



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
NERPC Complex, Dong Parmaw, Lapalang, Shillong - 793006, Meghalaya

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No.: NERPC/COM/CC_Min/2018/4223-4265

Dated: 18.08.2021

To

1. CE (Commercial) -cum- CEI, Deptt. of Power, Govt. of Arunachal Pradesh, Itanagar- 791 111
2. MD, APDCL, Bijuli Bhawan, Paltan Bazar, Guwahati-781 001
3. MD, AEGCL, Bijuli Bhawan, Paltan Bazar, Guwahati-781 001
4. MD, APGCL, Bijuli Bhawan, Paltan Bazar, Guwahati-781 001
5. MD, MSPDCL, Secure Office Bldg. Complex, South Block, Near 2nd MR Gate, Imphal – 795 001
6. MD, MSPCL, Keishampat, Imphal – 795 001
7. Director (Distribution), MePDCL, Lumjingshai, Short Round Road, Shillong – 793 001
8. Director (Transmission), MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
9. Director (Generation), MePGCL, Lumjingshai, Short Round Road, Shillong – 793 001
10. Engineer-in-Chief (P&ED), Govt. of Mizoram, New Secretariat Complex, Khatla, Aizawl – 796 001
11. Engineer-in-Chief (P&E), Department of Power, Govt. of Nagaland, Kohima – 797 001
12. Director (Tech), TSECL, Banamalipur, Agartala – 799 001
13. Director (Generation), TPGL, Banamalipur, Agartala – 799 001
14. ED (Commercial), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
15. ED (O&M), NEEPCO Ltd., Brookland Compound, Lower New Colony, Shillong-793003
16. ED (Commercial), NHPC, NHPC Office Complex, Sector-33, Faridabad, Haryana-121003
17. ED (O&M), NHPC, NHPC Office Complex, Sector-33, Faridabad, Haryana-121003
18. Group GM, NTPC Limited, Bongaigaon Thermal Power Project, P.O. Salakati, Kokrajhar-783369
19. GM (Commercial), NTPC Limited, ER-II HQ, Plot No. N-17/2, Naya Palli, Bhubaneswar-751012
20. MD, OTPC, Core 4 & Central, 10th Floor, SCOPE Minar, Laxmi Nagar, Delhi – 110092
21. ED, NERTS, PGCIL, Dongtiah-Lower Nongrah, Lapalang, Shillong -793 006
22. AGM (BD), NVVN, Core 5, 3rd floor, Scope Complex, 7 Institutional Area, Lodhi Rd., N. Delhi-3
23. Vice President, PTCIL, 2nd Floor, NBCC Tower, 15, Bhikaji Cama Place, New Delhi – 110066
24. ED, NERLDC, Dongtiah-Lower Nongrah, Lapalang, Shillong -793 006
25. Chief Engineer, GM Division, CEA, Sewa Bhawan, R.K. Puram, New Delhi – 110066

Sub: Minutes of the 42nd Commercial Sub-Committee Meeting held online (MST) on 5th August 2021

Sir,

Please find enclosed herewith the minutes of the 42nd Commercial Sub-Committee Meeting held online (MST) on 5th August 2021 for your kind information and further necessary action.

Encl.: As above

भवदीय / Yours faithfully,

(एस. एम. आइमोल / S. M. Aimol)

निदेशक / Director

वाणिज्य / Commercial

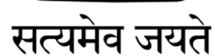
Copy to:

1. CGM (Comml), APDCL, Bijuli Bhawan, Paltan Bazar, Guwahati-781 001
2. ED (Comml), MSPDCL, Secure Office Bldg. Complex, South Block, Near 2nd MR Gate, Imphal-01
3. SE (EM), MePDCL, Lumjingshai, Short Round Road, Shillong – 793 001
4. S.E. (Commercial), Department of Power, Govt. of Mizoram, Khatla, Aizawl – 796 001
5. A.C.E. (Gen & Trans), Department of Power, Govt. of Nagaland, Kohima – 797 001
6. AGM (C&SO), TSECL, Agartala – 799 001
7. Head of SLDC, Department of Power, Govt. of Arunachal Pradesh, Itanagar- 791 111
8. Head of SLDC, SLDC Complex, AEGCL, Kahilipara, Guwahati - 781019
9. Head of SLDC, MSPCL, Manipur, Imphal.
10. Head of SLDC, MePTCL, Lumjingshai, Short Round Road, Shillong – 793 001
11. Head of SLDC, Department of Power, Govt. of Mizoram, Aizawl – 796 001
12. Head of SLDC, Department of Power, Nagaland, Dimapur.
13. Head of SLDC, TSECL, Tripura, Agartala – 799 001
14. GM, Loktak HEP, NHPC Limited, Vidyut Vihar, Komkeirap, P.O. Loktak, Manipur – 795 124
15. AGM (Comml), NTPC Limited, 16th Rupalim Path, Rukhmini Nagar, Guwahati-781022
16. GM (Comml), OTPC, Core 4 & Central, 10th Floor, SCOPE Minar, Laxmi Nagar, Delhi – 110092
17. Head of the Plant, OTPC, Palatana, Kakraban, Gomati District, Tripura - 799116
18. MD, NETC, #2C, 3rd Floor, D-21, DMRC Building, Corporate Park, Sector-21, Dwarka, Delhi-77

(एस. एम. आइमोल / S. M. Aimol)

निदेशक / Director

वाणिज्य / Commercial



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

MINUTES OF THE 42ND COMMERCIAL COORDINATION

SUB-COMMITTEE MEETING OF NERPC

Date : 05/08/2021 (Thursday)
Time : 11:00 hrs
Mode : Microsoft Teams (Online)

The 42nd CCM of NERPC was held online over Microsoft Teams on 5th August 2021. The list of participants is attached at **Annex. – I**.

Shri A.K. Thakur, Member Secretary, NERPC commenced the meeting with his address to the participants. In his brief address, Member Secretary welcomed and greeted all the participants and expressed deep appreciation to the senior officers from various utilities for participating in the 42nd CCM. He impressed upon the vitality of CCM for fruitful deliberation and resolution of commercial issues. He requested to ensure the timely payment of the outstanding dues for sound financial health of the sector and the economy. He wished harmonious and cordial environment to arrive at amicable solution. He then requested Sh. S. M. Aimol, Director (Commercial), NERPC to take up the agenda items for discussion.

On behalf of NERPC Secretariat, Director (Commercial), NERPC thanked all the participants for attending the 42nd CC meeting despite difficulties arising out of pandemic restrictions. He expressed immense pleasure by the presence of senior officers attending the meeting. He requested support and cooperation from all the organisation and Utilities for having a fruitful deliberation.

The point wise deliberations/discussions taken up during the 42nd Commercial Committee meeting are as under:

CONFIRMATION OF MINUTES

1. CONFIRMATION OF MINUTES OF THE 41th COMMERCIAL SUB-COMMITTEE MEETING OF NERPC.

Minutes of the 41st CC Meeting held on 5th March 2021 at Resort Borgos, Kaziranga, Assam was circulated vide no. No.: NERPC/COM/CC_Min/2018/5934-5976 dated 31st March 2021.

Deliberation of the Sub-Committee

As no observations have been received from constituents, the minutes of the 41st CCM was confirmed.

ITEMS FOR DISCUSSION

2. AGENDA ITEMS FROM NERPC

2.1 *Recent CERC Draft Regulations/ Discussion Paper*

CERC/MoP has issued following Draft Regulations/Discussion Paper:

- (1) Draft Central Electricity Regulatory Commission (Ancillary Services) Regulations, 2021.
- (2) Discussion Paper on Market Based Economic Dispatch of Electricity.

The above Draft Regulation and Discussion Paper will be highlighted in the meeting for the benefit of the CC members.

Deliberation of the Sub-Committee

The significance and implication of the Draft Ancillary Services Regulations 2021 was briefly highlighted by Shri Abhijeet Agrawal, EE (Commercial), NERPC (**Annex. – 2.1 A**). A presentation on “Discussion Paper on MBED” was made by Sh. M. P. Nath, CM (MO), NERLDC (**Annex. – 2.1 B**).

2.2 *Board Fund Contribution status for FY 2020-21 and 2021--22*

The status of payment for FY 2020-21 and FY 2021-22 (as on 30.07.2021) is as given below:

F.Y 2020-21			
Constituents	Status of Payment	Constituents	Status of Payment
NTPC	Payment Received	Ar. Pradesh	Payment Received
NHPC	Payment Received	Assam / APDCL	Payment Received
PTC	Payment Received	Manipur/MSPDCL	Payment Received
NVVN	Payment Received	Meghalaya/MeECL	<i>DUE</i>
OTPC	Payment Received	Mizoram	<i>DUE</i>
NEEPCO	Payment Received	Nagaland	Payment Received
PGCIL	Payment Received	Tripura/TSECL	Payment Received

F.Y 2021-22			
Constituents	Status of Payment	Constituents	Status of Payment
NTPC	Payment Received	Ar. Pradesh	<i>DUE</i>
NHPC	Payment Received	Assam / APDCL	<i>DUE</i>
PTC	Payment Received	Manipur/MSPDCL	<i>DUE</i>
NVVN	Payment Received	Meghalaya/MeECL	<i>DUE</i>
OTPC	Payment Received	Mizoram	<i>DUE</i>
NEEPCO	Payment Received	Nagaland	<i>DUE</i>
PGCIL	<i>DUE</i>	Tripura/TSECL	Payment Received

Concerned constituents are requested to kindly deposit their respective amount towards Board Fund of NERPC at the earliest.

Deliberation of the Sub-Committee

Sh. S. M. Aimol, Director (CommI), NERPC expressed gratitude for timely payment of board fund contribution by the constituents. He requested concerned constituents with the pending dues to make the payments at the earliest.

In response, APDCL intimated that they have made the payment on 4th August 2021.

NERTS informed that the bank has been instructed to transfer the amount and the payment will be credited shortly.

Mizoram representative stated that they have not received the letter regarding Board Fund Contribution and requested NERPC to send the letter once again. Director (Comml), NERPC informed that as requested, the letter would be forwarded to P&ED, Mizoram once again.

2.3 Power transaction between Assam and Arunachal Pradesh through 33kV & 11kV feeders

To comprehensively discuss the issues of power transaction between Arunachal Pradesh and Assam, a special meeting was held on 5th November 2020 and as decided in the meeting, NERPC Secretariat had circulated a detailed report on the issue, incorporating proposals, suggestion and views of APDCL and NERLDC. In the report, it was suggested that Assam and Ar. Pradesh may consider settling the power transaction through a bilateral arrangement at a mutually agreed or a negotiated rate. In response to the report, DoP, Arunachal Pradesh had intimated NERPC Secretariat that a comprehensive scheme is being implemented by PGCIL which would connect power supply to remote areas of the state and further requested for the continuation of the existing system till the connectivity to these areas are established.

As a follow-up of the issue, another Special Meeting was convened on 25th June 2021 where it was decided, among others, that Joint field Inspection of all the points of connection between Arunachal Pradesh and Assam shall be held as soon as possible. To start with Inspection of Bhalukpong feeder shall be done on 02.07.2021.

Ar. Pradesh and APDCL are requested to update the forum on the outcome of the inspection.

Deliberation of the Sub-Committee

APDCL representative apprised the forum that the Joint Inspection of Bhalukpong feeder was conducted on 2nd July 2021 and the report has been shared with NERPC Secretariat.

It was also informed to the forum that both DoP, Ar. Pradesh and APDCL have agreed that meter at Tipi shall be treated as check meter and the meter installed by APDCL at the geographical border shall be treated as the main meter for the settlement.

APDCL also informed that they have prepared a detailed proposal for inspection of other points with complete schedules and details of the officers concerned and the same has been communicated to Ar. Pradesh and NERPC. As per the proposal, the inspections will begin from 17th August 2021. APDCL further informed that Ar. Pradesh has acknowledged the proposal but the nomination of officers from Ar. Pradesh has not been shared with them yet.

Shri Tasso Hinda, CE (Comm), Ar. Pradesh responded that he had already instructed respective Executive Engineers of noted substations for the inspection. He assured that the details of the officers concerned shall be shared shortly with Assam for smooth coordination.

APDCL informed that after completion of the inspection at all the points, the report shall be shared with NERPC/NERLDC.

2.4 Power Tabulation of revenue earned through regulation of power to beneficiary states of NER:

Concerned utilities are to submit the required information in the format given below.

Financial Year: e.g., 2021-22										
Regulating Entity:	Generating station from where regulation 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 outstanding 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.)
Regulated Entity:										
(1)	(2)	(3)	(4)	(5)	(6)			(7)	(8)	(9) = (5)-(6)-(8)
					(a)	(b)	(c)			

NOTE: If (9) is negative, then it indicates that outstanding due has not been recovered fully.

Presently, NTPC is regulating Power to MeECL. In this regard NTPC is required to furnish details as above.

Deliberation of the Sub-Committee

Addl GM (Comml), NTPC stated that the details would be furnished to NERPC Secretariat shortly.

3. AGENDA ITEMS FROM NEEPCO**3.1 *Outstanding dues of beneficiary's payable to NEEPCO as on 27.07.2021 are as follows:***

NEEPCO's provisional outstanding as on 28.07.2021.

(Rs in Lakh)

S. N.	State (UT)	Name of Beneficiary	Outstanding Principal already due (> 45 days)	Late Payment Surcharge (LPS) Due	Total Due (Inclusive of LPS)	Amount Billed (Principal) yet to be due (< 45 days)
1	2	3	4	5	6 = 4+5	7
1	ASSAM	APDCL	80.04	0.00	80.04	8117.54
2	MIZORAM	P&ED, Mizoram	1003.48	15.03	1018.51	2301.25
3	MANIPUR	MSPDCL	2562.98	0.00	2562.98	1214.52
4	TRIPURA	TSECL	12322.66	0.00	12322.66	4186.43
5	AR. PRADESH	DoP, Ar. Pradesh	0.00	0.00	0.00	0.00
6	NAGALAND	DoP, Nagaland	0.00	0.00	0.00	0.00
7	MEGHALAYA	MePDCL	14658.17	21833.95	36492.12	239.47
8	CHHATTISGARH	CSPDCL	0.00	0.26	0.26	245.45
9	HARYANA	HPPC	0.31	0.02	0.33	245.45
10	UTTAR PRADESH	UPPCL	0.00	0.00	0.00	0.00
	Grand Total		30627.64	21849.26	52476.90	16550.11

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 house, with a request to MePDCL, TSECL and MSPDCL in particular, to appraise the house on their action plan for immediate settlement of the said dues.

Deliberation of the Sub-Committee

Shri N. K. Mao, ED (Comml), NEEPCO urged the beneficiaries to liquidate their outstanding of over 45 days on priority. He informed the forum that there is immense pressure to invoke the provisions of Power Supply Regulations if the dues are not settled earnestly and hence, requested all the concerned utilities to kindly settle the dues at the earliest.

MSPDCL updated that they have made payment of ~Rs. 10.5 crore to NEEPCO recently and assured settling of the remaining amount shortly.

ED (Comml), NEEPCO appreciated the efforts of Assam, Arunachal Pradesh and Nagaland for their prompt payment of bills and requested all concerned beneficiaries to kindly clear their dues at the earliest.

3.2 Opening and maintaining of adequate Letter of Credit (LC) as Payment Security Mechanism for Scheduling of Power.

Ref: 1. MoP, GoI order vide L/No. No/ 23/22/2019 – R&R dated 28.06.2019.
2. MoP's Letter No. 23/22/2019-20-R&R, Dated.17.07.2019.

The Ministry of Power, Government of India, vide letter under reference, has directed to maintenance of adequate Payment Security Mechanism in the form of Letters of Credit by all Distribution Licensees/Procurers of Power. Accordingly, all beneficiaries have opened and maintained their LCs with respective amount for their share of allocation. Based on LC opening status, Regional Load Dispatch Centre (i.e., NERLDC for NER region) has been scheduling the power to the DISCOMs and Power Utilities. However, it was observed that during renewal of the same, some beneficiaries have not taken timely action to continue validation of LCs without break, resulting in difficulties in scheduling power to them.

The above is for deliberation of the house, with a request to all beneficiaries for timely renewal of LC to avoid any disruption in scheduling of supply of power, as per the directives of Ministry of Power, Govt. of India.

Deliberation of the Sub-Committee

All the concerned utilities were requested to renew/reinstate the requisite LC as per MoP order.

3.3 Kameng HEP- additional share allocation subsequent to commissioning of all 4 units (4x150 MW):

600 MW (i.e. 4 X 150 MW) Kameng HEP at Arunachal Pradesh is operating in full capacity after declaration of commercial operation of the project on 12th February 2021.

As the house may be aware, the share allocation order for the plant places 345 MW of the plant capacity at the disposal of NEEPCO for merchant sale.

Therefore, further to the deliberations on the issue of additional allocation at the 38th CCM and 20th TCC & RPC Meetings, with the commissioning of the full installed capacity, the esteemed house is once again requested to discuss the issue and consider additional allocation from the Kameng HEP.

In this context it is mentioned that the tariff application has been already filed before the Hon'ble CERC and it is seen that the tariff is expected to be very competitive and attractive. On confirmation of the additional requirement, NEEPCO will take up the matter with the Ministry of Power, Government of India for share allocation.

Deliberation of the Sub-Committee

NEEPCO requested the expression of interest from all Utilities for taking additional power out of 345 MW of untied capacity. NEEPCO further suggested that the Kameng power will also serve the hydro power purchase obligation (HPO) component of the Renewable Purchase obligation (RPO) of the States/Discoms.

Member Secretary, NERPC requested the Utilities/States to consider the offer of NEEPCO as Kameng HEP will be a reliable source of hydro power in the long run.

The Sub-Committee requested all Utilities/Discoms to intimate their willingness for allocation of untied power from Kameng HEP to NEEPCO.

4. AGENDA ITEMS FROM NHPC

4.1 *Issues with MeECL/MePDCL, Meghalaya:*

(i) Outstanding dues of NHPC for more than 45 days (from December 2014):

Out of ₹ 29.64 Cr, MeECL/MePDCL, Meghalaya has paid ₹ 14.12 Cr. on dated 19.03.2021 through 1st tranche under "Aatma Nirbhar Bharat Abhiyan" package. MeECL/MePDCL, Meghalaya had also informed on 22.04.2021 & 10.06.2021 that they are going to pay ₹ 14.12 Cr. through 2nd tranche under "Aatma Nirbhar Bharat Abhiyan" package but the payment is not received yet. The matter has already been discussed in the last 39th CCM, 40th CCM, 41st CCM & 21st TCC meeting.

Since the payment is due from December 2014, therefore, MeECL/MePDCL, Meghalaya may be directed to liquidate the entire outstanding dues of ₹ 15,52,41,988/= immediately.

Deliberation of the Sub-Committee

NHPC representative apprised the forum about the high outstanding dues of Meghalaya. He expressed concern on the defaults of Meghalaya despite repeated assurances.

Meghalaya representative informed that the approval for the 2nd tranche of Atma Nirbhar Bharat Loan has been taken up by Meghalaya Government at the highest level in the Ministry of Power, Govt. of India and that the loan is expected to be disbursed very shortly. He further apprised the forum that after the loan is disbursed, the dues of all Gencoms and PGCIL will be cleared.

(ii) *Pending reconciliation statement for verification:*

NHPC has submitted the reconciliation statements of quarterly accounts for the period w.e.f. 01.01.2020 to 31.03.2020; 01.04.2020 to 30.06.2020; 01.07.2020 to 30.09.2020, 01.10.2020 to 31.12.2020, 01.01.2021 to

31.03.2021 & 01.04.2021 to 30.06.2021, the same are to be verified and endorsed by MeECL, Meghalaya. The reconciliations are pending till date.

Deliberation of the Sub-Committee

MePDCL was requested to kindly reconcile and endorse the quarterly statements at the earliest.

4.2 Issue with MSPDCL (Manipur):

An amount of ₹ 21.76 Cr is due for payment as on date (including surcharge of ₹ 0.34 Cr up to 30.06.2021) from MSPDCL, Manipur. The issue has also been discussed in 40th CCM, 41st CCM & 21st TCC meeting, wherein MSPDCL, Manipur has given assurance that they are availing loan under “Aatma Nirbhar Bharat Abhiyan” package and they will pay outstanding dues pending for more than 45 days, as soon as the loan will be disbursed. But the outstanding amount for more than 45 days is not cleared yet. Average monthly billing is of ₹ 5.04 Cr and due to non-clearance of payment outstanding dues are piled up. Further, NHPC has also given “Bill Discounting” option to Manipur to clear the all outstanding dues. Till date, MSPDCL, Manipur has not taken any decision.

Thus, MSPDCL, Manipur may be directed to liquidate the outstanding amount at the earliest to avoid encashment of LC as per MoP order No. 40/1/2021-R&R dated 18.03.2021.

Deliberation of the Sub-Committee

MSPDCL responded that payment of ~Rs. 5.5 crore has been made to NHPC recently and assured settlement of the remaining dues shortly.

4.3 Issue with P&E Department (Mizoram):

An amount of ₹ 1.53 Cr is due for payment in which ₹ 0.80 Cr due for more than 45 days. The issue has been raised many times through letter & over telephone with P&E Department, Mizoram, wherein they have given assurance but they have not cleared the dues, even no payment has been received during last two months against average monthly billing of ₹ 0.83 Cr.

Thus, P&E Department, Mizoram may be directed to liquidate the outstanding amount at the earliest to avoid encashment of LC as per MoP order No. 40/1/2021-R&R dated 18.03.2021.

Deliberation of the Sub-Committee

Mizoram representative informed that on 29th July 2021 an amount of Rs. 55 lakhs has been paid to NHPC. He further stated that the continuous lockdown has been hampering release of outstanding amounts.

4.4 Issue for Renewal of Power Purchase Agreement (PPA) in respect of Loktak Power Station (105 MW):

The Power Purchase Agreement (PPA) of Loktak Power Station with APDCL, Assam & P&E Dept., Mizoram has expired on 31.05.2018 and with MSPDCL, Manipur is going to expire on 31.12.2021. APDCL, Assam has given consent for renewal of PPA for 5 years, in response NHPC requested them to consider for renewal of PPA for balance useful life due to cheaper tariff. APDCL, Assam has informed that they have processed the case. Further, P&E Dept., Mizoram and MSPDCL, Manipur require to offer their consent for renewal of PPA.

In view of above, APDCL, Assam; P&E Dept., Mizoram and MSPDCL, Manipur may be directed to convey their consent for renewal of Power Purchase Agreement for uninterrupted power supply from Loktak Power Station.

Deliberation of the Sub-Committee

NHPC representative informed that the consent for renewal of PPA has been received from Nagaland and Tripura. He further informed that APDCL, Assam has given consent for extension of PPA for 5 years and requested APDCL to further extend PPA to full balance useful life of the plant.

He earnestly requested other DISCOMS/States/Utilities also to take up the matter and accord the consent for renewal of PPA.

In response, APDCL representative informed that for extending the PPA beyond 5 years, the board approval has already been obtained and concurrence from the State's power department is awaited.

Director (Comml), NERPC appreciated the early response from Nagaland, Tripura and Assam and impressed upon other beneficiaries also to consider the renewal of PPA.

MSPDCL representative informed the sub-committee that the PPA of Loktak HEP would be extended and the consent of the same would be furnished before expiry of the present PPA.

Mizoram representative informed that approval for the renewal of PPA is pending with the state government.

Member Secretary, NERPC requested APDCL, MSPDCL and Mizoram to expedite the process for renewal of PPA. He further advised NHPC to follow it up and pursue with the concerned States/Utilities.

5. AGENDA ITEMS FROM OTPC

5.1 *Outstanding Dues of OTPC against NER beneficiaries.*

The current total outstanding dues of OTPC against the NER beneficiary states (as on 28-07-2020) are as under:

(Amount in Rs Crores)

SI. No.	Beneficiary	Outstanding Dues (>45 Days)	Total Outstanding
1	Arunachal Pradesh	0	0
2	Assam	0	0
3	Manipur	17.8	22.66
4	Meghalaya	82.82	82.82
5	Mizoram	10.58	12.99
6	Nagaland	0	0
7	Tripura	0	21.50
	Total	111.19	139.97

The total outstanding dues as on 28-07-2021 are Rs 139.97 Crores out of which outstanding beyond 45 days is Rs 111.19 Crores. The outstanding dues of Meghalaya, Manipur and Mizoram have accumulated to concerning levels. Meghalaya, Manipur and Mizoram are hence requested to clear at least the outstanding dues over 45 days, at the earliest. The forum is also requested to impress the urgency of the liquidation of pending amount upon Meghalaya as the dues have not been liquidated despite continued requests.

Deliberation of the Sub-Committee

GM (CommI), OTPC highlighted the high outstanding dues of Meghalaya, Mizoram and Manipur. He requested the utilities to kindly expedite payment of the outstanding dues.

5.2 Status of Payment Security Mechanism of the beneficiaries required against monthly energy billing as per Power Purchase Agreement and CERC regulations:

The Letter of Credit (LC) of Mizoram is yet to be renewed, relaxation was given due to the pandemic situation, however, this has become a non-compliance, as such P & E Department, Govt. of Mizoram is requested to renew the LC immediately for uninterrupted power supply.

Deliberation of the Sub-Committee

While expressing solidarity on the extreme hardship faced by Mizoram due to COVID restriction in the State, OTPC representative earnestly requested the P&ED, Mizoram to expedite the renewal of the LC.

6. AGENDA ITEMS FROM NERLDC

6.1 Deviation charges outstanding:

Status of Deviation charges outstanding as on 26/07/2021 is attached (Annexure-6.1).

Mizoram is the major defaulter. Mizoram - O/s Payable to Pool ₹ 2.31 Crores [O/s greater than 90 Days is ₹ 1.75 Crores]. Clearance of O/s payable had been regularly followed up.

Mizoram is requested to take immediate necessary action in this regard. All the pool members are requested to clear outstanding payable due within the stipulated time to avoid late payment interest.

Deliberation of the Sub-Committee

CM (MO), NERLDC apprised the forum that DSM payment by NER Constituents has been quite good in recent times. Each constituent is clearing their dues within time. He further stated that only Mizoram's outstanding is quite high and requested P&ED, Mizoram to pay the dues at the earliest.

In response, Mizoram representative informed that payment for an amount of ₹2.5 Crores had been put up for approval on 29/06/2021 and the same was pending in the Treasury Dept of Mizoram.

6.2 Reactive charges outstanding: -

Status of Reactive charges outstanding as on 26/07/2021 is attached (**Annexure-6.2**).

O/s Payable to Reactive Pool by Ar. Pradesh - ₹ 1.33 Lakhs & Manipur - ₹ 1.08 Lakhs.

Ar. Pradesh & Manipur are required to take necessary action. All the pool members are requested to clear outstanding payable due within the stipulated time to avoid late payment interest.

Deliberation of the Sub-Committee

Ar. Pradesh informed that they will be clearing the O/s amount within 2/3 days.

Manipur also assured that they will be clearing the O/s amount by next week.

6.3 Signing of Reconciliation Statements: -

Status of signing of Reconciliation statement of DSM & Reactive as on 26/07/2021 is attached in **Annexure-6.3**.

As per Internal Audit observation, Deemed Reconciliation provision [*"In case of non-receiving of your signed Reconciliation statement within 30 days from this*

date of issue, the same will be deemed reconciled"] has been included in the cover letters of Reconciliation statement issued by NERLDC from Qtr-3 FY 2020-21 onwards.

1. Pending DSM reconciliation with - Mizoram (4 Quarter), Ar. Pradesh, Meghalaya, Loktak & NTPC (2 Quarter).
2. Pending Reactive reconciliation with - Meghalaya & Mizoram (4 Quarter), Tripura (2 Quarter).

All the constituents are requested to sign the reconciliation statements as early as possible and for future reconciliation statements, constituents may sign the same within stipulated time.

Deliberation of the Sub-Committee

CM (MO), NERLDC requested all the constituents to send a soft copy of the signed reconciliation statement through email as sometimes hard copy didn't reach on time due to prevailing situation.

All utilities were requested to kindly sign and mail the pending reconciliation statements as early as possible.

6.4 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 (Refer **Annexure-6.4**):

Constituents	LC to be opened in FY 21-22 ₹ (in Lakhs)	Present Status
Ar. Pradesh	78.03	LC of ₹ 182.36 Lakhs, valid till 31.03.2022
Assam	203.29	LC Not opened/Not intimated
Manipur	22.20	LC Not opened/Not intimated
Meghalaya	84.90	LC Not opened/Not intimated

Mizoram	26.30	LC Not opened/Not intimated
Nagaland	11.80	LC of ₹ 91.77 Lakhs, valid till 20.03.2022
Tripura	144.02	LC Not opened/Not intimated

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

Deliberation of the Sub-Committee

APDCL informed that they had opened LC on 14/10/2020 and they assured that the same would be forwarded to NERLDC after the meeting.

Mizoram raised a query regarding the amount of LC as they have earlier received request for enhancing LC to Rs. 16.04 lakhs and now asked to extend up to Rs. 26.30 lakhs. NERLDC clarified that the LC amount varies as per the provision of DSM Regulation based on average of previous FY weekly liability and current FY maximum weekly liability. As per the practice followed in NER, revised LC amount is presented in CCM after completion of the FY weekly statements. Mizoram LC amount of Rs. 16.04 lakhs was as per previous calculation.

Mizoram agreed to enhance the requisite LC, however requested a formal letter in this regard from NERLDC.

Tripura also requested NERLDC to write the letter about opening of LC to CMD, TSECL with a copy to DGM (Comm) TSECL.

Manipur also requested NERLDC to write the letter to the MD, MSPDCL.

As requested, NERLDC agreed to write once again to all concerned organizations/States for opening/enhancement of LC.

6.5 Nomination of SLDC Co-ordinator for details regarding Compliance of Renewable Purchase Obligation (RPO): -

Ministry of Power (MoP), Govt. of India vide order dated 29.01.2021 (**Annexure – 6.5**), notified RPO Trajectory till FY 2021-22, which includes long term trajectory for Hydro Power Obligation (HPO) also. In addition, Para No. (17) of

MoP Order dated 29.01.2021, stipulates POSOCO to maintain data related to compliance of RPOs. The matter of monitoring of RPO compliance has taken a high priority and regularly monitored by the MoP and MNRE.

As the Obligated entities for RPO compliance namely Distribution Licensees, Open Access Consumers, Captive Power Plants etc. are intra-State entities. Therefore, in order to facilitate compilation of details related to RPO compliance, it is requested to nominate executives from SLDCs for RPO Compliance activities.

Deliberation of the Sub-Committee

All the States except Meghalaya and Arunachal Pradesh have provided their nominations during the meeting. It was decided that NERLDC would request both States of Arunachal Pradesh and Meghalaya to send their nomination directly to NERLDC.

The nominations received from the five States are as follows –

- (i) Assam - Ms. Toushita Jigdung, AGM (MO), SLDC, Assam.
- (ii) Manipur - Ms. L. Ritu, DGM (SO), Manipur.
- (iii) Nagaland - Sh. David Tungoe, SDO, Commercial, Nagaland
- (iv) Tripura - Sh. Anil Debbarma, DGM, Tripura
- (v) Mizoram - Sh. H. Lalnunsanga, EE (Commercial), Mizoram

6.6 *Signing of NERLDC Fees & Charges Reconciliation Statements: -*

The Reconciliation statement of NERLDC Fees & Charges bill for the period from Apr'21 to Jun'21 was issued on 23/07/2021 against F&C users which is also available in our website. It is requested to arrange signing of the same on behalf of your organization and to send a copy to us after signing from your end at the earliest.

Deliberation of the Sub-Committee

The utilities were requested to sign the reconciliation statements from their end at the earliest and send the copy to NERLDC.

6.7 Faulty SEM replacement and SEM installation at new locations: -

Refer 177th OCCM agenda D.12. 100 SEMs and 20 DCDs had been procured. List for replacement of faulty SEMs and location for new SEM installation had been submitted by NERLDC vide earlier OCCMs. All locations as per the list could not be considered due to the requirement of SEMs for the Sterlite & KMTL on-going projects and hence some priority basis locations were decided, and work is under progress.

In the deliberation, Chief Manager, NERTS informed that all faulty SEMs have been replaced and new SEMs at KMTL and STERLITE locations have been installed. No utility raised any issue on the record on installation and distribution of SEMs and DCDs submitted by NERLDC and thereby, 1st phase had been considered as completed.

Details submitted in 177th OCCM is attached (**Annexure-6.7**) for the record.

Deliberation of the Sub-Committee

NERLDC informed that the agenda is only for the kind information and record of the members of CC Forum.

6.8 SEMs to be Procured for Sterlite & KMTL on-going projects (50 SEMs): -

Refer 177th OCCM agenda D.13. It was decided that additional 50 nos. of SEMs needed to be procured before completion of Sterlite & KMTL projects. However, that couldn't be done and SEMs required for those projects handed over from earlier procured 100 SEMs on need basis.

NERTS placed quantity variation order for procurement of 50nos. of SEMs and 10 nos. of DCDs based on the decision of the Forum.

NERTS confirmed over mail regarding receipt of 50 Nos. SEMs and and 10 Nos. DCDs at Misa Substation on 23.03.2021.

In the deliberations, NERLDC informed that as per the requirement as listed above, shortage for spare SEM & DCD will be there considering the up-coming projects. Forum decided to retain 20 nos SEMs as spare and advised NERLDC to submit another priority list for utilization of SEM considering the spare.

Moreover, the Forum advised NERLDC to prepare priority list for distribution of DCD also, considering spares. Forum also advised NERTS to procure additional 40 nos. of DCD separately (not combined procurement with SEM) as early as possible considering all the requirements like for present, for projects under pipeline & for spare.

The priority list for 2nd phase of SEM & DCD prepared by NERLDC sent to NERTS via mail on 29.04.21 is attached for record (**Annexure-6.8**).

In 179th OCCM, NERTS informed that distribution of SEMs & DCD from Misa shall be done by Jun'21.

Status may be reviewed.

Deliberation of the Sub-Committee

Sh. Z. Hassan, Sr. DGM, NERTS informed that 50 SEMs and 10 DCDs are available at Misa Substation. It was supposed to be distributed by June 2021 but could not be completed due to pandemic restrictions. He further informed the forum that the same would be done by end of August 2021.

6.9 Procurement of SEM & DCD for future requirements: -

NERTS may intimate the status of procurement of:

- (I) 125 nos. SEMs and 15 nos. CMRIs (as decided on 39th CCM & 171st OCCM)
- (II) Additional 40 nos. of DCD (as decided on 177th OCCM)

In 179th OCCM, NERTS informed that supply of 125 nos. SEMs and 15 nos. CMRIs is expected to be completed by Jul'21.

Status may be reviewed.

Deliberation of the Sub-Committee

Sr. DGM, NERTS updated that the award for the procurement has already been placed in May 2021 and the delivery is expected to be completed by Sept 2021.

6.10 Pair check mismatch of 400 kV Azara-Silchar Transmission Line: -

In 177th OCCM, it was highlighted that heavy pair-check error had been observed in 400kV Azara-Silchar line where NERLDC informed that regional

loss become high while considering the Azara SEM data, as the loading of the line is high. Forum advised to consider Silchar SEM data for energy accounting till correction of the mismatch.

In 180th OCCM, Assam informed that while attending the problem at Azara end, it was found that the B-Ph CVT voltage is around 12/14kV less than the Normal (compared with the CVTs of other phases also). Hence it is decided to replace/rectify the defective CVT. Further, SLDC Assam informed that AEGCL is in touch with OEM for replacement of the defective CVT.

Status may be reviewed.

Deliberation of the Sub-Committee

The sub-committee expressed concern and noted the issue of the Pair check mismatch of 400kv Azara-Silchar Line. The sub-committee advised APDCL to expedite the process of resolving the issue and keep both CCM and OCCM forums duly informed.

It was decided that Silchar SEM data shall be used for energy accounting till the issue of the mismatch is rectified.

7. AGENDA ITEMS FROM NERTS

7.1 Outstanding dues:

The total outstanding dues (PoC & non-PoC) payable by NER beneficiaries to CTUIL/POWERGRID as on 28.07.2021 is detailed below: -

(All Figures in Rs Crores)

State/DIC	Outstanding more than 45 days	Total Outstanding dues	Remarks
Mizoram	28.83	33.52	<i>Approx. 04 months receivables</i>
TSECL (Tripura)	16.69	28.87	<i>Approx. 02 months receivables</i>
MSPDCL (Manipur)	19.32	26.21	<i>Approx. 03 months receivables</i>

MeECL (Meghalaya)	14.38	23.82	<i>Approx. 03 months receivables</i>
MSPCL (Manipur)	0.48	0.58	<i>Approx. 06 months receivables</i>

Concerned DICs with >45 days outstanding dues, viz. Mizoram, TSECL, MSPDCL, MeECL & MSPCL may be impressed upon to clear the outstanding dues immediately since POWERGRID is facing financial constraints due to accumulation of such huge outstanding dues.

Deliberation of the Sub-Committee

Sh. Z. Hassan, Sr. DGM, NERTS expressed gratitude to Assam, Arunachal Pradesh, Nagaland and Tripura for routinely settling their respective dues.

He further requested other DICs to kindly make the outstanding payments.

ANY OTHER ITEMS

8. AGENDA ITEMS FROM TSECL, TRIPURA

8.1 *Outstanding dues of Manipur/Mizoram.*

Manipur: As on date, an amount of Rs 21.20 crores is outstanding. Therefore, Manipur is requested to ensure monthly payment to avail rebate as well as to avoid surcharge. Manipur is also requested for opening of LC as per PPA.

Mizoram: As on date, an amount of Rs 10.93 crores is outstanding. Therefore, Mizoram is requested to ensure monthly payment to avail rebate as well as to avoid surcharge.

Deliberation of the Sub-Committee

Both MSPDCL, Manipur and P&ED, Mizoram informed that the outstanding dues would be paid soon.

DATE AND VENUE OF NEXT COMMERCIAL COMMITTEE MEETING
--

The next Commercial Coordination Sub-Committee meeting will be held in the month of Oct/Nov 2021. The date and venue will be intimated in due course.

List of Participants in the 42nd CCM held online (MST) on 5th August 2021

S. No	Name of Delegates	Designation	Contact No	Email
1	Sh. Tasso Hinda	CE (Commercial), Ar. Pradesh	9402698356	
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3	Sh. D. Das	CGM, APDCL	9864064649	acecomt.aseb@gmail.com
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10	Sh. Th. Satyajeet Singh	DM (F&A), MSPDCL	8415945818	satya14may@gmail.com
11	Ms. A. Sujata	Dy. Manager, SLDC, Manipur		
12	Sh. Daniel Nongrum	AO, MeECL	9862611853	meecl_cao@yahoo.co.in
13	Sh. C. Lallawmsanga	SE (Com), Mizoram	9436140147	
14	Sh. Nitovi A Wotsa	SE, DoP Nagaland	8974035404	nitoviw@gmail.com
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19	Sh. Debabrata Pal	Sr. Manager (Comml), TSECL		
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21	Sh. N. K. Mao	ED (Comml), NEEPCO		
22	Sh. Ripunjoy Bhuyan	DGM (Comml), NEEPCO		
23	Sh. S. Deka	DGM (Comml), NEEPCO	9435195197	susantadeka4@gmail.com
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26	Sh. Rajesh Kumar	Sr. Manager (Com), NHPC	9816654889	
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29	Sh. Ashish Shrivastav	Manager (Comml), OTPC	9958995890	ashish.shrivastav@otpcindia.in
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31	Sh. Abhijit Daimari	Manager (Comml), NERTS	9485187441	a.daimari@powergridindia.com
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41	Sh. Shivam Chaturvedi	AE, NERPC	8077661727	shivamchaturvedi77@maill.com



सत्यमेव जयते

DRAFT CERC ANCILLARY SERVICES 2021

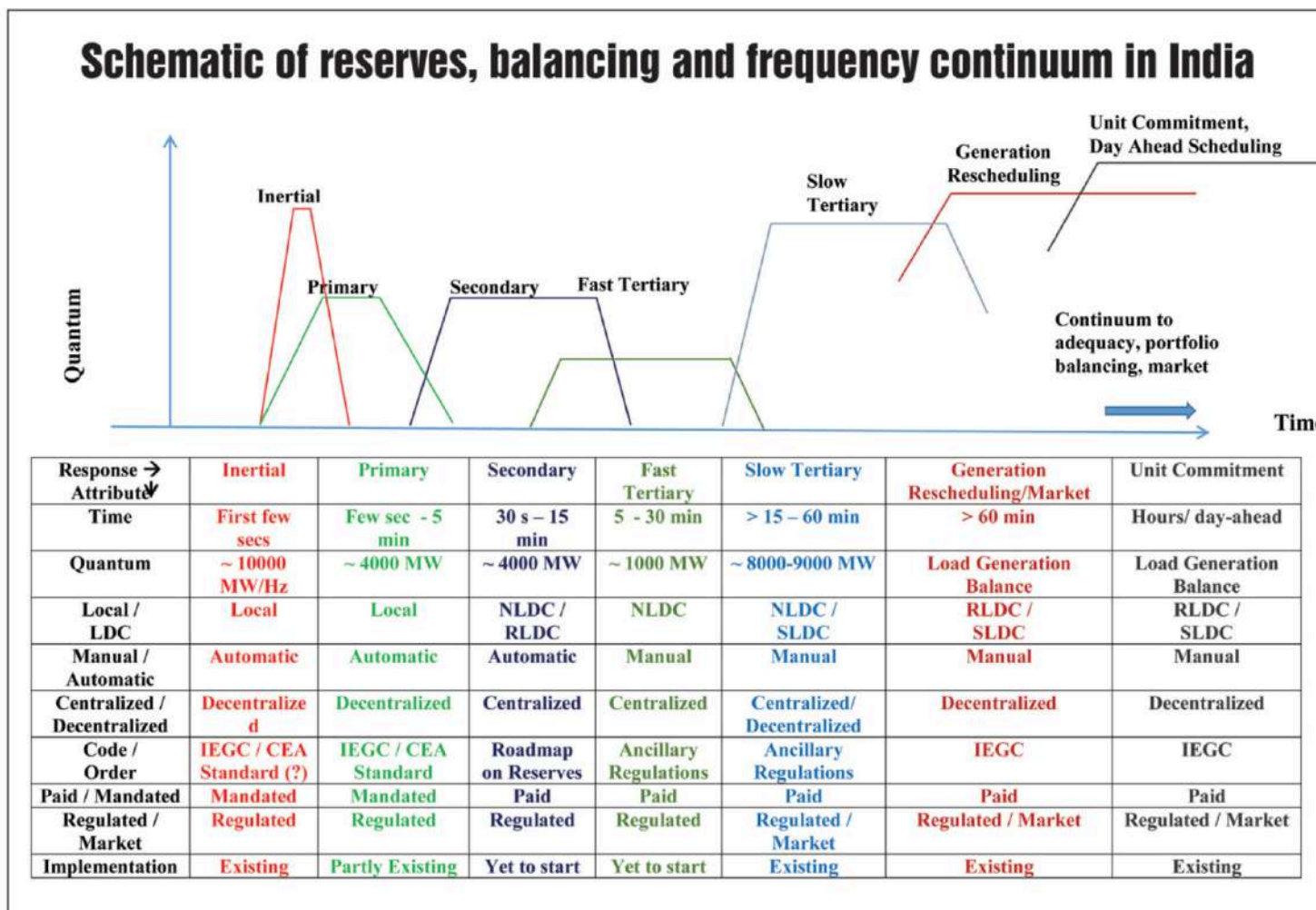
42ND CCM OF NERPC

-ABHIJEET AGRAWAL, EE, NERPC 05.08.2021

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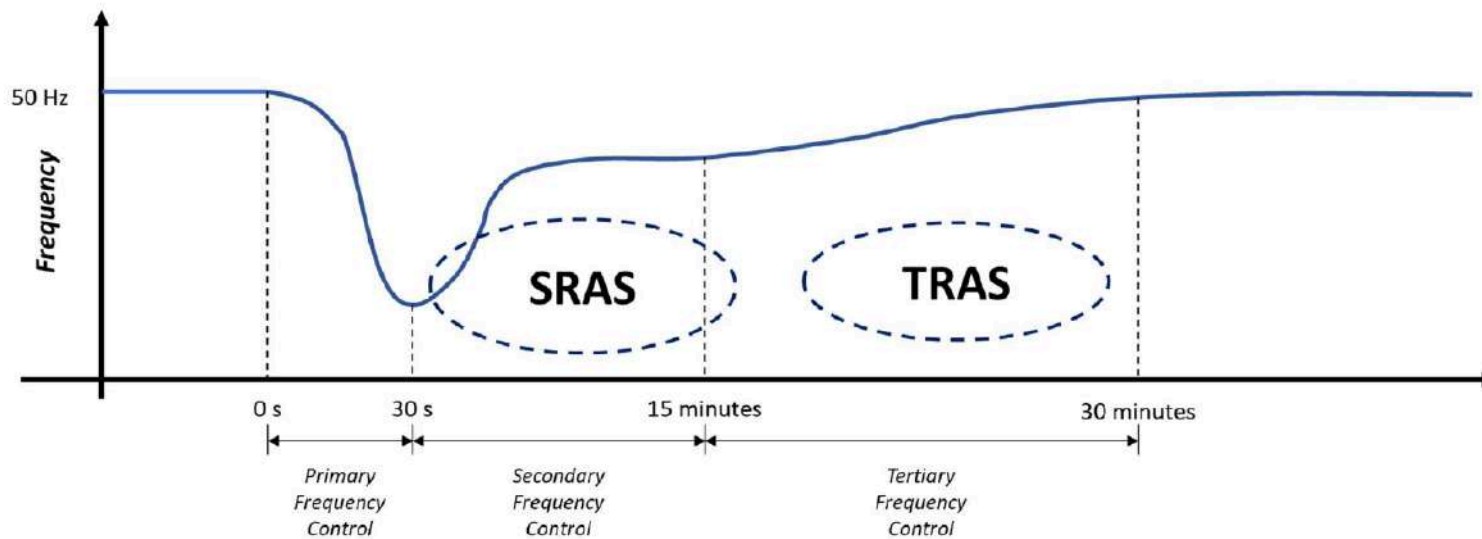
1. WHAT AND WHY OF ANCILLARY SERVICES?
2. HOW OF AS?
3. SRAS
 - ELIGIBILITY
 - ACTIVATION AND DEPLOYMENT
 - DESPATCH
 - PAYMENT
4. TRAS
 - ELIGIBILITY
 - ACTIVATION AND DEPLOYMENT
 - PROCUREMENT AND DESPATCH
 - PAYMENT
5. MISC

WHAT AND WHY OF ANCILLARY SERVICES?



WHAT AND WHY OF AS?

Figure-1: Activation and Deployment of Ancillary Services



Source: CERC Staff

HOW?

- BACKGROUND (2015 REGULATION ON ASO AND AGC)
- CHALLENGES
- DRAFT
- TYPES OF AS:
 - PRIMARY
 - SECONDARY
 - TERTIARY
 - OTHER

HOW OF AS?

Table-1: Existing Regulatory Provisions for Ancillary Services in India

Type of Service	Outline	Response Time	Current Status
Primary response (Frequency Containment)	Automatic response delivering reserve power in negative proportion to grid frequency change	Few seconds (able to sustain upto 5 min)	Mandated through the Grid Code <i>Clause 5.2(h) of the Grid Code states:- Coal / lignite stations > 200 MW, Gas stations > 50 MW and hydro > 25 MW operating at or up to 100% MCR shall normally be capable of picking up to 105/ 105/ 110% respectively of MCR when frequency falls suddenly</i> <i>Generating station/ unit not to be scheduled beyond 100% IC</i>
Secondary response (Frequency Restoration)	Supplementary corrective action needed to bring frequency back to 50 Hz.	30 s (able to sustain upto at least 15 minutes)	CERC Order dated 28 th August 2019 in Petition No 319/RC/2018, on AGC for ISGS.

Tertiary response	All ISGS including Ultra Mega Power Plants (UMPPs), operating on part load and having URS availability on day ahead basis	Within 15 minutes (able to sustain upto 60 minutes)	Implemented under administered mechanism since 2016 as per the RRAS Regulations
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SRAS

ELIGIBILITY

7. Eligibility for an SRAS Provider

(1) A generating station or an entity having energy storage resource or demand side resource, connected to inter-State transmission system or intra-State transmission system, shall be eligible to provide Secondary Reserve Ancillary Service, as an SRAS Provider, if it

- (a) has bi-directional communication system with NLDC or RLDC, as per the requirements stipulated in the Detailed Procedure by the Nodal Agency;
- (b) is AGC-enabled, in case of a generating station;
- (c) can provide minimum response of 1 MW;
- (d) has metering and SCADA telemetry in place for monitoring and measurement of energy delivered under SRAS, as stipulated in the Detailed Procedure by the Nodal Agency;
- (e) is capable of responding to SRAS signal within 30 seconds and providing the entire SRAS capacity obligation within fifteen (15) minutes and sustaining at least for the next thirty (30) minutes;

SRAS

ACTIVATION/DEPLOYMENT

- The Nodal Agency shall, in coordination with RLDCs and SLDCs, estimate the quantum of requirement of SRAS and TRAS for such period and based on such methodology as specified in the Grid Code.
- The Nodal Agency shall re-assess the quantum of requirement of SRAS and TRAS on day-ahead basis and incremental requirement, if any, on real time basis.
- ACTIVATION : REGIONALLY. TO MINIMIZE THE AREA CONTROL ERROR OF A REGION AND SRAS MUST BE ACTIVATED FOR A REGION.
- WHILE CALCULATING THE REQUIREMENTS OF SRAS, NLDC WOULD TAKE INTO CONSIDERATION, ACE, FREQUENCY COEFF, OTHER TECHNICAL PARAMETERS, CONSENT OF THE PARTICIPANTS ETC.

SRAS

DESPATCH

- **MECHANISM: ADMINISTERED MECHANISM.**

(1) SRAS Provider shall be selected on regional basis by the Nodal Agency for providing SRAS-Up or SRAS-Down based on the Custom Participation Factor.

(2) The Custom Participation Factor for each SRAS Provider shall be determined by the Nodal Agency based on the following criteria:

- (a) Rate Participation Factor (Ramping capability in MW/min); and
- (b) Cost Factor (variable charge or compensation charge, as the case may be).

SRAS

DESPATCH

- (7) SRAS shall be despatched on regional basis through secondary control signals by the Nodal Agency.
- (8) Secondary control signal for SRAS-Up and SRAS-Down shall be sent to the control centre of the SRAS Provider every 4 seconds by the Nodal agency. SRAS Provider shall allow its control centre to follow the secondary control signal for SRAS-Up or SRAS-Down automatically without manual intervention.
- (9) The SRAS Provider shall increase or decrease active power injection or increase or decrease drawal or consumption, as the case may be, as per the automatic signal from the Nodal Agency.
- (10) The SRAS Provider shall share real-time data with NLDC and the concerned RLDCs as stipulated in the Detailed Procedure.

SRAS

PAYMENT

- RECORD: SRAS UP/DOWN DATA SHALL BE RECONCILED ON FIVE AND FIFTEEN MINUTES BASIS.
- PAYMENT: VARIABLE COST (15 MIN BASIS)+ INCENTIVES (5 MIN BASIS) (TO AND FROM THE DEVIATION AND ANCILLARY POOL ACCOUNT)
- SRAS UP: SRAS PROVIDER WILL GET VC + INCEN
- SRAS DOWN: SRAS PROVIDER WILL GIVE VC BUT + STILL GET INCEN

Actual performance vis-à-vis SRAS signal for an SRAS Provider	Incentive Rate (+) (paise/ kWh)
Above 95%	(+) 40
70-95 %	(+) 30
45-70%	(+) 20
20-45%	(+) 10
Below 20%	0

PROVISION OF BLACKLIST FOR A WEEK IF PERFORMANCE BELOW 20%

TRAS

ELIGIBILITY

14. Eligibility for a TRAS Provider

A generating station or energy storage resource or demand side resource connected to inter-State transmission system or intra-State transmission system shall be eligible for participation as TRAS Provider, if

- (a) it is capable of varying its active power output or drawl or consumption, as the case may be, on receipt of despatch instructions from the Nodal Agency; and
- (b) it is capable of providing TRAS within 15 minutes and sustaining the service for at least next 60 minutes.

TRAS

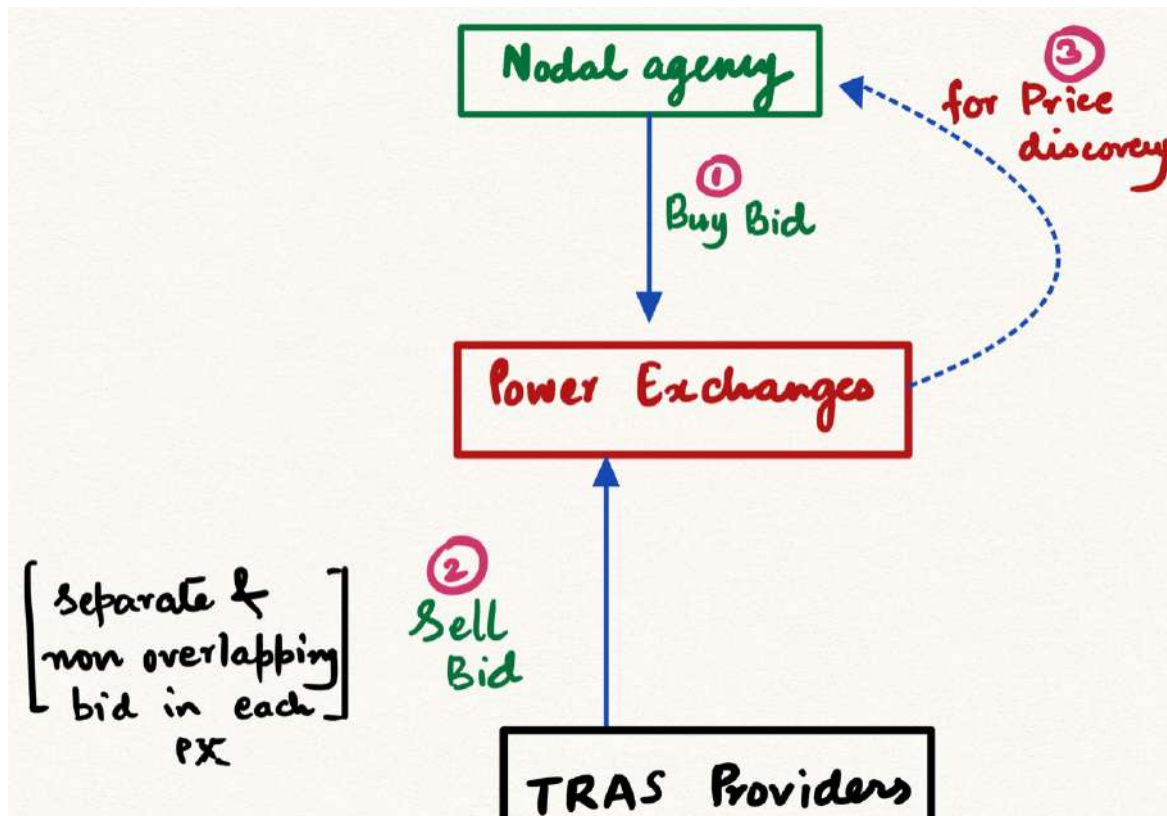
ACTIVATION AND DEPLOYMENT

TRAS shall be activated and deployed by the Nodal Agency on account of the following events:

- (a) In case the secondary reserve has been deployed continuously in one direction for fifteen (15) minutes for more than 100 MW, in order to replenish the secondary reserve;
- (b) Such other events as specified in the Grid Code.

TRAS

PROCUREMENT



- MECHANISM OF PRICE DISCOVERY:
 - TRAS UP: UMCP
 - TRAS DOWN: PAY-AS-YOU-BID

	DAM	RTM
TRAS Provid.	if cleared	No bid
	partial	incremental

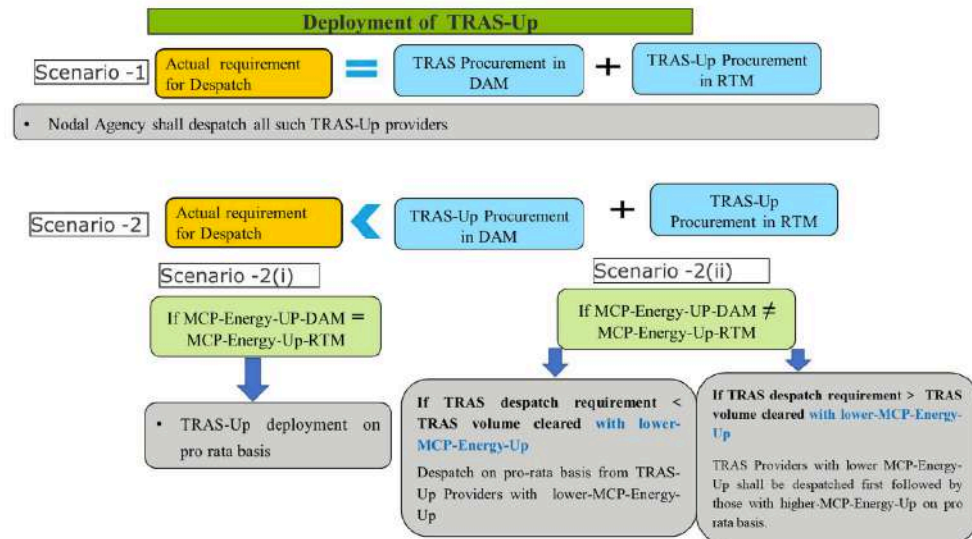
TRAS

DESPATCH OF TRAS UP

(a) In case the actual requirement for deployment of TRAS-Up is equal to the total TRAS-Up cleared in the market, the Nodal Agency shall issue despatch instructions to all such TRAS-Up Providers.

(b) In case the actual requirement for deployment of TRAS-Up is less than the total TRAS-Up cleared in the market, the Nodal Agency shall issue despatch instructions to the TRAS Providers in the following manner:

Figure-4: Deployment of TRAS-Up



(i) In the event of the MCP-Energy-Up-DAM being equal to the MCP-Energy-Up-RTM, TRAS-Up shall be despatched on pro-rata basis;

(ii) In event of the MCP-Energy-Up-DAM and MCP-Energy-Up-RTM not being equal, TRAS-Up with lower MCP-Energy-Up shall be despatched first followed by the TRAS-Up with higher MCP-Energy-Up:

Provided that if the actual requirement of deployment of TRAS-Up is less than the cleared volume in the market with lower MCP-Energy-Up, TRAS-Up cleared in the said market shall be despatched on pro-rata basis:

Provided further that if the actual requirement of deployment of TRAS-Up is more than the cleared volume in the market with lower MCP-Energy-Up, TRAS-Up cleared in the market with lower MCP-Energy-Up shall be despatched in full and the TRAS-Up cleared in the market with higher MCP-Energy-Up shall be despatched on pro-rata basis.

TRAS

DESPATCH OF TRAS DOWN

- The Nodal Agency shall issue despatch instructions to the TRAS-Down Providers in the descending order of their Energy-Down bids, so that the selected TRAS-Down Provider with the highest Energy-Down bid shall be despatched first, followed by the TRAS-Down Provider with the next highest Energy-Down bid and so on.

TRAS

PAYMENT OF TRAS

- FOR TRAS UP: AS PER MCP (DESPATCH VOLUME) + COMMITMENT CHARGES (@10% OF MCP UPTO 20 PAISE/KWH FOR CLEARED VOLUME)
- FROM TRAS DOWN: PAY BACK TO THE POOL AS PER BID

MISC

- IN CASE OF SHORTFALL (i.e. REQUIREMENT > CLEARED) OR EMERGENCY
 - AVAILABLE URS POWER OF CERC TARIFF DETERMINED ISGS AT VC FOR UP AND DOWN.
- ACCOUNTING
 - SRAS WEEKLY (RPC)
 - TRAS WEEKLY (RPC)
 - DSM ADJUSTEMENT (RPC)
- DOP
- REPEAL OF ASO 2015

AGC quantum shall be excluded for computing deviation MWh, which shall be settled as per DSM Regulations:
$$\text{MWh deviation} = (\text{Actual MWh}) - (\text{Scheduled MWh}) - (\text{AGC MWh}).$$

THANK YOU

42ND CCM NERPC



Discussion Paper on Market based economic dispatch (MBED)

NERLDC, 05/08/2021

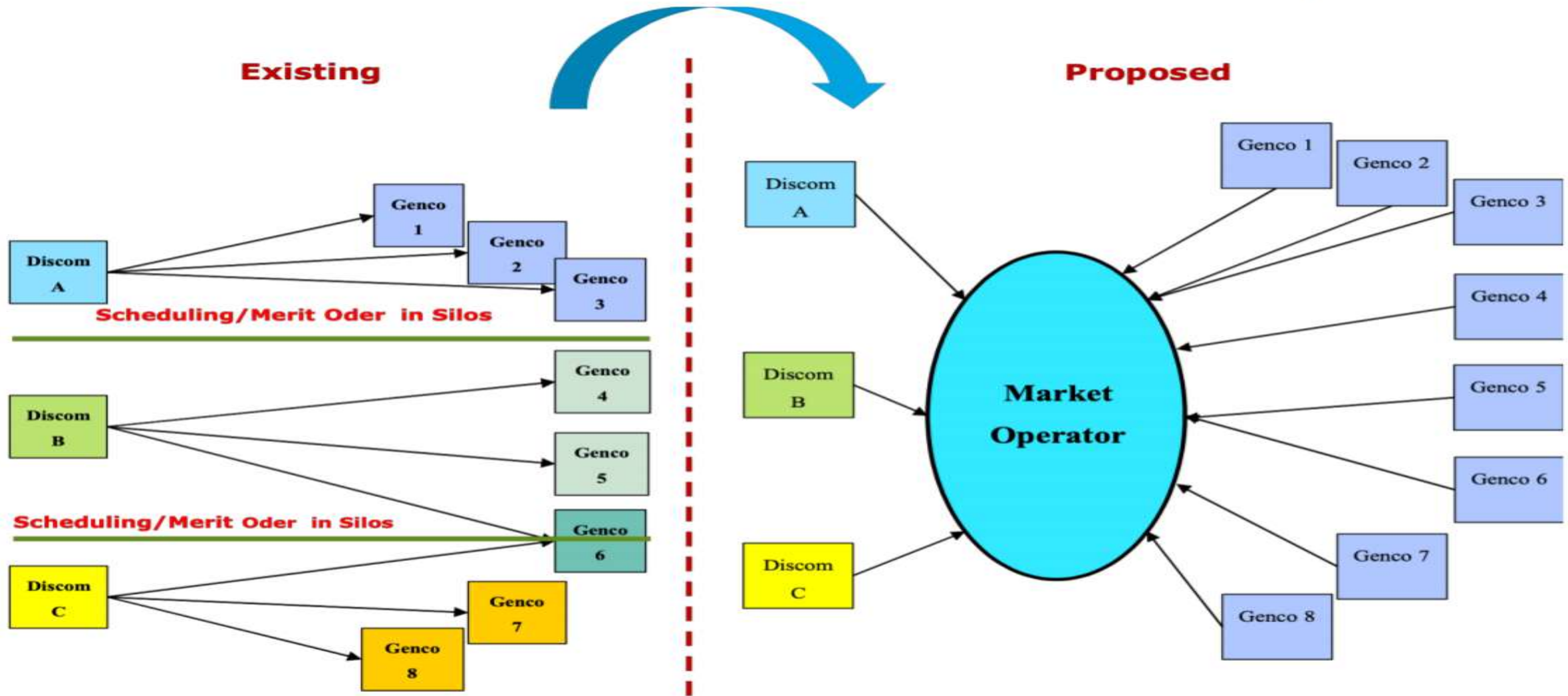
- Honourable CERC came with Discussion Paper on Market Based Economic Dispatch of Electricity: Re-designing of Day-ahead Market (DAM) in India on December, 2018.
- MOP also notify Discussion Paper on Market Based Economic Dispatch of Electricity and requested for comment by 30/06/2021
- Phase -I Implementation of MBED shall start with the fleet of NTPC thermal stations from 1 April 2022.
- Moving towards “One Nation, One Grid, One frequency, One Price” framework

KEY OBJECTIVES OF REDESIGNING THE DAYAHEAD MARKET



Difference Between Existing Mechanism and Proposed MBED Mechanism

Box-1: Existing Framework Vs Proposed Market Based Economic Dispatch



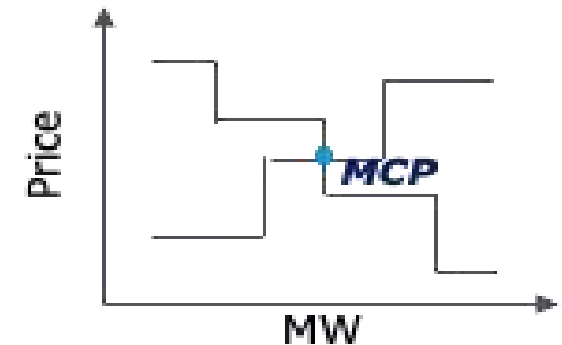
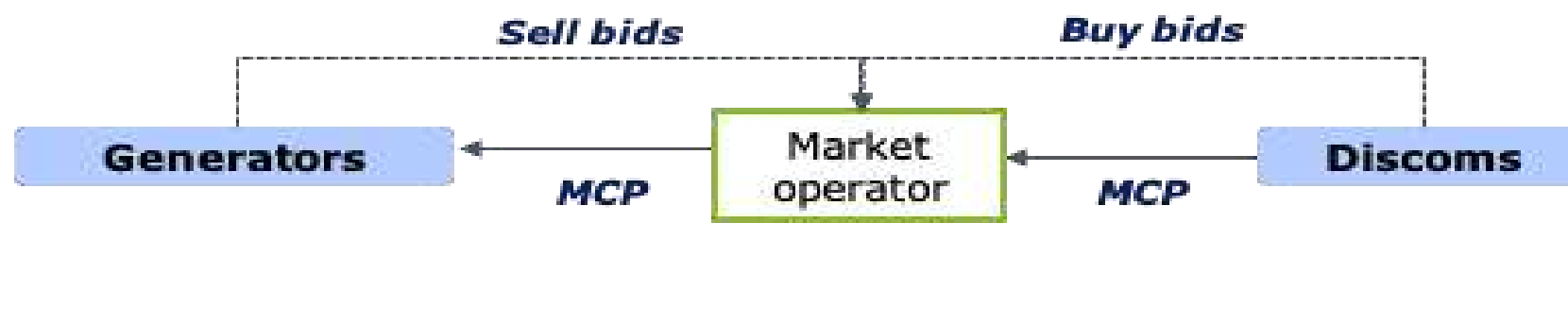
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Proposed MBED Framework

Market based economic dispatch

Scheduling and dispatch

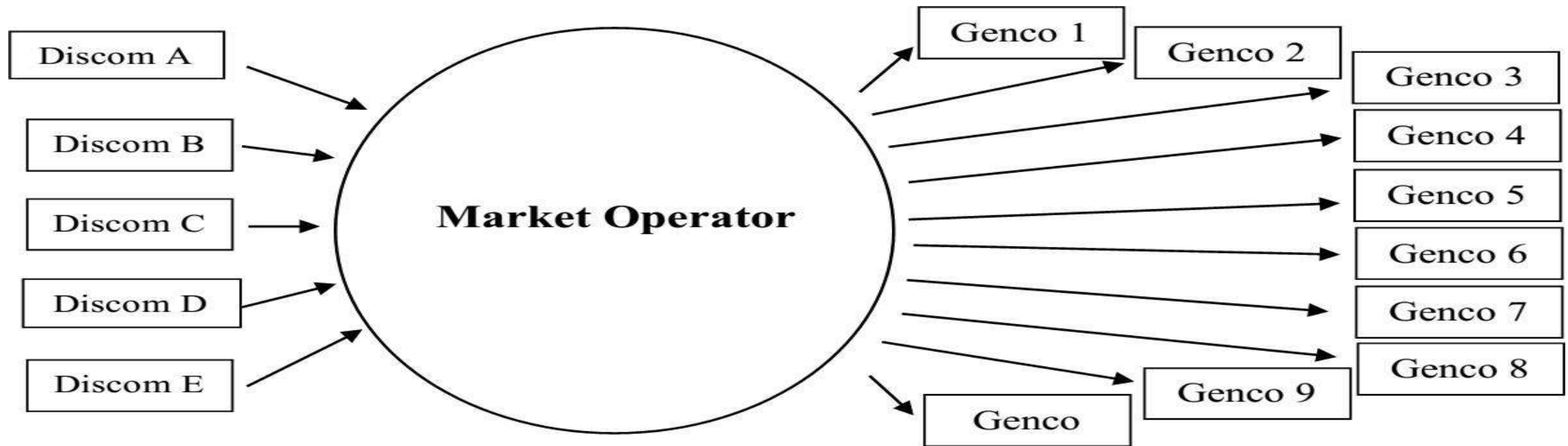
- All generation plants (State, Central, IPPs) would declare their availability on a **day ahead basis** and all discoms would declares their day-ahead requirement
- Gencos and Discoms will submit **bids for quantum of power to be sold / procured**
- **Market Clearing Price (MCP)** – **uniform price based system marginal cost** - would be discovered for each time block



Settlement of Bilateral contract (BCS)

- **Existing contracts** with gencos would continue to be honoured
- **Discoms** would continue to pay **fixed costs** to contracted generators **outside of market**
- Discoms would pay **Market Clearing Price (MCP)** / **Area Clearing Price (ACP)** for cost of power procured
- For portion of demand met through existing contracts, generators would **refund difference in MCP and variable costs to discoms**

Payin / Payout in the Market Based Economic Dispatch



$$\begin{aligned}\text{Discom's Payment} &= \text{Discom's load} \times \text{MCP} \\ \text{Genco's Revenue} &= \text{Genco's total scheduled generation} \times \text{MCP} \\ \sum \text{Discom Payment} &= \sum \text{Genco Revenue} \\ \text{Note: Under No Transmission Constraint}\end{aligned}$$

Source: CERS Staff Analysis

The MCP in each time-block would be the bid value of the **last generator/sellers' offer matched** to meet the demand offers which would reflect the marginal value of the electricity

Arrangement for Bilateral Settlement - Simple Case

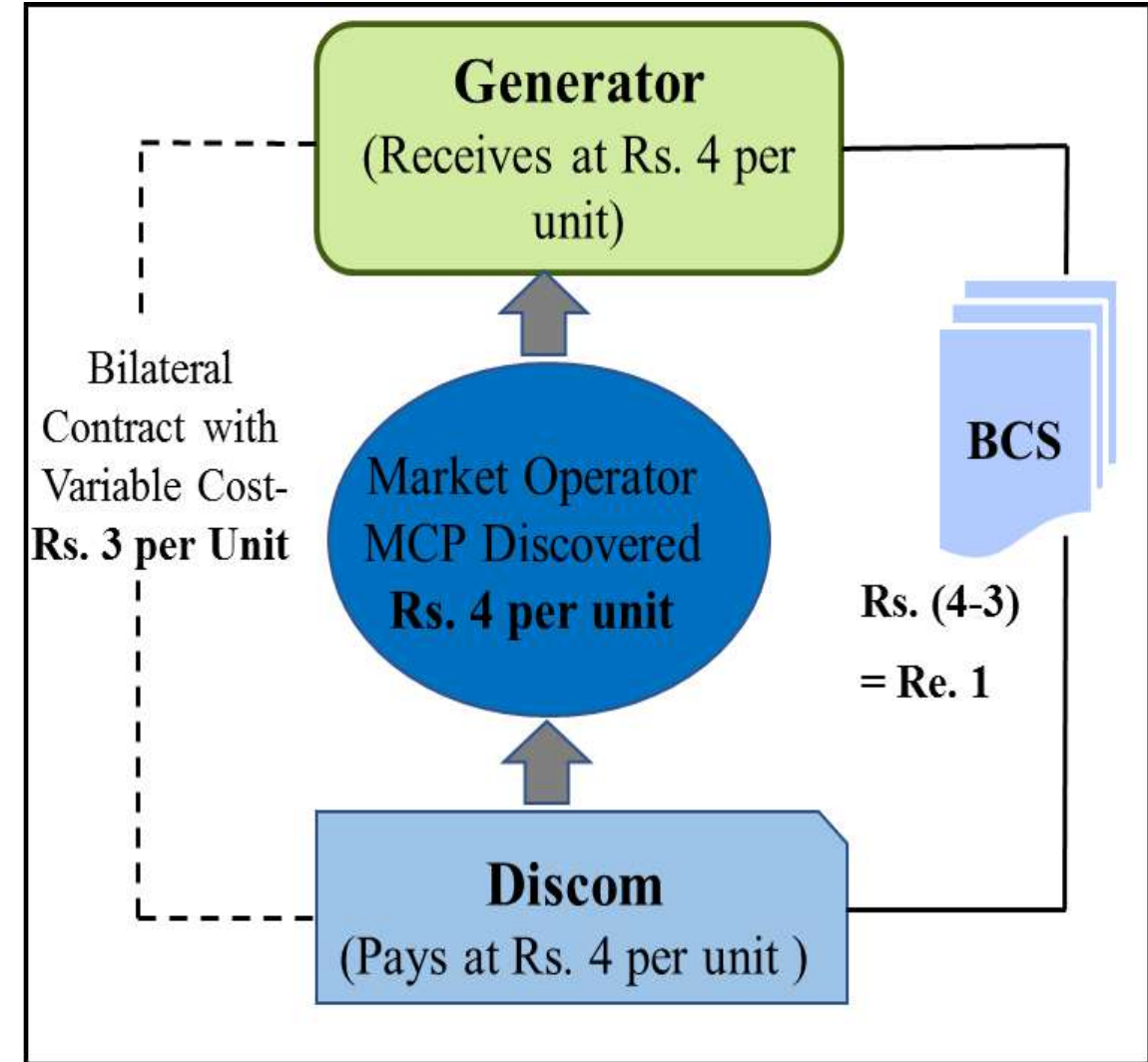
Consider a discom and a generator with a Contracted Price (VC) of Rs. 3 / kWh

If the Market Clearing Price (MCP) is Rs 4 / kWh,

- discom pays to pool/Market Operator (MO) Rs 4 / kWh
- Generator receives Rs 4/kWh from pool/MO
- Generator refunds discom 1 Re/kWh.

Discoms would be hedged against any increase in the market clearing price through BCS

For demand which is met out side of existing contracts, discoms would pay MCP.



S No.	Existing mechanism of procurement of power and scheduling	Changes due to MBED implementation
Scheduling mechanism		
1.	The Discoms self-schedule the NTPC generators based on their entitlements and access the Power Exchanges for the balance of their energy requirements	<p>Discoms <i>can still self-schedule the generators, however both Discoms and the generators have to mandatorily participate in the Day-ahead market segment</i> of Power exchanges for bidding.</p> <p>Bilateral contract settlement would be carried out taking into account the quantum of power which is self-scheduled</p>
2.	NTPC generators are scheduled by Discoms / LDCs based on their declared capabilities and states requirements.	<p>Generators shall submit offers and shall be cleared based on the total demand bid into the day-ahead market</p> <p>Once the bids and offers are received, the market clearing engine will seek to optimize the dispatch of generation sources taking technical constraints into account.</p>
3.	<p>Discoms do not have visibility of cheaper options outside the states and hence several low-cost generation capacities remain partially or sub-optimally utilized.</p> <p>Discoms tend to run costlier generation capacity at its technical minimum in off peak period even at the cost of backing down of cheaper generation</p>	<p>The entire demand from NTPC stations shall be met by dispatching the least-cost generation mix while ensuring that security of the grid is maintained.</p> <p>Cheaper NTPC plants shall be dispatched to the maximum extent whereas costlier plants will run optimally as required.</p>

S No.	Existing mechanism of procurement of power and scheduling	Changes due to MBED implementation
Actions by buyers, sellers & Power exchange		
4.	Generators are scheduled based on the merit order which considers variable charges as determined by the Commission under section-62 of the Act.	<p>Generators shall be required to offer their capacities in the DAM based on self-determined ECR with no adjustments for retrospective revisions in fuel and other charges.</p> <p>National merit order shall be formed and all generators would be subsequently dispatched.</p>
5.	Discoms / SLDC communicate the dispatch schedule to RLDCs for their contracted generators.	<p>Discoms / buyers shall be required to submit bids for all the time-blocks of the upcoming day.</p> <p><i>Discoms may choose to submit 'Fixed Demand' in each Block, which is price inelastic and "has to be served".</i> Further, Flexible Demand by the Discom, over and above the 'Fixed demand' in each block will be price sensitive.</p>
6	<p>Generators declare their capabilities for next day to RLDCs which then communicates entitlements to SLDCs.</p> <p>SLDCs review their requirements and communicate drawl schedule to RLDCs. RLDCs compute the corresponding dispatch schedule for the Generators.</p>	<i>Buyers and sellers, based on their mutual preference, shall submit bids and offers on a particular Power exchange.</i>
7.	Self-scheduling of generators by Discoms often leads to sub-optimal merit order stack for scheduling and despatch. True marginal cost of the system doesn't get discovered	Once the bids and offers are received, the market clearing engine of the Power exchanges will schedule the generating stations following optimal despatch principles. Market Clearing Prices shall be discovered for each 15 min time block of the upcoming day.

S No.	Existing mechanism of procurement of power and scheduling	Changes due to MBED implementation
Schedule revisions		
8.	As per extant practice, both the generator and the Discom can revise their schedule 7/8 time blocks prior to delivery without any financial liability.	<p>Right to Revision (RTR) for the complete fleet of NTPC plants shall cease to exist for the period until the results of DAM are announced, and <i>such RTR will be reinstated in respect of the quantum not cleared in the DAY from those candidate plants.</i></p> <p>Further, if there is any need for beneficiaries to buy / sell additional power closer to real-time, they can participate in the Real Time market (RTU) and correct their day-ahead positions suitably.</p>
Payment and settlement		
9.	Discoms pay the variable charges to scheduled generators based on the quantum of energy scheduled.	<p>Discoms / buyers will pay to the market operator at MCP for the day-ahead demand. Similarly, all the generators will be paid at the MCP according to execution of their selected bids.</p> <p>Buyers, under LT contracts, will be refunded the difference between the market clearing price and the contracted price as per the quantum of power self-scheduled through the Bilateral Contract Settlement (BCS)</p>
10.	NTPC generators who have a long-term contract are paid the fixed cost separately outside the market	<i>NTPC generators who have a long-term contract will continue to be paid the fixed cost separately outside the market</i>
11.	<p>URS power of NTPC generators can be availed by a Discom which is not the original beneficiary of the generators. Such beneficiaries can meet demand through this URS after exhausting their share of contracted power in such ISGS.</p> <p>The fixed cost liability to the extent of URS scheduled by such beneficiaries would rest with them and not on original beneficiaries.</p>	<p>NTPC generators can sell the URS power in the market. Net revenue earned by NTPC generators by selling their URS power will be shared with concerned beneficiaries in the ratio of 50:50 subject to a ceiling of 7p/kWh to the generator and balance to the concerned beneficiary.</p>

Section 4: Key issues and suggested mitigation measures

Relinquishment of Right to Revise schedule by Discoms

With the implementation of MBED, the participating Discoms will forego the right to revise schedules of the NTPC thermal stations and as such some Discoms had pointed out that they may face risk of not being able to meet demand through the day ahead market.

With the introduction of Real-Time Market, the Discoms have access to an additional avenue to correct their positions, which makes the continuance of Right to revise untenable in the longer term.

Suggested measure: To further minimize the exposure and impact, it is proposed that the Right to Revision (RTR) for NTPC plants shall cease to exist only for the period until the results of DAM are announced and such ***RTR will be reinstated in respect of the generation quantum not cleared in the DAM from these plants***. Discoms shall be able to meet their day-ahead demand reliably by placing price **inflexible bids**.

An analysis -

An analysis was carried out by the Consultants for two representative states (Maharashtra and Gujarat) over two representative months in 2020 (January and August) to understand the impact of right to revise schedules in meeting demand. Based on the analysis, the following inferences could be drawn:

There was recall of power (upward revision) for less than 35% of all slots analyzed (less than 25% for recall from tied-up ISGS). Recalled quantum of greater than 200 MW occurred for less than 10 % of slots.

Downward revisions occurred for more than 60% of the slots (75% of downward revision from tied-up ISGS)

It is observed that much larger share of revisions are downward revisions, indicating that the **Discoms tend to over schedule** on a day ahead basis and **then correct their positions closer to real- time**. This analysis is may have further skewed with the introduction of Rea-Time Markets.

Need for Price coupling

CERC Regulations allow for multiple power exchanges to ensure competition in Day-Ahead markets



Structurally the same can continue. However, for better system efficiency, there would be a need to combine the bids and offers of both the exchanges to arrive at the following outcomes:

Discovery of uniform Area clearing prices (instead of multiple ACPs due to multiple power exchanges)

Achieving higher social welfare as compared to the sum of maximum social welfare in multiple power exchanges

Following are the key issues which are expected to arise in case a seller and a buyer, who are tied up through LTPPAs, go to separate exchanges without coupling of exchanges being implemented:

One entity gets cleared whereas the other does not:

- For instance, say seller A is tied up with buyer B for a variable cost of Rs 3 pu. Seller A places an offer in PX 1 and buyer B places an inflexible bid in PX 2. Buyer B gets cleared in PX 2 however, seller A, due to lack of liquidity, does not get cleared in PX 1. In this case, Buyer B pays Rs 4 pu as MCP and is expected to get a refund of Rs 1 pu (MCP-contract price).
- However, BCS is not possible for Buyer B since its corresponding seller has not been cleared with whom BCS needs to be done.
- Had there been price coupling which could have allowed Seller A to get cleared in case MCP is more than Rs 3 pu, the BCS mechanism would have been possible and the buyer would have got the refund of Rs 1 pu.

Both entities get cleared at different clearing prices leading to disparity in BCS settlement:

- For instance, say seller A is tied up with buyer B at a variable / energy price of Rs 2/kWh. Seller A places an offer in PX 1 and buyer B places an inflexible bid in PX 2 for the same quantum. Buyer B gets cleared in PX 2 at a MCP of, say, Rs 4/kWh however, seller A, gets cleared in PX 1 at a MCP of, say, Rs 3/kWh. In this case, Buyer B pays the MCP of Rs 4/kWh and need to obtain a BCS refund of Rs 2/kWh (Rs 4/kWh - Rs 2/kWh). However, the seller has received an MCP of Rs 3 / kWh, i.e. an additional revenue of Rs 1/kWh only and hence it will not be able to refund back Rs 2 / kWh to the buyer.

Suggested measure:

- As an interim measure of resolving the above issue, it is suggested that the buyers and corresponding sellers, based on their mutual preference, would need to submit bids and offers on a particular Power exchange.
- This would ensure that both the parties are subject to the same clearing price and liquidity. However, CERC/MoP is exploring the feasibility of undertaking price coupling and the same could also be implemented in due course of time, as envisaged under the Power Market Regulations, 2021.

Working capital management for Discoms

As per extant practice of payment for the quantum of power procured, a monthly invoice for the aggregated amount of electricity sold to the Discom by the generator in a month gets issued in the first week of the ensuing month and the Discom has 45 days from the invoice date to pay the dues.

With the implementation of MBED, it is expected that the entire power tied up with NTPC thermal stations would be transacted on the power exchanges.

This would call for upfront payment of margin money by Discoms to the Power exchanges for the quantum of power procured.

It is expected that with the implementation of MBED for full fleet of NTPC thermal stations, following would be the overall funding requirement on a yearly basis

Average daily energy transacted (MUs)	Weighted average cost of selected plants * (Rs / kWh)	Approximate funding requirement – daily (Rs crs)	Approximate funding requirement – yearly (Rs crs)
650-700	2.14	140-150	51000-55000

**Discoms would be required to pay MCP for each slot and would receive adjustments against fixed charges, so the net cost of power procured will be at the variable / bid cost.*

Suggested measure:

- To ensure that Discoms are not burdened with such huge upfront payments, a centrally designated agency viz. PFC or REC could provide a line of credit to Discoms who require such working capital. The Discom / borrowers could repay such amount along with interest within a maximum period of 45-60 days from the date of disbursement of each tranche/disbursement. Following are the expected benefits of such a mechanism.



Generators

- Ensures payments to generators as per the rules and bye-laws of the power exchanges

Discom

- Provides the necessary working capital support needed
- Provides adequate timeframe for Discoms to repay back the amount to the designated agency

Exchange

- Addresses counterparty risk of exchanges

PFC / REC

- Provides opportunity to increase their loan book size and revenues from power markets

Those Discoms who are financially sound and does not require the help of financial institutions will tend to save more. The generation cost is likely to reduce as there will not be any working capital requirement by the generating company.

Additional relief for upfront payments by Discoms

Current Practice

- As per extant mechanism, a 1.5% rebate is provided to the Discoms, if the payment is made to the Gencos within 5 days from the invoice date and 1% rebate if the payment is made with 30 days from the invoice date.

Post MBED Effect


- Since with the implementation of MBED, Discoms would be paying upfront for the cost of power procurement, they would need to be incentivized by granting additional rebates for such upfront payment.

Suggested Measure

- It has been analysed that a total rebate of 2% could be offered to Discoms on the payment for the quantum of power procured through exchange. An additional analysis (Annexure 5) has been carried out to include the overall benefits of this offered rebate against the additional working capital burden for depositing margin money.

Annexure 5: Impact analysis on buyers for upfront payment

Distribution companies will be procuring power through power exchanges and hence, the power will be procured through advance payments / margin money and generating companies will be realizing the payment against the power sold on the same day. A rebate of 2% has been proposed for such advance payment by discoms.



However, since the distribution companies would be utilizing the mechanism of working capital from Designated agencies to make such upfront payments, it is essential to understand and compare the interest cost liability to be incurred by Discoms in availing the working capital facility vis-a-vis the additional relief in the form of rebates for upfront payments.



Discoms would be incentivized to participate in MBED if the additional relief suitably compensates them for the interest cost incurred.

- The approximate funding requirement by Discoms, on a daily basis, would be Rs 150 crs (Section 4, main document). Based on the following assumptions, the table below computes the benefits and costs incurred by the Discoms, because of the MBED scheme.
 - I. A working capital rate of SBI MCLR (1 year MCLR of 7%) + 350 basis points
 - II. A maximum tenure of 45 days for Discoms to repay back the working capital loan, and,
 - III. Proposed rebate of 2.00% on the procurement value

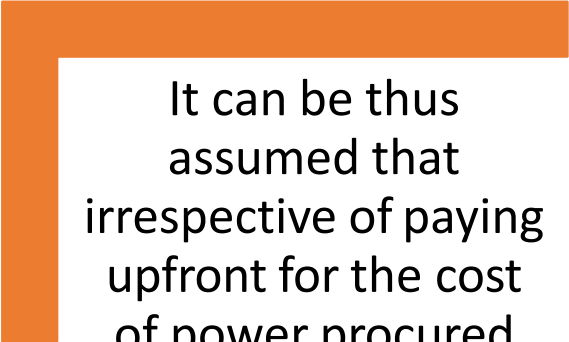
Approximate funding requirement – daily (Rs crs) (1)	SBI MCLR 1-year (%) (2)	Interest rate on WC loan (3)=(2)+3.5%	Interest cost (Rs crs) (4) = (3)*(1)*45/365
~150	7%	10.5%	~ 1.95

Approximate funding requirement – daily (Rs crs) (1)	Rebate offered (%) (2)	Rebate (Rs crs) (3)=(2)x(1)
~150	2%	3.0

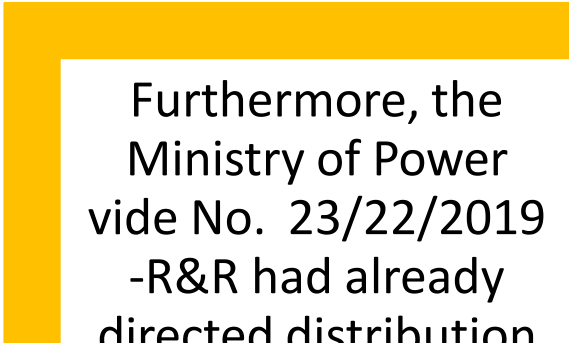
Net benefits are represented herein:

Rebate provided for upfront payment (Rs crs) (1)	Interest cost incurred for upfront payment through working capital loan (Rs crs) (2)	Net benefits (Rs crs) (3)=(2)-(1)
3	1.95	1.05

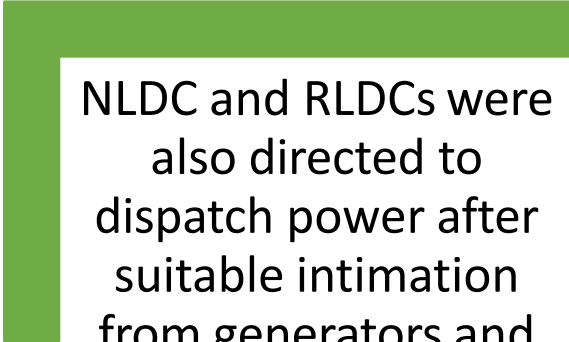
Further Issues -



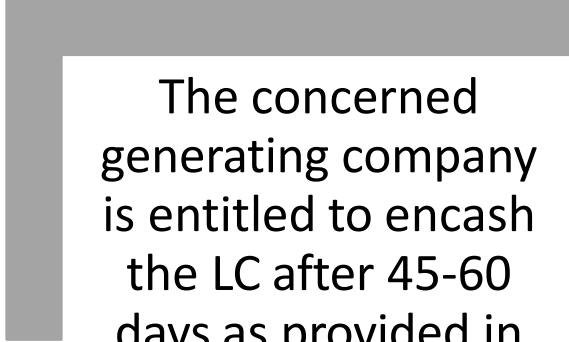
It can be thus assumed that irrespective of paying upfront for the cost of power procured through exchanges, the distribution companies would realize net benefits if additional rebate of 2% is offered.



Furthermore, the Ministry of Power vide No. 23/22/2019 -R&R had already directed distribution companies to open and maintain adequate letter of credit as Payment Security mechanism under the PPAs signed by such distribution companies.



NLDC and RLDCs were also directed to dispatch power after suitable intimation from generators and distribution companies that such Letter of credits for the desired quantum of power have been opened and copies of the same supplied to NLDC / RLDCs.



The concerned generating company is entitled to encash the LC after 45-60 days as provided in the PPA. As such, the proposed MBED mechanism is already in line with the existing requirement of upfront payment and does not aim to alter the status quo with respect to such provision.

Need for market-based / integrated dispatch in day ahead horizon

Discoms

- Dispatch optimization through MBED framework increases utilization of low-cost generators while reducing and backing down in certain cases, the expensive generators.
- Additional revenue received from market by cheaper generating stations would be shared with Discoms
- Discoms and consumers benefit as the overall procurement cost reduces

Generators

- Mechanism inherently promotes cheaper and efficient plants
- Pit head stations runs to its full capacity. Less requirement of coal movement and thus saving in the coal transportation cost. Decongestion of railway traffic.
- Generators, who sell their URS power, will earn additional revenues (to the extent of cap, as decided suitably by the Commission) through this mechanism

Others

- Demand for reserves (Ancillary Services) could be assessed suitably.
- Mechanism would lead to enhanced RE integration due to enlargement of balancing area from state to national level. This will lead to reduced RE curtailment. As more RE pets added in the portfolio, overall system cost and power procurement cost reduces. Enhanced RE also leads to reduced dependence on imported fuel and increase in energy security of the country
- Improved discipline would be achieved in merit-order based scheduling and transparency of system marginal price
- The proposed mechanism would be a key step in enabling uniform clearing price for procurement of power and transitioning towards the concept of "One Nation, One Grid, One Price"

Thank you!



पूर्वोत्तर क्षेत्र के वित्तीय वर्ष 2021-22 के विचलन बकाया की स्थिति (पिछले साल सहित)

Deviation Outstanding status of NER for FY-2021-22 (including Last years O/S)

	05-07-21	11-07-21	तक		आजकी तारीख As on 26-07-21		Figs in Lacs
घटक / Constituents	Week no of NER-15 of FY 2021-22				टोटल / TOTAL		O/S PAYABLE >13 WEEKS
	पूल के लिए देय / Payable to Pool	पूल से प्राप्य / Receivable from Pool	भुगतान किया / Paid	प्राप्त / Received	O/S Payable to Pool	O/S Receivable from Pool	
अरुणाचल प्रदेश / Ar. Pradesh	18230.69	5100.40	18201.60	5100.40	29.10	0.00	0.00
असम / Assam	53110.96	433.19	52872.95	433.19	238.01	0.00	0.00
मणिपुर / Manipur	4050.16	2676.21	4026.17	2676.21	23.99	0.00	0.00
मेघालय / Meghalaya	4737.93	8527.52	4737.93	8437.02	0.00	90.50	0.00
मिज़ोरम / Mizoram	6686.99	2816.77	6455.81	2816.77	231.19	0.00	175.43
नगालैंड / Nagaland	8221.76	1892.03	8221.76	1887.74	0.00	4.29	0.00
त्रिपुरा / Tripura	15130.39	7856.38	15130.39	7830.02	0.00	26.36	0.00
लोकतक / Loktak	70.85	1003.44	70.85	999.52	0.00	3.92	0.00
नीपको / NEEPCo	3577.68	20763.63	3577.68	20692.17	0.00	71.46	0.00
ई आर / ER	199325.75	417106.35	199325.75	410620.33	0.00	6486.01	0.00
ओटीपीसी / OTPC	2396.77	5854.46	2393.99	5854.46	2.79	0.00	0.00
एनटीपीसी / NTPC	7765.05	4383.00	7687.17	4383.00	77.88	0.00	0.00
एन आर / NR	395032.26	203383.30	386284.96	203383.30	8747.31	0.00	0.00
बि. एन. सि. / BNC	129.15	312.00	128.87	312.00	0.29	0.00	0.00
टोटल / TOTAL	718466.40	682108.69	709115.86	675426.15	9350.54	6682.54	

REACTIVE POOL ACCOUNT DETAILS : 2021-22

Upto Week - 6

As on

26.07.2021

All figures in ₹

		Till Previous FY		CURRENT FY				Reactive Bill settelement status		Interest Bill settelement status		Reactive+Interest Settlement	
Sl. No	States	Outstanding Payable (upto FY 20-21)	Outstanding Receivable (upto FY 20-21)	Payable to pool (2021-22)	Paid to pool (2021-22)	Receivable from pool (2021-22)	Received from pool (2021-22)	Outstanding Payable (upto FY 21-22)	Outstanding Receivable (upto FY 21-22)	O/S Reactive interest Payable till FY 20-21 1st Half	O/S Reactive int. Receivable till FY 20-21 1st Half	Net Outstanding Payable (upto FY 21-22)	Net Outstanding Receivable (upto FY 21-22)
0	0	1	2	3	4	5	6	1	2	7	8	0	0
1	Ar. Pradesh	137470	0	226253	229929	0	0	133794	0	0	0	133794	0
2	Assam	1247085	0	2874779	4121863	0	0	1	0	0	0	1	0
3	Manipur	137555	0	0	32968	32968	32968	104587	0	5238	1327	108499	0
4	Meghalaya	0	882198	0	0	3015332	3897529	0	1	0	0	0	0
5	Mizoram	0	106749	0	0	294833	401582	0	0	0	0	0	0
6	Nagaland	0	2758	48568	32020	29262	32020	16548	0	0	0	16548	0
7	Tripura	0	231	661203	661203	0	231	0	0	0	0	1	0
8	PSDF	0	530175	0	0	438408	713653	0	253604	0	5238	0	258841
	TOTAL	1522110	1522110	3810803	5077983	3810803	5077983	254930	253604	5239	6565	258843	258841

अपूर्ण डीएसएम सुलह की स्थिति / Pending DSM Reconciliation Status						
Sl No.	Constituents	Period Pending	Total Pending	Last Signed		
				Qr. No.	FY	Date
1	Ar. Pradesh	20-21(Q4), 21-22(Q1)	2	3	20-21	08-02-21
2	Assam	21-22(Q1)	1	4	20-21	03-05-21
3	Manipur	21-22(Q1)	1	4	20-21	07-06-21
4	Meghalaya	20-21(Q4), 21-22(Q1)	2	3	20-21	25-01-21
5	Mizoram	20-21(Q2,Q3,Q4), 21-22(Q1)	4	1	20-21	24-09-20
6	Nagaland	21-22(Q1)	1	4	20-21	03-05-21
7	Tripura	21-22(Q1)	1	4	20-21	03-05-21
8	BNC	21-22(Q1)	1	4	20-21	21-06-21
9	Loktak	20-21(Q4), 21-22(Q1)	2	3	20-21	15-04-21
10	NEEPCo	21-22(Q1)	1	4	20-21	23-04-21
11	OTPC	21-22(Q1)	1	4	20-21	23-06-21
12	NTPC	20-21(Q4), 21-22(Q1)	2	3	20-21	02-02-21
			19			
अपूर्ण रिएक्टिव सुलह की स्थिति / Pending Reactive Reconciliation Status						
Sl No.	Constituents	Period Pending	Total Pending	Last Signed		
				Qr. No.	FY	Date
1	Ar. Pradesh	21-22(Q1)	1	4	20-21	30-06-21
2	Assam	Up to date	0	1	21-22	23-07-21
3	Manipur	21-22(Q1)	1	4	20-21	07-06-21
4	Meghalaya	20-21(Q2,Q3,Q4), 21-22(Q1)	4	1	20-21	10-08-20
5	Mizoram	20-21(Q2,Q3,Q4), 21-22(Q1)	4	1	20-21	24-09-20
6	Nagaland	21-22(Q1)	1	4	20-21	03-05-21
7	Tripura	20-21(Q4), 21-22(Q1)	2	3	20-21	05-03-21
			13			

Case-I						
2020-21 : Letter of Credit (LC) Amount against DSM charges						
<i>Figures in Rs.</i>						
Constituents	FY 20-21 DSM liability [DSM charges + Addl. DSM]	Average weekly DSM liability [A/52]	LC Amount [110% of B]	LC amt. (in Lakhs)		
	A	B	C	D		
AP	66054550	1270280	1397308	13.97		
ASSAM	428038410	8231508	9054659	90.55		
MANIPUR	30145186	579715	637687	6.38		
MeECL	37646837	723978	796375	7.96		
MIZORAM	18699967	359615	395576	3.96		
NAGALAND	5587923	107460	118206	1.18		
TRIPURA	61287976	1178615	1296476	12.96		
Case-II						
150% exceeded case of LC amount till Wk-52 of FY 2020-21						
Constituents	150% of Case-I	Maximum (in a week) DSM liability of FY 20-21	Exceed of 150 % [where (B-A)>0]	Wk No of [B] where [C>0]	110% of B [where C>0]	LC to be open (in Lakhs) in FY 21-22
	A	B	C	D	E	F
AP	2095962	7093340	4997378	22	7802674	78.03
ASSAM	13581988	18480840	4898852	18	20328924	203.29
MANIPUR	956530	2018005	1061475	42	2219806	22.20
MeECL	1194563	7718609	6524046	45	8490470	84.90
MIZORAM	593364	2390705	1797341	38	2629776	26.30
NAGALAND	177309	1072403	895094	38	1179643	11.80
TRIPURA	1944715	13092953	11148238	14	14402248	144.02

No. 23/03/2016-R&R
Government of India
Ministry of Power

Shram Shakti Bhawan, New Delhi,
Dated, the 29th January, 2021

ORDER

Subject: Renewable Purchase Obligation (RPO) trajectory - regarding.

1. In exercise of the powers conferred under section 3(3) of Electricity Act, 2003, the Central Government had notified the revised Tariff Policy, which was published in Gazette of India, Extraordinary, Part-I, Section-1 dated 28.01.2016.

2. Para 6.4(1) of the Tariff Policy 2016 provides as follows:

"Pursuant to provisions of section 86(1)(e) of the Act, the Appropriate Commission shall fix a minimum percentage of the total consumption of electricity in the area of a distribution licensee for purchase of energy from renewable energy sources, taking into account availability of such resources and its impact on retail tariffs. Cost of purchase of renewable energy shall be taken into account while determining tariff by SERCs. Long term growth trajectory of Renewable Purchase Obligations (RPOs) will be prescribed by the Ministry of Power in consultation with MNRE.

Provided that cogeneration from sources other than renewable sources shall not be excluded from the applicability of RPOs."

3. In light of para 6.4(1) of the Tariff Policy 2016, and with the objective of creating renewable power capacity of 175 GW by March, 2022; the Ministry of Power, after consultation with Ministry of New and Renewable Energy, had notified the long term trajectory of Renewable Purchase Obligations (RPOs) for solar and non-solar power vide its orders dated 22nd July 2016 and 14th June 2018.

4. On 8th March 2019, the Government had issued an order detailing various policy measures to promote hydropower sector in India inter-alia declaring large hydropower projects including pumped storage projects having capacity of more than 25 MW (LHPs) which come into commercial operation after 8.3.2019 as renewable energy source and to specify Hydropower Purchase Obligation (HPO) within Non-Solar Renewable Purchase Obligation (RPO).

5. In compliance of the above decision and with the objective to add 30,000 MW of hydropower capacity by the year 2029-2030, Ministry of Power has prepared a revised trajectory of RPO including long term trajectory for HPO considering the LHPs commissioned after 8th March, 2019.

6. In super-session of orders dated 22nd July 2016 and 14th June 2018, the Ministry of Power hereby specifies the following RPO Trajectory-



Year	Solar RPO	Non-Solar RPO			Total RPO
		HPO	Other Non-Solar RPO	Total Non- Solar RPO	
2019-20	7.25%	-	10.25%	10.25%	17.50%
2020-21	8.75%	-	10.25%	10.25%	19%
2021-22	10.50%	0.18%	10.50%	10.68%	21.18%
2022-23	To be specified later	0.35%	To be specified later	To be specified later	To be specified later
2023-24		0.66%			
2024-25		1.08%			
2025-26		1.48%			
2026-27		1.80%			
2027-28		2.15%			
2028-29		2.51%			
2029-30		2.82%			

7. RPO shall be calculated in energy terms as a percentage of total consumption of electricity excluding consumption met from hydro sources (LHPs).

8. Solar RPO may be met by power produced from solar power plants – solar photo voltaic or solar-thermal.

9. Other Non-Solar RPO (excluding HPO), may be met from any renewable source other than solar and LHPs.

10. HPO benefits may be met from the power procured from eligible LHPs commissioned on and after 8.3.2019 and upto 31.03.2030 in respect of 70% of the total generated capacity for a period of 12 years from the date of commissioning. Free power is to be provided as per agreement with the State Government and that provided for Local Area Development Fund(LADF), shall not be included within this limit of 70% of the total generated capacity.

11. HPO liability of the State/ Discom could be met out of the free power being provided to the State from LHPs commissioned after 08.03.2019 as per agreement at that point of time excluding the contribution towards LADF if consumed within the State/Discom. Free power (not that contributed for Local Area Development) only to extent of HPO liability of the State/Discom, shall be eligible for HPO benefit.

12. In case the free power, as above, is insufficient to meet the HPO obligations, then the State would have to buy the additional hydro power to meet its HPO obligations or may

have to buy the corresponding amount of Hydro Energy Certificate to meet the non-solar hydro renewable purchase obligations.

13. The Hydro Energy Certificate mechanism under Regulation to be developed by CERC to facilitate compliance of HPO Obligation, would have a capping price of Rs.5.50/Unit of electrical energy w.e.f 8th March 2019 to 31st March, 2021 and with annual escalation @5% thereafter for purposes of ensuring HPO compliance.

14. The above HPO Trajectory shall be tried up on an annual basis depending on the revised commissioning schedule of Hydro projects. The HPO Trajectory for the period between 2030-31 and 2039-40 shall be notified subsequently.

15. Hydro power imported from outside India shall not be considered for meeting HPO.

16. On achievement of Solar RPO compliance to the extent of 85% and above, remaining shortfall, if any, can be met by excess non-solar energy consumed beyond specified Non-Solar RPO for that particular year. Similarly, on achievement of Other Non-Solar RPO compliance to the extent of 85% and above, remaining shortfall if any, can be met by excess solar or eligible hydro energy consumed beyond specified Solar RPO or HPO for that particular year. Further, on achievement of HPO compliance to the extent of 85% and above, remaining shortfall, if any, can be met by excess solar or other non-solar energy consumed beyond specified Solar RPO or Other Non-Solar RPO for that particular year.

17. POSOCO will maintain data related to compliance of RPOs.

18. Further the SERCs may consider to notify RPO trajectory including HPO for their respective States in line with aforesaid RPO trajectory. Moreover CERC may consider to devise suitable mechanism similar to Renewable Energy Certificate (REC) mechanism to facilitate fulfillment of HPO.

19. This issues with the approval of Minister of State (I/C) for Power.



(Ghanshyam Prasad)

Joint Secretary to the Government of India

Tele No. 23710389

To

1. Principal Secretary/Secretary (Power / Energy), State Governments/UTs.
2. Secretary, CERC/FOR, Chanderlok Building, Janpath, New Delhi
3. Secretary, State Electricity Regulatory Commissions/Joint Electricity Regulatory Commissions

Copy to:

1. Secretary, MNRE, CGO Complex, New Delhi
2. Chairperson, CEA, Sewa Bhawan, RK Puram, New Delhi

Copy also for information to:

1. All Joint Secretaries, Ministry of Power
2. PS to MOS (I/C) for Power & NRE and MoS for SDE.
3. Sr. PPS to Secretary (Power), PPS to AS(SKGR), PPS to AS(VKD), Sr.PPS to Sr. Advisor, Sr. PPS to JS (R&R), PS to DS(R&R)

ANNEXURE-6.7

1ST PHASE REPLACEMENT OF SEM AS PER NERLDC RECORD					
SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	OLD METER NO	NEW METER NO	FEEDER NAME
1	ASSAM	SARUSAJAI	NP-8489-A	NP-9921-A	S'SAJAI END OF 132kV UMTRU FDR-1
2	ASSAM	SARUSAJAI	NP-8492-A	NP-9922-A	S'SAJAI END OF 132kV UMTRU FDR-2
3	ASSAM	DULLAVCHERRA	NP-9438-A	NP-9904-A	DULLAVCHERRA END OF D'NGAR FDR
4	ASSAM	AZARA	NP-9456-A	NP-9983-A	AZARA END OF 400 KV BONGAIGAON
5	ASSAM	AZARA	NP-9457-A	NP-9981-A	AZARA END OF 400 KV SILCHAR
6	MANIPUR	NINGTHOUKHONG	NP-9521-A	NP-9946-A	NINGTHOUKHONG END OF IMPHAL (PG)
7	MANIPUR	YUREMBAM	NP-6951-A	NP-9948-A	YUREMBAM END OF KARONG FDR
8	MANIPUR	JIRIBAM	NP-8645-A	NP-9902 A	JIRIBAM(MAN) END OF JIRIBAM(PG)FDR
9	NAGALAND	KOHIMA	NP-9703-A	NP-9947-A	KOHIMA END OF KARONG FDR
10	POWERGRID	SILCHAR	NP-8666-A	NP-9898-A	SILCHAR END OF HAILAKANDI-II
11	POWERGRID	SILCHAR	NP-8667-A	NP-9900-A	SILCHAR END OF HAILAKANDI-I
12	POWERGRID	SILCHAR	NP-8664-A	NP-9895-A	SILCHAR END OF SRIKONA-I
13	POWERGRID	SILCHAR	NP-8665-A	NP-9897-A	SILCHAR END OF SRIKONA-II
14	POWERGRID	HAFLONG	NP-8656-A	NP-9956-A	HAFLONG END OF JIRIBAM
15	POWERGRID	IMPHAL	NP-8672-A	NP-9949-A	IMPHAL (PG) END OF LOKTAK-2
16	POWERGRID	IMPHAL	NP-4520-A	NP-9982-A	IMPHAL END OF NEW KOHIMA 1
17	POWERGRID	IMPHAL	NP-4504-A	NP-9985-A	IMPHAL END OF NEW KOHIMA 2
18	POWERGRID	JIRIBAM	NP-8623-A	NP-9903 A	JIRIBAM(PG) END OF BADARPUR FDR
19	POWERGRID	MOKOKCHANG	NP-4518-A	NP-9923-A	220/132KV,30 MVA ICT-1 AT MOKOKCHANG LV-SIDE
20	POWERGRID	MOKOKCHANG	NP-4515-A	NP-9938-A	220/132KV,30 MVA ICT-2 AT MOKOKCHANG LV-SIDE

1ST PHASE INSATALLATION OF SEM AT NEW PROJECT LOCATIONS

SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	METER NO	UTILITY INVOLVED	FEEDER NAME
1	AR PRADESH	ITANAGAR (CHIMPU)	NP-9935-A	STERLITE	132 kV ITANAGAR END OF BNC FDR 1
2	AR PRADESH	ITANAGAR (CHIMPU)	NP-9939-A	STERLITE	132 kV ITANAGAR END OF BNC FDR 2
3	ASSAM	KARIMGANJ	NP-9690-A	ASSAM	132 kV KARIMGANJ END OF BADARPUR
4	ASSAM	KARIMGANJ	NP-9937-A	ASSAM	132 kV KARIMGANJ END OF KUMARGHAT
5	MANIPUR	THOUBAL	NP-9668-A	MANIPUR	400 kV THOUBAL END OF IMPHAL(PG)-1
6	MANIPUR	THOUBAL	NP-9603-A	MANIPUR	400 kV THOUBAL END OF IMPHAL(PG)-2
7	TSECL	PK BARI	NP-9933-A	STERLITE / TRIPURA	132 kV PK BARI (TSECL)-RC NAGAR1
8	TSECL	PK BARI	NP-9932-A	STERLITE / TRIPURA	132 kV PK BARI (TSECL)-RC NAGAR 2
9	TSECL	PK BARI	NP-9919-A	STERLITE / TRIPURA	132 kV PK BARI (TSECL)-PK BARI (STERLITE)
10	TSECL	PK BARI	NP-9934-A	STERLITE / TRIPURA	132 kV AMBASSA(TSECL)-PK BARI (STERLITE)
11	TSECL	BUDHJUNG NAGAR	NP-9943-A	STERLITE / TRIPURA	132 kV BUDHJUNG NAGAR END OF 132 kV SM NAGAR (STERLITE)
12	TSECL	SM NAGAR	NP-9942-A	STERLITE / TRIPURA	SM NAGAR (TSECL) END OF SM NAGAR (STERLITE)
13	NEEPCO	RC NAGAR	NP-9940-A	STERLITE / TRIPURA	132 kV RC NAGAR-PK BARI (TSECL) 1
14	NEEPCO	RC NAGAR	NP-9457-A	STERLITE / TRIPURA	132 kV RC NAGAR-PK BARI (TSECL) 1 CHECK METER
15	NEEPCO	RC NAGAR	NP-9941-A	STERLITE / TRIPURA	132 kV RC NAGAR-PK BARI (TSECL) 2
16	NEEPCO	RC NAGAR	NP-9456-A	STERLITE / TRIPURA	132 kV RC NAGAR-PK BARI (TSECL) 2 CHECK METER
17	OTPC	PALATANA	NP-9944-A	STERLITE	PALATANA END OF 400 kV SM NAGAR (STERLITE)-1
18	OTPC	PALATANA	NP-9977-A	STERLITE	PALATANA END OF 400 kV SM NAGAR (STERLITE)-2
19	POWERGRID	MISA	NP-9928-A	STERLITE	400 kV MISA-SILCHAR 1
20	POWERGRID	MISA	NP-9929-A	STERLITE	400 kV MISA-SILCHAR 2
21	POWERGRID	MISA	NP-9892-A	KMTL	400 kV MISA-NEW MARIANI I
22	POWERGRID	MISA	NP-9894-A	KMTL	400 kV MISA-NEW MARIANI II
23	POWERGRID	MARIANI	NP-9959-A	KMTL	400 kV/ 220 kV NEW MARIANI ICT II LV SIDE
24	POWERGRID	MARIANI	NP-9950-A	KMTL	400 kV/ 220 kV NEW MARIANI ICT II HV SIDE

25	POWERGRID	MARIANI	NP-9958-A	KMTL	400 kV/ 220 kV NEW MARIANI ICT I LV SIDE
26	POWERGRID	MARIANI	NP-9951-A	KMTL	400 kV/ 220 kV NEW MARIANI ICT I HV SIDE
27	POWERGRID	MARIANI	NP-9974-A	KMTL	400 kV NEW MARIANI- NEW KOHIMA (KMTL)-1
28	POWERGRID	MARIANI	NP-9980-A	KMTL	400 kV NEW MARIANI- NEW KOHIMA (KMTL)-2
29	POWERGRID	IMPHAL	NP-9547-A	MANIPUR	400 kV IMPHAL (PG) END OF THOUBAL 1
30	POWERGRID	IMPHAL	NP-9543-A	MANIPUR	400 kV IMPHAL (PG) END OF THOUBAL 2
31	POWERGRID	IMPHAL	NP-9982-A	KMTL	400 kV Imphal end of New KOHIMA_1
32	POWERGRID	IMPHAL	NP-9985-A	KMTL	400 kV Imphal end of New KOHIMA_2
33	POWERGRID	SILCHAR	NP-9925-A	STERLITE	400 kV SILCHAR- MISA-1
34	POWERGRID	SILCHAR	NP-9896-A	STERLITE	400 kV SILCHAR- MISA-II
35	POWERGRID	SILCHAR	NP-9901-A	STERLITE	SILCHAR END OF 400 PK BARI (STERLITE)I
36	POWERGRID	SILCHAR	NP-9899-A	STERLITE	SILCHAR END OF 400 PK BARI (STERLITE) II
37	POWERGRID	BNC	NP-9961-A	STERLITE	132 kV BNC END OF ITANAGAR BNC FDR 1
38	POWERGRID	BNC	NP-9962-A	STERLITE	133 kV BNC END OF ITANAGAR BNC FDR 1
39	KMTL	NEW KOHIMA	NP-9972-A	KMTL	400 kV NEW KOHIMA END OF MARIANI FDR I
40	KMTL	NEW KOHIMA	NP-9973-A	KMTL	40 kV NEW KOHIMA END OF MARIANI FDR II
41	KMTL	NEW KOHIMA	NP-9986-A	KMTL	400 kV/ 220 kV ICT I HV SIDE KOHIMA SS
42	KMTL	NEW KOHIMA	NP-9988-A	KMTL	400 kV/ 220 kV ICT I LV SIDE KOHIMA SS
43	KMTL	NEW KOHIMA	NP-9987-A	KMTL	400 kV/ 220 kV ICT II HV SIDE KOHIMA SS
44	KMTL	NEW KOHIMA	NP-9989-A	KMTL	400 kV/ 220 kV ICT II LV SIDE KOHIMA SS
45	KMTL	NEW KOHIMA	NP-9970-A	KMTL	400 kV NEW KOHIMA END OF IMPHAL FDR I
46	KMTL	NEW KOHIMA	NP-9971-A	KMTL	400 kV NEW KOHIMA END OF IMPHAL FDR II
47	STERLITE	PK BARI	NP-9931-A	STERLITE	132 kV PK BARI (STERLITE)-PK BARI (TSECL)
48	STERLITE	PK BARI	NP-9930-A	STERLITE	132 kV PK BARI (STERLITE)-AMBASSA(TSECL)
49	STERLITE	PK BARI	NP-9917-A	STERLITE	PK BARI (STERLITE) END OF 400 kV SM NAGAR (STERLITE) I
50	STERLITE	PK BARI	NP-9918-A	STERLITE	PK BARI (STERLITE) END OF 400 kV SM NAGAR (STERLITE) II
51	STERLITE	PK BARI	NP-9905-A	STERLITE	400/132 kV PK BARI(STERLITE) ICT-1 HV SIDE
52	STERLITE	PK BARI	NP-9906-A	STERLITE	400/132 kV PK BARI(STERLITE) ICT-1 LV SIDE

53	STERLITE	PK BARI	NP-9907-A	STERLITE	400/132 kV PK BARI(STERLITE) ICT-2 HV SIDE
54	STERLITE	PK BARI	NP-9908-A	STERLITE	400/132 kV PK BARI(STERLITE) ICT-2 LV SIDE
55	STERLITE	PK BARI	NP-9916-A	STERLITE	PK BARI (STERLITE) END OF 400 kV SILCHAR I
56	STERLITE	PK BARI	NP-9915-A	STERLITE	PK BARI (STERLITE) END OF 400 kV SILCHAR II
57	STERLITE	SM NAGAR	NP-9893-A	STERLITE	132 kV SM NAGAR (STERLITE) END OF BUDHJUNGNAGAR
58	STERLITE	SM NAGAR	NP-9890-A	STERLITE	132 kV SM NAGAR (STERLITE) END OF SM NAGAR (TSECL)
59	STERLITE	SM NAGAR	NP-9978-A	STERLITE	SM NAGAR (STERLITE) END OF 400 kV PK BARI 1 (sterlite)
60	STERLITE	SM NAGAR	NP-9979-A	STERLITE	SM NAGAR (STERLITE) END OF 400 kV PK BARI 2 (sterlite)
61	STERLITE	SM NAGAR	NP-9965-A	STERLITE	400/132 kV SM NAGAR (STERLITE) ICT-1 HV SIDE
62	STERLITE	SM NAGAR	NP-9966-A	STERLITE	400/132 kV SM NAGAR (STERLITE) ICT-1 LV SIDE
63	STERLITE	SM NAGAR	NP-9967-A	STERLITE	400/132 kV SM NAGAR (STERLITE) ICT-2 HV SIDE
64	STERLITE	SM NAGAR	NP-9968-A	STERLITE	400/132 kV SM NAGAR (STERLITE) ICT-2 LV SIDE
65	STERLITE	SM NAGAR	NP-9975-A	STERLITE	400 kV SM NAGAR (STERLITE) END OF PALATANA 1
66	STERLITE	SM NAGAR	NP-9976-A	STERLITE	400 kV SM NAGAR (STERLITE) END OF PALATANA 2

NOTE: TOTAL SEM USED OUT OF 100 = 86 SEMs. (REPLACED = 20 SEM; STERLITE = 42 SEM; KMTL = 18; ASSAM=2 SEM; MANIPUR=4 SEM; REMAINING=14 SEM)

1st Priority DCD distribution considering 3 nos as spare

SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	REMARKS
1	ASSAM	DULLAVCHERA	As decided in 1st phase of DCD distribution
2	ASSAM	TINSUKIA	
3	MEGHALAYA	BYRNIHAT	
4	Ar. PRADESH	TENGA	170TH OCC-NEW METER/DCD LIST
5	Ar. PRADESH	DEOMALI	NEVER SEND DATA
6	ASSAM	UMRANGSOO (UMR)	NEVER SEND DATA
7	NAGALAND	SANIS	NEVER SEND DATA
8	MIZORAM	SIHMUI	NEW LOCATION
9	MANIPUR	THOUBAL	NEW LOCATION
10	MANIPUR	TIPAIMUKH	NEVER SEND DATA

2nd Priority DCD distribution

SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	REMARKS
1	ASSAM	MARIANI (AS)	NERTS NEW MARIANI SENDS DATA
2	ASSAM	HAILAKANDI	NERTS BADARPUR SENDS DATA
3	ASSAM	SRIKONA	NERTS SILCHAR SENDS DATA
4	ASSAM	PANCHGRAM	NERTS BADARPUR SENDS DATA
5	ASSAM	BOKAJAN	NERTS DIMAPUR SENDS DATA
6	ASSAM	PAVOI	NERTS BNC SENDS DATA
7	ASSAM	PAILAPOOL	NERTS JIRIBAM SEND DATA
8	MEGHALAYA	LUMSHNONG	NERTS KHLEIRIAT SENDS DATA
9	MEGHALAYA	KHLEIRIAT	NERTS KHLEIRIAT SENDS DATA
10	TRIPURA	PKBARI	NERTS KUMARGHAT SEND DATA
11	TRIPURA	SM NAGAR	NERTS SENDS DATA
12	TRIPURA	AMBASSA	METER NOT AVAILABLE
13	TRIPURA	BUDHJUNG NAGAR	STERLITE SENDS DATA

Note: Activities related to sending SEM data, sending time drift report, time drift correction will remain with NERTS & Sterlite for those States S/S as per present practice or as decided by the Forum till receipt of DCD by the S/S.

1st Priority SEMs to be replaced/newly installed considering 20 nos as spare

SL. NO	UTILITY NAME	LOCATION/SUBSTATION	OLD METER NO	METER TYPE	FEEDER NAME	REMARKS
1	ASSAM	SONABIL	NP-5795-A	LNT	SONABIL END OF 220 kV BALIPARA-1 FDR	SEM OUT OF ORDER
2	ASSAM	HAFLONG	NIL		HAFLONG (AS) END OF HAFLONG PG	NO METER
3	MIZORAM	ZUANGTUI	NIL		ZUANGTUI END OF 132 kV MELRIAT	NO METER
4	MIZORAM	LUNGMOUAL	NIL		LUNGMOUAL END OF 132 kV AIZAWL	NO METER
5	OTPC	PALATANA	NP-7602-A	LNT	PALATANA ST-1	MALFUNCTION
6	OTPC	PALATANA	NP-7584-A	LNT	PALATANA ST-2	MALFUNCTION
7	OTPC	PALATANA	NP-6855-A	LNT	PALATANA END OF 400 KV SILCHAR-2 FEEDER	MALFUNCTION
8	OTPC	PALATANA	NP-5799-A	LNT	PALATANA GT-1	MALFUNCTION
9	POWERGRID	JIRIBAM	NIL		JIRIBAM_PG TRF FOR MANIPUR CONSUMPTION (HV SIDE)	NO STANDBY METER
10	POWERGRID	NIRJULI	NIL		NIRJULI_PG TRF 1 HV SIDE	NO STANDBY METER
11	POWERGRID	NIRJULI	NIL		NIRJULI_PG TRF 2 HV SIDE	NO STANDBY METER
12	POWERGRID	IMPHAL	NIL		IMPHAL TRF 1 FOR MANIPUR CONSUMPTION (HV SIDE)	NO STANDBY METER
13	POWERGRID	IMPHAL	NIL		IMPHAL TRF 2 FOR MANIPUR CONSUMPTION (HV SIDE)	NO STANDBY METER
14	POWERGRID	MOKOKCHANG	NIL		MOKOCHANG(PG) END OF MOKOK(NL) FDR-1	NO STANDBY METER
15	POWERGRID	MOKOKCHANG	NIL		MOKOCHANG(PG) END OF MOKOK(NL) FDR-2	NO STANDBY METER
16	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-1 HV SIDE	NO BOTH MAIN & STANDBY METER
17	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-2 HV SIDE	NO BOTH MAIN & STANDBY METER
18	POWERGRID	SILCHAR	NP-8571-A	ELSTER	SILCHAR END OF 400 KV IMPHAL-1	LINE METER
19	POWERGRID	SILCHAR	NP-8570-A	ELSTER	SILCHAR END OF 400 KV IMPHAL-2	LINE METER
20	POWERGRID	SILCHAR	NP-8659-A	ELSTER	SILCHAR(PG) END OF 400kV PALATANA FDR -1	STANDBY METER
21	POWERGRID	SILCHAR	NP-8660-A	ELSTER	SILCHAR(PG) END OF 400kV PALATANA FDR -2	STANDBY METER
22	POWERGRID	MISA	NP-8608-A	ELSTER	MISA END OF 220kV MARIANI(PG) FDR	LINE METER
23	POWERGRID	MISA	NP-8643-A	ELSTER	MISA END OF 220kV DIMAPUR FDR -1	LINE METER
24	POWERGRID	MISA	NP-8640-A	ELSTER	MISA END OF 220kV DIMAPUR FDR -2	LINE METER
25	POWERGRID	MISA	NP-8599-A	ELSTER	MISA 400/220kV 315MVA ICT-I (LV SIDE)	STANDBY METER
26	POWERGRID	MISA	NP-8638-A	ELSTER	MISA 400/220kV 315MVA ICT-II (LV SIDE)	STANDBY METER
27	POWERGRID	MARIANI	NP-4524-A	ELSTER	MARIANI(PG) END OF 220 KV MOKOKCHANG-1	LINE METER
28	POWERGRID	MARIANI	NP-4509-A	ELSTER	MARIANI(PG) END OF 220 KV MOKOKCHANG-2	LINE METER
29	POWERGRID	MARIANI	NP-8591-A	ELSTER	MARIANI(PG) END OF 220kV MISA FDR	LINE METER
30	POWERGRID	MARIANI	NP-8596-A	ELSTER	MARIANI(PG) END OF 220 KV KATHALGURI	STANDBY METER; DATA NOT CONVERTED

2nd Priority SEMs to be replaced/newly installed

SL. NO	UTILITY NAME	LOCATION/ SUBSTATION	OLD METER NO	METER TYPE	FEEDER NAME	REMARKS
1	MANIPUR	TIPAIMUKH	NP-8615-A		TIPAIMUKH END OF AIZAWL	DATA NOT SEND
2	MANIPUR	TIPAIMUKH	NP-8618-A		TIPAIMUKH END OF JIRIBAM	DATA NOT SEND
3	OTPC	PALATANA	NP-8382-A	LNT	PALATANA ICT-HV SIDE	MALFUNCTION
4	POWERGRID	MOKOKCHANG	NIL		220/ 132 kV MOKOKCHANG ICT 1 HV SIDE	NO STANDBY METER
5	POWERGRID	MOKOKCHANG	NIL		220/ 132 kV MOKOKCHANG ICT 2 HV SIDE	NO STANDBY METER
6	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-1 LV SIDE	NO BOTH MAIN & STANDBY METER
7	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-2 LV SIDE	NO BOTH MAIN & STANDBY METER
8	POWERGRID	SILCHAR	NIL		400/132 kV SILCHAR ICT-3 LV SIDE	NO STANDBY METER
9	POWERGRID	SILCHAR	NP-8661-A	ELSTER	SILCHAR END OF 132 KV MELRIAT-I	LINE METER
10	POWERGRID	SILCHAR	NP-8561-A	ELSTER	SILCHAR END OF 132 KV MELRIAT-II	LINE METER
11	POWERGRID	SILCHAR	NP-8662-A	ELSTER	SILCHAR END OF 132 KV BADARPUR-1	LINE METER
12	POWERGRID	SILCHAR	NP-8663-A	ELSTER	SILCHAR END OF 132 KV BADARPUR-2	LINE METER
13	POWERGRID	MISA	NIL		400/220 kV MISA ICT-2 HV SIDE	NO STANDBY METER
14	POWERGRID	BALIPARA	NP-8655-A	ELSTER	BALIPARA END OF 400kV BONGAIGAON FDR -1	LINE METER
15	POWERGRID	BALIPARA	NP-8653-A	ELSTER	BALIPARA END OF 400kV BONGAIGAON FDR -2	LINE METER
16	POWERGRID	BALIPARA	NP-8654-A	ELSTER	BALIPARA END OF 400kV BONGAIGAON FDR -3	LINE METER
17	POWERGRID	BALIPARA	NP-8585-A	ELSTER	BALIPARA END OF 400kV BONGAIGAON FDR -4	LINE METER
18	POWERGRID	BALIPARA	NP-8594-A	ELSTER	BALIPARA END OF MISA FDR-1	LINE METER
19	POWERGRID	MOKOKCHUNG	NP-4510-A	ELSTER	MOKOKCHANG END OF 220 KV MARIANI(NEW)-1	LINE METER
20	POWERGRID	MOKOKCHUNG	NP-4516-A	ELSTER	MOKOKCHANG END OF 220 KV MARIANI(NEW)-2	LINE METER
21	NTPC	BGTPP	NIL	LNT	400/220KV ICT 1 LV SIDE AT BGTPP, NTPC	MAIN METER