

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED

Sub: Standardization of Metering CT ratios and secondary burdens of metering CTs and PTs — to adopt 0.2S class metering CTs instead of 0.2 class as being followed now -Orders Issued.

TOO (CE-Construction-2) Ms. No. 488

Date: 17/03/2012

1. During KPI meeting held on 29-11-2011 it was instructed to ensure the following while approving the metering CT's and PT's for EHT services.

“The available CT ratio should be as nearer to the full load current as possible corresponding to Contracted MD. The burden should be specified such that the burden connected on secondary side is at least 25% of the rated burden. Incorporating protection cores is to be avoided in the CT's meant for metering.”

2. The above subject was further discussed with the manufacturers and after examining the issue, APTRANSCO is hereby ordered to adopt the following to have high accuracy metering system for the Bulk loads and Generators.
3. The following are to be adopted for all future Bulk load and generator metering and also for the ongoing cases where the drawing approvals are not accorded so far.
 - a) To adopt 0.2S class CTs for metering.
 - b) To adopt rated secondary burden of 5 VA and 10 VA for metering CTs and PTs respectively.
 - c) To standardize the following CT ratios for the CMD range indicated below:

132kV EHT services:

Sl. No	Contractual Maximum Demand	132kV CT ratio in Amps
a)	up to 30 MVA	150/1, 0.2 S class
b)	Above 30 MVA and up to 55 MVA	300/1, 0.2 S class

220kV EHT services:

Sl. No	Contractual Maximum Demand	220kV CT ratio
a)	up to 65 MVA	200/1, 0.2 S class
b)	Above 65 MVA and up to 135MVA	400/1, 0.2 S class
c)	Above 135 MVA and up to 200MVA	600/1, 0.2 S class

In case of generators /CPPs and co-generation plants the maximum capacity of generation may be taken in to consideration instead of their CMDs, for deciding metering CT ratios. In case of generators /CPPs and co-generation plants the metering shall be provided at APTRANSCO Sub-station / switching station end. In case of DC lines where single

metering provided with summation CTs, the CT ratio for each feeder will be chosen to suit the CMD.

- d) To specify ISF rating of less than 10 for metering CTs.
- e) To consider Type tests conducted on 0.2 class CTs even for 0.2 S class CTs, as metering CTs class of accuracy is being ascertained at 3rd party NABL accredited laboratories.

4. These orders are issued as per the approval of the Chairman and Managing Director vide No. 747 dated 07/03/2012.

5. These orders are also available on APTRANSCO website and can be accessed at the address <http://www.aptransco.gov.in>.

**BY ORDER AND IN THE NAME
OF
TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED**

**B. UMAKAR RAO
DIRECTOR/ PROJECTS**

// FORWARDED BY ORDER //


ASST. DIVISIONAL ENGINEER

To:

The Executive Director/Planning, RAC & Reforms, Vidyut Soudha/Hyderabad
The Chief Engineer/Construction-I/Vidyut Soudha/Hyderabad.
The Chief Engineer/Construction-II/Vidyut Soudha/Hyderabad.
The Chief Engineer/400kV construction/Vidyut Soudha/Hyderabad.
The Chief Engineer/Power Systems/Vidyut Soudha/Hyderabad.
The Chief Engineer/LI/Vidyut Soudha/Hyderabad.
The Chief Engineer/Civil/Vidyut Soudha/Hyderabad.
The Chief Engineer/Transmission/Vidyut Soudha/Hyderabad.
Personal Secretary to the Chairman & Managing Director.
Personal Secretary to the Joint Managing Director/(Commercial, IPC & IT).
DE (T) to the Joint Managing Director/Vigilance & Security.
ADE(T) to the Joint Managing Director/(HRD & Distribution).
Personal Secretary to the Director/Finance & Revenue.
DE (T) to Director/Transmission.
Personal Secretary to Director/Grid Operation.
Personal Secretary to Director/Projects.
All the Chief Engineer/Zones
Central Record Section and stock file
T.O.O Section.