

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 166/MP/2021**

**Coram:**

**Shri I.S. Jha, Member  
Shri Arun Goyal, Member  
Shri Pravas Kumar Singh, Member**

**Date of Order: 14<sup>th</sup> November, 2023**

**In the matter of**

Petition under Sections 79(1)(a) and 79(1)(f) of the Electricity Act, 2003 read with Regulation 7 of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 for payment of compensation.

**And**

**In the matter of**

NTPC Limited,  
NTPC Bhawan, Scope Complex,  
7, Institutional Area, Lodhi Road,  
New Delhi – 110003.

**...Petitioner**

**Vs**

1. Southern Regional Power Committee,  
Race Course Cross Road,  
Bengaluru, Karnataka – 560009.
2. AP Eastern Distribution Company Limited,  
Corporate Office, P&T Colony, Seethammadhara,  
Vishakhapatnam, Andhra Pradesh – 530013.
3. AP Southern Distribution Company Limited,  
Corporate Office, Back Side Srinivasa Kalyana Mandapam,  
Tiruchhanur Road, Keasavayana Gunta, Tirupati, Andhra Pradesh - 517503.
4. Telangana State Northern Power Distribution Company Limited,  
H. No. 2-5-31/2, Vidyut Bhawan,  
Nakkalgutta, Hanamkonda, Warangal, Telangana – 506001.
5. Telangana State Southern Power Distribution Company Limited,  
Mint Compound, Corporate Office,  
Hyderabad, Telangana – 506063.
6. Tamil Nadu Generation & Distribution Corporation Limited,  
144, Anna Salai, Chennai, Tamil Nadu – 600002



7. Bangalore Electricity Supply Company Limited,  
Krishna Rajendra Circle, Bengaluru, Karnataka – 560009.

8. Mangalore Electricity Supply Company,  
MESCOM Bhawana, Corporate Office, Bejai,  
Kavvoor Cross Road, Mangaluru, Karnataka – 575004.

9. Chamundeshwari Electricity Supply Corporation Limited,  
Corporate Office, No. 29, Vijaynagar, 2<sup>nd</sup> Stage, Hinkal,  
Mysore, Karnataka – 570017.

10. Gulbarga Electricity Supply Company Limited,  
Main Road, Gulbarga,  
Karnataka -585102.

11. Hubli Electricity Supply Company Limited,  
Corporate Office, P.B. Road, Navanagar,  
Hubli, Karnataka – 580025.

12. Kerala State Electricity Board Limited,  
Vaidyuthi Bhavnam, Pattom,  
Thiruvananthapuram, Kerala – 695004.

...Respondents

**Parties present:**

Shri Venkatesh, Advocate, NTPC  
Shri Abhishek Nangia, Advocate, NTPC  
Shri Punyam Bhutani, Advocate, NTPC  
Shri U.S. Mohanty, NTPC  
Shri Shahrab Zaheer, NTPC  
Shri S. Vallinayagam, Advocate, TANGEDCO  
Shri Prashant Kumar, Advocate, Karnataka Discoms  
Shri Ahaan Kumar, Advocate Karnataka Discoms  
Shri Sajal Jain, Advocate, Karnataka Discoms

**ORDER**

The Petitioner, NTPC Limited has filed this Petition under Section 79 (1) (a) and (f) of the Electricity Act, 2003 read with Regulation 7 of the Indian Electricity Grid Code, 2010 (in short, 'the IEGC, 2010'), seeking the following relief(s)

*'(a) Direct the Respondents to pay compensation to the Petitioner for degradation of parameters due to part load operation for KSTPS for FY 2017-18;*

*(b) To create an appropriate mechanism to remit the compensation to the Petitioner in terms of the approved Heat Rate;*

*(c) Pass such other order/orders, as may be deemed fit and proper in the facts and circumstances of the case.'*



### ***Submissions of the Petitioner***

2. The Petitioner, in support of the above prayers, has mainly submitted the following:

- (a) Kudgi Super Thermal Power Station (KSTPS) was planned during the period 2009-14. The guaranteed design gross turbine cycle heat rate and the design boiler efficiency was designed and envisaged keeping in mind the parameters provided in the then prevailing Tariff Regulations i.e. the 2009 Tariff Regulations, applicable for the period 2009-14.
- (b) The design heat rate as awarded for KSTPS is 2144.89 kCal/kWh which is much lower than the ceiling limit of 2176 kCal/kWh, as provided under Regulation 26-B of the 2009 Tariff Regulations. Unit-1 of KSTPS achieved commercial operation (COD) on 31.7.2017, Unit-2 on 31.12.2017 and Unit-3 on 15.9.2018. The Commission vide its order dated 8.1.2020 in Petition No. 199/GT/2017 had determined the normative heat rate of 2210.66 kCal/kWh for KSTPS, in terms of Regulation 36(c)(b)(i) of the 2014 Tariff Regulations.
- (c) Prior to the issuance of the tariff order dated 8.1.2020, the Petitioner was billing the beneficiaries, considering the normative Station Heat Rate (SHR) of 104.5% of design heat rate ( $1.045 \times 2144.89$  kCal/kWh). The compensation entitlement for the generating station has been provided under Regulation 6.3 B of the IEGC, 2010, read with the mechanism for compensation for degradation of heat rate, auxiliary consumption and secondary fuel oil consumption, due to part load operation and multiple start/stop of units as approved by the Commission in its order dated 5.5.2017 (in short 'the compensation mechanism').
- (d) The Petitioner had complied with order dated 8.1.2020, wherein, the normative SHR of KSTPS was determined as 2210.66 kCal/kWh and revised the billing and the benefit of reduced ECR was already passed on to the Respondent beneficiaries. Due to the determination of Gross Station Heat Rate ('GSHR') by order dated 8.1.2020, the Petitioner is now entitled for compensation for degradation, as per the said compensation mechanism.
- (e) The issue was taken up with the beneficiaries (Respondent Nos. 2 to 12) during the 47<sup>th</sup> meeting of Commercial Sub-Committee of Southern Regional Power Committee held on 24.2.2021. However, no resolution was agreed during the said meeting as the Respondents had outrightly rejected the claim of Petitioner for compensation towards the degradation of parameters due to part load operation for KSTPS for 2017-18, on the premise that the compensation cannot be revisited on retrospective basis.



- (f) The tariff order dated 8.1.2020 was duly complied with by the Petitioner and dues amounting to Rs. 54.48 crore was immediately passed on to the Respondent beneficiaries. The said order is also binding on the Respondent beneficiaries. As a sequitur, as per GSHR determined by the Commission, if there is any consequential impact of the change in the normative SHR, then the generating station is duly entitled to get the same, which in this case is compensation amounting to Rs. 12.65 crore. The Respondents have subverted the claim of the Petitioner, on a fallacious premise, that the compensation mechanism does not envisage any retrospective settlement.
- (g) The compensation mechanism does not prohibit the Petitioner to seek compensation for the degradation of parameters due to part load operation for KSTPS in 2017-18. This Commission, in certain scenarios had barred retrospective adjustment. However, the compensation mechanism is not such a case, as no embargo exists therein. In this regard, reliance is placed on the proviso to Regulation 13.3 of the CERC (Ancillary Services Operations) Regulations, 2015. However, no such embargo has been stipulated in the IEGC, 2010 or the compensation mechanism notified therein. Therefore, the Petitioner is liable to be compensated for the degradation.
- (h) The Respondents have failed to appreciate that the compensation mechanism and GSHR emanate from Tariff Regulations. Therefore, the necessary and logical corollary to clause 4.1 (i) of the compensation mechanism is that the tariff orders needs to be necessarily factored in while determining the compensation payable to a generating company as per Regulation 6.3 B of IEGC, 2010.
- (i) The detailed operating procedure dated 5.5.2017 in terms of Regulation 6.3 B of the IEGC, 2010 unequivocally provides that the entire compensation mechanism is based on the Tariff Regulations. The following key provisions of the compensation mechanism are relevant:
- (ii) *Clause 4.1 (i) provides that the compensation mechanism is based on the relevant provisions of the IEGC, 2010 and Tariff Regulations of the Commission as notified from time to time. The natural sequitur of the said clause is that, basis the GSHR determined by the Commission the compensation, if any, shall be computed.*
  - (iii) *Clause 4.1 (ii) to (xv) elaborates on the formulae on which the compensation shall be computed. In the said formulae, no independent GSHR has been prescribed and by virtue of clause 4.1(i) of the mechanism, it is the GSHR as determined by the Commission, is to be applied.*
- (j) The Respondent beneficiaries have failed to appreciate that the compensation for degradation of parameters due to part load operation for KSTPS in 2017-18 was zero, which was based on the provisional normative



gross heat rate of 2241.41 kCal/kWh. As the normative GSHR was determined as 2210.66 kCal/kWh for the period 2014-19. Vide order dated 8.1.2020, the compensation amount receivable for 2017-18 works out to Rs 12.65 crore.

- (k) The change in ECR of the generating station is on account of the change in the normative parameters only. The Petitioner has requested the Respondents to consider the change in GSHR in the computation of compensation amount in 2017-18 as per order dated 8.1.2020. However, the Respondents have failed to consider this request on hyper technical grounds.
- (l) Had the order dated 8.1.2020, been passed in the last month/day of the year i.e. before the annual reconciliation, the same could have enabled the Petitioner to claim compensation in 2017-18, at the end of the said year. The timing of a statutory order should not have an impact on the receivables of the generator.
- (m) The ambit and scope of 'power to relax' provisions of a delegated legislation have been interpreted by various Courts and APTEL in a catena of cases. It is settled position of law that 'power to relax' can be invoked if the Regulations in any manner cause hardship to a party. Reliance has been placed on the judgments of the (i) Hon'ble High Court of Rajasthan judgment in Hari Singh v. State of Rajasthan, 1992 SCC OnLine Raj 210, (ii) APTEL judgment dated 21.3.2018 in Appeal Nos. 107 & 117 of 2015 in HPPC Vs. HERC (iii) APTEL judgment dated 20.9.2012 in Appeal No. 189 of 2015, in TPCL Vs. JSERC & anr and (iv) APTEL judgment dated 24.3.2015 in Appeal Nos. 55, 77, 194, 63, 143 & 158 of 2013, 259 of 2012 and 43 of 2014 in BYPL Vs CERC & ors

### **Hearing dated 7.12.2021**

3. The Petition was heard on 'admission' on 7.12.2021 and based on the submissions of the parties, the Commission reserved its order on 'maintainability' of the Petition. Thereafter, the Commission after considering the submission of the Petitioner and the Respondents vide interim order dated 30.12.2022 held that the petition was 'maintainable' and accordingly 'admitted' the Petition with direction to the parties to complete their pleadings on merits. The relevant portion of the order dated 30.12.2022 is extracted below:



*“12. It is evident from the above that the compensation mechanism read with Regulation 6.3B of the IEGC, 2010, provides that the compensation for degradation of heat rate, is based on the provisions of the Grid Code and the Tariff Regulations of this Commission. As regards the contention of the Respondents that there is no provision for retrospective adjustments under the IEGC, 2010, we notice that the provisions of Clause 7(3) of the IEGC, provides the Commission with the power to deal with any matter or exercise any power, as deemed fit, in the interest of justice. Moreover, the Commission’s order dated 8.1.2020, which also determined the GSHR of the generating station, based on which compensation has been claimed by the Petitioner, is effective from the date of COD of Unit-I (31.7.2017) of the generating station, till 31.3.2019. Seen in this background, the prayer of the Petitioner assumes significance. In our view, the Petitioner has made out a prima facie case for consideration and the same can be decided, only after hearing the parties, on merits. Accordingly, we hold that the petition filed by the Petitioner is ‘maintainable’.*

*13. Having held that the Petition is maintainable, as above, we ‘admit’ the same and direct the Respondents to file their replies, on merits...”*

4. In response, the Respondents SRPC and TANGEDCO have filed their replies vide affidavits dated 16.1.2023 and 20.1.2023 respectively and the Petitioner has filed its rejoinders to the same vide separate affidavits dated 30.1.2023

### **Reply of the Respondents**

#### **Respondent SRPC**

4. The Respondent SRPC vide reply affidavit has mainly submitted as under:
- (a) The GSHR of 2210.66 kCal/kWh has been considered by the Commission for the purpose of tariff. Part load compensation is not a part of tariff or of the Tariff Regulations and the Part load compensation computation for heat rate degradation is according to the 4<sup>th</sup> amendment of IEGC, 2010.
  - (b) Regulations/Mechanism for compensation due to part load operation do not explicitly envisage the revision of compensation due to part load operation retrospectively.
  - (c) In various Regulations (Ancillary Services-RRAS, DSM, SCED etc.), it is mentioned that no retrospective settlement of fixed or variable charges shall be undertaken even if the fixed or variable charges are revised at a later date. Regulation 13.3 of the CERC (Ancillary Services Operations) Regulations specifically bars retrospective settlement.
  - (d) In the 34<sup>th</sup> SRPC meeting held on 11.8.2018, it was noted that variable cost furnished by ISGS by 15<sup>th</sup> April of every year (for the previous year) would be considered for compensation. Any implication due to change in ECR (landed price, GCV etc.) subsequently would be required to be borne by the generator/beneficiaries as applicable.





- (e) The issue was brought to the 46<sup>th</sup> meeting of CSC held on 3.12.2020 and it was noted if the beneficiaries are agreeable for revision of the part load compensation statement, the revised statement would be issued.
- (f) During the 47<sup>th</sup> CSC meeting held on 24.2.2021, the issue was again discussed. The Respondents PCKL, Karnataka, KSBIL and Telangana State PCC did not agree for the revision of compensation and retrospective settlement i.e., revision of compensation due to part load operation with revised parameters is not envisaged in IEGC, 2010/ compensation mechanism. In the said meeting, SRPC observed that the intent of RRAS/SECD Regulations is analogous to the IEGC, 2010/ compensation mechanism, as in all these Regulations, decisions are to be carried out based on the MOD of generators during that time. Due to the consideration of high SHR by KSTPS, ECR was high and accordingly, MOD was prepared by the beneficiaries and they were to requisite the energy as per their requirement. KSTPS might have been scheduled at low PLF due to less requisition of the beneficiaries on account of high ECR. Now, as per the revised SHR, the ECR works out to be lower than earlier. If the lower ECR had been considered during that time, KSTPS would have been scheduled more and question of part load compensation would not have been there.
- (g) In accordance with the objective of the detailed operating procedure for backing down coal/lignite/Gas unit(s) of the CGS/ISGS and other GS and for tacking such units under reserve shut down on scheduling technical minimum, the beneficiaries had identified the generating stations or units during real time scheduling according to the available parameters furnished by the generators.

**Respondent TANGEDCO**

5. The Respondent TANGEDCO vide reply affidavit has mainly submitted as under:
- (a) The Petitioner is claiming compensation for degradation in terms of normative heat rate approved for the generating station retrospectively for the period 2017-18 based on GSHR fixed vide order in 2020. *Per contra*, the Petitioner, in Petition No. 199/GT/2017 had claimed that gross turbine heat rate and boiler efficiency for station be decided on the basis of prevailing 2009 Tariff Regulations.
  - (b) KSTPS was commissioned during the period 2014-19 and therefore, GSHR was to be calculated as per Regulation 35(C)(b)(i) of the 2014 Tariff Regulations, which states that where the boiler efficiency is below 86% the sub-bituminous Indian coal, the same shall be considered as 86% for computation of SHR.



- (c) After the Tariff order in 2020, the Petitioner applied the approved GSHR retrospectively, for the previous years and informed the beneficiaries, including TANGEDCO to pay a sum of Rs. 12.65 crore as compensation claim for the period 2017-18 in accordance with the detailed procedure issued by the Commission on 5.5.2017. In this regard, bill No. 601822144 dated 5.10.2020 for Rs. 1.38 crore from the Petitioner was not admitted.
- (d) The issue was discussed in the 46<sup>th</sup> SRPC CSC meeting, and it was pointed out, that GSHR 2210.66 kCal/kWh has been considered by the Commission for the purpose of tariff. Part load compensation is neither a part of tariff nor of the CERC (Terms and Conditions of Tariff) Regulations. The part load compensation computation for heat rate degradation is in accordance to 4<sup>th</sup> amendment of IEGC, 2010 and revision of compensation statement on account of the said tariff order, may not be considered. Moreover, in various CERC Regulations viz. Ancillary Service-RRAS, DSM, SCED etc., it has been mentioned that no retrospective settlement of fixed or variable charges shall be undertaken even if the fixed or variable charges are revised at a later date. However, if all the beneficiaries are agreeable for revision of the part load compensation statement for 2017-18, the revised statement would be issued.
- (e) TANGEDCO informed that the compensation for degradation of parameters due to part load operation is as per 4<sup>th</sup> amendment of IEGC, 2010. Hence, revision of compensation statement on account of tariff order, 2020 shall not be carried out.
- (f) During the 47<sup>th</sup> CSC meeting held on 24.2.2021, the issue was again discussed. PCKL, Karnataka, KSBL and Telangana State PCC did not agree for the revision of compensation, since retrospective settlement i.e., revision of compensation due to part load operation with revised parameters is not envisaged in IEGC, 2010/compensation mechanism.
- (g) In the said meeting, SRPC observed that the intent of RRAS/SECD Regulations is analogous to the IEGC, 2010/ compensation mechanism, as in all these Regulations, decisions are to be carried out based on the MOD of generators during that time. Due to the consideration of high SHR by KSTPS, ECR was high and accordingly, MOD was prepared by the beneficiaries and they were to requisition the energy as per their requirement. KSTPS might have been scheduled at low PLF due to less requisition of the beneficiaries on account of high ECR. Now, as per the revised SHR, the ECR works out to be lower than earlier. If the lower ECR had been considered during that time, KSTPS would have been scheduled more and question of part load compensation would not have been there.





- (h) Revision of compensation due to part load operation considering the revised normative parameters used for the purpose of tariff determination may not be appropriate as the decisions taken by the beneficiaries during the period (during the real time scheduling) were based on the ECR furnished by the generators. The said meeting concluded with the decision that the Petitioner may approach the Commission for clarification or revision of compensation due to part load operation of KSTPS for 2017-18 based on the Tariff Order, 2020.
- (i) No records were available in support of design heat rate. Hence, as per Form II and Form 5E of the Petition No. 199/GT/2017, the turbine heat rate is 1819.3 kCal/kWh, and the boiler efficiency is 85% from which the SHR was arrived. Based on Regulation 35(C)(b)(i) of the 2014 Tariff Regulations, the same shall be considered as 86% and 89% respectively. For sub-bituminous Indian coal and bituminous imported coal for computation of SHR, the boiler efficiency was taken as 86%.
- (j) SHR was computed as  $1819.3/0.86=2115.47$  kCal/kWh and after considering the operating margin of 4.5%, the SHR worked out to  $2115.47 \times 1.045 = 2210.67$  kCal/kWh, as approved by the Tariff Order, 2020. The Petitioner was billing beneficiaries considering the above parameters since the commissioning of unit 1 on 31.7.2017. After issue of the Tariff Order, 2020, the Petitioner raised bills adopting the approved GSHR of 2210.67 kCal/kWh.
- (k) The issue of considering a higher heat rate of 2241.41 kCal/kWh than that of 2210.67 kCal/kWh eligible for the period from 2017 to the date of issue of Tariff Order, 2020 squarely lies on the Petitioner. Had the Petitioner adopted the GSHR eligible as per the prevalent Tariff Regulations, there would not have been any role for the Commission to restrict the claim to the eligible norms.
- (l) The observations of SRPC in the 47<sup>th</sup> CSC meeting are explanatory as to why the claim of the Petitioner is not admissible. It has rightly been pointed out by the SRPC that the claim of compensation on retrospective basis is not admissible for the reasons that the station might have got scheduled if lesser GSHR had been adopted and there is no retrospective payment in case of revision of ECR in RRAS, DSM and SECD Regulations. Moreover, adoption of higher GSHR was only at the discretion of the Petitioner against the admissible GSHR as per the 2014 Tariff Regulations.



## **Rejoinder of the Petitioner to the Reply of the Respondents**

### ***Rejoinder to Reply of SRPC***

6. The Petitioner, in its rejoinder to the reply of the Respondent SRPC, has submitted as under:

- (a) SRPC has itself admitted that embargo as stipulated under Regulation 13.3 of Ancillary Regulations, 2015 does not form part of IEGC, 2010. Therefore, Petitioner is liable to be compensated for degradation.
- (b) SRPC, while raising the objection on retrospective applicability has failed to appreciate that Clause 4.1(i) of the compensation mechanism is based on the Tariff Regulations and the GSHR determined by this Commission. Therefore, logical corollary to Clause 4.1(i) of the Compensation mechanism is that the tariff orders in terms of the Tariff Regulations need to be necessarily factored in while determining compensation payable to a generation company.
- (c) SRPC, while raising the issue of high SHR resulted in scheduling of KSTPS at low PLF, has failed to consider that the Commission by way of Tariff Order 2020 has determined the normative heat rate of 2210.66 kCal/kWh and rejected the GSHR of 2241.41 kCal/Kwh as claimed by the Petitioner on following grounds:
  - (i) Regulation 36(c)(b)(i) of the 2014 Tariff Regulations, provides for new thermal generating station achieving COD on or after 1.4.2014, the GSHR of 2241.41 kcal/Kwh (1.045 x Design Heat Rate) provided that it shall not exceed the maximum design unit heat rates depending upon the pressure and temperature ratings of the unit as specified under Regulations and where the boiler efficiency is below 86% for sub-bituminous Indian coal and 89% for bituminous imported coal, the same shall be considered as 86% and 89% respectively.
  - (ii) The design heat rate of KSTPS i.e. 2144.90 kCal/kWh which is lower than the ceiling design heat rate of 2151 kCal/kWh and the boiler efficiency of KSTPS was 84.82%. However, the same was considered as 86%. Therefore, the unit design heat rate of 2115.47 kCal/kWh was considered by the Commission.
- (d) At the time of filing Petition No. 199/GT/2017, the Petitioner was well within its rights to claim the SHR of 2241.41 kCal/kWh under Regulation 54 of the 2014 Tariff Regulations. However, on account of prevailing regulations, the claim of the Petitioner towards GSHR was not accepted. The consequence of the said rejection shall also be applied upon the beneficiaries as they have also enjoyed the benefit of a lower SHR decided by the Commission. The same can be evidenced from the fact that the Petitioner had duly revised its



earlier invoices on 6.2.2020 for the period 2017-18 and 2018-19 in terms of the Tariff Order, 2020. The amount of Rs. 54.48 crore has also been passed on to the beneficiaries. Therefore, the Petitioner has rightly claimed part load compensation by factoring the Tariff Order, 2020 passed by the Commission.

### ***Rejoinder to Reply of Respondent TANGEDCO***

7. The Petitioner vide its rejoinder to the reply of Respondent TANGEDCO has submitted the following:

- (a) The Petitioner had planned the project during the period 2009-14. Accordingly, the guaranteed design gross turbine cycle heat rate and design boiler efficiency of KSTPS was designed as per the parameters provided in the then prevailing 2009 Tariff Regulations.
- (b) The design heat rate awarded for KSTPS i.e., 2144.89 kCal/kWh, was also much lower than the ceiling limit of 2176 kCal/kWh provided in Regulation 26 B of the 2009 Tariff Regulations.
- (c) The COD of KSTPS falls in the tariff period 2014-19 and therefore, the GSHR norms for the generating station including the application operating margin was calculated to be 2210.67 kCal/kWh the period 2014-19.
- (d) As the operating margin of 4.5% was considered reasonable and appropriate by the Commission for period 2014-19, the Petitioner filed Petition No. 199/GT/2017 for approval of GSHR of 2241.41 kCal/kWh with an operating margin of 4.5% over the design heat rate of the station.
- (e) The Petitioner is entitled to claim the compensation as per Regulation 6.3 B of the IEGC Regulations read with the mechanism for compensation for degradation of heat rate, aux consumption and secondary fuel consumption, due to part load operation and multiple start/stop of units as approved by the Commission vide its order dated 5.5.2017. Clause 4.1 of the detailed operation procedure approved by the Commission envisages the compensation mechanism for degradation of heat rate and auxiliary energy consumption.
- (f) On perusal of Regulation 6.3 B and clause 4.1 of Compensation Mechanism, the following arises for consideration:
  - (i) The mechanism shall be applicable to coal/gas based central generating stations and coal/gas based inter-State generating stations whose tariff is determined or adopted by the Commission.
  - (ii) Average unit loading shall be used for compensating increase in SHR and AEC in accordance with the Regulations. However, no compensation is payable for SHR degradation or increase in AEC if the average unit loading for generating station works out more than or equal to 85%.



- (iii) Based on values of increased SHR and AEC at ECR for average unit loading of the station shall be calculated using the formula specified in the Tariff Regulations.
  - (iv) ECR corresponding to average declared capacity shall also be calculated using the formula specified in the Tariff Regulations.
- (g) The compensation mechanism envisaged is duly applicable to coal based central generation station, therefore, Petitioner is duly qualified to claim compensation in terms of clause 4.1 of compensation mechanism and has rightly filed the present Petition to create an appropriate mechanism to remit the compensation to the Petitioner for degradation of parameters for the period 2017-18.
- (h) In consonance with the Compensation mechanism, the Petitioner has raised the bills to the Respondent beneficiaries for the year 2017-18 claiming an amount of Rs 12.65 crore.
- (i) In terms of clause 5 of compensation mechanism, the Petitioner sent representation to SRPC on 21.9.2020 stating that based on the revised normative GSHR as approved by Tariff Order 2020, KSTPS is eligible for receiving compensation amounting to Rs 12.65 crore and the details with respect to computation of compensation were enclosed with the representation.
- (j) The relevant documents against the claim of Rs 12.65 crore has been furnished.

### **Hearing dated 7.2.2023**

8. The matter was heard on 'merits' on 7.2.2023. During the hearing, the learned counsel for the Petitioner made detailed oral submissions and pointed out that the issue of retrospective adjustment is covered in terms of the Commission's order dated 12.1.2023 in Petition No. 221/MP/2021. The learned counsel of the Respondent TANGEDCO circulated short note of arguments and made detailed oral submissions opposing the submissions of the Petitioner. The learned counsel for the Respondent Karnataka Discoms stated that the reply filed in the matter may be considered at the time of disposal of the petition. The Petitioner was however directed to file certain additional information and the parties were permitted to complete pleadings in the matter. Subject to this, order in the petition was reserved.



9. In compliance to the above directions, the Petitioner has filed the additional information vide affidavit dated 6.3.2023 after serving copies on the Respondents. The Respondents, TANGEDCO, KSEBL and Karnataka Discoms have filed their replies to the additional information on 21.3.2023, 20.3.2023 and 21.3.2023 respectively and the Petitioner has filed its rejoinder to the said replies on 31.3.2023. The submissions of the parties are mainly on the lines of their respective submissions/contentions, as raised in the petition/replies/rejoinders, as above and therefore, the same are not set out herein, for the sake of brevity. Accordingly, based on the submissions of the parties and the documents available on record, we proceed to examine the issues raised by the parties, in the subsequent paragraphs.

### **Analysis and Decision**

10. Based on the submission of the parties, the issue which emerge for consideration in the present case, is as under:

***(a) Whether the Petitioner is entitled for payment of compensation due to degradation of parameters (SHR) on part load operation of KSTPS in 2017-18; If yes, whether retrospective adjustment can be ordered?***

11. The Petitioner has submitted that due to the determination of GSHR as 2210.66 kCal/kWh by the Commission in its tariff order dated 8.1.2020 in Petition No.199/GT/2017 (pertaining to tariff of KSTPS for the period 2014-19), it is entitled for compensation for degradation as per the Compensation mechanism notified by the Commission on 5.5.2017 in terms of Regulation 6.3B of the IEGC. Per contra, the Respondent SRPC and TANGEDCO have submitted that part load compensation does not form part of Tariff or the Tariff Regulations, and the part load compensation for heat rate degradation is in terms of the 4<sup>th</sup> Amendment to IEGC, 2010. In response, the Petitioner has clarified Clause 4.1(i) of the Compensation mechanism is based on the Tariff Regulations and the GSHR determined by this Commission and therefore a



logical corollary to the said clause is that the tariff orders, issued in terms of the Tariff Regulations need to be necessarily factored while determining the compensation payable to a generating company.

12. We have examined the submission of the parties. Regulation 6.3B of the IEGC, 2010 provides as under:

*“Where the CGS or ISGS, whose tariff is either determined or adopted by the Commission, is directed by the concerned RLDC to operate below normative plant availability factor but at or above technical minimum, the CGS or ISGS may be compensated depending on the average unit loading duly taking into account the forced outages, planned outages, PLF, generation at generator terminal, energy sent out ex-bus, number of start-stop, secondary fuel oil consumption and auxiliary energy consumption, in due consideration of actual and normative operating parameters of station heat rate, auxiliary energy consumption and secondary fuel oil consumption etc. on monthly basis duly supported by relevant data verified by RLDC or SLDC, as the case may be.”*

13. The Detailed Operating Procedure [Appendix I] and the Compensation Mechanism [Appendix II] in terms of sub-clause (6) of Regulation 6.3B of the IEGC, 2010, is as extracted below:

***“4.1 Compensation for degradation of Heat rate (SHR) and Auxiliary Energy Compensation (AEC)***

*(i) The mechanism is based on relevant provisions of Grid Code and Tariff Regulations of the Commission, as notified from time to time.*

*(ii) The Compensation shall be worked out for a month on cumulative basis considering degradation in SHR and AEC based on Average Unit Loading subject to reconciliation at the end of the year.*

*Xxxx*

*(vi) Average Unit loading shall be used for getting increase in SHR and AEC in accordance with the Regulations and for gas based generating station as per step (v) above.*

*Provided that no compensation for SHR degradation or increase in AEC shall be payable if the Average unit loading for the generating station for the computation period works out more than or equal to 85%.*

***5. Calculation of Compensation, Billing and Submission of Data by the Generator.***

*(i) Generating station shall calculate the compensation as specified in these procedures and bill the same to beneficiaries along with its monthly bill which shall be subject to adjustment based on compensation statement issued by RPC Secretariat subsequently.*

*(ii) Generating station shall submit the requisite data along with compensation calculation to RPC secretariat as prescribed in Annexure-I to Appendix II for a month by 15th day of the following month. The data to be submitted is for the month and reconciled up to the month.”*





14. Regulation 7 of the IEGC, 2010 provides for the following:

*“(1) Nothing in these Regulations shall be deemed to limit or otherwise affect the power of the Commission to pass such orders as may be necessary for meeting the ends of justice or to prevent the abuse of the process of the Commission.*

*Nothing in these Regulations shall bar the Commission from adopting in conformity with the provisions of the Act, a procedure, which is at variance with any of the provisions of these Regulations including summary procedures, if the Commission, in view of the special circumstance of a matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient for so dealing with such a matter or class of matters.*

*Nothing in these Regulations shall bar the Commission to deal with any matter or exercise any power under the Act for which no regulations have been framed, and the Commission may deal with such matters, powers and functions in a manner it thinks fit.*

*The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected by grant of relaxation, may relax any of the provisions of these regulations on its own motion or on an application made before it by an interested person”.*

15. The Commission, vide its 4th amendment dated 29.4.2016 to IEGC, has introduced Regulation 6.3B viz., Technical Minimum Schedule for operation of CGS / ISGS, whose tariff is either determined or adopted by this Commission. Subsequently, the Commission vide its order dated 5.5.2017, had issued the Compensation mechanism for part load operation of the generating stations, as stated above. On a harmonious reading of the Detailed Procedure and the Compensation mechanism under Clause 4.1(i) above and Regulation 6.3B of the IEGC 2010, it is evident that the compensation of heat rate, is based on the provisions of the Grid Code and the Tariff Regulations notified by this Commission. Accordingly, the normative operating parameters viz., SHR, AEC and SFC etc. are to be considered for calculating the compensation which becomes payable to the generating station for part load operation below 85% of the installed capacity. The generating station (KSTPS) comprises of three units which have been declared under commercial operation on 31.7.2017, 31.12.2017 and 15.9.2018, respectively and therefore falls within the scope and ambit of the 2014 Tariff Regulations. In Petition No.199/GT/ 2017 filed by the Petitioner



seeking determination of tariff of the generating station for the period 2014-19, it had claimed the normative GSHR of 2241.41 kCal/kWh (including operational margin of 4.5%) based on the 2009 Tariff Regulations and in exercise of the power to relax, on the ground that the project was envisaged during the period 2009-14. During the pendency of this petition, the Petitioner had billed the beneficiaries for energy charges as per formulae specified in the 2014 Tariff Regulations, considering the GSHR of 2241.41 kCal/kWh, on provisional basis. This was also not objected to by the beneficiaries, who continued to pay the energy charges as billed by the Petitioner. Though the compensation mechanism was effective from 5.5.2017 and the units of the generating station were not scheduled by the beneficiaries to the extent of 85% or more during the operational period of the units of the generating station in 2017-18, the Petitioner had not claimed any compensation for the year 2017-18 in its monthly billings, as the energy charges based on actual operating parameters (SHR and AEC) were not higher than the energy charges calculated on normative SHR of 2241.41 kCal/kWh claimed by the Petitioner, which was pending approval of the Commission. in Petition No. 199/GT/2017. Thereafter, the Commission vide its order dated 8.1.2020 in Petition No. 199/GT/2017, while determining the tariff of the generating station for the period 2014-19, rejected the prayer of the Petitioner for SHR of 2241.41 kCal/kWh, and approved the normative GSHR of 2210.66 kCal/kWh for the generating station. The relevant portion of the said order is extracted below:

*“139. The Petitioner has furnished design turbine cycle heat rate and boiler efficiency of the generating station as 1819.30 kcal/kWh and 84.82% respectively. Thus, the unit design heat rate worked out from the data furnished by the Petitioner works out as 2144.90 kcal/kWh (1819.30/0.8482). Considering the margin of 4.5% in terms of the 2014 Tariff Regulations, the Gross Station Heat Rate (GSHR) works out as 2241.42 kcal/kWh (1.045 x 2144.90). Accordingly, the Petitioner has prayed for consideration of the heat rate norm of 2241.41 kcal/kWh in terms of Regulation 54 (Power to relax) of the 2014 Tariff Regulations.*

*i. As per Regulation 36(C)(b)(i) of the 2014 Tariff Regulations, for new thermal generating station achieving COD on or after 1.4.2014, the GSHR=1.045 x Design Heat Rate i.e. 2241.41 (i.e. 1.045 x 2144.90), provided that the design heat rate shall not exceed the maximum design unit heat rates depending upon the pressure and temperature ratings of*



*the units as specified under the regulations (where ceiling design heat rate for plants having temperature of 565/593°C and pressure rating of 247 Kg/cm<sup>2</sup> using sub bituminous coal is given as 2151 kcal/kWh). The design heat rate of the generating station i.e. 2144.90 kCal/kWh is lower than the ceiling design heat rate of 2151 kcal/kWh. Further, Regulation 36(C)(b)(i) provides that where the boiler efficiency is below 86% for sub-bituminous Indian coal and 89% for bituminous imported coal, the same shall be considered as 86% and 89% respectively for Sub-bituminous Indian coal and bituminous imported coal for computation of station heat rate. The boiler efficiency of the generating station is 84.82%. However, the same shall be considered as 86% as per the above regulation. Accordingly, the unit design heat rate works out as 2115.47 kcal/kWh (1819.30/0.86). Thus, considering the multiplying factor of 1.045, the applicable Station Heat Rate is 2210.66 kcal/kWh (1.045 x 2115.47). Accordingly, the claim of the Petitioner to consider the heat rate of 2241.41 kcal/kWh is rejected and the GSHR of **2210.66 kcal/kWh** has been considered for the purpose of tariff.*

16. Consequent upon the above, the Petitioner had revised its earlier invoices on 6.2.2020 for the periods 2017-18 and 2018-19 and an amount of Rs. 54.48 crores, (which constitutes the difference between the energy charges already collected based on the normative GSHR of 2241.41 kCal/kWh and the energy charges based on the normative GSHR of 2210.66 kCal/kWh approved by the Commission) had been passed on to Respondents. However, due to reduction in normative SHR to 2210.66 kCal/kWh from 2241.41 kCal/kWh, compensation mechanism kicked in as energy charges based on actual operating parameters (SHR and AEC) on account of partial loading of units were higher than the energy charges calculated on normative SHR of 2210.66 kCal/kWh finally approved by the Commission. Accordingly, the invoices were raised by the Petitioner for payment of Rs.12.65 crore on the Respondents towards part load compensation for 2017-18, in terms of the Compensation mechanism, due to the degradation of heat rate. However, the Respondents have objected to the same. In our considered view, since the compensation for degradation of heat rate is based on the provisions of the Tariff Regulations and the Grid code as stated above, we reject the contentions of the Respondents and hold that the Petitioner is entitled for compensation towards degradation of parameters due to part load operation of KSTPS in 2017-18.



17. Another contention of the Respondents is that KSTPS might have been scheduled at low PLF due to less requisition of the beneficiaries on account of high ECR. It has also been submitted that as per the revised Station Heat Rate, the ECR works out to be lower than earlier and if the lower ECR had been considered during that time, KSTPS would have been scheduled more and the question of part load compensation would not have arisen. The Respondents have also submitted that the revision of compensation due to part load operation considering the revised normative parameters used for the purpose of tariff determination may not be appropriate, as the decisions taken by the beneficiaries during that period (during real time scheduling) were based on the ECR furnished by the generators.

18. It is pertinent to note that except for bald assertions, the Respondents have not backed the same with any real time data/numbers. However, the Petitioner vide affidavit dated 6.3.2023, has, based on the data available in public domain i.e. websites of POSOCO (now GCIL) and SRPC, has submitted that KSTPS, during 2017-18, was having the highest ECR in the Southern Region and the closest generating station (to KSTPS) in merit order, had a difference ranging from 14 paisa/kWh to 56 paisa/kWh. The Petitioner while pointing out that the difference in ECR due to different heat rates (i.e. 2241.41 kCal/kWh and 2210.66 kCal/kWh) is about 5 paisa/kWh only during the disputed period, has submitted that even if the Petitioner would have billed the beneficiaries at 2210.66 kCal/kWh (instead of 2241.41 kCal/kWh), there would not have been any difference in the merit order of KSTPS. None of the beneficiaries have negated these submissions of the Petitioner. In this background, we find no force to agree to the contention of the Respondents as above.

19. Having held that the Petitioner is entitled for compensation as above, the question for consideration is whether retrospective adjustment of the compensation is



permissible in terms of the Compensation mechanism under IEGC. In this regard the Respondents have pointed out that the Commission in its various Regulations viz., Ancillary services-RRAS, DSM SCED etc., has mentioned that no retrospective settlement of fixed charges or variable charges shall be undertaken even if the fixed or variable charges are revised at a later date. It is pertinent to note that the Commission vide its order dated 8.1.2020 had determined the tariff of the generating station for the period from COD (31.7.2017 till 31.3.2019), wherein, the GSHR of 2210.66 kCal/kWh was considered, as per the 2014 Tariff Regulations. These Regulations also provide for retrospective adjustment of the tariff recovered by the Petitioner as against those allowed by the Commission. The Petitioner, pursuant to the said order, had revised its earlier invoices and refunded an amount of Rs 54.48 crore, to the Respondent beneficiaries. To us, the Compensation mechanism of IEGC 2010, do not bar the retrospective adjustment of compensation due to degradation of operational parameters. Even otherwise, Regulation 7(3) of the IEGC 2010, as quoted in para 14 above, provide the Commission with the power to deal with any matter or exercise any power as deemed fit, in the interest of justice. It is noticed that in Petition No.221/MP/2021 filed by Maithon Power Limited seeking clarification on the compensation methodology for ISGS (capacity contracted on MW basis instead of the percentage allocation basis), notified under Regulation 6.3B of IEGC and the mechanism for compensation dated 5.5.2017, the Commission vide its order dated 12.1.2023 held as under:

*“22. In the above background and keeping in view the methodology adopted by the WRPC for IPPs of the Western Region, we direct ERPC to determine the beneficiary wise compensation in line with the ‘Mechanism for Compensation for Degradation of Heat Rate, Aux Consumption and Secondary Fuel Oil Consumption, due to part load operation and Multiple Start / Stop of units’ issued by the Commission vide order dated 5.7.2017. Also, considering the fact that the Commission vide its order dated 8.1.2022 in Petition No.408/GT/2020 had approved the Station Heat Rate of 2326.03 kcal/kWh, from 1.4.2019 onwards, instead of the SHR of 2375 kcal/kwh considered earlier, we direct ERPC to revise the total compensation statements for the generating station, including the compensation associated with each beneficiary, for the period from 2019-*



*20 onwards, considering the revised SHR approved as above. The prayers of the Petitioner, is disposed of in terms of the above”*

20. In line with the above discussions and considering then fact that the Commission vide its order dated 8.1.2020 in Petition No.199/GT/2017 had approved the GSHR of 2210.67 kcal/kWh, from 31.7.2017 onwards, instead of the SHR of 2241.41 kcal/kWh (as claimed by the Petitioner), we hold that the Petitioner is entitled to retrospective revision of the part load compensation in terms of the Compensation Mechanism dated 5.5.2017. It is noticed that the Petitioner has also submitted the details regarding the computation of compensation vide its representation to SRPC on 21.9.2020. None of the Respondents have disputed the quantum of compensation of Rs 12.65 crore claimed by the Petitioner, in this petition. In this backdrop, we direct that the compensation amount as claimed by the Petitioner, shall be paid by the Respondents to the Petitioner, within 30 days from the date of this order. The compensation amount shall be paid by the Respondents along with simple interest, at the rate equal to the bank rate as on 1<sup>st</sup> April of each year of the delayed period starting from date of invoice till the actual date of payment. In case of any discrepancy in the calculations, the same shall be reconciled by the parties with SLDC.

21. Petition No. 166/MP/2021 is disposed of in terms of the above.

**Sd/-  
(Pravas Kumar Singh)  
Member**

**Sd/-  
(Arun Goyal)  
Member**

**Sd/-  
(I.S. Jha)  
Member**

