

**CIRCULAR**

**Sub: Guidelines regarding Metering in respect of HT/EHV consumers.**

As per present metering policy adopted vide commercial circular no. 291 installation of commensurate metering is necessary for release of load. However, sometimes in case of load reduction as per the request and consent of the consumers, connections are being released for the time being on existing metering CTs/PTs with CT error compensation factor. In this regard, now days many of the complaints are received from the consumers regarding charging of CT error compensation factor.

In the matter of providing metering equipment and issue of CT compensation error was discussed in detail at Corporate Office. After due deliberation, it is decided to revise the existing metering policy so that metering arrangement will commensurate with the contract demand.

For adopting uniform practice at field offices following guidelines are issued and the same shall be followed scrupulously.-

- 1) Metering CTs shall be commensurate with the sanctioned contract demand in all cases in r/o HT & EHV consumers.
- 2) In order to have uniformity it has been decided to standardize following CT ratios up to 33KV level:- **400/5A, 300/5A, 250/5A, 200/5A, 150/5A, 100/5A, 50/5A, 25/5A, 10/5A and 5/5A**
- 3) For releasing new connections or reduction/enhancement cases, S.E.(O&M) shall be responsible for providing CTs of commensurate ratios.
- 4) For new connections it shall be ensured that CT ratio commensurate with sanctioned Contract Demand; one of the ratios as mentioned above shall be utilized for CTs.
- 5) S.E.(O&M) is authorized for procurement of metering CTs and metering PTs. In order to provide commensurate CTs and PTs in load reduction /enhancement cases, S.E.(O&M) shall keep the supply and installation work order ready with the manufacturer for replacement of CTs/PTs so that required C.D. can be effected within 72 hrs.

In absence of required CT ratio, in case of load reduction/enhancement, the existing CTs can be utilized subject to condition that full load current of new C.D. is within accuracy limits i.e. 20% to 120% of existing CT's rated primary current without CT error compensation factor.; However, after availability of the required commensurate CTs, the existing CTs be replaced by commensurate CTs; S.E.(O&M) shall be responsible for the same.

- 6) The standard metering specifications shall be as per the chart shown below—

Particulars		Approved Specification		
		Ratio	Class	Burden VA
HT Consumers Up to 1000 KVA with Metering Cubicle	CT	Commensurate with Contract Demand, Single Core, Single ratio(.../5A)	0.5 S	10
	PT	...KV/√3/110/√3	0.5	50
	HT TOD Meter	(-/5A),11KV/√3/110/√3	0.5S	.....

Particulars		Approved Specification		
		Ratio	Class	Burden VA
HT Consumers above 1000 KVA (Generally for 1000KVA to 5000kVA with Metering Cubicle) for Main and identical additional Check metering.	CT	Commensurate with Contract Demand, Single Core, Single ratio (.../5A)	0.2 S	10
	PT	...KV/√3/110/√3	0.2	50
	HT TOD Meter	(-/5A), 11KV/√3/110/√3	0.2S	.....
Open Access Consumers with compact cubicle upto 33KV & outdoor type above 33KV, for Main and identical additional Check Metering	CT	Commensurate with Contract Demand, Single Core, Single ratio (.../5A) for HV & (.../1A) for EHV	0.2 S	<b>10</b>
	PT	...KV/√3/110/√3	0.2	50
	ABT, 4 quadrant, Import-Export type Meter	(-/5A) for HV or (-/1A) for EHV, 11KV/√3/110/√3	0.2S	.....
Generation Projects (CPP/IPP/CO-gen/Solar etc) (With Outdoor type CT PT) for Main and identical additional Check metering	CT	Commensurate with Contract Demand, Single Core, Single ratio (.../5A) for HV & (.../1A) for EHV	0.2 S	15
	PT	...KV/√3/110/√3	0.2	50
	ABT, 4 quadrant, Import-Export type Meter	(-/5A) for HV or (-/1A) for EHV, 11KV/√3/110/√3	0.2S	.....
EHV Consumers (outdoor type) for Commensurate with Main and identical additional Check metering.	CT	Commensurate with Contract Demand, Single Core, Single ratio (.../1A) for EHV	0.2 S	15
	PT	...KV/√3/110/√3	0.2	50
	ABT, 4 quadrant, Import-Export type Meter	(-/1A) for EHV, 11KV/√3/110/√3	0.2S	.....

- 7) Henceforth, Metering CTs shall have 10VA burden up to 33KV level in r/o all HT consumers including Open Access; If existing CTs in case of Open Access/MSEDCL consumers are of 15 VA burden then the same shall be allowed to utilized as it is and also in case of future load enhancement/Reduction and need not be replaced. In case of EHV consumers and in case of Generators only, metering CTs shall have 15VA burden. Metering PT burden shall be 50VA in all cases.
- 8) CEA (Installation and Operations of meters) Regulations 2006 stipulates that accuracy class of meters in distribution system shall not be inferior to 0.5S class. Therefore, if class of accuracy of meter provided by MSETCL is not inferior to 0.5S then Meter of feeder at substation provided by MSETCL shall be used for Energy audit, in case of Express Feeder Consumers.
- 9) As per Maharashtra Electricity Regulatory Commission (Electricity Supply Code and Other Conditions of Supply) Regulations, 2005 definition of Meter is as below:-
- "Meter means a set of integrating instruments used to measure and/or record and store the amount of electrical energy supplied or the quantity of electrical energy contained in the supply, in a given time, which include whole current meter and metering equipment, such as current transformer, capacitor voltage transformer or potential or voltage transformer with necessary wiring and accessories and also includes pre-payment meters."*

As per MERC order in case no. 70 of 2005 and later as per MERC order case No. 19, 2012 regarding schedule of Charges, the cost of meter is recoverable only when the consumer elects to purchase a meter from MSEDCL or in case of lost and burnt meter. Moreover, in case the consumer applies for an additional load or contract demand i.e. extension of load and if the release of additional load / contract demand entails any works, the normative charges shall be recovered for the total load / contract demand (existing as well as additional load) as per the applicable load slabs.

In view of above statutory provisions, all the cost related to metering CTs/PTs/Meter is required to be borne by MSEDCL.

- 10) There are some consumers which requires supply above 33KV i.e. 100KV, 132KV, 220KV, 400KV & above. In such cases the metering specifications shall be decided by S.E.(TQA) on case to case basis and concerned S.E.(O&M) shall arrange for case wise procurement in consultation with MSETCL authorities.
- 11) In some situations if metering equipments CTs/PTs/Meter are not readily available in stock then the consumer may be allowed for procurement of metering but its cost shall be refunded through the next energy bill as per approved schedule of charges (upto33KV level) and in case of EHV consumers (above 33KV level) the cost of metering shall be refunded through the next energy bill as per the cost data of MSETCL or as per the actual whichever is lower. In case if rates of particular CT/PT ratio are not available in MSETCLs cost data, then available next ratio cost in the cost data be compared with the actual cost mentioned in excise/GST gate pass and whichever is lower shall be refunded.
- 12) S.E.(O&M) Circle shall make the necessary budget provision for the financial year for providing commensurate metering in r/o HT & EHV consumers under new service connection scheme.
- 13) CT error compensation error shall not be levied to the consumers. However, concerned S.E.(O&M) shall exercise every care of providing commensurate CTs to the consumers to avoid loss of units.
- 14) The CT error compensation factor shall be applicable only in case of startup / auxiliary power in respect of Generators.
- 15) In case of Open Access consumers, as per MERC, Distribution Open Access Regulations 2016 cl. No. 18.1.1. *The Open Access consumer shall install Special Energy Meter.* So Open Access consumers shall be insisted upon for providing commensurate CT ratios for charging SEM installation before availing Open Access.
- 16) For the proper billing it is essential that commensurate CTs are provided to the consumer. S.E.(O&M) in consultation with S.E.(TQA) shall carry out one time exercise of verification of CT ratios of existing consumers.  
As far as exiting consumers are concerned S.E.(O&M) shall ensure that CTs of proper ratio are installed to the consumers; If not immediate action for replacement by Commensurate ratio shall be initiated.
- 17) All other guidelines of Commercial Circular 291 dated 29/06/2017 except point no. (C) 'Metering Specification' shall remain applicable.

This circular shall come in force with effect from the date of issuance. This circular is available on MSEDCL website i.e. [www.mahadiscom.in](http://www.mahadiscom.in) . So hard copy of the same shall not be issued.

  
**Chief Engineer (Dist/Testing)**