311064           |              |              |              |
| NTPC (ER) Kahalgaon                | Capacity charges            | 0                                     | 655409             | 3608               | 659017             |              |              |              |
| NTPC Talcher                       | Capacity charges            | 0                                     | 0                  | 4415               | 4415               |              |              |              |
| NTPC Talcher-II                    | Capacity charges            | 1679249153                            | 1317535600         | 2452508314         | 3770043914         | 1.460        | 0.785        | 2.245        |
| NTPC (ER)                          | Prior period                | 0                                     | -2104193           | -8350930           | -10455123          |              |              |              |
| <b>Total NTPC (ER)</b>             |                             | <b>1679249153</b>                     | <b>1315222697</b>  | <b>2443718462</b>  | <b>3758941159</b>  | <b>1.455</b> | <b>0.783</b> | <b>2.238</b> |
| NTPC(Simhadri) I                   | Capacity charges            | 4079576495                            | 3782368329         | 10708151382        | 14490519711        | 2.625        | 0.927        | 3.552        |
| NTPC(Simhadri) II                  | Capacity charges            | 1799074303                            | 3066703771         | 4667994663         | 7734698435         | 2.595        | 1.705        | 4.299        |
| <b>Total NTPC (Simhadri)</b>       |                             | <b>5878650798</b>                     | <b>6849072100</b>  | <b>15376146046</b> | <b>22225218146</b> | <b>2.616</b> | <b>1.165</b> | <b>3.781</b> |
| NLC - Stage-I                      | Energy charges              | 449227268                             | 277838403          | 1001661132         | 1279499535         | 2.230        | 0.618        | 2.848        |
| NLC - Stage-II                     | Capacity charges            | 785469607                             | 492423529          | 2175480755         | 2667904284         | 2.770        | 0.627        | 3.397        |
| <b>Total NLC</b>                   |                             | <b>1234696875</b>                     | <b>770261932</b>   | <b>3177141886</b>  | <b>3947403819</b>  | <b>2.573</b> | <b>0.624</b> | <b>3.197</b> |
| NPC(MAPS)                          | Energy charges              | 120797864                             | 0                  | 251271551          | 251271551          | 2.080        | 0.000        | 2.080        |
| NPC(Kaiga) Unit I & II             | Energy charges              | 480749070                             | 53114611           | 1440237978         | 1493352589         | 2.996        | 0.110        | 3.106        |
| NPC(Kaiga) Unit II                 | Energy charges              | 541043160                             | 0                  | 1656058258         | 1656058258         | 3.061        | 0.000        | 3.061        |
| <b>Total NPC</b>                   |                             | <b>1142590094</b>                     | <b>53114611</b>    | <b>3347567787</b>  | <b>3400682399</b>  | <b>2.930</b> | <b>0.046</b> | <b>2.976</b> |
| NTECL Valluru Thermal Power        |                             | 449087330                             | 813405858          | 870884401          | 1684290259         | 1.939        | 1.811        | 3.750        |

| Name of the developer                | Particulars of payment head | Total PP Cost for pooled cost 2014-15 |                    |                    |                     | VC Rate/Kwh | FC Rate/Kwh | Avg Rate/Kwh |
|--------------------------------------|-----------------------------|---------------------------------------|--------------------|--------------------|---------------------|-------------|-------------|--------------|
|                                      |                             | Energy                                | Fixed Cost         | Variable Cost      | Total               |             |             |              |
| <b>Total CGS</b>                     |                             | <b>13922386994</b>                    | <b>12052180445</b> | <b>33967154976</b> | <b>46019335421</b>  | 2.440       | 0.866       | 3.305        |
| APGCL - Stage-I Allocated Capacity   | Demand Charges              | 17573111                              | 19798282           | 48590768           | 68389050            | 2.765       | 1.127       | 3.892        |
| APGCL - Stage-I Unutilised Capacity  | Unutilised                  | 887920                                | 0                  | 2461761            | 2461761             | 2.773       | 0.000       | 2.773        |
| APGCL - Stage-II Allocated Capacity  | Energy Charges              | 59217808                              | 27279650           | 154746625          | 182026274           | 2.613       | 0.461       | 3.074        |
| APGCL - Stage-II Unutilised Capacity | Unutilised                  | 845962                                | 0                  | 2205475            | 2205475             | 2.607       | 0.000       | 2.607        |
| <b>Total APGCL</b>                   |                             | <b>78524802</b>                       | <b>47077932</b>    | <b>208004628</b>   | <b>255082561</b>    | 2.649       | 0.600       | 3.248        |
| <b>IPPs</b>                          |                             |                                       |                    |                    |                     |             |             |              |
| GVK                                  | Fixed & Variable            |                                       |                    |                    |                     |             |             |              |
| Spectrum Power Generation Ltd.,      | Fixed & Variable            | 264288257                             | 245571772          | 717587278          | 963159050           | 2.715       | 0.929       | 3.644        |
| Lanco Kondapalli                     | Fixed & Variable            | 247889415                             | 118391984          | 643321202          | 761713186           | 2.595       | 0.478       | 3.073        |
| Reliance Infrastructure              | Fixed & Variable            | 92538481                              | 66347028           | 231984047          | 298331076           | 2.507       | 0.717       | 3.224        |
| <b>IPPs Total</b>                    |                             | <b>604716153</b>                      | <b>430310784</b>   | <b>1592892527</b>  | <b>2023203311</b>   | 2.634       | 0.712       | 3.346        |
| KSK Mahanadi Power Co., Ltd.,        | Energy charges              | 1572688720                            | 2374009780         | 3617184054         | 5991193834          | 2.300       | 1.510       | 3.810        |
| <b>GRAND TOTAL</b>                   |                             | <b>37685910490</b>                    | <b>43358614034</b> | <b>90607388974</b> | <b>133966003008</b> | 2.404       | 1.151       | 3.555        |

Average Pool Cost

3.555

**NOTE:**

TSPCC considered APGENCO as per actual &amp; TSGENCO Hydel stations energy considered @100% after bifurcation of state for pooled cost,

TSPCC considered the NVVNL Bundled Power, the same is to be excluded.

TSPCC considered the FCA bill of APGENCO &amp; TSGENCO stations

In case of IPPs Liquid fuel/Naptha not considered

Upto Bifurcation of State(CPDCL+NPDCCL)

After bifurcation of state (TSSPDCL+TSNPDCCL)