



भारत सरकार/Government of India

विद्युत मंत्रालय/Ministry of Power

केंद्रीय विद्युत प्राधिकरण/Central Electricity Authority

राष्ट्रीय विद्युत समिति/National Power committee

[ISO 9001:2008]

कटवारिया सराय/Katwaria Sarai, नई दिल्ली / New Delhi – 110016

वेबसाइट / Website: [www.cea.nic.in](http://www.cea.nic.in)



No. 4/MTGS/NPC/CEA/2016/ 775-794

Date: 23<sup>rd</sup> November 2016

Subject: Meeting Notice and request for agenda for the Sixth meeting of the NPC.

Sir,

The Sixth meeting of NPC is scheduled to be held on **19<sup>th</sup> December, 2016 (Monday) at 10:30 AM at Bengaluru**. The venue of the Meeting is as follows:

**Hotel Le Meridian**

**No.28, Sankey Road**

**Bengaluru – 560 052**


**Tel: 080-22262233 / 22282828,**

**Mob: 09900247237, Fax: 080-22262050**

It is requested to forward the agenda items, if any, by 2<sup>nd</sup> December, 2016, for discussion in the above meeting.

Kindly make it convenient to attend the Meeting.

Yours faithfully,

  
(B.C.Mallick) 23/11/2016

Chief Engineer & Member Secretary, NPC

To:

1. Shri O.Ibobi, Chairman, NERPC & Hon'ble Chief Minister and In-charge of Power, Government of Manipur, Manipur Secretariat, Imphal-795 001. **Email: cmmani@man.nic.in**
2. Shri Vineet Garg, Chairperson, NRPC & Managing Director, Hariyana Vidyut Prasaran Nigam Limited, Shakti Bhawan, Sector-6, Panchkula-134109. **Email: md@hvpn.gov.in**
3. Shri Sanjeev Kumar, Chairman, WRPC & CMD, MSEDCL, Prakashgad, 6<sup>th</sup> Floor, Plot No.G-9, Station Road, Bandra (East), Mumbai-400051. **E-Mail: mdmsedcl@gmail.com**
4. Dr.M.Saikumar, Chairperson, SRPC & Chairman, TANTRANSOCO, 10<sup>th</sup> Floor, NPKRR Maaligai, 144, Anna Salai, Chennai-600002. **Email: chairman@tnebnnet.org**
5. Shri Pratyaya Amrit, Chairperson, ERPC & CMD, Bihar State Power (Holding) Company Limited, Vidyut Bhavan, Bailey Road, Patna-800021. **Email: chairmanbseb@yahoo.co.in**
6. Shri Jatinder Kumar Juneja, Chairperson, TCC (NRPC) & Director (Tech), HVPNL, Shakti Bhawan, Sector-6, Panchkula-134109. **Email: directortechical@hvpn.gov.in**

7. Shri Omprakash K.Yempal, Chairman, TCC (WRPC) & Director (Operation), MSETCL, Prakashganga, Plot No.C-19,E-Block, Bandra Kurla Complex, Bandra (East), Mumbai-400051. **Email: dirop@mahatransco.in**
8. Shri S.Shanmugam, Chairperson, TCC (SRPC) & MD,TANTRANSCO, 10<sup>th</sup> Floor, NPKRR Maaligai, 144, Anna Salai, Chaennai-600002. **Email:mdtantransco@tnebnet.org**
9. Chairperson, TCC (ERPC) & Managing Director, Bihar State Power Holding Company Ltd., Vidyut Bhavan , Bailey Road, Patna-800021..
10. Chairperson, TCC (NERPC) NERPC Complex, Dong Parmaw, Lapalang Shillong-793006,
11. Shri P.S.Mhaske, Member Secretary, NRPC, 18-A, S.J.S.S. Marg, Katwaria Sarai, New Delhi-110066. **Email: ms-nrpc@nic.in**
12. Shri S. D. Taksande, Member Secretary, WRPC, Plot No. F-3, MIDC Area Marol, Andheri (East), Mumbai-400093. **Email: ms-wrpc@nic.in**
13. Shri A.K. Bandyopadhyay, Member Secretary, ERPC, 14, Golf Club Road, ERPC Building, Tolly Gunge,Kolkata-700 033.**Email: mserpc-power@nic.in**
14. Shri S. R. Bhat, Member Secretary, SRPC, No.29, Race Course Cross Road, Bengaluru-560 009 **Email: mssrpc-ka@nic.in**
15. Shri P.K.Mishra, Member Secretary, NERPC, NERPC Complex, Dong Parmaw, Lapalang Shillong-793006, E-mail: ms-nerpc@gov.in

**Special Invitees:**

16. CEO, POSOCO, B-9, Qutab Institutional area, Katwaria Sarai, New Delhi -110016.
17. Director (Operation), PGCIL, Saudamini, Plot No.2, Sector-29,Guragon-122001
18. Chief Engineer, GM, CEA, New Delhi

**Copy for Kind information to:**

1. Chairperson, CEA, New Delhi
2. Member (G&OD), CEA, New Delhi



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विद्युत मंत्रालय  
केंद्रीय विद्युत प्राधिकरण  
राष्ट्रीय विद्युत समिति



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No. 4/MTGS/NPC/CEA/2016/ 775-794

Date : 22-11-2016

विषय: एन. पी. सी. की छठावी बैठक के आयोजित करने तथा कार्यसूची के सम्बन्ध में।

महोदय,

उपरोक्त विषय से सम्बन्धित दस्तावेज आपकी जानकारी एवम आवश्यक कार्यवाही हेतु संलग्न है।

संलग्नक : यथोपरि

भवदीय,  
**वि. मल्लिक**  
(बी.सी.मल्लिक)

मुख्य अभियंता एवं सदस्य सचिव, रा. वि. स.

**सेवा में :**

1. अध्यक्ष, उत्तर पूर्वी क्षेत्रीय विद्युत समिति
2. अध्यक्ष, उत्तर क्षेत्रीय विद्युत समिति
3. अध्यक्ष, पश्चिम क्षेत्रीय विद्युत समिति
4. अध्यक्ष, दक्षिण क्षेत्रीय विद्युत समिति
5. अध्यक्ष (टी सी सी), पूर्वी क्षेत्रीय विद्युत समिति
6. अध्यक्ष (टी सी सी), उत्तर पूर्वी क्षेत्रीय विद्युत समिति
7. अध्यक्ष (टी सी सी), उत्तर क्षेत्रीय विद्युत समिति
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11. सदस्य सचिव, उ क्षेत्र वि स, नई दिल्ली -110 016
12. सदस्य सचिव, प क्षेत्र वि स, मुम्बई -400 093
13. सदस्य सचिव, द क्षेत्र वि स, बेंगलुरु-560 009
14. सदस्य सचिव, पु क्षेत्र वि स, कोलकता - 700 033
15. सदस्य सचिव, उ पु क्षेत्र वि स, शिल्लोंग - 793 006

**विशेष आमंत्रित**

16. मुख्य कार्यपालक अधिकारी, उ म प्र, रा भा प्रे के, नई दिल्ली -110 016.
17. निदेशक (प्रचालन), पावर ग्रिड, गुरागोन-122001
18. मुख्य अभियंता (ग्रिड प्रबंधन), केंद्रीय विद्युत प्राधिकरण, नई दिल्ली -110 066

प्रति सूचनार्थ: 1. अध्यक्ष, के. वि. प्रा., रा.वि.स., 2. सदस्य, (ग्रिड प्रचालन एवं वितरण), के.वि.प्रा.





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विद्युत मंत्रालय  
केंद्रीय विद्युत प्राधिकरण  
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[ISO 9001:2008]

No. 4/MTGS/NPC/CEA/2016/839-858

Date : 06-12-2016

विषय: एन. पी. सी. की छठावी बैठक के कार्यसूची के सम्बन्ध में।  
महोदय,

उपरोक्त विषय से सम्बन्धित दस्तावेज आपकी जानकारी एवम आवश्यक कार्यवाही हेतु संलग्न है।

संलग्नक : यथोपरि

भवदीय,

वि. मल्लिक  
(बी.सी.मल्लिक) 6/12/2016

मुख्य अभियंता एवं सदस्य सचिव, रा. वि. स.

सेवा में :

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11. सदस्य सचिव, उ क्षेत्र वि स, नई दिल्ली -110 016
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15. सदस्य सचिव, उ पु क्षेत्र वि स, शिल्लोंग - 793 006

विशेष आमंत्रित

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  18. मुख्य अभियंता (ग्रिड प्रबंधन), केंद्रीय विद्युत प्राधिकरण, नई दिल्ली -110 066
- प्रति सूचनार्थ: 1. अध्यक्ष, के. वि. प्रा., रा.वि.स., 2. सदस्य, (ग्रिड प्रचालन एवं वितरण), के.वि.प्रा.





भारत सरकार/Government of India

विद्युत मंत्रालय/Ministry of Power

केंद्रीय विद्युत प्राधिकरण/Central Electricity Authority

राष्ट्रीय विद्युत समिति/National Power committee

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No. 4/MTGS/NPC/CEA/2016/ 839-858

Date: 06<sup>th</sup> December 2016


Subject: Agenda Notes for the Sixth meeting of the NPC- Reg.

Sir,

In continuation to NPC letter dated 23<sup>rd</sup> November 2016, Agenda Notes for the sixth meeting of the NPC scheduled to be held **on 19<sup>th</sup> December, 2016 at 10:30 AM at Hotel Le Meridian, No.28, Sankey Road, Bengaluru** is enclosed for kind information please. The same is also available on CEA web site.

Kindly make it convenient to attend the Meeting. It may please be noted that the Members /participants have to make their own arrangements for boarding and lodging.

Yours faithfully,

  
(B.C.Mallick) 06/12/2016

Chief Engineer & Member Secretary, NPC

To:

1. Shri O.Ibobi, Chairman, NERPC & Hon'ble Chief Minister and In-charge of Power, Government of Manipur, Manipur Secretariat, Imphal-795 001. **Email:** [cmmmani@man.nic.in](mailto:cmmmani@man.nic.in)
2. Shri Vineet Garg, Chairperson, NRPC & Managing Director, Hariyana Vidyut Prasaran Nigam Limited, Shakti Bhawan, Sector-6, Panchkula-134109. **Email:** [md@hvpn.gov.in](mailto:md@hvpn.gov.in)
3. Shri Sanjeev Kumar, Chairman, WRPC & CMD, MSEDCL, Prakashgad, 6<sup>th</sup> Floor, Plot No.G-9, Station Road, Bandra (East), Mumbai-400051. **E-Mail:** [mdmsedcl@gmail.com](mailto:mdmsedcl@gmail.com)
4. Dr.M.Saikumar, Chairperson, SRPC & Chairman, TANTRANSCO, 10<sup>th</sup> Floor, NPKRR Maaligai, 144, Anna Salai, Chennai-600002. **Email:** [chairman@tnebnet.org](mailto:chairman@tnebnet.org)
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10. Chairperson, TCC (NERPC) NERPC Complex, Dong Parmaw, Lapalang Shillong-793006,
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12. Shri S. D. Taksande, Member Secretary, WRPC, Plot No. F-3, MIDC Area Marol, Andheri (East), Mumbai-400093. **Email:** ms-wrpc@nic.in
13. Shri A.K. Bandyopadhyay, Member Secretary, ERPC, 14, Golf Club Road, ERPC Building, Tolly Gunge,Kolkata-700 033.**Email:** mserpc-power@nic.in
14. Shri S. R. Bhat, Member Secretary, SRPC, No.29, Race Course Cross Road, Bengaluru-560 009 **Email:** mssrpc-ka@nic.in
15. Shri P.K.Mishra, Member Secretary, NERPC, NERPC Complex, Dong Parmaw, Lapalang Shillong-793006, E-mail: ms-nerpc@gov.in

**Special Invitees:**

16. CEO, POSOCO, B-9, Qutab Institutional area, Katwaria Sarai, New Delhi -110016.
17. Director (Operation), PGCIL, Saudamini, Plot No.2, Sector-29,Guragon-122001
18. Chief Engineer, GM, CEA, New Delhi

**Copy for Kind information to:**

1. Chairperson, CEA, New Delhi
2. Member (G&OD), CEA, New Delhi

**CENTRAL ELECTRICITY AUTHORITY**  
**NATIONAL POWER COMMITTEE**

**AGENDA NOTES FOR THE SIXTH MEETING OF NATIONAL POWER COMMITTEE TO  
BE HELD ON 19<sup>th</sup> DECEMBER 2016 AT BENGALURU**

**1. CONFIRMATION OF MINUTES OF 5<sup>TH</sup> MEETING**

The Minutes of 5<sup>th</sup> meeting of NPC held on 08<sup>th</sup> April 2016 was circulated vide letter No. 4/MTGS/NPC/CEA/2016/430-449 dated 29.04.2016.

WRPC vide letter dated 18.05.2016 (copy at **Annexure-I**) has furnished comments on item No.7(B) & Item No.11 of the Minutes.

**Members may, like to discuss/confirm the Minutes of the 5<sup>th</sup> meeting.**

**2. ACCOUNTING METHODOLOGY FOR BILATERAL SHORT TERM AND COLLECTIVE TRANSACTION IN CASE OF GRID DISTURBANCES**

As per the Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Second Amendment) Regulations, 2014, for Bilateral short term and collective transactions, the methodology of settlement of accounts for the period of Grid Disturbance shall be formulated by National Power Committee (NPC) and same shall be put up to the Commission for approval. The methodology shall cover all possible scenarios with illustrative examples to cover the instances where the Grid disturbance is either partial or it affects only one region.

As decided in the 4<sup>th</sup> Meeting of NPC, a Working Group comprising representatives from CEA, Secretariat of RPCs/NPC and NLDC was constituted to finalize methodology of settlement of accounts for bilateral short term and collective transactions for the period of Grid Disturbance. The Working Group in its meeting on 16<sup>th</sup> February 2016 and further with email correspondence prepared the preliminary report and the same was put up to NPC in its 5<sup>th</sup> Meeting. In the 5<sup>th</sup> Meeting, NPC had decided that in view of the comments received on the proposed accounting methodology, the Working Group would meet again to arrive at consensus on the methodology. The finalised methodology would be put up to NPC in the next meeting for approval.

Subsequently, the Working Group again met on 13<sup>th</sup> May 2016 at New Delhi. The methodology proposed by the Working Group is at **Annexure-II**. The same was circulated to RPCs, NLDC & GM Division and there were no comments.

**NPC may approve the accounting methodology.**



### **3. MONITORING OF SCHEEMS FUNDED FROM PSDF**

Government of India has operationalized, Power System Development Fund (PSDF) which shall be utilized for purpose mentioned in the enclosed **Annexure-III**.

MoP has sanctioned grant of Rs. 3980.48 Crores (47 Schemes as on 30.11.2016) to states/ central power utilities for funding from PSDF for Renovation and Modernization (R & M) of substations based on the third party protection audit, improvement of network visibility through PMU and other communication systems, installation of STATCOM / Capacitors / Reactors for voltage improvement. Few schemes have been approved for re-conductoring of existing transmission lines by HTLS conductors to relieve congestion in some part of state grid. The details of schemes sanctioned by MoP is at **Annexure-IV**.

In a meeting held on 29.04.2016 chaired by Joint Secretary (OM), MoP to review the status of implementation of the schemes funded from PSDF, in view of slow progress of the implementation of the schemes, it was felt prudent that respective RPC Secretariat monitor the schemes approved in its region, in addition to the Monitoring Group at Central level, as a part of monthly meetings. Excerpts of the Minutes of above meeting is at **Annexure-V**.

Accordingly, RPCs in the monthly OCC meetings may follow up with entities to expedite completion of the scheme by giving due priority so as to avoid the grant getting refunded back to PSDF in case of non-utilization of the grant within one year of release of installment as per para 3(v) of the sanction letter of Ministry of Power. Region wise list of the approved schemes are given below:

<b>NR</b>		<b>WR</b>		<b>SR</b>		<b>ER</b>		<b>NER</b>	
State/UT	No. of Schemes	State/UT	No. of Schemes	State/UT	No. of Schemes	State/UT	No. of Schemes	State/UT	No. of Schemes
Delhi	1	Chhattisgarh	1	Andhra Pradesh	2	Bihar	2	Arunachal Pradesh	1
Haryana	1	Gujarat	3	Karnataka	2	Odisha	1	Assam	2
Himachal Pradesh	1	Madhya Pradesh	4	Kerala	1	West Bengal	2	Manipur	1
Jammu & Kashmir	2			Tamil Nadu	1	PGCIL	1	Meghalaya	2
Punjab	1			Telangana	2	ERPC	1	Mizoram	1
Rajasthan	2			Puducherry	1			Nagaland	1
Uttar Pradesh *	3							Tripura	1
Uttarakhand	1								
NRPC	1								
<b>TOTAL</b>	<b>13</b>	<b>TOTAL</b>	<b>8</b>	<b>TOTAL</b>	<b>9</b>	<b>TOTAL</b>	<b>7</b>	<b>TOTAL</b>	<b>9</b>
Grant= Rs.1319.14Cr.		Grant= Rs.217.49 Cr.		Grant= Rs.549.49 Cr.		Grant= Rs.1027.96 Cr.		Grant= Rs.604.17Cr.	

\* Since the LoA was placed before the approval of the scheme, one scheme of UPPTCL is not eligible for the grant sanctioned (Rs.60 Crores) during the year 2015-16.

Note: PGCIL – URTDSM Scheme (Installation of PMU) across the country– Grant sanctioned Rs.262.24 Crores

The entities may be advised to furnish information in the prescribed format (**Annexure-VI**) by first week of every month on regular basis to Member Convener, PSDF Project Monitoring Group (AGM, NLDC, POSOCO) with a copy to NPC Division.

#### **4. SPECIAL INVITEE / MEMBERSHIP STATUS TO M/s PTC IN RPCs**

M/s PTC had requested for Special Invitee / Membership status in all RPCs. This was discussed in the 5<sup>th</sup> meeting of NPC and the following had been noted:

- NRPC, WRPC & SRPC had stated that as per MoP Resolution in respect of membership of trader in RPCs, one member representing the electricity traders in the region by alphabetical rotation which has been volume of more than 500 MU during the previous financial year. Accordingly, GM Division nominate one trader in each RPCs on yearly basis. If required other trader could be invited as a special invitee to the RPC meetings on case to case basis.
- ERPC had informed that ERPC had decided to include traders, who were in international trading of power, as member of ERPC and Chairperson, ERPC had taken up this issue with MoP. Presently, PTC, NVVN and Tata Power Trading Company Ltd. were members of ERPC. It would be appropriate if each RPC would take decision individually on membership of traders in RPC forum. ERPC also emphasized that RPCs were providing services to many beneficiaries who might be non-members. Actual Establishment costs of RPC Secretariat were borne by the Members only. Services being provided to non-members free of cost, while establishment expenses were borne by Member constituents only might not be desirable.
- CEA had opined that it should be as per GoI resolution. For ERPC due to international transactions, special provision can be made but the approval of MoP through CEA can be sought.
- It was agreed that the issue of membership for Traders would be deliberated in respective RPCs and outcome thereof would be communicated to CEA for taking up the matter with MoP.

Subsequently, SRPC Secretariat intimated that in the 30<sup>th</sup> Meeting of SRPC held on 27<sup>th</sup> August 2016, SRPC has recommended membership of only one trader as envisaged in MoP Resolution dated 09.05.2008 be continued. Special Invitee/Membership status to M/S PTC in SRPC was hence not agreed.

GM Division, CEA has intimated that the issue has already been taken up with MoP vide letter dated 15.06.2016 wherein the proposal to amend each of the existing RPC related establishment resolutions dated 09<sup>th</sup> May 2008 has been mooted. The response from MoP in the matter is awaited.

**Other RPCs may apprise the status.**

## **5. MEMBERSHIP OF IPPs IN RPCs**

WRPC had stated that as per MoP Resolution, representative each of every generating companies (other than CGS and state government owned generating companies) having more 1000 MW installed capacity in the region would be Member of RPC. The number of IPP was increasing continuously as IPPs whose installed capacity just crossing 1000MW were getting entitled for membership of RPC. and it was difficult to organize and manage RPC meetings. The following had been noted in the 5<sup>th</sup> meeting of NPC:

- WRPC had proposed to enhance the limit of 1000MW to 2000MW for membership of IPP in RPCs.
- NRPC had suggested that instead of allowing them RPC membership the IPPs might be included in subcommittees like TCC/OCC.
- SRPC had stated that generators were playing important role in various defense mechanism like FGMO, PSS tuning etc. their participation in RPC needed to be reviewed.
- NPC had suggested that the issue to be deliberated first in respective RPCs and after evolving a common view the same would be referred to MoP for amendment in Resolution.
- RPCs had agreed to put up the issue in the next RPC meeting for deliberation.

Subsequently, SRPC Secretariat intimated that that in the 30<sup>th</sup> Meeting of SRPC held on 27<sup>th</sup> August 2016, SRPC recommended that Membership to all generating stations (other than central generating companies or State Government owned generating companies) having more than 1,000 MW installed capacity in the region as envisaged in the MoP resolution dated 09.05.2008 be continued.

**Other RPCs may apprise the status.**

## **6. ENSURING PROPER FUNCTIONING OF UNDER FREQUENCY RELAYS (UFRs) & df/dt RELAYS**

It was decided in the 4<sup>th</sup> meeting of NPC, that at least 20% of the under frequency relays installed in the respective regions should be physically inspected by respective RPCs in each year besides self-certification by the STUs. In respect of certification of healthiness of UFR and df/dt relays NRPC submitted their procedure/check list in the last NPC meeting and other RPCs were requested to send their comments/suggestion on the same to develop a uniform procedure across the country.

The following had been noted in the 5<sup>th</sup> meeting of NPC:

- WRPC had expressed concern on the proposal of NRPC for carrying out actual tripping of feeder through df/dt for testing of healthiness. Self-certification by the STUs regarding healthiness of the UFRs needed to be considered.



- It was agreed that each RPC would ensure proper functioning of UFR and df/dt relays as per the agreed procedure of the region. Actual tripping of feeder may not be required to test the healthiness of the UFRs. **It was also agreed that RPCs would sent their comments/suggestion on preparation of procedure for certification of healthiness of UFR and df/dt relays.**

Subsequently, SRPC had informed that the issue has been deliberated in various sub committees of SRPC. Around 78% (11,773 MW out of 15,186 MW) of relief under UFR and df/dt scheme is being monitored at SLDCs and SRLDC in real time. Constituents are being followed up to ensure 100 % mapping in SCADA. In addition, self-certification of protection schemes is being furnished by the entities on a monthly basis which includes UFR and df/dt scheme also. **Therefore, it is felt that additional self – certification may not serve any purpose, especially keeping in view real time monitoring of the relief in the SCADA.**

**Views of other RPCs may please be furnished.**

## **7 AUTOMATIC UNDER FREQUENCY LOAD SHEDDING (AUFLS) SCHEME AND MAPPING OF FEEDERS**

- (a) In the 2<sup>nd</sup> meeting of NPC, it was decided to implement the following AUFLS scheme with 4 stages of frequency viz. 49.2, 49.0, 48.8 & 48.6 Hz:

Frequency (Hz)	Load relief in each region ( in MW)				
	NR	WR	SR	ER	NER
49.2	2160	2060	2350	820	100
49.0	2170	2070	2360	830	100
48.8	2190	2080	2390	830	100
48.6	2200	2100	2400	840	100
<b>Total</b>	<b>8720</b>	<b>8310</b>	<b>9500</b>	<b>3320</b>	<b>400</b>

The following had been noted in the 4<sup>th</sup> meeting of NPC held on 10<sup>th</sup> December 2015:

- NRPC had intimated that all the states except Chandigarh and J&K had implemented the above load-relief scheme. Chandigarh had implemented AUFLS scheme at 49.2 and 49.0 Hz only and J&K was yet to implement the same.
- ERPC & NERPC had informed that all the states in their respective region had implemented the scheme.
- SRPC & WRPC intimated that the scheme had been implemented in their region and it was designed to provide even higher load-relief than that required under the scheme. SRPC mentioned that the scheme in SR states had been implemented by selecting the feeders in such a fashion that average load-relief – not the peak load-relief – provided by those feeders through the UFRs was equivalent to the load-relief required to be provided under the AUFLS scheme. WRPC stated that in WR, except Goa (for about 30 MW load-relief), all states had implemented the scheme.

- NPC had expressed satisfaction that barring a few states, the revised AUFLS scheme had been implemented by the states in the country. It was decided that the RPCs would take up the matter of implementation of the scheme with the states which had not so far implemented the same and inform the progress at the next meeting.

In the 5<sup>th</sup> meeting, WRPC informed that Goa had implemented the scheme. NRPC informed that the issue had taken up with Chandigarh and J&K.

**NRPC may apprise the status.**

- (b) In the 4<sup>th</sup> Meeting, NPC had decided to maintain status quo in respect of AUFLS. It was also agreed by the RPCs to initiate the process of mapping of feeders covered under AUFLS scheme like SRPC with a view to ensuring proper implementation of the scheme and also have a real time assessment of load-relief likely to be available under the scheme if it operated.

The following noted in the 5<sup>th</sup> meeting:

- SRPC had informed that 80% mapping of feeders had been completed in SR.
- NRPC had informed that in view of deficiencies in the communication/telemetry infrastructure that the mapping of feeders was yet to start.
- **NPC requested RPCs to take necessary action for mapping of feeders.**

**RPCs may apprise the Committee on the progress.**

## **8. POWER SYSTEM STABILIZERS (PSS) TUNING**

The Enquiry Committee constituted by GoI to enquire into grid disturbances of July 2012 had recommended proper tuning of electronic devices and PSS of generators. Accordingly, NRPC submitted their recommended procedure to NPC for comments / adoption by other RPCs so as to bring uniformity across all the regions.

In the 4<sup>th</sup> Meeting of NPC, it was agreed that other RPCs would examine the proposal of NRPC and would revert back in the next NPC meeting.

In the 5<sup>th</sup> meeting the following had been noted:

- SRPC had informed that the PSS methodology in line with NRPC had been agreed and implemented in SR.
- **WRPC had informed that they required more interaction with NR on PSS tuning for proper documentation of the scheme. They would revert back in the next meeting of NPC. WRPC would share its experience and documentation with all RPCs.**
- ERPC had informed that they had implemented the scheme in CESC Budge Budge under the supervision of IIT Mumbai.
- NPC requested RPCs to complete the above work at the earliest.

**WRPCs may apprise the Committee.**

## **9. SCHEME FOR STORAGE AND MANAGEMENT OF PROTECTION SYSTEM DATA BASE**

The Ramakrishnan Task Force Report on Power System Analysis Under Contingencies had been accepted by MoP. Ramakrishnan Task Force had recommended for creation of data base for relay settings.

*Quote: "There is also a need for creating and maintaining data base of relay settings. Data regarding settings of relays in their network should be compiled by the CTU and STUs and furnished to the RLDC and SLDC respectively and a copy should also be submitted to RPC for maintaining the data base."*

unquote

The scheme of ERPC for above purpose for funding from PSDF had been approved by MoP. The scheme submitted by SRPC for similar purpose is recommended by Appraisal committee of PSDF for funding.

Other RPCs were also requested to initiate the preparation of above scheme to implement the recommendations of the Ramakrishna Task Force. Consultant-A, also observed the creation and maintaining of data base.

**NRPC, WRPC, NERPC may take necessary action.**

## **10. TARGET FIXED FOR LOAD RELIEF FROM OPERATION OF DEFENSE MECHANISM**

In view of the difficulty expressed by Punjab that load relief from UFRs will be much less than target fixed for them, NRPC had desired deliberation by NPC to decide the criteria for fixing target for UFR based load shedding for individual state. The following had been noted in the 5<sup>th</sup> meeting:

- NRPC had informed that some states in NR are facing wide variations in the Peak to off-peak load conditions and it would not be feasible to achieve the desired load relief from the individual state. It was submitted that the Northern Region has the peculiarity of having high demand in plain area state and low demand in hilly states in summer and vice versa in winters.
- It was proposed that in view of the above conditions in NR, the region as whole would be able to meet the desired load relief. NR would discuss the matter in their forum and take action so that desired load relief could be achieved from Northern Region.
- **NLDC was requested to revert back in the matter in next NPC meeting.**

**NLDC may apprise the Committee.**

## **11. STANDARDISATION OF DATA IN REGARDS TO ALLOCATION OF POWER ORDERS ON RPCs' WEBSITES**

In the 5<sup>th</sup> Meeting of NPC, the request of M/s Manikaran Power Limited for standardization in the data format for allocation of power orders on RPCs website was discussed and GM



Division, CEA has agreed to furnish the standard format in this regard to RPCs and RPCs agreed to upload allocation of power orders in the format being furnished by CEA in their respective websites.

Subsequently, GM Division CEA vide letter dated 07.10.2016 has informed that the details of allocation of power from CGS in all the five regions are prepared by GM Division and uploaded on CEA's website were subsequently shown to M/s Manikaran Power Limited representative, who agreed that the allocation details in respect of the five regions were already in a standardized format and that they were not aware about the availability of this data at CEA's website. In view of this, no further action in the matter on the par of GM Division is considered necessary. However, **it is suggested that RPCs may share the link to allocation sheets prepared by GM Division and uploaded on CEA's website at their respective websites.**

**Members may please note the above.**

## **12. LINE DIFFERENTIAL PROTECTION**

Implementation of Line Differential Protection as per the recommendation of the Sub-Committee on Relay/Protection under task Force for Power System Analysis under contingencies (Para14 in Section-6 of the report under Relay setting guide lines for Transmission lines):

### **“ 14. LINE DIFFERENTIAL PROTECTION**

Many transmission lines are now having OPGW or separate optic fibre laid for the communication. Where ever such facilities are available, it is recommended to have the line differential protection as Main-I protection with distance protection as backup (built-in Main relay or standalone). Main-II protection shall continue to be distance protection. For cables and composite lines, line differential protection with built in distance back up shall be applied as Main-I protection and distance relay as Main-II protection. Auto-recloser shall be blocked for faults in the cables. ”

**Committee may deliberate.**

## **13. ANY OTHER ISSUE WITH PERMISSION OF CHAIR**

## **14. DATE AND VENUE OF NEXT NPC MEETING**

\*\*\*\*\*



भारत सरकार  
Government of India  
केन्द्रीय विद्युत प्राधिकरण  
Central Electricity Authority  
पश्चिम क्षेत्रीय विद्युत समिति

**Western Regional Power Committee**

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NO. WRPC/Protection /2016/

Date: 18.05.2016

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To

Chief Engineer & Member Secretary,

NPC, CEA,

18-A, S.J.S.S. Marg,

Katwaria Sarai,

New Delhi-110016.

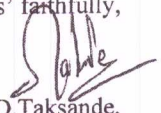
**Sub: Comments on the minutes of the 5<sup>th</sup> NPC meeting held on 08.04.2016 at Kolkata -reg.**

Sir,

Please find enclosed herewith comments on Item No.7(B) and Item No.11 of the minutes of the 5<sup>th</sup> NPC meeting held on 08.04.2016 at Kolkata.

Encl.: As above

Yours' faithfully,

  
S.D.Taksande,  
Member Secretary

Copy to:

- 1) Member Secretary, NRPC, 18-A, S.J.S.S. Marg, Katwaria Sarai, New Delhi.
- 2) Member Secretary, ERPC, 14, Golf Club Road, ERPC Building, Tolly Gunge, Kolkata-700 033
- 3) Member Secretary, NERPC, NERPC Complex, Dong Parmaw, Lapalang, Shillong-793006.
- 4) Member Secretary, SRPC, No.29, race Course Cross Road, Bengaluru-560009

Comments of WRPC on the minutes of fifth NPC meeting held on 08.04.2016 at Kolkata

**Item No.7(B) "Observation on present UFR setting by Hon'ble CERC order dated 27.11.2015 in petition No. 113/MP/2014 :**

*Under this item it has been recorded that "It was agreed by the RPCs to initiate the process of mapping of feeders covered under AUFLS scheme like SRPC with a view to ensure proper implementation of the scheme and also had a real time assessment of load relief likely to be available under the scheme if it operated"*

**Item No11 "Review of AUFLS" :**

*Under this item it has been recorded that "It was also agreed by the RPCs to initiate the process of mapping of feeders covered under AUFLS scheme like SRPC with a view to ensuring proper implementation of the scheme and also have a real time assessment of load relief likely to be available under the scheme if it operated. SRPC informed that 80% mapping of feeders had been completed in SR. NRPC informed that in view of deficiencies in the communication/telemetry infrastructure that the mapping of feeders was yet to start. NPC requested RPCs to take necessary action for mapping of feeders."*

On both the above items the views of WRPC have not been incorporated. Therefore it is requested to include following views of WRPC in the minutes of fifth NPC meeting under the above Items;

- (i) MS WRPC enquired the scope of mapping of feeders covered under AUFLS and intimated that as per our understanding mapping of feeders means identification of the feeders and load on the feeders covered under AUFLS and not the telemetering of feeders.
- (ii) It was intimated that SRPC has mapped 80% of the feeders which include telemetering of the feeders under AUFLS and are able to assess the load relief likely to be available in real time at SLDC/RLDC.
- (iii) MS WRPC expressed that the feeders covered under AUFLS scheme are 11kV feeders and communication/telemetry infrastructure is generally not available at these voltage levels, therefore it would not be possible to acquire the real time data of load on such feeders to SLDC/RLDC.
- (iv) Further these feeders are scattered across the region and deployment of communication/telemetry infrastructure would not be economically feasible for the Utilities.
- (v) Therefore the purview of mapping of feeders be limited to identification of feeders and its loading covered under AUFLS scheme and real time data acquisition from these feeders may not be included in the purview of the mapping of the feeders.
- (vi) NRPC and ERPC endorsed the views of WRPC on feeder mapping under AUFLS scheme

# **ANNEXURE – II**

(09 Pages)



**NATIONAL POWER COMMITTEE**

**Working Group**

**Methodology of Settlement of Accounts  
for the Period of Grid Disturbance for  
Bilateral Short Term and Collective  
Transactions**

New Delhi

May, 2016

# Methodology for Settlement of Accounts for the Period of Grid Disturbance for Bilateral Short Term and Collective Transactions

## 1. Introduction

Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Second Amendment) Regulations, 2014, 6.5.17 stipulates as follows:

‘.....  
*For Bilateral short term and collective transactions, the methodology of settlement of accounts for the period of Grid Disturbance shall be formulated by National Power Committee (NPC) and same shall be put up to the Commission for approval. The methodology shall cover all possible scenarios with illustrative examples to cover the instances where the Grid disturbance is either partial or it affects only one region.*’

This issue was deliberated in the 4<sup>th</sup> Meeting of NPC, wherein it was decided that a Working Group be constituted to examine & discuss possible options for treatment of bilateral short term and collective transactions in case of grid disturbances and submit its recommendations within two months for consideration of NPC in its next meeting.

Accordingly, a Working Group comprising representatives from CEA, Secretariat of RPCs/NPC and NLDC was constituted to finalize Methodology of settlement of accounts for bilateral short term and collective transactions for the period of Grid Disturbance.

The Working Group met on 16<sup>th</sup> February 2016 and on 13<sup>th</sup> May 2016 at NRPC, New Delhi to finalise the accounting methodology.

## 2. Objective

As per “Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Second Amendment) Regulations, 2014: Regulation 6.5.17

*“In case of any grid disturbance, scheduled generation of all the ISGSs supplying power under long term / medium term/short term shall be deemed to have been revised to be equal to their actual generation and the scheduled drawals of the beneficiaries/buyers shall be deemed to have been revised accordingly for all the time blocks affected by the grid disturbance. Certification of grid disturbance and its duration shall be done by the RLDC.*

*The declaration of disturbance shall be done by the concerned RLDC at the earliest. A notice to this effect shall be posted at its website by the RLDC of the region in which the disturbance occurred. Issue of the notice at RLDC web site shall be considered as declaration of the disturbance by RLDC. All regional entities shall take note of the disturbance and take appropriate action their end.*

.....“

It could be inferred that for the period of grid disturbance, ISGS (a central generating station or other generating station, in which two or more states have shares) is not liable for any deviation from the dispatch schedule and the commercial settlement is based on actual injection at the applicable energy charges of the ISGS. But the beneficiaries are liable for the deviations on account of the revised schedule of ISGS for the period of grid disturbance also.

It was observed that the methodology as in the case of ISGSs supplying power under long term / medium term/short term could not be adopted for Sellers supplying power under collective transactions, since one to one correlation between buyers and sellers could not be established for collective transactions. For such cases, a methodology without revising collective transaction schedules of buyers needed to be evolved.

### 3. Definitions

“Words and expressions used in this methodology shall have the same meaning assigned in the Electricity Act, Central Electricity Authority (Grid standard) regulation 2010, Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 & (Deviation Settlement Mechanism and related matters) Regulations, 2014 and amendments thereof.

### 4. Scope

**The Methodology shall be applicable to regional entity affected by GD-V category of Grid Disturbance.** RLDC shall certify the duration (indicating start date/ time block and end date/ time block) of grid disturbance and provide list of regional entity affected by the grid disturbance to RPC.

In case of Sellers embedded in STU System, under the control area of SLDC, supplying power to interstate / inter regional buyers under LTA/MTOA/STOA/collective transactions affected by grid disturbance, role of RLDC shall be limited to incorporate the schedules furnished by SLDCs. The concerned SLDC shall communicate the revised schedule of such Sellers to

RLDC who in turn incorporate the revision in the schedule of concerned regional entity and furnish the data to RPC for preparation of accounts accordingly.

## 5. Methodology

5.1 **Rate for deviation charges during grid Disturbance:** In case of grid disturbance, there could be multiple frequencies in the affected region/area resulting in different price vectors. Further, some of the entity may be forced to overdraw because of disturbances while some may not be able to draw power from grid. It is, therefore, proposed that to tackle different price vectors, a rate required to be notified by Hon'ble CERC (could be National level APPC rate) for the purpose of deviation settlement of the affected regional entities by grid disturbance. Further, the deviation settlements of all generators affected during the particular grid disturbance is proposed to be delinked from frequency based rates deviation settlement accounting for the period of grid disturbances.

### 5.2 **Revision of Schedule:**

- 5.2.1 Despatch Schedule of all the Sellers (under the control area of RLDC) affected by grid disturbance shall be revised to be equal to their actual injection for the duration as certified by RLDC.
- 5.2.2 Revision of schedules of ISGS in case of under injection shall be starting with Ancillary then STOA then Collective transactions then MTOA then LTA, till the revised schedules equal to the actual injection.
- 5.2.3 If ISGS injection is more than dispatch schedule during the period of grid disturbance, the beneficiary LTA schedules shall be increased by RLDC in proportion to the quantum of excess injection.
- 5.2.4 For Sellers (other than ISGS), if the actual injection is less than dispatch schedule, schedules shall be reduced starting with STOA then Collective transactions then MTOA then LTA, till the revised schedules equal to the actual injection. In case of excess injection by Sellers (other than ISGS) above the dispatch schedule, no revision in schedules shall be carried out and the excess injection shall be settled at the rate applicable for the period of grid disturbance as notified by Hon'ble CERC.
- 5.2.5 Collective transaction schedules of buyers shall not be revised since one to one correlation between buyers and sellers could not be established for collective

transactions. The LTA/MTOA/STOA/Ancillary schedules of buyers shall be revised according to the revised schedules of Sellers.

### 5.3 **Accounting:**

- 5.3.1 Based on the revised LTA/MTOA/STOA/Ancillary schedules of the Sellers, schedules of the buyers shall be revised accordingly. RLDC shall carry out the revisions of schedules for the period of grid disturbance. In case of more than one region's schedules revision is involved, RLDCs jointly shall finalize the interregional schedules of Sellers/buyers and furnish the revised data in respect of the regional entity to RPCs for preparing the accounts accordingly.
- 5.3.2 In case of under injection by sellers and revision of Collective transaction schedules necessitated to match the schedule with actual injection, then the Seller shall reimburse the excess amount received for the corresponding transaction from PX to DSM Pool account. The concerned Power Exchange who facilitated the transaction would certify the Area Clearing Price (ACP) for the time blocks affected by grid disturbance. In case of multiple bids by the Seller in one or more Power Exchanges, the highest bids would be reimbursed to DSM Pool account based on the statement issued by RPC.
- 5.3.3 The excess injection by Sellers (other than ISGS) above the dispatch schedule shall be settled at the rate applicable for the period of grid disturbance as notified by Hon'ble CERC.
- 5.3.4 The deviation shall be settled as per the rate notified by CERC applicable for grid disturbance for the buyers in the affected area without applying additional charges/capping and for the buyers in other region (not affected by grid disturbance) based on the rate corresponding to the frequency.

## 6. **Algorithm**

- I. If ISGS injection is more than dispatch schedule during the period of grid disturbance, the beneficiary LTA transaction shall be increased by RLDC in proportion to the quantum of excess injection.
- II. If ISGS injection less than dispatch schedule during the period of grid disturbance, the schedules shall be revised by RLDC by reducing the schedules starting with Ancillary then

STOA then Collective transactions then MTOA then LTA, till the revised schedules equal to the actual injection.

- III. For Sellers, if the actual injection is more than dispatch schedule, the excess injection shall be settled at the rates notified by Hon'ble CERC applicable for the period of grid disturbance.
- IV. For Sellers, if the actual injection is less than dispatch schedule schedules shall be reduced starting with STOA then Collective transactions then MTOA then LTA, till the revised schedules equal to the actual injection.
- V. The Sellers shall reimburse the excess amount received from PX to the DSM Pool on account of revision in collective transaction schedules. If the collective transaction schedules are from multiple Exchanges, the schedule transaction from the exchange where bid rates were higher would be considered for reimbursement first. PX shall communicate to RPCs the Area Clearing Price (ACP) for the bid area for the time blocks affected by grid disturbance.
- VI. Based on the revised LTA/MTOA/STOA/Ancillary schedules of ISGS/Sellers, revised schedule of buyers shall be computed without altering Collective transaction schedules.
- VII. Deviation settlement of the buyers (with respect to the computed revised schedules) with in the affected area shall be settled at the rate applicable for grid disturbance period as notified by Hon'ble CERC without applying additional charges or capping.
- VIII. Deviation settlement of the buyers (with respect to the computed revised schedules) outside the affected area shall be settled at the corresponding frequency based rate.

## 7. Illustrative Examples

### 7.1 ISGS – with LTA/MTOA/STOA/Ancillary schedules – Over Injection

ISGS	Despatch Schedule	Break Up	Actual Injection	Revised Schedule	Revised Break Up	Remarks
	1300 MW	LTA (B) – 500 MW	1400 MW	1400 MW	<del>LTA (B) – 600 MW</del>	In line with IEGC Regulation 6.5.17
		LTA (C) – 200 MW			LTA (C) – 200 MW	
		MTOA- 300 MW			MTOA- 300 MW	
		STOA – 200 MW			STOA – 200 MW	
		Ancillary–100 MW			Ancillary–100 MW	

LTA(B) – Beneficiary LTA based on allocation of power from ISGS

LTA(C) – Contracted LTA



## 7.2 ISGS – with MTOA/STOA/ Ancillary schedules– Over Injection

ISGS	Despatch Schedule	Break Up	Actual Injection	Revised Schedule	Revised Break Up	Remarks
	1300 MW	LTA (B) – 0 MW	1400 MW	1400 MW	<b>LTA (B) – 100 MW</b>	In line with IEGC Regulation 6.5.17 *
		LTA (C) – 200 MW			LTA (C) – 200 MW	
		MTOA- 800 MW			MTOA- 800 MW	
		STOA – 200 MW			STOA – 200 MW	
		Ancillary–100 MW			Ancillary–100 MW	

\* Excess injection shall be booked to the beneficiaries

**Note: The excess injection shall not be booked to the beneficiary under power regulation**

## 7.3 ISGS – with LTA/MTOA/STOA / Ancillary schedules - under Injection

ISGS	Despatch Schedule	Break Up	Actual Injection	Revised Schedule	Revised Break Up
	1300 MW	LTA (B) – 500 MW	900 MW	900 MW	LTA (B) – 500 MW
		LTA (C) – 200 MW			LTA (C) – 200 MW
		MTOA- 300 MW			<b>MTOA- 200 MW</b>
		STOA – 200 MW			<b>STOA – 0 MW</b>
		Ancillary–100 MW			<b>Ancillary–0 MW</b>

## 7.4 ISGS -with LTA/MTOA/STOA/Collective Transaction schedules - Over Injection

ISGS	Despatch Schedule	Break Up	Actual Injection	Revised Schedule	Revised Break Up
	1300 MW	LTA (B) – 450 MW	1400 MW	1400 MW	<b>LTA (B) – 550 MW</b>
		LTA (C) – 200 MW			LTA (C) – 200 MW
		MTOA- 300 MW			MTOA- 300 MW
		STOA – 200 MW			STOA – 200 MW
		PX1 – 100 MW			PX1 – 100 MW
		PX2- 50 MW			PX2- 50 MW

## 7.5 ISGS with LTA/MTOA/STOA/Collective transaction schedules – Under Injection

ISGS	Despatch Schedule	Break Up	Actual Injection	Revised Schedule	Revised Break Up
	1300 MW	LTA (B) – 450 MW	500 MW	500 MW	<b>LTA (B) – 346 MW</b>
		LTA (C) – 200 MW			<b>LTA (C) – 154 MW</b>
		MTOA- 300 MW			<b>MTOA- 0 MW</b>
		STOA – 200 MW			<b>STOA – 0 MW</b>
		PX1 – 100 MW			<b>PX1 – 0 MW</b>
		PX2- 50 MW			<b>PX2- 0 MW</b>

➤ An amount equal to (100)\*ACP of PX1 to be reimbursed by ISGS to DSM Pool Account.

➤ An amount equal to (50)\*ACP of PX2 to be reimbursed by ISGS to DSM Pool Account.

## 7.6 Seller -with LTA/MTOA/STOA/Collective Transaction schedules - Over Injection

	Despatch Schedule	Break Up	Actual Injection	Revised Schedule	Revised Break Up	Remarks
Seller	1000 MW	LTA (C) – 350 MW	1100 MW	1100 MW	LTA (C) – 350 MW	<b>100 MW excess injection at the rate notified by CERC for GD</b>
		MTOA- 300 MW			MTOA- 300 MW	
		STOA – 200 MW			STOA – 200 MW	
		PX1 – 100 MW			PX1 – 100 MW	
		PX2- 50 MW			PX2- 50 MW	

## 7.7 Seller -with LTA/MTOA/STOA/Collective Transaction schedules - under Injection (Case-I)

	Despatch Schedule	Break Up	Actual Injection	Revised Schedule	Revised Break Up
Seller	1000 MW	LTA (C) - 350 MW	900 MW	900 MW	LTA (C)- 350 MW
		MTOA- 300MW			MTOA- 300MW
		STOA - 200 MW			<b>STOA - 100 MW</b>
		PX1-100 MW			PX1-100 MW
		PX2- 50 MW			PX2- 50MW

## 7.8 Seller-with LTA/MTOA/STOA/Collective Transaction schedules – under injection (Case-II)

	Despatch Schedule	Break Up	Actual Injection	Revised Schedule	Revised Break Up
Seller	1000 MW	LTA(C) - 350 MW	700 MW	700 MW	LTA(C) - 350 MW
		MTOA- 300MW			MTOA- 300MW
		STOA - 200 MW			<b>STOA - 0 MW</b>
		PX1-100 MW			<b>PX1-0 MW</b>
		PX2- 50 MW			PX2- 50MW

- Assuming that Area Clearing Price (ACP) of bid rates of PX1 was higher than PX2.
- An amount equal to (100)\*ACP of PX1 to be reimbursed by Seller to DSM Pool Account.

## 7.9 Seller - with LToA/MToA/SToA/Collective transaction schedules– under injection (Case-III)

	Despatch Schedule	Break Up	Actual Injection	Revised Schedule	Revised Break Up
Seller	1000 MW	LTA(C) - 350 MW	400 MW	400 MW	LTA(C) - 350 MW
		MTOA- 300MW			<b>MTOA- 50MW</b>
		STOA - 200 MW			<b>STOA - 0 MW</b>
		PX1-100 MW			<b>PX1- 0 MW</b>
		PX2- 50 MW			<b>PX2- 0 MW</b>

- An amount equal to (100)\*ACP of PX1 to be reimbursed by Seller to DSM Pool Account.
- An amount equal to (50)\*ACP of PX2 to be reimbursed by Seller to DSM Pool Account.

7.10 Seller -with LTA/MTOA/STOA/Collective transaction schedules- under injection (Case-IV)

	Despatch Schedule	Break Up	Actual Injection	Revised Schedule	Revised Break Up
Seller	1000 MW	LTA(C) - 350 MW	75 MW	75 MW	LTA (C)- 75 MW
		MTOA- 300MW			MTOA- 0MW
		STOA - 200 MW			STOA - 0 MW
		PX1-100 MW			PX1- 0 MW
		PX2- 50 MW			PX2- 0 MW

- An amount equal to (100)\*ACP of PX1 to be reimbursed by Seller to DSM Pool Account.
- An amount equal to (50)\*ACP of PX2 to be reimbursed by Seller to DSM Pool Account.

7.11 ISGS/IPP/seller -with LTA/MTOA/STOA/Collective Transaction schedules – Drawn from Grid (Case-V)

	Despatch Schedule	Break Up	Actual Injection	Revised Schedule	Revised Break Up
Seller	1000 MW	LTA(C) - 350 MW	-10 MW	-10 MW	LTA (C) - 0 MW
		MTOA- 300MW			MTOA- 0MW
		STOA - 200 MW			STOA - 0 MW
		PX1-100 MW			PX1- 0 MW
		PX2- 50 MW			PX2- 0 MW

- Seller to Pay to DSM pool account as per the rate decided by Hon'ble CERC for 10 MW drawal from Grid.
- An amount equal to PX schedules to be reimbursed by Seller to DSM Pool Account

7.12 Buyers (outside grid disturbance affected area) Case-I.

	Scheduled Drawal	Actual Drawal	Revised Schedule	Deviation	Remarks
Buyer	1000 MW	900 MW	800 MW	+100	+100 (Payable at DSM Rate)

7.13 Buyers (outside grid disturbance affected area) Case-II

	Scheduled Drawal	Actual Drawal	Revised Schedule	Deviation	Remarks
Buyer	800 MW	900 MW	1000 MW	-100	-100 (Receivable at DSM Rate)

7.14 Buyers (inside grid disturbance affected area) Case-I.

Buyer	Scheduled Drawal	Actual Drawal	Revised Schedule	Deviation	Remarks
	1000 MW	900 MW	800 MW	+100	+100 (Payable at CERC notified Rate for GD)

7.15 Buyers (inside grid disturbance affected area) Case-II

Buyer	Scheduled Drawal	Actual Drawal	Revised Schedule	Deviation	Remarks
	800 MW	900 MW	1000 MW	-100	-100 (Receivable at CERC notified Rate for GD)

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**PSDF GUIDELINES ON ELIGIBILITY OF CATEGORIES OF PROJECT**

Government of India has approved the scheme for operationisation of Power System Development Fund (PSDF) on 10<sup>th</sup> January, 2014. As per the approved scheme, the following categories of projects are eligible for funding from PSDF:

- a) Creating necessary transmission systems of strategic importance based on operational feedback by Load Despatch Centres for relieving congestion in Inter-State Transmission Systems (ISTS) and intra-state system which are incidental to the ISTS.
- b) Installation of shunt capacitors, series compensators and other reactive energy generators including reactive energy absorption, dynamic reactive support etc. for improvement of voltage profile in the Grid.
- c) Installation of standard and special protection schemes, pilot and demonstrative projects, projects for setting right the discrepancies identified in the protection audits on regional basis, any communication / monitoring scheme including installation of Phasor Measurement Units (PMUs) etc.
- d) Renovation and Modernization (R&M) of transmission and distribution systems for relieving congestion.
- e) Any other scheme/project in furtherance of the above objectives, such as, conducting technical studies and capacity buildings etc.
- f) Projects proposed by distribution utilities in the above areas which are incidental to interstate transmission system and have a bearing on grid safety and security, provided these are not covered under any other scheme of the Government of India, such as RAPDRP/RGGVY/NEF, etc.
- g) Private sector projects would not be eligible for assistance from the Fund.
- h) Any scheme sanctioned by the Central Government in the interest of development of power system which requires support from PSDF as part of the scheme shall be eligible for assistance from PSDF.

Format D1: Schemes Approved by Monitoring Committee

S.No	Name of State/Entity	Name of Entity	Name of Scheme and Unique ID No	Date of Submission of Scheme by Entity	Estimated cost by entity	Date of Techno-Economic clearance	Date of Recommendation by Appraisal Committee	Project Cost accepted by Appraisal Committee.	Category of Funding	Quantum of Funding Recommended by Appraisal Committee	Date of Concurrence by CERC.	Grant Approved by Monitoring Committee.	Date of Approval by Monitoring Committee.	Date of Issuance of sanctioning order by MoP	Date of Signing of Agreement
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI
1	CPSU	POWERGRID	URTDSM Scheme (Installation of PMUs (001)	23-Jun-14	374.63	27-Aug-14	29-Aug-14	374.63	5.1 (c)	70.00	7-Oct-14	262.24	8-Oct-14	31-Dec-14	27-Feb-15
2	Kerala	KSEBL	Renovation and Upgradation of protection system of substations (002)	30-Jul-14	97.90	25-Aug-14	29-Aug-14	91.46	5.1 (c)	90.00	7-Oct-14	82.31	8-Oct-14	31-Dec-14	20-Feb-15
3	Rajasthan	RRVNL	Renovation and Upgradation of protection system of substations (003)	18-Jun-14	159.53	25-Aug-14	29-Aug-14	159.53	5.1 (c)	90.00	7-Oct-14	143.58	8-Oct-14	31-Dec-14	6-Feb-15
4	Rajasthan	RRVNL	Installation of Bus Reactors (005)	18-Jun-14	23.96	25-Aug-14	29-Aug-14	23.87	5.1(b)	90.00	7-Oct-14	21.48	8-Oct-14	31-Dec-14	6-Feb-15
5	West Bengal	WBSETCL	Renovation and Upgradation of protection system of substations (007)	30-Jul-14	136.45	25-Aug-14	29-Aug-14	120.67	5.1 (c)	90.00	7-Oct-14	108.60	8-Oct-14	31-Dec-14	10-Feb-15
6	Odisha	OPTCL	Renovation and Upgradation of protection system of substations (008)	17-Jul-14	180.56	24-Nov-14	25-Nov-14	180.56	5.1 (c)	90.00	12-Jan-15	162.50	19-Mar-15	11-May-15	5-Aug-15
7	Assam	AEGCL	Renovation and Upgradation of protection system of substations(011)	21-Aug-14	382.48	24-Nov-14	25-Nov-14	299.37	5.1 (c)	100.00	12-Jan-15	299.37	19-Mar-15	11-May-15	29-Feb-16
8	Karnataka	KPCL	Renovation and Upgradation of protection system of substations (015)	11-Sep-14	26.93	24-Nov-14	25-Nov-14	19.84	5.1 (c)	90.00	24-Feb-15	17.85	19-Mar-15	11-May-15	12-Jun-15
9	Nagaland	DOP, Nagaland	Renovation and Upgradation of protection system of substations (017)	17-Sep-14	39.96	24-Nov-14	25-Nov-14	39.96	5.1 (c)	100.00	12-Jan-15	39.96	19-Mar-15	11-May-15	17-Aug-15
10	Bihar	BSPTCL	Renovation and Upgradation of protection system of substations (018)	18-Sep-14	74.13	19-Dec-14	14-Jan-15	71.35	5.1 (c)	90.00	18-Mar-15	64.22	19-Mar-15	11-May-15	3-Dec-15
11	Uttar Pradesh	UPPTCL	Installation of Capacitors and FSC. (025)	2-Nov-14	176.50	13-Jan-15	14-Jan-15	39.29	5.1(b)	90.00	18-Mar-15	35.36	19-Mar-15	11-May-15	26-Nov-15
12	Uttar Pradesh	UPPTCL	Renovation and Upgradation of protection system of substations. (026)	2-Nov-14	279.19	13-Jan-15	14-Jan-15	202.94	5.1 (c)	90.00	18-Mar-15	182.65	19-Mar-15	11-May-15	26-Nov-15
13	Gujarat	GETCO	Automatic Demand Management Scheme. (034)	1-Jan-15	1.72	12-Jan-15	14-Jan-15	1.67	5.1 (c)	90.00	18-Mar-15	1.50	19-Mar-15	11-May-15	23-Aug-15
14	TamilNadu	TANTRANSO	Renovation and Upgradation of protection system of substations (020)	3-Oct-14	202.00	25-Feb-15	12-Mar-15	138.28	5.1 (c)	90.00	28-May-15	124.45	14-Jul-15	4-Aug-15	29-Jan-16
15	Gujarat	GETCO	Load Forecasting Scheme(035)	3-Jan-15	3.70	25-Feb-15	12-Mar-15	3.70	5.1 (e)	100.00	28-May-15	3.70	14-Jul-15	4-Aug-15	24-Feb-16
18	Puducherry	Electricity Department, Government of Puducherry	Renovation and Upgradation of protection system of substations (021)	10-Oct-14	13.98	3-Mar-15	12-Mar-15	10.56	5.1 (c)	90.00	28-May-15	9.50	14-Jul-15	4-Aug-15	26-Feb-16
17	Meghalaya	MePTCL	Renovation and Upgradation of protection system of substations (042)	22-Feb-15	102.80	3-Mar-15	12-Mar-15	69.19	5.1 (c)	100.00	28-May-15	69.19	14-Jul-15	4-Aug-15	8-Mar-16
18	NRPC	NRPC	Study Program on the integration of renewable energy resources (054)	15-May-15	6.45	19-May-15	10-Jun-15	6.45	5.1 (e)	100.00	25-Aug-15	6.45	1-Oct-15	28-Oct-15	24-Nov-15
19	Telangana	TSTRANSO	Renovation and Upgradation of protection system of substations. (016)	8-Sep-14	72.60	25/2/2015 & 19-05-15	10-Jun-15	59.97	5.1(c)	90.00	25-Aug-15	53.97	1-Oct-15	28-Oct-15	1-Feb-16
20	Assam	AEGCL	Installation of BCU. (047)	7-Jan-15	57.13	25-Feb-15	10-Jun-15	53.52	5.1(c)	100.00	25-Aug-15	53.52	1-Oct-15	28-Oct-15	29-Feb-16
21	Mizoram	Department of Power Mizoram (032)	Renovation and Upgradation of protection system of substations. (32)	1-Dec-14	31.38	4/2/2015 & 06-05-15	10-Jun-15	26.84	5.1(c)	100.00	25-Aug-15	26.84	1-Oct-15	28-Oct-15	26-Apr-16
22	Jammu & Kashmir	PDD-J&K	Renovation and Upgradation of protection system of substations in Jammu(023)	14-Nov-14	182.44	19-Dec-14	14/01/2015 & 10-06-15	140.03	5.1(c)	100.00	5-Aug-15	140.04	1-Oct-15	28-Oct-15	14-Jan-16
23	Meghalaya	MePCCL	Renovation and Upgradation of protection system of substations (57)	12-May-15	41.93	27-Jul-15	8-Sep-15	32.53	5.1(c)	100.00	3-Nov-15	32.53	15-Dec-15	5-Jan-16	10-Jun-16
24	Tripura	TSEBL	Renovation and Upgradation of Protection System (040)	22-Feb-15	79.95	25/02/2015 & 27/07/2015	8-Sep-15	31.05	5.1(C)	100.00	3-Nov-15	31.05	15-Dec-15	5-Jan-16	30-Mar-16
25	Himachal Pradesh	HPSEBL	Renovation and Upgradation of Protection System (049)	27-Mar-15	68.59	19/05/2015 & 03/07/2015	8-Sep-15	55.44	5.1(C)	100.00	3-Nov-15	55.44	15-Dec-15	5-Jan-16	8-Jun-16
26	Powergrid	PGCIL	Installation of STATCOMs in ER at Ranchi-New, Rourkela, Kishanganj and Jeypure substations of POWERGRID (056)	5-Jun-15	1,059.50	27-Jul-15	8-Sep-15	700.31	5.1(b)	90.00	3-Nov-15	630.28	15-Dec-15	5-Jan-16	Signed
27	Jammu & Kashmir	PDD-J&K	Renovation and Upgradation of protection system of substations in Kashmir(024)	11/14/2014	193.03	12/19/2014	14/01/2015 & 10-06-2015	146.12	5.1 (c)	100	10-Feb-16	146.12	22-Feb-16	17-Mar-16	22-Apr-16



Status as on 19.10.2016

Format D1: Schemes Approved by Monitoring Committee

Sl.No	Name of State/Entity	Name of Entity	Name of Scheme and Unique ID No	Date of Submission of Scheme by Entity	Estimated cost by entity	Date of Techno-Economic clearance	Date of Recommendation by Appraisal Committee	Project Cost accepted by Appraisal Committee.	Category of Funding	Quantum of Funding Recommended by Appraisal Committee	Date of Concurrence by CERC.	Grant Approved by Monitoring Committee	Date of Approval by Monitoring Committee.	Date of Issuance of sanction order by MoP	Date of Signing of Agreement
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI
28	Karnataka	KPTCL	Renovation and Upgradation of protection system of substations (12)	8/26/2014	77.46	04-02-2015, 25/2/2015 & 28.09.2015	11/17/2015	67.13	5.1(c)	90	16-Dec-15	60.42	22-Feb-16	17-Mar-16	12-May-16
29	Delhi	DTL	Renovation and Upgradation of Protection System. (049)	3/24/2015	125.98	19/05/2015 & 16/10/2015	11/17/2015	125.98	5.1(c)	90	10-Feb-16	113.38	22-Feb-16	17-Mar-16	4-May-16
30	Uttarakhand	PTCUL	Renovation and Upgradation of Protection System. (051)	4/9/2015	127.11	19/05/2015 & 16/10/2015	11/17/2015	125.05	5.1(c)	100	14-Jan-16	125.05	22-Feb-16	17-Mar-16	8-Jun-16
31	Punjab	PSTCL	Bus bar protection (052)	3/16/2015	18.21	6/05/2015 & 28/09/2015	11/17/2015	18.21	5.1(c)	90	14-Jan-16	16.39	22-Feb-16	17-Mar-16	-
32	Madhya Pradesh	MPPTCL	Renovation and Upgradation of protection system of substations (28)	11/25/2014	173	3/07/2015 & 4/11/2015	17/11/15	103	5.1(c)	90	14-Jan-16	92.70	22-Feb-16	17-Mar-16	22-Jun-16
33	Madhya Pradesh	MP SDC	Implementation of Integrated system for ABT Open Access and MIS for MP SDC (061)	8/1/2015	4	9/28/2015	11/17/2015	4	5.1(c)	90	14-Jan-16	3.60	22-Feb-16	17-Mar-16	22-Jun-16
34	Gujarat	GETCO	Wind Generation forecasting for state of Gujarat(58)	7/6/2015	1.62	9/28/2015	11/17/2015	1.62	5.1(e)	100	14-Jan-16	1.62	22-Feb-16	17-Mar-16	-
35	ERPC	ERPC	Creation and Maintenance of web based protection database management (067)	9/24/2015	20	11/4/2015	11/17/2015	20	5.1(e)	100	14-Jan-16	20.00	22-Feb-16	17-Mar-16	26-Apr-16
36	Uttar Pradesh	UPPTCL	Renovation and Upgradation of substation equipment for relieving congestion. (027)	11/2/2014	80	13/01/2015 & 28/09/2015	11/17/2015	80	5.1(d)	75	14-Jan-16	60.00	22-Feb-16	17-Mar-16	-
37	Chhattisgarh	CSPTCL	Renovation and Upgradation of protection system. (039)	1/6/2015	176.63	6/05/2015 & 16/10/2015	3/8/2016	68.52	5.1(c)	90	12-Jul-16	61.67	19-Aug-16	-	-
38	Madhya Pradesh	MPPGCL	Installation of 125MVAR Bus Reactor at SSTPP Khandwa and 50MVAR Line Reactor at SGSTPS Birsinghpur substation of MPPGCL (062)	8/24/2015	18.85	1/7/2016	3/8/2016	6.21	5.1(b)	90	12-Jul-16	5.59	19-Aug-16	-	-
39	Telangana	TSTRANSCO	Installation of 5 nos. of 125MVAR at 400kV Mahaboobnagar, Mamidipally, Malkaram, Gajwel and Shankarpalli (059)	7/7/2015	53.63	1/7/2016	3/8/2016	53.63	5.1(b)	90	12-Jul-16	48.27	19-Aug-16	-	-
40	Assam	APPCL	Renovation and Upgradation of Protection System. (044)	2/24/2015	33.45	06-05-2015, 78-01-2016	3/8/2016	18.21	5.1(c)	100	12-Jul-16	18.21	19-Aug-16	-	-
41	Manipur	MSPCL	Renovation and Upgradation of Grid Substation of MSPCL (055)	3/10/2015	29.82	27-07-2015, 78-01-2016	3/8/2016	33.5	5.1(c)	100	12-Jul-16	33.50	19-Aug-16	-	-
42	Madhya Pradesh	MPPGCL	Renovation and Upgradation of protection system of substations(029)	11/25/2014	88.5	13/1/2015 & 03-07-15	3/8/2016	52.34	5.1(c)	90	12-Jul-16	47.11	19-Aug-16	-	-
43	Andhra Pradesh	APGENCO	Renovation and Upgradation of protection system of substations (010)	8/13/2014	40.12	19/05/2015 & 16/10/2015	3/8/2016	44.42	5.1(c)	90	12-Jul-16	39.98	19-Aug-16	-	-
44	Andhra Pradesh	APTRANSCO	Renovation and Upgradation of protection system of substations(009)	8/7/2014	106.32	10/16/2015	3/8/2016	125.27	5.1(c)	90	12-Jul-16	112.74	19-Aug-16	-	-
45	West Bengal	WBPDCL	The Renovation and Modernization of 220V F81KV STPS switch yard and Implementation of Substation Automation System (072)	12/23/2015	28.5	5/6/2016	5/31/2016	26.09	5.1(c)	90	5-Aug-16	23.48	19-Aug-16	-	-
46	Bihar	BSPTCL	Installation of Capacitor bank in 20 Nos of Grid Sub Station (074)	9/1/2016	24.96	5/6/2016	5/31/2016	20.98	5.1(b)	90	5-Aug-16	18.88	19-Aug-16	-	-
47	Haryana	HVPNL	Detailed Project Report Smart Grid Project Gurgaon City First Phase DLF Sub Station Area.(077)	8/1/2016	1381.77	5/6/2016	5/31/2016	364.27	5.1(d)	75	5-Aug-16	273.20	19-Aug-16	-	-
<b>Total</b>					<b>6,679.35</b>			<b>4,457.56</b>				<b>3,980.48</b>			

**Subject: Minutes of the Meeting held on 29.4.2016 for Review of PSDF**

1. A meeting, chaired by JS (OM), was held on 29.4.2016 to review the status of implementation of the schemes for funding from PSDF. All the state entities were invited to attend the meeting. The meeting was attended by the representatives from Delhi, UP, Rajasthan, Punjab, HP, J&K, Uttrakhand, Bihar, Odhisa, West Bengal, Telangana, Andhra Pradesh, Kerala, Puduchchery, Karnataka, Assam and Tripura. Schemes of NRPC, ERPC and POWERGRID have also been approved for funding from PSDF. Representatives from these organizations also attended the meeting. A list of the participants is enclosed as annexure-I.
2. Summary of discussions during the meeting is given below.
  - i. It was observed by representative of MoP that the expenditure under PSDF has not been very encouraging. It was felt that one of the reasons can be the long time taken for approval of schemes. It was explained that, so far, 18 meetings of Sub-group were held for expeditious appraisal of the schemes. It was informed that the approval was delayed due to delay in receipt of the inputs towards the clarifications sought during examination of the schemes from the entities.

JS (OM), MOP desired that examination of the schemes should be completed in a time bound manner, maximum within three months, after submission of the scheme by the entity. The entities were also requested to ensure that the schemes were submitted as per the formats prescribed in the guidelines. It was also requested to ensure that the inputs sought during examination were provided promptly by the entities. She further reiterated that schemes with innovative ideas shall be encouraged for funding under PSDF.
  - ii. It was informed that all the states, except Maharashtra, Goa, Jharkhand and Sikkim, have submitted schemes for availing the funds from PSDF. It was desired that these states may be reminded to submit their schemes on priority.
  - iii. Thirty six schemes had been approved till date for funding from PSDF. However, progress of implementation of the schemes had been very slow. JS (OM) expressed concern over the delay in implementation of the projects and non-utilization of the budget approved for the year 2015-16. Thereafter, scheme wise review was taken up. All the entities have initiated the process for award of contract against the approved guidelines. The entities were asked to give projected fund requirement for 2016-17 and ensure utilization of funds during the financial year. The projected fund requirement given by the entities after the meeting is enclosed as annexure-II.
  - iv. During the review, some entities sought clarifications and relaxations based on their experience during the implementation of the schemes. All such issues are mentioned below:
    - a. On a query from the representative from Tripura, it has been clarified that time period for completion of the scheme shall commence from the release of first installment of the grant. It was explained that the matter had already been deliberated in the Monitoring committee and necessary amendments to the sanction orders would be issued shortly.



- b. KSEB, Kerala sought the permission for quantity variation in the approved BOQ to meet the system requirements. The entity further informed that some of the items included in the BOQ of the approved scheme had been procured before approval of the scheme. Funding of all such items was not allowed for funding from PSDF. The entity sought permission for inclusion of other items which were necessary of protection system upgradation in lieu of the items not allowed for funding.

Similar cases were reported by UP, KPCL and West Bengal also.

Keeping in view the request from various entities, it was suggested that the matter may be examined and the proposal placed in the Appraisal Committee & Monitoring Committee for consideration.

3. Keeping the slow progress of the implementation of the schemes in view, it was felt prudent that respective RPC Secretariat monitor the schemes approved in its region, in addition to the Monitoring Group at Central level, as part of monthly meetings.
4. It was observed that some of the entities were not represented by the Nodal officers. It was desired that representation of Nodal officers in the review meetings may be ensured.

The meeting ended with vote of thanks to the Chair.

### Reporting Format to the PSDF Project Monitoring Group

1. Name of the Scheme			
1.1 Name of the substation and its Location			
1.2 Executing Agency			
1.3 State/Region			
2. Date of Sanction order			
2.1 Date of Agreement of Entity with State Govt./NLDC			
2.2 Total Approved Cost of the Scheme			
2.3 Approved Grant by Monitoring Committee ( Rs. In Lakhs)			
2.4 Date of Requisition by the Entity			
2.4.a) date and Reference of LOA			
2.4.b) Amount of LOA			
2.5 Date of Disbursement and amount			
2.5.1 : Ist Installment			
2.5.2: IInd installment			
2.5.3: IIIrd installment			
2.6 Date of Scheduled completion of Work			
2.7 Date of handing over of Site to entity (in case of turnkey projects)			

Report for the Month of <u>MM / YY</u>					
No.	Supply Description	Qty. AS PER LOA	Quantity Received during Month	CUMMULATIVE PROGRESS Till date	Remarks
1	item Details			Sch. Act.	
1.1					
1.2					
....					
	Erection Description	works as per LOA	Progress During Month	CUMMULATIVE PROGRESS Till date	Balance
2	work details				
2.1					
2.2					
....					
3	Others				
Signature with seal of the Nodal Officer					



भारत सरकार/Government of India  
विद्युत मंत्रालय/Ministry of Power  
केंद्रीय विद्युत प्राधिकरण/Central Electricity Authority  
राष्ट्रीय विद्युत समिति/National Power committee [ISO 9001:2008]  
कटवारिया सराय/Katwaria Sarai, नई दिल्ली/ New Delhi – 110016  
वेबसाइट / Website: [www.cea.nic.in](http://www.cea.nic.in)



No. 4/MTGS/NPC/CEA/2016/ 874-893

Date: 15<sup>th</sup> December 2016

Subject: **Additional Agenda s for the Sixth meeting of the NPC- Reg.**

Sir,

Additional Agenda for the sixth meeting of the NPC scheduled to be held **on 19<sup>th</sup> December, 2016 at Hotel Le Meridian, No.28, Sankey Road, Bengaluru** is enclosed for kind information please. The same is also available on CEA web site.

Kindly make it convenient to attend the Meeting.

Encl: as above

Yours faithfully,

*Buellik*  
(B.C.Mallick) 15/12/2016

Chief Engineer & Member Secretary, NPC

To:

1. Shri O.Ibobi, Chairman, NERPC & Hon'ble Chief Minister and In-charge of Power, Government of Manipur, Manipur Secretariat, Imphal-795 001. **Email:** [cmmani@man.nic.in](mailto:cmmani@man.nic.in)
2. Shri Vineet Garg, Chairperson, NRPC & Managing Director, Hariyana Vidyut Prasaran Nigam Limited, Shakti Bhawan, Sector-6, Panchkula-134109. **Email:** [md@hvpn.gov.in](mailto:md@hvpn.gov.in)
3. Shri Sanjeev Kumar, Chairman, WRPC & CMD, MSEDCL, Prakashgad, 6<sup>th</sup> Floor, Plot No.G-9, Station Road, Bandra (East), Mumbai-400051. **E-Mail:** [mdmsedcl@gmail.com](mailto:mdmsedcl@gmail.com)
4. Dr.M.Saikumar, Chairperson, SRPC & Chairman, TANTRANSCO, 10<sup>th</sup> Floor, NPKRR Maaligai, 144, Anna Salai, Chennai-600002. **Email:** [chairman@tnebnet.org](mailto:chairman@tnebnet.org)
5. Shri Pratyaya Amrit, Chairperson, ERPC & CMD, Bihar State Power (Holding) Company Limited, Vidyut Bhavan, Bailey Road, Patna-800021. **Email:** [chairmanbseb@yahoo.co.in](mailto:chairmanbseb@yahoo.co.in)
6. Shri Jatinder Kumar Juneja, Chairperson, TCC (NRPC) & Director (Tech), HVPNL, Shakti Bhawan, Sector-6, Panchkula-134109. **Email:** [directortechical@hvpn.gov.in](mailto:directortechical@hvpn.gov.in)
7. Shri Omprakash K.Yempal, Chairman, TCC (WRPC) & Director (Operation), MSETCL, Prakashganga, Plot No.C-19,E-Block, Bandra Kurla Complex, Bandra (East), Mumbai-400051. **Email:** [dirop@mahatransco.in](mailto:dirop@mahatransco.in)
8. Shri S.Shanmugam, Chairperson, TCC (SRPC) & MD, TANTRANSCO, 10<sup>th</sup> Floor, NPKRR Maaligai, 144, Anna Salai, Chennai-600002. **Email:** [mdtantransco@tnebnet.org](mailto:mdtantransco@tnebnet.org)
9. Chairperson, TCC (ERPC) & Managing Director, Bihar State Power Holding Company Ltd., Vidyut Bhavan , Bailey Road, Patna-800021..



10. Chairperson, TCC (NERPC) NERPC Complex, Dong Parmaw, Lapalang Shillong-793006,
11. Shri P.S.Mhaske, Member Secretary, NRPC, 18-A, S.J.S.S. Marg, Katwaria Sarai, New Delhi-110066. **Email:** ms-nrpc@nic.in
12. Shri S. D. Taksande, Member Secretary, WRPC, Plot No. F-3, MIDC Area Marol, Andheri (East), Mumbai-400093. **Email:** ms-wrpc@nic.in
13. Shri A.K. Bandyopadhyay, Member Secretary, ERPC, 14, Golf Club Road, ERPC Building, Tolly Gunge, Kolkata-700 033. **Email:** mserpc-power@nic.in
14. Shri S. R. Bhat, Member Secretary, SRPC, No.29, Race Course Cross Road, Bengaluru-560 009 **Email:** mssrpc-ka@nic.in
15. Shri P.K.Mishra, Member Secretary, NERPC, NERPC Complex, Dong Parmaw, Lapalang Shillong-793006, E-mail: ms-nerpc@gov.in

**Special Invitees:**

16. CEO, POSOCO, B-9, Qutab Institutional area, Katwaria Sarai, New Delhi -110016.
17. Director (Operation), PGCIL, Saudamini, Plot No.2, Sector-29, Guragon-122001
18. Chief Engineer, GM, CEA, New Delhi

**Copy for Kind information to:**

1. Chairperson, CEA, New Delhi
2. Member (G&OD), CEA, New Delhi



भारत सरकार  
विद्युत मंत्रालय  
केंद्रीय विद्युत प्राधिकरण  
राष्ट्रीय विद्युत समिति  
कटवारिया सराय, नई दिल्ली - 110016  
वैबसाइट / Website: [www.cea.nic.in](http://www.cea.nic.in)



[ISO 9001:2008]

No. 4/MTGS/NPC/CEA/2016/ 874-893

Date: 15-12-2016

विषय: एन. पी. सी. की छठावी बैठक के कार्यसूची के सम्बन्ध में।  
महोदय,

उपरोक्त विषय से सम्बन्धित दस्तावेज आपकी जानकारी एवम आवश्यक कार्यवाही हेतु संलग्न है।

संलग्नक : यथोपरि

भवदीय,

वि. मल्लिक 15/12/2016  
(बी.सी.मल्लिक)

मुख्य अभियंता एवं सदस्य सचिव, रा. वि. स.

सेवा में :

1. अध्यक्ष, उत्तर पूर्वी क्षेत्रीय विद्युत समिति
2. अध्यक्ष, उत्तर क्षेत्रीय विद्युत समिति
3. अध्यक्ष, पश्चिम क्षेत्रीय विद्युत समिति
4. अध्यक्ष, दक्षिण क्षेत्रीय विद्युत समिति
5. अध्यक्ष (टी सी सी), पूर्वी क्षेत्रीय विद्युत समिति
6. अध्यक्ष(टी सी सी), उत्तर पूर्वी क्षेत्रीय विद्युत समिति
7. अध्यक्ष(टी सी सी), उत्तर क्षेत्रीय विद्युत समिति
8. अध्यक्ष(टी सी सी), पश्चिम क्षेत्रीय विद्युत समिति
9. अध्यक्ष(टी सी सी), दक्षिण क्षेत्रीय विद्युत समिति
10. अध्यक्ष(टी सी सी), पूर्वी क्षेत्रीय विद्युत समिति
11. सदस्य सचिव, उ क्षेत्र वि स, नई दिल्ली -110 016
12. सदस्य सचिव, प क्षेत्र वि स, मुम्बई -400 093
13. सदस्य सचिव, द क्षेत्र वि स, बेंगलुरु-560 009
14. सदस्य सचिव, पु क्षेत्र वि स, कोलकता - 700 033
15. सदस्य सचिव, उ पु क्षेत्र वि स, शिल्लोंग - 793 006

**विशेष आमंत्रित**

16. मुख्य कार्यपालक अधिकारी, उ म प्र, रा भा प्रे के, नई दिल्ली -110 016.
  17. निदेशक (प्रचालन), पावर ग्रिड, गुरागोन-122001
  18. मुख्य अभियंता (ग्रिड प्रबंधन), केंद्रीय विद्युत प्राधिकरण, नई दिल्ली -110 066
- प्रति सूचनार्थ: 1. अध्यक्ष, के. वि. प्रा., रा.वि.स., 2. सदस्य, (ग्रिड प्रचालन एवं वितरण), के.वि.प्रा.

**CENTRAL ELECTRICITY AUTHORITY**  
**NATIONAL POWER COMMITTEE**

**ADDITIONAL AGENDA FOR THE SIXTH MEETING OF NATIONAL POWER  
COMMITTEE TO BE HELD ON 19<sup>th</sup> DECEMBER 2016 AT BENGALURU**

**1. PROPOSED BY GM DIVISION CEA**

**(i) Information in Regard to the date of Commercial Operation (CoD) of generating units:**

It is proposed that Secretariat of RPCs may arrange to send the information of CoD immediately on its declaration by the generator to GM Division on regular basis so that the same can be incorporated in the allocation sheets.

**(ii) Representation from Power System Wing in the RPC Meetings:**

To have fruitful deliberation on the transmission system related issues/schemes at TCC/RPC meetings, it is proposed that RPCs may invite Chief Engineer (PSP& A-I) / Chief Engineer (PSP& A-II), CEA depending upon the region being dealt with at the respective TCC/RPC meetings as a Special Invitee on regular basis.

**2. PROPOSED BY WRPC**

**(i) Amendment in Central Electricity Authority (Installation and operation of meters) Regulations, 2006:**

To have redundancy in commercial metering system which has far more commercial implications as compared to the meter cost, the amendment in the Central Electricity Authority (Installation and operation of meters) regulations, 2006, can be brought in, by making provision of installation of check meters on all the interface metering points of regional entities of the ISTS.

NPC may take up with Distribution Planning and Development Division of CEA for making the above provision in the Central Electricity Authority (Installation and operation of meters) Regulations, 2006.

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