

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड  
(भारत सरकार का उद्यम)  
**POWER GRID CORPORATION OF INDIA LIMITED**  
(A Government of India Enterprise)



केन्द्रीय कार्यालय : "सौदामिनी" प्लॉट सं-2, सेक्टर-29, गुडगाँव-122 001, हरियाणा  
फोन : 0124-2571700-719 फैक्स : 0124-2571760, 0124-2571761 तार : 'नेटग्रिड'  
Corporate Office : "Saudamini" Plot No-2, Sector-29, Gurgaon - 122 001 Haryana  
Tel.: 0124-2571700 - 719 Fax : 0124-2571760, 0124-2571761 Gram : 'NATGRID'

संदर्भ संख्या / Ref. No  
C/ENG/E/00/SEF/OA

केन्द्रीय कार्यालय / CORPORATE CENTRE

Date: 03-01-2011

To,

As per list enclosed

**Sub: Minutes of meeting for Connectivity and Long Term (Open) Access of IPP Generation Projects in Eastern Region held on 28-12-2010 at POWERGRID Office, Gurgaon.**

Dear Sir,

Please find the enclosed the minutes of meeting held on 28-12-2010 at POWERGRID Office, Gurgaon regarding the Connectivity and Long Term (Open) Access of IPP Generation Projects in Eastern Region.

Thanking you,

Yours faithfully,

(Y. K. Sehgal)

Executive Director (SEF, CE & IT)

1.	Member (PS) Central Electricity Authority Sewa Bhawan, R.K.Puram New Delhi-110 066	2.	Director (Transmission), Orissa Power Transmission Corporation Ltd, Jan path, Bhubaneshwar-751022.
3.	Member Secretary, Eastern Regional Power Committee, 14, Golf Club Road, Tollygunge, Kolkata-700033.	4.	Director (System Operation), West Bengal State Electricity Transmission Company Ltd, Vidyut Bhavan, 5th Floor, Block-D, Bidhannagar, Sector-II Kolkata-700091.
5.	Shri Ravinder Chief Engineer(SP & PA) Central Electricity Authority Sewa Bhawan, R.K.Puram New Delhi-110 066	6.	Principal Chief Engineer cum Secretary Power Department Government of Sikkim Gangtok, Sikkim.
7.	Member (Transmission), Bihar State Electricity Board Vidyut Bhavan, Baily Road, Patna-800021.	8.	Director (Technical), NTPC Limited, Engineering Office Complex, A-8, Sector 24, Noida.
9.	Director (System), Damodar Valley Corporation DVC Towers, VIP Road, Kolkata-700054.	10.	Member (Transmission), Jharkhand State Electricity Board, In front of Main Secretariat, Doranda, Ranchi-834002.
11.	Director (Commercial), Grid Corporation of Orissa Ltd, Jan path, Bhubaneshwar-751022.	12.	Executive Director (T&RE), NHPC Ltd, NHPC Office complex, Sector 33, Faridabad-121003.

**Orissa**

<p>Shri Punit Gupta Director Jindal India Thermal Power Ltd. B-1, Local Shopping Complex, Vasant Kunj, New Delhi-110070 <b>Ph : 09810155662, 011-28033186</b> <b>Fax : 011-26125739</b> <b><u>punit_gupta@jindalgroup.com</u></b></p>	<p>Shri R. K. Singh Sr. Vice President Sterlite Energy Ltd. 1<sup>st</sup> Floor, City Mart Complex Baramunda, Bhubaneswar-751003 <b>Ph : 0674-6610342</b> <b>Fax : 06742354221</b> <b><u>ramesh.singh@vedanta.co.in</u></b></p>
<p>Shri Abhijit Battacharya President(Projects) Bhusan Energy Ltd., F-Block, 1<sup>st</sup> Floor, International Trade Tower, Nehru Place, New Delhi PIN-110019 <b>Ph : 09711171222, 011-39194000</b> <b>Fax : 011-26478750</b> <b><u>Abhijit.bhattacharya@bhushansteel.com</u></b></p>	<p>Shri V.Kanniappan Director Mahanadi Aban Power Company Ltd., 113, Janapriya Crest, Pantheon Road, Egmore Chennai-600008 <b>Ph : 044-28195555</b> <b>Fax : 044-28195527</b> <b><u>abanpower@aban.com</u></b></p>
<p>Shri Ajay Kumar Nathani Vice President GMR Kamalanga Energy Ltd. 10<sup>th</sup> Floor, 'D' Block IBC Knowledge Park Bannerghatta Road Bangalore - 560029 <b>Ph : 09611900225 (Mr. S. N. Sunkari)</b> <b>Fax : 080-40432153</b> <b><u>satya.sunkari@gmrgroup.in</u></b></p>	<p>Shri C. Narasimha Head-Electrical J R Power Gen Private Ltd., 8-2/293/82/A/431/A, Road No:22, Jubilee Hills. Hyderabad-500033 <b>Ph : 040-23559922-25</b> <b>Fax : 040-23559930</b> <b><u>narasimha@ksk.co.in</u></b></p>
<p>Shri Purushottam Thakur General Manager-Projects The Tata Power Company Ltd., HIG-22, BDA Colony, Jaydev Vihar Bhubaneswar-751013 <b>Ph : 09238003939, 0674-2302151</b> <b>Fax : 0674-2302151</b> <b><u>thakurp@tatapower.com</u></b></p>	<p>Shri Subrato Trivedi Director VISA Power Ltd. HUL Building, 2<sup>nd</sup> Floor, 9, Shakespeare Sarani, Kolkata-700071 <b>Fax : 033-30519060</b> <b>Ph : 09836447744, 033-30519040</b> <b><u>subrato.trivedi@visapower.net</u></b></p>
<p>Shri K V B Reddy Director Navabharat Power Private Ltd. 5-B/2.3<sup>rd</sup> Floor, Fortune Towers, Chandrasekharapur, Bhubaneswar Orissa-751023 <b><u>kvbreddy@essar.com</u></b></p>	<p>Shri Vinod Kumar, Executive Director, CESC Ltd. , CESC House Chowringhee Square, Kolkata - 700001 <b>Ph : 09831004374, 033-22253755</b> <b>Fax : 033-22251352</b> <b><u>vinod.kumar@cesc.co.in,</u></b> <b><u>vinod.kumar@rpg.in</u></b></p>

<p>Shri S. J. Bhujade Vice President Essar Power (Orissa) Ltd. A-5, Sector-3 Noida-201301 <b>Ph : 09999704994, 0120-6626666</b> <b>Fax : 0120-6626690</b> <a href="mailto:sbhujade@essar.com">sbhujade@essar.com</a></p>	<p>Shri Ashwani Sharma Project Incharge Orissa Integrated Power Ltd. C/o Power Finance Consulting Ltd. 1<sup>st</sup> Floor, Urja Nidhi 1, Barakhamba Lane, Connaught Place New Delhi – 110 001 <b>Fax : 011-23456584</b></p>
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### Bihar

<p>Shri M. K. Singh Asst. Vice President (Projects) Jas Infrastructure Capital Private Limited 8<sup>th</sup> &amp; 9<sup>th</sup> Floor, Mahabir Tower, Main Road Ranchi – 834001 <b>Ph : 09334386505, 0651-2333113-6</b> <b>Fax : 0651-2331109</b> <a href="mailto:maman.singh@abhijeet.in">maman.singh@abhijeet.in</a></p>	<p>Shri M. K. Ray Advisor (Commercial) Adhunik Power &amp; Natural Resources Ltd. Crescent Towers (3<sup>rd</sup> Floor) 229 A J C Bose Road. Kolkata-700020 <b>Ph : 033-30915300, Fax : 033-30915344</b></p>
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### Jharkhand

<p><i>Shri S. J. Bhujade</i> Vice President Essar Power (Jharkhand) Ltd. A-5, Sector-3, Noida-201301 (U.P.) <b>Ph : 09999704994, 0120-6626666</b> <b>Fax : 0120-6626690</b> <a href="mailto:sbhujade@essar.com">sbhujade@essar.com</a></p>	<p><i>Shri Vinod Kumar,</i> Executive Director, CESC Ltd. ,CESC House Chowringhee Square, Kolkata – 700001 <b>Ph : 09831004374, 033-22253755</b> <b>Fax : 033-22251352</b> <a href="mailto:vinod.kumar@cesc.co.in">vinod.kumar@cesc.co.in</a>, <a href="mailto:vinod.kumar@rpg.in">vinod.kumar@rpg.in</a></p>
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### Sikkim

<p><u>For Panan Project In Sikkim</u> Shri P.S.Mandal General Manager A-404,Plot No:27,sector-12, Sunny Valley,Dwaraka, New Delhi-110075 <b>Ph : 09910109187, 011-28033186</b> <b>Fax : 011-28033186</b> <a href="mailto:psm_director@yahoo.com">psm_director@yahoo.com</a></p>	<p><u>For Dikchu project</u> Shri Vijay Kumar. Atluri CEO Sneha Kinetic Power Projects Pvt.Ltd. #31-A, National Highway, Behind SNOD building, Deorali, Gangtok, Sikkim-737102 <b>Ph: 09959222836 ; Fax : 040-40401089</b> <a href="mailto:Vijay.a@greenkogroup.com">Vijay.a@greenkogroup.com</a></p>
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<p><u>For Lachung HEP</u>  <i>Mr. Rajesh Kumar Jindal</i>  Business Head  Lachung Hydro Power Pvt. Ltd  B-37, Sector 1, Noida – 201301,  Gautam Budh Nagar, U.P.  <b>Ph: 0120-2443720</b>  <b>Fax : 0120-2443723/24</b>  <u><a href="mailto:rjindal@polyplex.com">rjindal@polyplex.com</a></u></p>	<p><u>For Sada Mangder Project</u>  Shri A K Banka  Head Infrastructure  Gati Infrastructure Sada Mangder  Power Ltd,  268, Udyog Vihar Phase IV  Gurgaon 122 016  <b>Ph: 09540003112, 0124-2644232</b>  <u><a href="mailto:ak.banka@gatiinfra.com">ak.banka@gatiinfra.com</a></u></p>
<p><u>For Chungtang HEP</u>  <i>Mr. Rajesh Kumar Jindal</i>  Business Head  Lachung Hydro Power Pvt. Ltd  B-37, Sector 1, Noida – 201301,  Gautam Budh Nagar, U.P.  <b>Ph: 0120-2443720</b>  <b>Fax : 0120-2443723/24</b>  <u><a href="mailto:rjindal@polyplex.com">rjindal@polyplex.com</a></u></p>	<p><u>For Bhimkyong HEP</u>  <i>Mr. Rajesh Kumar Jindal</i>  Business Head  Lachung Hydro Power Pvt. Ltd  B-37, Sector 1, Noida – 201301,  Gautam Budh Nagar, U.P.  <b>Ph: 0120-2443720</b>  <b>Fax : 0120-2443723/24</b>  <u><a href="mailto:rjindal@polyplex.com">rjindal@polyplex.com</a></u></p>
<p><u>For Tashiding (80 MW) Project</u>  Shri T. Nagendra Rao  Director, Shiga Energy Pvt. Ltd.  5<sup>th</sup> Floor, DLF Building No. 8  Tower-C, DLF Cyber City, Phase-II  Gurgaon – 122002  <b>Ph : 0124-4696300, 4100393, Fax :</b>  <b>0124-4696311</b></p>	<p><u>For Tingting (90 MW) Project</u>  Mr. David Tow  Director, TT Energy Pvt. Ltd.  5<sup>th</sup> Floor, Tower-C, Building No. 8  DLF Cyber City, Gurgaon - 122 002  <b>Ph : 0124-4552800</b>  <b>Fax : 0124-4376018</b></p>
<p><u>For Lethang Project.</u>  Shri VPS Chauhan  Director,  KHC Lethang Hydro Project Pvt Ltd.  NCPL Web Tower,  1st Floor,  A-4, Sector-9.  NOIDA-201301  <u><a href="mailto:vijay.chauhan@kalpanahydro.com">vijay.chauhan@kalpanahydro.com</a></u></p>	

**Minutes of Meeting for Connectivity and Long Term (Open) Access of IIP Generation projects in Eastern Region held on 28<sup>th</sup> Dec, 2010 at POWERGRID office, Gurgaon**

At the outset, Executive Director(SEF,CE,IT), POWERGRID welcomed Member(PS), CEA , Chief Engineer(SP&PA), CEA , Member Secretary, ERPC and all the participants in the meeting (list at Annexure-1). Member (PS) while addressing the constituents and the IPPs in the meeting stated that evolution of the transmission system is dependent on the progress of the generation projects. He therefore urged all the IPPs to indicate the progress as on ground and should not indicate over-optimistic progress as it may not lead to optimal transmission system development. He then asked Chief Engineer, CEA to take up the progress of each project to firm up the transmission system.

Chief Engineer, CEA initiated the discussions as per agenda and first called developers of IPPs in Orissa, followed by Jharkhand, Bihar and Sikkim. The deliberations in each context are as below:

**I. IPPs in Orissa**

Applications for grant of Connectivity and Long Term (Open) Access (LTOA / LTA) have been received by POWERGRID from the following applicants in Orissa In Eastern Region.

**IPP generation projects in Angul/Jharsuguda/Dhenkanal complex in Orissa**

Sl. No	LTA Applicant / Project	Unit Size	Installed Capacity(MW)	LTA/Connectivity (MW)	Time Frame	Applied for
1	CESC Ltd.(Orissa)	2x660	1320	900	Mar'15	LTOA
2	Essar Power Ltd.	2x600	1200	900	Mar'14	LTOA
3	Navabharat Power Private Ltd(Phase-II)	2x600	1200	1100	Apr'13	LTOA
4	VISA Power Ltd	2x660	1320	1250	Sep'13	Connectivity
5	Mahanadi Aban Power Co Ltd	2x660	1320	850	Sep'13	Connectivity
6	Bhushan Energy Ltd	4x660	2640	2482	Jan.'15	Connectivity
7	Tata Power company Ltd	2x660	1320	1000	Dec'13 / Jan'16	Connectivity & LTA
8	GMR Energy Limited (Phase-II)	1x350	350	220	Dec'11	Connectivity & LTA
9	J R Power Gen Pvt Ltd	3x660	1980	1980	Jun'14	Connectivity
10	Jindal India Thermal (Phase-II)	1x600	600	522	Sep'13	Connectivity & LTA
11	Sterlite Energy Ltd.	(already considered in Phase-I projects)		1000	Sep'11	LTA
		<b>Total</b>	<b>13250</b>	<b>12204</b>		
1	Orissa UMPP	5X800	4000	4000	Mar'16	LTOA

POWERGRID representative mentioned that a comprehensive transmission system comprising of high capacity 765kV HVAC transmission corridors from Orissa to Northern region via Western region has already been planned for evacuation of power from Phase-I Generation projects in Orissa and the same is under implementation. Keeping in view the techno-economical viability as well as operational flexibility of hybrid transmission system, high capacity HVDC transmission link supported with HVAC system has been planned for evacuation of combined power from Orissa UMPP and Orissa phase-II IPPs. The detailed transmission system is given below :

### **Transmission system for immediate evacuation of the Orissa Phase-II generation project and its schedule of commissioning**

These schemes were identified based on the LTA/LTOA application of the generation projects.

1	Essar Power Ltd.	Essar Power – Dhenkanal 400kV D/c with high capacity (Triple Snowbird) conductor.
2	Navabharat Power Private Ltd(Phase-II)	Navbharat-Angul 400kV D/c line with Quad Moose conductor (already proposed with Phase-I Project)
3	CESC Ltd.(Orissa)	CESC – Dhenkanal 400kV D/c with high capacity (Tripple Snowbird) conductor.
4	VISA Power Ltd	Visa – Dhenkanal 400kV D/c with high capacity (Tripple Snowbird) conductor.
5	Mahanadi Aban Power Co Ltd	Mahanadi Aban– Dhenkanal 400kV D/c with high capacity (Tripple Snowbird) conductor.
6	Bhushan Energy Ltd	Bhushan-Dhenkanal 765 kV D/c line
7	Tata Power company Ltd	Tata Power – Dhenkanal 400kV D/c with high capacity (Tripple Snowbird) conductor.
8	GMR Energy Limited (Phase-II)	GMR-Angul 400kV D/c line with quad Moose(already proposed with Phase-I Project)
9	J R Power Gen Pvt Ltd	LLO of one ckt of Angul/Dhenkanal - Jharsuguda 765kV line at JR Power
10	Jindal (Phase-II)	Jindal – Angul 400kV D/c line (2 <sup>nd</sup> )
11	Sterlite (LTA for additional 1000MW)	Sterlite – Jharsuguda 400kV D/c line (2 <sup>nd</sup> )

Director, OPTCL and Director, GRIDCO stated that Orissa may like to draw power directly from the generation projects. ED, POWERGRID clarified that the scheme for phase-I generation projects in Orissa is already under implementation and any modifications at this stage may not be desirable. However, GRIDCO may co-ordinate with IPPs under phase-II in Orissa to draw their share of power. OPTCL/GRIDCO may also indicate the power that shall be injected in the ISTS on each bus. Member(PS), CEA clarified that even though IPPs may become connected with STU, GRIDCO/OPTCL shall ensure that there is no pan-caking of the transmission charges because this is a technical arrangement. On request of GRIDCO and OPTCL it was decided that these schemes would be reviewed keeping in view the share of power to be drawn by Orissa from the above generation projects.

## **Common Transmission system for transfer of power from Orissa UMPP and Orissa Ph-II IPP Projects to Beneficiaries**

### **A Transmission System to be shared only by beneficiaries of Orissa Ph-II IPPs**

- 1 Establishment of 4x1500MVA, 765/400kV substation at Dhenkanal
- 2 LILO of Angul – Jharsuguda 765kV 2xS/c at Dhenkanal
- 3 3000 MW HVDC Terminal each at Angul & Bulandshahar#

### **B Transmission System to be shared by beneficiaries of Orissa Ph-II IPPs & Orissa UMPP project #**

#### **B1 Transmission line from ER to NR**

- 1  $\pm$  800 kV, 6000 MW HVDC Bi-Pole line from Angul to Bulandshahar

#### **B2 Strengthening System in NR**

- 1 Bulandshahar – Ambala 765 kV D/c
- 2 Ambala – Malerkotla 400 kV D/c
- 3 Bulandshahar – Neemrana 400 kV D/c
- 4 LILO of Meerut – Moga 765 kV S/c line at Bulandshahar
- 5 Establishment of 2x1500 MVA, 765/400 kV GIS substation at Bulandshahar.

### **C Transmission System to be shared by beneficiaries of Orissa Ph-II IPPs & SR IPP projects in AP**

- 1 Angul-Jharsuguda 765 kV D/c line
- 2 Jharsuguda-Dharamjaygarh 765 kV D/c line

### **D Transmission System to be shared only by beneficiaries of Orissa UMPP project #**

- 1 3000 MW HVDC Terminal each at Angul & Bulandshahar
- 2 UMPP - Jharsuguda 765kV D/c line
- 3 Split Bus arrangement at Jharsuguda 765 kV level
- 4 Disconnection of Rourkela-Raigarh LILO arrangement at Jharsuguda
- 5 Arrangement for Power Supply to Orissa (radial mode through isolation of two units of UMPP)

#### **Note :**

# The above mentioned HVDC bipole line and HVDC terminals would be shared by the NR & WR beneficiaries of Orissa UMPP and Orissa Ph-II IPP projects. The high capacity transmission corridor mentioned under A(3) & B i.e. the  $\pm$ 800kV, 6000MW Angul-Bulandshahar HVDC line along with 3000MW terminal on either side and strengthening in NR would be developed matching with the time frame of Orissa UMPP project (Mar-2016 to Mar2018). In case UMPP project does not come up, the power from the Orissa Phase-II IPP projects would be evacuated through Angul-Jharsuguda-Dharamjayagarh 765kV D/c corridor. In that case, the HVDC line would be taken up along with future IPP projects in Orissa. In the situation of any changes in the generation projects, the transmission system would be accordingly reviewed and modified. The system strengthening mentioned at B2 may be firmed up depending upon growth of generation, transmission system and load growth.



The details of the deliberation with the project developer is as under :

**1. CESC Ltd. (IC-1320 MW, LTOA-900 MW)**

The representative stated that out of 1009 acres of total required land, they have acquired 767 acres and acquisition of balance part is under progress. Water allocation is received and socio-economic study is complete. As project involves 21 acres of forest land, the case for forest diversion is under progress. The schedule of project completion is 42 months from financial closure which is expected in May 2011.

GRIDCO endorsed the progress indicated by the generation developer. CESC also expressed that they are ready to sign BPTA and furnish bank guarantee in case LTA is granted. CEA stated that the project has made substantial progress and may be granted the Long Term access for utilization of ISTS.

**2. Essar Power Ltd. (IC-1200 MW, LTOA-900 MW)**

The representative of generation developer stated that the land is presently under acquisition. GRIDCO stated that the progress of the project is not satisfactory, as per their assessment. Chief Engineer, CEA stated that as the project is not yet mature, this application may be closed. The generation developer may apply as per new regulation of CERC when the project status is satisfactory.

**3. Navbharat Power Ltd. (Phase-II : IC-1200 MW, LTOA-1100 MW)**

The representative of generation developer stated that the land acquisition is under progress. GRIDCO stated that according to their assessment, the progress of the project is not satisfactory. Chief Engineer, CEA stated that the progress of the project is not adequate and this application must be closed. The generation developer may apply at a later date as per new regulation of CERC.

**4. Visa Power Ltd. (IC-1320 MW, Connectivity-1250 MW)**

The representative of generation developer stated that the land possession is complete. Coal Linkage is expected to be finalized in the next meeting of Ministry of Coal. Chief Engineer, CEA stated that the project is not yet mature. However, the developer is advised to apply for LTA by March, 2011.

**5. Mahanadi Aban Power Co Ltd. (IC-1320 MW, Connectivity -850 MW)**

Land acquisition has been expedited for 550 acres out of the total requirement of 763 acres. Coal Linkage is awaited. Chief Engineer, CEA advised that progress of the project is not adequate. They may apply for LTA by March, 2011.

**6. Bhushan Energy Ltd. (IC-2640 MW, Connectivity -2482 MW)**

The representative indicated that presently land acquisition is under process, and coal block has been allotted. Chief Engineer, CEA mentioned that the progress of the generation is not satisfactory and advised the developer to apply for LTA at a later date.

**7. Tata Power Co Ltd. (IC-1320 MW, LTA-1000 MW)**

The representative of Tata Power Co Ltd confirmed that out of total 990 acre land required for the project, they have acquired 660 acre. Coal allocation has been received for 1<sup>st</sup> unit and for 2<sup>nd</sup> unit, it is awaited. The 1<sup>st</sup> unit is expected to come up in Jan 2016. looking at the progress of the generation project Chief Engineer, CEA recommended that they may be granted Long term access for one unit only. He advised that Tata Power shall apply afresh for 2<sup>nd</sup> unit upon achieving a satisfactory progress for the same.

Tata Power also expressed their willingness to sign the BPTA and furnish the bank guarantee.

**8. GMR Energy Ltd. (Phase II) (IC-350 MW, LTA-220 MW)**

The representative stated that the land for the expansion is already available. However, environmental clearance and the fuel linkage is pending. Upon a query, GMR Ltd. expressed their willingness to sign the BPTA and furnish BG. CEA expressed that the developer may be granted LTA, however as the expansion is in the same premises of Phase-I generation project, the transmission system for connectivity is recommended with 400kV D/c line with quad conductor under implementation by the project developer for Phase-I generation project.

**9. JR Powergen Pvt Ltd. (IC-1980 MW, Connectivity-1980 MW)**

The representative indicated that the land acquisition is expected by March 2011. Water allocation has been applied to the State govt. Considering the progress of the project, Chief Engineer, CEA advised the project developer to apply for LTA by March, 2011.

**10. Jindal India Thermal Power Ltd. (IC-600 MW, Connectivity -522 MW)**

No representative was present in the meeting and therefore this part of agenda could not be discussed.

**11. Sterlite Energy Ltd. (IC-2400 MW, LTA-1000 MW)**

The representative mentioned that out of 4 units (each of 600MW) of generation project, 1<sup>st</sup> unit has already been commissioned and 2<sup>nd</sup> unit is expected shortly. The 3<sup>rd</sup> and 4<sup>th</sup> unit are expected in May and Sept 2011.

POWERGRID proposed 400kV D/c line(2<sup>nd</sup>) for evacuation of additional power from Sterlite generation project to Jharsuguda pooling substation.

From Jharsuguda substation power would be further transferred through transmission corridor planned with Orissa Phase-II IPP projects. This was accepted for additional power evacuation from generation project of Sterlite Energy Ltd.

The representative requested that as the 3<sup>rd</sup> & 4<sup>th</sup> units of generation project would be commissioned soon, an interim arrangement for additional connectivity may be provided in order to avail the opportunity of evacuation of power utilizing the transmission margin in the grid. In this regard, he also stated that Ind-Barath project is already delayed and their 400 kV connectivity with LILO of Rourkela-Raipur line may be utilized to provide for additional connectivity to Sterlite generation for the interim period. However, Dir(Comm), GRIDCO confirmed that Ind Barath is progressing well and is within their schedule. The possibility of LILO of Ib-Meramundali at Sterlite was explored. Dir, OPTCL stated that this transmission line may not be utilized for evacuation of Sterlite power, as it requires to be re-furbished.

ED, POWERGRID then stated that only alternative left is to LILO one line of the the 2<sup>nd</sup> Rourkela-Raigarh 400 kV D/c line, which is expected to be completed by March 2011. Chief Engineer, CEA stated that this is an important inter-regional line and this arrangement can only be accepted as an interim arrangement only. Accordingly, it was decided to provide following additional interim arrangement in view of the LTA application of 1000MW (in addition to 400MW in phase-I) by Sterlite.

- LILO of one ckt of Rourkela-Raigarh 400kV D/c line (2<sup>nd</sup>) at Sterlite.

Directors of GRIDCO and OPTCL stated that this will be interim arrangement only. The above LILO would be withdrawn once the Jharsuguda substation is ready along with planned transmission system for Phase-II Orissa IPP projects and Sterlite is connected with Jharsuguda through 400kV 2xD/c line. In view of limited time left before commissioning of the generation project, the generation developer has agreed to take up implementation of the above arrangement. It was mentioned that till the time the complete transmission system is in place, there may be constraint for evacuation of Sterlite power depending upon the system condition. Sterlite Energy Limited may therefore apply for Short term open access/Medium Term open access during the time the interim arrangement is in place so that power flow can take place depending on the margins available in the grid from time to time. Sterlite was ready to sign BPTA and provide BG for the transmission system planned for Orissa Phase-II projects. Accordingly, it was decided to grant LTA for additional 1000MW to Sterlite Energy Ltd.

## **12. Orissa UMPP (IC-4000 MW, LTA-4000 MW)**

The transmission system associated with Orissa UMPP was discussed in the Standing committee meeting on 28 Dec 2010 held at POWERGRID office, Gurgaon.

## II. IPPs in Jharkhand

Applications for grant of Connectivity and Long Term (Open) Access (LTOA / LTA) have been received by POWERGRID from the following applicants in Jharkhand in Eastern Region.

### IPP generation projects in Jharkhand Complex.

Sl. No.	Project/Applicant	Unit Size	Ins. Capacity (MW)	LTOA (MW)	Time Frame	Applied for
2	Dumka (CESC)	2x300+1X600	1200	1100	2014-15	LTOA
3	ESSAR St-II	1x600	600	550	2013-14	LTOA
		<b>Total</b>	<b>1800</b>	<b>1650</b>		

#### **1. Dumka(CESC) (IC-1200 MW, LTOA-1100 MW)**

The generation project has earlier been granted LTOA for 600MW. However due to delay in commissioning schedule, CESC did not sign BPTA for this project. Accordingly now full capacity has been considered. Regarding the progress of project, representative stated that coal allocation is made through mine which shall become operational by year 2014. Land acquisition is still under process and there is no land acquired by CESC. Chief Engineer, CEA advised POWERGRID to close the application. However, generation developer assured to show considerable progress by March 2011. Chief Engineer, CEA agreed to accept to keep the application open up to March 2011, during which the developer shall furnish progress in project activities, else it shall be closed and the developer shall have to apply it afresh as per 2009 regulation of CERC.

#### **2. Essar St-II (IC-600 MW, LTOA-550 MW)**

The representative stated that EPC contract has already been placed and the unit is likely to be commissioned by July 2013. The representative also stated that they are ready to sign BPTA and submit the bank guarantee.

POWERGRID clarified that the stage I of this project is already planned to be connected to the pooling station proposed in Jharkhand with a 400 kV quad D/c line and the same link shall be utilized for stage II project also.

## III. IPPs in Bihar

Applications for grant of Connectivity and Long Term (Open) Access (LTOA / LTA) have been received by POWERGRID from the following applicants in Bihar in Eastern Region.

### IPP generation projects in Bihar Complex.

Sl. No.	Project/Applicant	Unit Size	Ins. Capacity (MW)	LTOA (MW)	Time Frame	Applied for
1	JAS Infrastructure Capital Pvt Ltd.	2x660	1320	1200	Jan'14	Connectivity
2	Adhunik Power and Natural Resources	2x660	1320	1000	Dec' 14	Connectivity
		<b>Total</b>	<b>2640</b>	<b>2200</b>		

#### **1. Jas Infrastructure Capital Pvt Ltd. (IC-1320 MW, LTOA-1200 MW)**

The representative informed that coal block has been allotted and other activities are under progress. Chief Engineer, CEA advised the developer to apply for LTA by March 2011.

#### **2. Adhunik Power and Natural Resources (IC-1320 MW, LTOA-1000 MW)**

The representative informed that the activities for land acquisition, water allocation etc are under progress. Chief Engineer, CEA advised the developer to submit the application for LTA by March 2011.

### D. IPPs in Sikkim

Applications for grant of Connectivity and Long Term (Open) Access (LTOA / LTA) have been received by POWERGRID from the following applicants in Sikkim in Eastern Region.

### IPP generation projects in Sikkim Complex.

Sl No	Project	Unit Size	Ins. Cap (MW)	LTOA (MW)	Time Frame	Applied for
1.	BOP (Chungtang)	-	99	99	2015	LTOA
2.	Bhimkyong (Teesta Hydro power project)	-	99	99	2015	LTOA
3.	Lachung-Tangchi	-	99	99	2015	LTOA
4.	Tashiding (Shiga Energy Pvt. Ltd.)	-	97	97	Oct., 2012	LTOA
5.	Tingting (TT Energy Pvt. Ltd.)	-	99	99	Oct., 2012	LTOA
6.	Sada Mangdher (Gati Infrastructure)	-	71	71	Sep'14	LTOA
7.	Dickchu (Sneha Kinetic Power Projects Ltd.)		96	96	Dec'13	Connectivity & LTA
8.	Pannan Himagiri Hydro energy Ltd.	4x75	300	300	Jul'14	Connectivity
9.	Lethang (KHC Lethang Hydro Project Pvt. Ltd.)		96	106	Jan'14	Connectivity
		<b>Total</b>	<b>1056</b>	<b>1066</b>		

POWERGRID informed that the LTOA intimation for Tashiding & Tingting generation projects has already been issued along with phase-I generation projects in Sikkim. However, due to delay in progress, project developers did not sign the BPTA. Therefore, these projects have now been considered in Phase-II.

**1. BOP(Chugthang) (LTOA-99 MW)**

The representative of generation developer stated that presently land is not available and DPR for the generation project is being prepared. Chief Engineer, CEA advised the developer to apply for LTA as per new regulation.

**2. Bhimkyong(Teesta Hydro Power Project) (LTOA-99 MW)**

The representative of generation developer has mentioned that the land for the project is not yet available. The DPR for the project is being prepared. Chief Engineer, CEA advised the developer to apply for LTA as per new regulation.

**3. Lachung-Tangchi (LTOA-99 MW)**

The representative of generation developer stated that the land is not available and the DPR for the generation project is being prepared. Chief Engineer, CEA advised the developer to apply for LTA as per new regulation.

**4. Tashiding(Shiga Energy) (LTOA-97 MW)**

The developer mentioned that all clearances have been received and E&M and civil packages are ready for award. The project is expected to materialize by Oct 13. The developer also confirmed that they shall sign the BPTA and furnish Bank guarantee by March 2011. Chief Engineer, CEA advised to grant long term access to the project.

**5. Tingting(TT Energy) (LTOA-99 MW)**

The developer indicated that they have furnished the queries asked by Ministry of Environment. The project is scheduled for commissioning in Jan 14. The developer also confirmed that they shall sign the BPTA and furnish Bank guarantee by March 2011. Chief Engineer, CEA advised that long term access may be granted to the project.

The generation developer of Tashiding and Tingting project suggested that the 220 kV D/c line between Tashiding/Tingting pooling station to Melli may be developed by POWERGRID instead of Govt. of Sikkim or alternatively they shall be allowed to construct the line. Towards this, Chief Engineer, CEA clarified that this line has been considered to be constructed by Govt. of Sikkim after deliberating in a recently held meeting organized by Govt. of Sikkim in Gangtok, wherein it was decided that this line and pooling sub-station shall be developed by Govt. of Sikkim.

#### **6. Sada Mangder(Gati Infrastructure) (LTOA-71 MW)**

The generation developer confirmed that they project is scheduled to materialize in Sept 2014. Chief Engineer, CEA observed that the project may be granted LTOA. The developer also confirmed that they shall sign the BPTA and furnish Bank guarantee by March 2011.

#### **7. Dikchu(Sneha Kinetic) (LTA-96 MW)**

Based on the progress, Chief Engineer, CEA advised to grant LTA to Dikchu HEP. The developer confirmed that they shall sign the BPTA and furnish Bank guarantee by March 2011.

The power from Dikchu project is planned to be evacuated with LILO of Gangtok-Mangan 132 kV D/c line, to be implemented by Govt. of Sikkim by grant of LTA. It was brought out that as Mangan sub-station may not be ready by the time of commissioning of Dikchu HEP, therefore, Dikchu-Gangtok 132 kV line may be constructed initially so that power does not remain bottled up at Dikchu HEP. For this, Govt. of Sikkim may have to initiate the necessary action. Accordingly, the developer was advised to get associated with Govt. of Sikkim. However, power flow shall take place as per margins available in the transmission system, for which the project developer shall apply for STOA/MTOA.

#### **8. Panan HEP (Connectivity- 300 MW)**

The representative revised the schedule of commissioning from July, 2014 to Jan, 2015. Chief Engineer, CEA pointed out that the developer may apply for LTA at the earliest. The representative of developer confirmed that LTA application shall be submitted by March 2011. Upon receipt of LTA application, intimation for connectivity and LTA would be granted. The developer also confirmed to sign the BPTA and submit the Bank Guarantee.

#### **9. Lethang HEP (Connectivity-99 MW)**

The representative stated that land for project is not acquired. Chief Engineer, CEA pointed out that the project is yet not mature enough and requested the developer to apply for LTA. The representative of developer confirmed that LTA application shall be submitted by April 2011. Upon receipt of LTA application, intimation for connectivity and LTA would be granted. The developer also confirmed to sign the BPTA and submit the Bank Guarantee.

The following Transmission System was agreed for Phase-II IPP projects in Sikkim :

#### **A. Transmission System under the scope of Generation Developer**

##### Sada Mangdher (71 MW)

- Sada Mangdher - Pooling station near Tashiding 220kV D/c line

Tingting HEP (99 MW)

- Tingting - Pooling station near Tashiding 220kV D/c line

Tashiding HEP (97 MW)

- Tashiding–Pooling station near Tashiding 220kV D/c line

Lethang HEP (106 MW)

- Lethang HEP - Pooling station near Tashiding 220kV D/c line \*\*

For Dikchu HEP (96 MW)

- LILO of Gangtok – Mangan 132kV D/c line with Zebra conductor

**B. Transmission System under the scope of POWERGRID**

- Panan HEP - Mangan 400kV D/c line \*\*
- Establishment of 4x105MVA, Single Phase, 400/132kV Gas Insulated Pooling Station at Mangan.
- LILO of Teesta-III - Kishanganj 400kV D/c line at Mangan
- Mangan - Kishanganj 400kV D/c line with quad moose conductor#
- New Melli – Rangpo 220kV D/c with twin moose conductor(2nd )

Note :

*# This line would be taken up along with receipt of new LTA application for generation projects in the upper part of Sikkim.*

*\*\* These lines would be taken up upon receipt of LTA application and issue of LTA intimation to Pannan and Lethang HEP.*

**C. Transmission System under the scope of Govt. of Sikkim**

- Establishment of 220kV Gas Insulated Pooling Station near Tashiding
- Pooling station near Tashiding - New Melli 220kV D/c with twin moose conductor
- Gangtok – Mangan 132kV D/c line with Zebra conductor

The meeting ended with vote of thanks to chair.



**Annexure-1****List of participants in LTA/LTOA meeting held on 28<sup>th</sup> Dec 2010 at POWERGRID, Gurgaon**

<b>NAME</b>	<b>DESIGNATION</b>	<b>ORGANIZATION</b>
Shri S. M. Dhiman	Member (GO & PS)	CEA
Shri Ravinder	Chief Engineer (SP&PA)	CEA
Shri R. Saha	Director (SP&PA)	CEA
Shri A. K. Saha	Dy. Director (SP&PA)	CEA
Shri A K Rampal	Member Secretary	ERPC
Shri Y K Sehgal	ED(SEF,CE & IT)	POWERGRID
Shri Avinash M Pavgi	Addl.General Manager	POWERGRID
Shri Prashant Sharma	Addl.General Manager	POWERGRID
Shri Ashok Pal	DGM	POWERGRID
Shri Ramchandra	Chief Manager	POWERGRID
Shri Nageswara Rao	Engineer	POWERGRID
P. Pantayya	GM	ERLDC
P. Mukhopadhyay	DGM	ERLDC
A. Sen	AGM(PE-Electrical)	NTPC
S.S Mishra	DGM(Engg)	NTPC
Raitish Kumar	GM(Electrical)	NHPC
S N Sinha	Resident Engineer	BSEB
A.K Mukherjee	DCE –SPM	DVC
A.C.Mallick GRIDCO	Director(Comml)	GRIDCO
K K Nath	Director(Engg)	OPTCL
J P Das	CGM(ORM)	OPTCL
A C Sarkar	MD	WBSETCL
D.Chakraborty	CE ÇPD,	WBSETCL
A. Karmakar	SE Elect (CP&ED)	WBSETCL
S Nag	CE(SLDC)	WBSETCL
P B Subba	CE	Power Deptt., Sikkim
Sangay P. Kazi	Addl. Chief Engr.	Power Deptt., Sikkim
S. K Bharadwaj	DGM-Projects	Adhunik Power & Natural Resources
Ashwani Sharma	GM	PFC

<b>NAME</b>	<b>DESIGNATION</b>	<b>ORGANIZATION</b>
Rishab Jain	Officer	PFC
Joydeep Nag	GM (Projects)	Bhushan Energy Ltd
Gautam Banerjee	DGM	CESC Ltd.
Ajay Kumar Nathani	VP (Transmission)	GMR Energy Ltd.
A L Nageswara Rao	Advisor	GMR Energy Ltd.
V Lakshmi pathi	Consultant	J R Power
S.Bharadwaj	AGM-Corp.Acc	Corporate Power / JAS Infrastructure
P Hari Krishna	Sr. Manager	Corporate Power / JAS Infrastructure
P K Singh	Sr Vice President	Strelite Energy
P Ditto	GM	Sterlite Energy
Shyam gupta	Sr. Manager	Essar Power Ltd
P K Acharya	Sr Manager	Tata Power Ltd.
S. Sudhakar	Divisional Manager	VISA Power Ltd
L D Pandey	AGM	Chungtang Hydro Power Ltd.
Kumar Uday Pratap	Sr Manager	Lachung Hydro Power Project
Devesh Gautam	AM-Electrical	Gati Infra
A Rajagopalan	Consultant Head	Gati Infra
P.S Mandal	GM	Himagairi Hydro Energy Ltd.
Bavenya Patnaik	CRM	Mahanadi Aban
Vijay Kumar Atluri	CEO	Sneha Kinetic Power Projects
K S Raghav	Consultant	Kalpan Hydro
Bijendra Singh	Sr DGM	Kalpan Hydro
Rahul Malhotra	Assistant General Manager	Lethang Hydro power project
N C Goel	Vice President	Dans Energy
S Mondal	Manager	Dans Energy