



भारत सरकार Government of India

विद्युत मंत्रालय Ministry of Power

उत्तर पूर्वी क्षेत्रीय विद्युत समिति

North Eastern Regional Power Committee

एन ई आर पी सी कॉम्प्लेक्स, डोंग पारमाओ, लापालाङ, शिल्लोंग-७९३००६, मेघालय
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No.: NERPC/COM/CC_Min/2018/2865-2911

Dated: 04.09.18

To

1. Director (Distribution), MePDCL, Lumjingshai, Short Round Road, Shillong – 793 001
2. Director (Transmission), MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
3. Director (Generation), MePGCL, Lumjingshai, Short Round Road, Shillong – 793 001
4. Engineer-in-Chief (P&ED), Govt. of Mizoram, New Secretariat Complex, Khatla, Aizawl – 796 001
5. Chief Engineer (WE Zone), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791 111
6. Chief Engineer (EE Zone), Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791 111
7. MD, APDCL, Bijuli Bhawan, Paltan Bazar, Guwahati-781 001
8. MD, AEGCL, Bijuli Bhawan, Paltan Bazar, Guwahati-781 001
9. MD, APGCL, Bijuli Bhawan, Paltan Bazar, Guwahati-781 001
10. MD, MSPDCL, Secure Office Building Complex, 3rd Floor, South Block, Near 2nd MR Gate, Imphal – 795 001
11. MD, MSPCL, Keishampat, Imphal – 795 001
12. Chief Engineer (P&E), Department of Power, Govt. of Nagaland, Kohima – 797 001
13. Director (Tech), TSECL, Banamalipur, Agartala – 799 001
14. Director (Tech), TPGL, Banamalipur, Agartala – 799 001
15. ED, NERTS, PGCIL, Dongtieh-Lower Nongrah, Lapalang, Shillong -793 006
16. GM (LD&C), PGCIL, "Saudamini" Plot No. 2, Sector – 29, Gurgaon, Haryana – 122 001
17. General Manager, NERLDC, Dongtieh-Lower Nongrah, Lapalang, Shillong -793 006
18. ED (Commercial), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
19. ED (O&M), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
20. ED (Commercial), NHPC, NHPC Office Complex, Sector-33, Faridabad, Haryana-121003
21. ED (O&M), NHPC, NHPC Office Complex, Sector-33, Faridabad, Haryana-121003
22. GM (Comm), NTPC Limited, ER-II HQ, Plot No. N-17/2, Third Floor, Naya Palli, Bhubaneswar-751012
23. Group GM, NTPC Limited, Bongaigaon Thermal Power Project, P.O. Salakati, Kokrajhar-783369
24. MD, OTPC, 6th Floor, A Wing, IFCI Tower-61, Nehru Place, New Delhi-110019
25. Vice President, PTCIL, 2nd Floor, NBCC Tower, 15, Bhikaji Cama Place, New Delhi - 110066
26. AGM (BD), NVVN, Core 5, 3rd floor, Scope Complex, 7 Institutional Area, Lodhi Rd., N. Delhi-3
27. Member Secretary, ERPC, 14 Golf Club Road, Tollygunge, Kolkata-700033
28. Chief Engineer, GM Division, CEA, Sewa Bhawan, R.K. Puram, New Delhi – 110066

Sub: Minutes of the 36th CC meeting held on 03/08/2018 at "Waii International Hotel", Itanagar, Arunachal Pradesh.

Please find enclosed herewith the minutes of the 36th Commercial Committee Meeting held at "Waii International Hotel", Itanagar on 3rd August 2018 for your kind information and further necessary action.

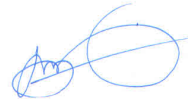
Encl.: As above

yours faithfully,

(L. B. Muanthang)
Director/S.E

Copy To:

1. SA to Member(GO&D), CEA, Sewa Bhawan, R.K. Puram, New Delhi – 110066
2. CGM (Comml), APDCL, Bijuli Bhawan, Paltan Bazar, Guwahati-781 001
3. Head of SLDC, SLDC Complex, AEGCL, Kahilipara, Guwahati - 781019
4. SE (EM), MePDCL, Lumjingshai, Short Round Road, Shillong – 793 001
5. Head of SLDC, MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
6. Head of SLDC, Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791 111
7. ED (Comml), MSPDCL, Secure Office Building Complex, 3rd Floor, South Block, Near 2nd MR Gate, Imphal – 01
8. ED (Tech), MSPDCL, Secure Office Building Complex, 3rd Floor, South Block, Near 2nd MR Gate, Imphal – 01
9. ED (Tech), MSPCL, Keishampat, Imphal – 795 001
10. S.E. (Commercial), Department of Power, Govt. of Mizoram, Khatla, Aizawl – 796 001
11. Head of SLDC, Department of Power, Govt. of Mizoram, Aizawl – 796 001
12. A.C.E. (Gen & Trans), Department of Power, Govt. of Nagaland, Kohima – 797 001
13. Head of SLDC, Department of Power, Dimapur, Nagaland
14. AGM (C&SO), TSECL, Agartala – 799 001
15. Head of SLDC, TSECL, Agartala – 799 001
16. General Manager, Loktak HEP, NHPC Limited, Vidyut Vihar, Komkeirap, P.O. Loktak, Manipur – 795 124
17. GM (Comml), OTPC, 6th Floor, A Wing, IFCI Tower-61, Nehru Place, New Delhi-110019
18. Head of the Plant, OTPC, Palatana, Kakraban, Gomati District, Tripura - 799116
19. AGM (Comml), NTPC Limited, 16th Rupalim Path, Rukhmini Nagar, Guwahati-781022



Director/S.E



सत्यमेव जयते

Minutes of the 36th CCM of NERPC

Govt. of India
Ministry of Power
North Eastern Regional Power Committee
Shillong

TABLE OF CONTENT

Sr. No.	Agenda Item			Page
1	<u>Confirmation of 35th CCM MoM dated 16.04.2018</u>			7
2	NERPC	2.1	<u>Time Drift in SEM Meters</u>	7
		2.2	<u>Status of Board Fund Contribution for FY 17-18 and 18-19</u>	9
		2.3	<u>Status of C-DAC Real time Energy Assessment Project</u>	10
		2.4	<u>Status of contribution for Mobile App</u>	12
		2.5	<u>Revenue earned through regulation of power</u>	12
3	APDCL	3.1	<u>Settlement of Meter Reading of 11 KV Rowing (Santipur) Feeder</u>	13
		3.2	<u>Minutes of Bilateral meeting between APDCL and Department of Power, Arunachal Pradesh (AP)</u>	16
		3.3	<u>Bilateral transaction of power in between APDCL and Ar. Pradesh</u>	17
4	NEEPCO	4.1	<u>Outstanding dues of beneficiary's payable to NEEPCO</u>	17
		4.2	<u>Non-receipt of payment from MePDCL, Meghalaya</u>	19
		4.3	<u>Submission of payment release intimation by the beneficiaries</u>	19
5	NERLDC	5.1	<u>Deviation Charges Outstanding</u>	20
		5.2	<u>Reactive Charges Outstanding</u>	21
		5.3	<u>Opening of LC against Deviation Charges Liability</u>	22
		5.4	<u>SAMAST implementation in NER</u>	22
		5.5	<u>05-Minute Scheduling, Metering, Accounting and Settlement for Thermal/Hydro, and on Hydro as Fast Response Ancillary Services (FRAS)</u>	25
		5.6	<u>Discussion Paper on "Redesigning Real Time Electricity Market in India"</u>	25
		5.7	<u>Tabling quarterly figures of Deviation and Reactive Pool Account in Commercial Committee</u>	26
6	NERTS	6.1	<u>Outstanding dues of beneficiary's payable to NERTS</u>	26

		6.2	<u>LC requirement against PoC billing</u>	27
7	NHPC	7.1	<u>Signing of PPA in respect of Subansiri Lower HE Project in Arunachal Pradesh</u>	28
		7.2	<u>Signing of PPA in respect of Tawang HE Project, Stage – I & II</u>	29
		7.3	<u>Outstanding dues of NHPC for more than 60 days</u>	29
8	NTPC	8.1	<u>Liquidation of Outstanding by MeECL</u>	30
		8.2	<u>Opening of Letter of Credit</u>	31
9	OTPC	9.1	<u>Billing at Reduced Annual fixed Charges for FY17-18 & FY18-19</u>	31
10	<u>Any other items for discussion</u>			33
11	<u>ANNEXURES</u>	I	<u>Time drift status of NER</u>	37
		IA	<u>Step by Step Time Drift Correction Process</u>	40
		II	<u>Revenue Earned through Regulation of Power</u>	41
		III	<u>Deviation Outstanding NER for FY2018-19</u>	42
		IV	<u>Reactive Outstanding NER for FY2018-19</u>	43
		A	<u>List of Participants</u>	44
		B	<u>CERC Draft 4th Amendment of DSM Regulation</u>	47
		C	<u>Compensation Mechanism</u>	-
		D	<u>5-Minute Scheduling, Metering, Accounting and Settlement for Thermal/Hydro and on Hydro as FRAS</u>	-
		E	<u>Redesigning Real Time Electricity Market in India – discussion paper</u>	-

North Eastern Regional Power Committee

MINUTES OF THE 36th COMMERCIAL COORDINATION

SUB-COMMITTEE MEETING OF NERPC

Date : 03/08/2018 (Friday)

Time : 10:30 hrs

Venue : Hotel Waii International, Itanagar, Ar. Pradesh

The 36th CC Meeting of NERPC was held on 3rd August 2018 in Itanagar, Ar. Pradesh under the aegis of the Department of Power, Government of Arunachal Pradesh. The list of participants in the 36th CC meeting is attached at **Annexure – A**.

The meeting commenced with felicitation of delegates with mementos and lighting of ceremonial lamp by the dignitaries namely, Shri Tamiyo Taga, Hon'ble Power Minister, Ar. Pradesh, Shri G. S. Meena, Commissioner (Power), Ar. Pradesh, Shri T. S. Singh, Executive Director, NERLDC, Shri J K Baishya, CGM (Comm), APDCL, Assam, Shri Z. A. Choudhury, CGM (SLDC), Assam, Shri B. Lyngkhai, Director/SE (O), NERPC, Shri L. B. Muanthang, Director/SE (C), NERPC and Shri O Moyong, Chief Engineer (EEZ), Ar. Pradesh respectively.

Shri O. Moyong, CE (EEZ), Ar. Pradesh extended a warm welcome to all the delegates of the 36th CCM. He acknowledged the support and cooperation by NERPC for organizing the meeting in Itanagar. Shri Moyong also expressed gratitude to all the delegates for sparing their time to come all the way to Ar. Pradesh. He requested all members to extend cooperation and understanding towards resolving pending issues related to Ar. Pradesh.

After this, dignitaries were requested to share few words on the occasion.

Shri J K Baishya, CGM (Comm), APDCL, Assam stated that APDCL would cooperate for fruitful discussion and amicable settlement of all issues. He further added that all the agenda items should be discussed and resolved for benefit of all stakeholders.

Shri Z. A. Choudhury, CGM (SLDC), Assam appreciated Ar. Pradesh for making excellent arrangement and was looking forward to a fruitful deliberation.

Shri L. B. Muanthang, Director/SE (C), NERPC briefed the CC members and stated that the CC forum will try to resolve all issues amicably with spirit of understanding, for the benefit of the region.

Shri T. S. Singh, Executive Director, NERLDC impressed upon the beneficiaries about the need to plan effectively for efficient and optimize drawl of power. He mentioned that sometimes there are under drawal by state(s) even when frequency is high, which is a loss to the state(s). He also shared regarding future challenges in the sector such as 5 minutes scheduling and metering etc which would require capacity building for effective management of these challenges.

Shri B. Lyngkhai, Director/SE (O), NERPC, while conveying sincere gratitude to the Hon'ble Power Minister, Ar. Pradesh and Commissioner (Power), Ar. Pradesh for gracing the occasion despite hectic schedules, expressed hope that their presence would encourage the CC forum to strive hard for ushering in power sector development in the region. He briefed the forum on the history of power scenario of NER and the constitution of NERPC by the Central Government. Shri Lyngkhai impressed upon the delegates that the NERPC forum is their own forum and it belongs to NER. He stated that all the states must actively involve and participate in its various subcommittee meetings. He requested Commissioner (Power), Ar. Pradesh to send representative to attend subcommittee meetings of NERPC regularly so as to obtain maximum benefit out of the NERPC forum.

Shri G. S. Meena, Commissioner (Power), Ar. Pradesh welcomed all the delegates of the 36th CCM to Ar. Pradesh. He appreciated the initiative role played by NERPC. He stated that he would ensure to have Ar. Pradesh represented in all subcommittee meetings of NERPC. He informed that in Ar. Pradesh, the work of DISCOM is being handled by Department of Power and that efficiency and commercial aspect has remained a challenge. While giving emphasis on the requirement of capacity building for DoP, Ar. Pradesh for adopting sound commercial practices and efficient functioning, Shri Meena stated that Ar. Pradesh would henceforth, would utilize the NERPC platform to come up at par with other DISCOMs in the NE Region.

Shri Tamiyo Taga, Hon'ble Power Minister, Ar. Pradesh stated that NER has great potential for hydro power and NER could become the power house of the country. He appreciated the central power sector utilities' contribution in the development of Ar. Pradesh. While mentioning that NEEPCO has successfully run power stations in Ar. Pradesh, Shri Taga stated that NHPC's projects in Ar. Pradesh have not seen the desired result. He also stated that SLDC in Ar. Pradesh is in formative stage and it will be made an independent entity gradually in the near future.

In his vote of thanks, Shri T. Mara, CE (CEZ) extended gratitude to NERPC secretariat for giving them the opportunity to host the 36th CCM in Itanagar. He thanked all delegates for participating in the meeting.

On behalf of NERPC Secretariat, Shri S. M. Aimol, Dy. Director (Comml), NERPC expressed immense gratitude to Shri T. Taga, Hon' Power Minister of Ar. Pradesh and Shri G. S. Meena, Commissioner (Power), Ar. Pradesh for their gracious presence on the occasion thereby encouraging the members of the CC forum. He also thanked DoP, Ar. Pradesh for making excellent arrangement for the meeting and for the comfort of the delegates. He also thanked senior officers and all delegates for their active participation and cooperation in the meeting.

The presentation by NERPC on “CERC draft 4th Amendment of DSM regulation” and “Compensation Mechanism” are at **Annexure-B & Annexure-C** respectively. The presentation by NERLDC on “5-Minute Scheduling, Metering, Accounting and Settlement for Thermal/Hydro and on Hydro as FRAS” and “Redesigning Real Time Electricity Market in India – discussion paper” and “are at **Annexure-D & Annexure-E** respectively.

The following are the decisions taken in the 36th Commercial Committee meeting:

CONFIRMATION OF MINUTES

1. CONFIRMATION OF MINUTES OF THE 33RD COMMERCIAL SUB-COMMITTEE MEETING OF NERPC:

Director/SE (C) informed that the minutes of the **35th CC Meeting** held at “**Hotel Radisson Blu**”, **Guwahati, Assam** on **21st March 2018** was circulated vide no. No.: NERPC/COM/CC_Min/2016/352-98 dated 16th April 2018.

Since no comments/observations were received from the constituents, the sub-committee confirmed the minutes of 35th CCM of NERPC.

AGENDA ITEMS

2. Items from NERPC

2.1. Time Drift in SEM Meters:

The data recorded by SEM is time stamped (15 min. block data), it is very important to maintain the time of the meter, as it is prone to drift due to inherent variation of parameters like temperature, humidity etc. The time of the meter (Real Time Clock) as shown on the display panel of the SEM may be periodically checked for its correctness with respect to GPS/AIR time. When

the time drift is more than 1 minute, necessary correction through the DCD may be carried out. It may be noted that time correction through DCD can be done by only 1 minute in a week and if the drift is more than 2 minutes, correction may be carried out in successive weeks. Due care may be taken regarding the type of correction i.e. ADVANCE or RETARD depending on whether the meter is SLOW or FAST. All the sites have to send monthly reports on the time drift of the SEMs as on the 1st Monday of the month and also the Time corrections carried out during the month. (*Ref: Special Energy Meter Handbook, POSOCO*)

Non-compliance of the above mandates has been observed. For the time drifts more than 5 mins.the distortion is huge which leads in distorted accounting and the concerned entity would be at the losing end. Each meter shall have a built-in calendar and clock, having an accuracy of 30 seconds per month or better. (*Ref: Standards for interface meters-extracted from Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006. Notified vide date 17th March 2006*)

Time drift status of NER is hereby attached at Annexure-I.

The members are requested to inform the forum about the difficulties faced by them in complying the mentioned procedures and the course of action, thereof.

Deliberation of the Sub-Committee

Director/SE (C), NERPC stated that the trend of time drift reported from some location are very high and therefore these reading will not be reliable for proper accounting purposes. Concerned utilities must expedite for corrective action immediately.

The CC forum noted the severity of implication of the high time drift. On request by AEGCL for sharing the step by step time drift correction procedure, the same was explained which is attached at **Annexure-I (A)**.

Concerned utilities were requested to take all the necessary action to rectify the drifts by referring to the Annexure-I (A) and also to forward the status to NERLDC/NERPC on regular basis.

The CC forum decided that consistent non-compliance by the concerned utilities by not responding to the time drifts in the meters and irregularity in sending monthly reports on the time drift of the SEMs as on the 1st Monday of the month to NERLDC/NERPC would be dealt with strictly by NERPC forum.

2.2. Status of Board Fund Contribution for FY 2017-18 and 2018-19 (as on 24.07.2018):

NERPC has requested all the constituents of NERPC for depositing the Board Fund contribution to designated Account No. of Member Secretary, NERPC vide NERPC letter No.NERPC/SE (O)/Committee/Board Fund/2015/ dated18.08.17.

(i) For FY 2017-18: In respect to the Board fund Contribution for FY 17-18, all have paid respective amount except PTC India Limited which has an outstanding due of amount Rs. 2.11 lakhs. PTC India Limited is requested to kindly deposit the due amount of Rs. 2.11 at the earliest.

(ii) For FY 2018-19: The current status of payment for FY 2018-19 is as given below:

Constituents	Status of Payment	Constituents	Status of Payment
NTPC	Payment Received	Ar. Pradesh	Payment Received
NHPC	Payment Received	Assam / APDCL	DUE
PTC	DUE	Manipur/MSPDCL	Payment Received

NVVN	Payment Received	Meghalaya/MeECL	Payment Received
OTPC	Payment Received	Mizoram	Payment Received
NEEPCO	DUE	Nagaland	DUE
PGCIL	DUE	Tripura/TSECL	Payment Received

Concerned constituents are requested to kindly deposit respective amount for FY 2018-19 at the earliest.

Deliberation of the Sub-Committee

(i) PTC India Limited was requested to deposit the pending amount of Rs. 2.11 at the earliest.

(ii) Dy. Director (Comml), NERPC informed that NERPC has received Board Fund contribution by NEEPCO on 25/07/2018.

Addl GM (Comml), PGCIL informed that payment in respect of NERTS POWERGRID is under process and it will be credited in the designated account shortly.

PTC, Assam & Nagaland were reminded to deposit their respective amount at the earliest.

The Sub-committee noted as above.

Action: PTC, Assam & Nagaland.

2.3. Status of C-DAC Real time Energy Assessment Project and its contribution (as on 31.07.2018):

In the **Design and Development Phase**,

- Successful pilot testing of Meter data acquisition system at Burakia Steel & Alloy feeder meter, Assam with MODBUS Serial and MODBUS TCP/IP protocols on 4th July 2018.

- Successful Pilot testing of Meter data acquisition system at STAR & PURVANCHAL CEMENT feeder Meter, Assam with MODBUS TCP/IP protocol during 4th – 10th April 2018.
- Development of Energy Assessment System is completed. Testing is in progress.
- Development of Load Forecasting module framework completed and customizing to NER is in progress.
- Received L&T Meter proprietary protocols.

Under **Hardware procurement**,

- Hardware for TARA communication module is procured.
- Enclosure for TARA communication module is in progress.

Planned Activity (August 2018),

- Implementation of Meter data acquisition system with MODBUS TCP/IP and MODBUS Serial protocols at Assam SLDC.
- Demonstration of Load Forecasting tool for user feedback in next OCC Meeting.

Deliberation of the Sub-Committee

Director/SE (O), NERPC informed about the progress of the project and the tentative planned activities for the coming months. He further informed that in the upcoming 147th Operation Coordination Sub-Committee meeting, C-DAC representatives has been asked to demonstrate the various tools developed as a part of this project.

The Sub-committee noted as above.

Action: NERPC, C-DAC.

2.4. Status of contribution for Mobile App Development (as on 31.07.2018):

Letter for contribution of fund towards design & development of NERPC Mobile App etc was sent to all constituents vide NERPC letter No. NERPC/SE(O)/Committee/Board Fund/2015/3751-3764 dt. 13/01/2017. CPSUs are to contribute Rs 8 Lakhs each whereas states & traders are to contribute Rs 1.11 Lakhs each. All the constituents except Manipur have paid their respective amount.

Manipur is requested to deposit the amount of Rs 1,11,000/- at the earliest.

Deliberation of the Sub-Committee

Manipur was not represented in the meeting. Manipur was requested to deposit the requisite amount at the earliest.

The Sub-committee noted as above.

Action: Manipur.

2.5. Revenue earned through regulation of power to beneficiary states of NER:

NTPC Bongaigaon is regulating MeECL from 03.03.2017 on account of non-payment of outstanding dues for more than 60 days. The table provided in the **Annexure-II** contains the details of the regulated power and the adjusted amount till 30.06.2018.

Deliberation of the Sub-Committee

Revenue earned by NTPC (FY wise) through regulation of power of Meghalaya on account of outstanding dues, was furnished and highlighted in the meeting.

NTPC stated that they would furnish the updated information at the end of every month to NERPC Secretariat and such would be followed up in the next CCM.

The Sub-committee noted as above.

Action: NTPC.

3. AGENDA FROM APDCL

3.1. Settlement of Meter Reading of 11 KV Rowing (Santipur) Feeder

There is a pending issue of meter reading anomaly associated with the 11 KV Rowing (Santipur) feeder due to meter malfunctioning for the period from **April' 2009 to July' 2011**. A new meter was connected in July' 2011 by MTI wing of APDCL. The month-wise meter reading positions immediately before and after replacement of the meters were as follows:

Period	Meter Reading
Prior Replacement	
November' 2008	190840 Kwh
December' 2008	170600 Kwh
January' 2009	169000 Kwh
February' 2009	161020 Kwh
March' 2009	158360 Kwh
After Replacement	
August' 2011	340390 Kwh
September' 2011	178140 Kwh
October' 2011	178610 Kwh
November' 2011	186360 Kwh
December' 2011	187770 Kwh

January' 2012	199200 Kwh
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Normally under such type of meter stop period, accounting is regularized on the basis of average consumption of either preceding three months or succeeding three months whichever is higher. From records it is found that monthly consumption for succeeding period was on higher side entailing adjustment on the basis of succeeding period consumption.

The matter was deliberated in the 20TH CC Meeting dated 21.06.2013 under Agenda Item No. 3.6 along with another such item regarding 11 KV Bordumssa-Ketetong Feeder. While the issue of both Feeder was resolved on the basis of billing at the monthly average UI/ DSM rate but the monthly average UI/ DSM rates are yet to be furnished by NERPC/ NERLDC.

APDCL now requests the CC forum to look into the matter and provide the monthly UI/ DSM rates for the meter stoppage period namely from **April' 2009 to July' 2011** so that this pending issue can be regularized forever.

Deliberation of the Sub-Committee

Director/SE (O), NERPC stated that for settling the case of 11 KV Bordumsa-Ketong Feeder, the average monthly UI rate for the period from August 2008 to July 2010 was shared by NERPC in the 20th CCM. Similarly, Ar. Pradesh and Assam was required to either agree to the same mechanism ie, settlement based on monthly UI rate or any other billing method as per applicable tariff of AERC in case of 11 kV Rowing (Santipur) Feeder also.

CE, Ar. Pradesh stated that the meter reading was available beyond the stated period of April 2009 as mentioned by Assam.

After brief discussion, it was decided that, reconciliation of meter reading should be carried out by Assam and Ar. Pradesh up to the available period in respect of 11 kV Rowing (Santipur) Feeder. After the quantum of energy transaction has been figured out for the meter stop period, monthly average

UI rate will be shared by NERPC as was done in the case of Bordumsa-Ketong feeder.

Action: Assam & Ar. Pradesh.

3.2. Minutes of Bilateral meeting between APDCL and Department of Power, Arunachal Pradesh (AP)

The energy accounting methodology in connection with drawl of power by AP through Assam Grid was resolved in between APDCL and AP under the guidance of NERPC and NERLDC in a joint meeting dated 22.09.2017 at SLDC, Kahilipara, Assam and accordingly a draft Minute was prepared. APDCL accordingly signed the same and sent for signature by AP. Of late, the Chief Engineer (Power), Western Electrical Zone, Deptt. of Power, AP has sent a letter requesting to convene another meeting on that topic.

As such, the matter is placed before the CC Forum for its perusal and final decision in this regard in this meeting itself, clearing any doubts, if any, on AP side as the matter is becoming a chronic problem for a long time.

Deliberation of the Sub-Committee

Ar. Pradesh representative stated that they have examined minutes of the meeting held on 22.09.2017. He opined that the enhancement of Ar. Pradesh drawal by 2000 Mwh/month in lieu of AEGCL transmission charges was very much on higher side.

It was explained that AEGCL transmission charges as decided by AERC was 72 paise/Kwh for 2016-17. During the meeting dated 22.09.17, Ar. Pradesh had preferred to pay in kind for the transmission charges and accordingly the computed energy worked out to be 2000 Mwh/month based on average energy drawal of 2016-17.

After detailed discussion, following were agreed:

1. Monthly joint energy meter readings would be submitted for 33 KV and 11 kV feeders to NERPC/NERLDC by 15th of a month for the previous month.
2. The readings would be used for computation of peak and non-peak drawal by Ar. Pradesh from Assam to be used in DSM computation as is being done now.
3. The said energy would be used for the purpose of computation / billing of transmission charges to be raised by AEGCL to Ar. Pradesh.
4. NERPC Secretariat would issue a statement mentioning the transmission charges and AEGCL would raise bill accordingly.
5. In case submission of monthly reading is delayed, DSM computation would be based on last received reading. However, transmission charge bill would be raised only on receipt of meter reading for a month.
6. The system would commence wef 01.08.2018. During Aug'18-March'19, AERC determined charges for 2018 -19 would be applicable.

The Sub-committee noted as above.

Action: DoP, Ar. Pradesh, and AEGCL.

3.3. Bilateral transaction of power in between APDCL and Arunachal Pradesh

Following two Agenda items on account of drawl of power by Assam from AP were deliberated in the 146TH OCC Meeting dated 17TH July, 2018. On the basis of advice of NERPC Secretariat the items are again placed in this CC Meeting also for appraisal of the CC Forum.

(i) Supply at 54TH Battalion ITBP Campus, Bhalukpung: The 54TH Battalion ITBP campus located at Bhalukpung, Assam has been under urgent need of electricity for its entire campus area. APDCL has already taken up with Arunachal Pradesh (AP) Power Department for drawl of 1 MW of power

under bilateral arrangement through single point supply. Considering the nature of the service of ITBP, the Department of Power of AP is requested to look into the matter on priority basis and do the needful accordingly.

(ii) Supply at Namchang Tea Estate: It is noticed that Namchang Tea estate located in Dibrugarh District of Assam is drawing power from Deomali Sub-station of AP as consumer of AP which is against the provisions of Electricity Act' 2003. Moreover, there is a standing decision in the 6TH NERPC meeting under Agenda Item 3.1 that such inter-state power supply should take place under bilateral mode between the states and bill be raised by the exporting state on the importing state at its bulk tariff.

The matter has already been taken up with the Dept. of Power, AP and AP has also agreed in principle but yet to be implemented.

The August Forum is requested kindly to advise the Dept. of Power, AP to do the needful in line with the decision of RPC Forum.

Deliberation of the Sub-Committee

(i & ii) The forum impressed upon the DoP, Arunachal Pradesh to expedite the facilitation of such transactions as bilateral transactions as agreed in the 6th TCC/RPC meeting. Accordingly, the proposal for drawal of power by Assam for supply to the 54th Battalion ITBP Campus, Bhalukpong, Assam may be agreed to at the earliest. Similarly, in case of the Namchang Tea Estate's drawing of power, decision taken in the 6th NERPC meeting needs to be implemented in letter and in spirit, at the earliest.

The Sub-committee noted as above.

Action: Dop, Arunachal Pradesh.

4. AGENDA FROM NEEPCO

4.1. Outstanding dues of beneficiary's payable to NEEPCO

Outstanding dues of beneficiary's payable to NEEPCO as on 17.07.2018 are

as follows:

Beneficiary	Principal (in INR crores)	Late Payment Surcharge accumulated till 30.06.2018 in INR crore	Total (in INR crore)
Arunachal Pradesh	8.59	0.03	8.62
Assam	67.66	40.38	108.04
Manipur	27.48	1.20	28.68
Meghalaya	285.05	229.69	514.74
Mizoram	0	0	0
Nagaland	0.18	0	0.18
Tripura	11.89	0	11.89
Total	400.85	271.30	672.15

Due to accrual of such outstanding dues, NEEPCO is facing acute financial crunch to meet its day to day expenditure including fuel cost required for operating its thermal power stations.

The above is for deliberation of the forum, with a request to MePDCL, Meghalaya and MSPDCL, Manipur in particular, to appraise the house on their action plan for early settlement of the said dues.

Deliberation of the Sub-Committee

Arunachal Pradesh, Assam, Tripura and other concerned beneficiaries were requested to liquidate the outstanding dues of NEEPCO at the earliest.

NERPC informed that a special meeting with Hon'ble Power Minister of Meghalaya will be held shortly and all issues including outstanding dues against Meghalaya will be discussed.

The Sub-committee noted as above.

Action: Dop, Arunachal Pradesh, Assam, Manipur, Meghalaya and Tripura.

4.2. Non-receipt of payment from MePDCL, Meghalaya

Power is being supplied from all O&M plants of NEEPCO to MePDCL as per terms of PPA and relevant orders issued by NERPC and other Authority. This is to bring to your kind notice that as on 17.07.2018 the outstanding dues payable by MePDCL, Meghalaya to NEEPCO stands at Rs. 514.74 crores (inclusive of Late Payment surcharge), out of which Rs. 257.07 crores is pending more than 60 days against energy billing amount to MePDCL.

In spite of regular persuasion with the beneficiaries, no positive response/action plan from MePDCL has been received by NEEPCO till date on liquidation of the said old claims even after communicating them NEEPCO's decision to impose regulation of power supply.

The above is for deliberation of the house, with a request to MePDCL in particular, to appraise the house on their action plan for early settlement of the said dues.

Deliberation of the Sub-Committee

Members noted the concern of NEEPCO on the huge outstanding dues of Meghalaya. NERPC informed that a special meeting with Hon'ble Power Minister of Meghalaya will be held shortly and all issues including outstanding dues against Meghalaya will be discussed.

The Sub-committee noted as above.

Action: MeECL & NERPC

4.3. Submission of payment release intimation by the beneficiaries:

The matter was discussed in detail in earlier meetings. But still most of the beneficiaries while making any payment do not give any intimation to

NEEPCO. NEEPCO requires the information immediately from its beneficiaries regarding the payments released by them & bill references thereof for early updation of its accounts. In addition, such details are required for allowing admissible rebate to the beneficiaries.

If the beneficiary cannot provide the information of bill reference for the payment, NEEPCO may be requested for the needful.

Considering the importance for immediate intimation on payment released and bill details as highlighted above, the matter is placed for deliberation seeking immediate action on the same.

Deliberation of the Sub-Committee

The forum emphasized that the practice of intimating the payee by the payer needs to be followed very seriously. There is a need to sensitize respective commercial departments to follow this practice.

NERPC requested a copy to be sent to NERPC official commercial mail id (i.e. **nerpc.commercial@gov.in**) pertaining to any correspondence related to commercial, billing or payment matters.

The Sub-committee noted as above.

Action: All concerned constituents.

5. AGENDA FROM NERLDC

5.1. Deviation Charges Outstanding

Status of Deviation charges outstanding as on 25/07/2018 upto week-15(09/07/18-15/07/18) of FY 18-19 is attached in the **Annexure-III**. From the same it can be seen that Arunachal Pradesh (**₹3.27**Crores; greater than 13 weeks **₹ 25.34** Lakhs), Tripura (**₹2.39**Crores; greater than 13 weeks **₹ 42.65** Lakhs) & Assam (**₹2.67** Crores).

It is reiterated that outstanding >13 weeks may result in action as stipulated by CERC by not allowing open access.

Ar. Pradesh, Tripura & Assam are required to take immediate necessary action

Deliberation of the Sub-Committee

NERLDC requested Ar. Pradesh, Tripura and Assam to liquidate the outstanding dues. Ar. Pradesh representative stated that they have decided to make payment of current dues on regular basis and processing for payment of DSM charges was being done immediately on receipt of weekly DSM Accounts.

APDCL and Tripura also agreed to take necessary steps to liquidate outstanding dues.

The Sub-committee noted as above.

Action: All concerned constituents.

5.2. Reactive Charges Outstanding

Status of Reactive charges outstanding as on 25/07/2018 up to week-14 (02/07/18-08/07/18) of FY 18-19 is attached in the **Annexure-IV**. From the same it can be seen that Arunachal Pradesh – Rs. 24.99 Lakhs, Assam – Rs. 34.64 Lakhs, Manipur – Rs. 4.74 Lakhs, Mizoram – Rs. 10.76 and Nagaland – Rs. 0.18 Lakhs are major defaulters.

Arunachal Pradesh, Assam, Manipur and Mizoram are required to take immediate necessary action.

Deliberation of the Sub-Committee

All the utilities were requested to clear outstanding against Reactive charges billing.

The Sub-committee noted as above.

Action: All concerned constituents.

5.3. Opening of LC against Deviation Charges Liability

As per DSM charges and related matters Regulations, 2014 of CERC following are the LC amounts pertaining to NER entities mentioned below :-

Constituents	LC Amount ₹ (in Lakhs)
Ar. Pradesh	95.81
Assam	562.00
Manipur	42.13
Mizoram	58.43
Tripura	199.00

Till date only Nagaland has opened LC.

It is requested to open LC to adhere to CERC stipulation.

Deliberation of the Sub-Committee

Ar. Pradesh, Assam, Manipur, Mizoram and Tripura were advised to open LC against Deviation charges liability in line with CERC stipulations.

The Sub-committee noted as above.

Action: All concerned constituents.

5.4. SAMAST implementation in NER

In 146th OCC meeting of NERPC, following Committees were finalized in connection with SAMAST implementation in NER:

Sr. No.	Committee	Members
1.	<p>Committee for Contracts related activities</p> <p>Terms of reference:</p> <ul style="list-style-type: none"> • Preparation of tender document • Exploring option of QCBS • Formulating procedure of floating tender and evaluation • Procedure of State-wise placement of award • Contract closing procedure 	<ul style="list-style-type: none"> • Shri B. Lyngkhoi, Director-NERPC Lead member and coordinator • Shri Kaushik Sharma - NERLDC • Representative from POWERGRID-NERTS • Representative from Meghalaya
2.	<p>Committee for preparation of Software requirement specification (SRS) of AMR and Meter data processing software</p> <p>Terms of reference:</p> <ul style="list-style-type: none"> • Preparation of SRS • Reference of Specs of other Regions to arrive at best practice 	<ul style="list-style-type: none"> • Shri M.K. Ramesh - NERLDC Lead member and coordinator • Ms. Kritika Debnath - NERLDC • Shri S.K. Singh - NERTS POWERGRID • Shri T. Gidon - MePTCL
3.	<p>Committee for preparation of SRS of REA, DSM Accounting and Reactive Accounting software</p> <p>Terms of reference:</p> <ul style="list-style-type: none"> • Preparation of SRS • Reference of Specs of other Regions to arrive at best 	<ul style="list-style-type: none"> • Shri Abhijeet Agrawal - NERPC Lead member and coordinator • Shri Manas Protim Nath - NERLDC • Ms. K. Stella - MSPCL • Ms. L. Ritu - MSPCL

	practice	
4.	<p>Committee for preparation of SRS of STOA, Scheduling and Reporting software</p> <p>Terms of reference:</p> <ul style="list-style-type: none"> • Preparation of SRS taking into account Open Access Registry • Reference of Specs of other Regions to arrive at best practice 	<p>Shri Srijit Mukherjee -NERPC</p> <p>Lead member and coordinator</p> <p>Shri Ankit Jain -NERLDC</p> <p>Shri Pranab Saha -AEGCL</p>
5.	<p>Committee for preparation of Technical specs of hardware (Servers, Computers and accessories) at SLDC</p> <p>Terms of reference:</p> <ul style="list-style-type: none"> • Preparation of Technical specs • Reference of Specs of other Regions to arrive at best practice 	<p>Shri Sadiq Imam - NERPC</p> <p>Lead member and coordinator</p> <p>Shri Tapobrata Paul - NERLDC</p> <p>Sh. N. Romeo Singh - MSPCL</p> <p>Sh. D.J. Lyngdoh - MePTCL</p>

The above committees would function under the supervision of SAMAST Group of NER already formed by NERPC Secretariat. It was decided that a common meeting of all the Committees would be convened by NERPC / SAMAST Group to kick-start the activity.

Deliberation of the Sub-Committee

Director/SE (O), NERPC intimated that a meeting of the committees would be convened shortly to kick-start the activities for preparation of technical specs for SAMAST implementation in NER.

5.5. 05-Minute Scheduling, Metering, Accounting and Settlement for Thermal/Hydro, and on Hydro as Fast Response Ancillary Services (FRAS)

CERC has issued order dated 16th. July, 2018 on 05-Minute Scheduling, Metering, Accounting and Settlement for Thermal/Hydro, and on Hydro as Fast Response Ancillary Services (FRAS).

Vide this order, Hon'ble Commission has stipulated the following:

- a. Pilot Project on Fast Response Ancillary Service (FRAS)
- b. Pilot Project for 05-Minute Metering by installation of 5 minute meters in hydro ISGS of ER, NER, NR and AGC installations of all five Regions.

In line with above, 5 minute meters would be installed at Loktak and NTPC-BgTPP. NERLDC would give a presentation on list of the order and relevant issues.

Deliberation of the Sub-Committee

Copy of the presentation is attached (at **Annexure-C**)

5.6. Discussion Paper on “Redesigning Real Time Electricity Market in India”

CERC has issued the discussion paper and invited comments to be submitted by 31/08/2018. NERLDC will make a presentation on this.

Deliberation of the Sub-Committee

Copy of the presentation is attached (at **Annexure-D**).

5.7. Tabling quarterly figures of Deviation and Reactive Pool Account in Commercial Committee

Deliberation of the Sub-Committee

The quarterly figures of Deviation and Reactive Pool Account (period: Jan'18-March'18) was circulated in the meeting for information and perusal by members.

6. AGENDA FROM NERTS

6.1. Outstanding dues of beneficiary's payable to NERTS

The total outstanding of POWERGID's NER beneficiaries as on 26.07.18 is as under and DICs may kindly liquidate their respective outstanding dues immediately.

(All Figures in INR Crores)

DIC	Total Outstanding	Outstanding more than 60 days	Average billing	Remarks
Ar. Pradesh	1.03	0.00	3.45	-
AEGCL (Assam)	35.38	0.00	37.00	-
Manipur	6.36	0.00	3.75	<i>approx. 02 months receivables</i>
MeECL (Meghalaya)	23.24	13.47	6.30	<i>approx. 04 months receivables</i>
Mizoram	1.71	0.00	3.80	-
Nagaland	0.00	0.00	2.85	-

TSECL (Tripura)	1.37	1.21	3.50	-
Total	69.09	14.68	60.65	-

Deliberation of the Sub-Committee

All the concerned organizations were requested to liquidate the outstanding dues of NERTS at the earliest.

The Sub-committee noted as above.

Action: All concerned constituents.

6.2 LC requirement against PoC billing

LC requirement against PoC billing as per Cl. No. 3.6 of BCD (Billing Collection and Disbursement) Procedures of CERC order no. L-1/44/2010-CERC, Dtd. 29.04.11, as below:

REQUIREMENT AND STATUS OF LC AS ON DATE (26.07.18) OF NER BENEFICIARIES

(All Figures in INR Lakh)

Sl. No.	Beneficiary	Required LC Amount	Validity of existing LC	Total LC Amount to be renewed including enhanced value		
				Existing	Enhancement	Total
1	Ar. Pradesh	321.46	08.10.18	321.46	0.00	321.46
2	AEGCL (Assam)	4217.83	31.05.19	4217.83	0.00	4217.83
3	Manipur	431.26	16.10.18	236.79	194.47	431.26

4	MeECL (Meghalaya)	700.00	04.10.18	300.00	400.00	700.00
5	Mizoram	400.94	04.05.19	400.94	0.00	400.94
6	Nagaland	359.78	21.03.19	437.73	-77.95	359.78
7	TSECL (Tripura)	379.37	14.02.19	325.00	54.37	379.37

Manipur, MeECL & TSECL may be impressed upon to enhance LC of requisite amount immediately.

Deliberation of the Sub-Committee

All the concerned organizations were requested to enhance their LC against PoC charges in line with CERC stipulations at the earliest.

The Sub-committee noted as above.

Action: All concerned constituents.

7. AGENDA FROM NHPC

7.1. Signing of PPA in respect of Subansiri Lower HE Project in Arunachal Pradesh

Signing of PPA with Dept. of Arunachal Pradesh, in respect of Subansiri Lower HE Project is pending since long. Modification sought by Arunachal Pradesh in PPA has already been agreed to & conveyed by NHPC vide office letter dated 10.11.2016. Latest letter was sent on 15.05.2018 to Govt. of Arunachal Pradesh for the same.

In view of the above, Dept. of Power, Govt. of Arunachal Pradesh is requested to resolve the issue at the earliest.

Deliberation of the Sub-Committee

The forum noted the concern of NHPC. However, as it is a bilateral issue, CC forum advised NHPC to pursue with Govt of Ar. Pradesh at the highest level for resolving the issue.

Action: NHPC

7.2. Signing of PPA in respect of Tawang HE Project, Stage – I & II

Signing of PPA in respect of Tawang HE Project Stage I & II is pending with Manipur and Arunchal Pradesh.

All concerned beneficiaries are requested to give their consent for signing of PPA at the earliest.

Deliberation of the Sub-Committee

Concern beneficiaries were requested to look into the matter for settlement of the issue. NHPC was advised to pursue with them.

Action: All concerned constituents.

7.3. Outstanding dues of NHPC for more than 60 days

MeECL, Meghalaya and Power & Electricity Department, Govt. of Mizoram have outstanding dues of NHPC for more than 60 days, details as provided below:

(i) As per MeECL letter no. 251 dated 31.01.2017 entire outstanding dues had to cleared by August 2017. But till date, MeECL, Meghalaya have not clear the entire dues despite repeated reminders. As on date, an amount of Rs. 26.04 crores (including surcharge of Rs. 14.51 crores up to 30.06.2018) is due for payment from MeECL, Meghalaya. It is reiterated that amount outstanding beyond a period of 60 days from date of billing is attracting late payment surcharge at the rate of 1.5% per month as per CERC (Terms and Conditions on Tariff) Regulations, 2014. The auditors are stressing upon

NHPC to settle the issue of pending huge outstanding dues at earliest. Reminder has been sent on 12.07.2018. MeECL, Meghalaya is requested to liquidate the entire outstanding dues as early as possible.

(ii) An amount of Rs. 2.20 crores is due for payment from Mizoram for current bill of June 2018. Govt. of Mizoram is requested to liquidate the amount at the earliest to avoid late payment surcharge.

Deliberation of the Sub-Committee

(i) NERPC informed that a special meeting with Hon'ble Power Minister of Meghalaya will be held shortly and all issues including outstanding dues against Meghalaya will be discussed. All the concerned organizations were requested to liquidate the outstanding dues of NHPC at earliest.

(ii) Mizoram representative informed that they will try to clear the outstanding dues of NHPC as soon as possible.

The Sub-committee noted as above.

Action: MeECL and Mizoram.

8. AGENDA FROM NTPC

8.1. Liquidation of Outstanding by MeECL

Outstanding more than 60 days as on 09.07.2018 is Rs. 150.82 crores, whereas the total outstanding dues stand 169.97 crores.

Meghalaya is requested to make early payment and action plan for liquidation of dues.

Deliberation of the Sub-Committee

NERPC informed that a special meeting with Hon'ble Power Minister of Meghalaya will be held shortly and all issues including outstanding dues against Meghalaya will be discussed.

The Sub-committee noted as above.

8.2. Opening of Letter of Credit

Following beneficiaries have not yet opened the LC of required amounts after commercial operation of BGTPP Unit 2 w.e.f. 01.11.2017.

Sl.No	Beneficiaries	LC Required As per PPA (Cr.)	Remarks
1	MeECL, Meghalaya	16.44	Not yet opened
2	DoP, Arunachal Pradesh	8.68	LC opened for Rs 4.01 Crs. LC to be enhanced.
3	MSPDCL, Manipur	10.75	Not yet opened
4	TSECL, Tripura	10.91	Not yet opened

MeECL, DoP Arunachal, MSPCL, TSECL is requested to open the LC of requisite value.

Deliberation of the Sub-Committee

All the concerned beneficiaries were requested to open/enhance their LC in line with CERC stipulations at the earliest.

The Sub-committee noted as above.

Action: All concerned constituents.

9. AGENDA FROM OTPC

9.1. Billing at Reduced Annual fixed Charges for FY17-18 and FY 18-19

CERC had granted OTPC (PALATANA) the AFC as below vide Corrigendum

Order dated 3rd May 2017, considering the additional capitalization details submitted in its tariff petition to CERC by OTPC. However, due to various reasons, it seemed that spends under additional capitalization in FY 2015-16, 2016-17 and 2017-18 will be reduced. As a result, to avoid any un-necessary burden to its beneficiaries, OTPC has Suo-Moto reduced the billed AFC for FY 2015-16, 2016-17 and FY 2017-18, after approval of the same in the 34th Commercial Committee Meeting held on 24th January 2018, as below:

(in Rs Lakhs)

Financial Year	AFC approved by CERC	AFC Estimated by OTPC
2014-15 (01-04-14 to 23-03-15)	40064.96	40064.71
2014-15 (24-03-15 to 31-03-15)	1625.07	1623.27
2015-16 (01-04-15 to 09-04-15)	1887.50	1833.57
2015-16 (10-04-15 to 31-03-16)	79296.85	77034.35
2016-17	86054.87	80257.68
2017-18	86933.98	81211.51
2018-19	87261.79	83640.08

OTPC had therefore issued credit notes to its beneficiary states and refunded the excess AFC billed during FY 2015-16 and FY 2016-17. Further, OTPC had Suo-Moto reduced the billed AFC for FY 2017-18 to Rs 812.1151 Crores.

The effect of this revision in AFC on the energy bills for the period April-September 2017 was therefore captured by OTPC in the energy bill for month of October 2017 and necessary deductions were done in the energy bill for month of October 2017. Subsequent monthly energy bills for FY 2017-18 were also raised by OTPC using this reduced AFC of Rs 812.1151 Crores.

However, there is further curtailment in OTPC spends and the estimated AFC

for Palatana will be further reduced. OTPC expects that the approved and actual estimated AFC for FY 17-18 and FY 18-19 shall be as below:

(inRs Lakhs)

Financial Year	AFC approved by CERC	AFC Estimated by OTPC
2017-18	86933.98	79300
2018-19	87261.79	81900

OTPC shall hence issue credit notes of Rs 19.1151 Crs (i.e. the difference of 812.1151 and 793) for FY 17-18 and undertake a reduced billing at AFC of Rs 819 Crores for FY 18-19.

OTPC shall also accordingly adjust billing for FY 18-19 as some months have elapsed with AFC billing as Rs 872.6179 Crores. Further, OTPC will submit the desired details to CERC to finalize the actual AFC during truing up for the control period of 2014-19.

This is for kind information please.

Deliberation of the Sub-Committee

The representative from OTPC informed the forum about the further reduction in the expected AFC and clarified that adjustment in billing will be done as explained above.

The Sub-committee noted as above.

ANY OTHER ITEMS

10.1 Monthly Compensation Accounts issued by NERPC in pursuant of CERC order dated 5th May 2017.

NERPC informed that in the monthly compensation accounts issued by NERPC from the month of August 2017 onwards, the compensation amount

to generator is shared by all beneficiaries including regulated entities based on the ratio of their under requisitioned quantum (below 85% of its entitlement) . A beneficiary, who has requisitioned at least 85% of entitle energy, is not liable to pay the compensation charges.

MeECL has intimated that compensation to generating stations is a variable charge and since MeECL has been a regulated entity of BgTPP from 03.03.2017, it has the liability to pay only Capacity charges in respect to BgTPP during the period of power regulation. Further, Meghalaya, being a regulated entity, has no under requisitioned energy and therefore, should not share the compensation during regulation period in respect of BgTPP.

NERPC explained the compensation mechanism through ppt presentation (**attached at Annexure-C**) and informed the forum that necessary action would be carried out for rectification of the accounts.

The Sub-committee noted as above.

10.2 Requirement of facilitating Net Metering at LT side of Aux Power Transformer (4 stations of NERTS) as connected to DICOM of respective State utility (Bongaigaon (Salakati) Substation, Balipara S/S, Mokokchung SS, Badarpur S/S) – NERTS/POWERGRID

It may be noted that POWERGRID, through Central Electronics Limited has taken up installation of Solar PV Installation at various premises (on roof top of building) of POWERGRID. Total 5 MW solar power plants are proposed to be installed at 54 locations/substations. In this phenomena, local Utility station/connected distribution small-area can also be benefited with **NET metering philosophy**. Out of Different Locations, following are planned in NER area.

Sl. No.		Name of Region	Capacity (KW)

North Eastern Region (NER)	Assam/ Balipara	Tezpur-Tawang Road, Rangapara North	165
	Assam/ Bongaigaon	Village - Fukagaon, P.O.- Salakati, Landmark - Opp. NTPC, Near Salakati Railway Station, Assam - 783376	130
	Nagaland/ Mokokchung	Mokokchung-Kohima Road, Nagaland	80

In the 144th OCCM, as DISCOMs have to provide meters etc for net metering purpose, it was referred to CCM of NERPC for resolution.

Deliberation of the Sub-Committee

The CC forum opined that fruitful discussion could be held only after regulations pertaining to Net Metering etc are put in place by respective SERCs.

The Sub-committee noted as above.

10.3 Power Supply from 132/33 kV Rowing S/S (POWERGRID) located in Ar. Pradesh to Chapakhowa Sub Division of Assam.

Deliberation of the Sub-Committee

CGM (Comml), APDCL stated that the proposal of Assam for power supply to Assam by utilising the facility of Rowing S/S of POWERGRID through a separate line from Rowing S/S of POWERGRID to Chapakhowa Sub Division of Assam has been discussed in the 7th SCM of NER. He also stated that Ar. Pradesh has also agreed to the proposal of Assam for power supply from Ar. Pradesh to Assam. He further informed that the line and equipment required

for this arrangement will be borne by APDCL. He requested CC forum to give consent and advise APDCL to go ahead with the construction of line etc.

The commercial committee members opined that the final decision can be taken up after the issuance of 7th SCM Minutes.

DATE AND VENUE OF NEXT COMMERCIAL COMMITTEE MEETING
--

The next Commercial Coordination Sub-Committee meeting will be held in the month of October/November 2018. The date and venue will be intimated separately.

ANNEXURE-I

TIME DRIFT STATUS OF NER (Generators)

SL NO	ENTITY	FEEDER NAME	METER NO	TIME DRIFT STATUS	ACTION TAKEN
1	NTPC	NTPC END OF -B'GAON(PG)-I	NP-5812-A	8:49	NONE
		NTPC END OF -B'GAON(PG)-I	NP-5793-A	5:17	NONE
		NTPC ICT2 LV SIDE	NP-5281-A	6:14	NONE
2	PALATANA (OTPC)	400 kV L-1 Check	NP-7583-A	7:00	NONE
		400 kV L-2 Main	NP-9560-A	1:00	NONE
		132 kV L-1 Check	NP-7603-A	8:00	NONE
		132 kV L-2 Main	NP-9561-A	2:00	NONE
		132 kV L-2 Check	NP-8381-A	8:00	NONE
3	DOYANG (NEEPCO)			REPORT NOT RECEIVED	
4	AGBPP (NEEPCO)	KTG-Tinsukia-2 CHECK	NP-9447-A	2:00	NONE
		KTG-Tinsukia-1 MAIN	NP-9650-A	3:00	NONE
		KTG-Tinsukia-1 CHECK	NP-9445-A	-1:00	NONE
		KTG-Deomali MAIN	NP-9444-A	1:00	NONE
		KTG-Deomali CHECK	NP-9566-A	-3:00	NONE
		KTG-MARIANI CHECK	NP-9567-A	3:00	NONE
		KTG-MISA CHECK	NP-9446-A	1:00	NONE
5	AGTPP (NEEPCO)			ALL OKAY	
6	KHANDONG (NEEPCO)			ALL OKAY	
7	KOPILI (NEEPCO)			ALL OKAY	
8	RANGANADI (NEEPCO)			ALL OKAY	
9	LOKTAK (NHPC)			ALL OKAY	
10	PARE			ALL OKAY	
11	KAMENG			REPORT NOT RECEIVED	

TIME DRIFT STATUS OF NER (PG)

SL NO	ENTITY	FEEDER NAME	METER NO	TIME DRIFT STATUS(MIN)	ACTION TAKEN
1	Haflong(PG)	HFG- JBM FEEDER	NP-8494-A	8:00	YES
2	Salakati(PG)	Salakti-Gelephu	NP 8800 A	1:00	NONE
		Salaktati-Alipurduar 1	NP 7581 A	5:30	NONE
		Salakati-Alipurduar 2	NP 5303 A	2:16	NONE
3	Misa(PG)			ALL OKAY	
4	Kumarghat(PG)	Kumarghat-P.K.Bari Feeder	NP-6875A	-09:02	NONE
5	Dimapur(PG)	BOKAJAN	NP-9451-A	-03:00	NONE
	4 METERS HAVE INCORRECT DATE	DIMAPUR 1	NP-9602-A	-02:00	NONE
		DIMAPUR 2	NP-9649-A	1:00	NONE
		KOHIMA	NP-8472-A	3:00	NONE
6	Imphal(PG)			ALL OKAY	
7	Nirjuli(PG)	INCOMER ICT-I	NP-5825A	15:00	NONE
		INCOMER ICT-II	NP-5824A	28:00	NONE
		132kV Nirjuli-Lekhi	NP-6031A	30:00	
		132kV Nirjuli-Gohpur	NP-6034A	20:00	
8	MARIANI(PG)	Mariani-Kathalguri	NP8596A	6:00	NONE
9	Bongaigaon(PG)	SILIGURI 1	NP-8468-A	8:00	YES
		SILIGURI 2	NP-8469-A	10:00	YES
		APD1	NP-9072-A	5:00	YES
		APD2	NP-9069-A	1:00	YES
		BTPS2	NP-9477-A	4:00	YES
10	Ziro(PG)			ALL OKAY	
11	MELRIAT(PG)	MELRIAT-ZEMABAWK	MP-9563-A	-2:00	NONE
12	RANGIA(PG)	Rangia Feeder	NP-8380-A	10:44	NONE
		Motonga Feeder	NP-8368-A	13:29	NONE
13	BNC(PG)	TRF. POLE-2.	NP-6854-A	2:05	YES

TIME DRIFT STATUS OF NER (States)

SL NO	ENTITY	FEEDER NAME	METER NO	TIME DRIFT STATUS	ACTION TAKEN
1	ASSAM	132kV BOKAJAN-DIMAPUR	NP-7587-A	2:05	NONE
		132kV Gohpur - Nirjuli	NP-6907A	9:00	NONE
		132 KV AGIA FEEDER	NP-9455-A	OKAY	
		AZARA-BONG	NP-9456-A	-2:00	NONE
		AZARA-SIL	NP-9457-A	-3:00	NONE
		TINSUKIA-KTG I	NP-8383-A	11:00	NONE
		TINSUKIA-KTG II	NP-8686-A	9:00	NONE
2	ARUNACHAL PRADESH	132kV Lekhi-Ranganadi	NP-8372 A	9:00	NONE
3	Meghalaya	400kV BYR-Silchar	NP-8371-A	3:00	NONE
		400kV BYR-Bongaigoan	NP-8370-A	3:00	NONE
4	Manipur	Imphal(S) - Imphal (PG)-I	NP-8374-A	11:00	NONE
		Imphal(S) - Imphal (PG)-II	NP-6950-A	16:00	NONE
		Yurembam-Karong	NP-6951-A	16:00	NONE
		Karong-Kohima	NP-8373-A	11:00	NONE
		Ningthoukong-Loktak Feeder	NP-8375-A	7:00	NONE
5	TRIPURA	P.K.Bari-Silchar-2 Feeder	NP-8564A	-4:08	NONE
		P.K.Bari-Silchar-1 Feeder	NP-4501A	-6:34	NONE
		79tilla-RC Nagar Fdr-I	NP-6850-A	-6:54	YES
		79tilla-RC Nagar Fdr-II	NP-6851-A	-7:34	YES

TIME DRIFT STATUS OF NER (Not Reporting)

PGCIL		
1	Aizawl (PG)	REPORT NOT RECEIVED
2	Jiribam (PG)	REPORT NOT RECEIVED
3	Balipara(PG)	REPORT NOT RECEIVED
4	Silchar(PG)	REPORT NOT RECEIVED
5	Mokokchang(PG)	REPORT NOT RECEIVED
6	Khliehriat(PG)	REPORT NOT RECEIVED
7	ASSAM	
	PAVOI	REPORT NOT RECEIVED
	SRIKONA	REPORT NOT RECEIVED
	BOKAJAN	REPORT NOT RECEIVED
	MARIANI	REPORT NOT RECEIVED
	UMRANGSOO	REPORT NOT RECEIVED
	HAILAKHANDI	REPORT NOT RECEIVED
	SAMAGURI	REPORT NOT RECEIVED
	BTPS	REPORT NOT RECEIVED
8	NAGALAND(S)	REPORT NOT RECEIVED

9	MIZORAM(S)	REPORT NOT RECEIVED
10	TRIPURA	
	UDAIPUR	REPORT NOT RECEIVED
	P.K BARI	REPORT NOT RECEIVED
	79 TILLA	REPORT NOT RECEIVED
11	MANIPUR	
	TIPAIMUKH	REPORT NOT RECEIVED

ANNEXURE-I (A)

Step by Step Time drift correction procedure

Step by step Time drift correction procedure in L&T make SEMs is as given below:

1. Press “P” in DCD
2. Enter password “XMISSION”
3. Press “A” or “R” for time advance/retard

After this, SEM should be kept powered ON for 90 minutes.

Financial Year : 2016-2017										
Regulating Entity: Regulated Entity:	Generat ing station from where regulati on is done	Quantum of regulated power (in MWH)	Mode of sale of regulated power (through exchange or through traders or DSM etc)	Total revenue earned from sale of regulated power (In Rs.)	Detail of expenditure incurred towards (a) adjustment of energy charges (b) registration fee for exchanges or traders' fee etc (c) Any other incidental expenses with detail (In Rs.)			Amount of outstandin g dues of the Regulated Entity. (In Rs.)	Amount adjusted against the outstanding dues of the Regulated Entity (In Rs.)	Remaining amount, if any, to be passed on to the Regulated Entity (In Rs.)
(1)	(2)	(3)	(4)	(5)	(6)			(7)	(8)	(9)=(5)-(6)-(8)
Regulating Entity: NTPC Ltd Regulated Entity : Meghalaya Energy Corporation Ltd	BgTPP				(a)	(b)	(c)	1.006E+09		
Financial Year : 2017- 2018 (Apr - Mar 2018)										
Regulating Entity: Regulated Entity:	Generat ing station from where regulati on is done	Quantum of regulated power Traded (in MWH)	Mode of sale of regulated power (through exchange or through traders or DSM etc)	Total revenue earned from sale of regulated power (In Rs.)	Detail of expenditure incurred towards (a) adjustment of energy charges (b) registration fee for exchanges or traders' fee etc (c) Any other incidental expenses with detail (In Rs.)			Amount of outstandin g dues of the Regulated Entity. (In Rs.)	Amount adjusted against the outstanding dues of the Regulated Entity (In Rs.)	Remaining amount, if any, to be passed on to the Regulated Entity (In Rs.)
(1)	(2)	(3)	(4)	(5)	(6)			(7)	(8)	(9)=(5)-(6)-(8)
Regulating Entity: NTPC Ltd Regulated Entity : Meghalaya Energy Corporation Ltd	BgTPP	:27.45 (w.e.f 01.04.2017 :57.45 (w.e.f 01.11.2017)	Exchange		(a)	(b)	(c)			
		53571.43	PX	53229479	160941396.9	2488211.6	14672167.6	1.249E+09	-52759842.0	469637.0
Financial Year : 2018-19(Upto June 2018)										
Regulating Entity: Regulated Entity:	Generat ing station from where regulati on is done	Quantum of regulated power Traded (in MWH)	Mode of sale of regulated power (through exchange or through traders or DSM etc)	Total revenue earned from sale of regulated power (In Rs.)	Detail of expenditure incurred towards (a) adjustment of energy charges (b) registration fee for exchanges or traders' fee etc (c) Any other incidental expenses with detail (In Rs.)			Amount of outstandin g dues of the Regulated Entity. (In Rs.)	Amount adjusted against the outstanding dues of the Regulated Entity (In Rs.)	Remaining amount, if any, to be passed on to the Regulated Entity (In Rs.)
(1)	(2)	(3)	(4)	(5)	(6)			(7)	(8)	(9)=(5)-(6)-(8)
Regulating Entity: NTPC Ltd Regulated Entity : Meghalaya Energy Corporation Ltd	BgTPP	:27.45 (w.e.f 01.04.2017 :57.45 (w.e.f 01.11.2017)	Exchange		(a)	(b)	(c)			
		56961.00	PX	75,264,738.20	167475178	NIL	19878225.0	1.689E+09	-75264738.2	0.0

पूर्वोत्तर क्षेत्र के वित्तीय वर्ष 2018-19 के विचलन बकाया की स्थिति (पिछले साल सहित)
Deviation Outstanding status of NER for FY-2018-19(including Last years O/S)

	09/07/2018	15/07/2018	तक	आज की तारीख में/As on 26/07/2018			Figs in Lacs
घटक/Constituents	टोटल/TOTAL (Till wk-15 of FY18-19)		टोटल/TOTAL (Disb. Till wk-15 Part)		टोटल / TOTAL		O/S PAYABLE >13 WEEKS
	पूल के लिए देय / Payable to Pool	पूल से प्राप्त / Receivable from Pool	भुगतान किया / Paid	प्राप्त / Received	O/S Payable to Pool	O/S Receivable from Pool	
अरुणाचल प्रदेश / Ar. Pradesh	11376.73	2140.12	11049.85	1833.32	326.88	306.80	25.33
असम / Assam	38379.96	271.41	38113.75	127.26	266.21	144.15	0.00
मणिपुर / Manipur	2335.74	1936.05	2290.97	1741.97	44.77	194.08	0.00
मेघालय / Meghalaya	2250.51	5105.27	2239.07	4998.92	11.44	106.35	0.00
मिजोरम / Mizoram	4865.42	1264.98	4865.35	964.96	0.07	300.02	0.00
नगालैंड / Nagaland	5782.37	572.01	5781.67	564.26	0.70	7.75	0.00
त्रिपुरा / Tripura	11496.77	1871.12	11257.93	1318.51	238.84	552.61	42.65
लोकतक / Loktak	58.09	594.99	58.09	588.71	0.00	6.27	0.00
नीपको / NEEPCo	1329.05	11174.62	1325.46	10679.91	3.59	494.71	0.00
ई आर / ER	48173.03	195663.85	47328.85	188227.81	844.18	7436.04	
ओटीपीसी/ OTPC	1879.80	5149.23	1879.62	5016.55	0.19	132.68	0.00
एनटीपीसी / NTPC	3548.82	2834.41	3490.10	2831.62	58.72	2.79	0.00
एन आर / NR	167322.61	51241.81	157921.89	49941.20	9400.71	1300.61	
बि.एन.सि / BNC	61.59	162.14	61.57	162.09	0.02	0.05	0.00
VAE	5.67	147.84	0.00	0.00	5.67	147.84	0.00
टोटल / TOTAL	298866.17	280129.86	287664.17	268997.09	11202.00	11132.76	
PSDF		18736.31		6917.98		69.24	

ANNEXURE-IV

REACTIVE POOL ACCOUNT DETAILS : 2018-19

Upto Week -14

As on 24.07.2018

Annexture-I

All figures in ₹

Sl. No	States	Till Previous FY		CURRENT FY				Reactive Bill settlement status		Interest Bill settlement status		Reactive+Interest Settlement	
		Outstanding Payable (upto FY 17-18)	Outstanding Recivable (upto FY 17-18)	Payable to pool (2018-19)	Paid to pool (2018-19)	Receivable from pool (2018-19)	Received from pool (2018-19)	Outstanding Payable (upto FY 18-19)	Outstanding Recivable (upto FY 18-19)	O/S Reactive interest payable (Upto WK 26 of FY 2017-18)	O/S Reactive int. Receivable (Upto WK 26 of FY 2017-18)	Net Outstanding Payable (upto FY 18-19)	Net Outstanding Receivable (upto FY 18-19)
		1	2	3	4	5	6	1	2	7	8		
1	Ar. Pradesh	2535247	0	599616	636318	0	0	2498546	0	0	0	2498546	0
2	Assam	5486190	0	0	1152631	784450	0	4333559	784450	0	84671	3464438	0
3	Manipur	0	1809592	91488	0	6873	0	91488	1816465	2199392	0	474415	0
4	Meghalaya	0	4232922	94409	0	437512	2781596	94409	1888839	0	0	0	1794429
5	Mizoram	576994	0	545600	44816	2084	0	1077778	2084	0	0	1075694	0
6	Nagaland	886617	0	106480	948831	26203	0	44266	26203	0	0	18064	0
7	Tripura	0	237759	74849	0	42383	0	74849	280141	117950	0	0	87342
8	PSDF		3204775	0	0	212938	0		3416713		2232671		5649384
	TOTAL	9485049	9485049	1512443	2782596	1299505	2781596	8214895	8214895	2317342	2317342	7531156	7531156

List of Participants in the 36th CC Meeting held on 3rd August, 2018

S.N.	Name & Designation	Organization	Contact No.	Email Address
1	Sh. Gumdo Doji, CE (WEZ)	Ar. Pradesh	09436248264	wezita@gmail.com
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5	Sh. Michi Tara, SE (E)	Ar. Pradesh	09436059669	-
6	Sh. D. Tacho, SE (E)	Ar. Pradesh	09436040353	-
7	Sh. Tage Talin, Sr. FAO	Ar. Pradesh	09436044478	-
8	Sh. N. Perme, SE (SO&PSC)	Ar. Pradesh	09436288643	-
9	Sh. Z. Nacho, EE (E)	Ar. Pradesh	09774781072	-
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	No Representative	Manipur	-	-

	No Representative	Meghalaya	-	-
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	No Representative	Nagaland	-	-
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33	Sh. B. Lyngkhai Director/S.E (C&O)	NERPC	09436163419	brieflee.lyngkhai@gov.in

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CALCULATING COMPENSATION PAYABLE FOR A REGULATED ENTITY

-Abhijeet Agrawal
AD, NERPC

Content

- About Regulation of Power.
- About Compensation Mechanism.
- Regulated Entity vs. Compensation.
- Recommendations.
- References.

Regulation of Power (by Generating station)

- 60 days/notification.
- 2 options with the regulating entity.
- Surplus Power.
- Liability of the regulated entity.
- Recovery.

Compensation Mechanism-(a)

- Technical Minimum. (arguments)
- CEA's recommendation.
- Decision of the commission and genesis of the compensation mechanism.
- 55% OF IC.

Compensation Mechanism-(b)

Unit Loading	Increased SHR proposed by CERC (sub-critical)	Increased in AEC proposed by CERC (sub-critical)
85-100%	NIL	NIL
75-84.99%	2.25	0.35
65-74.99%	4.0	0.65
55-64.99%	6.0	1.00

Normative Capacity > x > ***Technical Minimum***

Compensation Mechanism-(c)

- “No compensation shall be payable by a beneficiaries if it has requisitioned at least 85% of its entitlement during the calculated period.”
- Sharing the responsibility:

$$\text{Final Compensation Payable}(k) = \text{Total Comp} \times \frac{UE(k)}{\sum_k UE(k)}$$

Conflicts

- Causer's pay principle?
- Liability only for capacity charges not variable cost.
- If yes, in what proportion? Regulated entity has zero URS.

Conclusion

- Regulated Entity should not be held liable for such compensation.

References

1. CERC Reg. No. L-1/219/2017 dated 05.05.2017; DOP on Reserve Shutdown & Compensation mechanism.
2. CERC SOR dated 06.04.2016 on Compensation Mechanism.
3. CERC Reg. dated 28.09.2010 on Regulation of Power.
4. CERC SOR dated 17.09.2010 on Regulation of Power.

HIGHLIGHTS OF DSM DRAFT AMENDMENT

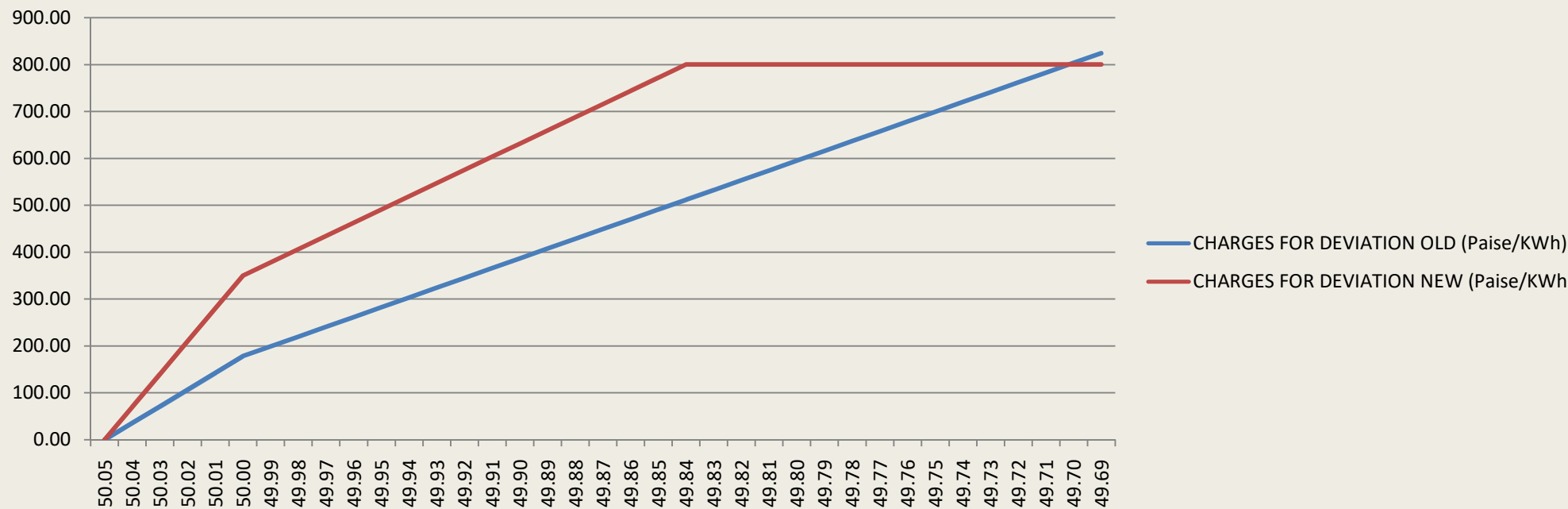
-36th CCM, NERPC
03.08.2018

ABOUT

- 4TH AMENDMENT OF THE PRINCIPAL REGULATION.
- DATED 29TH JUNE 2018.
- W.E.F. 01ST SEPTEMBER 2018.

DSM RATE VECTOR

■ MARKET LINKAGE. (Comparison illustrated for Average ACP of Rs. 350 Paise/kWh)



FREQUENCY RANGE

- 49.85-50.05 Hz.

CAP RATES

- CHARGE FOR DEVIATION
 - *COAL/LIGNITE/gas under APM: ECR*
- INFIRM INJECTION RATE: RLNG Rs. 8.00
- Additional Charge for deviation for under-injection (for both f is 49.85 and above & also for $f < 49.85$)
 - *COAL/LIGNITE/gas under APM: ECR*

LIMITS ON DEVIATION VOLUME AND CONSEQUENCE OF CROSSING LIMITS

- Limit on total deviation from schedule in energy terms during a day
 - *3% OF THE TOTAL SCHEDULE FOR THE DRAWEE*
 - *1% FOR THE GENERATORS*
 - ❖ *Additional charge of 20% of the daily base DSM payable/receivable shall be applicable.*
- Additional Charge for deviation ($f < 49.85$)
 - *Over-drawl and under-injection: 800 paise.*
- Sustained Deviation:
 - *In one-direction, shall have to make sigh of their deviation from sch. changed, at least once after 6 blocks.*
 - ❖ *Additional surcharge of 20% on the daily base DSM payable/receivable.*

**05-Minute Scheduling, Metering, Accounting
and Settlement; Hydro as Fast Response
Ancillary Services (FRAS)
CERC order dated 16th of July, 2018 on Pilot
Project**

**Re-designing Real Time Electricity
Markets in India**

***Presentation by NERLDC
36th. CCM-NERPC:03.08.2018***

RRAS - the slow Tertiary and FRAS- the fast Tertiary

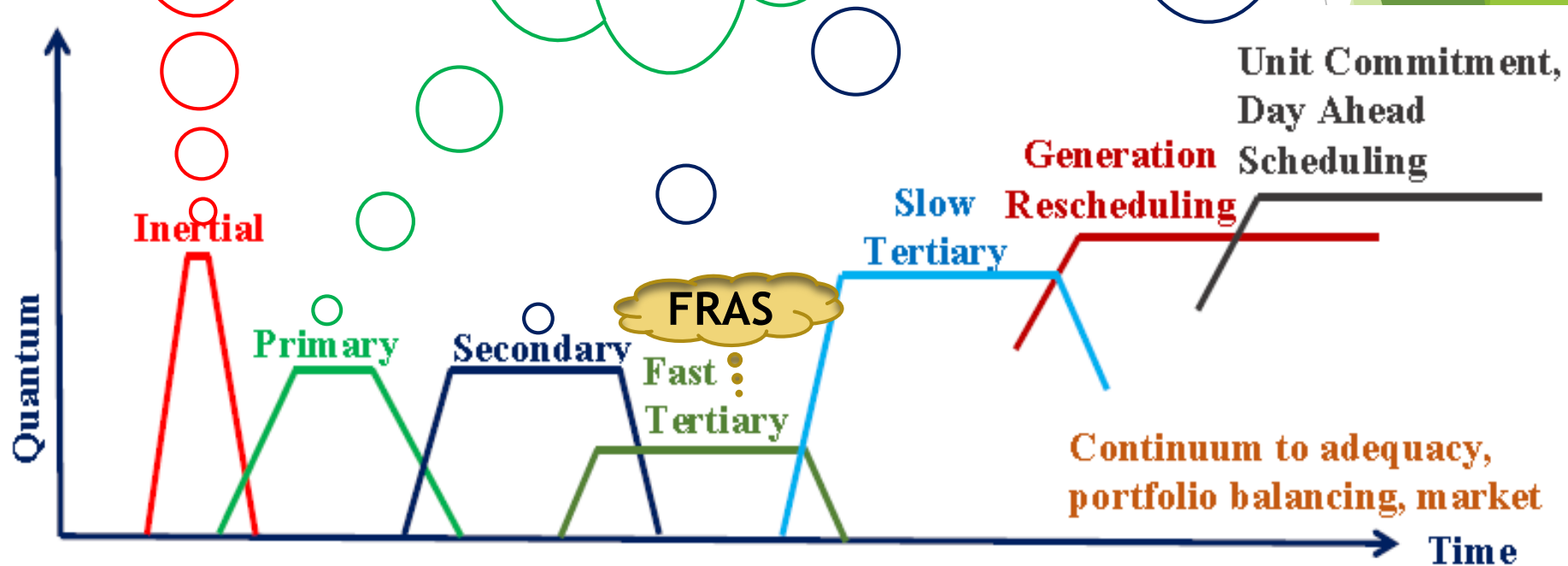
*POSOCO presentation in FOR
Technical Committee; 7-8 June'18*

System Balancing in India

Inertia
Decreasing,
175 GW RE,
Need to
have more
hydro
machines

Mandated as
per Grid Code
for all; Need
for faster
response from
Hydro

AGC Pilot
Project
Operational;
Hydro stations
may be put on
AGC on pilot
basis



FGMO / RGMO

5.2(f) of IEGC 2010: All thermal generating units of 200 MW and above and all hydro units of 10 MW and above, which are synchronized with the grid, irrespective of their ownership shall have their governors in operation at all times

Fifth Amendment: April'16:

In Regulation 5.2(f) of the Principal Regulations, the words: "All thermal generating units of 200 MW and above and all hydro units of 10 MW and above" shall be substituted with words **"All Coal/lignite based thermal generating units of 200 MW and above, Open Cycle Gas Turbine/Combined Cycle generating stations having gas turbines of capacity more than 50 MW each and all hydro units of 25 MW and above"**.

AGC pilot projects - one in each Region

AGC pilot is already implemented in Dadri-NR.

For Mouda & Simhadri, orders have been placed for AGC implementation.

For Bongaigaon & Barh AGC implementation is yet to be initiated.

Reserve Regulation Ancillary Services - At a Glance (April, 2016 - February, 2018)

**Capacity under RRAS:
56 GW**

**Highest Variable Charge
~ Rs. 10.24 / Unit
(Auraiya LF– NR)**

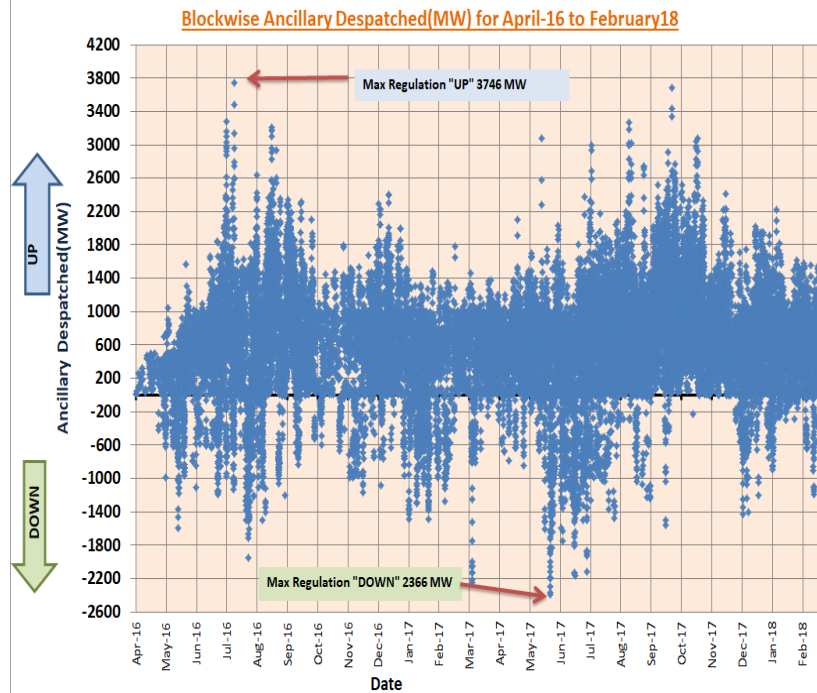
**RRAS Providers:
55 Nos.**

**Maximum 'Up'
Regulation :
3746 MW**

**Maximum 'Down'
Regulation :
2366 MW**

**Energy Despatched:
Down – 1 MU / day
(0.03 % Energy met)**

**Energy Despatched:
Up – 7 MU / day
(0.2 % of Energy met)**



**Lowest Variable Charge
~ Rs. 1.18 / Unit
(Singrauli – NR)**

**Avg. Daily Number of
RRAS Instructions :
07 to 08 Nos.**

**Average Cost for
Regulation Up Despatch:
₹ 4.86/ Unit**

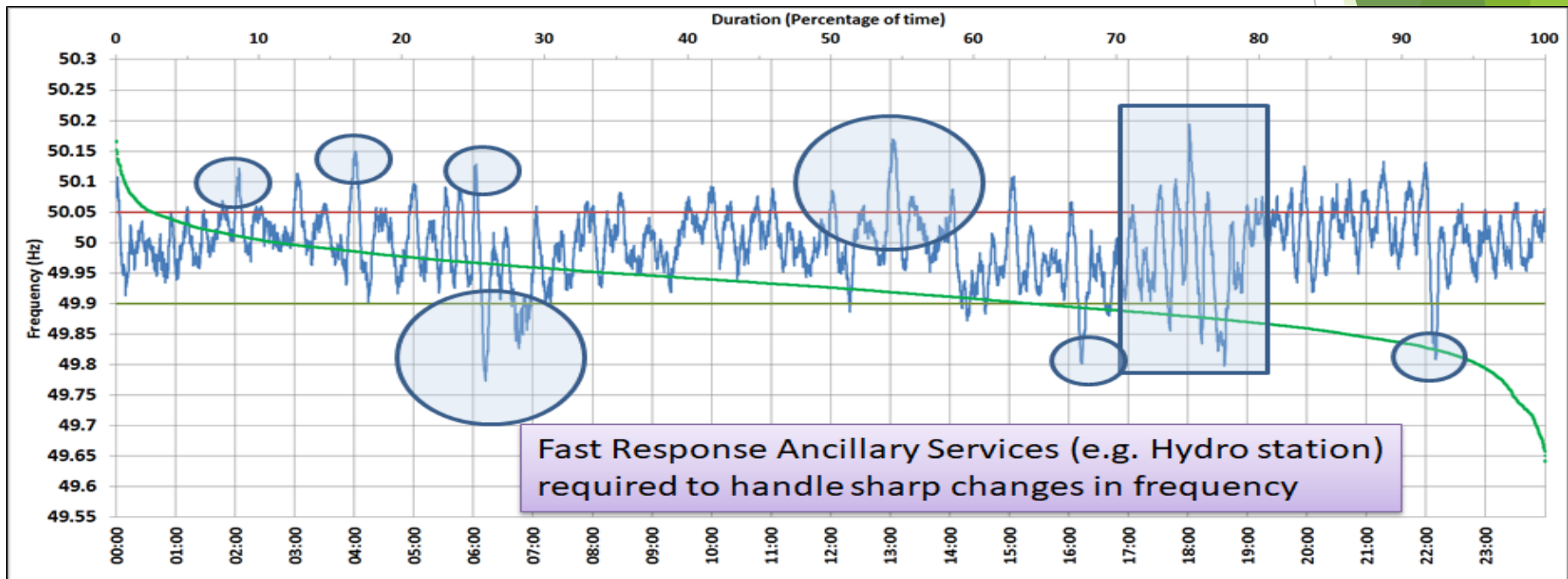
**Mark Up paid to RRAS
provider- 50 Paise/Unit**

**Average variable Charge
refunded to DSM Pool for
Regulation Down : ₹ 1.78/ Unit**

**Average Variable
charges retained by
RRAS providers
59 Paise/Unit**

FRAS Triggering Criteria

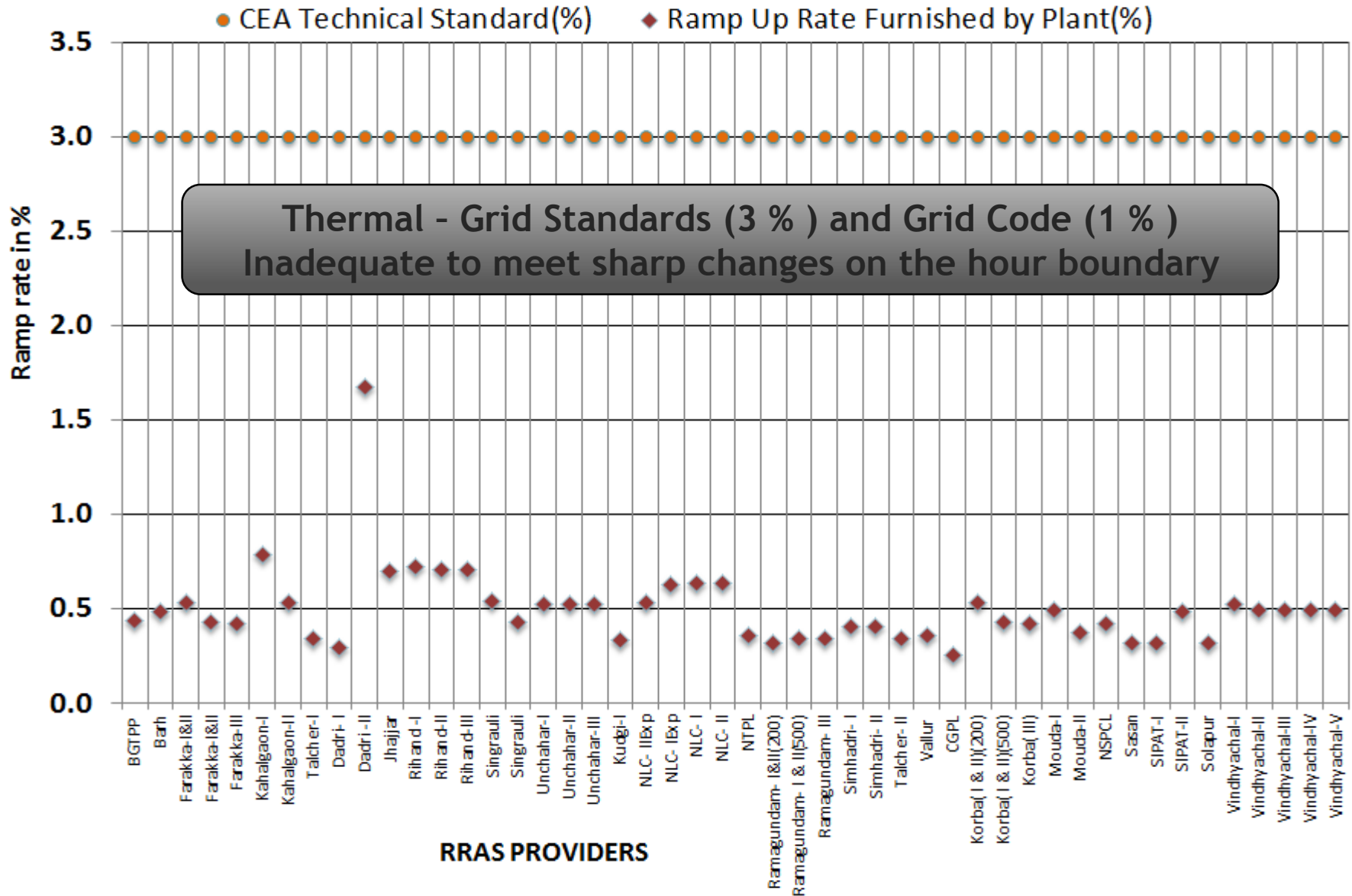
- Hour boundary frequency changes
- Sudden changes in demand
- Ramp management
- Grid contingency
- RE Variation



<49.7	<49.90	<49.97	49.7-49.8	49.8-49.9	49.9-50.0	50.0-50.1	50.1-50.2	49.90-50.05	49.7-50.2	49.97-50.03	50.05-50.1	>50	>50.03	>50.05	>50.2
0.00	4.61	29.05	0.21	4.40	44.47	48.37	2.56	79.22	100.00	43.31	13.65	50.86	27.64	16.17	0.00
Average Frequency :			49.997	Frequency Variation Index :		0.032	Standard Deviation :		0.056	Mileage		45.61			

Hydro station ramp rate ~14 to 100%

RRAS Providers Ramp Rate



Sl No	Name	Utility	Region	Type (S/R/P)	I/C (MW)
1	Teesta-V	NHPC	ER	R	510
2	Rangit			R	60
3	Bairasiul		NR	P	180
4	Chamera-II			P	300
5	Chamera-I			P	540
6	Uri Stage - I			R	480
7	Salal			R	690
8	Dhauliganga			P	280
9	Tanakpur			R	94.2
10	Chamera-III			P	231
11	Parbati III			P	520
12	Sewa-II			P	120
13	Dulhasti			P	390
14	Uri Stage - II			R	240
15	Naptha Jhakri	SJVN		P	1500
16	Rampur			P	412
17	Tehri	THDC		S	1000
18	Koteshwar			S	400
19	Koldam	NTPC		P	800
20	Kopili	NEEPCO	NER	S	200
21	Kopili-II			S	25
22	Khandong			S	50
23	Ranganadi			P	405
24	Loktak	NHPC		S	105
25	Pong	BBMB	NR	S	396
26	Dehar			R	990
27	Bhakra complex			S	1379
			Total		12297

Type	MW
Storage (S)	3555
RoR with Pondage (P)	5678
RoR (R)	3064
Total	12297

The background features abstract, overlapping green geometric shapes, primarily triangles and polygons, in various shades of green, creating a modern and dynamic look.

CERC order dated 16th of July, 2018 on Pilot Project

CERC order dated 16th of July, 2018

All constraints and commitments declared by the hydro stations shall be honoured and the total energy delivered over the day shall be maintained as declared by the hydro station.

The total energy dispatched under FRAS shall be squared off by the end of the day. Triggering of FRAS shall be based on the balance energy available in the hydro station.

The Schedules of the beneficiaries shall not be disturbed in the despatch of FRAS

Payment for FRAS shall be based on “mileage” basis.

CERC order dated 16th of July, 2018

The mileage during the day :

Net energy $E_{\text{net}} = S E_{\text{up}} - S E_{\text{down}}$ (in MWh)
(should be zero over the day)

Mileage $E_m = S | E_{\text{upt}} | + S | E_{\text{downt}} |$ (in MWh)

CERC order dated 16th of July, 2018

5-Minute Main and Check Meters (with AMR feature) to be installed at:

NTPC Dadri	(15 Nos.)
THDC Tehri	(2 Nos.)
NTPC Mouda	(14 Nos.)
NTPC Simhadri	(6 Nos.)
NTPC Bongaigaon	(4 Nos.)
NTPC Barh	(4 Nos.)
NHPC Teesta	(2 Nos.)
NHPC Loktak	(4 Nos.)

Total no. of Meters = 51X2 = 102

For NTPC Mouda & Simhadri, Bongaigaon and Barh, the pilot study will be done along with AGC implementation subsequently.

CERC order dated 16th of July, 2018

The RPCs shall issue weekly FRAS accounts along with the RRAS accounts based on the data provided to them by the RLDCs/NLDC.

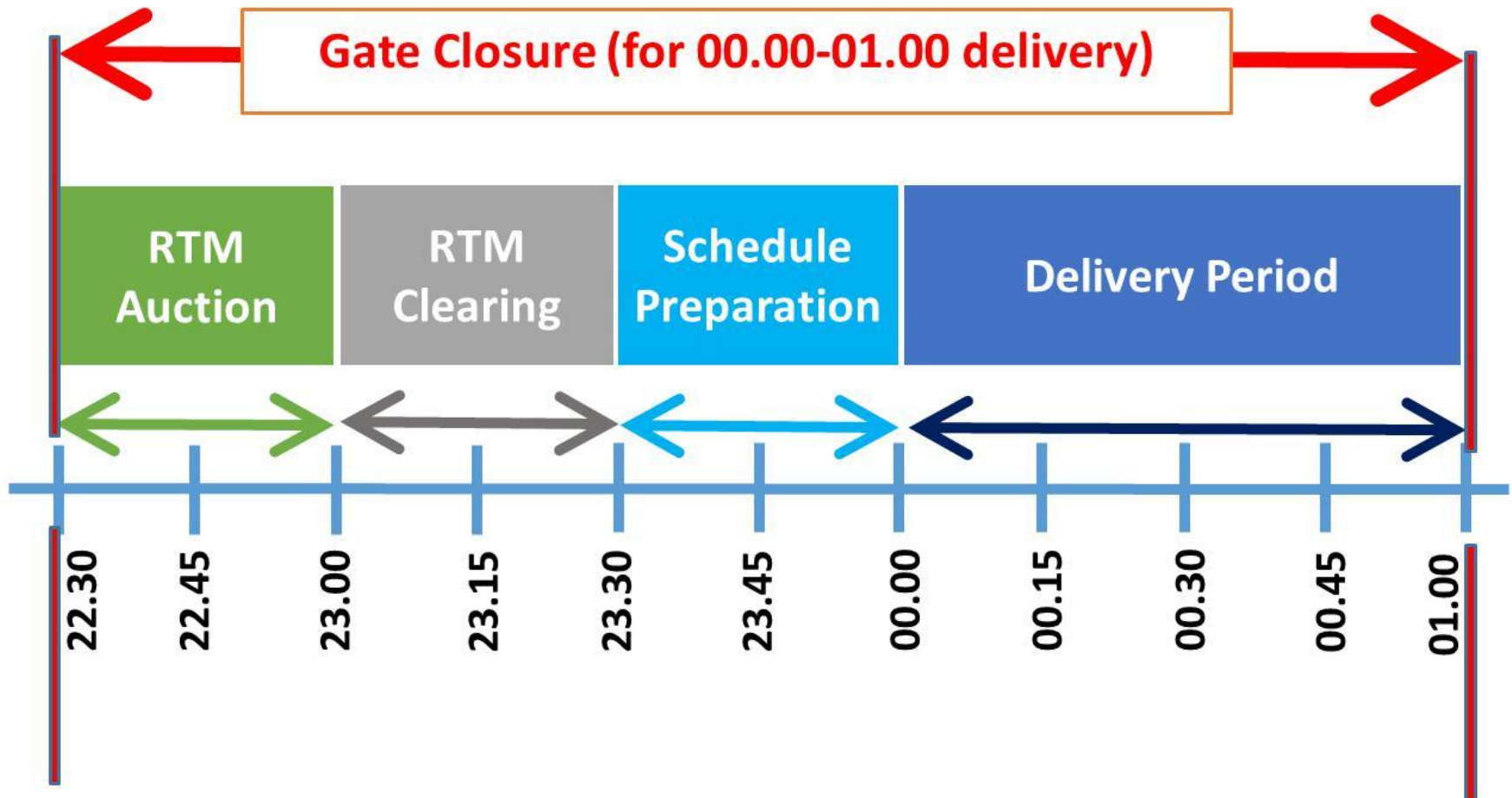
Incentive shall be paid from the DSM Pool on **mileage basis at the rate of 10 paise per kWh** both for “up” and “down” regulation provided by the hydro station.

Re-designing Real Time Electricity Markets in India

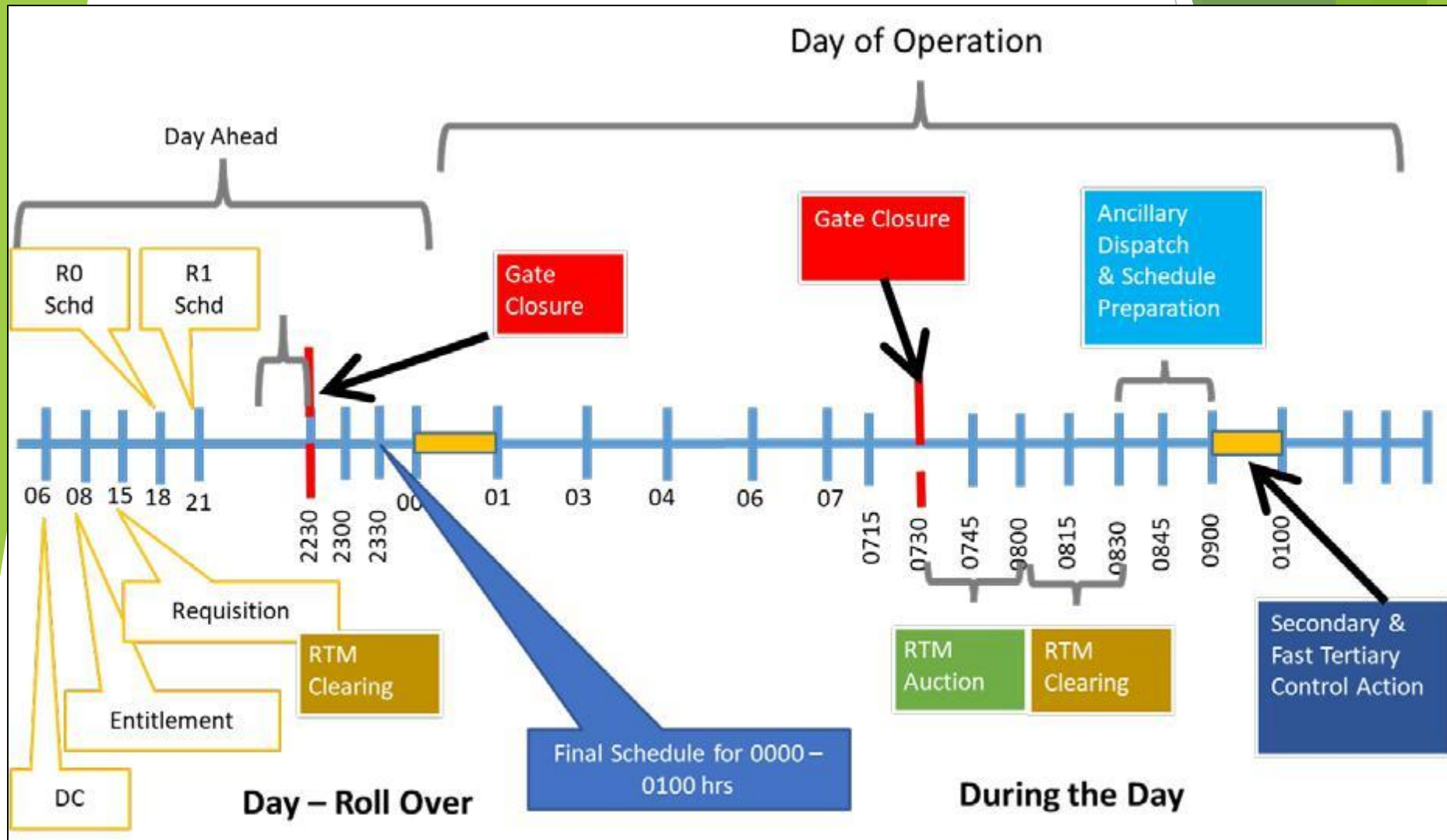
Re-designing Real Time Electricity Markets in India

Categories of Market	Day Ahead Market (DAM)	Real Time Market (RTM)	System Imbalance/Ancillary Services Market
Purpose	Energy Trade	Energy Trade	Inadvertent deviation management
Market Operation – India			
Current	DA (self- scheduling + Power Exchange (PX))	Deviation settlement Mechanism (DSM) + Ancillary Services (AS) + Intra-Day (PX) + Re-Scheduling (4 time blocks prior to dispatch)+ Intra-day contingency	
Desirable	DA (self- scheduling + PX)	Real Time Market (Hourly), with gate closure	DSM + AS

Re-designing Real Time Electricity Markets in India



Re-designing Real Time Electricity Markets in India



Present intra-day trading in PX

TIMELINES OF INTRA-DAY CONTRACTS

Market Type	Symbol	Trading Start Time	Trading End Time	Delivery Period (Delivery on the same day)
Intraday	ITD-H05-AR	00:30 hrs	01:00 hrs	04:00:00 - 05:00:00
Intraday	ITD-H06-AR	00:30 hrs	02:00 hrs	05:00:00 - 06:00:00
Intraday	ITD-H07-AR	00:30 hrs	03:00 hrs	06:00:00 - 07:00:00
Intraday	ITD-H08-AR	00:30 hrs	04:00 hrs	07:00:00 - 08:00:00
Intraday	ITD-H09-AR	00:30 hrs	05:00 hrs	08:00:00 - 09:00:00
Intraday	ITD-H10-AR	00:30 hrs	06:00 hrs	09:00:00 - 10:00:00
Intraday	ITD-H11-AR	00:30 hrs	07:00 hrs	10:00:00 - 11:00:00
Intraday	ITD-H12-AR	00:30 hrs	08:00 hrs	11:00:00 - 12:00:00
Intraday	ITD-H13-AR	00:30 hrs	09:00 hrs	12:00:00 - 13:00:00
Intraday	ITD-H14-AR	00:30 hrs	10:00 hrs	13:00:00 - 14:00:00
Intraday	ITD-H15-AR	00:30 hrs	11:00 hrs	14:00:00 - 15:00:00
Intraday	ITD-H16-AR	00:30 hrs	12:00 hrs	15:00:00 - 16:00:00
Intraday	ITD-H17-AR	00:30 hrs	13:00 hrs	16:00:00 - 17:00:00
Intraday	ITD-H18-AR	00:30 hrs	14:00 hrs	17:00:00 - 18:00:00
Intraday	ITD-H19-AR	00:30 hrs	15:00 hrs	18:00:00 - 19:00:00
Intraday	ITD-H20-AR	00:30 hrs	16:00 hrs	19:00:00 - 20:00:00
Intraday	ITD-H21-AR	00:30 hrs	17:00 hrs	20:00:00 - 21:00:00
Intraday	ITD-H22-AR	00:30 hrs	18:00 hrs	21:00:00 - 22:00:00
Intraday	ITD-H23-AR	00:30 hrs	19:00 hrs	22:00:00 - 23:00:00
Intraday	ITD H24 AR	00:30 hrs	20:00 hrs	23:00:00 24:00:00

Matching Rules: Continuous Matching

Buy Bids

25 MWh @ Rs. 5000/MWh
25 MWh @ Rs. 5500/MWh

Sale Bids

30 MWh @ Rs. 7000/MWh
30 MWh @ Rs. 5500/MWh

Matched Order

Buy 25 MWh @ Rs. 5500/MWh & Sale 30 MWh @ Rs. 5500/MWh

Traded 25 MWh @ Rs. 5500/MWh

Pending Buy Order

25 MWh @ Rs. 5000/MWh

Pending Sale Order

30 MWh @ Rs. 7000/MWh
5 MWh @ Rs. 5500/MWh

CERC order dated 16th of July, 2018

The markets shall be based on double sided closed auctions with uniform market clearing price.

The real time market shall be conducted once in every hour for delivery in four fifteen minute blocks in each hour.

CERC order dated 16th of July, 2018

RTM is an energy only market and as such the play in this market is around the variable or marginal cost.

The fixed cost liability will be borne / settled as per the existing contract. In the event of such generator earning revenue over and above the regulated variable cost, the gain shall be shared in the ratio of 50: 50 with the beneficiary as per the stipulation in the tariff policy.

CERC order dated 16th of July, 2018

(i) The discoms would have access to larger pool of generation resources to meet their contingent requirement in real time as against the existing bilateral resources (under the right to recall) to meet contingencies;

(ii) Prices discovered in such real time market are likely to be more efficient than the cost of procurement of power from the bilateral arrangement under the right to recall;

Thank You