

Agenda of 9th Meeting on Metering issues in NER

Date: 09.10.2015

Venue: GUWAHATI.

Follow-up items:

1. **Urgent procurement of 50 SEMs and 10 DCDs on Single Tender basis as approved in 24th CCM:**

DGM (AM), POWERGRID-NERTS stated that 50 nos. SEM (L&T-make) & 10 Nos. DCD have already been received at Misa store & installation plan also prepared. Materials will be diverted shortly after regularization in SAP. Installation will be completed by 20.10.15.

This will enable replacement of all SEMs with time drift > 5 minutes.

NERTS may furnish status of installation done so far.

2. **Procurement of 250 SEMs/40 Laptops/20 DCDs:**

As per the status given in the 8th Metering Committee meeting, expected date of issuance of LOA would be end of December, 2015. It implies that Meters would not be in place before February, 2016.

With the available stock of SEMs and projected commissioning of new elements in NER, it would not be possible to manage with existing numbers till February, 2016. This has been highlighted by NERLDC on a number of occasions.

Metering Committee may discuss ways and means.

3. **Metering at Bishwanath Chariali (BNC):**

Power flow in Biswanath Chariali-Agra HVDC commenced on 22.09.2015 and it is settled as exchange between NER and NR. Now NR has become a new Deviation pool member in NER.

Proper metering in BNC is necessary. However, on receipt of meter readings from BNC, many mismatches were observed and accounting became almost impossible. Subsequently accounting had to be done by using reading of Agra end SEMs applying computed losses.

Date	Time	MW BNC-BLP-1 E	MW Agra NR-01 F	MW BNC ICT G	MW (E+G)	MW LOSS	% LOSS	MW CONV. TRF BNC
25-09-2015	15:45	-0.9	0.0	1.164	0.3	0.3	100%	0.0
25-09-2015	16:00	-145.5	-76.2	1.745	-143.7	-67.5	47%	48.9
25-09-2015	16:15	-300.2	-253.1	1.745	-298.5	-45.4	15%	103.0
25-09-2015	16:30	-302.5	-288.0	1.455	-301.1	-13.1	4%	104.1
25-09-2015	16:45	-302.5	-285.7	1.455	-301.1	-15.4	5%	104.1
25-09-2015	17:00	-302.5	-286.8	1.455	-301.1	-14.3	5%	103.6
25-09-2015	17:15	-302.8	-285.7	1.745	-301.1	-15.4	5%	104.1
25-09-2015	17:30	-301.1	-285.1	1.455	-299.6	-14.5	5%	103.0
25-09-2015	17:45	-302.3	-283.9	1.745	-300.5	-16.6	6%	103.0
25-09-2015	18:00	-301.7	-283.3	1.745	-299.9	-16.6	6%	103.6
25-09-2015	18:15	-302.5	-281.6	1.455	-301.1	-19.5	6%	104.1
25-09-2015	18:30	-383.4	-314.2	1.745	-381.7	-67.5	18%	130.3
25-09-2015	18:45	-453.2	-427.6	1.745	-451.5	-23.9	5%	154.8
25-09-2015	19:00	-451.8	-431.7	1.745	-450.0	-18.3	4%	153.0
25-09-2015	19:15	-452.9	-430.5	1.745	-451.2	-20.7	5%	154.8
25-09-2015	19:30	-409.6	-431.7	1.745	-407.9	23.9	-6%	139.6
25-09-2015	19:45	-203.3	-253.1	2.036	-201.3	51.8	-26%	71.6
25-09-2015	20:00	-25.0	-62.3	1.455	-23.6	38.7	-164%	9.3
25-09-2015	20:15	0.0	0.0	1.455	1.5	1.5	100%	0.0
25-09-2015	20:30	0.0	0.0	1.164	1.2	1.2	100%	0.0
25-09-2015	20:45	0.0	0.0	1.455	1.5	1.5	100%	0.0
25-09-2015	21:00	0.0	0.0	1.164	1.2	1.2	100%	0.0
25-09-2015	21:15	0.0	0.0	1.455	1.5	1.5	100%	0.0
25-09-2015	21:30	0.0	0.0	1.455	1.5	1.5	100%	0.0

In this regard, following are observed:

1. Converter transformer reading 1/3rd of actual. BNC ICT (aux consumption) power flow exists even when no import from Balipara-BNC.
2. CTU is not carrying out pre-commissioning checks like polarity, meter time etc in line with 18(a)(1) of CEA Metering Regulations.
3. This is causing error resulting in serious problems which happened in case of 400 KV Binaguri-Bongaigaon III/IV and has been repeated in BNC-Agra
4. CTU is not sending meter installation report to NERLDC specifying Element name, Meter No., CTR, PTR.
5. Repeated requests are required to be made from NERLDC to obtain such information.
6. This is resulting in inability to carry out data processing, computation.

7. Large mismatch/error in SEM readings
8. Such errors have financial implication on utilities

Metering Committee may discuss and issue necessary advice.

4. Installation, operation and maintenance of SEMs and accessories:

Recently, the DCD at Umtru of Meghalaya turned faulty. NERTS was requested to do the needful.

NERTS suggested the following:

One person from MePTCL may kindly be deputed to Misa to collect one DCD(L&T supplied new) & procedural acquaintance. At Shillong, we don't have any healthy DCD.

Further, during discussion I was intimated that only charger is not working. So I suggested repair/replacement of charger with same O/P volt/Curr rating from a local market and submit the bill to NERTS for reimbursement.

Relevant provisions in IEGC and CEA Metering Regulations are as below:

IEGC

6.4.21. The CTU shall install special energy meters on all inter connections between the regional entities and other identified points for recording of actual net MWh interchanges and MVarh draws. The installation, operation and maintenance of special energy meters shall be in accordance with Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006. All concerned entities (in whose premises the special energy meters are installed) shall take weekly meter readings and transmit them to the RLDC by Tuesday noon. The SLDC must ensure that the meter data from all installations within their control area are transmitted to the RLDC within the above schedule.

CEA Metering Regulations

6. Ownership of meters. -

(1) **Interface meters**

- (a) All interface meters installed at the points of interconnection with Inter-State Transmission System (ISTS) for the purpose of electricity accounting and billing shall be owned by CTU.

18. Calibration and periodical testing of meters. -

(1) **Interface meter**

- (a) **At the time of commissioning, each interface meter shall be tested by the owner at site** for accuracy using standard reference meter of better accuracy class than the meter under test.

- (b) All interface meters shall be tested at least once in five years. These meters shall also be tested whenever the energy and other quantities recorded by the meter are abnormal or inconsistent with electrically adjacent meters. Whenever there is unreasonable difference between the quantity recorded by interface meter and the corresponding value monitored at the billing center via communication network, the communication system and terminal equipment shall be tested and rectified. The meters may be tested using NABL accredited mobile laboratory or at any accredited laboratory and recalibrated if required at manufacturer's works.

- (c) **Testing and calibration of interface meters may be carried out in the presence of the representatives of the supplier and buyer. The owner of the meter shall send advance notice** to the other party regarding the date of testing.

10. Operation, Testing and Maintenance of meters. -

The operation, testing and maintenance of all types of meters shall be carried out by the generating company or the licensee, as the case may be.

Metering Committee may discuss and issue necessary advice.

5. Time Drift in Meters & action required:

During 6th MM, it was agreed that NERTS would prepare a video on time correction of SEMs and same will be played in next OCC / Metering Committee meeting. It would also be sent to the Meter data collection locations for their ready reference.

It is once again requested that all utilities in whose premises SEMs are located should ensure time correction whenever there is a drift of more

than one minute. This should be done without waiting for any advice from RLDC or CTU. Now the meters with large time drift are being replaced and if regular action is not taken by utilities, we shall be back to the situation with mismatches.

A short presentation on impact of time drift will be given in the meeting by NERLDC

Metering Committee may discuss.

6. **AMR scheme was agreed in principle by 24th. Commercial Committee.**

It is necessary to expedite the AMR project for smooth collection of SEM reading.

During 8th MM meeting, DGM (AM), POWERGRID-NERTS stated that purchase process was being initiated after the approval in the 15th NERPC meeting and the schedule is given below:

Floating of NIT	: 30.10.2015
Opening of Bid Document	: 30.11.2015
Issue of LOA	: End December, 2015

NERTS may kindly intimate the status.
