

North Eastern Regional Power Committee

MINUTES OF 10th. Metering Committee meeting

Date : 06/11/2015 (Friday)
Time : 14:00 hrs
Venue : "Hotel Nandan", Guwahati.

The List of Participants in the Meeting is attached at **Annexure - I**

Sh. P.K. Mishra, Member Secretary, requested Shri B. Lyngkhoi, Director/SE(O) to take up the agenda item of metering before NETeST meeting.

SE(O) before proceeding further to the agenda item, requested DGM(MO), NERLDC to highlight various issues relating to metering.

DGM(MO) gave a presentation and he highlighted three important issues.

- a. For transfer of power from Tripura to Bangladesh 4 SEMs at Surjamaninagar and 2 SEMs at Comilla South are to be installed. Total six SEM and one DCD (for Comilla) are required.
- b. Large Time drift observed in SEMs of important 400kv/220kv S/Sns. Proposed those new SEMs which are to be procured should have the feature 'software based time synchronization'.
- c. Maintenance of SEMs/DCDs

DGM(MO), NERLDC stated that large time drift in SEMs is due to the fact that respective utilities in whose premises SEMs are located has not taken action in correcting time whenever needed in spite of repeated reminders in various forums. He stated that time drift was there in POWERGRID locations also and requested for a time bound action plan to address the issue. Time drift has been causing fluctuation in computed pool loss of NER which is not desirable (NERLDC presentation is in **Annexure-II**).

He also highlighted the delay in receipt of weekly SEM readings mainly from locations like Dimapur, Jiribam and Silchar of POWERGRID, NERTS and requested that all readings must reach NERLDC by Tuesday.

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.

During 9th MM, DGM-AM NERTS informed that the installation will be completed by 22.10.2015.

Deliberation of the sub-Committee

NERTS representative informed that installations in most of the locations have been done and entire activity will be completed shortly. As agreed earlier, all the 25 SEMs with large drift will be sent to L&T works for rectification. Metering Committee decided that while carrying out rectification at L&T works, the meters will be made "Software based time synchronization" enable by removing hardware lock. NERTS will take-up with L&T accordingly.

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.

During 9th MM, DGM (AM), POWERGRID-NERTS stated that schedule for procurement (250 meters) are as under:

Floating of NIT	:	14.10.2015
Opening of Bid Document	:	1st week of November, 2015
Issue of LOA	:	24.12.2015

Further, DGM (AM), POWERGRID-NERTS stated that regarding purchase of 50 nos. meters from Secure Meters on urgency, the repetitive purchase/order on Single Tender basis is not recommended. However, POWERGRID will send drifted L&T

meters of about 25-30 nos to L&T works and get them repaired at the earliest. The same will cater to above requirement of NER till procurement of 250 meters is completed. Target for rectification of drifted SEMs: -15.12.15

Deliberation of the sub-Committee

DGM(MO), NERLDC requested that if possible then 50SEM out of the 250 be procured urgently on a single tender basis. However GM, NERTS enlightened the members that no time can be gained from single tender process because procurement process is already underway. The schedule remains the same with expected delivery in February 2016. SE(O) concluded that in order to meet the urgent requirement of SEMs in the region they may be dispatched in batches of small quantities as and when manufactured/type-tested. NERTS agreed.

The sub-committee noted as above.

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

During 9th Metering Committee meeting, the Sub-Committee requested NERTS to help the constituents regarding O&M of SEM and DCD as far as possible. DGM-AM, NERTS requested for convening a special meeting at NERLDC involving NERTS, NERPC and Constituents where these issues can be discussed in detail to arrive at an agreed modality.

Deliberation of the sub-Committee

On an enquiry from OTPC regarding time bound replacement of SEMs/DCD in case of malfunctioning, Manager, NERTS informed the forum that same would be possible in 7 days time as movement of manpower is involved. He also informed the forum that POWERGRID is exploring options for AMC of SEMs. It was decided that metering co-ordinator of each utility is to be identified. NERPC would take up the matter separately with each of the constituents.

The sub-committee noted as above.

4. 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.

Members requested NERPC to upload time drift correction procedure on its website for future reference. The Sub-Committee also requested NERTS to engage some agency for check of time drift of SEMs at site locations and provide detailed report in tabular format (format to be supplied by NERLDC) to NERLDC as early as possible.

Deliberation of the sub-Committee

It was decided that all utilities in whose premises meters are located will carry out time correction activity through DCD as and when needed.

In view of time drift in SEMs of many locations as observed by spikes in loss, it was felt that a record of time drift in all SEMs of the Region is required. On request, NERTS agreed to compile Meter Time Vs Standard time of all meters of the Region as per simple format below:

Meter No.	Location	Meter Time	Standard Time	Drift in minutes
------------------	-----------------	-------------------	----------------------	-------------------------

The time can be recorded while collecting weekly SEM data and it can be a handwritten report also. The objective is to get a status of time drift in all SEMs. NERTS stated that the activity would be completed by 30.11.2015.

Metering Committee decided that, after this activity, large drifted SEMs will be sent to L&T in batches and as decided in Item no.1, these meters would be made "Software based time synchronisation" enable.

The sub-committee noted as above.

5. 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

Deliberation of the sub-Committee

Manager, NERTS informed that the revised cost of the scheme is • 2 Crores (appx.) and schedule remains the same.

The sub-committee noted as above.

6. Installation of SEMs at Bongaigaon, NTPC

It has been observed that there is lack of co-ordination at NTPC end in case of installation of Special Energy Meters at NTPC-BgTPP.

NTPC may intimate name and details of nodal officer for Metering so that CTU can co-ordinate and installation can be carried out smoothly.

Deliberation of the sub-Committee

NTPC informed that nodal officer for metering issues at Bongaigaon is Mr. J. Bhattacharya, AGM.

The sub-committee noted as above.

7. Installation of SEM for Tripura-Bangladesh exchange:

As per meeting held in MOP, the exchange is likely to commence in December, 2015 through 400 KV D/C Surjamaninagar - Komilla South (charged at 132 KV) lines. There will be requirement of four SEMs at Surjamaninagar and two SEMs at South Komilla along with DCD.

Deliberation of the sub-Committee

CTU would do the needful for installation of SEM at both ends. NERLDC has already sent advice to CTU in this regard.

The sub-committee noted as above.

8. Metering issues:

1. Delayed receipt of SEM data from Dimapur(PG)

2. Reverse polarity in case of Loktak-Ningthoukhong and Bdp-Jiribam
3. 132 KV Silchar-Badarpur-II – Badarpur reading half
4. 132 KV Badarpur-Kolasib – Error in Kolasib end reading
5. 132 KV Palatana-Udaipur – Udaipur end reading 2/3rd of other end
6. Non receipt of reading from Nangalbibra, Deomali, Rengpang
7. Pavo end meter of BNC 132 KV line-2 showing no. **NA-4495-A**
8. Error in Bongaigaon end SEM of 400 KV Binaguri-Bongaigaon –III

Deliberation of the sub-Committee

Manager NERTS informed the forum that the above discrepancies would be rectified by 30/11/2015.

The sub-committee noted as above.

Additional Agenda Points of TSECL, NERPC/NERLDC:

1. So far discussion is going on between NEEPCO, MoP, CEA and TSECL Monarchak TGBPP is going for COD as ISGS where TSECL will provide Transmission corridor for their generation evacuation. In such situation, this forum may discuss and settle the point of Metering and also responsibilities of installation of Meters at inter connection points for the purpose of electricity accounting and billing.

Deliberation of the sub-Committee

DGM(MO), NERLDC opined that the Tripura has to install SEMs for all accounting & billing purposes as full share of this project is with TSECL. CTU would install meters in case of ISGS. After detailed deliberation forum decided to drop the agenda item as it is a bilateral issue between TSECL & NEEPCO.

The sub-committee noted as above.

2. As per CEA (Installation and Operation of Meters) Amendment Regulations; 2010 the accuracy class of meters in transmission system shall not be inferior to that of .2S accuracy class. To replace all the meters of TSECL owned transmission system on above rated class of metering and with this to create a network for remote/centrally reading collection and recording in to the central database with all the information associated with the energy accounting and also verifying the

correctness of metered data a big financial involvement is necessary. A small utility like TSECL/Tripura will not be able to arrange such fund for its own financial crunch. Forum may discuss this important issue and may initiate a process for funding the utilities from central source like PSDF for this work.

Deliberation of the sub-Committee

Metering Committee felt that TSECL would be responsible for installation of Meters as Monarchak is not ISGS and it would have to decide accordingly as an internal matter for Metering and Accounting.

The sub-committee noted as above.

3. The telemetry system associating with power supply to Bangladesh has to be in place before exchange of power to Bangladesh – **NERPC/NERLDC.**

Deliberation of the sub-Committee

The Sub-committee suggested referring to NETeST meeting.

Date and Venue of next MM

It is proposed to hold the 11th Metering meeting of NERPC in the second week of December, 2015. The exact venue will be intimated in due course.

List of Participants in the 10th Metering Meeting held on 06/11/2015

SN	Name & Designation	Organization	Contact No.
1.	Sh. Nangkong Perme, EE, SLDC	Ar. Pradesh	09436288643
2.	Sh. B.C. Borah, AGM, SLDC	Assam	
3.	Sh. A.K. Das, AGM, AEGCL (HQ)	Assam	
4.	Ms. P. Biswakarma, AM, (Comn.), Jorhat	Assam	
5.	Sh. Arup Sarmah, AM, Comn. Div.	Assam	
6.	Sh. Uday Sankar Nath, DM, Comn. Div.	Assam	
7.	Ms. Toushita Jigdung, DM, SLDC	Assam	
8.	Ms. Athokpam Sujata Devi, Asst. Mgr, SLDC	Manipur	
9.	Ms. Jayela Wahengbam, Asst. Mgr., SLDC	Manipur	
10.	Sh. D.J. Lyngdoh, EE (SM), SLDC	Meghalaya	
11.	Sh. S.S aha, AE (PLCC)	Meghalaya	
12.	Sh. C. W. Chen, AE, SLDC	Meghalaya	
	No Representative	Mizoram	
13.	Sh. B. Tiamerao, EE (MIS)	Nagaland	
14.	Sh. A. Jakhalu, EE (TRANS.)	Nagaland	
15.	Ms. Shampa Sen, Sr. Manager	Tripura	09436120263
16.	Sh. T. S. Singh, GM	NERLDC	09436302717
17.	Sh. V. Kaikhochin, DGM	NERLDC	09436302712
18.	Sh. R. Sutradhar, DGM	NERLDC	09436302714
19.	Sh. S.C. De, Chief Manager	NERLDC	09436335369
20.	Sh. B.S. Roy, Asst. Manager	NERLDC	09436302719
21.	Sh. Bhaskar Goswami, Sr. Manager	NEEPCO	09436163983
22.	Sh. A.K. Sarmah, Dy. Manager	NEEPCO	09435078860
23.	Sh. Bhaskar Mazumder, Dy. Manager	NEEPCO	09436222650
24.	Sh. Sudip Das, Dy. Manager	NEEPCO	09401237613
25.	Sh. A. Patir, GM	PGCIL	09436302529
26.	Sh. P. Kanungo, DGM (AM)	PGCIL	09436302823
27.	Sh. Supriyo Paul, Manager	PGCIL	09436302995
28.	Sh. Sh. J. Bhattacharyya, AGM (O&M)	NTPC	09435720036
	No Representative	NHPC	
29.	Sh. T.Karmakar, AM (Electrical)	OTPC	09435239314
30.	Sh. Prasanta Kalita, Sr. Tech. Consultant	ORANGE BUSINESS SERVICES	08334031012

31.	Sh. Imtiaz Hussain, Manager Projects	ALSTOM	08800795693
32.	Sh. P.K. Mishra, MS	NERPC	
33.	Sh. B. Lyngkhoi, Director/S.E (O)	NERPC	09436163419
34.	Sh. S. Mukherjee, AD-I/AEE	NERPC	08794277306
35.	Sh. Shaishav Ranjan, AD-II/A.E	NERPC	08794276168

Presentation in 10th. Metering meeting

Power System Operation Corporation Ltd
North Eastern Regional Load Despatch Centre
Shillong

06.11.2015

Transfer of Power from Tripura to Bangladesh

Meeting held in MOP and NLDC on 26-10 to 28-10

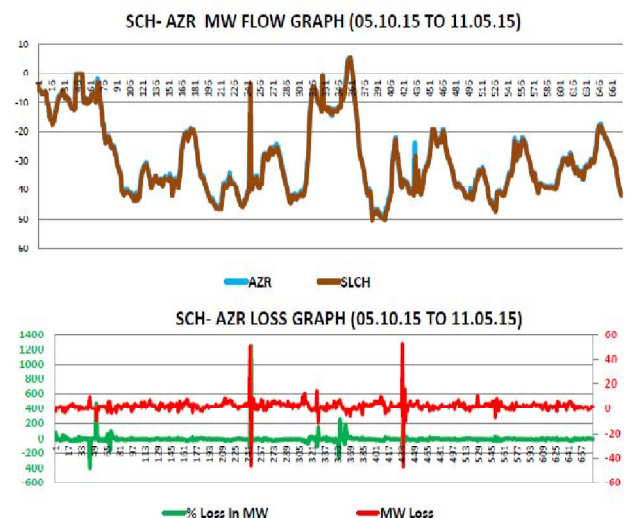
- **Transfer of 100 MW power from Tripura to Bangladesh**
 - 132 kV Surajmani Nagar- Comilla South
 - Radial power flow from Tripura to Bangladesh
 - Real time data and voice communication between Surajmaninagar, Comilla South, SLDC Agartala, NERLDC, NLDC-India and NLDC-Dhaka
- NLDC/NERLDC to coordinate with Bangladesh in real time operation
- Power transfer governed by CERC regulations

- **Location of main, check and standby meter**
 - Two sets of SEM (main and check) at Surajimani Nagar
 - Standby meter at Comilla South (Bangladesh)
 - Meter readings would be forwarded to NERLDC on weekly basis
 - **Total 6 SEMs and 1 DCD required**
- **Control Area**
 - Bangladesh/Comilla South would be considered as separate control area
 - Separate accounting for Bheramara transfer and Comilla South transfer
 - NVVN to be member of NER pool Account
 - NVVN to be registered as user of NERLDC

Issues with SEM reading

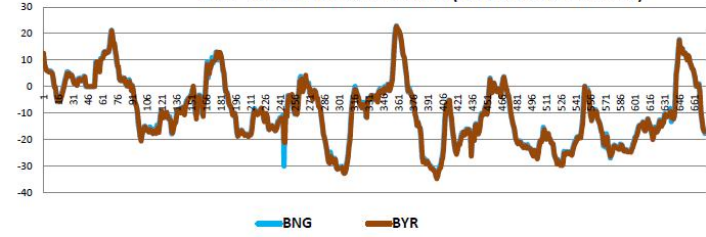
Spikes due to time drift

Erroneous reading

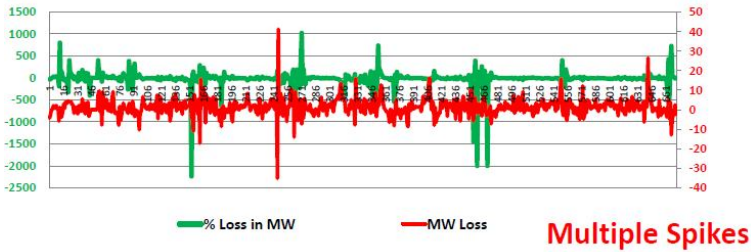


Multiple Spikes

BNG - BYR MW FLOW GRAPH (05.10.15 TO 11.05.15)

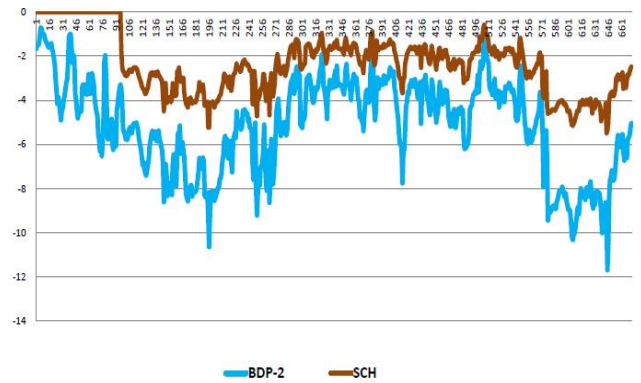


BNG - BYR LOSS GRAPH (05.10.15 TO 11.05.15)



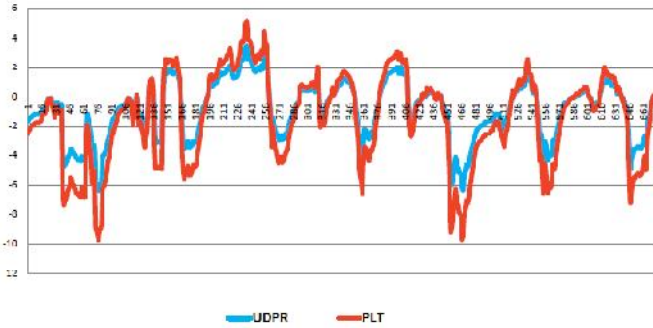
Multiple Spikes

BDP-SCH - II MW FLOW GRAPH (05.10.15 TO 11.05.15)



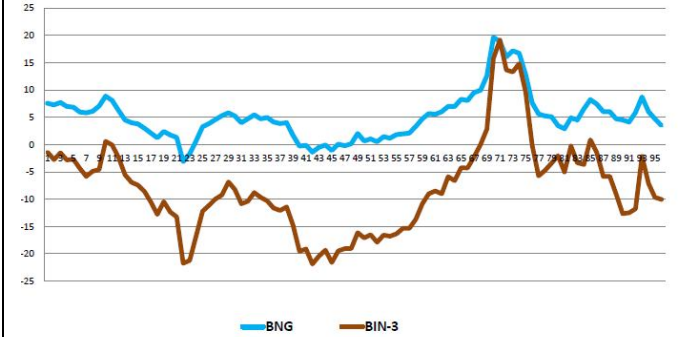
Badarpur reading half

UDPR - PLT MW FLOW GRAPH (05.10.15 TO 11.05.15)



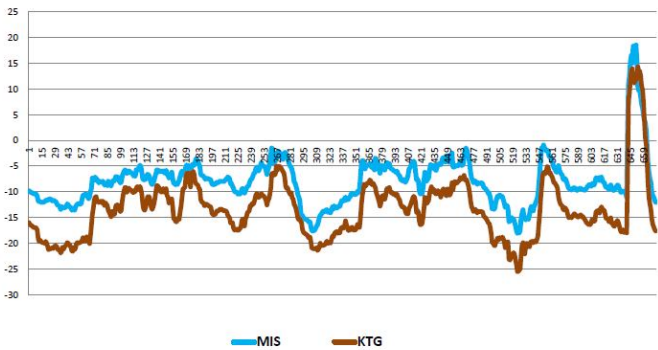
Udaipur reading 2/3rd.

BNG - BIN - III MW FLOW GRAPH (10.10.15)



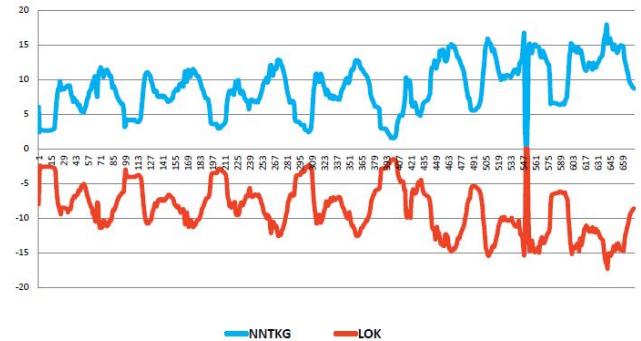
BNG reading unpredictable

MIS-KTG MW FLOW GRAPH (05.10.15 TO 11.05.15)



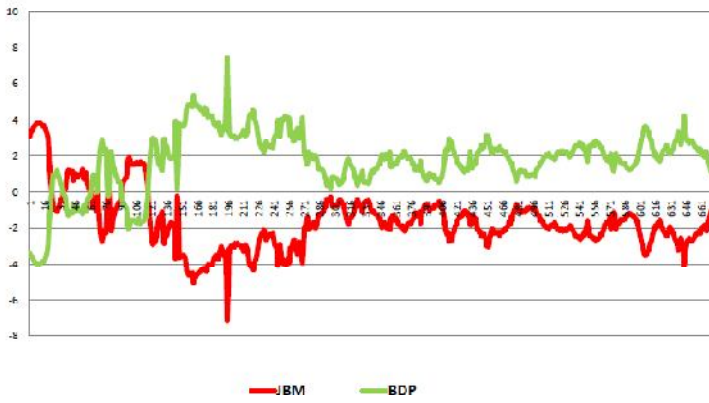
Misa reading 2/3rd.

LOK - NING MW FLOW GRAPH (05.10.15 TO 11.05.15)



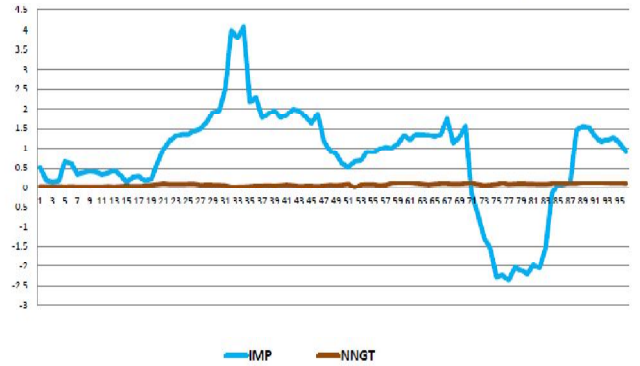
Ningthoukhong reverse

JBM - BDP MW FLOW GRAPH (05.10.15 TO 11.05.15)



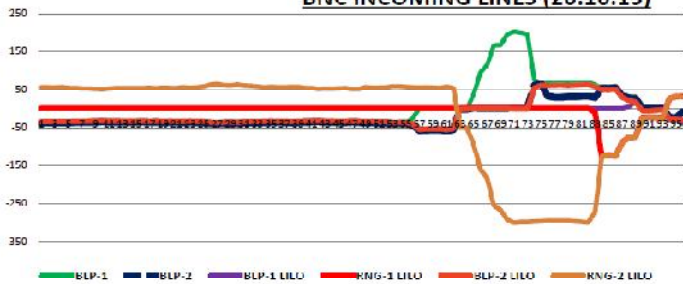
Badarpur reverse

IMP- NNGT MW FLOW GRAPH (10.06.15)

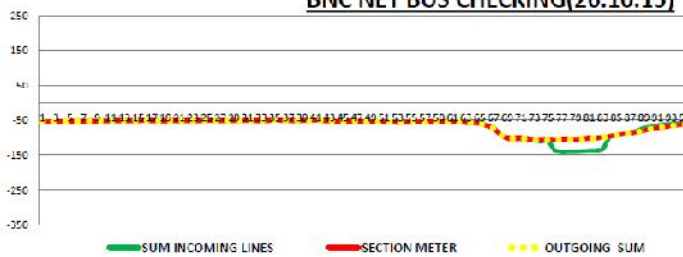


Ningthoukhong erratic

BNC INCOMING LINES (26.10.15)



BNC NET BUS CHECKING(26.10.15)



Issues

- [Multiple issues in computation and accounting](#)
- [Meters need to be everywhere](#)
- [Requirement of SEM and DCD/Laptop](#)
- [Spikes in all locations, addressing time drift issue](#)
- [Rectification of erroneous SEMs in time bound manner](#)
- [Regular maintenance of SEMs and DCDs](#)
- [AMR in NER](#)