



भारत सरकार
विद्युत मंत्रालय
केंद्रीय विद्युत प्राधिकरण
राष्ट्रीय विद्युत समिति
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वैबसाइट / Website: www.cea.nic.in



[ISO 9001:2008]

संख्या: 4/एमडीजीएस/रविस/केविप्रा/2016 / 430-449

दिनांक: 29-04-2016

विषय: एन. पी. सी. की पांचवी बैठक के कार्यवृत्त के सम्बन्ध में।
महोदय,

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

संलग्नक : यथोपरि

भवदीय

बि. 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
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, बंगलुरु-560 009
14. सदस्य सचिव, पु क्षेत्र वि स, कोलकता - 700 033
15. सदस्य सचिव, उ पु क्षेत्र वि स, शिल्लोंग - 793 006
16. मुख्य अभियंता (ग्रिड प्रबंधन), केंद्रीय विद्युत प्राधिकरण, नई दिल्ली -110 066
17. मुख्य कार्यपालक अधिकारी, उ म प्र, रा भा प्रे के, नई दिल्ली -110 016.
18. निदेशक (प्रचालन), पावर ग्रिड, गुरागोन-122001

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 [ISO 9001:2008]
कटवारिया सराय/Katwaria Sarai, नई दिल्ली / New Delhi – 110016
वेबसाइट / Website: www.cea.nic.in



No. 4/MTGS/NPC/CEA/2016/ 430-449

Date: 29th April 2016

To,

As per the distribution list

Subject: **Minutes of the fifth meeting of the NPC - Reg.**

Sir,

The Minutes of the 5th Meeting of NPC held on 08th April 2016 at Kolkata is enclosed for kind information and necessary action please. The same is also available on CEA website.

Yours faithfully

Encl.: as above

(B.C. Mallick)

Chief Engineer & Member Secretary, NPC

Distribution List (5th Meeting of NPC)

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Copy for Kind information to:

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

**CENTRAL ELECTRICITY AUTHORITY
NATIONAL POWER COMMITTEE**

**MINUTES OF THE FIFTH MEETING OF NATIONAL POWER COMMITTEE
HELD ON 08th APRIL 2016 AT KOLKOTA**

1. INTRODUCTION

The 5th Meeting of the National Power Committee was held on 08th April 2016 in ERPC Conference Hall, Kolkata. The list of the participants is at **Annexure-I**.

Shri Major Singh, Chairperson, CEA & NPC, welcomed the members and other participants to the meeting. He extended special welcome to all the new members who have joined NPC w.e.f. 1st April 25, 2016 and requested for active participation in the meeting. He thanked Shri A.K.Bandyopadya, Member Secretary, ERPC and his team for the excellent arrangement made for the conduct of the meeting in short notice. He stated that important issue like recommendations of the working group for accounting methodology for collective transactions, PTC membership in RPCs, standardization of data in regards to allocation of Power Orders on RPCs' websites, membership of IPPs with installed capacity more than 1000MW in RPCs etc. were proposed for deliberation in the meeting apart from the follow up action on the decision taken in the 4th meeting of NPC held on 10th December 2015. With these remarks, he requested Member Secretary, NPC to take up the agenda for discussion.

Shri B.C.Mallick Chief Engineer & Member Secretary, NPC welcomed all the members and participants to the 5th meeting of NPC. He thanked Member Secretary, ERPC for extending logistic support for the meeting.

Thereafter agenda items were taken up for deliberation.

2. CONFIRMATION OF MINUTES OF 4TH MEETING

NPC confirmed the Minutes of 4th meeting of NPC held on 10th December 2015 without any modification.

3. 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.

This issue was deliberated in the 4th Meeting of NPC, wherein it was decided that Working Group at the level of SE/EE of the RPCs, who deal with the work of regional energy accounting, would 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 at its next meeting.

The Working Group comprising representatives from CEA, Secretariat of RPCs/NPC and NLDC have prepared report for methodology of settlement of accounts for bilateral short term and collective transactions for the period of Grid Disturbance. The methodology proposed by the Working Group was put up to the Committee for consideration. Working group in its meeting at New Delhi and further with email correspondence prepared the preliminary report.

The comments from ERPC, WRPC, NERPC and NLDC received recently.

Chairperson, NPC suggested that working group members would meet one more time again and finalise the proposal.

After deliberation, NPC 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.

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

Grid Management Division, CEA vide letter dated 08th March 2016 (**Annexure-II**) had informed that M/s PTC had requested for Special Invitee / Membership status in all RPCs and proposed deliberation on the issue in the NPC meeting.

In the meeting, NRPC, WRPC & SRPC 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.

MS, ERPC 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 representative stated that membership should be as per GoI resolutions.

Chairperson, CEA 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.

After detailed deliberation 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.

5. MEMBERSHIP OF IPPs IN RPCs

WRPC vide letter dated 04th April 2016 (**Annexure-III**) had proposed deliberation on the issue of membership of representative 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.

WRPC proposed to enhance the limit of 1000MW to 2000MW for membership of IPP in RPCs. NRPC suggested that instead of allowing them RPC membership the IPPs might be included in subcommittees like TCC/OCC. SRPC 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 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 agreed to put up the issue in the next RPC meeting for deliberation.

6. STANDARDISATION OF DATA IN REGARDS TO ALLOCATION OF POWER ORDERS ON RPCs' WEBSITES

Grid Management Division, CEA vide letter dated 08th March 2016 (refer **Annexure-II**) had also informed that M/s Manikaran Power Limited had requested for standardization in the data format for allocation of power orders on RPCs website and desired discussion in NPC meeting.

In the Meeting, RPCs requested GM Division to devise a standard format for allocation orders for uploading on the website of RPCs.

GM Division, CEA 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.

7. TRANSFER CAPABILITY DETERMINATION BY THE STATES

In order to ensure, safe and secure operation of the grid, the states should carry out the power system study for operational planning and power transfer capability through their respective transmission links with the rest of the grid.

It was decided in the 4th meeting of NPC that to begin with, power system study for assessment of operational limits / power transfer capability for each state will be done by the concerned RLDC in association with concerned SLDC. Monthly TTC/ATC will be uploaded by the SLDCs at their respective websites and also communicated to concerned RLDC & NLDC subsequently.

NRPC intimated that except Gujarat all were calculating their ATC/TTC. SRPC informed that LGB report being furnished by all States regularly for ATC/TTC. In SR Tamilnadu, Kerala and Karnataka are doing the regular calculations. TANTRANSCO was furnishing the converged base case to SRLDC while Andhra Pradesh and Telangana yet to start the calculation due to delays in administrative arrangements after the bifurcation. RPCs informed that most of the states were apprehensive to upload the ATC/TTC computations on the web site for its commercial reasons.

CEA stated that states might be benefited from the transparency in ATC/TTC declaration. There were provisions for such transparency in various Regulations of CERC. For implementing open access in accordance with spirit of Electricity Act, the intimation required to be shared transparently.

NPC requested RPCs for regular interaction with states for carrying out power system study in their network and RPCs agreed to further follow up with States in this regard.

8. REASONS FOR DEMAND - SUPPLY GAP AND ITS VARIATION

It was deliberated in the 4th NPC meeting that monthly power supply position prepared & published by CEA based on the data furnished by the states reflected shortages in almost all the states. However, a number of those states intimated adequate availability of power. This meant that the deficit/shortage in such states was actually not the deficit in true sense but demand-supply gap due to reasons other than shortage of power. The other reasons for the

demand-supply gap could be inadequate availability of power, transmission constraint, distribution constraint, financial constraint, etc. The reason for demand-supply gap needed to be clearly mentioned to reflect true picture of power supply position in different states and also to invite attention of various agencies including policy makers to the specific problem areas in the power sector for suitable solution.

After deliberation it was decided in the meeting that all the RPCs would advise the states in their respective regions to intimate broad break-up of demand-supply gap due to various reasons, or at least, the main reason(s) for demand-supply gap in each month.

9. REACTIVE POWER PLANNING

In the 4th meeting of NPC, it had been agreed that states should adopt a proactive approach in the matter of reactive power planning, and that the provisions regarding reactive power planning similar to those mandated in the IEGC for the CTU should be included in the respective State Grid codes.

It was informed in the meeting that Sub-Committee of PSDF had forwarded few schemes of capacitor installation by states to respective RPC for approval of RPCs. It was of the view that RPC might be able to justify the requirement of capacitor installation of state.

After detailed deliberation, it was agreed that the proposal of capacitor installation planning by states / entities would be referred to RPCs by PSDF Sub-Committee or routed through RPCs by States / entities and the proposal would be vetted by the respective RPC.

7.(A) ENSURING PROPER FUNCTIONING OF UNDER FREQUENCY RELAYS (UFRs) & df/dt RELAYS

It was decided in the 4th 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.

WRPC 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.

After deliberation 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.

7.(B) OBSERVATION ON PRESENT UFR SETTING BY HONB'LE CERC ORDER DATED 27.11.2015 IN PETITION No.113/MP/2014

Quote:

“We feel that the present UFR setting are quite low considering the normal range of operation of the grid between 49.9 Hz to 50.05 Hz. National power Committee should review the setting of UFR and df/dt, if required considering the above aspect and submit a report to the Commission in this regard.”

Unquote.

It was proposed in the 4th meeting of NPC that power number of the NEWS grid increased and the present setting of the df/dt relays, wherever installed, need to be revised based on the inputs of the NLDC/RLDC. Similar activity in case of UFR also proposed to be carried out in view of the fact that most of the time frequency was hovering around the IEGC band. Therefore, setting of UFRs to be raised by 0.2 Hz in each steps i.e. new stages might be 49.4Hz, 49.2 Hz, 49.0 Hz and 48.8 Hz. After detailed deliberations, 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 had a real time assessment of load-relief likely to be available under the scheme if it operated.

After deliberation, NPC decided that there was no need to review the setting of UFR and df/dt in present power scenario.

8. AUTOMATIC UNDER FREQUENCY LOAD SHEDDING (AUFLS) SCHEME

In the 2nd 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
Total	8720	8310	9500	3320	400

The following had been noted in the 4th meeting of NPC held on 10th 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 meeting, WRPC informed that Goa had implemented the scheme. NRPC informed that the issue had taken up with Chandigarh and J&K.

NPC noted the progress.

9. POWER SWING BLOCKING (PSB) SETTING IN DISTANCE RELAYS

The following had been noted in the 4th Meeting of NPC:

- ✓ NRPC had constituted a group to make recommendations on the Power Swing Blocking (PSB) feature in the distance relays. The group recommended that PSB should be applied in all zones of distance relay and Out of Step (OOS) relaying should be employed on all inter-regional lines at both ends. NRPC had requested that the matter be deliberated at NPC forum for uniform implementation of the recommendations of the expert group.
- ✓ The two options have been proposed by Ramakrishna Task Force in regard to protection from Power Swing:
 - Option 1: Block all Zones except Zone-I - Applies blocking signal to the higher impedance zones of distance relay and allow Zone-I to trip if the swing enters its operating characteristic.
 - Option 2: Block all Zones and Trip with Out of Step (OOS) Function - applies a blocking signal to all zones of distance relay and order tripping if the power swing is unstable using the OOS function.
- ✓ It was noted that all RPCs except NRPC had adopted option 1 above. Explaining the ground for adopting option 2, NRPC stated that adopting Option 1 used to lead to frequent tripping of transmission lines. However, with Option 2, the tripping had been contained.
- ✓ PGCIL had informed that both the options were being used by them in their various transmission lines. OOS relay was installed at all inter-regional lines of Northern region. However, adoption of Option 2 requires proper system study to identify feeders where OOS relay could be deployed.

NPC while agreeing to NRPC's opinion to have a uniform PSB setting across all regions, decided to maintain status quo in different regions and wait for the report of the Consultant appointed for implementation of the recommendations of the 'Task Force for

Power System Analysis under contingencies' before further deliberations in the matter. In the meeting, NLDC informed that they had taken up the matter with the Consultant.

10. REVIEW OF df/dt RELAYS

The following had been noted in the 4th Meeting of NPC:

- The Committee had opined that in the event of a sudden loss of generation or any grid disturbance, the rate of fall of frequency would vary from one location to another, and it would also vary from one point of time to another at a particular location depending upon the distance from the location of the fault. Therefore, there could be no uniform setting of df/dt relays in different regions. In view of this, NPC had decided that settings would be determined by each RPC separately after detailed study of load and generation balance in different areas of the region and communicate the same to the Committee for ratification. NRPC was of the view that Consultant may be appointed to analyze the location of df/dt relays.
- It was decided that POSOCO would examine the possibility to include the study regarding settings / location of df/dt relays under emergency measures (in the event of sudden loss of generation or any grid disturbance) by the international consultant had been appointed by POWERGRID / POSOCO to review power transfer capability, operational planning etc.

NLDC informed members that as per the terms of reference, the study regarding settings / location of df/dt relays under emergency measures could be included and they had taken up with the Consultant.

NPC noted the progress.

11. REVIEW OF AUTOMATIC UNDER-FREQUENCY RELAY BASED LOAD-SHEDDING SCHEME (AUFLS)

In the 4th 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. 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.

12. 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 4th Meeting of NPC, it was agreed that other RPCs would examine the proposal of NRPC and would revert back in the next NPC meeting.

SRPC informed that the PSS methodology in line with NRPC has been agreed and implemented in SR.

WRPC 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 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.

13. SCHEME FOR STORAGE AND MANAGEMENT OF PROTECTION SYSTEM DATA BASE

Ramakrishna Task Force Report on Power System Analysis Under Contingencies 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."

ERPC had prepared scheme for above purpose for funding from PSDF. The scheme had been approved by MoP. SRPC submitted the scheme for similar purpose. Other RPCs were also requested to initiate the preparation of above scheme to implement the recommendations of the Ramakrishna Task Force. It was informed that the Ramakrishna task Force report had been accepted by MoP.

NPC advised RPCs to take necessary action for creating and maintaining database of relay setting. RPCs agreed to initiate preparation of the scheme for implementation recommendation of Ramakrishna Task Force.

14. TARGET FIXED FOR LOAD RELIEF FROM OPERATION OF DEFENSE MECHANISM

This item proposed by NRPC was not discussed in the 4th meeting of NPC due to paucity of time. 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 issue submitted by NRPC is at **Annexure-IV**.

NRPC 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 plane area state and low demand in hilly states in summer and vice versa in winters.

After deliberation 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 discussed 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.

15. DATE AND VENUE OF 6th MEETING OF NPC

It was agreed to follow roster for hosting the NPC meetings. Accordingly, the roster for hosting meeting of NPC is as follows:

NRPC	ERPC	SRPC	WRPC	NERPC
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NRPC and ERPC have already hosted the NPC meeting thus the next meeting was proposed at SRPC. Representative from SRPC informed that they will revert back after discussion in SRPC.

The date and venue of 6th meeting would be intimated in due course.

The Meeting ended with vote of thanks to the Chair.

**List of Participants in the 5th Meeting of NPC
held on 08th April 2016 at ERPC, Kolkata.**

Central Electricity Authority (CEA)

1. Shri Major Singh, Chairperson CEA & NPC
2. Shri B.C. Mallick, Chief Engineer & Member Secretary NPC
3. Shri D.K. Srivastava, Director, NPC
4. Shri Vijay Menghani, Director, GM
5. Shri K.P. Madhu, Deputy Director, NPC

Eastern Region Power Committee (ERPC)

1. Shri Rajesh Pandey, CMD, WBSEDCL
2. Shri A.K. Bandyopadhyay, Member Secretary, ERPC
3. Shri M. Bandyopadhyay, Director(Op), WBSETCL
4. Shri S. Roy, Chief Engineer, WBSETCL
5. Shri B. Sharma, Director(P), BSPTCL
6. Shri Rajdeep Bhattacharjee, EEE, BSPHCL
7. Shri Jayant Kumar Dubey, EEE, BSPHCL
8. Shri Mukesh Kumar, AExE, BSPTCL
9. Shri S. P. Datta, AGM, NTPC
10. Shri P.K. De, Executive Engineer, ERPC
11. Shri D.K. Bansi, Executive Engineer, ERPC
12. Shri J. Ganeswara Rao, E.E., ERPC
13. Shri S. Kejriwal, Executive Engineer, ERPC
14. Shri A. De, A.E.E., ERPC
15. Shri B. Lenin, A.E.E., ERPC
16. Shri U.K. Verma, GM, ERLDC
17. Shri S. Banerjee, DGM, ERLDC
18. Shri P.S. Das, Asst.G.M.(SO), ERLDC
19. Shri S.Paul, EE, ERLDC
20. Shri S.M. Jha, Director, RIO(E)
21. Shri S.R. Tadu, AD-II, RIO (E)

Western Region Power Committee (WRPC)

1. Shri Omprakash K. Yempal, Chairperson TCC & Director(OP), MSETCL
2. Shri S.D. Taksande, Member Secretary, WRPC
3. Shri S. Satyanarayan, Superintending Engineer, WRPC

Southern Region Power Committee (SRPC)

1. Shri S. Shanmugam, Chairperson TCC & MD, TANTRANSCO
2. Shri Asit Singh, Superintending Engineer, SRPC
3. Shri P. Rajagunanidhi, Executive Engineer, TANTRANSCO

Northern Region Power Committee (NRPC)

1. Shri P.S.Mhaske, Member Secretary, NRPC

National Load Despatch Centre (NLDC)

1. Shri S.S. Barpanda, General Manager, NLDC

ANNEXURE-II

Central Electricity Authority
Grid Management Division
Sewa Bhawan (N), 6th Floor, New Delhi 110066

Subject: Issues proposed to be included in NPC agenda.

Following issues may please be included in the agenda for the next meeting of NPC:

1. Special Invitee/Membership of Regional Power Committee: -

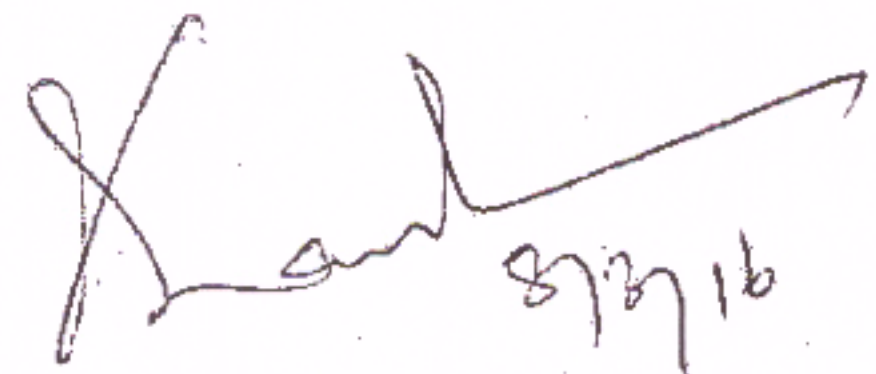
M/s. PTC vide its letter No. PTC/RPC/15703 dated 19.01.2016 has requested for special Invitee/Membership Status in all RPCs (copy enclosed). This may be discussed in next NPC meeting.

2. Standardization of data in regards to allocation Orders: -

M/s. Manikaran Power Limited vide its letter No. MPL/16-17/CEA/15022016 dated 15.02.2016 (copy enclosed) has requested for standardization in the data format for allocation orders on RPCs' Websites. This may also be discussed in the next NPC meeting.

This issues with the approval of Member (GO&D).

Encl.: As above



(Dinesh Chandra)
Chief Engineer

Chief Engineer (NPC), Katwaria Sarai, New Delhi-110016

No. 1/AL/COR/GM-16 /418

Date: 08.03.2016

To

The Chief Engineer

(Grid Management Div., CEA)

(Member Secretary of NPC)

Central Electricity Authority,

Sewa Bhawan, R.K. Puram,

Sector - 1, New Delhi - 110066

Subject: Request to standardize the data in a common format for all the five Regional Power Committees (ERPC, SRPC, NRPC, WRPC and NERPC) across India.

Respected Sir,

It has been observed that data like **Allocation Order (Share Allocation of States)** present on websites of all five regional power committees is not in a standard format. The data format is found to be varying from one Regional power committee to another Regional power committee.

We suggest that such data (i.e., **Allocation Order**) at regional level should be uniform and same format should be followed by each of the Regional power committees.

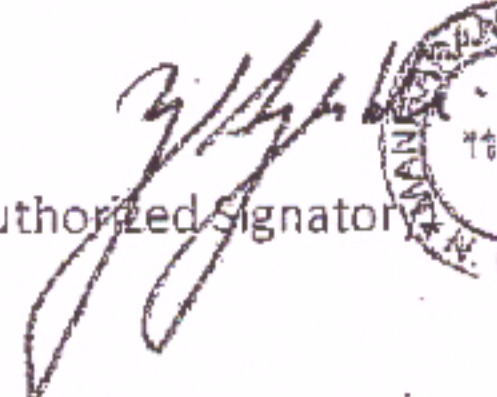
It would be very much helpful if all Regional power committees follow the uniform, common and standard format nationally.

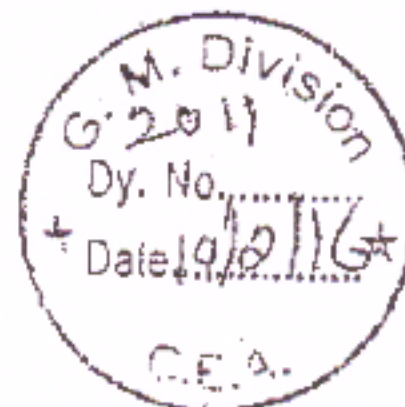
We would be grateful to you for fulfilling this request.

Thanking You,

Yours Truly

For Manikaran Power Limited

(Authorized Signatory)


On Anshuman for n.a. p
on Ashu
PI send it to NPC
with copy
18/2
let's
Dy. (V.M.) in hand

MANIKARAN POWER LIMITED

Corp. Office: 2nd Floor, D21, Corporate Park, Sector-21, Dwarka, New Delhi - 110075, T: +91 65651994, F: +91 11 45768467
3rd Floor, 'AASTHA' 460, Off E.M. Bypass, Kolkata - 700107, T: +91 33 40610165, F: +91 33 24433995
www.manikaranpowerltd.in



Ref: PTC/RPC/ 15703

Dated: 19.01.2016

Member (Grid Operation & Distribution)
Central Electricity Authority
Room No: 601 (North), Sewa Bhawan,
Sector -1, R.K. Puram
New 110 066



Sub: Special Invitee/Membership of Regional Power Committees.

Dear Sir,

With reference to above, it is to submit that:

1. PTC India Limited (Formerly known as Power Trading Corporation of India Limited) was established in the year 1999 as a Government of India initiated Public-Private Partnership, whose primary focus is to develop a commercially vibrant power market in the country.
2. The company has been promoted by NTPC Ltd., Power Grid Corporation of India Ltd, Power Finance Corporation India Ltd. and NHPC Ltd which all are Govt. of India Undertaking. LIC which is also government company has major share holding of 11% in the company.
3. Board of PTC India is having wider representation and one Director each is nominated from above promoters companies, one director is nominated by Ministry of Power and one another from LIC.
4. PTC India Limited has been nominated by Government of India as Nodal agency for cross border trade with Bhutan, Nepal and Myanmar. PTC is supplying 1020 MW from Tala Hydro Project, 336 MW power from Chukha Hydro Project and 60 MW power from



21.1.25
X/24/2001
CE (GM)

PTC India Limited

(Formerly known as Power Trading Corporation of India Limited)
CIN : L40105DL1999PLC099328

2nd Floor, NBCC Tower, 15 Bhikaji Cama Place New Delhi - 110 066 Tel: 011- 41659500, 41595100, 46484200, Fax: 011-41659144
E-mail: info@ptcindia.com Website: www.ptcindia.com

ppw. 20/1/16
① we are doing as per MoP resolution
② Presently PTC is a private company



Kurichu Hydro Project to beneficiary states of Eastern and Northern Region on long term basis.

5. PTC India has been granted category I trading licensee by Central Electricity Regulatory Commission which is a highest category of license with no trading limit on volume
6. Since its inception PTC India Limited has been maintaining as Number 1 trading license position in terms of percentage of volume traded by any trading licensee. The percentage market share of PTC India Limited for last three financial years is given below:

S.No.	Financial Year	% Market share
1	2012-13	29.64
2	2013-14	31.68
3	2014-15	33.12

7. Presently, PTC India Limited is having following long term agreements which are in operation or about to get operationalise in all regions of the country:

S.No.	Supplier	Buyer	Quantum(MW)
1.	JK SPDCL Baghlihar	WBSEDCL	100
2.	Lanco Amarkantak Unit-I (C.G.)	Madhya Pradesh	273
3.	Torrent Power Limited Sugan (Gujrat)	Madhya Pradesh	100
4.	Lanco Amarkantak Unit-II(C.G.)	Haryana	259
5.	GMR- Kamlanga (Odisha)	Haryana	300
6.	Adhunik Power and Natural Resources limited (Jharkhand)	WBSEDCL	100
7.	Adhunik Power and Natural Resources limited (Jharkhand)	Tamilnadu	100
8.	Everest Power Pvt Limited (Malana-II) Himachal Pradesh	Punjab	100
9.	Himachal Baspa Power Company Limited (Karcham Wangtoo HEP)	Haryana	200
10.	Himachal Baspa Power Company	Uttar Pradesh	200

PTC India Limited

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E-mail: info@ptcindia.com Website: www.ptcindia.com



	Limited (Karcham Wangtoo HEP)		
11.	Himachal Baspa Power Company Limited (Karcham Wangtoo HEP)	Rajasthan	104
12.	M.B. Power (Madhya Pradesh) Ltd.	Uttar Pradesh	361
13.	Maruti Clean Coal and Power Limited (C.G.)	Rajasthan	250
Total			2447

8. PTC also has in its portfolio long term Power Purchase Agreements with the Generators for cumulative capacity of about 11,586 MW for further sale of power to Discoms which includes cross border trade also. It may also be noted that the financial closure of most of these projects have been done based on their PPA with PTC.
9. PTC is also managing the power portfolio of Government of Himachal Pradesh, Madhya Pradesh, Jharkhand, J&K, Tripura, WBSEDCL, NDMC etc.
10. Since its inception, PTC India Limited has played a vital role in overall power market development in the country by participating in different forums. PTC Financial Services Limited which is a subsidiary of PTC India Limited is one of the promoters of Indian Energy Exchange and PTC has played a vital role in establishing the IEX.
11. Further, market share of top power traders for last three financial years is given below:

S.No.	Financial Year	Name of Trader	Percentage Share
1	2012-13	PTC India Limited	29.64
		NVVNL	11.67
		Tata Power Trading Company Ltd.	11.29
		JSW Power Trading Company Ltd.	10.38
		National Energy Trading & Services Ltd.	7.44
		Adani Enterprises Ltd.	6.99
2	2013-14	PTC India Limited	31.68
		JSW Power Trading Company Ltd	12.40
		Tata Power Trading Company Ltd.	11.04
		Reliance Energy Trading Company Limited	7.12
		NVVNL	6.13

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E-mail: info@ptcindia.com Website: www.ptcindia.com



		Adani Enterprises Ltd.	5.02
3	2014-15	PTC India Limited	33.12
		Tata Power Trading Company Ltd.	9.56
		Mittal Processor (P) Ltd	9.53
		JSW Power Trading Company Ltd	8.47
		GMR Energy Trading Limited	6.03
		Adani Enterprises Ltd.	5.65
		NVVNL	5.26

Source: CERC Reports on Short Term Market in India

From the above, it is to say that market share of PTC is increasing and has majority share in the market.

PTC is presently a member of ERPC and NERPC and has been playing an active role in discussing various issues in these forums.

It is requested that PTC may be admitted as a special invitee/member in other Regional Power Committees like NRPC, WRPC and SRPC also and it will be able to contribute on wider scale to develop the power market.

Thanking you and looking forward to an early reply from your end.

Yours Faithfully,

Bimal Dhar
19/1/2016

(Bimal Dhar)

Executive Director (Commercial)

CC: 1. Member (Power System)

Central Electricity Authority

Sewa Bhawan,

Sector – 1, R.K.Puram

New Delhi 110 066

PTC India Limited

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E-mail: info@ptcindia.com Website: www.ptcindia.com



2. Shri Dinesh Chandra

Chief Engineer (Grid Management),

Central Electricity Authority

6th Floor(North), Sewa Bhawan,

Sector – 1, R.K.Puram,

New Delhi 110 066

PTC India Limited

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



आई एस ओ : 9001 : 2008
ISO : 9001:2008

Western Regional Power Committee
एक -3, एमआयडीसी क्षेत्र, अंधेरी (पूर्व), मुंबई - 400 093
F-3, MIDC Area, Andheri (East), Mumbai -
400 093

दूरभाष Phone: 022- 28221636; 28200195; 28200194; फैक्स Fax : 022 -28370193
Website : www.wrpc.gov.in E-mail : ms-wrpc@nic.in

NO.WRPC/NPC/2016/ 661

Date: 4.4.2016

To,

Member Secretary,
NPC, Through NRPC,
18-A, Shaheedjeet Singh Marg,
Katwaria Sarai,
New Delhi-110016.

Subject:-Membership of IPPs in RPC forum – additional agenda for 5th NPC meeting.

Sir,

Kindly refer resolution F.No.23/1/2004-R&R(vol.II) Ministry of power dated 9.5.2008 which has replaced para no.3 in the earlier resolution of even no. dated 25.5.2005 and 29.11.2005 regarding the membership of representative from IPPs in RPC forum. The resolution dated 9.5.2008 in para no.3 item no.5 states in respect of membership of generating companies:

Quote

Representative each of every generating companies (other than central generating companies and State Government owned generating companies) having more than 1000 MW installed capacity in the region.

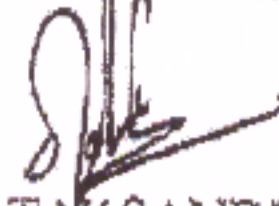
Unquote

In this context, this is to mention that Western Region have number of IPPs whose installed capacity is just crossing 1000 MW due to synchronization of two units i.e. 600 / 660 MW and are thus entitled for membership of RPC. There are hardly three or four IPPs having less than 1000 MW installed capacity. Due to this clause many IPPs are requesting for RPC membership and quantum of members in the RPC forum is increasing. Huge number of membership in RPC is creating organization of RPC meeting difficult and unmanageable. This issue of membership of representative of IPPs to RPC needs to be reviewed with reference to 1000 MW installed capacity to restrict RPC membership.

We request you to kindly include this issue as an additional agenda item in the 5th NPC meeting scheduled on 8.4.2016 at ERPC, Kolkata to evolve consensus among NPC members to take up with Ministry of Power.

Thanking you,

Yours faithfully,



(S.D. TAKSANDE)
Member Secretary.

Copy to:-

1. Chairman, WRPC/TCC, Mumbai.
2. Member (GO&D), CEA, Sewa Bhavan, R.K.Puram, New Delhi.
3. Chief Engineer (GM Division), CEA, Sewa Bhavan, R.K.Puram, New Delhi.
- ✓ 4. Member Secretary, NRPC, New Delhi.
5. Member Secretary, SRPC, Bengaluru.
6. Member Secretary, ERPC, Kolkata.
7. Member Secretary, NERPC, Shilong.

Northern Regional Power Committee**(i) Target fixed for Load Relief from operation of Defense Mechanism**

NPC, in its 2nd meeting held on 16.07.2013, had agreed for the four stage UFR based automatic load shedding scheme. A combined reading of agenda and minutes of the 2nd meeting of NPC reveals targets were fixed based on peak loads with the assumption that average load will be of the order of 60-70% of peak loads.

Further, the regional load shedding target for each stage was allocated to each state of Northern Region pro-rata to their peak demands.

In recently held OCC meeting of NRPC, Punjab has submitted following details of various automatic load shedding required to be carried out in Punjab:

Sr. No.	Type of Defense Mechanism	Target Load Relief (Available at NRPC website)	
1.	df/dt (Stage-1 49.9 Hz & 0.1 Hz/sec)	430	1410
2.	df/dt (Stage-2 49.9 Hz & 0.2 Hz/sec)	490	
3.	df/dt (Stage-3 49.9 Hz & 0.3 Hz/sec)	490	
4.	UFR (49.2 Hz)	400	1616
5.	UFR (49.0 Hz)	402	
6.	UFR (48.8 Hz)	406	
7.	UFR (48.6 Hz)	408	
8.	SPS (Group-A)	35	496
9.	SPS (Group-C)	71	
10.	SPS (Group-D)	90	
11.	SPS (Group-E)	100	
12.	SPS (Group-F)	100	
13.	SPS (Group-G)	100	
Total Load Relief		3522	

Punjab has further submitted details of maximum and minimum load recorded in Punjab during 2014-15. The maximum load was 10155 MW in June 2014 whereas minimum load was 1236 MW in March 2014. Average load for FY 2014-15 was 5444 MW. Also some of the loads such as defence establishments, Hospitals, courts and continuous process industries are uninterruptible. Further, IEGC also requires that there should be no overlapping of feeders between various load shedding schemes.

In view of this, Punjab had expressed difficulty that load relief from UFRs will be much less than target fixed for them. This difficulty may be faced by other states also which have high ratio of maximum to minimum load.

NPC may deliberate so as to decide on the criteria for fixing target for UFR based load shedding for individual states.