



Access to TSO Current and Voltage Instrument Transformer Cores

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1. Version Control

Version	Description	Authored by:	Approved by:	Date:
1.0	Original Version	Miriam Ryan	Ray Doyle	27/02/2014

2. Introduction

The purpose of this document is to provide clarity in relation to what access can be granted to transmission connected Generators (IPPs)¹ in relation to current and voltage instrument transformers on the HV side of the Generator (IPP)'s transformers.

This policy takes into consideration the obligations on both the TSO and Generators (IPPs) under the Grid Code and Metering Code.

This policy must be made available to all transmission connected generation, including conventional, renewable and wind generation.

3. Policy

Under Grid Code CC10.9.1, Generators shall provide "differential protection on the **Generator Transformer**. The connections between the **Grid Connection Point** circuit breaker and the **HV** terminals of the **Generator Transformer** shall be included in the protection zone of this differential protection". In order to achieve this, EirGrid shall provide the Generator (IPP) with access to a dedicated protection class Current Transformer (CT) core. This CT core must be used by the Generator (IPP) for the purpose of the transformer differential protection only. Direct Generator (IPP) access to any additional current and voltage instrument transformer cores **will not** be given.

However, in the case where additional Current and Voltage measurands are required by the Generator (IPP), for example as an input to the control system for a wind farm, the TSO is willing to provide these measurands to the Generator (IPP) via a transducer. These measurands will be taken from a 0.2s class instrumentation CT core. However, in the case where a 0.2s class instrumentation core is not available, the 0.2s class Check Metering core can be shared, assuming:

- a) The sharing of the check meter CT is approved by Transmission Meter Operator (TMO)
- b) Meter Code sections 3.5 and 5.4.3 are met.

In addition, the Transducer (which must be provided with a 48 VDC power supply), whilst provided and programmed by the Generator (IPP), will be installed by EirGrid Meter Provider.

Provision must also be made for the exchanging of these measurands signals at the generator / TSO measurand interface.

¹ For the purpose of this document, the term "Generator" shall refer to both conventional and renewable generation, including wind farms.

If the Generator(IPP) feels that the supply of the required measurands, via a transducer, does not fulfil their requirements, the Generator(IPP) may install their own current and voltage instrument transformers on the HV side of the Generator(IPP)'s Transformer, provided that any such equipment is within the Generator(IPP)'s ownership boundary.

4. Metering Code Requirements:

As stated in section 3 above, EirGrid is willing to provide measurands from a 0.2s class CT core to the Generator(IPP) via a transducer. The Check metering core can be used, in cases where a 0.2s class instrumentation core is not available and assuming that sections 3.5 and 5.4.3 of the metering code are met.

In the case where the 0.2s class check metering core is used and these conditions (MC3.5 and MC5.4.3) cannot be met, either on a temporary or permanent basis, an investigation will be carried out by EirGrid Metering. The continued access to the supplied measurand signals will then be dependent on the outage of said investigation.

NOTE: The Transducer must be provided and programmed by the Generator (IPP). It will be installed by EirGrid Meter Provider. The Generator(IPP) will provide a replacement transducer in the event of transducer failure.

5. References

The latest version of the Grid Code can be access on the EirGrid Website -

<http://www.eirgrid.com/operations/gridcode/>.

The latest version of the Metering Code can be accessed on the CER Website – www.cer.ie