

## BIHAR STATE POWER TRANSMISSION COMPANY LTD., PATNA

Regd. Office- Head Office, Vidyut Bhawan, Bailey Road, Patna – 21 CIN – U74110BR2012SGC018889

<u>CIN – U74110BR2012SGC018889</u>			
E-mail -operation.maint@bsptcl.bihar.gov.in	Web: www.bsptcl.in		
Letter No/ Patna CE/Trans. (O&M)/Misc-50-2024	Dated/		
From, Rambaboo Singh, Chief Engineer (O&M)  To,  1. General Manager-cum-Chief Engineer, Transmission Zone Patna/Gaya/Bhagalpur/Koshi/Mu  2. Electrical Superintending Engineer, Transmission Circle, Patna (East)/Patna (West)/Bhojp Bhagalpur/Begusarai/Purnea/Darbhanga/Koshi (Madi Motihari/Saran (Chapra).	our/Gaya/Dehri-on-Sone/Biharsharif/		
Sub: Policy regarding declaration of defective transformer Ref: U.O.I. No. 34, dated 09.05.2025 Sir,	as repairable/ unserviceable.		
With reference to above, it is to inform that Board of Directive on 07.05.2025 vide its Resolution No. 129-05 has acc declaration of defective transformer as repairable/ unserviready reference.  This is for your kind information and needful action.	orded its approval on Policy regarding		
Encl:- As above	Yours' faithfully,		
<b>Memo No</b> / Copy forwarded to CE(CRITL) / CE(SO) / CE(Commur CE(P-II) / CE(Civil) / CE(Training & ERP) / CE(STF) for kind in			
	6.1/		

Sd/-

(Rambaboo Singh)

Chief Engineer, Trans. (O&M)

Memo No ... 220 /

Dated. 23:5,25

Copy forwarded to GM (HR & Adm.) / DBA (IT), BSPTCL Patna for uploading policy and agenda notes on BSPTCL website.

(Rambaboo Singh)

23.05.2025

Chief Engineer, Trans. (O&M)



# BIHAR STATE POWER TRANSMISSION CO. LTD., PATNA.

(Regd. office: Vidyut Bhawan, 4th floor, Bailey Road, Patna-21)

Agenda No ./29-05 /2025

Sub:- Agenda note for policy regarding declaration of defective transformer as repairable/unserviceable.

1. A large number of defective transformers of different ratings (315 kVA, 630 kVA, 10 MVA, 12.5 MVA, 20 MVA, 50 MVA, 100MVA and 150 MVA) are lying in various GSSs as tabulated below for disposal as unserviceable or repairable. The list is placed at **Annexure-I.** 

List of Defective Transformer under BSPTCL							
	315 kVA	630 kVA	10/12.5/15 MVA	20 MVA	50 MVA	100 MVA	150 MVA
No. of Defective	17	01	17	20	1.5	0.1	0.1
Transformers	17	01	17	39	15	01	01
Total-91							

- **2.** These defective transformers have been declared defective on the basis of test results of Transformer by CRITL/OEM.
- 3. Defective transformers need to be either declared unserviceable or suitable for repair on case to case basis.
- 4. BSPTCL has approved policy for declaration of defective transformers as scrap which have aged more than 35 years. The office order is placed at **Annexure-II**.
- 5. Similarly, policy is needed for declaring transformers as serviceable/unserviceable for defective cases ageing less than/up to 35 years.
- **6.** Necessity of Disposal:
  - a) Deterioration of asset value.
  - b) Additional burden in security of the asset.
  - c) Occupying space in switchyard.
  - d) Chances of theft.
  - e) Early revenue realization on deteriorated asset.
- 7. On the basis of age of transformers, these defective transformers may be categorized into the following manner either to declare them as unserviceable or repairable:
  - Category-1: Transformer aged less than 20 years.
  - Category-2: Transformer aged between 20 to 35 years.



# 8. Category-I: Transformer aged less than 20 years:

Rating	ating Status	
		committee
<ul> <li>315 kVA &amp; 630 kVA of 33/0.4 kV</li> <li>50 MVA, 80 MVA and above rating of 132/33kV and</li> <li>150 MVA, 160 MVA, 200 MVA and above rating of 220/132kV transformer rating</li> </ul>	<ul> <li>Running transformer became defective and no any history of repair.</li> <li>Running transformer became defective and repaired once or more time at site.</li> <li>Running transformer became defective and repaired once at factory workshop.</li> </ul>	Transformers of these ratings will be considered for repairing at site or factory workshop only if cost estimate for repair after internal inspection of the transformer at site by any competent agency is less than 60% of cost (SOR rate) of new transformer of same rating at the time of repair.  Otherwise, transformer may be
		declared unserviceable.
<ul> <li>20MVA of 132/33kV and</li> <li>100 MVA of 220/132kV transformer rating</li> </ul>	<ul> <li>Running transformer became defective and no any history of repair at factory workshop.</li> <li>Running transformer became defective and repaired once or more time at site.</li> </ul>	Transformers of these ratings will be considered for repairing at site only if the cost estimate for repair after internal inspection of the transformer at site by any competent agency is less than 50% of cost (SOR rate) of new transformer of same rating at the time of repair.  Otherwise, transformer may be declared unserviceable.

- The completely burnt transformers of any Y.O.M. and whose testing and repair does not seem feasible may be declared as scrap on the recommendation of Zonal Disposal Committee as per guideline of CEA (Central Electricity Authority).
- 9. Category-II: Transformer aged between 20 to 35 years:

Rating	Status	Recommendation of committee
• 50MVA & 80MVA of	• Running transformer became	Transformers of these ratings will
132/33KV and	defective and no any history	be considered for repairing at
• 150MVA, 160MVA &	of repair at factory workshop.	site or factory workshop only if
200MVA of 220/132KV	• Running transformer became	cost estimate for repair after
transformer rating	defective and repaired once	internal inspection of the
	or more time at site.	transformer at site by any
		competent agency is less than
		50% of cost (SOR rate) of new
		transformer of same rating at the
		time of repair.
		Otherwise, transformer may be
		declared unserviceable.



Rating	Status	Recommendation of committee	
• 20MVA of 132/33KV and	• Running transformer became	Transformers of these ratings will	
100MVA of 220/132KV	defective and no any history	be considered for repairing at	
transformer rating	of repair at factory workshop.	site only if The cost estimate for	
	• Running transformer became	repair after internal inspection of	
	defective and repaired once	the transformer at site by any	
	or more time at site.	competent agency is less than	
		50% of cost (SOR rate) of new	
		transformer of same rating at the	
		time of repair.	
		Otherwise, transformer may be	
		declared unserviceable.	
• 10/12.5/15MVA of	• Running transformer became	Above transformer rating will be	
132/33KV transformer	defective	considered for scrap policy.	
rating			

- The completely burnt transformers of any Y.O.M. and whose testing and repair does not seem feasible may be declared as scrap on the recommendation of zonal disposal committee as per guideline of CEA (Central Electricity Authority).
- 10. To declare a defective transformer repairable, all criteria under each category as applicable, must be fulfilled.
- 11. In case of not fulfilling any one or more criteria under applicable category, transformer will be declared unserviceable.
- 12. Decision regarding serviceable/ unserviceable will be taken by the committee of following officers along with GM-cum-CE/ Concerned Transmission zone as chairperson: -
- Concerned ESE / Transmission Circle,
- Concerned ESE /CRITL and in case of unavailability of ESE/CRITL, an officer nominated by CE /CRITL not below the rank of EEE/CRITL.
- Concerned EEE / Transmission Division.
- Concerned EEE / T&C Division and
- Concerned Account officer / Transmission circle
- **Note-** Committee will decide the repairing cost of defective transformer with the help of OEM or any other repairer/manufacturer of power transformer at BSPTCL site. Necessary expenditure towards repair cost estimation of the defective transformer by OEM/repairer/manufacturer will be arranged by concerned Circle.
- 13. This policy will be applicable for all transformers getting defective in future, also till new policy is adopted/amended.

#### **14.** Procedure

- Transformer repair/scrap committee has to be formed in every transmission zone as mentioned in S. No. 12.
- List of unserviceable/defective/burnt transformer to be submitted by AEE/EEE/ESE to concerned zone Transformer repair/scrap committee regularly on monthly basis.
- Matter will be further taken up by concerned Transformer repair/scrap Committee.



- Committee will decide the repairing cost of defective transformer with the help of OEM or any other repairer/manufacturer of power transformer at BSPTCL site. If needed, inspection by repairer will be done at site by concerned circle for repair cost estimation.
- After evaluation of repairing cost, committee will declare the defective transformer as repairable or scrap as per above manner mentioned in S. No. 7 to 9.
- After declaration for scrap, transformer will be disposed as per policy adopted for scrap disposal by BoD of BSPTCL vide UOI no. 28 dated 09.08.2021.
- After declaration for repairable, transformer will be repaired either through OEM or through inviting e-tender.

In a view of the above facts, the matter is put-up for detailed deliberation & according approval of proposal for adopting the policy regarding declaration of defective transformer as repairable/unserviceable.

(Rambaboo Singh)
Chief Engineer (O&M)

(Kriti Kiran) Company Secretary



# BIHAR STATE POWER TRANSMISSION COMPANY LIMITED

(A Wholly Owned Subsidiary of Bihar State Power (Holding) Company Limited)
Registered Office: Vidyut Bhawan, Bailey Road, Patna-800021
(CIN: U74110BR2012SGC018889)

U.O.I. No. 34 BSPTCL/CS/2025-26/148 Patna, Dated: 09th May, 2025

SUBJECT: POLICY REGARDING DECLARATION OF DEFECTIVE TRANSFORMER AS REPAIRABLE/ UNSERVICEABLE:

The Board of Directors of Bihar State Power Transmission Co. Ltd. in its 129<sup>th</sup> Meeting held on 07.05.2025 vide its Resolution No. 129-05 took following decision:

"RESOLVED THAT Board of Directors of the company be and is hereby accord its approval on proposal for adopting the policy regarding declaration of defective transformer as repairable/unserviceable."

"FURTHER RESOLVED THAT paragraph number 01 given in the agenda notes containing details of unserviceable transformers shall not form part of the Policy, hence stands omitted from the proposal."

### Distribution to:

CE (O & M), BSPTCL for information and issuance of needful executive order.

for and on behalf of Board of Directors of Bihar State Power Transmission Company Limited

Company Secretary