

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



पावरग्रिड

केन्द्रीय कार्यालय : "सौदामिनी" प्लॉट सं. 2, सैक्टर-29, गुडगाँव-122 001, हरियाणा  
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संदर्भ संख्या/Ref. Number

C/ENG/SEF/N/C/ LTA

December 13, 2011

As per the list attached

**Sub: Meeting for Connectivity/ Long term Access for Northern region.**

Sir,

The Connectivity/ Long term Access meeting for Northern Region has been scheduled to be held on 19<sup>th</sup> December at 3:00 P.M at NRPC Conference Hall after the 30<sup>th</sup> Standing Committee Meeting of Northern Region Transmission Planning. The agenda note has been uploaded on POWERGRID website: [www.powergridindia.com](http://www.powergridindia.com).

It is kindly requested to attend or depute your representative for attending the meeting. It is also requested to confirm your participation by email at [mkhanna@powergridindia.com](mailto:mkhanna@powergridindia.com).

Thanking You,

Yours faithfully,

  
(Pankaj Kumar)

Executive Director (SEF, CE, IT & ERP)

### 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), PCTCL, Head Office, The Mall, Patiala-147001	8. Director (Transmission), 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 Rattle 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, 1 <sup>st</sup> 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

**Agenda for Connectivity/Long term Access to Generation projects in Northern Region.**

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POWERGRID has received Connectivity and Long term Access applications for new generation projects in NR. In addition, there are certain modifications` of already granted Long term Access. The list of the projects to be discussed is given below:

- 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

The Detailed agenda for individual projects is as below:

**Item no. -1: Connectivity and Long term Access of 690 MW Ratle HEP of M/s GVK Ratle Hydro Electric Project Pvt. Ltd. in Jammu & Kashmir.**

**i) Introduction**

In accordance with CERC regulations 2009 for Grant of Connectivity, Long-term Access and Medium-term Open Access in Inter-State Transmission, M/s GVK Ratle Hydro Electric Project Pvt. Ltd., has applied to POWERGRID for Connectivity & Long term Access of their 690MW Ratle HEP (6\*115MW) in J&K. The commissioning schedule of the units is as below:

**Commissioning Schedule:**

Unit-1- Sept.'2016, Unit-2- Oct.'2016,

Unit-3- Nov.'2016, Unit-4- Dec.'2016

Unit-5- Jan.'2017, Unit-6- Feb.'2017

As per the application, the connectivity & LTA for the project is required by 01.09.2016. Copy of the Connectivity & LTA applications is enclosed at **Annexure-1**. As per the LTA application the beneficiaries for the power are PDD, J&K (429MW), Delhi(100MW), Haryana(70MW), Punjab(50MW) & Rajasthan(41 MW).

**ii) Status of Generation**

As per the applicant, the status of generation is as follows:

- **Land acquisition:** As per application, site identification and land acquisition is under process.
- **Environmental Clearance:** Terms of Reference (TOR) approval has been obtained from MOEF on 6<sup>th</sup> Dec.'10 for preparation of EIA & EMP reports. The reports will be submitted by July' 2011 for environmental approval. The approval from MOEF expected by Oct' 2011.
- **Forest Clearance:** Being applied to the GoJK.
- **Fuel arrangement:** Not Applicable.
- **Water linkage:** Not Applicable.

## ii) Connectivity and Long Term Access

As per the application the nearest substation for Connectivity to the generating station is existing 400/220 kV substation at Kishenpur (POWERGRID) (approx. 140 Kms from proposed site). 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 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". Accordingly, following is proposed for connectivity and LTA:

- 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 400 kV to be strung from Kishenpur end upto Ratle HEP)
- 1X125 MVAR Reactor at Ratle HEP.
- 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 to the capacity of Quad Conductor line.

## iv) Proposal:

Connectivity & Long term Access of 690 MW generation of M/s GVK Ratle Hydro Electric Project Pvt. Ltd. is proposed subject to following:

### Connectivity:

- Provision of 125 MVAR Bus Reactor at Generating station by the applicant.
- Provision of two nos. of 400 kV line bay at generating station for evacuation of power from future upstream projects.
- The 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.

- The 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.
- The 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**

- Long term Access is being processed subject to the condition that the applicant shall bear all applicable transmission charges as per CERC norms for transfer of power.
- Applicant shall sign the requisite Long Term Access Agreement and TSA for Transmission system charges from Sep 2016 for 25 years.
- The 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, 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.

**Item no.- 2: Connectivity of 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.**

**i) Introduction**

In accordance with CERC regulations 2009 for Grant of Connectivity, Long-term Access and Medium-term Open Access in Inter-State Transmission, M/s Miyar Hydro Electric Power Company Ltd. has applied to POWERGRID for Connectivity of their 120MW(3\*40MW) Miyar HEP project at Udaipur, Lahaul & Spiti Distt. in Himachal Pradesh. The commissioning schedule of the units is as below:

**Commissioning Schedule:**

Unit-1- October 2015(Tentative)

Unit-2- October 2015(Tentative)

Unit-3- October 2015(Tentative)

As per the application, the connectivity of the project is required by September 2015(Tentative). A copy of the application is enclosed at **Annexure-2**.

**ii) Status of Generation**

As per the applicant, the status of generation is as follows:

- **Land acquisition:** As per application, total land requirement is about 76.02 Ha and for that land acquisition case has been submitted to Forest Department and Joint Inspection has been completed.
- **Environmental Clearance:** Terms of Reference (TOR) approval has been obtained from MOEF and EIA & EMP reports have been made. Presentation has been made to HPPCB and Public hearing is due.
- **Forest Clearance:** The proposal has been submitted to the Forest department.
- **Fuel arrangement:** Not Applicable.
- **Water linkage:** Not Applicable.

Applicant to update the information about latest status and commissioning schedule of the generation project.

**ii) Connectivity of Generation**

The project is located in the Chanderbagha basin of Himachal Pradesh. To firm up the



transmission system for evacuation of power from Chandrabhaga basin 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 Chandrabagha Basin. Task force visited the Chandrabhaga basin and revised the master plan. The details of Master Plan have been given in the agenda of 30<sup>th</sup> Standing Committee Meeting of Northern Region Transmission Planning. An application for grant of connectivity for Seli HEP which is in close proximity to Miyar (400 MW-revised from 320 MW) and a common transmission corridor has been planned which includes these two projects also in addition to other projects. As per the master plan connectivity to Miyar & Seli may be provided as given below:

**Seli HEP (400 MW):** Earlier the Project size was 320 MW, however with the Detailed investigations, the project size is being revised to 400 MW.

- 400 kV D/c Line (Twin HTLS-Adequate for about 2000 MW) from Seli 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**

**Miyar HEP(120 MW) :**

- Step up of Miyar generation at 400 kV level
- LILO of one circuit of Seli – Hamirpur (via Rohtang) 400 kV D/c line (Twin HTLS) at Miyar - **Proposed Implementation as ISTS**

**Note :** Incase Miyar comes earlier than Seli, the line from Miyar to Hamirpur (configuration explained under Seli system) may be taken up initially and the same can be extended to Seli.

Accordingly it is proposed to grant the connectivity to the project subject to the following:

- The 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.
- The 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.
- The applicant shall furnish additional details for signing Connection Agreement for the same and would sign the Connection Agreement as per the provisions of Connectivity.

**Item no.- 3: Connectivity for 320 MW Seli HEP of M/s Seli Hydro Electric Power Company Ltd. ( M/s Moser Baer Projects Pvt. Ltd. as Promoter ) in Himachal Pradesh.**

**i) Introduction**

In accordance with CERC regulations 2009 for Grant of Connectivity, Long-term Access and Medium-term Open Access in Inter-State Transmission, M/s Seli Hydro Electric Power Company Ltd. has applied to POWERGRID 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. The applicant may indicate the date from which connectivity is required. A copy of application and the abovementioned letter dated 28/12/10 is enclosed at **Annexure-3**.

**ii) Status of Generation**

As per the applicant, the status of generation is as follows:

- **Land acquisition:** As per application, site identification and land acquisition is under process.
- **Environmental Clearance:** The First level clearance from Ministry of

environment and Forest is obtained.

- **Forest Clearance:** The proposal has been submitted to the Forest department.
- **Fuel arrangement:** Not Applicable.
- **Water linkage:** Not Applicable.

Applicant to update the information about latest status and commissioning schedule of the generation project.

## ii) Connectivity to Generation

The project is located in the Chanderbagha basin of Himachal Pradesh. To firm up the transmission system for evacuation of power from Chandrabhaga basin 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 Chandrabhaga Basin. Task force visited the Chandrabhaga basin and revised the master plan. The details of Master Plan have been given in the agenda of 30<sup>th</sup> Standing Committee Meeting of Northern Region Transmission Planning. An application for grant of connectivity for Seli HEP which is in close proximity to Miyar (400 MW-revised from 320 MW) and a common transmission corridor has been planned which includes these two projects also in addition to other projects. As per the master plan connectivity to Seli may be provided as given below:

**Seli HEP (400 MW):** Earlier the Project size was 320 MW, however with the Detailed investigations, the project size is being revised to 400 MW.

- 400 kV D/c Line (Twin HTLS-Adequate for about 2000 MW) from Seli 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**

**Miyar HEP(120 MW) :**

- Step up of Miyar generation at 400 kV level
- LILO of one circuit of Seli – Hamirpur (via Rohtang) 400 kV D/c line (Twin HTLS) at Miyar - ***Proposed Implementation as ISTS***

**Note :** In case Miyar comes earlier than Seli, the line from Miyar to Hamirpur (configuration explained under Seli system) may be taken up initially and the same can be extended to Seli.

Accordingly it is proposed to grant the connectivity to the project subject to the following:

- The 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.
- The 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.
- The applicant shall furnish additional details for signing Connection Agreement for the same and would sign the Connection Agreement as per the provisions of Connectivity.

**Item no-4: Long term Open Access to Chango Yangthang power project of M/s Malana Power(MPCL) in Himachal Pradesh**

M/s Malana Power Company Limited had applied for Long term Open Access in ISTS for transfer of 140 MW of power from the proposed Chango Yangthang HEP (2x70 MW) to be set up in Himachal Pradesh. The commissioning schedule for generation project is progressively from 01/05/2015. Long-term Open Access had been granted to M/s Malana Power Company Limited(MPCL) for transfer of Chango Yangthang power from a feasible ISTS Grid station i.e. Abdullapur, subject to condition that the company shall

within a month's time indicate the quantum of power, firm commissioning schedule, period of open access and the arrangement for supply of home state power.

The application was 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. It was discussed that, as per the Master plan of HP, power from the Chango Yangthang generation project would be evacuated via Jangi and Sherpa 400/220kV pooling station to Northern regional grid. However, the cost of transmission system even upto Sherpa colony 400 kV station would be very high and it may not be an economical solution for a single project. Chango Yangthang developer is willing to develop the generation, however in the absence of firming up of transmission system they are not making any progress on the project. It was agreed that HPPTCL should develop the transmission system to facilitate the IPPs. The application was put on hold for six months to be discussed again.

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, i.e Spiti basin, 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 Basin. 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 agenda of 30<sup>th</sup> Standing Committee Meeting of Northern Region Transmission Planning. As per the master plan LTOA to Chango Thang may be provided as given below:

- Chango Yangthang – Proposed site of Ka Dogri Pooling Station 220 kV D/c line
- 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 3rd 400/220 kV ICT (3 nos. of 105 MVA Single Phase units) at Jangi Pooling Station – It is assumed that Jangi Pooling station would be available by the time frame of Chango Yangthang

Accordingly it is proposed to grant the connectivity to the project subject to the following:

- Long term Access is being processed subject to the condition that the applicant shall bear all applicable transmission charges as per CERC norms for transfer of power.
- Applicant shall sign the requisite Long Term Access Agreement and TSA for Transmission system charges for 25 years.
- The 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, 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.

The members may discuss and concur.

**Item no-5: Connectivity to 50MW Solar PV Project of M/s Moser Baer Powergen Ltd. in Rajasthan.**

**i) Introduction**

M/s Moser Baer Powergen Limited (MBPGL) as a lead generator, along with M/s Moser Baer Power structures Limited (MBPSL), has applied to POWERGRID 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. The commissioning schedule of the units is as below

**Commissioning Schedule:**

Unit-1- 30<sup>th</sup> September 2012

Unit-2- 30<sup>th</sup> September 2012

A copy of the application is enclosed at **Annexure-4**.

**ii) Status of Generation**

As per the applicant, the status of generation is as follows:

- **Land acquisition:** As per application, total land requirement is approximately 440 acres and for that MOU has been signed with S. R. Construction Co. (Land Arranger) for making the required land available by 31<sup>st</sup> August 2011.

- **Environmental Clearance:** As per MOEF letter Solar Power project are not covered the ambit of EIA notification 2006 and no environment clearance is required for such projects under the provision thereof.
- **Forest Clearance:** Not Applicable.
- **Fuel arrangement:** Not Applicable.
- **Water linkage:** Not Applicable.

## ii) Connectivity to Generation

The project is located in the Village Kuraj, Distt. Rajsamand, Rajasthan. The nearest 400/220kV Kankroli (POWERGRID) substation is at approx. 17 km distance. As per application, the step up voltage of the generator is at 220kV. Hence, connectivity is proposed by 220kV line from generation project to 400/220kV Kankroli substation.

The system is for connectivity with the grid. For evacuation, system studies would need to be carried out based on information like beneficiary, quantum, etc. Studies would be carried out to analyze if the power can be evacuated with existing/under construction system. The study would be carried out after receipt of Long term Access application.

## iv) Proposal:

Connectivity for capacity totaling to 50MW Solar PV project of M/s Moser Baer Powergen Limited (MBPGL), is proposed through 220kV line from the generation project to 400/220kV Kankroli substation, subject to following:

- The 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.
- The 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.
- The applicant shall furnish additional details for signing Connection Agreement

for the same and would sign the Connection Agreement as per the provisions of Connectivity.

**Item no-6: Long Term Access to 40MW Solar PV Project of M/s Dahanu Solar Power Pvt. Ltd. in Rajasthan.**

**i) Introduction**

In accordance with CERC Regulations 2009, M/s Dahanu Solar Power Private Limited (DSPPL), a wholly owned subsidiary of Reliance Power Ltd., has applied to POWERGRID for Long term Access for 33MW from 40MW Solar PV Power Plant in the Village Dhursar, Tehsil Pokaran, Distt. Jaisalmer, Rajasthan. 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. A copy of the application is enclosed at **Annexure-5**.

Connectivity for 33MW 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. .

**iv) Proposal:**

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 M/s Dahanu Solar Power Pvt. Ltd may be granted LTA for transfer 33MW beyond ISTS connection point in Rajasthan to ISTS connection point in Maharashtra , subject to following

- 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.
- Signing of requisite Transmission agreements.
- The applicant/benefiaicary 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.

#### **Item no-7: Connectivity of M/s Nabha Power Limited in Punjab**

M/s Nabha Power Ltd, had applied to POWERGRID for Connectivity of their 700MW. As per the application, the connectivity for the project is required by August'2014. During last meeting it was agreed that "It was deliberated and 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 suggested to submit the LTA application".

Nabha vide letter their letter have indicated on account of delay in availability of environment clearance for the expansion unit, the project schedule is to be postponed by at least another year, **Annexure-6**. In view of above it is proposed that Connectivity may be granted for 1x700 MW of Nabha subject to following

- The applicant shall take up with PSTCL for connectivity
- The applicant shall abide by all provisions of the Electricity Act, 2003, the CERC regulation 2009 (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Central Electricity Authority (Technical Standards for connectivity to the Grid) and Indian Electricity Grid Code as amended from time to time.

#### **Item no-8: Enhancement of Connectivity of M/s Shree Cements from 300 to 362MW**

M/s Shree cements 300MW generation Plant at Beawar is connected to the ISTS through Loop in Loop out of Kota-Merta line at Beawar. Presently M/s Shree cements

vide letter dated 26/11/2011 have submitted that they intend to connect 62 MW power plant at Beawar with 300MW power plant, thereby enhancing the connected capacity to 300MW to 362 MW, **Annexure-7**. As intimated by the applicant they have 62 MW existing power plant at Beawar and 197 MW at Ras about 30 km away. 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. The application has indicated that for the purpose of enhanced connectivity, they are willing to permanently isolate generating units from RVPNL system.

Members may discuss the Enhancement of Connectivity of M/s Shree Cements from 300 to 362MW

**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.**

In accordance with CERC regulations 2009 for Grant of Connectivity, Long-term Access and Medium-term Open Access in Inter-State Transmission, M/s Noida Power Company Limited(NPCL), has applied to POWERGRID 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. A copy of the application is enclosed at **Annexure-8**.

The nearest substation for the Connectivity to ISTS for drawl of 500MW power is the existing Greater Noida which has been constructed by LILO of Dadri – Ballabgarh 400 kV (Quad) line. Greater Noida is an existing substation of UP with 3 nos. of 315 MVA ICTs and is meeting the loads in Noida as well as in Greater Noida area. Considering the concentration of loads in NCR area and for providing connectivity to Greater Noida for 500 MW it is proposed to LILO of Dadri – Greater Noida 400kV Line at Greater Noida (New) S/s alongwith the establishment of a New 2x500 MVA 400/220 kV substation at Greater Noida. There are severe ROW constraints and accordingly it is

proposed that this proposed new substation may be constructed in close proximity to the existing 400 kV line. The system is for connectivity with the grid.

For evacuation, system studies would need to be carried out based on information like source of power, quantum, etc. Studies would be carried out to analyze if the power can be evacuated with existing/under construction system. 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.

**iv) Proposal:**

Connectivity to ISTS for drawl of 500 MW of power by M/s Noida Power Company Limited by LILO of Dadri – Greater Noida at Greater Noida (New) S/s alongwith the establishment of New 2x500 MVA 400/220 kV substation at Greater Noida may be granted subject to following:

- The 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.
- The 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.
- The applicant shall furnish additional details for signing Connection Agreement for the same and would sign the Connection Agreement as per the provisions of Connectivity.

**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.**

M/s Gama Infraprop(P) Limited, had applied to POWERGRID 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 open access sought was under discussion.

Recently vide letter dated 03/12/2011 the applicant has given a new application for Long Term Access for transfer of 50 MW of power with effect from 31/12/2012, **Annexure-9**. For connectivity of the project Gama Infraprop (p) Ltd has made an application to PTCUL and requested to PTCUL to grant the connectivity with LILO of Kashipur – Pant Nagar 220 kV S/c line. In view of the above the long term access may be granted for transfer beyond Kashipur, subject to following

- The connectivity and Long Term Access application applied earlier by M/s Gama Infraprop(P) Limited is being closed.
- Applicant has already applied to PTCUL to grant the connectivity with LILO of Kashipur – Pant Nagar 220 kV S/c line. PTCUL may confirm the same. The applicant may forward the No Objection from STU, i.e. PTCUL, in standard format to POWERGRID. Intimation to LTA shall be issued only after receipt of the same.
- Long term Access is granted subject to the availability of following scheme:
  - Kashipur–Roorkee–Saharanpur 400 kV D/c (Quad)
- The applicant has submitted a Bank Guarantee for the 50 MW which is under scrutiny. The Grant of LTA intimation shall be issued subject to that the Bank Guarantee is per prescribed format.
- It was agreed to grant the LTA subject to signing of the requisite agreements
- 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. As the open access is required before three years the applicant may finalize and intimate the beneficiaries immediately
- The 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, Approved Detailed procedure of CTU, CEA (Technical Standards for connectivity to the Grid) and Indian Electricity Grid Code as amended from time to time.

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

M/s Beta Infratech (P) Limited has applied for Connectivity and Long term Access for their Generation project at Village Mahuakhera Ganj, Distt. Udham Singh Nagar in Uttarakhand. The applicant has applied for 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 Long term Access was agreed. However the applicant has not submitted the bank Guarantee as per required format till date. In view of above it is proposed that the application may be closed.

Keeping in view the changed scenario of LTA of Beta as well as of Gama, as the LTA quantum has been reduced, accordingly it is proposed that a new substation at Kashipur may be taken up in future based on requirement.

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

**i) Introduction**

In accordance with CERC regulations 2009, for Grant of Connectivity, Long-term Access and Medium-term Open Access in Inter-State Transmission, NTPC Limited, has applied to POWERGRID for Connectivity of their 1320 MW Tanda Thermal Power Project(2\*660MW), in District, Ambedkar Nagar, Uttar Pradesh. The commissioning schedule of the units as indicated by the applicant is as below:

Unit-1- 2015-16

Unit-2- 2016-17

As per the application, connectivity of the project is required by Q3(2015-16). A copy of the application is enclosed at **Annexure-10**.

**ii) Status of Generation**

As per the applicant, the status of generation is as follows:

- **Land acquisition:** In principle commitment available. Sec-6 under LA act issued by State Govt.
- **Environmental Clearance:** Public hearing held on 30/09/09. MOEF environment clearance likely to be considered in next EAC meeting.
- **Forest Clearance:** Not Applicable.
- **Fuel arrangement:** Kerandari and Chatti Bariatu coal mines being developed by NTPC.
- **Water linkage:** Clearance available.

### iii) Connectivity of Generation

Tanda is an existing generating substation of NTPC with an installed capacity of 440 MW. Evacuation of power is at 220kV and existing lines include:

- Tanda- Sultanpur 220kV D/c
- Tanda- Basti 220kV S/c
- Tanda- Gorakhpur 220kV S/c

As per application, the step up voltage of the generator is at 400kV and nearest substation is existing 220kV Tanda TPP stage-I generation switchyard. Here it may be mentioned that in the 26<sup>th</sup> Standing Committee of NR held on 13/10/2008 the Intra-state Transmission System in Uttar Pradesh for 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 LucknowPG – 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. However the connectivity application has

been received from NTPC and LTA application is yet to be received. The above planned system may require review.

The connectivity to Tanda generation may be provided by LILO of Azamgarh – Sultanpur 400kV line at Tanda and 2x315 MVA, 400/220kV ICT at Tanda to connect the proposed generation at 400kV with existing 220kV bus. The LILO of Azamgarh – Sultanpur 400kV line at Tanda and 2x315 MVA 400/220 kV ICTs at Tanda shall provide requisite connectivity to the grid.

The above proposed system is for connectivity with 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.

**iv) Proposal:**

Connectivity of 1320 MW Tanda generation of M/s NTPC Limited may be provided through the LILO of Azamgarh – Sultanpur 400kV line at Tanda and Provision of 2x315 MVA, 400/220kV ICT at Tanda to connect the proposed generation at 400kV with existing 220kV bus. The work of providing ICT at Tanda is to be carried out within the applicant generation switchyard, the same may be carried out by the applicant. The connectivity is provided subject to following

- A provision for 1X125 MVAR Reactor to be kept at Tanda Generating Station
- The 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.
- The 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.

- The applicant shall furnish additional details for signing Connection Agreement for the same and would sign the Connection Agreement as per the provisions of Connectivity.

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

**i) Introduction**

In accordance with CERC regulations 2009, for Grant of Connectivity, Long-term Access and Medium-term Open Access in Inter-State Transmission, NTPC Limited has applied to POWERGRID 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. The commissioning schedule of the Stage-VI(unit-6) as indicated by As per the applicant the Cod is 28/02/2015 and LTA has been requested for till 29/2/2040, i.e 25 years. 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)

A copy of the application is enclosed at **Annexure-11 & 12.**

**ii) Status of Generation**

As per the applicant, the status of generation is as follows:

- **Land acquisition:** To be accommodated within existing plant premises.
- **Environmental Clearance:** Application submitted on 29<sup>th</sup> March 2010 to MOEF for TOR approval and in EAC meeting held on 8<sup>th</sup> July 2010 it has been considered favorably.
- **Forest Clearance:** Not Applicable.
- **Fuel arrangement:** Application submitted to MOC on 20.04.2010 for long term coal linkage.



- **Water linkage:** To be met from water commitment available under previous stages by optimizing water consumption.

### **iii) Connectivity & LTA of Generation**

Unchahar is an existing generating substation of NTPC with an installed capacity of (1050 MW). Evacuation of power is at 220kV and existing lines include:

- Unchahar- Kanpur 220kV 2\*D/c
- Unchahar- Fatehbad 220kV D/c
- Unchahar- Raebareilly 220kV D/c+ S/c

The nearest substation for Connectivity to the generating station is existing 220kV FGUTPP-I/II/III switchyard (approx 1 km route length). As per application, the step up voltage of the generator is at 400kV. Unchahar new generation can be connected to existing generation by 400/220kV transformers. However, 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 additional power into 220kV system and may overload the system. It is proposed to connect the new generation directly to Fatehpur 765/400 kV Substation of POWERGRID through 400kV D/c. Fatehpur is a major substation in Northern region. Beyond Fatehpur, There exists two numbers of 765kV Lines to Agra. Agra is well connected with high capacity 400kV and 765kV lines. Hence no constraint is envisaged in evacuation of power beyond Agra.

### **iv) Proposal:**

Connectivity and Long term Access may be granted to Unchahar 500 MW generation of M/s NTPC Limited, subject to following:

#### **Connectivity:**

- Connectivity shall be through Unchahar-Fatehpur 400kV D/c
- A provision for 1X80 MVAR Reactor would be kept at Generating Station
- The 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.

- The 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.
- The 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**

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

- Long term Access is being processed subject to the condition that the applicant/beneficiaries, bears all applicable transmission charges as per CERC norms for transfer of power.
- Signing the requisite TSA for Northern Regional Transmission system charges from 29.02.2015 for 25 years.
- The 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, 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.

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

### **i) Introduction**

In accordance with CERC regulations 2009, for Grant of Connectivity, Long-term Access and Medium-term Open Access in Inter-State Transmission, NTPC Limited, has applied to POWERGRID for Connectivity of their new CCPP-I generation(1050MW) in the existing premises of Badarpur Thermal Power Station, in Delhi. The number of units as indicated by NTPC is 'upto 6 units based on the module configuration offered'. The commissioning schedule as indicated by the applicant is as below:

Module-1- 2013-14

Module-2- 2013-14

Module-3- 2014-15

As per the application, the connectivity for the project is required by 2013-14. A copy of the application is enclosed at **Annexure-13**.

## ii) Status of Generation

As per the applicant, the status of generation is as follows:

- **Land acquisition:** Expansion project. No additional land is to be acquired.
- **Environmental Clearance:** TOR of EIA study approved by MOEF and EIA study is under progress.
- **Forest Clearance:** Not Applicable.
- **Fuel arrangement:** Matter has been taken up with for allocation of domestic gas, vide NTPC letter dated 08.01.10.
- **Water linkage:** Water requirement shall be met from the existing commitment.

## iii) Connectivity of Generation

Badarpur is an existing generating substation of NTPC (Stage-I -3X95 MW, Stage-II - 2X210 MW). Evacuation of power is at 220kV and existing lines include:

- Badarpur-Sarita Vihar 220kV D/c
- Badarpur-Okhla 220kV D/c

- Badarpur-Mehrauli 220kV D/c
- Badarpur-BBMB 220kV D/c
- Badarpur-Noida(Gajipur, Delhi) & Alwar- 220kV D/c(one circuit to each)

As per application, the step up voltage of the generation is at 400kV and nearest substation is existing 220kV Badarpur Thermal Stage-I generation switchyard. For connectivity it is proposed by install 1x500 MVA, 400/220kV ICT at Badarpur to connect proposed generation at 400kV with existing 220kV bus.

Here it may be mentioned that Delhi is already facing high short circuit levels. The situation is further aggravated by Right of Way constraint. Hence while evolving the transmission in addition to addressing above constraint it should also take into account, the total power to be evacuated, future capacity addition if any, beneficiaries of the project and quantum allocation. Studies would be carried out to analyze if the power can be evacuated with existing/under construction system. 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.

#### **iv) Proposal:**

Connectivity of Badarpur 1050 MW generation of M/s NTPC Limited through installation of 1x500 MVA 400/220kV ICT at is proposed, subject to following:

- As the works is to be carried out within the applicant generation switchyard , the same may be carried out by the applicant
- A provision for 1X125 MVAR Reactor would be kept at Generating Station
- The 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.
- The 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.

- The applicant shall furnish additional details for signing Connection Agreement for the same and would sign the Connection Agreement as per the provisions of Connectivity.

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

**i) Introduction**

In accordance with CERC regulations 2009, for Grant of Connectivity, Long-term Access and Medium-term Open Access in Inter-State Transmission, NTPC Limited has 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. The commissioning schedule of the units as indicated by the applicant is:

Unit-1- 31.03.2015

Unit-2- 30.09.2015

Unit-3- 31.03.2016

Unit-4- 30.09.2016

As per the application, the connectivity of the project is required by March- 2014 (for start up/commissioning power). The date from which LTA is required along with the cumulative quantum of power to be transferred is as follows:

Unit-1- 31.03.2015            654.43MW

Unit-2- 30.09.2015            1308.87MW

Unit-3- 31.03.2016            1963.30MW

Unit-4- 30.09.2016            2617.74MW

As indicated in the application, LTA is required upto 30.09.2041.

The beneficiaries along with quantum allocated are: PSEB(1308.87MW), UPPCL(290.27MW), UPCL(57.13MW), Delhi Discoms(178.38MW), Haryana Discoms(81.37 MW), Rajasthan Discoms(159.36 MW), HPSEB(46.59 MW), PDD(94.61 MW), EDC(Union Territory of Chandigarh)(8.52MW)

A copy of the application is enclosed at **Annexure-14**.

## ii) Status of Generation

As per the connectivity application, the status of generation is as follows:

- **Land acquisition:** In principle availability of 2316 Acres of land has been received from Govt. of Punjab vide letter dated 13/09/10.
- **Environmental Clearance:** A draft Environmental Impact assessment (EIA) report for the project will be prepared. In accordance with the procedure laid down in the EIA notification of 14<sup>th</sup> September, 2006, Punjab Pollution Control Board has conducted Public Hearing.
- **Forest Clearance:** Not Applicable.
- **Fuel arrangement:** Punjab Govt. has applied for coal linkage to MOC on 08.04.2008.
- **Water linkage:** In principle availability of 125 cuses of water has been received from Govt. of Punjab vide letter dated 13/09/10.

## iii) Connectivity & LTA of Generation

As per the applicant, 220kV substation at Muktsar is approximately 40 km from the proposed site. 765/400 kV Moga substation is approximately 120 km from the proposed site. Here it may be mentioned that near by Gidderbaha generation, Talwandi generation is also coming up in the vicinity with a Capacity of 2640 MW. Another major generation coming up in Punjab is Rajpura TPS with a capacity of 2100MW.

For evacuation of power from the Talwandi and Rajpura projects a composite system has been evolved. The broad system was discussed during the 26<sup>th</sup> Meeting of Standing Committee on Transmission planning of Northern region held on 13/10/2008 in Uttarakhand. The details of the scheme are as given below:

### **Talwandi Sabo generation**

- *Talwandi Sabo-Muktsar 400 kV D/c*
- *Muktsar -Makhu 400 kV D/c*
- *Makhu – Amritsar (PGCIL) 400 kV D/c*

- *Talwandi Sabo-Nakodar 400 kV D/c (one circuit via Moga)*
- *Talwandi Sabo-Dhuri 400 kV D/c*
- *Establishment of 2x315 MVA, 400/220 kV substations at Muktsar, Makhu & Nakodar and 2x500 MVA, 400/220 kV substations at Rajpura and Dhuri.*

**Rajpura generation**

- *Rajpura TPS –Nakodar 400 kV D/c*
- *Rajpura TPS – Rajpura 400 kV S/s 400 kV D/c*
- *Makhu – Nakodar 400 kV D/c*
- *Dhuri – Rajpura 400 kV D/c*
- *Establishment of 2x500 MVA, 400/220 kV substations at Rajpura*

The proposed Gidderbaha generation is near Talwandi Generation. Here it might be mentioned that direct connection of the Gidderbaha and Talwandi would result in a generating complex of capacity of about 5280 MW. With transmission line to evacuate power from the projects direct connection it would lead to high short circuit levels. Hence direct connection is not proposed. As indicated in the application about 50% of the LTA quantum, about 1309 MW, is to be transferred out of the state while remaining 50% is for meeting Punjab load. Hence the Gidderbaha generation has to be well integrated with the State Grid and ISTS. While evolving the system the power transfer requirement the power demand of the state needs to be considered. Accordingly following system has been evolved:

- Gidderbaha-Muktsar 400 kV D/c
- Gidderbaha-Fatehbad 400 kV D/c
- LILO of one circuit of 400kV Moga-Hissar line at Gidderbaha
- Makhu-Batala 400 kV D/c
- Batala-Nakodar 400 kV D/c
- LILO of both circuits of Talwandi Sabo-Muktsar 400 kV D/c at Gidderbaha
- LILO of one circuit of Rajpura TPS-Nakodar 400 kV D/c at Dohra
- Augmentation of 1x315 MVA, 400/220 kV transformer at Muktsar
- Establishment of 2x500 MVA, 400/220 kV new substation at Batala
- Establishment of 2x315 MVA, 400/220 kV new substation Dohra
- Talwandi-Mansa TPS 400kV D/c

- Mansa TPS- Mansa S/s 2x400 kV D/c
- Mansa-Barnala-Amloh 400kV D/c
- LILO of one circuit of Rajpura TPS -Nakodar at Amloh
- 2x500 MVA, 400/220 kV new substations at Barnala
- 2x315 MVA, 400/220 kV new substations at Amloh and Mansa

The system would provide the required connectivity and facilitate transfer of power to beneficiaries.

**iv) Proposal:**

Connectivity & Long term Access of Gidderbaha (2640 MW) generation of M/s NTPC Limited is proposed, subject to following:

**Connectivity:**

- Connectivity shall be through LILO of one circuit of Moga-Hissar at Gidderbaha
- A provision for 1X125 MVAR Reactor would be kept at Generating Station.
- Equipment rating of 50kA may be considered at Gidderbaha
- The 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.
- The 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.
- The 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**

- For transfer of power to various beneficiaries following is proposed :



- Gidderbaha-Muktsar 400 kV D/c
- Gidderbaha-Fatehbad 400 kV D/c
- LILO of one circuit of 400kV Moga-Hissar line at Gidderbaha
- Makhu-Batala 400 kV D/c
- Batala-Nakodar 400 kV D/c
- LILO of both circuits of Talwandi Sabo-Muktsar 400 kV D/c at Gidderbaha
- LILO of one circuit of Rajpura TPS-Nakodar 400 kV D/c at Dohra
- Augmentation of 1x315 MVA, 400/220 kV transformer at Muktsar
- Establishment of 2x500 MVA, 400/220 kV new substation at Batala
- Establishment of 2x315 MVA, 400/220 kV new substation Dohra
- Talwandi-Mansa TPS 400kV D/c
- Mansa TPS- Mansa S/s 2x400 kV D/c
- Mansa-Barnala-Amloh 400kV D/c
- LILO of one circuit of Rajpura TPS -Nakodar at Amloh
- 2x500 MVA, 400/220 kV new substations at Barnala
- 2x315 MVA, 400/220 kV new substations at Amloh and Mansa
- Long term Access is being processed subject to the condition that the applicant/beneficiaries, bears all applicable transmission charges as per CERC norms for transfer of power.
- Signing the requisite TSA / TSA for Northern Regional Transmission system charges from 31.03.2015 for 25 years.
- The 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, 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.

**Item no-14: Transmission system for Singrauli-III TPS (500 MW)**

As discussed in the 29<sup>th</sup> Standing Committee Meeting 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” .NTPC is yet to apply for LTA. LTA application is necessary to take up the associated transmission project.