

# पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

## POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



पावरग्रिड

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संदर्भ संख्या/Ref. Number

C/ENG/SEF/N/C&LTA

Date: 23/01/2012

To

As per list attached

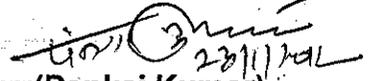
Sub: Minutes for Connectivity/Long Term Access Meeting held on 19/12/11 at NRPC, New Delhi.

Sir,

The Connectivity/Long Term Access Meeting was held on 19/12/2011 at NRPC, Katwaria Sarai, New Delhi along with 30<sup>th</sup> Standing Committee Meeting of Power System Planning of Northern Region. Various Long Term Access applications for transfer of power to Northern Region & Connectivity of generation to Northern Regional grid were discussed. Please find enclosed the minutes for the same.

Thanking You,

Yours Faithfully

  
23/1/12  
(Pankaj Kumar)

Executive Director (SEF, CE, IT & ERP)

Copy to:

- ED (Commercial)
- GM (NRLDC)

## LIST OF ADDRESSES

1. Sh. Ravinder, Member (SP&PA), CEA, Sewa Bhawan, R.K. Puram, New Delhi –66	2. Executive Director (Projects), PTCUL, Kanwali Road, Urja Bhawan Compound, Dehradun – 248 001, Uttarakhand.
3. Member Secretary, NRPC 18A, Shaheed Jeet Singh Sansawal Marg, Katwaria Sarai, New Delhi – 110 016	4. Director (Operations), Delhi Transco Ltd., Shakti Sadan, Kotla Road, New Delhi-110 002
5. Managing Director, HP Power Transmission Corporation Ltd., Himfed Bhawan, Panjari, old MLA Quarters, Shimla-171004	6. Director(Transmission), UPPCTL, Shakti Bhawan Extn, 3 <sup>rd</sup> floor, 14, Ashok Marg, Lucknow-226 001
7. Director( Technical), PSTCL, Head Office, The Mall, Patiala-147001	8. Director (Technical), RRVPL, Vidyut Bhawan, Janpath, Jyoti Nagar, Jaipur, Rajasthan.
9. Chief Engineer (Operation), Ministry of Power, UT Secretariat, Sector-9 D Chandigarh - 161 009	10. Director (Projects), HVPNL, Shakti Bhawan, Sector-6, Panchkula-134109, Haryana
11. Development Commissioner (Power), Civil Secretariat, Jammu- 180001	12. Mr. P.M.K Gandhi, GVK Ratle Hydro Electric Project Pvt. Ltd., “Paigarh House”, 156-159, Sardar Patel Road, Secunderabad-500 003, Andhra Pradesh.
13. Mr. Awadesh Kumar Jha, Miyar Hydro Electric Power Company Ltd., New Projects-Hydro, 43-B, Okhla Industrial Area, New Delhi-110020.	14. Mr. Awadesh Kumar Jha, Seli Hydro Electric Power Co. Ltd., 43-B, Okhla Industrial Estate, New Delhi- 110020.
15. Mr. O.P Ajmera, Malana Power Company Ltd. Bhilwara Towers, A-12, Sector-1, Noida- 201301(NCR-Delhi)	16. Mr. Manoj Gupta, Moser Baer Powergen Ltd., 235, Okhla Industrial Area, Phase-III, New Delhi- 110020.
17. Mr. Amit Mehta, Dahanu Solar Power Pvt. Ltd., I-Block, 1st Floor, South Wing, Dhirubhai Ambani Knowledge City, Thane Belapur Road, Navi Mumbai-400710, Maharashtra.	18. Mr. Suresh K Narang, Nabha Power Ltd. SCO-32, Sector-26-D, Madhya Marg, Chandigarh-160019
19. Mr. S.S Khandelwal, Shree Cements Ltd., Bangur Nagar, Post Box No.33, Beawar-305901, Rajasthan, India.	20. Mr. Rahul Goyal, Gamma Infraprop (P) Limited, M-3, First Floor, Hauz Khas, Aurbindo Marg, New Delhi-110016.
21. Mr. Sarnath Ganguly Noida Power Company Ltd. Commercial Complex, H-Block, Sector Alpha-II, Greater Noida, U.P.	22. Mr. Abhijit Sen, Tanda TPP-II, NTPC Ltd., Engineering Office Complex, A-8A, Sector-24, Noida-2013019 (U.P).
23. Mr. Salpekar, NTPC Ltd., NTPC Bhawan, Core-7, Scope Complex, 7, Institutional area, Lodhi Road, New Delhi-110003.	24. Er. V.K Misra, Himachal Pradesh Power Corporation Ltd., Shanti Kutir, Kamna Nagar, Chakkar, Shimla-171005

## **Minutes for Connectivity/ Long term Access Meeting with Northern Region Constituents held on 19/12/2011 at New Delhi**

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POWERGRID welcomed all the participants to the Connectivity/Long term Access meeting of Northern region and informed that following Connectivity/ Long term Access applications for new generation projects in NR need to be discussed for resolution in addition to certain modifications/extensions of already granted Long term Access.

The Connectivity/Long Term Access Applications discussed in the meeting were:

1. LTA & Connectivity grant to 690 MW Ratle HEP of M/s GVK Ratle HEP Pvt. Ltd. in J&K.
2. Connectivity to 120 MW Miyar HEP of M/s Miyar Hydro Electric Power Company Ltd. (M/s Moser Baer Projects Pvt. Ltd. as Promoter) in H.P.
3. Connectivity to 320 MW Seli HEP of M/s Seli Hydro Electric Power Company Ltd. (M/s Moser Baer Projects Pvt. Ltd. as Promoter) in H.P
4. LTOA to M/s Malana Power in Himachal Pradesh (Chango Yangthang)
5. Connectivity to 50MW Solar PV Project of M/s Moser Baer Powergen Ltd. in Rajasthan.
6. LTA to 40 MW Dahanu Solar Power Private Limited
7. Connectivity to M/s Nabha Power limited in Punjab (Rajpura Project)
8. Enhancement of Connectivity of M/s Shree Cements from 300 to 362 MW
9. Connectivity to M/s Noida Power Company Limited(NPCL) for drawl of 500MW from ISTS at Greater Noida.
10. Connectivity & LTA grant to M/s Gama Infroprop (P) Ltd.
11. Long term Access for power project of M/s Beta Infratech (P) Limited
12. Connectivity grant to Tanda (2x660MW) Power Project of M/s NTPC Ltd. in U.P.
13. Connectivity & LTA grant to 500 MW Unchahar Power Project of M/s NTPC Ltd. in U.P.
14. Connectivity grant to new CCPP-I (1050MW) generation of M/s NTPC Ltd. at existing Badarpur Thermal Power Station, near Badarpur, in Delhi.
15. Connectivity & LTA grant to Gidderbaha (4x660MW) Power Project of M/s NTPC Ltd.
16. LTA grant to Singrauli-III of NTPC Limited

Details of the discussions held are as below.

### ***List of participants is enclosed at Annexure-II***

#### **1. Connectivity and Long Term Access to M/s GVK Ratle Hydro Electric Project Pvt. Ltd., for 690 MW Ratle HEP in Jammu & Kashmir**

POWERGRID informed that M/s GVK Ratle Hydro Electric Project Pvt. Ltd., had applied for Connectivity & Long term Access of their 690MW Ratle HEP (6\*115MW) in J&K. As per the application, the commissioning schedule of the units is from Sept.'2016 to Feb.'2017. The connectivity & LTA for the project is required by 01.09.2016 & the beneficiaries for the power are PDD, J&K (429MW), Delhi(100MW), Haryana(70MW), Punjab(50MW) & Rajasthan(41 MW).

## **Connectivity and Long Term Access**

Member(PS), CEA enquired about the status of the generation plant. Representative of M/s GVK Ratle Hydro Electric Project Pvt. Ltd. informed that DPR for the project has been submitted to CEA for approval & EPC bids have been floated. M/s GVK Ratle Hydro Electric Project Pvt. Ltd. informed that the project size has been revised to 4X205MW+1X30MW. Initially Environmental clearance had been applied for 690MW capacity. TOR to be submitted for revised capacity.

POWERGRID informed that as per the application, existing 400/220 kV Kishenpur (POWERGRID) (approx. 140 Kms from proposed site) is the nearest substation. In addition to Kishenpur, Dulhasti HEP is also located in proximity to the proposed generation plant. During the 28<sup>th</sup> SCM held on 23/02/2010, it was discussed and agreed that "POWERGRID would take up the implementation of Dulhasti – Kishenpur 400 kV D/c (Quad) line and initially string only one ckt. from Dulhasti to Kishenpur. Meanwhile, for Ratle HEP, J&K, M/s GVK Ratle Hydro Electric Project Pvt. Ltd. may apply for Connectivity and Long term Access to the CTU, after which, stringing of 2<sup>nd</sup> circuit can be planned. The 2<sup>nd</sup> circuit may be strung from Kishenpur and terminated at Ratle. This 2<sup>nd</sup> circuit will be extended to the project coming up in the upstream of Dulhasti project bypassing Dulhasti HEP". POWERGRID informed that as discussed in the standing committee, a 765kV pooling station may be planned at Kishtwar wherein power from hydro projects in Chenab projects in J&K may get pooled. Ratle project would also be integrated to the composite scheme, therefore equipment rating at Ratle HEP should be designed with 4000 Amps switchyard rating.

POWERGRID also informed that due to the change in capacity of Ratle project by more than 100 MW, the applicant would have to apply again for connectivity. It was agreed that after receipt of revised connectivity application connectivity would be granted.

NRLDC stated that possibility of operating in synchronous mode must be looked into.

After discussion following was agreed:

- The applicant would apply again for connectivity with revised generation capacity
- Provision for 1X125MVAR 3 phase/ 2x80 MVAR reactor on single bay/ 3x42 MVAR single phase bus reactor would be provided at Ratle.
- Space provision of two nos. of 400kV line bays at generating station for evacuation of power from future upstream projects.
- Switchyard capacity of the generation switchyard should be equivalent 4000 Amps
- The equipment shall be designed for short circuit level of 50kA.
- For connectivity and LTA following scheme is proposed
  - LILO of one circuit of Dulhasti-Kishenpur 400 kV D/c (Quad) line (single circuit strung) at Ratle HEP.
  - Kishenpur-Ratle 400kV S/c (Quad) (second circuit of Dulhasti-Kishenpur 400kV to be strung from Kishenpur end upto Ratle HEP)
- Long term Access was agreed to be granted for 690MW as per the request from applicant.
- Possibility of operating in synchronous mode may be looked into.
- All Conditions as applicable listed in Annexure –I would be applicable.

## 2. Connectivity to 120 MW Miyar HEP of M/s Miyar Hydro Electric Power Company Ltd. (M/s Moser Baer Projects Pvt. Ltd. as Promoter) in Himachal Pradesh.

POWERGRID informed that M/s Miyar Hydro Electric Power Company Ltd. has applied for Connectivity of their 120MW(3\*40MW) Miyar HEP project at Udaipur, Lahaul & Spiti Distt. in Himachal Pradesh. As per the application, connectivity of the project is required by September 2015(Tentative).

Member(PS), CEA enquired about the status of the generation plant. Representative of Moser Baer explained that DPR for Miyar was submitted to CEA on 29th April 2011, EAC had recommended granting of Final Environmental Clearance on 12th November 2011, FAC had recommended diversion of Forest Land on 29th Nov 2011, Section-4 for acquisition of private land had been notified and acquisition was expected by May 2012 and they would be commissioning the 1st unit by June 2016.

POWERGRID informed that a master plan has been developed for evacuation of power located in Chanderbagha basin of Himachal Pradesh. The master plan envisages a common transmission corridor for the various hydro projects. Details of Master Plan were discussed 30<sup>th</sup> Standing Committee Meeting of Power System Planning of Northern Region and are given in the Minutes of 30<sup>th</sup> Standing Committee Meeting. As per the master plan, the connectivity to Miyar is to be provided as given below:

### **Miyar HEP(120 MW)**

- Step up of Miyar generation at 400 kV level
- 400 kV D/c Line (Twin HTLS-Adequate for about 2000 MW) from Miyar to the site of 400 kV Pooling Station near Sissu /Gramphu (Pooling Station shall not be constructed during this time frame) - **Proposed Implementation as ISTS**
- From site proposed near Sissu/Gramphu Pooling Station – Hamirpur 400 kV D/c (Triple HTLS – adequate for 2500 MW capacity) – For this line section, Rohtang Pass is to be crossed. There is about 8-10 feet of snow at Rohtang Pass during winters and working season is very less. For implementation of overhead line, SASE and some international expert would have to be involved - - **Proposed Implementation as ISTS**
- Provision of 50 MVAR Bus Reactor at Miyar (incase of transportation limitations, single phase units may be provided).

After discussion following was agreed:

- Connectivity to Miyar HEP may be granted. Details of the system given above
- The equipment to be provided at the generating switchyard shall be equivalent to the transmission line capacity being provided.
- The scheme shall be as per system mentioned above.
- The applicant shall apply for LTA.
- All Conditions as applicable listed in Annexure –I would be applicable.

### **3. Connectivity to 320 MW (now revised to 400 MW) Seli HEP of M/s Seli Hydro Electric Power Company Ltd. (M/s Moser Baer Projects Pvt. Ltd. as Promoter) in Himachal Pradesh**

POWERGRID informed that M/s Seli Hydro Electric Power Company Ltd. has applied for Connectivity of their 320MW(4\*80MW) Seli HEP project at Udaipur, Lahaul & Spiti Distt. in Himachal Pradesh. As per the letter from the applicant, the tentative commissioning schedule (unit wise) of the units is given as end of 2015/early 2016.

Member (PS), CEA enquired about the status of the generation plant. For Seli HEP, Moser Baer explained that earlier the project capacity was 320 MW, however after detailed investigations, the project size has been revised to 400 MW. It was further stated that DPR was submitted to CEA on 12th Dec 2011, Final Environment Clearance expected by July 2012, Acquisition of private land expected by June 2012 and they would be commissioning the 1st unit by October 2017.

POWERGRID informed that a master plan has been developed for evacuation of power located in Chanderbagha basin of Himachal Pradesh. The master plan envisages a common transmission corridor for the various hydro projects. Details of Master Plan were discussed in 30<sup>th</sup> Standing Committee Meeting of Power System Planning of Northern Region and are given in the Minutes of 30<sup>th</sup> Standing Committee Meeting. POWERGRID informed that Seli HEP is in close proximity to Miyar and for providing connectivity following was proposed:

#### **Seli HEP(400 MW) :**

- Step up of Seli generation at 400 kV level
- LILO of one circuit of Miyar – Hamirpur (via Rohtang) 400 kV D/c line (Twin HTLS) at Seli - ***Proposed Implementation as ISTS***
- Provision of 80 MVAR Bus Reactor at Seli (incase of transportation limitations, single phase units may be provided).

After discussion following was agreed:

- Connectivity to Seli HEP may be granted. Details of the system given above.
- The equipment to be provided at the generating switchyard shall be equivalent to the transmission line capacity i.e. 2000 MW.
- The scheme shall be as per system mentioned above.
- The applicant shall apply for LTA.
- All Conditions as applicable listed in Annexure –I would be applicable.

### **4. Long term Open Access to Chango Yangthang(140MW) project of M/s Malana Power(MPCL) in Himachal Pradesh**

POWERGRID stated that M/s Malana Power Company Limited had applied for Long term Open Access in ISTS for transfer of 140 MW of power from Chango Yangthang HEP (2x70 MW) to be set up in Spiti Valley in Himachal Pradesh.

Member(PS), CEA enquired about the status of the generation plant. M/s Malana Power Company Limited has intimated that Chango Yangthang HEP would be 140 MW (3X46.67

MW) hydroelectric merchant power plant with March 2017 as commissioning schedule. The DPR has been submitted to CEA for concurrence, and the same is expected by March/April 2012. Thereafter, the Environment clearance would be sought and Land acquisition would be taken up.

POWERGRID informed that the application had also been discussed in the Long term Open Access Meeting held on 29/12/2010 at Gurgaon along with 29<sup>th</sup> Standing Committee Meeting of Northern Region. The project is located in the Spiti basin of Himachal Pradesh. To firm up the transmission system for evacuation of power from Chandrabhaga basin and upper part of Satluj Basin & Spiti valley, it was decided to constitute a Special Task Force having representatives from HPPCL, HPPTCL, CEA and POWERGRID to study and revise the master plan for Spiti valley. Task force visited the Spiti basin and revised the master plan. The details of Master Plan of transmission alongwith the phasing of works have been given in the **Minutes** of 30<sup>th</sup> Standing Committee Meeting of Power System Planning of Northern Region. As per the master plan, LTOA to Chango Yangthang was agreed to be provided as given below:

- Chango Yangthang – Proposed site of Ka Dogri Pooling Station 220 kV D/c line – **to be developed by generation developer**
- Proposed Site of Ka Dogri – Jangi Pooling Station 400 kV D/c line (Twin Moose) to be initially charged at 220 kV – **To be developed as ISTS scheme as this would be a common transmission corridor**
- Provision of 3<sup>rd</sup> 400/220 kV ICT (3 nos. of 105 MVA Single Phase units) at Jangi Pooling Station – **To be developed as ISTS scheme**
- *Establishment of Jangi Pooling station has been proposed as ISTS scheme in the time frame of Kashang-III, IV and Tidong-II.*

After discussion following was agreed:

- As Chang Yangthang is to be directly connected to ISTS they would apply for Connectivity. After receipt of connectivity application, connectivity would be granted.
- Long Term Access to Chang Yangthang HEP may be granted.
- Chango Yangthang – Proposed site of Ka Dogri Pooling Station 220 kV D/c line shall be taken up by the generation developer.
- Proposed Site of Ka Dogri – Jangi Pooling Station 400 kV D/c line (Twin Moose) to be initially charged at 220 kV, to be developed as ISTS scheme as this would be a common transmission corridor. Jangi Pooling station-Wangtoo substation 400 kV line shall be taken up as ISTS.
- All Conditions as applicable listed in Annexure –I would be applicable.

##### **5. Connectivity to 50MW Solar PV Project of M/s Moser Baer Powergen Ltd. in Rajasthan.**

POWERGRID informed that M/s Moser Baer Powergen Limited (MBPGL) as a lead generator, along with M/s Moser Baer Power Structures Limited (MBPSL), has applied for Connectivity for capacity totaling to 50MW(2X25MW) Solar PV project in Village Kuraj, Distt. Rajsamand, Rajasthan. As per the application, the connectivity for the project is required by 30<sup>th</sup> September 2012.

Applicant stated that at present project has been deferred. Hence, the application was considered to be closed.

## **6. Long Term Access to 40MW Solar PV Project of M/s Dahanu Solar Power Pvt. Ltd. in Rajasthan.**

POWERGRID informed that M/s Dahanu Solar Power Private Limited (DSPPL), a wholly owned subsidiary of Reliance Power Ltd., has applied for Long term Access for 33MW from 40MW Solar PV Power Plant in the Village Dhursar, Tehsil Pokaran, Distt. Jaisalmer, Rajasthan. As per the applicant Reliance Infrastructure Limited (RIL) has signed an Energy Purchase Agreement (EPA) for drawl of 33 MW power at Maharashtra. As per the LTA application, the SPV Project is scheduled for commissioning in February 2012. LTA for the project is required from 15<sup>th</sup> February 2012 for 25 years. The connectivity from the Solar PV project of M/s Dahanu Solar Power Pvt. Limited (DSPPL), has been agreed by RVPN through its proposed 220/132 kV Degchu GSS.

It was discussed and agreed that M/s Dahanu Solar Power Pvt. Ltd's 33MW power can be evacuated to ISTS network in Rajasthan through existing and planned inter connection point of STU network with ISTS. The power can be evacuated to Maharashtra with the existing/under construction system. Accordingly, it was agreed that M/s Dahanu Solar Power Pvt. Ltd. may be granted LTA.

After discussion following was agreed:

- LTA for transfer of 33MW beyond ISTS connection point in Rajasthan to ISTS connection point in Maharashtra may be granted.
- The applicant will submit the NOC from the states as per prescribed format.
- Long term Access is being processed subject to approval of WR members.
- All Conditions as applicable listed in Annexure –I would be applicable.

## **7. Connectivity of M/s Nabha Power Limited in Punjab**

POWERGRID informed that M/s Nabha Power Limited had applied for Connectivity for expansion of their Nabha generation project by 700MW. As per the application, the connectivity for the project is required by August'14. During last LTA meeting, it was agreed that "as the proposed generation is an expansion unit, hence the lines, already being implemented from the generation project would provide connectivity for the generation. Additional lines required, if any, for evacuation of power from the generation would be looked into with the Long term Access application. M/s Nabha Power Ltd. was advised to submit the LTA application".

Nabha Power Ltd. informed that the project schedule would be postponed by at least another year on account of delay in availability of environment clearance for the expansion unit.

It was discussed and agreed that the 700MW generation would be an expansion in the under construction generating station of Nabha. PSTCL is already constructing transmission lines from the generating station. Hence, required connectivity to the Grid would be through these lines. Accordingly, it was agreed that connectivity may be granted

subject to following:

- The connectivity of the unit shall be available through PSTCL system.
- The applicant shall apply for Long Term Access
- All Condition as applicable listed in Annexure –I would be applicable.

#### **8. Enhancement of Connectivity of M/s Shree Cement Limited from 300MW to 362MW**

POWERGRID stated that the 300MW generation Plant at Beawar of M/s Shree Cement Limited is connected to the ISTS through Loop in Loop out of 400 kV Kota-Merta line at Beawar. POWERGRID further informed that M/s Shree Cement Ltd. now intend to connect 62 MW power plant at Beawar with 300MW power plant, thereby enhancing the connected capacity to 300MW to 362 MW.

M/s Shree Cement Ltd. has indicated that they have 62 MW existing power plant at Beawar and 197 MW at Ras which is about 30 km away from Beawar and the two locations are integrated through 132kV feeder. The power plant at Beawar fulfils the captive load of cement plant and the surplus power is evacuated into RRVPN through the use of the 132kV dedicated feeder. The proposed integration of 62 MW with 300MW generation would help in meeting requirements of outages/contingencies of auxiliary equipment as per the applicant. The applicant would also use this enhanced capacity to export power from the 62 MW power plant through ISTS grid.

POWERGRID stated that as per the detailed procedure of Grant of Connectivity, the additional connectivity cannot be given for the same capacity. The representative of Shree Cement applicant informed that they intend to enhance the connectivity to 362 MW from 300 MW and for this enhanced connectivity; they are willing to isolate generating units from RVPNL system.

RVPNL stated that they do not have any objection for enhanced connectivity, however M/s Shree Cements would have to isolate their machines with RVPNL grid and in no conditions power should flow to their system. Based on detailed deliberations, it was discussed and agreed that the Enhancement of Connectivity of M/s Shree Cements from 300 to 362MW could be agreed subject to:

- No Objection Certificate from RRVPNL.
- The Shree Cement shall isolate the generating units from RVPNL system.

#### **Item no-9: Connectivity to M/s Noida Power Company Limited, for drawl of 500 MW power from ISTS at Greater Noida, in Uttar Pradesh.**

POWERGRID informed that M/s Noida Power Company Limited had applied for Connectivity to ISTS for drawl of 500MW power for distribution in Noida in Uttar Pradesh. As per the application, the connectivity for the project is required by April 2014. For providing connectivity it was proposed to LILO Dadri – Greater Noida 400 kV circuit at Greater Noida (New) alongwith the establishment of a new 2x500 MVA, 400/220 kV substation at Greater Noida.

Member (PS), CEA stated that presently the power supply to the applicant is through the STU network. Intrastate Transmission should be taken up in coordination with the UPPTCL (STU) in order to develop an optimal transmission system. In this case, views of UPPTCL are necessary. As representative from UPPTCL was not available, it was decided that observations / concurrence of UPPTCL would be taken.

**Item no-10: Connectivity & LTA to M/s Gama Infraprop (P) Ltd., for transfer of 337.5 MW power from their Gas Based CCPP at Kashipur, in Uttarakhand.**

POWERGRID stated that M/s Gama Infraprop(P) Limited, had applied for Connectivity for 358MW(Phase-I: 225MW and Phase-II: 133MW) & Long term Access for 258MW (100MW to State Uttarakhand from Phase-I). The application was discussed in the Connectivity/ Long term Access Meeting held on 29/12/2010 at Gurgaon alongwith 29<sup>th</sup> Standing Committee Meeting of Northern Region. During the meeting, it was agreed to grant Connectivity & Long-term Access to M/s Gama Infraprop(P) Ltd. The applicant was to submit Bank Guarantee for the 258 MW. Further clarifications regarding capacity addition and Long Term access had been sought.

POWERGRID informed that recently, the applicant has given a new application for Long Term Access with effect from 31/03/2012 for transfer of 50 MW of power.

For connectivity of the project, Gama Infraprop (P) Ltd. had already made an application to PTCUL and requested to PTCUL to grant the connectivity with LILO of Kashipur – Pant Nagar 220 kV S/c line. PTCUL informed that connectivity to M/s Gama Infraprop (P) Ltd. shall be provided by them with LILO of Kashipur – Pant Nagar 220 kV S/c line.

M/s Gamma also informed that due to prevailing gas scenario they have decided not to go for expansion of second phase accordingly would like to take Long term access for total 50 MW.

It was discussed and agreed that Long Term Access for 50 MW could be granted for transfer beyond Kashipur, subject to following

- The applicant will submit the NOC from STU, i.e. PTCUL, in standard format to POWERGRID. Intimation to LTA shall be issued only after receipt of the same.
- Connectivity & Long Term Access application earlier applied to POWERGRID by M/s Gama Infraprop(P) Limited were closed.
- Long term Access was agreed to be granted subject to the availability of following scheme:
  - Kashipur–Roorkee–Saharanpur 400 kV D/c (Quad)
- All Conditions as applicable listed in Annexure –I would be applicable.

**Item no-11: Long term Access for power project of M/s Beta Infratech (P) Limited**

POWERGRID stated that M/s Beta Infratech (P) Limited had applied for Connectivity and Long term Access for their Generation project at Village Mahuakhera Ganj, Distt. Udham Singh Nagar in Uttarakhand. The applicant had applied LTA for 50 MW, from March, 2012. The application was discussed during the last Connectivity and Long Term Access meeting held on 29/12/2010 and Long term Access was agreed. However, since the applicant had not submitted the Bank Guarantee as per required format it was decided to close the application.

It was also informed that keeping in view the changed scenario of LTA of M/s Beta as well as of M/s Gama (the LTA quantum had been reduced), it was proposed that new substation at Kashipur might be taken up in future, based on requirement. Members agreed for the same.

**Item no. -12: Connectivity of Tanda (2\*660MW) Power Project of M/s NTPC Limited in Uttar Pradesh.**

POWERGRID stated that NTPC Limited has applied for Connectivity of their 1320 MW Tanda Thermal Power Project(2\*660MW), in District, Ambedkar Nagar, Uttar Pradesh and as per the application, connectivity is required by 3<sup>rd</sup> Quarter of 2015-16. LTA application is yet to be received.

Tanda is an existing generating substation of NTPC with an installed capacity of 440 MW. Evacuation of power is through 220kV lines. Step up voltage of the proposed generation is at 400kV. In the 26<sup>th</sup> Standing Committee of Meeting of NR held on 13/10/2008, the Intra-state Transmission System in Uttar Pradesh was discussed where in following scheme was discussed for Tanda:

- Tanda – Gonda 400kV quad D/C line
- Gonda – Shahjahanpur(PG) – 400kV quad D/C line
- A new regional 400kV s/s at Shahjahanpur with 2x315 MVA 400/220kV is being proposed to be established by PGCIL in lieu of Hapur. The s/s is proposed by LILO of both circuits of Lucknow(PG) – Bareilly (PG) 400kV D/c line.
- LILO of Azamgarh – Sultanpur 400kV line at Tanda
- Establishment of 400kV substation at Gonda with 400/220kV 2x315 MVA ICTs

The above transmission system was evolved considering that the power from the project is to be allocated to Uttar Pradesh.

M/s NTPC informed that allocation to UP including unallocated share would be about 63%. Remaining power is to be transferred to the other constituents in Northern region.

For connectivity, it was agreed that connectivity could be provided through 2x315MVA, 400/220kV ICT at Tanda to connect the proposed generation at 400kV with existing 220kV bus. The 2x315MVA, 400/220kV ICTs at Tanda would provide required connectivity to the grid.

For evacuation, although the system has been discussed, revised system studies would need to be carried out based on information like beneficiary, Quantum & revised network configuration etc. Strengthening would be evolved in case of constraint under base case or contingency conditions. The study would be carried out after receipt of Long term Access application.

After discussion it was agreed that Connectivity may be granted through 2x315MVA, 400/220kV ICT at Tanda subject to:

- A provision of 1X125 MVAR Reactor to be kept at Tanda Generating Station
- For evacuation of power to different beneficiaries, LTA application would be made.
- All Conditions as applicable listed in Annexure –I would be applicable.

**Item no. -13: Connectivity and LTA of 500 MW Unchahar Power Project of M/s NTPC Limited in Uttar Pradesh.**

POWERGRID informed that NTPC Limited had applied for connectivity and Long Term Access for 495.78 MW from their 1X 500 MW Feroze Gandhi Unchahar TPP (FGUTPP-IV) in District Raebareli, Uttar Pradesh. NTPC informed that the generation is coming up in existing plant premises & the commissioning schedule would be March 2015.

POWERGRID stated that as per NTPC application, LTA has been requested for 25 years and the beneficiaries along with quantum allocated are: UPPCL (167.38MW), UPCL (23.19MW), Delhi Discoms (72.39MW), Haryana Discoms (33 MW), Rajasthan Discoms(64.67 MW), HPSEB(18.91 MW), PDD(38.4MW), EDC(Union Territory of Chandigarh)(3.46MW). Unchahar TPS is an existing generating station with an installed capacity of (1050 MW). Evacuation of power is at 220kV. As per the application, the step up voltage of the generator is at 400kV & the proposed generating station is 1km away from existing generating station.

POWERGRID informed that Unchahar new generation cannot be connected to existing generation by 400/220kV transformers. As, while evolving transmission system for Unchahar-III, there were overloading in 220KV due to which Unchahar - Raibareilly third circuit was planned. Connection of the new generation to existing generation may lead to additional injection of power into 220kV system and may overload the system.

It was discussed and agreed to connect the new generation directly to Fatehpur 765/400kV Substation of POWERGRID through 400kV D/c. Fatehpur is a major substation in Northern region. Beyond Fatehpur, there exist two numbers of 765kV Lines to Agra. Agra is also well connected with high capacity 400kV and 765kV lines. Hence, no constraint is envisaged in evacuation of power beyond Agra.

**Connectivity**

Connectivity to Unchahar 500 MW generation of M/s NTPC Limited was agreed to be granted subject to following:

- Connectivity shall be through Unchahar-Fatehpur 400kV D/c line - The Line shall be put up before Empowered Committee for tariff based bidding
- A provision for 1X80 MVAR Reactor would be kept at Generating Station
- All Conditions as applicable listed in Annexure –I would be applicable.

**Long term Access**

For transfer of power to various beneficiaries, Unchahar-Fatehpur 400kV D/c agreed for connectivity shall be utilized.

- Long term Access was agreed to be granted subject to the following:
- Regarding transmission charges NTPC stated that constituents would bear the transmission charges instead of NTPC. After deliberations it was agreed that beneficiaries shall bear all applicable transmission charges as per CERC norms for transfer of power.
- All Conditions as applicable listed in Annexure –I would be applicable.

**Item no. -14: Connectivity of new CCPP-I(1050MW) generation of M/s NTPC Limited at existing Badarpur Thermal Power Station, in Delhi.**

POWERGRID informed that NTPC Limited, had applied for connectivity of their new CCPP-I generation(1050MW) coming up in the existing premises of Badarpur Thermal Power Station in Delhi and as per application, connectivity is required by 2013-14. NTPC stated that they could not inform the firm commissioning schedule at present.

Badarpur is an existing generating station of NTPC (Stage-I -3X95 MW, Stage-II -2X210 MW). Evacuation of power is at 220kV through five numbers of 220kV D/c lines. For the new CCPP-I generation(1050MW) of NTPC, the step up voltage of the generation is 400kV and nearest substation is existing 220kV Badarpur Thermal Stage-I generation switchyard. It was discussed that Delhi is already facing high short circuit levels. The situation is further aggravated by Right of Way constraint. Hence system studies would be carried out to analyze if the proposed generation can be evacuated with existing/under construction transmission system. Strengthening would be evolved in case of constraint under base case or contingency conditions. The study would be carried after finalizing the commissioning schedule and LTA application is received with requisite information.

NTPC informed that presently they had applied only for connectivity and the same may be granted. Long Term Access may be considered separately by CTU, once Long term Access application is made to CTU.

After discussion, connectivity was agreed by installing 1x315 MVA, 400/220kV ICT at Badarpur to connect proposed generation at 400kV with existing 220kV bus.

- A provision for 1X125 MVAR Reactor would be kept at Generating Station
- M/s NTPC may inform the schedule and apply for LTA
- All Conditions as applicable listed in Annexure –I would be applicable.

**Item no. -15: Connectivity & LTA of Gidderbaha (4x660MW) MW Power Project of M/s NTPC Limited in Punjab.**

POWERGRID stated that NTPC Limited had applied for connectivity for 2640 MW and Long Term Access for 2617.74 MW from their 2640 MW Gidderbaha STPP project (4x660MW), in District Muktsar, Punjab. NTPC informed that due to land & fuel issues, the project has been deferred and they would revert when there is a progress and the application may be kept in hold. Accordingly it was agreed that application of Gidderbaha generation project may be considered on hold and shall be reconsidered up after communication from NTPC.

**Item no-16: Transmission system for Singrauli-III TPS (500 MW)**

POWERGRID stated that as discussed in the 29<sup>th</sup> Standing Committee Meeting of Power System Planning of Northern region Transmission Planning, NTPC is implementing Singrauli STPP Stage-III (500 MW) in UP with Northern region beneficiaries. The project is likely to be commissioned in 2013-14. It was informed that the present available system would not be adequate to evacuate power from this project. Following transmission scheme was agreed for evacuation of power from Singrauli-III TPS:

- Singrauli-Allahabad 400kV S/c

➤ Allahabad-Kanpur 400kV D/c

During the 29<sup>th</sup> SCM, it was informed that “NTPC has applied for connectivity; however it is suggested that they may apply for LTA, before taking up of implementation of above lines”. POWERGRID informed that NTPC is yet to apply for LTA and LTA application is necessary to take up the associated transmission project. NTPC was requested to apply for the same in order to avoid delay in matching transmission system for evacuation of power. NTPC informed that there are certain issues and project had been deferred. NTPC would apply for LTA when there is a progress of generation project. POWERGRID stated that the action for implementation of the system would be initiated after receipt of LTA application.

## Annexure-I

### Connectivity:

- Applicant shall abide by all provisions of the Electricity Act, 2003, CERC (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State transmission and related matters) Regulations, 2009, Central Electricity Authority (Technical Standards for connectivity to the Grid) and Indian Electricity Grid Code as amended from time to time.
- Connectivity is for Connection with the grid. For evacuation, additional system studies may need to be carried out based on information like beneficiary, Quantum & revised network configuration etc. Strengthening would be evolved in case of constraint under base case or contingency conditions. The study would be carried out after receipt of Long term Access application.
- Connectivity shall be as per the Detailed Procedures of Central Transmission Utility (POWERGRID) for Grant of Connectivity, Long-term Access and Medium-term Open Access to Inter-State Transmission and all provisions regarding connectivity would have to be met.
- Applicant shall furnish additional details for signing Connection Agreement for the same and would sign the Connection Agreement as per the provisions of Connectivity.

### Long term Access

- Applicant/beneficiaries as applicable shall bear all applicable transmission charges as per CERC norms for transfer of power.
- Applicant/beneficiaries as applicable shall sign the requisite Long Term Access Agreement and TSA for Northern Regional Transmission system charges w.e.f. the date of start of Long term Access up to the period for which the Long term Access has been sought.
- Applicant shall have to firm up exact destination at least 3 years prior to the intended date of availing LTA at least for a capacity equivalent to 50% of the quantum of power for which LTA has been sought for through signing of PPA with such grid connected entities/STUs as per CERC Regulations 2009. If the open access is required before three years the applicant may finalize and intimate the beneficiaries immediately
- The applicant/beneficiary shall abide by all provisions of the Electricity Act, 2003, CERC(Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State transmission and related matters) Regulations, 2009, Approved Detailed procedure of CTU, CEA (Technical Standards for connectivity to the Grid) and Indian Electricity Grid Code as amended from time to time.
- The Long term Access shall be as per the Detailed Procedures of Central Transmission Utility (POWERGRID) for Grant of Connectivity, Long-term Access and Medium-term Open Access to Inter-State Transmission and all provisions regarding LTA would have to be met.

## Annexure-II

### List of participants for the Connectivity/Long term Access meeting held on 19.12.2011 at NRPC, New Delhi

	<b>Name</b>	<b>Designation</b>
<b>CEA</b>		
1.	Sh. Ravinder	Member (PS)
2.	Sh. K.K.Arya	Chief Engineer I/c (SP&PA)
3.	Sh. B. K. Sharma	Director (SP&PA)
4.	Sh. Rajeev Kumar	Deputy Director (SP&PA)
<b>NRPC</b>		
1.	Sh. P.K. Pahwa	Member Secretary I/c
<b>PGCIL</b>		
1.	Sh. Pankaj Kumar	ED (Engg.)
2.	Sh. S. C. Singh	GM (NR-II)
3.	Sh. Mukesh Khanna	DGM (Engg)
4.	Sh. Vibhay Kumar	DGM
5.	Sh. Thyagrajan	CDE(Engg.)
6.	Ms. Rashmi Joshi	Sr. Engineer
7.	Ms. Ankita Singh	Engineer
<b>NTPC</b>		
1.	Sh. S. K.Patnaik	GM (PP&M)
2.	Sh. V.K.Padha	GM (Comm.)
3.	Sh. Abhijit Sen	AGM (Project Engg.)
4.	Sh. S.S.Mishra	DGM (Engg.)
5.	Sh.P.K.Goyal	DGM(PP&M)
6.	Sh. Shankar Saran	DGM (Comm.)
7.	Ms. Shilpa Agarwal	DM (Comm.)
<b>NHPC</b>		
1.	Sh. M.S.Babu	ED
2.	Sh. Rajeev Kumar	AM
<b>DTL</b>		
1.	Sh. Raj Bhartiya	ED (Tech.)
2.	Sh. Roop Kumar	GM (SLDC)
3.	Sh. A.C.Agrawal	DGM (Plg.)
4.	Sh. Pankaj Kr, Vijay	Manager (Plg.)
<b>RRVPNL</b>		
1.	Sh. B.N. Saini	Director (Operation)
2.	Sh. L.N. Nimawat	SE (P&P)
3.	Ms. Sona Shishodia	Addl. Ex. Engr.
<b>HVPNL</b>		
1.	Sh. R.K.Arora	Director (Tech.)

2. Sh. C.D.Sangwan Ex. Engr (Plg.)

**HPPCL**

1. Sh. B.S.Negi DGM

**HPPTCL**

1. Sh. V.K. Kaprate Director  
2. Sh. Sandeep Sharma Sr. Mgr.

**PSTCL**

1. Sh. R.K.Sharma CE (Planning)  
2. Sh. B.S.Sandhu Deputy CE  
3. Sh.Akshay Kumar Sr. Ex. Engr.

**J&K**

1. Sh. A.R.Tak Advisor

**NPCIL**

1. Sh. R.K.Oke CE (Trans.)

**PTCUL**

1. Sh. Kamal Kant GM (C&R)  
2. Sh. S.C. Bhasin GM (Proj.)  
3. Sh. A.K.Agrawal DGM

**NLDC**

1. Sh. Narasimhan DGM  
2. Sh. Amandeep Singh Sr. Engr.  
3. Sh. Nripen Mishra Engineer

**Dahanu Solar Power Ltd.**

1. Sh. A.K.Asthana Advisor

**Shree Cement Ltd.**

1. Sh. S.S.Khandelwal Company Secy  
2. Sh. Umesh Gupta Advisor  
3. Sh. Amarjit Singh Addl GM  
4. Sh. Sudhakar Pandey DGM

**Nabha Power Ltd**

1. Sh. Shailesh Agrawal DGM

**Noida Power Co Ltd**

1. Sh.S.Ganguly DGM-Proj  
2. Sh.Rajiv Goyal DGM – OPS

**Moser Baer Projects**

1. Sh. Ravi Arya AVP  
2. Sh.S.K.Khare Sr. V.P  
3. Sh.Rajan Saklani GM

**Gamma Infra Prop Ltd**

- |     |                  |         |
|-----|------------------|---------|
| 1 . | Sh. Rahul Goyal  | MD      |
| 2.  | Sh Satwant Singh | VP      |
| 3.  | Sh.R.K.Sharma    | Sr. Mgr |

**Malana Power Ltd**

- |     |                   |            |
|-----|-------------------|------------|
| 1 . | Sh. C.P.Bhatnagar | GM (Comml) |
| 2.  | Sh S.B.Chaubey    | Advisor    |

**GVK**

- |     |                |            |
|-----|----------------|------------|
| 1 . | Sh. R.K.Grover | Consultant |
|-----|----------------|------------|