

**MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION
BHOPAL**

Subject: In the matter of Petition for seeking directives under Regulations 67 & 68 of MPERC (Terms and Conditions for determination of Generation tariff) Regulations, 2020 for comprehensive Renovation & Modernization / Life Extension of 4x210 MW PH-1&2 of SGTPS, Birsinghpur considering deviation from CEA guidelines, 2020 for R&M /LE work and adapting the methodology of Swiss Challenge Mode for selection of bidders.

ORDER

Date of hearing 26th July' 2022
(Date of Order: 16th August' 2022)

M.P. Power Generating Co. Ltd,
Block No. 9, Shakti Bhawan,
Rampur, Jabalpur – 482008

- **Petitioner**

V/s

MP Power Management Company Ltd.
Shakti Bhawan, Rampur
Jabalpur- 482008

- **Respondent**

Shri Sudhir Kumar Saxena, Shri Salil Choudhary and Shri V.K. Kaithwar appeared on behalf of petitioner.

M.P. Power Generating Co. Ltd. (MPPGCL) has filed subject petition seeking directives under Regulations 67 & 68 of MPERC (Terms & Conditions for determination of Generation tariff) Regulations, 2020 for comprehensive Renovation & Modernization / Life Extension of Unit no. 1 to 4 of PH- 1 & 2 of SGTPS, Birsinghpur considering deviation from CEA guidelines, 2020 for Renovation and Modernization / Life Extension works and adapting the methodology of Swiss Challenge mode for selection of bidders.

2. Sanjay Gandhi Thermal Power Station (SGTPS) Birsinghpur has a total thermal capacity of 1340 MW. Unit-wise details are given below:

Power House	Unit No.	Capacity in MW	CoD	Age in Years
PH-1	1	210	26-Mar-93	29
	2	210	27-Mar-94	28
PH-2	3	210	28-Feb-99	23
	4	210	23-Nov-99	22
PH-3	5	500	28-Aug-08	14
Total		1340		

3. It is observed that Unit No. 1 & 2 have completed their useful life of 25 years and Unit No. 3 & 4 are on verge of completion of useful life. The petitioner is planning for taking R&M works in Unit No. 1, 2, 3, & 4 of SGTPS, Birsing'pur.
4. The CEA's issued "Guidelines for Renovation and Modernization / Life Extension Works of Coal based Thermal Power Stations" in Feb 2020. In the subject petition, the petitioner is seeking deviation from CEA guidelines, 2020 for proposed R&M works in SGTPS, Birsingpur on the following two issues:
 - a) Permit deviation from CEA guidelines towards selecting single agency instead of two different agencies i.e. Consultant(s) and Executing Agency, to carry out Comprehensive R&M /LE of Unit No. 1, 2, 3 & 4 of PH-1&2 of SGTPS, Birsinghpur.
 - b) Permit adoption of methodology of Swiss Challenge Mode for selection of bidders for R&M works.
5. The petitioner broadly submitted the following in the subject petition:
 - i. *MPPGCL entered into Power Purchase Agreement (PPA) with MP Tradeco (now MPPMCL) on 29.11.2006 and its amendment dated 18.07.2017. The PPA provides that the tariff payable and terms & conditions related thereto shall be as determined by the State Commission. MPPGCL has, therefore, raised the bills of energy sold to MPPMCL as per the tariff determined by the Commission.*
 - ii. *MPPGCL is having various Thermal and Hydro power stations in the state of Madhya Pradesh. Sanjay Gandhi Thermal Power Station (SGTPS) is one such power stations of the Petitioner located at Birsinghpur, Dist Umaria, having total install capacity of 1340 MW (2X210MW + 500MW).*
 - iii. *Clause 2.3 of prevailing Power Purchase Agreement (PPA) dated 29.11.2006 executed between MPPGCL and TRADECO (Now MPPMCL) provides that :-*

"2.3 Genco shall take steps to renovate, modernize, refurbish, expand and augment capacity in the existing Generating Stations and projects under construction subject to additional capitalization approved by the state commission and duly informed to TRADECO and such additional capitalization shall be included in the capital cost of the Generating Station."

- iv. *The aforementioned clause of PPA permits MPPGCL to take steps to renovate, modernize, refurbish, expand and augment capacity in the existing Generating Stations.*
- v. *In past, M. P. Power Generating Company Limited (MPPGCL) had filed a petition No. 17 of 2017 under proviso 21 of MPERC (Terms and conditions for determination of Generation Tariff) Regulations 2015 for approval of proposal for carrying out Renovation & Modernization works of Unit No. 1 & 2 (2x210 MW), SGTPS, Birsinghpur with estimated cost for proposed R&M works was Rs. 1003.45 Crores.*
- vi. *The Commission vide order dated 27.12.2017 had observed that the proposal for comprehensive R&M of 2x210MW Unit No.1 & 2 of SGTPS Birsinghpur is carrying a huge estimated project cost of Rs 1000 Crore approximately and the procurer i.e. MPPMCL has raised several issues with regard to performance parameters, cost benefit analysis and its consequent burden on end consumers after execution of proposed R&M scheme. Hence, the R&M proposal was not considered by the Commission with the direction to reviewed comprehensively by MPPGCL in light of all observations of the Commission and also the objections raised by MPPMCL*
- vii. *Therefore, the whole exercise made by MPPGCL towards approval of Comprehensive R&M of Unit No.1 & 2 of PH-I, SGTPS, Birsinghpur became futile. MPPGCL reinitiated the process afresh. Meanwhile, the Central Electricity Authority (CEA) has issued new guidelines for R&M in February 2020.*
- viii. *The new guidelines are meant for R&M/LE programme to improve plant operational performance, availability/reliability, efficiency and emission reduction in light of new MoEF & CC notification, enable plant for flexible operation and extend the life of plant by further period of 15 -20 years. The main objective of R&M of power generating units is to make the operating Unit as well equipped with modified / augmented equipment/components/systems, with a view to improve their operating performance, reliability and availability to the original design values, reduction in maintenance requirements, ease of maintenance and enhanced efficiency, meeting the latest emission levels and achieving flexibility in generation.*
- ix. *The CEA's guidelines for R&M issued in Feb 2020, provides the segregation of whole R&M works in two parts i.e. the responsibility of "Consultant" and "Executing Agency" as under :-*
- (a) **Consultant(s)** :- *"To assist the utilities to carry out RLA, Energy Audit, Preparation of DPR, Bid Specifications, selection of executing agency, implementation & performance evaluation"*

(b) **Executing Agency** :- “To carry out the field work”

- x. From the CEA guidelines as mentioned above, it is apprehended that:-
- The consultancy works (i.e. conducting RLA, CA etc. for identification of R&M activities, preparation of DPR & Tender Specification) if undertaken by the agency, who is finally not responsible for execution of the contract may remain liberal to specify the works to be undertaken against R&M. Thus, total cost of R&M will get inflated excessively.
 - When R&M of units is undertaken by some other agency based on the Detailed Project Report prepared by different agency, the executing agency may not own the responsibility of success of R&M works, on the plea that it has carried out the works specified in DPR as such the adequacy of works for improvement in performance is not in their scope. Also, to cover up its deficiencies in performing R&M works, the work executing agency always has the shelter of deficiencies in DPR prepared by other agency (Consultant).
 - The sustainability of post R&M guaranteed parameter and payback period also becomes difficult to materialize. Though, in PG test, the executing agency may demonstrate the ordered parameters, their maintainability over a longer period may remain a challenge.
- xi. Based on the above Guidelines, MPPGCL had issued Expression of Interest (EOI) for issuing Tender for Renovation & Modernization with Life Extension of Units No. 1,2,3 & 4 (4x210MW) of PH-1&2 of SGTPS, Birsinghpur. Looking to hurdles in the process and experience gained during discussions with past bidders, MPPGCL opted to adapt the Methodology of Swiss Challenge mode based on Madhya Pradesh Infrastructure Development (Swiss Challenge) Guidelines - 2014 with the reservation that the works of Renovation & Modernization with Life Extension of Units No. 1,2,3 & 4 (4x210MW) of PH-1&2 of SGTPS, Birsinghpur, shall be undertaken by MPPGCL through some agencies selected for the work and not through Public / Private Partnership.
- xii. MPPGCL shall have following benefits by choosing Methodology of Swiss Challenge mode (SCM):-
- a. The maker of DPR will also carry the responsibility of execution. This will ensure proper due diligence by it.
 - b. Performance of R&M shall be guaranteed, even for next 3 years after execution. The executing agency shall bear the responsibility of post R&M guarantee.

- c. *It will protect MPPGCL from getting trapped in plan of executing agency who may disown post R&M Guarantee on later date, taking plea of one or other on consultant etc.*
 - d. *In case of post R&M deficiencies, the work executing agency shall be compelled to rectify the same at the earliest.*
 - e. *The complete procedure would be detailed in tender specification to ensure transparency of bidding procedure.*

- xiii. *Choosing Methodology of Swiss Challenge mode (SCM) by MPPGCL, may provide both Consultancy work and Execution work by Single Agency for R&M activities, which will attract deviation from the clause 6.2 of the CEA's "Guidelines for Renovation and Modernization / Life Extension Works of Coal based Thermal Power Stations"-2020. The CEA Guidelines provides that in order to implement LE&U works following methodology may be adopted:-*
 - i. *In order to facilitate the implementation of LE&U works, utilities may appoint reputed consultant for rapid life assessment study, condition assessment, energy auditing, thermal performance test, environmental, study, preparation of DPR etc. RLA studies to be conducted on the major plant and equipment through agencies of repute.*
 - ii. *Based on DPR a detail technical specification & contract document may be prepared. The contract document, inter-alia shall include provisions of changed scope of work which may come up when the machine / equipment is opened or identified during detailed RLA studies (as a part of scope of work) to meet the stipulated performance guarantees.*

- xiv. *Accordingly, vide letter dated 25.10.2021, MPPGCL has communicated with the CEA apprising with the steps taken by MPPGCL in the past for carrying out R&M works in 210MW Units of SGTPS, Birsinghpur and associated apprehensions / challenges and requested CEA to give concurrence in the matter for adaption of the modified procedure for carrying out the comprehensive R&M works at SGTPS Birsinghpur by choosing Methodology of Swiss Challenge mode.*

- xv. *In response, the CEA vide letter dated 18.11.2021 has furnished their comments and reproduced as below:-*
 - (a) *MPPGCL vide its reference letter dated 25.10.2021 mentioned that it conducted RLA/CA studies in the year 2014 & 2016 and its petition filed before MPERC has not been approved. In this regard, it is advised that MPPGCL may appoint a consultant as existing RLA/CA reports are very old and conduct a fresh RLA/CA*

studies for 4x210MW SGTPS with a clear instruction to consultant to be strictly stick with scope of R&M/Up-rating work during preparation of DPR. The details of works not relating to R&M/LE be referred from para 4.5 of R&M/LE guidelines, 2020 of CEA uploaded on it's website.

(b) Further, the cost to be incurred on R&M/LE works shall not exceed 50% of the EPC cost of new generating unit of indigenous origin (BHEL), as per CEA R&M/LE guidelines, 2020. The details of cost estimates of R&M or up-rating/ LE works may be referred from Para 7 of R&M/LE guidelines, 2020 of CEA.

(c) In addition to the above, CEA has no objection regarding adoption of mentioned procedure in reference letter by MPPGCL to carry out R&M works through Swiss Challenge Mode, if concerned Electricity Regulatory Commission accords its approval to MPPGCL regarding the same.

xvi. *In view of above, MPPGCL under Regulations 67 & Regulation 68 of Terms and Conditions for determination of Generation tariff, Regulations,2020 humbly request Commission for compliance of CEA directives vide letter dated 18.11.2021, to kindly permit MPPGCL to carry out Comprehensive R&M /LE of Unit No.1, 2, 3 & 4 of PH-1&2 of SGTPS, Birsinghpur, with deviation from CEA guidelines towards selecting single agency instead of two different agencies and methodology of Swiss Challenge Mode for selection of bidders.*

After, exploring the cost estimate for Comprehensive R&M /LE of Unit No. 1, 2, 3 & 4 of PH-1&2 of SGTPS, Birsinghpur, MPPGCL shall submit separate petition to accord approval for capital expenditure and to allow its impact on generation Tariff determined for the control period FY 2019-20 to FY 2023-24 & onwards.”

6. With the aforesaid submissions, the petitioner prayed the following in the subject matter:
- i. Permit deviation from CEA guidelines towards selecting single agency instead of two different agencies i.e. Consultant(s) and Executing Agency, to carry out Comprehensive R&M /LE of Unit No. 1, 2, 3 & 4 of PH-1&2 of SGTPS, Birsinghpur;*
 - ii. Permit adoption of methodology of Swiss Challenge Mode for selection of bidders for R&M works.*
7. At the motion hearing held on 26.07.2022, representative who appeared for the petitioner explained genesis of the petition. Having heard the petitioner, the case was closed for order on admissibility of the subject petition.

Commission's Observations and findings:

8. The petitioner has filed this petition seeking approval for deviations from CEA Guidelines i.e., for selecting single agency instead of two different agencies (i.e. Consultant(s) and Executing Agency) to carry out Comprehensive R&M /LE of Unit No.1, 2, 3 & 4 of PH-1&2 of SGTSP, Birsinghpur and for adoption of methodology of Swiss Challenge Mode for selection of bidders for R&M works.
9. At the hearing held on 26.07.2022, representative, who appeared on behalf of petitioner was asked to inform the provision(s) under which approval of Commission is sought for deviation(s) from the Guidelines for Renovation and Modernization / Life Extension Works of Coal based Thermal Power Stations.
10. In response to the above, the petitioner submitted that there is no provision(s) under the R&M Guidelines issued by CEA for seeking approval of this Commission on deviations from the provisions of guidelines. He further submitted that vide letter dated 25.10.2021, MPPGCL had approached the CEA for approval of aforesaid deviations from the guidelines for R&M/LE works. However, vide letter dated 18.11.2021, CEA conveyed that it has no objection to carry out R&M works by MPPGCL through Swiss Challenge Mode, if concerned Electricity Regulatory Commission accords its approval to MPPGCL regarding the same.
11. In view of the above, the Commission observed that CEA Guidelines do not have any provision for approval of the Commission for deviations from Guidelines for R&M/LE works in thermal power stations. Further, regarding Additional Capitalization on account of Renovation and Modernisation, Regulation 29 of the MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2020 provides as under:

29. Additional Capitalization on account of Renovation and Modernisation:

29.1 The generating company, intending to undertake renovation and modernization (R&M) of the generating station or unit thereof for the purpose of extension of life beyond the originally recognised useful life for the purpose of tariff, shall file a petition before the Commission for approval of the proposal with a Detailed Project Report giving complete scope, justification, cost-benefit analysis, estimated life extension from a reference date, financial package, phasing of expenditure, schedule of completion, reference price level, estimated completion cost including foreign exchange component, if any, and any other information considered to be relevant by the generating company:

Provided that the generating company making the applications for R&M will not be eligible for Special allowance under Regulation 30 of these Regulations:

Provided further that, the generating company intending to undertake R&M shall be required to obtain the consent of the beneficiaries for such R&M and submit the same along with the petition.

29.2 *Where the generating company makes an application for approval of its proposal for renovation and modernization, the approval may be granted after due consideration of reasonableness of the proposed cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost-benefit analysis, expected duration of life extension, consent of the beneficiaries, if obtained, and such other factors as may be considered relevant by the Commission.*

29.3 *After completion of R&M, the generating company shall file a petition for determination of tariff. Expenditure incurred or projected to be incurred and admitted by the Commission after prudence check, and after deducting the accumulated depreciation already recovered from the admitted project cost, shall form the basis for determination of tariff.*

12. In view of the above, the Commission noted that prayer made by petitioner is beyond provisions of Tariff Regulations hence, can't be considered. However, the petitioner may approach the Commission for approval of R&M proposal with Detailed Project Report (DPR) for Renovation and Modernization works for SGTPS Birsingpur (Unit No. 1, 2, 3 & 4) in accordance to the Regulation 29 of the MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2020. The Commission shall examine the Renovation and Modernization proposal at that time in light of the provisions under applicable Regulations.

With the aforesaid observations, the subject petition is found not admissible. Hence, disposed of.

(Gopal Srivastava)
Member (Law)

(Mukul Dhariwal)
Member

(S.P.S. Parihar)
Chairman