



**KARNATAKA POWER TRANSMISSION CORPORATION LTD.,**  
Corporate Identity Number (CIN): U40109KA1999SGC025521

Corporate Office,  
Kaveri Bhavan,  
Bengaluru -560 009.

Dated: 29 FEB 2024

**Sub:** Elimination of Loss Capitalization of Power Transformers/Reactors during evaluation of tenders and to retain the Penalization clause, Penalization cost and Rejection of Power Transformers/Reactors as per CEA guidelines.

- Ref:**
1. Corporate Order No.KPTCL/B25/4809/2005-06 dated:02.02.2006.
  2. Corporate Order No.KPTCL/B25/4809/2005-06 dated:10.02.2015 .
  3. E.O. Note No.90793 of CEE(P&C), KPTCL, Kaveri Bhavan, Bengaluru approved by the Director Transmission, KPTCL on 14.12.2023.
  4. Draft Order approved by the Managing Director, KPTCL on 23.02.2024.

**Preamble:**

The Power Transformer losses vary from manufacturer to manufacturer based on their design. In order to bring the quoted rates to a common platform, the quoted minimum losses are taken as the base value and losses above these base values are being capitalized during evaluation. The same rates are being adopted for levy of penalty for Power Transformer losses measured during routine test exceeding the guaranteed losses.

Corporate Order under reference (1) was issued in the subject matter wherein the rates were adopted for capitalization of losses of Power Transformers during tender evaluation and levy of penalty. Further, as per Central Board of Irrigation and Power (CBIP) guidelines the Capitalization Rates have been revised vide Corporate Order under reference(2) and the capitalization cost reckoned for evaluation or for levy of penalty was at following rates.

Capitalized Cost of No Load Losses per kW	: Rs.4,53,000/-
Capitalized Cost of Load Losses per kW	: Rs.1,85,000/-
Capitalized Cost of Auxiliary Losses per kW	: Rs.1,81,000/-

Now, Central Electricity Authority has issued guidelines during April 2021 on "Standard Specification and Technical parameters for Transformers & Reactors" by standardizing the ratings and by bringing uniformity in the design by fixing major technical parameters including maximum permissible losses, eliminating the need for capitalization of losses etc.

As per CEA guidelines, the Maximum permissible losses (i.e, No-Load loss,  $I^2R$  loss, Auxiliary loss and Load loss) at rated voltage/current (at 75 deg C) have been considered in Technical Specification for various ratings of Power Transformers and Reactors.

Further, penalties shall be levied on the manufacturer/contractor (as the case may be) if losses measured during routine test are found to be within +2% tolerance of the guaranteed losses quoted in the tender, beyond which the Power Transformer/Reactor shall be liable for rejection. No benefit shall be given for supply of Power Transformer/Reactor with "losses (measured during routine tests) less than the losses specified in Technical particulars/parameters" is also considered in the Technical Specification of KPTCL.

In the meeting held on 06.11.2023 and 07.12.2023 regarding Power Transformer / Reactor Loss Capitalization and Penalization, it was appraised that for evaluation of tenders the guaranteed lowest values of the losses quoted by the bidders was taken as the basis and that quoted by other bidders is computed to arrive at the differential price to be applied for each of the bid. However, penalty was being levied to the extent of which the individual losses exceeded over and above the individual guaranteed losses quoted by the bidder and the Power Transformers would be rejected, if the measured losses towards No load loss and the Load loss put together exceeds 10% of the total guaranteed losses.

After detailed discussions, it was decided that the Loss Capitalization shall be eliminated for evaluation of Tenders and clauses pertaining to penalization, penalization cost and rejection of Power Transformer / Reactor as per CEA guidelines shall be retained.

Hence the following Order,

**No:KPTCL/B25/4809/05-06**  
**E.O.No.90793**

**Dated: 29 FEB 2024**

Approval is hereby accorded to incorporate the following by all tender (Procurement / Works) inviting authorities of KPTCL with immediate effect in future tenders:-

1. Loss Capitalization of Power Transformers / Reactors shall be eliminated for evaluation of tenders (Procurement / Works Tenders).
2. The following penalties shall be levied on the manufacturer/contractor/bidder (as the case may be) if losses measured during routine test are found to be within +2% tolerance of the guaranteed losses declared by the manufacturer/contractor/bidder (as the case may be), beyond which the Power Transformer/Reactor shall be liable for rejection. No benefit shall be given for supply of Power Transformer/Reactor, with losses (measured during routine tests) less than the guaranteed losses declared by the manufacturer/contractor/bidder (as the case may be).

Sl. No	Differential of specified losses Vs Measured losses	Rate (in INR per KW)
1	No Load Loss	Rs. 10,00,000/KW
2	IR losses/Load Losses (Differential of whichever loss is higher shall be considered for penalty)	Rs. 8,00,000/KW
3	Auxiliary Losses	Rs. 8,00,000/KW

Note: For a fraction of a KW, the penalty shall be applied on pro-rata basis.

The above instructions shall be followed scrupulously. All other terms and conditions hitherto being followed shall remain unaltered.

This Circular supersedes all previous Circulars/Orders/Guidelines issued regarding Loss Capitalization of Power Transformers/Reactors.

  
**General Manager (Tech)**  
**KPTCL**

Copy to:

1. All Chief Engineers, Electricity, KPTCL.

2. All Financial Advisors, KPTCL.
3. All Superintending Engineers, Elecl., KPTCL.
4. All Controllers of Accounts, KPTCL.
5. All Executive Engineers, Ele., KPTCL.
6. All Deputy Controllers of Accounts, KPTCL.

Copy for information to:

1. SPS to MD/DT/DF/D(A&HR), KPTCL, Kaveri Bhavan, Bengaluru.
- ✓ 2. The Superintending Engineer (Ele), IT, with a request to arrange to upload in KPTCL website.