

**Minutes of 15<sup>th</sup> Meeting of Western Region constituents regarding Connectivity/Open Access Applications held on 21<sup>st</sup> October, 2011 at NRPC, New Delhi**

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*List of participants is enclosed at **Annexure-OA-1**.*

1. ED (SEF & CE), POWERGRID welcomed the members and participants to the 15<sup>th</sup> meeting of WR constituents regarding Connectivity/Open Access applications. He informed that a number of applications have been received for Connectivity and Long-term access/Medium-term Open access of various generation projects proposed in Western region as per CERC (Grant of Connectivity, Long-term Access and Medium-term Open access in inter-State transmission and related matters) regulation 2009. The applicants have also submitted the status of projects and commissioning schedule.

He informed that now all the transmission system strengthening schemes as part of LTA, connectivity system which are part of coordinated planning of CEA & CTU as per the Regulations 2009 are to be implemented through tariff based competitive route. Therefore, once the transmission project is awarded to the successful bidder, the project would be commissioned as per the schedule irrespective of the actual commissioning of generation project. Situation may arise that transmission system is ready and generation is delayed. Further, implementation of transmission system would typically take about 3-4 years time, so adequate time needs to be given to the transmission developers. The generation developers must keep in mind above aspects. He emphasised that to address above issue, a draft procedure for processing of Connectivity/LTA applications has been made jointly by CEA and CTU for consideration of CERC.

2. POWERGRID made a presentation on the above draft procedure. It was highlighted that generation developers need to achieve minimal milestones like possession of 50% of land, approved TOR for environmental clearance, linkage of fuel or award of EPC(for gas project) etc. for grant of provisional connectivity/LTA. Detailed flowchart in this regard is enclosed at **Annexure-OA-2**.
3. CEA stated that progress of some of the generation projects who have been earlier granted connectivity/LTA has not been up to the mark. Therefore, in future, based on the progress of generation project, provisional connectivity/LTA or in principle connectivity/LTA may be proposed. Upon achievement of proposed milestones within 6-12 months, final connectivity/LTA may be granted.
4. POWERGRID presented the Connectivity/LTA/MTOA cases for 5 nos. of Connectivity applications, 5 nos. LTA and 1 no. connectivity/LTA applications for deliberations. In addition, MTOA applications of 2 nos. applicants, who have been recently granted MTOA, were also deliberated.

A summary on the deliberations on each application is as under:

- A. **Confirmation of the minutes of 14<sup>th</sup> meeting of WR Constituents regarding Connectivity/Open Access applications in WR held on 13.05.11 at New Delhi**

The minutes of the 14<sup>th</sup> meeting of WR Constituents issued vide dated 06.06.2011 2011 were confirmed with the following amendments:

*Para 1 on page 25: Shifting of Interconnection Point of Balco & VVL TPS from Champa Pooling to Dharamjaygarh*

*Statement may be modified and read as under.*

*"It was also agreed that M/s BALCO, M/s Vandana Vidyuth and CSPTCL shall sign the BPTA with POWERGRID for sharing of its transmission charges"*

## **B. Applications for Grant of Connectivity**

### **B1) Ellora Paper Mills Ltd. (EPML), Distt. Gondia Maharashtra**

M/s Ellora Paper Mills Ltd (EPML) had applied for connectivity of its (4x660MW) generation project in Distt. Gondia, Maharashtra as per the CERC regulations, 2009 with commissioning schedule as Mar'15 onwards. POWERGRID evolved transmission system for connectivity and circulated the same vide their agenda dated 29.08.11. POWERGRID informed that as per the application, progress of project is as under:

- Land Required: 1300Acres, Possessed-150 Acres (11%)
- Environmental TOR received  
clearance
- Fuel Long term Coal Linkage Application submitted to MoC
- Water Application submitted for 90 MM<sup>3</sup>/annum of water

During the meeting, M/s EPML informed that in view of the progress, their connectivity application may be deferred till next meeting. It was agreed that their connectivity application may be deferred at present. POWERGRID requested applicant to keep their status informed so that application may be taken up accordingly.

### **B2) Indiabulls Power Ltd., Distt. Amravati, Maharashtra**

M/s Indiabulls Power Ltd. had applied for connectivity of its 1350MW generation project in Distt. Amravati, Maharashtra as per the CERC regulations, 2009. Application details are as follows:

- Project Capacity - 5x270MW =1350MW
- Connectivity applied for/from – 1350MW/ Jun'13
- Commissioning schedule (unit wise)- Apr'13, Jun'13, Aug'13, Oct'13, Dec'13
- Location: Distt: Amravati, Maharashtra

Status of generation project:

- Land Possessed-1350 Acres (100%)
- Environmental EC obtained  
clearance

- Fuel LOA from Western Coalfields Ltd.(2.35 MTPA) and from Mahanadi Coalfields Ltd.(2.54 MTPA)
- Water 240MLD (87.6MCM) of Water allocated from Vidarbha Irrigation Development Corporation, Nagpur

Applicant informed that for 5x270 MW Stage-I of Amravati TPP of Indiabulls Power Ltd, the evacuation arrangement is already planned by MSTECL through following evacuation system. The transmission network is being established by Amravati Power Tr. Co. Ltd.

- Amravati TPP – Akola (MSETCL) 400kV D/c
- LILO of 400kV Akola – Koradi S/c line at Amravati TPP

Further, Indiabulls Power Ltd. has proposed expansion at Amravati Stage-I (1350MW) generation by another 1350MW capacity as Stage-II with schedule for commissioning as 2013.

Considering the connectivity requirement for additional generation capacity of 1350 MW, following connectivity of Amravati TPS stage -II was agreed:

- Generation Step-up at 400kV level & interconnection at existing Amravati TPS Stage-I 400kV bus through bus extension (*under the scope of generation developer*)

Considering above proposed connectivity arrangement, provision of following at generation switchyard, implementation of **which shall be under the scope of the M/s Indiabulls Power Ltd.**, is proposed:

- 400kV bus reactor : 1x125MVAR
- 400kV bus reactor bay: 1 no.

M/s Indiabulls Power was informed that the grant of connectivity does not entitle to interchange any power with the grid unless it obtains long-term access, medium-term open access or short-term open access. Therefore in view of the commissioning schedule i.e. Apr'13 onwards, it was advised that applicant may apply for Long-term Access (LTA) immediately as per CERC Regulations, 2009 so that transmission system strengthening to facilitate power transfer on long-term basis can be identified.

### **B3) Suzlon Power Infrastructure Ltd., Distt.Kutch, Gujarat**

M/s Suzlon Power Infrastructure Ltd (SPIL) had applied for connectivity of its 100MW wind farm in Distt. Kutch, Gujarat as per the CERC regulations, 2009. Application details are as follows:

- Project Capacity - 100MW
- Connectivity applied for/from – 100MW/Mar'12
- Commissioning schedule- Mar'13
- Location - Distt Kutch ,Gujarat
- Land - 50% in possession

M/s SPIL informed that date of connectivity sought may be revised to Dec'12. In view of the project capacity as well as the proximity of the generation project, following connectivity was proposed:

- Suzlon Wind Farm – Bhachau(PG) 220kV D/c

GETCO stated that in Kutch area several wind farms including SPIL project are envisaged. However, it seems that their intention of applying connectivity is for the purpose of power transfer requirement as wind plants don't require startup power. POWERGRID reiterated that the grant of connectivity does not entitle an applicant to interchange any power with the grid unless it obtains long-term access, medium-term open access or short-term open access. POWERGRID informed that M/s Gujarat Flurochemical Ltd. has also been granted connectivity at 220kV Bachau for its 300 MW wind farm. Both these wind plant developers were advised to apply for LTA immediately to enable power transfer from their projects.

NLDC opined that considering the increasing penetration of Renewable Energy Sources (RES) and thrust given for integration of RES into the grid there is a need for formulation of suitable Grid Standards for connecting RES to the grid. Such standards are still in the draft stage and the RES being granted connectivity to the grid should be mandated to follow the standards as and when it is introduced. CEA informed that the all the generation projects from renewable sources must comply with Technical Standards for grid connectivity. It emerged that while granting connectivity to RES generators, suitable provisions shall be kept so as developer/applicant comply with future CEA standards for connectivity of renewable generators, particularly on fault ride through, trip settings for over-frequency/under frequency etc.

It was deliberated that in view of the capacity of above wind farms and power transfer requirement envisaged beyond 220kV Bachau(PG), a comprehensive study need to be carried out to evolve system strengthening requirement. For this, it was decided that a separate meeting shall be convened around 2<sup>nd</sup> week of November 2011 along with CEA, MNRE, GETCO, POWERGRID and above applicants to discuss the matter in detail.

#### **B4) Petronet LNG Ltd, Distt: Bharuch, Gujarat**

M/s Petronet LNG Ltd.(PLNGL) had applied for connectivity of its 3x395MW natural gas (LNG) based generation project. POWERGRID evolved transmission system for connectivity and circulated the same vide their agenda dated 29.08.11.

However, representative of M/s PLNGL was not present in the meeting for the discussion. In view of the above, it was decided to take up the application in the next meeting.

#### **B5) Welspun Energy Annupur Pvt. Ltd., Distt. Annupur, MP**

M/s Welspun Energy Annupur Pvt. Ltd. had applied for connectivity of its 1320MW gen. project in M.P as per the CERC regulations, 2009. Application details are as follows:

- Project Capacity - 1320MW (2x660 MW)
- Connectivity applied for/from – 1320MW/Aug'14

- Commissioning schedule - Dec'14, Mar'15
- Location: Distt: Annupur, M.P

Status of the generation project:

- Land Required: 769 Acres, Available: 158 Acres
- Environmental clearance Received final TOR
- Fuel Applied for Coal linkage to MoC
- Water WRD GoMP has accorded (40MCM – Kewai river) water

In view of the project capacity, unit size as well as the proximity of the generation project, following connectivity of project had been proposed in the agenda:

- Welspun Anuppur TPS – Vindhyachal Pooling station 400kV D/c (triple)

However as the progress of the project was not found adequate, it was decided that above connectivity application may be deferred at present. M/s Welspun Energy agreed for the same. POWERGRID requested applicant to keep their status informed so that application may be taken up accordingly.

### C. Applications for Grant of Long Term Access (LTA)

#### C1) NTPC Ltd- Lara STPP- I, Chhattisgarh

M/s NTPC Ltd had applied for Long term Access (LTA) for its 1600MW generation project in Distt. Lara, Raigarh, Chhattisgarh as per the CERC regulations, 2009. A brief of the application is as under:

Installed Capacity (MW)	2x800=1600 Village/Town-Chhapora/Lara/Lohakhan, District-Raigarh, Chhattisgarh
LTA required (MW)	1586.51 MW
Date from which LTA is Required	U I - 31.05.2015 (793.25MW) U II - 30.11.2015 (1586.51MW) Upto 30.11.40 (25 years)
Comm. schedule (Unit Wise)	U-1: Oct'15, U-2 : Apr'16
Target Beneficiaries/Regions	CSPDCL – 793.25MW; MP TRADECO – 130.68MW; GUVNL–180.71MW; MSEDCL – 226.21MW; GOA–8.97MW; UT DNH – 5.29MW ; UT DD – 3.42MW

Status of the project:

• Land	GoC accorded in principle land availability
• Environmental clearance	TOR of EIA approved by MoEF & EIA report available. Public hearing expected shortly
• Fuel	Talaipalli & Pakri – Barwadih mines(captive coal blocks) being developed by NTPC
• Water	Water source shall be Mahanadi River. Water commitment for 45 cusecs available from state govt

In the 14<sup>th</sup> meeting of WR Constituents, based on the project progress as well as the proximity of the generation project, following “in principle/provisional” connectivity was agreed:

- Lara-I TPS – Raigarh Pooling Station(Kotra) 765kV D/c

It was informed that in view of the limitation of short circuit capacity of at 400kV level of 765/400kV Raigarh Pooling Station (Kotra), connectivity for above generation project was provided at 765kV level. NTPC informed that there is no expansion plan at Lara TPS and connectivity level may be reviewed. Based on the above, it was decided that Lara-I may be provided provisional connectivity through following system:

- Lara-I TPS – Champa Pooling Station 400kV D/c (Quad)

Connectivity shall be granted based on the progress of the generation project in terms of possession of entire required land including land for main plant, fuel linkage for 70% of generation capacity, availability of environment and forest clearance, achievement of financial closure, award of EPC contract for main plant and release of advance payment and consent for establishment from State Pollution Control Board. Project progress shall be assessed in quarterly review meetings.

Considering above proposed “in-principle” connectivity arrangement, provision of following at generation switchyard, implementation of **which shall be under the scope of the NTPC Ltd.** is proposed:

- 400kV line bays : 2 nos.
- 400kV bus reactor : 1x125 MVAR
- 400kV bus reactor bay : 1 nos.

The connectivity system shall be implemented through tariff based competitive bidding route including 2 nos. 400kV line bays to be provided at Champa Pooling station upon grant of the connectivity after fulfilling milestones for progress of the project.

### **Long Term Access**

LTA application of M/s NTPC for transfer of 1587 MW power from Lara TPS to target beneficiaries in WR was discussed and after deliberations, provisional LTA was agreed to be provided to M/s NTPC with following system strengthening and other conditions:

- Provisional Long term-Access was considered for transfer of 1586.51MW power [ Target Beneficiary- CSPDCL – 793.25MW; MP TRADECO – 130.68MW; GUVNL– 180.71MW; MSEDCL – 226.21MW; GOA–8.97MW; UT DNH – 5.29MW ; UT DD – 3.42MW ] from their 1600MW generation project at Lara, Dist: Raigarh, Chhattisgarh with

following system strengthening in addition to identified High Capacity Transmission corridor for IPP projects in Chhattisgarh being implemented by POWERGRID:

**Transmission system strengthening in WR-NR tr. Corridor (To be shared along with other IPPs) (under the scope of POWERGRID)**

- Upgradation of  $\pm 800$ kV, 3000MW HVDC bipole between Champa Pooling Station – Kurukshetra(NR) to 6000MW
- Kurukshetra (NR)–Jind 400kV D/c(Quad)
- Kurukshetra (NR)–suitable location near Ambala 400kV D/c(Quad)

Above proposed transmission system strengthening shall facilitate strengthening of WR-NR HVDC Corridor, therefore power transfer to WR beneficiaries shall be met on the basis of displacement.

- (b) As informed by NTPC, beneficiaries have agreed for signing of all necessary agreements including LTA agreement/TSA with POWERGRID/transmission licensee. In view of the above, beneficiaries shall sign LTA agreement/TSA with POWERGRID for sharing of transmission charges and other applicable charges as per CERC norms. In addition, beneficiaries shall share the transmission charges towards additional system strengthening as indicated above (a) as well as for identified high capacity transmission corridor associated with IPPs in Chhattisgarh in proportion to their LTA quantum. NTPC agreed that they shall arrange for signing of LTA Agreement/TSA with beneficiaries
- (c) The sharing of Charges shall be as per CERC Regulations as amended from time to time.
- (d) LTA shall be effective from the date of availability of identified transmission system strengthening or date of LTA sought whichever is later.

**C2) NTPC Ltd- Barethi STPP, Distt. Chhattarpur, M.P**

Long term Access was sought by M/s NTPC Ltd. for their 3960MW(6x660MW) proposed generation project in Distt. Barethi, M.P. POWERGRID evolved transmission system strengthening for above power transfer requirement and circulated the same vide their agenda dated 05.10.11. POWERGRID informed that “in-principle” connectivity through LILO of Satna – Gwalior 765kV S/c at Barethi TPS was considered in the 14<sup>th</sup> meeting of WR Constituents.

During the meeting M/s NTPC informed that due to some water availability issues at Barethi, above generation capacity at present is likely to be considered as 1320 MW instead of earlier 3960 MW. In view of the above, M/s NTPC requested to hold the application till the finalisation of the ultimate capacity of the project. NTPC was requested to keep the status of generation project informed so that application may be taken up accordingly.

**C3) Shapoorji Pallonji Energy (Gujarat) Ltd.**

M/s Shapoorji Pallonji Energy (Gujarat) Ltd. had applied for LTA of 500MW from their proposed generation project near Junagadh in Gujarat. A brief on the application is as under:

Installed Capacity (MW)	1320MW (2x 660MW)
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	Village- Kaj & Nanavada, Taluka – Kodinar, Distt – Junagadh, State-Gujarat
Capacity for which LTA required (MW)	500 MW
Date from which LTA Required	15 <sup>th</sup> May 2015 (250MW) 15 <sup>th</sup> August 2015 (250MW) upto 14.05.40 (25 yrs)
Comm schedule	U-1:May'15; U-2:Aug'15
Target Beneficiaries	SR(245MW) and WR(255MW)

Status of generation project:

• Land	Required:840 acres Acquired/aggregated- 300 acres
• Environmental clearance	Final EIA Report submitted to MOEF
• Fuel	Imported coal from Indonesia
• Water	Tied up
• EPC	Bids opened. LOA by Oct/Nov'11

M/s Shapporji Pallonji Energy (Gujarat) Ltd. (SPEL) informed that they had signed PPA with GUVNL for supply of 800MW power from the above 2x660MW (Phase-I) power project and also been granted connectivity through the following transmission system:

- 400kV Shapporji Pallonji TPS – Amreli D/c line (twin)

GETCO also confirmed the same. Considering power transfer requirement on long term basis to SR/WR regions, interconnection of SPEL TPS with Pirana(PG) through a 400kV D/c line was proposed. However in view of the long distance with Pirana as well as nearby connectivity to 400kV Amreli(GETCO) of SPEL TPS, it was observed that majority of power flow is towards Amreli S/s. In view of the above, it was proposed to install a Phase Shifting transformer of suitable rating at Pirana(PG) on SPEL-Pirana(PG) 400kV D/c line to control the power flow upto 500MW.

M/s SPEL also informed that they are planning to have ultimate capacity of about 2640 MW at the proposed plant.

After deliberations, following was agreed as part of the Long term Access (LTA) to M/s SPEL:

- (a) Long term Access granted to M/s SPEL for transfer of 500MW power to target beneficiaries in WR/SR [WR- 255MW, SR- 245MW], subject to condition that M/s SPEL shall have to firm up PPA at least for 50% of LTA quantum 3 years prior to the intended



date of availing LTA as per CERC regulations, 2009 and intimate to POWERGRID as well as availability of following system strengthening scheme:

**(i) Transmission system strengthening for M/s SPEL**

- SPEL TPS – Pirana 400kV D/c line – *implementation through TB competitive bidding*
- Phase Shifting Transformers of suitable rating on the above line at Pirana(PG)

*Being strengthening of existing ISTS station, POWERGRID shall implement Phase-Shifting transformers of suitable rating at Pirana(PG) on SPEL – Pirana(PG) 400kV D/c line*

**(ii) Transmission system strengthening in WR (to be shared with M/s Pipavav Energy)**

- Pirana – Dehgam 400kV D/c (2<sup>nd</sup>)- to be implemented through TB competitive bidding
- Installation of 1x315 MVA,400/220kV ICT (3<sup>rd</sup>) at Pirana- *to be implemented by POWERGRID*

**(iii) Transmission system strengthening in SR-WR tr. corridor (to be shared with IPPs in SR & WR) (under the scope of POWERGRID)**

- Narendra (GIS) – Kolhapur (GIS) 765 kV D/c line (initially to be operated at 400 kV) [subsequently to be upgraded at 765 kV]
- LILO of both circuits of existing Kolhapur – Mapusa 400 kV D/c line at Kolhapur (new)
- Narendra (GIS) – Narendra (existing) 400 kV D/c Quad line
- Establishment of new 400 kV substation each at Narendra (GIS) and Kolhapur (GIS) [to be upgraded to 765 kV later]
- Kolhapur – Padghe 765 kV D/c one circuit via Pune (initially to be operated at 400 kV) [subsequently to be upgraded at 765 kV]

Above transmission arrangement (i) & (ii) shall facilitate power transfer within WR while power transfer to beneficiaries in SR shall be effected through transmission arrangement (iii).

- (b) M/s SPEL shall sign LTA agreement/TSA with POWERGRID for sharing transmission charges corresponding to 500MW, SR transmission charges corresponding to 245 MW and other applicable charges as per CERC norms. M/s SPEL shall also bear the transmission charges towards system strengthening as indicated above (a-i). In addition, M/s SPEL shall share the transmission charges towards additional system strengthening as indicated above (a-ii & a-iii) with other applicable IPPs.
- (c) The sharing of Charges shall be as per CERC Regulations as amended from time to time.
- (d) LTA shall be effective from the date of availability of identified transmission system strengthening or date of LTA sought whichever is later.

**C4) M.P Power Trading Co. Ltd. (420MW)**

Long term Access was sought by M.P Power Trading Co. Ltd (MP Tradeco) for drawing 420MW power from 2x600MW power project in Dist. – Anuppur (M.P.) of M/s MB Power (MP) Ltd. A brief on the application is as under:

Installed Capacity (MW)	2x600MW=1200 MW M/s MB Power (MP) Ltd.,
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	Distt.-Anuppur, State- Madhya Pradesh
Capacity for which LTA is required (MW)	420 MW Target Beneficiary : MP Discom thru MP Tradeco - 420MW
LTA sought from	1 <sup>st</sup> Aug'13
Comm. schedule (Unit Wise)	U1 – Aug'13, U2 – Dec'13

POWERGRID informed that M/s MB Power (M.P) Ltd has been granted Connectivity for 1200 MW and Long term Access for transfer of 392 MW power, as per CERC regulation 2009, from their proposed generation project [2x600 MW] in Distt Anuppur, MP.

Connectivity for the above project was provided through MB TPS – Jabalpur Pooling Station 400kV D/c (Triple) line. Above transmission connectivity is already under implementation by POWERGRID.

MP Tradeco had signed a PPA with M/s MB Power (MP) Ltd for drawing 420 MW power from above 2x600 MW power project in Distt. Anuppur. As per the provisions of PPA, MP Tradeco shall arrange for evacuation of 420MW power from the project Bus bar. Accordingly, MP Tradeco has applied for LTA for transfer of 420 MW from above generation project for drawl by MP Discom through MPPTCL at various CTU-STU (MPPTCL) interconnection points.

After deliberations, following was agreed as part of the Long-term Access (LTA) to M/s MP Power Trading Co. Ltd:

(a) Long term Access granted to MP Tradeco for transfer of 420 MW power from MB TPS to its beneficiary i.e. MP Discom through MP Tradeco at CTU-STU interconnection point (s) along with following system strengthening scheme:

**(i) Transmission system strengthening in WR**

- Jabalpur Pooling Station – Bina 765kV S/c(3<sup>rd</sup>)\* (*being Implemented through tariff based competitive bidding*)

\* *Associated line bays and reactor to be implemented by POWERGRID*

Transmission charges for above strengthening scheme shall be shared by MP Tradeco along with M/s Moser Baer and other IPPs applicable.

**(ii) Common Transmission Corridor**

- Jabalpur Pooling Station – Bhopal – Indore 765kV S/c\*\* (along with associated bays/reactors) (*being Implemented through tariff based competitive bidding*)
- Establishment of 765/400kV, 2x1500MVA Jabalpur Pooling Station

\*\* *Associated line bays and reactor at Jabalpur Pool & Indore substation to be implemented by POWERGRID*

Transmission charges for above common transmission system strengthening scheme shall be shared by MP Tradeco along with M/s MB Power(MP) Ltd, IPPs in Orissa (6080 MW) and other IPPs as applicable.

- (b) MP Tradeco shall utilize connectivity transmission system i.e., MB TPS – Jabalpur Pooling Station 400kV D/c (Triple) line therefore Transmission charges for above scheme shall also be shared by MP Tradeco along with M/s MB Power (MP). For this applicant shall have to sign applicable agreements with POWERGRID.
- (c) MP Tradeco shall sign the LTA Agreement/TSA with POWERGRID/Tr.licensee for sharing of transmission charges corresponding to above transmission system strengthening (a-i) & (a-ii).
- (d) The sharing of charges shall be as per CERC Regulations as amended from time to time.
- (e) LTA shall be effective from the date of availability of identified transmission system strengthening or date of LTA sought whichever is later.

#### **C5) M/s Dahanu Solar Power Pvt. Ltd. (33 MW)**

POWERGRID informed that M/s Dahanu Solar Power Pvt. Ltd (DSPPL), a wholly owned subsidiary of Reliance Power Ltd., is setting up a 40MW Solar Photo Voltaic Power project at Village Dhusar, Distt. Jaisalmer, Rajasthan. Commissioning schedule of the project is February 2012. DSPPL have already obtained grid connectivity to the Rajasthan Rajya Vidyut Prasaran Nigam Ltd.(RRVPNL) at 220/132kV Dechu Grid substation through a 220kV D/c line. Long-term Access(LTA) application has been submitted for transfer of 33MW power to Reliance Infrastructure Ltd., Mumbai from above project. Date of commencement of LTA is from 15.02.12 for 25 years period.

Above application was deliberated and it was opined that considering the quantum of power transfer (33MW) between NR and WR, the Inter-State Transmission System in WR is found to be adequate and grant of LTA for WR grid is in order. However, adequacy of respective STU network viz. Maharashtra and Rajasthan may be confirmed by M/s DSPPL. M/s DSPPL informed that NOC from RRVPNL is under process. NOC from RRVPNL and MSETCL shall be submitted by DSPPL to CTU. Further, the application shall also be discussed in the meeting of NR constituents. It was decided that based on the discussion and NOC from above STUs, LTA for transfer of 33MW power shall be granted.

In addition, M/s DSPPL needs to sign LTA Agreement/TSA with POWERGRID for sharing applicable ISTS charges as per CERC norms.

#### **D. Applications for Grant of Connectivity & Long Term Access**

##### **D1) Hindustan Electricity Generation Ltd.**

M/s Hindustan Electricity Generation Company Pvt. Ltd(HEGCL) had applied for connectivity and LTA of its 1137MW Gas based generation project near Village/Town: Navlakh – Umbre, Dist - Pune, in Maharashtra as per the CERC Regulations, 2009. Application details are as under:

Generation Project	3x379MW (1137MW) District – Pune, State - Maharashtra
Commissioning schedule	U-1: March 2014 U-2&3: September 2014
Connectivity sought for	1137MW from Sep'13
LTA sought for	1137 MW from Mar'14 (25 Years)
Step up Voltage	400kV
Target beneficiary	700MW(ER) & 300MW(SR)

Status of the generation project is as under:

Land	Total Required: 99.18 Ha Land in Possession : 107Ha.
Environment clearance	Letter for final Environmental Clearance for one unit awaited
Fuel Arrangement	Natural Gas; Agreement with BPCL for supply of Natural Gas on Short Term Basis
Water arrangement	Total Demand: 9 MLD; Maharashtra Jeevan Pradhikaran to supply 1.0MLD for construction. Remaining demand to be fulfilled from Andhra Dam.

### **Connectivity**

Applicant informed that connectivity for one unit(350 MW) has already been granted by MSTECL at 400kV level though LILO of Lonikhand - Kalwa 400kV S/c line. However, above unit is independent with other 3-units through separate switchyard. Applicant has therefore applied for connectivity of 1137 MW capacity.

On the query of members, applicant informed that Environment Clearance has been granted for one unit (379 MW), however letter regarding Environmental clearance is awaited as the matter is subjudice due to a Public Interest Litigation. In view of the above, it was decided that connectivity as well as LTA may be considered for one unit at this juncture.

In view of the project capacity and unit size as well as proximity of the generation project with existing 400/220kV Pune S/s, following connectivity of the M/s Hindustan Electricity Generation Company Pvt Ltd (379 MW) was agreed:

- HEGL Switchyard – Pune(GIS) 400 kV D/c (HTLS Conductor) - about 55 km

However in view of the commissioning schedule for establishment of 765/400kV Pune(GIS) S/s and commissioning schedule of the HEGL gen. project, it is proposed that above connectivity line may be routed through existing 400/200kV Pune(AIS) S/s as an

interim measure. M/s HEGL agreed that above interim measure shall be opened at Pune(AIS) after the availability of 400kV Pune(GIS) substation to which final connectivity is granted.

Further, considering the desired date of connectivity (Sep'13), applicant agreed to develop the connectivity transmission system including line bays at 400kV Pune(AIS) and Pune(GIS) S/s.

Considering above proposed connectivity arrangement, provision of following at generation switchyard, implementation of **which shall be under the scope of M/s Hindustan Electricity Generation Company Pvt Ltd.**, is proposed:

- 400kV line bays : 2 nos.
- 400kV bus reactor : 1x125MVAR
- 400kV bus reactor bay : 1 no.

In addition, 400kV line bays 2 nos. each at Pune(AIS) [for interim arrangement] and Pune(GIS) [for permanent connectivity arrangement] shall be under the scope of the applicant.

### **Long Term Access (LTA)**

Applicant informed that they have recently signed PPA with West Bengal(ER) and therefore intend to modify the target beneficiary to ER (700 MW) instead of earlier WR(700 MW). Target allocation to SR shall remain same as 300 MW. In view of the project progress for one unit (379 MW), following was agreed as part of the Long-term access (LTA) to M/s HEGL:

- (a) Grant of Long term access to M/s Hindustan Electricity Generation Company Pvt Ltd. for transfer of total 379 MW power [SR-114 MW, ER-265 MW] from its generation project near Pune, Maharashtra to target beneficiaries in SR/ER may be provided with following system strengthening:

**(i) Transmission system strengthening in SR-WR tr. corridor (to be shared with IPPs in SR & WR) – to be implemented by POWERGRID**

- Narendra (GIS) – Kolhapur (GIS) 765 kV D/c line (initially to be operated at 400 kV) [subsequently to be upgraded at 765 kV]
- LILO of both circuits of existing Kolhapur – Mapusa 400 kV D/c line at Kolhapur (new)
- Narendra (GIS) – Narendra (existing) 400 kV D/c Quad line
- Establishment of new 400 kV substation each at Narendra (GIS) and Kolhapur (GIS) [to be upgraded to 765 kV later]
- Kolhapur – Padghe 765 kV D/c one circuit via Pune (initially to be operated at 400 kV) [subsequently to be upgraded at 765 kV]

Allocation from M/s HEGL to SR/ER beneficiaries shall be transferred on the basis of displacement.

- (b) M/s HEGL shall sign LTA Agreement/TSA with POWERGRID for sharing of transmission charges corresponding to 379MW in WR, SR transmission charges corresponding to 114 MW, ER transmission charges corresponding to 265 MW and other applicable charges as per CERC norms.

M/s HEGL shall bear the transmission charges towards system strengthening as indicated above (i) in proportion to the LTA quantum with other applicable IPPs.

- (c) The sharing of Charges shall be as per CERC Regulations as amended from time to time.
- (d) However, in view of the desired LTA commencement date (Mar'14), applicant shall have to firm up PPA at least for 50% of LTA quantum immediately and submit the information to POWERGRID.
- (e) LTA shall be effective from the date of availability of identified transmission system strengthening or date of LTA sought whichever is later.

#### **E. Modification of LTOA Quantum / Commencement of LTOA of Bina Power Supply Co. Ltd.**

M/s Bina Power Supply Company Ltd.(BPSCL) was granted LTOA for transfer of 265.35MW power [Target beneficiaries: WR- 132.68MW, NR- 132.67MW] from their 2X250 MW Bina TPS in M.P as per CERC Regulations, 2004. It was also agreed that balance 210 MW shall be transferred to MPPTCL at 400kV Bina (MPPTCL) S/s through 400kV Bina TPS- Bina (MPPTCL) line.

Subsequently, M/s BPSCL informed that as per their renewed agreement with GoMP they have to supply 70% of gross power directly to MPPTCL instead of earlier agreed 42%. In this regard, applicant has requested to reduce quantum of power to be transmitted to ISTS for 137.5 MW under LTOA against earlier 265.35 MW.

In addition, BPSCL Power informed that the date of commencement of above open access was from Sep'11 i.e. schedule of 1<sup>st</sup> unit of above generation project. In this regard applicant has informed that due to unavoidable circumstances and site constraints the commissioning schedule is being revised to U#1- Mar'12 U#2- Jun'12.

POWERGRID informed that M/s BPSCL has already signed the BPTA along with other 5 other IPPs in WR for sharing of transmission charges towards identified transmission system strengthening.

In view of the above modification requested by BPSCL at this stage, members opined that as per CERC Regulation 2009, such modification shall be treated as relinquishment of access rights and therefore treatment shall be made as per the provision of CERC regulation 2009. POWERGRID may examine the same and applicable compensation, if any, shall have to be paid by M/s BPSCL for such relinquishments.

#### **F. Connectivity / LTOA application withdrawn by M/s Prakash Industries Ltd (PIL)**

POWERGRID informed that Prakash Industries Ltd (PIL) was granted connectivity/ LTOA for transfer of 500MW power from their (5x25MW+2x100MW+2x150MW) PIL CPP in Chhattisgarh to WR/NR. Subsequently, M/s PIL informed that they have planned to utilize the whole power for its own use/captive requirement and therefore will not have any surplus Power to inject in the grid. In this regard, applicant requested to withdraw its application for Connectivity and LTOA. It was agreed to consider the applications closed.

## **G. Interim transmission system arrangement for IPPs in WR**

Considering the commissioning schedule for generation units as well as identified system strengthening schemes, following interim transmission arrangements for the IPPs who have been already granted Long-term Open access were agreed:

### **(i) M/s Spectrum Coal & Power Ltd (SCPL), Chhattisgarh**

POWERGRID informed that M/s SCPL was granted LTOA for transfer of 100 MW power with dedicated interconnection of Spectrum generation project with ACB(I) (270 MW) gen. project (erstwhile Aryan Coal) which in turn shall be interconnected at 400kV WR Pooling Station (Bilaspur) through a D/c line (being developed by M/s ACB (I)).

M/s SCPL informed that their project (U#1: 50 MW) is scheduled for commissioning by Dec'11 however they also intend to draw start up power from Oct'11. M/s SCPL also informed that there is no interconnection of M/s SCPL and ACB (I) with Chhattisgarh STU network. Therefore, applicant requested to provide some interim arrangement till the availability of 765/400kV WR Poling Station (Bilaspur).

Subsequently, in the 14<sup>th</sup> meeting of WR constituents held on 13.05.11, M/s ACB (I) Ltd was provided an interim arrangement through LILO of 400kV Korba-Bhatapara S/c line at Aryan TPS. This LILO was agreed as an interim arrangement till availability of 765/400kV WR Pooling (Bilapsur) station.

In view of the SCPL TPS to be connected with ACB (I) switchyard at 132kV level, it is proposed that above interim transmission arrangement may also be considered for as an interim arrangement for SCPL TPS. Further, till the availability of planned transmission system, power transfer shall be effected depending on the transmission capacity margin available on short term basis. In case of any transmission constraints, Spectrum TPS and Aryan TPS would have to be backed down. Members agreed for the same.

It was also agreed that M/s SCPL shall provide special protection System (SPS) at the generation switchyard and its setting shall be carried out in consultation with WRLDC/WRPC.

### **(ii) IPPs in Chhattisgarh**

#### **(a) SKS Power Generation (Chhattisgarh) Ltd. (4x300 MW)**

POWERGRID informed that M/s SKS Power Generation (Chhattisgarh) Ltd. was granted LTOA for transfer of power from their 1200 MW generation project in Chhattisgarh with dedicated interconnection from 400kV Raigarh (Kotra) S/s. M/s SKS informed that their generation project is likely to be commissioned in 2013 (U#1: Jul'13 U#2: Aug'13). Further the plant would need about 30 MVA start-up power by Jan'13. Keeping in view of the commissioning schedule of 765/400kV Raigarh(Kotra) S/s and start-up power requirement for commissioning activities from Jan'13 onwards, M/s SKS requested for an interim transmission arrangement. Considering the commissioning schedule as well as progress of the project, following Interim transmission arrangement was identified.

- LILO of one ckt of Raigarh – Raipur 400kV D/c at SKS TPS

Members agreed for the same.

It was also decided that M/s SKS shall provide special protection System (SPS) at the generation switchyard and its setting shall be carried out in consultation with WRLDC/WRPC.

#### **(b) Lanco Power Ltd (2x660 MW)**

POWERGRID informed that M/s Lanco Power Limited(LPL) was granted LTOA for transfer of power from its 1320MW (U3: 660MW & U4: 660MW) generation project with dedicated transmission system i.e. Lanco TPS - Champa Pooling Station 400kV D/c line along with High Capacity Transmission corridor for IPPs in Chhattisgarh. M/s Lanco has informed their unit commissioning schedule as Sep'12 onwards. Keeping in view the commissioning schedule of 765/400kV Champa Pooling station, M/s Lanco requested for interim transmission arrangement.

It was explained that M/s Lanco Unit 1&2 (600 MW) is already connected through 400kV Korba-Sipat/Raipur S/c line [U#2 with interim transmission arrangement]. However this generating station is to be finally connected to WR Pooling Station (Bilaspur) through a dedicated 400kV D/c line, which is being implemented by M/s Lanco Power.

After deliberations, following interim transmission arrangement for U-3 & 4 is agreed:

- Lanco U 3 & 4 may be connected to WR Pooling station through 400kV Lanco TPS-WR Pooling station(Bilaspur) D/c line along with bus sectionalisation open with 600MW unit (U#1/2) bus till the availability of 765/400kV Champa Pooling Station
- Lanco U1&2 may continue to be interconnected through LILO of 400kV Korba – Sipat / Raipur S/c line (as an interim arrangement) till the availability of 765/400kV Champa Pooling Station

Further, till the availability of planned transmission system, power transfer from U-1, 2, 3 and 4 shall be effected depending on the transmission capacity margin available on short term basis. In case of any transmission constraints, M/s Lanco Power Ltd would have to back down generation of Lanco TPS (U1/2/3/4).

It was also decided that M/s Lanco Power shall provide special protection System (SPS) at the generation switchyard and its setting shall be carried out in consultation with WRLDC/WRPC.

#### **H. Applications for Grant of MTOA**

POWERGRID informed that proposal for grant of MTOA for applications of Electricity Department UT DNH and SAIL-VISP for transfer of 32MW and 10.92MW respectively from NSPCL (2x250MW) generating station in Bhilai were earlier circulated to WR Constituents and respective SR constituents/SRLDC.

Observation only from WRLDC was received and based on the observation, MTOA was granted to Electricity Department UT DNH for transfer of 32 MW to UT DNH and SAIL-VISP for 10.92 MW to- Karnataka in SR from 500MW NSPCL (Bhilai) generating station in Chhattisgarh from the network considerations. MTOA has been granted to UT DNH for the period of 0.1.11.11 to 31.03.12 and SAIL-VISP from 01.11.11 to 31.05.14 or signing of MTOA/TSA agreements which ever is later. Members noted the above.



**Note:**

**i) For all the generation projects that have been granted Connectivity under CERC regulation, 2009, in addition to other applicable provisions, following are to be noted**

- As per CERC regulation, 2009 [clause -8(6)] the grant of connectivity does not entitle an applicant to interchange any power with the grid unless it obtains long-term access, medium-term open access or short-term open access. The applicant is however allowed to inject infirm power into the grid only for undertaking testing including full load testing in coordination with RLDC before availing any type of access. Therefore, the system identified for the connectivity to ISTS does not entitle the IPP to inject power from the project and applicant shall have to apply for Long-term access for ensuring reliable evacuation of power from the project. Further, any Short-term/Medium-term Open Access will be subjected to available margins at that point of time and may not guarantee evacuation of entire plant output through the proposed connectivity arrangement.
- All the applicants who have been granted Connectivity, shall provide Special protection Scheme (SPS) integrated into their system. Details of SPS and its setting shall be worked out by the applicant in consultation with WRLDC.
- For all above Connectivity applications, where “Provisional” connectivity has been considered, it was agreed that progress of the generation project should be submitted by the applicant latest within 6 months i.e, by Apr-May’12 so that connectivity can be further processed granted after assessing the same by the CTU.
- Applicant shall have to inform likely date of synchronization, likely quantum and period of injection of infirm power before being put into commercial operation to the SLDC/RLDC concerned at least one month in advance and obtain their concurrence for the same.
- The applicant shall have to apply for “Connection Offer” to CTU at least more than 2 years prior to physical interconnection as well as have to sign “Connection Agreement” with CTU prior to physical interconnection as per CERC Regulations, 2009.
- Transmission system for connectivity may be reviewed, if required, at the time of processing of Long Term Access (LTA) application, if applied by the applicant.
- 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, CEA (Technical Standards for connectivity to the Grid) and Indian Electricity Grid Code as amended from time to time.

**ii) For all the generation projects that have been granted LTA under CERC regulation, 2009, in addition to other applicable provision following are to be noted**

- LTA shall be effected subject to applicant firming up PPA at least for 50% of LTA quantum 3 years prior to the intended date of availing LTA as per CERC regulations, 2009 and intimate to POWERGRID.

- For the balance capacity (not exceeding 50% of LTA sought for) for which exact source of supply or destination could not be firmed up on long-term basis, the augmentation/system strengthening further from the target region shall be taken up only after identification of exact source/destination. Transmission Licensee shall be allowed up to 3 years time for such augmentation/system strengthening from the target region to the exact source/destination. During such period applicant shall be liable to pay the transmission charges up to the target region.
- Payment of transmission charges for the balance capacity for which exact source on long term basis is not known, shall not entitle the applicant any right over the transmission system up to the target region and CTU may release this balance transmission capacity up to target region for short-term open access or the medium term open access till the applicant firms up source/destination on long-term basis and its operationalisation.
- The implementation of respective system strengthening works shall be taken up by POWERGRID/concerned licensee/applicant/any other agency identified by the Empowered committee after signing of BPTA for timely commissioning and operation as per provision of BPTA.
- The applicant shall enter into long term access agreement(s) with CTU within thirty days of receipt of draft BPTA. In case transmission system of Inter state transmission licensee other than CTU is used, an agreement shall be signed between the applicant and such inter-State transmission licensee, in line with the provisions of the regulations.
- Till the availability of identified system strengthening to effect LTA is in place, power transfer shall take place through STOA/MTOA route depending upon the transmission capacity margins. Further, in case of operational constraints, generation may have to be backed down.
- The nodal agency may change system strengthening requirements identified for a particular applicant project on the basis of any subsequent study carried out on its own motion or on another application for LTA, with the purpose of optimum utilization of the transmission system or to conserve limited right-of-way, and in such event, the changes carried out by the nodal agency shall be intimated to the applicant, or any other person associated with the LTA.
- For all above LTA applications, where "Provisional" LTA has been considered, it was agreed that progress of the generation project should be submitted by the applicant within 6 months i.e, latest by Apr-May'12 so that LTA can be further processed after assessing the same by the CTU.
- 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, CEA (Technical Standards for connectivity to the Grid) and Indian Electricity Grid Code as amended from time to time.

The meeting ended with vote of thanks to the Chair and all the participants.

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## Annexure-OA-1

**15th Meeting of WR Constituents for Connectivity, Medium Term Open Access (MTOA) and  
Long Term Access(LTA) applications**

**Date: 21.10.2011, Venue: NRPC, New Delhi**

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