

**PUNJAB STATE ELECTRICITY REGULATORY COMMISSION**

**SITE NO. 3, BLOCK B, SECTOR 18-A MADHYA MARG, CHANDIGARH**

Review Petition No. 05 of 2023  
in Petition No. 74 of 2022  
Date of Order: 11.04.2025

Review Petition under Regulation 64 of the Punjab State Electricity Regulatory Commission (Conduct of Business) Regulations, 2005 read with Section 181 of the Electricity Act, 2003.

AND

In the matter of: HPCL Mittal Energy Limited (HMEL) through its Special Power of Attorney/Authorized Signatory Sh. Mahesh Kumar BhagwandasGohil, aged 60 Years S/o Sh. VithalGohil, Vice President Petrochemcials, Guru Gobind Singh Refinery, Village Phulokhari, Tehsil Talwandi Sabo, District Bathinda.

....Review  
Petitioner

Versus

Punjab State Power Corporation Limited through its Chief Engineer/ARR &TR, PSEB Head office, The Mall Patiala.

....Respondent

Commission: Sh. ViswajeetKhanna, Chairperson  
Sh. Paramjeet Singh, Member

Petitioner: Sh. Ishan Gupta, Advocate (through VC)

PSPCL: Sh. Anand K Ganesan, Advocate, (through VC)

PSTCL: Sh. Saurabh Gupta, Sr.Xen/EA&S

**ORDER**

1. HPCL-Mittal Energy Limited (HMEL) has filed the present Review petition to review the Order dated 15.05.2023 in Petition No. 74 of 2022 filed by PSPCL for True up of FY 2021-22, Annual Performance Review for FY 2022-23 and approval of Aggregate Revenue Requirement for the control period from FY 2023-24 to FY 2025-26 and determination of Tariff for FY 2023-24.

The Review Petitioner has prayed for directions to PSPCL to calculate/workout the cost of supply at 400 KV voltage and and notify the voltage rebate for supply at 400 KV voltage.

2. The Review Petitioner has set up Guru Gobind Singh Polymer Addition Project at Guru Gobind Singh Refinery-Bathinda and applied for power connection at 400 kV supply voltage. The infrastructure cost was borne by the petitioner and the supply voltage at 400 KV was approved and finally released on 30.03.2022. In Petition No. 45 of 2020 filed by PSPCL before the Commission inter-alia seeking determination of tariff for FY 2021-22, the Review Petitioner had filed objections dated 10.02.2021, for calculation of cost of supply at 400kV voltage and separate assessment of Voltage Rebate for Cost of Supply at 400kV. The Review Petitioner has submitted that no directions regarding calculation of cost of supply at 400kV voltage and separate assessment of Voltage Rebate for Cost of Supply at 400kV were passed by the Commission vide tariff order dated 28.05.2021. Similar objections were again raised by the Petitioner in Petition No. 68 of 2021 filed by PSPCL which were again not considered in the tariff order dated 31.03.2022. PSPCL, who in reply to the objections filed by the Petitioner in Petition No. 45 of 2020 had stated that calculation of cost of supply at 400kV voltage or separate assessment of voltage rebate for cost of supply at 400kV is the prerogative of the Commission, changed their version in Petition No. 68 of 2021 and stated that increase in the voltage rebate would reduce the revenue. The Review Petitioner again submitted objections dated 09.01.2023 in tariff Petition No. 74 of 2022 seeking direction to PSPCL for calculation of cost of supply at

400kV and grant Higher Voltage Rebate to the Review Petitioner. However, PSPCL reiterated that increasing voltage rebate will cause reduction in revenue, therefore, the legitimate cost as claimed in the petition by PSPCL may be allowed. Thereafter, the stand taken by PSPCL was objected to by the Review Petitioner vide representation dated 27.03.2023. However, the cost of supply at 400kV was not assessed by PSPCL and the objections raised by the Review Petitioner remained unaddressed in the order dated 15.05.2023 passed by the Commission in Petition No. 74 of 2022.

3. The Review Petitioner has contended that the principle enshrined in Section 61(g) of the Electricity Act provides that tariff shall progressively reflect the cost of supply of electricity and reduce cross subsidies by identifying the cost of supply to the consumer, Section 62 (3) allows the Commission to fix differential tariff based on consumer load factor, power factor, voltage, total consumption of electricity, geographical area, nature of supply etc. Similarly, the National Tariff Policy 2006 also visualized that tariffs be within 120% of the average cost of supply by the end of year 2010-11. The Tariff Policy 2016 (amended) notified by Govt. of India provides framework to balance availability of quality power and protecting interest of consumers through affordable electricity tariffs. In support of the contention that, since the cost of supply at 400kV is lower than 200kV, 132 kV and other users on account of the lower distribution losses at higher voltages and non utilization of the assets at lower voltages for supplying electricity to the consumers at higher voltages, therefore, the cost of supply should be calculated at 400kV voltage and Voltage Rebate for Cost of Supply at 400kV be assessed separately. The Petitioner



has relied upon the decision of the Hon'ble Supreme Court in Punjab State Power Corporation Limited vs. Punjab State Electricity Regulatory Commission 2015, the Hon'ble Orissa High Court in M/s Ferro Alloys Corporation Ltd. v. State of Orissa dated 16.03.2010 and the Hon'ble APTEL in Kerala High Tension V. Kerala State Electricity 2013. Accordingly, the Review Petitioner has prayed for appropriate directions to PSPCL for calculation of cost of supply at 400kV voltage and notification of voltage rebate for supply at 400kV voltage.

4. The review petition was admitted on 13.09.2023 and vide order dated 14.09.2023, notice was issued to PSPCL directing it to file its reply. The Review Petitioner was directed to publish a public notice/sinviting suggestions/objections from the stakeholders. In compliance of the aforesaid order, the notice was published and PSPCL filed its reply vide memo no. 4412-TR-4/220 dated 20.10.2023. The petition was taken up for hearing as well as public hearing on 25.10.2023. However, nobody appeared from the public in the public hearing.
5. PSPCL challenged the maintainability of the review petition in its reply on the ground that the Review Petitioner has failed to point out any infirmity or error /mistake in the order dated 15.05.2023, which is a pre-requisite for review of any order under Order 47 Rule 1 of the CPC, 1908 read with Regulation 64 (1) of the PSERC (Conduct of Business) 2005. In this regard, PSPCL has relied upon judgments passed by Hon'ble Supreme Court in Parsion Devi vs. Sumitri Devi (1997), Lily Thomas vs. Union of India (2000), Kamlesh Verma vs. Mayawati & Others (2013) and the decision by Hon'ble APTEL in Print Wizards & Ors. vs. Tata Power

Delhi Distribution Limited &Anr. (2019). PSPCL has further stated that Section 62(3) of the Electricity Act does not put a mandate on the Commission to determine cost of supply at each and every voltage level. Since the Review Petitioner is the sole consumer at 440kV voltage level, the asset mapping for the same is not available at present. PSPCL has also pointed out that as reflected in Para 13.2 of the order dated 15.05.2023, the Review Petitioner stands compensated by way of rebate of Rs. 30 paise per unit which is higher than that available at the lower voltage levels. However, if the rebate is calculated as per the varying voltage levels as claimed by the Review Petitioner, then other categories of consumers will be burdened with additional tariff cost to compensate the revenue loss, which would further disturb cross subsidy levels. Accordingly, PSPCL has prayed for dismissal of the review petition.

6. Vide order dated 29.10.2023, the Commission observed that in its reply PSPCL has also indicated that losses reduce on higher transmission capacities. However, the rebate being offered is the same for consumers getting supply at 400/220/132kV. The Commission, therefore, directed PSPCL to provide data based analysis of voltage wise cost of supply of different categories of consumers.
7. The Review Petitioner filed a rejoinder dated 20.11.2023 to the reply filed by PSPCL rebutting the plea of maintainability raised by PSPCL. The Review Petitioner has cited Regulation 64 of PSERC (Conduct of Business) Regulations, 2005 which provides for review of decision/directions/orders and Section 145 of the Electricity Act which bars the jurisdiction of the Civil Court and

stated that the provisions of CPC are not applicable to the procedure laid down under the Electricity Act, 2003. The Review Petitioner has also reiterated that since the objections filed by the Review Petitioner in Petition No. 74 of 2022 regarding calculation of cost of supply at 400kV remain undecided, therefore, the review petition is maintainable. The Review Petitioner has further stated that PSPCL has failed in its duty to provide data regarding the actual cost of supply at 400kV voltage and has rather calculated on an aggregate basis and has wrongly put the Review Petitioner in the bracket of 220kV/132 kV despite the supply being provided at 400kV, which is contrary to the objects and reasons of the Electricity Act, 2003.

8. The review petition was taken up for hearing on 31.01.2024. PSPCL was directed to deliberate the matter with PSTCL and submit its written reply along with the timelines in which data based analysis of voltage wise cost of supply of different categories of consumers could be calculated. PSPCL submitted memo no. 4104 dated 10.04.2024 stating that during the meeting with the officers of PSTCL on 22.02.2023, it was apprised that category wise and voltage wise cost of supply with a broad range from LT to 220kV was worked out as per methodology developed by The Energy and Resources Institute (TERI), as approved by the Commission vide order dated 10.04.2013 for FY 2013-14 and the same is being followed by PSPCL till date. PSPCL has also informed that it will make an attempt to check the feasibility regarding computation of voltage wise cost of supply on the basis of the voltage wise details of assets as per exemptions adopted in the methodology developed by TERI to be provided by



PSTCL and sought time for the same, which was allowed by the Commission vide order dated 16.04.2024. PSPCL filed its additional reply dated 08.05.2024 whereby it has submitted that since voltage wise asset mapping was not available with PSPCL and PSTCL, therefore, provisional voltage wise cost of supply based on assumptions regarding voltage wise allocation of assets and costs as per the TERI report has been submitted. However, the same may not represent the actual cost of supply. Data regarding allocation of demand related cost for FY 2024-25 and allocation of energy and consumer related cost for FY 2024-25 was also submitted.

9. The Commission, vide its order dated 17.05.2024, citing extract from its tariff order for FY 2023-24 observed that directives were issued to PSPCL to comply with Regulation 5 & 6 of the PSERC MYT Regulations 2022 and to submit the status of segregations of its accounts on actual basis and timelines to eventually assess the cost of supply on the basis of voltage. The Commission also pointed out glaring anomalies/variations in the data provided by PSPCL in Annexure E regarding the cost of supply for various consumers since the calculation of cost of supply did not follow the principle that cost of supply is inversely proportional to the voltage level. The data submitted by PSPCL in its ARR Petition No. 64 of 2023 vide letter dated 12.01.2024 for FY 2024-25 for calculating voltage wise cost of supply was at variance to the data submitted vide additional reply dated 08.05.2024 for FY 2024-25 with respect to generation and distribution cost, length of transmission & Distribution Lines (Circuit KM), total cost of lines, total cost of reactor/shunt capacitors, cost of sub-stations, cost of transformers,

no. of consumers, connected load and sales. The Commission, therefore, directed PSPCL to re-check the same. In compliance of order dated 17.05.2024, PSPCL submitted its reply vide memo no. 4327/28 dated 28.06.2024 stating that separate cost records for distribution and generation are maintained as per MYT Regulations and since actual voltage wise cost of supply was not available, therefore, the same has been computed on the basis of certain assumptions as per the TERI report. As regards the variance in data, submitted in ARR Petition No. 64 of 2023 and the data submitted on 08.05.2024, PSPCL has replied that the generation and distribution cost has been taken as per the final ARR value after incorporating all deficiencies raised by the Commission and submitted in the final presentation on 14.03.2024. The length of transmission and distribution lines, total cost of lines, reactor/shunt capacitors, substations, transformers and no. of consumers, connected load and sales have also been revised as per the latest available data, after discussion with PSTCL.

10. During the hearing on 10.07.2024, the Ld. Counsel for Review Petitioner contended that while calculating voltage wise cost of supply, PSPCL had taken transmission losses for 400kV line as 2.4% whereas as per Regulation 12 of the Central Electricity Regulatory Commission (Rates, Charges and Terms and Conditions for use of intervening Transmission Facilities) Regulations 2010, the same should be 0.5% for 400kV line length of every 50KM used and sought time to submit its written submission in this regard. The Review Petitioner filed its written submissions dated 18.07.2024 whereby the mandatory nature of Regulation 12 of CERC Regulations 2010 was re-emphasized.



The Review Petitioner has also stated that actual losses of transmission at supply line of 400kV can be calculated from the data available in the form of Data Download (DDL) files from the sub-stations where the power is injected and from the premises of the Review Petitioner where the power is received as both the places are equipped with smart meters with real time data, which the Review Petitioner claimed would be much lower than 0.5% as the distance between the two places is approximately 20Kms. The Review Petitioner has also suggested that SLDC may be involved in the determination of the energy losses in the transmission system. PSPCL filed its reply to the aforesaid written submissions dated 18.07.2024 filed by the Review Petitioner vide memo no. 4525 dated 20.08.2024, stating that the CERC Intervening Transmission Facilities Regulations, 2010 have been framed under Section 35 & 36 of the Electricity Act which specifically deals with transmission lines which are to be used by another licensee for transmission of power through LTOA, MTOA or STOA, where the contracting parties have failed to agree on rate for the usage of such lines, however, the said Regulations are not applicable in the present case as the Review Petitioner is a consumer of PSPCL and not a licensee. PSPCL has further stated that loss figure of 2.4% is based on the approved transmission loss for PSTCL as per tariff order dated 15.05.2023 and the determination/calculation of the energy loss in the transmission system falls in the ambit of the State Transmission Utility. PSTCL vide memo no. 741 dated 25.09.2024 filed its reply to the Review Petition stating that overall transmission losses of PSTCL network (400kV/220kV/132kV) were being calculated and submitted to the Commission by PSTCL on monthly basis as per Regulation No. 53.1 of PSERC MYT

Regulations, 2022. Further, the Commission under directive no. 6.1 of PSERC tariff order for MYT Control Period from FY 2017-18 to FY 2019-20 for PSTCL had directed PSTCL to examine voltage wise transmission losses at 400kV/220kV/132kV to which it had replied that the same were not measurable as additional meters were yet to be procured and installed at the interface of 220kV network with 400kV and 132kV system. Similar directives including proper installation of ABT meters on boundaries of different voltage levels were issued by the Commission vide tariff order dated 19.04.2018, to which PSTCL had replied that voltage wise transmission losses of Punjab transmission network could be calculated after completion/implementation of SAMAST scheme. PSTCL has also apprised that meter installation at all the boundary points of PSTCL network have been completed in the month of April 2024 under the SAMAST scheme and voltage wise transmission losses can be calculated, once the methodology for calculation of the same is decided by the Commission.

11. The Review Petitioner filed its rejoinder dated 25.11.2024 to reply filed by PSTCL reiterating its earlier written submissions dated 18.07.2024, requesting the Commission to direct PSPCL as well as PSTCL that in addition to calculation of transmission losses at 400kV voltage, they should also indicate the percentage of total power at 400kV being fed to 400kV consumers, the percentage of total power at 400kV used for stepping down voltage to provide power to lower voltage consumers starting from 220kV and below and also to apportion voltage wise cost of equipment and facilities. The Review Petitioner has also stated that PSTCL has not considered the aspect that Regulation 12 of CERC Regulations,

2010 provides for transmission losses of 400kV line not to be more than 0.5% for 50Km line length and has also not provided any comments on the duty of SLDC to determine the energy loss in the transmission system. Vide order dated 29.11.2024, PSTCL was directed to file its reply to the aforesaid issues raised by the Review Petitioner, PSTCL filed its rejoinder dated 20.01.2025 to the objections filed by the Review Petitioner whereby it was submitted that the CERC Intervening Transmission Facilities Regulations 2010 are applicable only in case of licensees who are incidental to Inter-State Transmission Network and connected through a contracted path where injection and drawl points are well defined in the agreement, whereas the Review Petitioner is a consumer of PSPCL and has an agreement with PSPCL for supply of power through its connection to the intra-state sub-station i.e. 400kV sub-station BehmanJassa which is further connected to 400kV Talwandi Sabo Thermal Plant and 400kV S/S PGCIL Moga. PSTCL has reiterated that the SAMAST scheme being complete, it is in a position to calculate voltage wise losses, once the methodology for the same is finalized by the Commission. PSTCL has also provided details in respect of energy received/injected through 400kV PSTCL/PGCIL sub-stations and energy transfer to 400kV consumer (the Review Petitioner i.e. HMEL being the only consumer connected at 400kV network) alongwith energy transferred to 220kV network from April 2024 to Sept. 2024 (H1). Thereafter, the Review Petitioner filed its reply dated 21.01.2025 to the rejoinder filed by PSTCL highlighting that while in Form T33 (losses in transmission system) in the petition for ARR and tariff determination for FY 2025-26 and true up for FY 2023-24 submitted by PSTCL it was stated that the transmission losses



were not being calculated voltage wise, however, in Form T34 PSTCL had submitted voltage wise system losses for FY 2023-24 and for April to June for FY 2024-25, reflecting that the distribution licensee was well equipped with all the data required for calculation of cost of supply at 400kV as well as transmission losses at 400kV voltage. The Review Petitioner has also claimed that the percentage loss at 400kV system on the basis of documents T33 and T34 comes to 0.27%.

12. PSTCL filed memo no. 15 dated 20.01.2025 regarding finalization of methodology to be followed by SLDC for voltage wise loss calculations under SAMAST. While intimating the process adopted for calculating overall transmission losses, it has submitted the scenario/process required to be followed for calculation of voltage wise losses and requested the Commission to issue appropriate direction/s for incorporating one of the alternatives in the methodology for voltage wise calculation as given below:

- A) SLDC may consider Transformation losses of 400/220kV, 220/66, 132/66kV, 220/132kV, 132/33kV and 132/11kV transformer to the LV side network i.e. 220, 132, 66, 33 and 11kV respectively. The transformation losses of 220/66, 132/66kV, 132/33kV and 132/11kV transformers may be calculated by SLDC separately and PSPCL may consider these losses while formulating any policy on the basis of voltage-wise losses for 66kV and below network OR
- B) Alternatively, SLDC may restrict calculations of transmission losses up to 132 kV transmission system in overall and voltage wise losses (400, 220 and 132 kV) of PSTCL network considering HV side of transformer as main meter and

PSPCL may calculate transformation losses of 220/66, 132/66kV, 132/33kV and 132/11kV transformers of PSTCL substations and consider these losses in respect of sub-transmission and distribution network.

13. PSTCL filed a rejoinder dated 14.02.2025 to the reply dated 21.01.2025 filed by the Review Petitioner stating that losses mentioned in T34 form of ARR and tariff determination for FY 2025-26 and true up for FY 2023-24 were not actual and were calculated from Power System Simulation Engineering Software (PSSE) and the values of losses computed by PSSE software were under ideal conditions in which the outage of transmission elements, weather conditions, voltage variations were not considered. The Review Petitioner also filed its reply dated 27.02.2025 for directions for finalization of methodology to be followed by SLDC for voltage wise loss calculation under SAMAST scheme and has requested the Commission to take note of the scenario mentioned by PSTCL in its memo dated 20.01.2025 for calculation of voltage wise losses for 400kV as the Review Petitioner is drawing power at 400kV voltage supply. After hearing the parties on 28.02.2025, Order was reserved.

### **Analysis and Decision of the Commission**

The Commission has examined the Review Petition, the reply filed by PSPCL and PSTCL and rejoinder thereto by the Review Petitioner as well as the other documents adduced on the record by the parties. The Commission in the Tariff Orders for FY 2019-20 to FY 2025-26 has observed as under:

*“The Hon’ble APTEL vide its judgment dated 17.12.2014 in Appeal No. 142 of 2013 and 168 of 2013 has directed the Commission to*

*show the cross-subsidy for each category of consumer with respect to voltage wise Cost of Supply (CoS) in the Tariff Orders. In compliance, the cross-subsidy level for each category of consumer with respect to voltage wise cost of supply is shown in Annexure-IV of this Tariff Order. Since, PSPCL is an integrated utility carrying out the businesses of a Generating company as well as a distribution licensee, segregation of its accounts on actual basis is required for the Generation and Distribution businesses, Retail and Supply businesses and finally based on voltage parameters to enable determination of voltage-wise CoS. So far, PSPCL has not been able to submit the segregated accounts on actual basis for its Generation and Distribution businesses and is submitting the same on the basis of allocation only. Thus, voltage-wise/category-wise CoS worked out on the basis of estimated/allocated data supplied by PSPCL may not depict the actual cost of supply. However, in order to move in the direction of tariff based on CoS, the Commission has been allowing indicative rebates in the Tariff to various categories of consumers getting supply at higher voltages as mentioned in Condition 13.2 of the General Conditions of Tariff.”*

Further, in view of the current petition, the Commission in the Tariff Order for FY 2024-25 has also observed as under:

*“Further, also, PSPCL in the Review Petition 05 of 2023 of Petition No. 74 of 2022 has submitted the Voltage wise Cost of Supply (VCoS) including VCoS at 400 kV. However, it has been observed that the data so supplied is in variance to that submitted in the ARR Petition. The VCoS in both the submissions worked out by PSPCL is different and based on assumptions only. It is further*



*observed that cost of supply for certain consumer categories at lower voltage is coming out to be lower than cost at higher voltage. PSPCL is hereby directed to conduct a fresh and proper study of voltage wise cost and asset distribution and accordingly, submit the actual voltage wise cost of supply along with next ARR petition.”*

The Commission has been consistently directing PSPCL to conduct a fresh and proper study of voltage wise asset distribution & voltage wise cost of supply and submit the report along with actual voltage wise cost of supply. The Commission is constrained to observe, however, that PSPCL has failed to submit the same. In the Tariff Order of FY 2025-26 also, PSPCL has not complied with the directions of the Commission in this regard. The Commission in the Tariff Order for FY 2025-26 has reiterated its earlier directions to conduct a fresh and proper study of voltage wise cost of supply and asset distribution and accordingly, submit the actual voltage wise cost of supply within four months of the issuance of the Tariff Order. It may be noted that these directions become of paramount importance as only VCoS provides an analysis of costs at individual voltage levels. The estimation of losses at various voltage levels requires proper metering infrastructure and system flow studies. Therefore, it is felt that a detailed study is required to assess the methodology for allocation of assets and costs over the different voltage levels of distribution. PSPCL should also study the detailed practices/methodology being adopted by the CERC which has already decided VCoS parameters as also other States in the Country regarding allocation of assets and voltage wise losses required to compute voltage-wise/category-wise Cost of Supply (VCoS). PSPCL shall submit this report alongwith voltage wise tariff of other States & CERC. If need

be, PSPCL may involve PSTCL and also refer to international best practices to come up with a standardize methodology for reckoning accurate voltage wise cost of supply. The plea of PSTCL to the Commission to approve a methodology for conducting the study and calculating the VCoS is not acceptable. The Commission observes that the methodology to be adopted has to be internally decided by PSTCL/SLDC and PSPCL. The Commission only observes and directs that the methodology should be logical and reasonable and consider all relevant aspects of the issue.

The Commission is of the considered view that in the absence of factual/analytical data, the VCOS worked out by the Commission on the basis of estimated/allocated data supplied by PSPCL does not truly depict the actual cost of supply. However, as an interim relief/ measure the Commission has been allowing indicative rebates in the Tariff Orders to various categories of consumers getting supply at higher voltages including at 400 kV as mentioned in Condition 13.2 of the General Conditions of Tariff.

In view of the above, the Commission once again directs and reiterates the directions already given in the Tariff Order for FY 2025-26 as also the earlier Tariff Orders, **to conduct a fresh and proper study of voltage wise cost and asset distribution and submit the actual voltage wise cost of supply within four months of the issuance of the Tariff Order of FY 2025-26. The present petitioner and other stakeholders may also be intimated through public notice to give their suggestions and fact based representation in the conduct of this study. Further, PSTCL is also directed to figure out the actual voltage wise losses and simultaneously work in tandem with PSPCL to finalize the correct/actual voltage wise cost of supply to**

be submitted to the Commission for consideration and approval. PSPCL and PSTCL should strictly comply with the above directions of the Commission. Any delay shall invite action under Section 142 of the Electricity Act, 2003. The progress of the study should be intimated to the Commission by the end of July 2025.

The petition is disposed of accordingly.

**Sd/-**

(Paramjeet Singh)  
Member

**Sd/-**

(Viswajeet Khanna)  
Chairperson

Chandigarh  
Dated: 11.04.2025

