

PROCEDURE FOR GRANT OF CONNECTIVITY TO INTRA-STATE TRANSMISSION SYSTEM

1. OUTLINE

- 1.1 This Procedure is prepared in accordance with “Uttar Pradesh Electricity Regulatory Commission (Grant of Connectivity to intra-state Transmission System) Regulations, 2010” dated 28.10.2010 (hereinafter referred to as “UPERC Connectivity Regulations”).
- 1.2 This procedure shall be applicable to generating stations (including captive generating plants and non-conventional energy sources based generating stations) of generating companies, distribution licensees, captive users, open access consumers, intra-State transmission licensees and State Transmission Utility.
- 1.3 This Procedure shall apply to the application made for grant of connectivity to intra-State transmission system (hereinafter referred to as “Intra-STS”) and other connectivity related matters, received by State Transmission Utility (hereinafter referred to as “STU”) under UPERC Connectivity Regulations.
- 1.4 The application already made for grant of connectivity to Intra-STS and received by STU till 27.10.2010, shall be treated as follows:
 - (i) The connectivity, which has already been granted and that is yet to become operational, shall continue to remain valid subject to signing of connection agreement under UPERC Connectivity Regulations. The necessary information along with supporting documents required for signing of connection agreement shall be submitted to STU as given in this procedure within one (1) month or within such time as directed by STU.
 - (ii) Any person who is yet to be granted connectivity, shall not be required to make a fresh application under clause 2 of this procedure or submit application fees for grant of connectivity as required under UPERC Connectivity Regulations. However, such application shall be processed in accordance with this procedure and necessary information along with supporting documents as required under this procedure shall be submitted by the person, who has made such an application, to STU within one (1) month or within such time as directed by STU.
- 1.5 The nodal agency for grant of connectivity to Intra-STS and all other matters connected therewith shall be State Transmission Utility (STU) i.e. Uttar Pradesh Power Transmission Corporation Limited (UPPTCL). Application and correspondence shall be addressed to :

Director (Operation)
Uttar Pradesh Power Transmission Corporation Limited
(State Transmission Utility)
11th Floor, Shakti Bhawan Extension
14, Ashok Mark, Lucknow-226001

Phone No. (0522) 2287833

Fax No. (0522) 2286476

- 1.6 The words and expressions used in this procedure shall have the same meaning assigned to them under the Electricity Act, 2003 (hereinafter referred to as “the Act”), Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, UPERC Connectivity Regulations, UPERC (Terms and Conditions for Open Access) Regulations, 2004 (hereinafter referred to as “UPERC Open Access Regulations”) and UPEGC 2007, as amended from time to time.

2. APPLICATION FOR GRANT OF CONNECTIVITY

- 2.1 Application of grant of connectivity shall be made by:-

- (a) a generating company, which owns or operates or maintains a generating station (including a captive generating plant) having installed capacity of 5 MW and above, seeking connectivity for its new/modified/expended generating plant/electrical plant at voltage 33 KV and above;
- (b) a distribution licensee, seeking connectivity for new/modified/augmented substation or generating station and/or electric line at voltage 33 KV and above;
- (c) a captive user or an open access consumer, seeking connectivity for its new/modified/augmented substation and/or electric line to receive electricity exceeding 10 MW at voltage 132 KV and above.

Provided that any other intra-State transmission licensee (other than STU), entering into the business of intra-State transmission of electricity under section 63 of the Act or otherwise, shall not be required to make an application for connectivity. STU shall connect transmission system of such any other intra-State transmission licensee with the existing Intra-STs. Such any other intra-State transmission licensee shall build, operate and maintain the transmission system according to the transmission plan prepared by STU and approved by CEA or bid documents made for inviting competitive bids and transmission licence granted by UPERC subsequently. However, the connectivity in such case shall be subject to signing of connection agreement under UPERC Connectivity Regulations and any other formality to be completed on the direction of STU. However, such licensee shall intimate STU about the grant of licence by the Commission immediately along with copy of licence and Transmission Service Agreement which shall form the base for suo-moto action by STU for processing the case of such licensee for making an ‘connection offer’. STU may ask such licensee to furnish further information as may be considered necessary.

Explanation to proviso: “Intra-State transmission licensee, entering into the business of intra-State transmission of electricity under section 63 of the Act or otherwise, shall not

be required to make an application for grant of connectivity” means that such licensee shall not be required to submit format [FORMAT-CON2].

- 2.2 The users, already exist connected to the Intra-STS till 27.10.2010 (i.e. before commencement of UPERC Connectivity Regulations), shall not be required to make fresh application for connectivity for the same capacity and they shall be deemed to have already been granted connectivity(ies). However the connection agreement(s) shall be signed under clause 10 of this procedure if not signed earlier.

Provided that in case of extension or modification of capacity of generating plant/electrical plant or contracted load or augmentation of substation/electric line, as the case may be, such user shall be required to make a fresh application for connectivity according to UPERC Connectivity Regulations and this procedure.

3. PROJECT RELATED INFORMATION TO BE SUBMITTED WITH THE APPLICATION

The applicant shall ensure to have completed project planning, designing and pre-construction activities (including all licenses, authorizations, permissions and clearances as required from time to time under the law) before making an application for grant of connectivity and satisfy STU of its preparedness of undertaking the project by specifying tentative date(s) of start of construction and commissioning of the project. An undertaking to this effect shall be submitted along with a concise description of each activity completed. However, such an undertaking shall not be required to be submitted by existing distribution licensee requiring connectivity at 33 kV voltage level and in such case licensee shall act in accordance with general or specific conditions of its distribution licence.

The applicant shall specifically mention that technical standards for connectivity specified by CEA in Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 have been or shall be complied with.

Note: ‘Project’ means to include generating plant/electrical plant or sub-station and/or electric line of the applicant or intra-State transmission licensee (other than STU), as the case may be, for which connectivity is required/intended under this procedure.

3.1 GENERATING STATION

The provisions made hereunder shall apply to generating station covered under clause 2 of this procedure.

- 3.1.1 The application shall be accompanied with the following information along with relevant documents:

- (i) **Site identification and land acquisition:**
 - (a) Land required for generating station;
 - (b) Land acquired and possession taken;

- (c) Description of (a) and (b) above.

Note:

- (1) The “Requirement of land” would be considered as indicated in the proposal filed with the competent authority for seeking environmental clearance.
- (2) In case land is acquired under the Land Acquisition Act 1894 as amended from time to time, the applicant shall submit copy(ies) of notification(s) issued under section 4 and section 6 or section 17 of the said Act.

In case land is not acquired under the Land Acquisition Act 1894, the applicant shall furnish documentary evidence for such acquisition by purchase or lease (lease period being more than the useful life of generating station).

(ii) **Environmental clearance:**

- (a) Rapid Environmental Impact Assessment (EIA) Report;
- (b) Status on submission of requisite proposal;
- (c) Competent authority before whom the proposal is submitted;
- (d) Whether clearance accorded, if not, then the objection raised by the competent authority and remedial action taken by the applicant. However, clearance must be obtained before signing of connection agreement.

(iii) **Forest clearance:**

- (a) Status on submission of requisite proposal. If not applicable, then reasons thereof;
- (b) Competent authority before whom the proposal is submitted;
- (c) Whether clearance accorded, if not, then the objection raised by the competent authority and remedial action taken by the applicant. However, clearance must be obtained before signing of connection agreement.

(iv) **Fuel arrangements:**

- (a) Name of fuel, quantity required for installed capacity intended for connectivity;
- (b) Fuel linkage or captive coal mine(s) whether domestic or overseas;
- (c) Contract signed with any agency which will develop/arrange facility for transportation of fuel. If not signed, then it must be signed before signing of connection agreement.

(v) **Water linkage:**

- (a) Status of submission of requisite proposal;

- (b) Approval from the State irrigation department or any other competent authority for sanctioning the required quantity of water;
 - (c) If approval not accorded, then the objection raised by the competent authority and remedial action taken by the applicant. However, approval must be obtained before signing of connection agreement;
 - (d) Contract signed with any agency for development of water facility for the generating station. If not signed, then it must be signed before signing of connection agreement.
- (vi) **Order for supply of plant and machinery or award of EPS Contract:**
The status of order placed for plant and machinery or EPS contract awarded.
- (vii) **Dedicated transmission line:**
Details of dedicated transmission line associated with the generating station.
- (viii) **Useful life of generating station:**
The useful life of generating station.
- (ix) **Commissioning schedule:**
 - (a) Original date of commercial operation;
 - (b) Revised date of commercial operation, if any.
- (x) **Commercial arrangement(s) made by the applicant:**
Details of agreement(s) for purchase of electricity for start up power or backup power from any other source including distribution licensee of its area.
- (xi) **Information specific to captive generating plant:**
 - (1) Scheme of captive generating plant –
 - (a) Entity which owns, operates and maintains the plant;
 - (b) Generating unit(s) identified for captive use;
 - (c) Generating unit(s) not identified for captive use.
 - (2) Scheme of captive use/details of captive user(s) –
 - (a) Details of captive user(s) of the plant;
 - (b) Share holding of each captive user(s) in equity, if any;
 - (c) Percentage share of consumption assigned to each captive user(s) in the aggregated electricity generated;

- (d) Quantum of power to be transferred to each captive user(s) and the point(s) of drawl, intra-State or transmission system of any other state or inter-State;
- (e) Details of existing or proposed connectivity of each captive user(s) to Intra-STS or transmission system of any other state or Inter-STS (i.e. capacity (MW), voltage level (kV), name of 765/400/220/132 sub-station and name of licensee where such captive user(s) is embedded) or the point of state periphery at which power shall be delivered if captive user(s) is located outside the State.

(xii) **Information specific to plant generating Non-firm Power:**

- (a) Details of pooling station;
- (b) Entity which owns, operates and maintains the pooling station;
- (c) Geographical location of pooling station (nearest village/town, district, State, latitude and longitude);
- (d) Useful life of pooling station.

(xiii) **Other clearances:**

Any other approval(s)/permission(s)/no objection certificate(s) required from any competent authorities under the law.

(xiv) Any other relevant information required by STU or to be provided by the applicant.

3.1.2 The information required under clause 3.1.1 shall be supported by an affidavit as per format [FORMAT-CON1].

3.2 ELECTRIC LINE FOR CONNECTING SUB-STATION OF A DISTRIBUTION LICENSEE OR PREMISES OF A CAPTIVE USER OR AN OPEN ACCESS CONSUMER

The provisions made hereunder shall apply to electric line connecting sub-station of a distribution licensee or premises (i.e. industrial or commercial establishment) of a captive user or an open access consumer who are covered under clause 2 of this procedure.

3.2.1 The application shall be accompanied with the following information along with relevant documents:

(i) **Site identification and land acquisition:**

- (a) Land required for sub-station of a distribution licensee or premises (i.e. industrial or commercial establishment) of a captive user or an open access consumer, as the case may be;
- (b) Land acquired and possession taken;

- (c) Description of (a) and (b) above.

Note:

- (1) The “Requirement of land” would be considered as indicated in the proposal made in the project feasibility report.
- (2) In case land is acquired under the Land Acquisition Act 1894 as amended from time to time, the applicant shall submit copy(ies) of notification(s) issued under section 4 and section 6 or section 17 of the said Act.

In case land is not acquired under the Land Acquisition Act 1894, the applicant shall furnish documentary evidence for such acquisition by purchase or lease (lease period being more than the useful life of sub-station of a distribution licensee or premises (i.e. industrial or commercial establishment) of a captive user or an open access consumer, as the case may be).

(ii) **Environmental clearance:**

- (a) Status on submission of requisite proposal. If not applicable, then reasons thereof;
- (b) Concerned authority before whom the proposal is submitted;
- (c) Whether clearance accorded, if not, then the objection raised and remedial action taken. However, clearance shall be obtained before signing of connection agreement.

(iii) **Forest clearance:**

- (a) Status on submission of requisite proposal. If not applicable, then reasons thereof;
- (b) Competent authority before whom the proposal is submitted;
- (c) Whether clearance accorded, if not, then the objection raised by the competent authority and remedial action taken by the applicant. However, clearance must be obtained before signing of connection agreement.

(iv) **Order for supply of plant and machinery or award of EPS Contract:**

The status of order placed for plant and machinery or EPS contract awarded.

(v) **Useful life of premises (i.e. commercial or industrial establishment) of captive user or open access consumer:**

The useful life of premises (i.e. commercial or industrial establishment) of captive user or open access consumer, as the case may be, intended for connectivity.

(vi) **Commissioning schedule:**

- (a) Date of start of construction;

- (b) Original date of commercial operation;
- (c) Revised date of commercial operation, if any.

(vii) **Other clearances:**

Any other approval(s)/permission(s)/no objection certificate(s) required from any competent authorities under the law.

(viii) Any other relevant information required by STU or to be provided by the applicant.

3.2.2 The application shall be accompanied with the following specific information along with relevant documents:

(A) Distribution Licensee –

(i) Distribution plan:

- (a) Inclusion of sub-station or electric line in the distribution plan as conveyed to STU for transmission planning along with demand estimates;
- (b) Approval of the distribution plan by the competent authority of the Company.

(ii) Technical details:

- (a) Existing and additional distribution transformation capacity proposed at the sub-station;
- (b) Existing and proposed electric line for connecting distribution sub-station with Intra-STS;
- (c) Length and conductor of the electric line mentioned under (b) above;
- (d) Present load of the sub-station under (a) above and expected growth in load in subsequent five years;
- (e) Details of other distribution sub-station(s) from where load will be released/transferred to proposed sub-station.

(iii) Information of any generating station or sub-station/electric line of captive user or open access consumer connected with distribution system, if any.

(iv) Any other relevant information required by STU or to be provided by the applicant.

(B) Captive User –

- (i) Details of industrial establishment.
- (ii) Extent of use of transmission system by the applicant:
 - (a) Existing demand;

- (b) Additional demand;
 - (c) Total demand to be met through transmission system;
 - (d) Expected growth in demand in subsequent five years.
- (iii) Details of back up supply from distribution licensee of its area:
- (a) Name of distribution licensee;
 - (b) Contracted load;
 - (c) Date of contract.
- (iv) Commercial arrangement(s) made by the applicant:
Details of agreement(s) for purchase of electricity from any source other than distribution licensee of its area.
- (v) Scheme of captive generation and supply to captive user(s):
- (1) Scheme of captive generating plant and inclusion of its requirement in transmission planning of STU –
 - (a) Name of captive generating plant;
 - (b) Entity which owns, operates and maintains the plant;
 - (c) Geographical location of captive generating plant (i.e. nearest village/town, district, state, latitude and longitude);
 - (d) Details of captive generating plant including type of prime mover (fuel base), generation voltage (kV) and step-up voltage (kV);
 - (e) Generating unit(s) identified for captive use;
 - (f) Generating unit(s) not identified for captive use;
 - (g) Details of dedicated transmission line;
 - (h) Details of existing or proposed connectivity of captive generating plant to Intra-STs or transmission system of any other state or Inter-STs (i.e. capacity (MW), voltage level (kV), name of 765/400/220/132 sub-station and name of licensee where such captive plant is embedded) or the point of state periphery at which power shall be delivered if the plant is located outside the State.
 - (2) Scheme of captive use and information in respect to captive user(s) –
 - (a) Details of captive user(s);
 - (b) Share holding of each captive user(s) (including the applicant) in equity;

- (c) Percentage share in consumption assigned to each captive user(s) (including the applicant) in the aggregated electricity generated in the plant;
 - (d) Maximum quantum (MW) of power to be transferred to each captive user(s) (including the applicant) and the details of point(s) of drawl (Intra-State or transmission system of any other state or Inter-State) and injection;
 - (e) Details of existing or proposed connectivity of each captive user(s) to Intra-STS or transmission system of any other state or Inter-STS (i.e. capacity (MW), voltage level (kV), name of 765/400/220/132 sub-station and name of licensee where such captive user(s) is embedded) or the point of state periphery at which power shall be delivered if captive user(s) is located outside the State.
- (vi) Any other relevant information required by STU or to be provided by the applicant.
- (C) Open Access Consumer –
- (i) Details of industrial or commercial establishment.
 - (ii) Extent of use of transmission system:
 - (a) Existing demand;
 - (b) Additional demand;
 - (c) Total demand to be met through transmission system;
 - (d) Expected growth in demand in subsequent five years.
 - (iii) Details of back up supply from distribution licensee of its area:
 - (a) Name of distribution licensee;
 - (b) Contracted load;
 - (c) Date of contract.
 - (iv) Commercial arrangement(s):
 - (a) Details of agreement(s) for purchase of electricity from any source other than distribution licensee of its area;
 - (b) Details of such source of power connected with Intra-STS or Inter-STS and the point of state periphery at which power shall be delivered if the source is located outside the State.
 - (v) Any other relevant information required by STU or to be provided by the applicant.

3.2.3 The information mentioned in clause 3.2.1 and clause 3.2.2 above shall be supported by an affidavit as per format [FORMAT-CON1].

4. UNDERTAKING

4.1 The applicant shall make or cause to make an application for grant of long term open access, in accordance with the regulations specified by the Appropriate Commission, either at the time of making application for grant of connectivity or immediately after grant of connectivity for the purpose of Regulation 14.2 of UPERC Connectivity Regulations. However, the application for open access shall be entertained only after grant of connectivity under this procedure.

4.2 The applicant shall also make a declaration, on format [FORMAT-CON2], in respect to -

(A) Requirement of making an application for grant of long term open access under the following conditions:

- (i) existence of an agreement for sale or purchase of electricity (including an arrangement for carrying electricity from captive generating plant to its captive user(s));
- (ii) use of transmission system to its full capacity or in phases (give details), as sought in the application for grant of connectivity; and
- (iii) concerned person by whom the application for grant of long term open access shall be submitted and subsequently BPTA/supplementary BPTA signed with STU under clause 12.

(B) If (A) above not applicable, then declaration in respect to:

- (i) intention of staying connected or synchronized with the Intra-STs only; and
- (ii) that no exchange of active power is intended with the grid except for reactive power exchange chargeable at applicable rates.

5. SUBMISSION OF APPLICATION

5.1 The applicant shall make an application on format [FORMAT-CON2] with STU in a sealed envelope marked "Application for Grant of Connectivity to Intra-STs" affirmed by an affidavit as per format [FORMAT-CON1]. All entries of the application shall be duly filled.

5.2 The application for connectivity shall be made –

- (i) 2 to 4 years in advance in case of system strengthening of transmission system is required; or
- (ii) 1 year in advance in case of system strengthening of transmission system is not required.

Note: 'System strengthening' shall mean to include augmentation or renovation or modernisation or expansion of any equipment or sub station and/or electric line and construction of new substation and/or electric line.

5.3 Notwithstanding the application made under sub-clause (i) or (ii) of clause 5.2, STU shall take necessary action to assess, whether the request of the applicant can be accommodated with or without system strengthening, and for that purpose STU may undertake necessary studies. The decision of STU shall be final and binding in this regard.

5.4 For the purpose of clause 5.3, STU shall consider all applications for connectivity and/or for open access received by it at any point of time and decide to grant connectivity to the transmission system with or without system strengthening in each case and in doing so STU, in co-ordination with the entities/bodies mentioned in sub-clause (b) of clause of clause (2) of section 39 of the Act, shall be guided by the factors such as;

- (a) additional requirement(s) of connectivity(ies) at specific point(s) taking into account the requirement of transmission capacity(ies) by the applicant(s),
- (b) existing capacity(ies) of transmission system in use by existing long term open access customer(s),
- (c) requirement(s) of use of additional capacity(ies) of transmission system by existing long term open access customer(s),
- (d) all other aspects of transmission system planning such as remedy for elimination of transmission constraints (if any), margins according to planning and design criteria, network reliability etc.

5.5 The application shall be accompanied by a non-refundable application fees as follows:

S. No.	Quantum of power to be injected/drawn through the Intra-STs	Application fees (Rs. in lac)
1.	Nil or up to 100 MW	2
2.	More than 100 MW and up to 500 MW	3
3.	More than 500 MW and up to 1000 MW	6
4.	More than 1000 MW	9

However non-refundable application fees of Rs. 0.10 lac shall be submitted for –

- (i) the quantum of power to be injected up to 10 MW by a generating station based on non-conventional energy sources;
- (ii) the quantum of power to be drawn up to 10 MW by a distribution licensee.

5.6 Application fees is to be paid through demand draft or directly credited to STU Account electronically through RTGS as per the details given below or as may be notified by STU from time to time:

- (a) Payee : UP Power Transmission Corporation Limited, Lucknow
- (b) Name of Bank: ICICI Bank
- (c) Branch: Lucknow
- (d) RTGS: ICIC 0006281
- (e) A/C No.:628105025717

The payment slip must be attached with the application in case of payment through RTGS.

- 5.7 The application may be submitted by post or in person. In case of application received by post, the date of receipt of application shall be considered as the date of application. If application is delivered in person, it shall be acknowledged by putting stamp indicating time and date. However, in case of any change made by the applicant under clause 6, the date of decision of STU on such change shall be considered as the date of receipt of application for the purpose of Regulation 7.3 of UPERC Connectivity Regulations.
- 5.8 An application not found in conformity with the formats, appended with this Procedure, shall be considered incomplete. Such application shall be sent back in original to the applicant by assigning reasons and application fees forfeited. The applicant may submit fresh application along with application fees under clause 5 of this procedure.

6. CHANGE IN APPLICATION

- 6.1 The applicant shall be responsible to inform any change(s) under clause 6.2. In such an event, the application shall be rejected and application fees forfeited.
- 6.2 A fresh application shall be required for any change(s) of the following material (for the purpose of transmission planning) nature:
 - (i) Any change in –
 - (a) the location of the generating plant or substation of distribution licensee or premises (i.e. industrial or commercial establishment) of captive user or open access consumer; or
 - (b) point(s) of injection or drawl.
 - (ii) Change in the quantum of power to be interchanged through the Intra-STs which is more than –
 - (a) fifteen percent (15%) of the quantum of power declared in the original application submitted for grant of connectivity up to 500 MW;
 - (b) 100 MW with respect to declared quantum of power in the original application submitted for grant of connectivity for more than 500 MW.
 - (iii) Change in voltage level of connectivity.
- 6.3 For any change(s) as mentioned under clause 6.2, after grant of connectivity but prior to signing of the connection agreement, STU may allow the applicant to withdraw its

original application provided that the applicant has deposited a sum equivalent to four times of the application fees with STU towards efforts of various activities undertaken or to be undertaken for revision of transmission plan.

- 6.4 Any material change(s) after signing of connection agreement shall not be allowed and that would lead to termination of the connection agreement. In such case, any security deposited by the applicant with STU shall be forfeited and no new application shall be accepted from the same applicant before the expiry of two (2) years from the date of termination of the connection agreement.
- 6.5 Request for any change, other than those mentioned in clause 6.2, may be made by the applicant before grant of connectivity or signing of connection agreement. Such request shall be made in format [FORMAT-CON2] (affirmed by an affidavit as per format [FORMAT-CON1]) and in latter case along with [FORMAT-CON4] but limited to the entries which may be allowed to be changed and such a request shall be considered as supplementary application to the original application and marked accordingly, Revision no. - X (i.e. X=1 for first revision and so on for subsequent change(s), if any). No additional application fees shall be required to be submitted by the applicant. STU shall access the proposed change(s) and on being satisfied, it may proceed for grant of connectivity or incorporation of change(s) in the connection agreement, as the case may be, under this procedure.

Provided that in case such supplementary application is rejected, the rejection with reasons shall be communicated to the applicant in writing by STU within fifteen (15) days from the date of receipt of such supplementary application.

Provided also that the applicant may represent its case for reconsideration of STU within seven (7) days after the supplementary application is rejected under first proviso. In such case, STU shall reconsider such representation and communicate its decision within fifteen (15) days.

- 6.6 The decision of STU taken in pursuance of clause 6.1 to clause 6.5 shall be final and binding. The date of such decision of STU shall be consider as the date of complete application after due incorporation of change(s).

7. PROCESSNG OF APPLICATION

- 7.1 Notwithstanding anything contained in this procedure, the applications shall be processed in the following manner:
- (i) STU shall carry out system studies including load flow studies and decide the requirement of system strengthening of Intra-STs (i.e. augmentation or renovation or modernisation or expansion of any equipment or sub station and/or electric line and construction of new substation and/or electric line or other similar activities). While undertaking above exercise, STU shall –

- (a) undertake studies for grant of connectivity and open access;
 - (b) undertake system feasibility studies and assess/identify/determine system strengthening requirement on the basis of applications of connectivity and open access received by it or on its own motion;
 - (c) undertake interconnection studies as per Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007;
 - (d) require the applicant or any other users or agencies/entities connected or to be connected, as the case may be, with Intra-STS to furnish such information/study/data as may be considered appropriate by it for further studies and they shall respond to such requirement within fifteen (15) days;
 - (e) prepare preliminary report of system study covering all aspects of UPEGC/IEGC and communicate the same to the applicant and all concerned;
 - (f) reconcile the preliminary report in relation to any change, material or otherwise, reported for incorporation in the scheme of connectivity with the Intra-STS by the applicant.
- (ii) Necessary coordination and consultation shall be established with the applicant or any other users or agencies/entities connected or to be connected, as the case may be, with Intra-STS or long-term customers for materializing the connectivity(ies) and other related issues for use of transmission system.
 - (iii) Based on results of preliminary report and consultation thereafter under sub-clause (ii), STU shall draw plan of connectivity in case of each applicant and optimize such plan(s), as may be considered necessary.
Such plan(s) shall be grouped in –
 - (a) grant of connectivity with system strengthening; and
 - (b) grant of connectivity without system strengthening.
 - (iv) In pursuance of plan(s) made under sub-clause (iii), each applicant shall be required to make or cause to make a formal request for grant of open access for use of Intra-STS in accordance with the regulations specified by Appropriate Commission for open access to intra-State and/or inter-State transmission system, if not made earlier.

7.2 After completion of process under clause 7.1, STU shall formalise the point of connectivity and requirement of inter-connection facilities of the applicant.

While formalizing connectivity conditions, STU shall ensure to fix the time lines necessary for execution of any segment of system strengthening requirement considered necessary for energization of point of connectivity and operationalisation of open access thereof.

Note (A):

- (1) The requirement of system strengthening brought out in preliminary report and requirement of optimized connectivity conditions brought out in specific interconnection study shall be integrated with the transmission plan (made as per section 39 of the Act read with the provisions of UPEGC) prepared by STU. The plan so prepared shall be approved by CEA.
- (2) After completion of process under Note (1) above, the requirement(s) described therein shall be undertaken in the manner as given hereunder:
 - (i) Optimized connectivity conditions requirement, brought out in specific interconnection study, shall be undertaken through connection agreement.
 - (ii) System strengthening requirement, brought out in preliminary report, shall be considered and undertaken through BPTA/supplementary BPTA.

System strengthening requirements shall clearly identify expansion, augmentation, renovation, modernisation of existing sub-stations and/or electric lines and/or construction of new substations and electric lines. It also includes decision regarding who will construct, own, maintain and operate different parts of the system strengthening scheme.
- (3) Long term open access application shall be taken for the consideration, after the connectivity with the Intra-STs has been decided.

Note (B):

While granting connectivity to plant generating non-firm power, the requirements as per Schedule to UPERC Connectivity Regulations shall be complied with and be considered in the process of transmission planning, grant of connectivity and grant of open access.

8. OFFER OF CONNECTIVITY

- 8.1 Based on decision taken under clause 7, 'connection offer' shall be made by STU to the applicant on format [FORMAT-CON3] within one hundred twenty (120) days from the date of receipt of application together with other terms and conditions and modalities for execution of connectivity.

On such an offer made to the applicant, the connectivity shall be deemed to have been granted subject to signing of the connection agreement between the parties.

- 8.2 In case an application is rejected under clause 7, it shall be communicated to the applicant in writing within ninety (90) days from the date of receipt of application with reasons of such rejection. However, the applicant shall be given a reasonable opportunity of making a representation to STU before such rejection.

- 8.3 The provisions made under clause 7 shall also apply to any other intra-State transmission licensee (described under proviso to clause 2.1 of this procedure), entering into the business of intra-State transmission of electricity under section 63 of the Act or otherwise. The requirements of such intra-State transmission licensee shall be processed by STU along with other applications on its own motion. Time lines for completion of various activities in such case shall be as decided by STU in accordance with Transmission Service Agreement (in case of section 63 of the Act) or approved transmission plan in other cases.

A 'connection offer' shall also be made to such intra-State transmission licensee on format [FORMAT-CON3] together with other terms and conditions and modalities for execution of connectivity.

On such an offer made to such intra-State transmission licensee, the connectivity shall be deemed to have been granted subject to signing of the connection agreement between the parties.

9. ACCEPTANCE OF THE OFFER

- 9.1 The applicant or intra-State transmission licensee (described under proviso to clause 2.1 and clause 8.3) shall submit information required on format [FORMAT-CON4] and any other information, within fifteen (15) days (unless otherwise indicated by STU) from the date of 'connection offer'.

The submission of information on or with format [FORMAT-CON4] by such applicant or intra-State transmission licensee shall be deemed to be the unconditional acceptance of the 'connection offer'.

- 9.2 For the purpose of finalization of connection details, STU shall process above information and intimate connection details together with description of site responsibilities to the applicant or intra-State transmission licensee on format [FORMAT-CON5] within fifteen (15) days (unless otherwise indicated by STU) from the date of receipt of such acceptance. STU shall also convey its decision to other persons, considered necessary, for giving effect to the connectivity and signing of connection agreement.

10. CONNECTION AGREEMENT

- 10.1 The connection agreement shall be executed between the following parties:
- (a) the applicant and STU, in case of connectivity granted to the applicant with the transmission system owned by STU;
 - (b) the applicant, STU and any other transmission licensee other than STU, in case of connectivity granted to the applicant with the transmission system owned by such any other transmission licensee;

- (c) intra-State transmission licensee (described under proviso to clause 2.1 and clause 8.3) and STU, in case of connectivity of transmission system of such intra-State transmission licensee with transmission system of STU.
- 10.2 The connection agreement shall be in such form and format as provided in format [FORMAT-CON6].
- Provided that the format of connection agreement in case of intra-State transmission licensee (described under proviso to clause 2.1 and clause 8.3) shall be as approved by the Commission with the bid documents for inviting competitive bids under section 63 of the Act. In case bid documents approved by the Commission do not include the format of connection agreement, in such case the connection agreement shall be as per format [FORMAT-CON6].
- 10.3 All entries in the connection agreement shall be duly filled up by the parties to the agreement. In case, any information is not relevant, the same shall be marked nil or not applicable.
- 10.4 Connection agreement shall be signed within forty five (45) days (unless otherwise indicated by STU) from the date of 'connection offer' or within such additional time as granted by STU as per provisions of the UPERC Connectivity Regulations. Requisite construction phase security in the form of bank guarantee shall be furnished by the applicant (other than generating station based on non-conventional energy sources for the capacity sought for connectivity up to 10 MW, distribution licensee and intra-State transmission licensee (described under proviso to clause 2.1 and clause 8.3)) along with connection agreement. However, security shall not be required to be submitted by the user(s) as existing connected with Intra-STS till 27.10.2010.
- 10.5 Failure to sign connection agreement shall be dealt with in accordance with the provisions of Regulation 8 of UPERC Connectivity Regulations.
- 10.6 After signing of connection agreement, STU shall provide a copy of the same to State Power Committee and State Load Despatch Centre in addition to the parties to the agreement.
- 10.7 Any non material change after signing of connection agreement shall be incorporated on the request of the applicant/STU through an amendment to the connection agreement in such form and manner relevant for compatible absorption of such change in the agreement without altering the intent and basic structure of the connection agreement.
- 10.8 Notwithstanding any provision made in this procedure, no connectivity with the Intra-STS shall exist physically unless the connection agreement is signed between the parties.
- 10.9 The decision of STU taken in pursuance of clause 10.1 to clause 10.8 shall be final and binding.

11. SECURITY

- 11.1 Optimized connectivity conditions requirement, brought out in specific interconnection study, under clause 7.2 shall be undertaken through connection agreement. The applicant shall furnish requisite construction phase security in the form of bank guarantee calculated at Rs. 5 lacs per MW (Rupees Five Lacs per MW only) or such amount as decided by the Commission on the request of STU.

Provided that the security shall not be required to be submitted by a generating station based on non-conventional energy sources for the capacity up to 10 MW, as sought in the application for grant of the connectivity.

Provided further that the security shall not be required to be submitted by distribution licensee and intra-State transmission licensee (described under proviso to clause 2.1 and clause 8.3).

- 11.2 The bank guarantee shall be in such name and with such terms and conditions as provided in format [FORMAT-CON7] and shall be valid upto three (3) months after energization of point of connectivity.

12. OPEN ACCESS

The transmission of electricity to or from the point of connectivity through the grid (Intra-STs) shall not be permitted unless the applicant/any other person has obtained open access in accordance with the regulations specified by the appropriate Commissions.

13. BULK POWER TRANSMISSION AGREEMENT (BPTA)

The transmission of electricity to or from the point of connectivity through the grid (Intra-STs) shall be governed by the provisions of relevant regulations or codes made by UPERC/CERC. Accordingly, STU shall cause a BPTA to be signed between the relevant parties for use of Intra-STs. Supplementary BPTA shall be caused to be signed by or between the relevant parties as may be considered necessary by STU from time to time.

14. CONSTRUCTION, OPERATION AND MAINTENANCE OF INTER-CONNECTION FACILITIES

- 14.1 The applicant or intra-State transmission licensee (other than STU) (described under proviso to clause 2.1 and clause 8.3) shall pay cost for construction of interconnection facilities at the point of connectivity with the transmission system of STU or any other transmission licensee, as the case may be, on such terms and conditions as may be specified by STU/any other transmission licensee in accordance with UPERC Connectivity Regulations.

- 14.2 The ownership of interconnection facilities at the point of connectivity shall be deemed to have been vested in STU or any other transmission licensee, as the case may be, by such applicant or intra-State transmission licensee (other than STU).

14.3 STU or any other transmission licensee shall be responsible for operation and maintenance of such interconnection facilities and its operation and maintenance cost shall be included in the transmission charges in the ARR to be filed by STU or any other transmission licensee (not covered by section 63 of the Act), as the case may be.

15. CONSTRUCTION, OPERATION AND MAINTENANCE OF DEDICATED TRANSMISSION LINE OF A GENERATING STATION

15.1 Subject to provisions of UPERC Connectivity Regulations, a generating company shall construct, operate and maintain dedicated transmission line up to the point of connectivity.

15.2 The construction of dedicated transmission line shall be undertaken under supervision of STU/any other transmission licensee on payment of supervision charges as may be approved by the Commission from time to time on an application filed by STU.

16. CONSTRUCTION AND OPERATION/MAINTENANCE OF EVACUATION SYSTEM ASSOCIATED WITH PLANTS GENERATING NON-FIRM POWER

Construction and operation/maintenance of evacuation system associated with plants generating non-firm power shall be undertaken by the concerned person(s) as provided under Schedule to UPERC Connectivity Regulations read with these procedures.

17. COMMISSIONING OF CONNECTIVITY

17.1 The applicant and all intra-State transmission licensees shall comply with the provisions made in connection agreement, UPERC Connectivity Regulations, CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007 and other relevant regulations of Central Electricity Authority, relevant regulations of UPERC/CERC, UPERC Open Access Regulations, UPEGC 2007 and IEGC, as amended from time to time. Special focus shall be made on the technical requirements for connectivity to the grid i.e. voice and data communication facilities, system recording instruments, responsibilities for safety, cyber security, reactive power compensation and other provisions.

17.2 Installation of meters, its testing, calibration and reading and all matters incidental thereto shall be undertaken in conformity with CEA (Installation and Operation of Meters) Regulations, 2006, UPEGC and Availability Based Tariff, as amended and revised from time to time, and any other additional requirement notified by STU.

17.3 The applicant and all intra-State transmission licensees shall comply with the general and specific conditions of connectivity with the grid given in CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007.

17.4 The applicant shall intimate the following:

(a) time frame for commissioning of works at its end at least three (3) months in advance.

- (b) time frame for commissioning of dedicated transmission line up to the point of connectivity, if any, at least three (3) months in advance, in case of generating station.
- (c) date of synchronization (in case of generating station and transmission line) at least one (1) month in advance.

17.5 The connectivity of generating plant and/or sub-station and/or electric line of the applicant or intra-State transmission licensee, as the case may be, shall be commissioned with Intra-STS with at least fifteen (15) days advance notice issued by STU to SLDC, applicant or intra-State transmission licensee and other concerned person(s). Post connectivity event shall be allowed only after formal declaration of the commissioning of such connectivity by STU.

18. POST CONNECTIVITY EVENTS

18.1 The post connectivity events, in relation to generating plant and/or sub-station and/or electric line of the applicant or intra-State transmission licensee, shall mean activities, namely:

- (a) interchange of power with Intra-STS;
- (b) operation and maintenance of such generating plant and/or sub-station and/or electric line by the applicant or intra-State transmission licensee;
- (c) operation and maintenance of dedicated transmission line by generating station; and
- (d) operation and maintenance of evacuation system associated with plant generating non-firm power.

18.2 Post connectivity events shall be undertaken in accordance with the regulations and codes made by CEA, UPERC and CERC from time to time in general and specifically in respect to scheduling, despatch, energy accounting, UI accounting and settlement of accounts for open access transaction.

19. EXIT OPTION

An applicant or intra-State transmission licensee or users granted connectivity may relinquish his rights and obligations after the commissioning of connectivity. In such a case, the applicant shall be liable to pay a cost to STU or any other transmission licensee calculated on the basis of exchange of energy that could have taken place, had the applicant not opted for relinquishment, multiplied by the transmission charges for three (3) years.

20. GENERAL

20.1 The applicant or intra-state transmission licensee (other than STU) shall abide by the provisions as provided in connection agreement read with UPERC Connectivity

Regulations, CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007, other regulations of Central Electricity Authority, UPEGC 2007/IEGC, UPERC Open Access Regulations and other relevant regulations, as amended from time to time.

- 20.2 In case of any inconsistency in this procedure with UPERC Connectivity Regulations, the latter shall prevail.
- 20.3 All entries in the relevant formats made under this procedure shall be duly filled up by the applicant. In case, any information is not relevant, the same shall be marked nil or not applicable.
- 20.4 STU may modify formats made under this procedure as the need be under intimation to the Commission. These formats shall also be kept on web-site.
- 20.5 The applicant shall keep STU and SLDC indemnified at all times and shall undertake to indemnify, defend and keep STU and SLDC harmless from any and all damages, losses, claims and actions including those relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from such grant of connectivity.

On Non Judicial Stamp of Rs 10/-

AFFIDAVIT

In the matter of filing application to Uttar Pradesh Power Transmission Corporation Limited (notified as STU), for grant of connectivity under UPERC (Grant of Connectivity to intra-State Transmission System) Regulations, 2010.

I..... *(name)*..... S/o Shri *(father's name)* working as *(designation)* in *(name of the company)*, having its registered office at *(address of the company)*, do solemnly affirm and say as follows that :

1. I am the *(designation)* of *(name of the company)*, and am duly authorized to file the above application and to make this affidavit. A letter of Chief Executive Officer/Managing Director of the company, authorizing the undersigned authorized signatory to submit the above application, is enclosed herewith.
2. M/s..... *(name of the company)* is incorporated under the Companies Act on *(date of incorporation)* by Registrar of Companies placed at *(place of incorporation)*
3. All the information given in the accompanying application for grant of connectivity are true and correct and nothing material has been concealed.

Encl: (list of enclosures)

(Signature)

Authorized signatory of the applicant

Name:

Designation:

(To be duly attested by notary)

(APPLICABLE IN CASE OF GRANT OF CONNECTIVITY TO GENERATING STATION)

APPLICATION FOR GRANT OF CONNECTIVITY

(to be submitted by the applicant to STU)

Application no. and date	< self generated by the applicant >
--------------------------	-------------------------------------

A. Details of the applicant

1	Name of the applicant	< name of generating company >			
2	Address of registered office (if any)				
3	Address for correspondence				
4	Contact detail(s)				
	(a) Prime contact person				
	Designation				
	Phone no. (with STD code)	Landline		Fax	
	Mobile				
	E-mail				
	(b) Alternate contact person				
	Designation				
	Phone no. (with STD code)	Landline		Fax	
	Mobile				
	E-mail				
5	Status of the applicant	< generator (other than captive)/captive generator >			

B. Details of connectivity requirement

1	Connectivity sought				
	Capacity (MW) for which connectivity is required				
	Voltage Level (kV) at which connectivity is required				
	Date from which connectivity is required	< refer clause 5.2 of procedure >			
2	Nearest 765/400/220/132 kV sub-station(s)				
	(a) Sub-station-1				
	Name of sub-station				
	Voltage level(s) available (kV)				
	Name of licensee (Owner)				
	Distance (Km)				
	(b) Sub-station-2				
	Name of sub-station				
	Voltage level(s) available (kV)				
	Name of licensee (Owner)				
	Distance (Km)				

C. Details of existing connectivity

1	Existing connectivity, if any	
	Date of connectivity	
	Capacity (MW)	
	Name of 765/400/220/132 sub-station	
	Voltage level (kV)	
	Name of licensee (Owner)	
	Distance (Km)	

D. Details of project (for which connectivity is sought)

(enclose duly signed supporting documents as considered appropriate)

1	Name of generating station	
2	Whether new or existing generating station	
3	Entity which owns, operates and maintains	
4	Is it an identified project of CEA	< yes/no >
5	Geographical location of generating station	
	Nearest village/town	
	District	
	State	
	Latitude	
	Longitude	
6	Existing unit(s) (if any)	
	Details of units	< unit-wise breakup of installed capacity (MW) >
	Details of re-rated units	< unit-wise breakup of re-rated capacity (MW) >
7	Additional unit(s)	
	Details of units	< unit-wise breakup of installed capacity (MW) >
	Original date of commercial operation	< unit-wise breakup >
	Revise date of commercial operation, if any	< unit-wise breakup >
8	Type of prime mover (fuel base)	< hydro turbine/steam turbine(coal/lignite/multifuel)/gas turbine/diesel engine/wind turbine/specify, if any other>
9	Generation voltage (kV)	
10	Step-up voltage (kV)	
11	Existing dedicated transmission line (if any)	
	Single circuit or double circuit	
	Voltage level (kV)	
	Length (km)	
	Conductor	
12	Information specific to captive generating plant	
	Generating unit(s) identified for captive use	
	Generating unit(s) not identified for captive use	
13	Information specific to plant generating non-firm power*	
	Name of pooling station, if any	
	Whether new or existing pooling station	
	Voltage level(s) available (kV)	

* < refer schedule of procedure >

E. Status of project related activities

(enclose duly signed supporting documents as per clause 3.1 of procedure)

1. Site identification and land acquisition
2. Environmental clearance
3. Forest clearance
4. Fuel arrangements
5. Water linkage
6. Order for supply of plant and machinery or award of EPS contract
7. Dedicated transmission line
8. Useful life of generating station
9. Commissioning schedule
10. Commercial arrangement(s) for purchase of electricity
11. Information specific to captive generating plant
12. Information specific to plant generating non-firm power
13. Other clearances
14. Any other relevant information required by STU or to be provided by the applicant

In addition to above, the applicant shall also submit concise description of each completed activities with regard to project planning, designing and pre-construction activities (including all licenses, authorizations, permissions and clearances as required from time to time under the law).

F. Details of application fees

1	Non-refundable application fees				
	Name of Bank & branch	Details of instrument (Draft/E-transaction)			Amount (Rs.)
		Type of instrument	Instrument no.	Date	

G. Undertaking(s)

< refer clause 3 of procedure >

I undertake that all the activities of project planning, designing and pre-construction activities (including all licenses, authorizations, permissions and clearances as required from time to time under the law) are completed. All the details given in support of specific actions taken for project preparatory activities (as given under “E”) above) are true and correct and nothing material has been concealed thereof.

I further undertake that the technical standards for connectivity specified by CEA in Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 have been complied with.

< refer clause 4 of procedure >

In case of requirement of making an application for grant of long term open access

I declare the following conditions:

- (i) existence of an agreement for sale or purchase of electricity/for carrying electricity from captive generating plant to its captive user(s);
- (ii) use of transmission system to its full capacity or in phases (give details), as sought in the application for grant of connectivity; and

- (iii) (give name) shall submit the application for grant of open access in accordance with the regulations specified by the Appropriate Commission and subsequently will sign BPTA/supplementary BPTA with STU under clause 12.

Or

In case application for open access not required

I declare the following conditions:

- (i) intention for staying connected or synchronized with the intra-STS only;
- (ii) that no exchange of active power intended with the grid except for reactive power exchange chargeable at applicable rates; and
- (iii) application for open access shall not be required under the regulations specified by the Appropriate Commission.

Place:

(Signature)

Date:

Authorized signatory of the applicant

Name:

Designation:

Seal:

Enclosures:

1. Non-refundable application fees (demand draft or payment slip in case of payment through RTGS)
2. Documents in support of information (including project related preparatory activities) submitted under clause 3 of this procedure read with this format (mention details)
3. Documents in support of information submitted under clause 4 of this procedure read with this format (mention details)
4. Documents in support of existing connectivity with Intra-STS (including detailed description of 'electricity systems') along with single line diagrams (if existing user of Intra-STS)
5. If any other

Copy to others as considered necessary:

(APPLICABLE IN CASE OF GRANT OF CONNECTIVITY TO ELECTRIC LINE FOR CONNECTING SUB-STATION OF A DISTRIBUTION LICENSEE OR PREMISES OF A CAPTIVE USER OR AN OPEN ACCESS CONSUMER)

APPLICATION FOR GRANT OF CONNECTIVITY
(to be submitted by the applicant to STU)

Application no. and date	< self generated by the applicant >
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A. Details of the applicant

1	Name of the applicant				
2	Address of registered office (if any)				
3	Address for correspondence				
4	Contact detail(s)				
	(a) Prime contact person				
	Designation				
	Phone no. (with STD code)	Landline		Fax	
	Mobile				
	E-mail				
	(b) Alternate contact person				
	Designation				
	Phone no. (with STD code)	Landline		Fax	
	Mobile				
	E-mail				
5	Status of the applicant	< distribution licensee/captive user/open access consumer >			

B. Details of connectivity requirement

1	Connectivity sought				
	Capacity (MW) for which connectivity is required				
	Voltage level (kV) at which connectivity is required				
	Date from which connectivity is required	< refer clause 5.2 of procedure >			
2	Nearest 765/400/220/132 kV sub-station(s)				
	(a) Sub-station-1				
	Name of sub-station				
	Voltage level(s) available (kV)				
	Name of licensee (Owner)				
	Distance (Km)				
	(b) Sub-station-2				
	Name of sub-station				
	Voltage level(s) available (kV)				
	Name of licensee (Owner)				
	Distance (Km)				

C. Details of existing connectivity (not applicable to distribution licensee)

1	Existing connectivity, if any	
	Date of connectivity	
	Capacity (MW)	
	Name of 765/400/220/132 sub-station	
	Voltage level (kV)	
	Name of licensee (Owner)	
	Distance (Km)	

D. Details of project (for which connectivity is sought)

(enclose duly signed supporting documents as considered appropriate)

	In case applicant is a distribution licensee <i>(in case if applicable)</i>		
1	Name of sub-station		
2	Whether existing or proposed sub-station		
3	Geographical location of sub-station		
	Nearest village/town		
	District		
	Latitude		
	Longitude		
4	Distribution transformation capacity (MVA)		
	Existing, if any		< voltage ratio-wise breakup (kV)->
	Additional		< voltage-wise breakup ratio (kV) >
5	Electric line for connecting distribution sub-station with Intra-STS		Existing, if any Proposed
	Name		
	Single circuit or double circuit		
	Voltage level (kV)		
	Length (km)		
	Conductor		
6	Present load of s/s (in case of existing s/s)		< at 33 kV for 33 kV works >
7	Expected growth in load in subsequent five years		< year wise >
8	Other distribution sub-station(s) from where load will be released/transferred to proposed sub-station		
	Name of s/s		
	Name of licensee (Owner)		
	Capacity (MVA)		
	Present load (Amp)		< at 33 kV for 33 kV works >
	Load transferred to proposed s/s (Amp)		< on 33 kV for 33 kV works >
9	Existing grid/feeding primary sub-station		
	Name of sub-station		
	Name of licensee (Owner)		
	Transformation capacity (MVA)		
10	Commissioning schedule		
	Date of start of construction		
	Original date of commercial operation		
	Revised date of commercial operation, if any		

Or

In case applicant is a captive user (in case if applicable)		
1	Extent of use of transmission system	
	Existing demand	
	Additional demand	
	Total demand to be met	
2	Expected growth in demand in subsequent five years	< year wise >
3	Maximum quantum (MW) of power assigned from its captive generating plant	
4	Back up supply from distribution licensee of its area	
	Name of distribution licensee	
	Contracted load	
	Date of contract	
5	Commercial arrangement(s) for purchase of electricity from any source other than local discom	
	Name of supplier	
	Contracted load	
	Duration of contract	
6	Geographical location of premises (i.e. industrial establishment)	
	Nearest village/town	
	District	
	Latitude	
	Longitude	

Or

In case applicant is an open access consumer (in case if applicable)		
1	Extent of use of transmission system	
	Existing demand	
	Additional demand	
	Total demand to be met	
2	Expected growth in demand in subsequent five years	< year wise >
3	Maximum quantum (MW) of power assigned from its captive generating plant	
4	Back up supply from distribution licensee of its area	
	Name of distribution licensee	
	Contracted load	
	Date of contract	
5	Commercial arrangement(s) for purchase of electricity from any source other than local discom	
	Name of supplier	
	Contracted load	
	Duration of contract	
6	Geographical location of premises (i.e. industrial or commercial establishment)	
	Nearest village/town	
	District	
	Latitude	
	Longitude	

E. Status of project related activities

(enclose duly signed supporting documents as per clause 3.2 of procedure)

1. Site identification and land acquisition
2. Environmental clearance
3. Forest clearance
4. Order for supply of plant and machinery or award of EPS contract
5. Useful life of premises (i.e. commercial or industrial establishment) of captive user or open access consumer
6. Commissioning schedule
7. Other clearances
8. Any other relevant information required by STU or to be provided by the applicant

In addition to above, the applicant shall also submit concise description of each completed activities with regard to project planning, designing and pre-construction activities (including all licenses, authorizations, permissions and clearances as required from time to time under the law).

F. Details of application fees

1	Non-refundable application fees				
	Name of Bank & branch	Details of instrument (Draft/E-transaction)			Amount (Rs.)
		Type of instrument	Instrument no.	Date	

G. Undertaking(s)

< refer clause 3 of procedure >

I undertake that all the activities of project planning, designing and pre-construction activities (including all licenses, authorizations, permissions and clearances as required from time to time under the law) are completed. All the details given in support of specific actions taken for project preparatory activities (as given under “E”) above) are true and correct and nothing material has been concealed thereof.

I further undertake that the technical standards for connectivity specified by CEA in Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 have been complied with.

< refer clause 4 of procedure >

In case of requirement of making an application for grant of long term open access

I declare the following conditions:

- (i) existence of an agreement for sale or purchase of electricity/for carrying electricity from captive generating plant to its captive user(s);
- (ii) use of transmission system to its full capacity or in phases (give details), as sought in the application for grant of connectivity; and
- (iii) (give name) shall submit the application for grant of open access in accordance with the regulations specified by the Appropriate Commission and subsequently will sign BPTA/supplementary BPTA with STU under clause 12.

Or

In case application for open access not required

I declare the following conditions:

- (i) intention for staying connected or synchronized with the intra-STs only;
- (ii) that no exchange of active power intended with the grid except for reactive power exchange chargeable at applicable rates; and
- (iii) application for open access shall not be required under the regulations specified by the Appropriate Commission.

Place:

(Signature)

Date:

Authorized signatory of the applicant

Name:

Designation:

Seal:

Enclosures:

1. Non-refundable application fees (demand draft or payment slip in case of payment through RTGS)
2. Documents in support of information (including project related preparatory activities) submitted under clause 3 of this procedure read with this format (mention details)
3. Documents in support of information submitted under clause 4 of this procedure read with this format (mention details)
4. Documents in support of existing connectivity with Intra-STs (including detailed description of 'electricity systems') along with single line diagrams (if existing user of Intra-STs)
5. If any other

Copy to others as considered necessary:

(APPLICABLE IN CASE OF GRANT OF CONNECTIVITY TO THE APPLICANT)

INTIMATION FOR GRANT OF CONNECTIVITY / 'CONNECTIVITY OFFER'
(to be issued by STU to the applicant)

1. Intimation no.
Date:
2. Ref. application no.
Date:
3. Name of the applicant
4. Address for correspondence
5. Nature of the applicant
(generator (other than captive)/captive generator
distribution licensee/captive user/open access consumer)
6. Details for connectivity
 - (a) Capacity (MW) for which connectivity is granted
 - (b) Voltage level (kV) at which connectivity is granted
 - (c) Date from which connectivity is granted
 - (d) Sub-station at which connectivity is granted
Name of sub-station
Name of Licensee (Owner)
7. Details of interconnection facilities
8. Details of transmission system required for connectivity
(brought out in specific interconnection study)
9. Security amount (in rupees) for the purpose of bank guarantee
10. Details of the project for which connectivity granted
(generating station or sub-station of distribution licensee or premises (i.e.
industrial or commercial establishment) of captive user or open access consumer)
11. Time lines for completion of various activities
12. Geographical location of the project
 - (a) Nearest village/town
 - (b) District
 - (c) State
13. Commissioning schedule of the project
Date(s) of commercial operation
14. Any other information as considered necessary by STU

General information to the applicant

1. With the issue of this 'connection offer', the connectivity shall be deemed to have been granted to the applicant subject to signing of the connection agreement between the parties.
2. The applicant shall submit information required on format [FORMAT-CON4] and any other information, within fifteen (15) days (unless otherwise indicated by STU) from the date of 'connection offer', to STU. The submission of information on or with format [FORMAT-CON4] by the applicant shall be deemed to be the unconditional acceptance of the 'connection offer'.
3. For the purpose of finalization of connection details, STU shall process above information and intimate connection details to the applicant on format [FORMAT-CON5] within fifteen (15) days (unless otherwise indicated by STU) from the date of receipt of such acceptance. STU shall also convey its decision to other persons, considered necessary, for giving effect to the connectivity and signing of connection agreement.
4. Connection agreement shall be signed in such form and format as provided in format [FORMAT-CON6] within forty five (45) days (unless otherwise indicated by STU) from the date of 'connection offer' or within such additional time as granted by STU as per provisions of the UPERC Connectivity Regulations.
5. After signing of connection agreement, STU shall provide a copy of the same to State Power Committee and State Load Despatch Centre in addition to the parties to the agreement.

Encl: (list of enclosures)

(Signature)

Authorized signatory of STU

Name:

Designation:

Seal:

Copy to others as considered necessary:

(APPLICABLE IN CASE OF GRANT OF CONNECTIVITY TO THE INTRA-STATE TRANSMISSION LICENSEE DESCRIBED UNDER PROVISO TO CLAUSE 2.1 AND CLAUSE 8.3 OF THE PROCEDURE)

INTIMATION FOR GRANT OF CONNECTIVITY / 'CONNECTIVITY OFFER'
(to be issued by STU to the intra-State transmission licensee)

1. Intimation no.
Date:
2. Name of the intra-State transmission licensee
3. Address for correspondence
4. Sub-station(s) at which connectivity is granted
 - (a) Name of sub-station(s)
 - (b) Name of Licensee (Owner)
 - (c) Voltage level(s) (kV)
 - (d) Date of connectivity
5. Details of various interconnection facilities
6. Details of transmission system required for connectivity
(brought out in specific interconnection study)
7. Details of the project (sub-stations and lines) for which connectivity granted
8. Geographical location(s) of the project (sub-stations)
 - (a) Nearest village/town
 - (b) District
 - (c) State
 - (d) Latitude
 - (e) Longitude
9. Time lines for completion of various activities as per TSA
10. Commissioning schedule of the project (sub-stations and lines)
Date(s) of commercial operation
11. Any other information as considered necessary by STU

General information to the intra-State transmission licensee

1. With the issue of this 'connection offer', the connectivity shall be deemed to have been granted to intra-State transmission license subject to signing of the connection agreement between the parties.
2. The intra-State transmission license shall submit information required on format [FORMAT-CON4] and any other information, within fifteen (15) days (unless otherwise indicated by STU) from the date of 'connection offer', to STU. The submission of information on or with format [FORMAT-CON4] by the intra-State transmission license shall be deemed to be the unconditional acceptance of the 'connection offer'.
3. For the purpose of finalization of connection details, STU shall process above information and intimate connection details to the intra-State transmission license on format [FORMAT-CON5] within fifteen (15) days (unless otherwise indicated by STU) from the date of receipt of such acceptance. STU shall also convey its decision to other persons, considered necessary, for giving effect to the connectivity and signing of connection agreement.
4. Connection agreement shall be signed in such form and format as provided in format [FORMAT-CON6] within forty five (45) days (unless otherwise indicated by STU) from the date of 'connection offer' or within such additional time as granted by STU as per provisions of the UPERC Connectivity Regulations.

Provided that the format of connection agreement in case of intra-State transmission license shall be as approved by the Commission with the bid documents for inviting competitive bids under section 63 of the Act. In case bid documents approved by the Commission do not include the format of connection agreement, in such case the connection agreement shall be as per format [FORMAT-CON6]

5. After signing of connection agreement, STU shall provide a copy of the same to State Power Committee and State Load Despatch Centre in addition to the parties to the agreement.

Encl: (list of enclosures)

(Signature)

Authorized signatory of STU

Name:

Designation:

Seal:

Copy to others as considered necessary:

(APPLICABLE IN CASE OF GRANT OF CONNECTIVITY TO THE APPLICANT)

ADDITIONAL INFORMATION TO BE FURNISHED FOR SIGNING CONNECTION AGREEMENT
(to be submitted by the applicant to STU)

A. Details of the applicant

1	Name of the applicant	
2	Details of grant of connectivity a) Connectivity intimation no. b) Date	
3	Address for correspondence	
4	Contact details 4.1 Prime contact person a) Name b) Designation c) Phone no. (with STD code) d) FAX (with STD code) e) E-mail 4.2 Alternate contact person a) Name b) Designation c) Phone no. (with STD code) d) FAX (with STD code) e) E-mail	
5	Status of applicant Company	< generator (other than captive)/captive generator/ distribution licensee/captive user/open access consumer >
6	Estimated time of completion of the project (enclose PERT chart)	

B. Maps and diagrams

1. Provide necessary survey of India topo sheet clearly marking the location of the proposed site.
Schedule – I
2. Provide site plan (both hard and soft copy in Auto CAD 2000 and above version) in appropriate scale.
Schedule – II. The site plan should indicate following details:
 - a. The proposed location of the connection point;
 - b. Generators;
 - c. Transformer;
 - d. Site building.
3. Provide an electrical single line diagram (SLD) of the proposed project/facility detailing all significant items of plant. The plan is to be submitted in both hard and soft copy in AutoCAD 2000 and above version **Schedule – III**

C. Details of connection – Generating plant

1	Type of generating plant (hydro, thermal, gas,..)	
2	Rating of generating units	Schedule-IV
3	Maximum export capacity required	
4	Maximum import capacity required This is the amount of import capacity that the site will required during startup (MVA)	
5	Station house load during normal operating conditions (MW/MVAR)	
6	Expected running regime e.g. base load, peaking etc.	
7	Generator data for fault (Short Circuit Studies)	Schedule-V
8	Dynamic simulation data Generator Excitation Power system stabilizer	Schedule-VI Schedule-VII Schedule-VIII

D. Details of connection – Distribution licensee, captive user and open access consumer

1	Type of demand/load a) Urban/rural/industrial – distribution licensee b) Industrial/commercial including type of industry (i.e. electric furnace, rolling mills, manufacturing, assembly line, etc.) – in case of captive user and open access consumer	
2	Peak requirement of demand/load in MVA, MW and MVAR	
3	Peak import required in MVA, MW and MVAR	
4	Month-wise peak import required in MVA, MW and MVAR	
5	Month-wise energy requirement in MUs.	
6	Data for fault (Short Circuit Studies)	Single phase and three phase fault level

E. Details of connection – Data and voice communication

1	Type data gateway (Remote terminal unit/substation automation system gateway)	(Whether RTU/substation automation system gateway; and Number of data ports)
2	Data communication connectivity standard followed (As per interface requirement and other guideline made available by the RLDC/SLDC)	(Type of communication protocol, i.e. 101 (serial port) or 104 (ethernet), etc.)
3	Write here the communication media, interface and capacity being targeted for connection for data and voice communication	(Communication media: For example fibre optics, PLCC, etc. Interface: Example RS 232C, G.703 or as per mutual agreement Capacity: 1200 baud, 64 Kbps, 9.6 Kbps, etc as per mutual agreement)

F. Any other information as considered necessary by STU

*[The applicant to fill in details
based on information provided by STU]*

This is to certify that the above data submitted are pertaining to connection sought for the Intra-STS. Further, any additional data sought for processing the application shall be furnished.

Encl: (list of enclosures)

Place:

(Signature)

Date:

Authorized signatory of the applicant

Name:

Designation:

Seal:

Copy to others as considered necessary

Schedule – I: Survey of India topo sheet clearly marking the location of the proposed site.

Schedule – II: Site plan in appropriate scale.

Schedule – III: Electrical Single Line Diagram (SLD) of the proposed project/facility detailing all significant items of plant.

Schedule – IV: Rating of generating units

(Add additional sheets if number of units are more)

		Unit-1	Unit-2	Unit-3
1	Unit rating (MVA)			
2	Normal max. continuous generation capacity at normal operating temperature (MW)			
3	Normal max. continuous export capacity at normal operating temperature (MW)			
4	Maximum (Peaking) generating capacity at min. ambient air temperature (MW)			
5	Maximum (Peaking) export capacity at min. ambient air temperature (MW)			
6	Minimum continuous generating capacity (MW)			
7	Minimum export generating capacity (MW)			
8	Normal maximum lagging MVAR at rated MW output			
9	Normal maximum leading MVAR at rated MW output			

Attach a capability Curve: _____

Drawing no. of the capability
Diagram attachment

Schedule – V: Generator Data for Fault (Short Circuit Studies)

All data to be provided on pu machine MVA base

1	Direct axis transient reactance (unsaturated)	X_d'	
2	Sub-transient reactance (unsaturated)	X_d''	
3	Synchronous reactance	X_s	
4	Zero phase sequence reactance	X_o	
5	Negative phase sequence reactance	X_2	

Schedule – VI: Dynamic simulation data

Generator data

All data to be provided on pu machine MVA base

1	Direct axis positive phase sequence synchronous reactance	X_d	
2	Quadrature axis positive phase sequence synchronous reactance	X_q	
3	Direct axis transient reactance (unsaturated)	X_d'	
4	Quadrature axis transient reactance (unsaturated)	X_q'	
5	Sub-transient reactance (unsaturated)	X_d''	
6	Armature leakage reactance	X_l	
7	Direct axis transient open circuit time constant (secs)	T_{do}'	
8	Direct axis sub transient open circuit time constant (secs)	T_{do}''	
9	Quadrature axis transient open circuit time constant (secs)	T_{qo}'	
10	Quadrature axis sub transient open circuit time constant (secs)	T_{qo}''	
11	Inertia of complete turbo generator (MWs/MVA)	H	
12	Provide open circuit magnetization curve enter drawing number here or mention "assume" <i>If this not available then UPPTCL shall assume magnetic saturation characteristics as per the Annexure-I</i>		

Excitation Data

Please submit Laplace domain control block diagram that represents the generator excitation system in accordance with the IEEE standard excitation model or as otherwise agreed with UPPTCL. This control block diagram should completely specify all the time constants and gains to fully explain the transfer function from the compensator or generator terminal voltage and field current to generator voltage. A list of acceptable IEEE standard excitation model available with PSS/E simulation package shown in **Annexure-II**.

Please fill/tick the appropriate box below:

Please assume

OR

If the excitation data is not available at this stage then UPPTCL shall assume exciter model given at **Annexure-III** which represents a typical excitation model.

Assume the model given at **Annexure-III** as our model

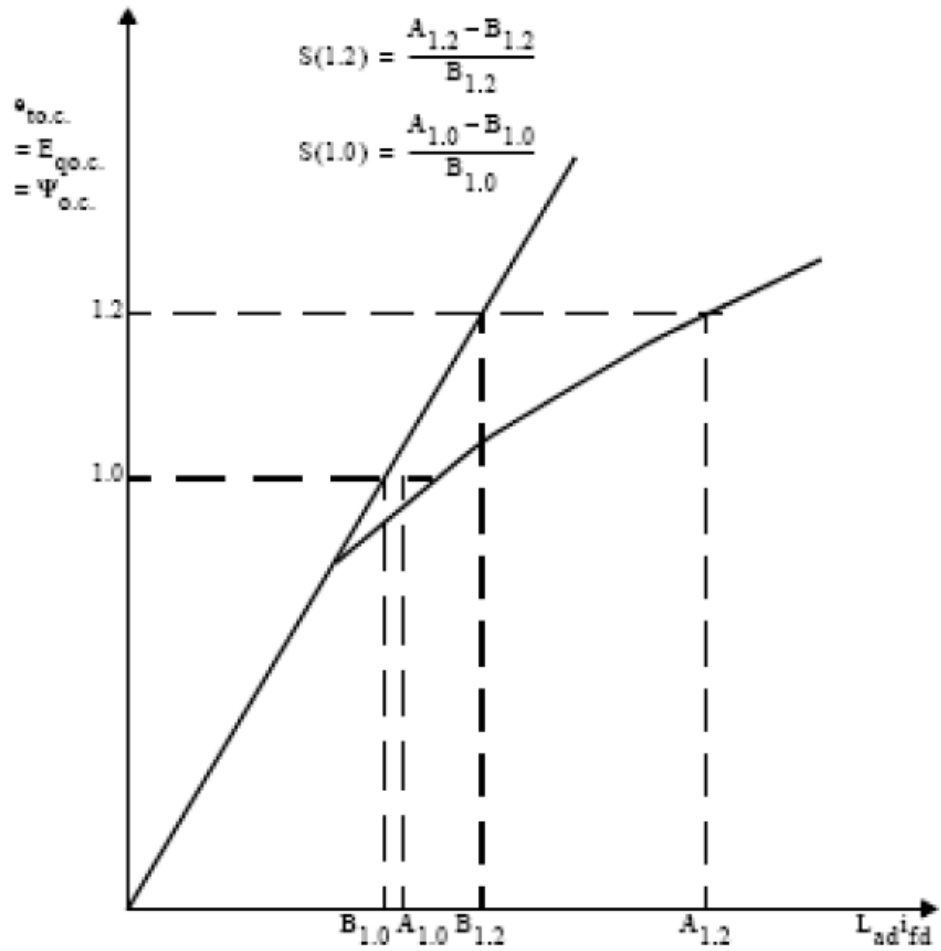
Schedule – VII: Two winding transformer data

1	Transformer positive sequence resistance (R1%)	
2	Transformer positive sequence reactance (X1%)	
3	Transformer zero sequence resistance (R0%)	
4	Transformer zero sequence reactance(X0%)	
5	Transformer vector group	
6	Nature of tap changer (on load/off load)	
7	Number of steps and step size	

Schedule – VIII: Three winding transformer data

1	Transformer vector group	
2	Positive sequence resistance (R1HL1%) between HV/LV1	
3	Positive sequence reactance (X1HL1%) between HV/LV1	
4	Zero sequence resistance (R0HL1%) between HV/LV1	
5	Zero sequence reactance (X0HL1%) between HV/LV1	
6	Positive sequence resistance (R1HL2%) between HV/LV2	
7	Positive sequence reactance (X1HL2%) between HV/LV2	
8	Transformer zero sequence resistance (R0HL2%) between HV/LV2	
9	Zero sequence reactance (X0HL2%) between HV/LV2	
10	Positive sequence resistance (R1L1L2%) between LV1/LV2	
11	Positive sequence reactance (X1L1L2%) between LV1/LV2	
12	Zero sequence resistance (R0L1L2%) between LV1/LV2	
13	zero sequence reactance (X0L1L2%) between LV1/LV2	
14	Positive sequence resistance (R1HL1//L2%) between HV/(LV1+LV2)	
15	Positive sequence reactance (X1HL1//L2%) between HV/(LV1+LV2)	
16	Zero sequence resistance (R0HL1//L2%) between HV/(LV1+LV2)	
17	Zero sequence reactance (X0HL1//L2%) between HV/(LV1+LV2)	

Open circuit magnetization curve



Magnetic saturation data to be assumed

S(1.0) =

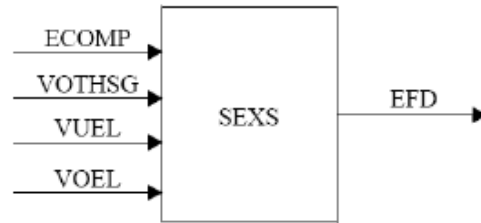
S(1.2) =

Acceptable IEEE standard excitation model available with PSS/E simulation package

Excitation System Models	
ESAC1A	1992 IEEE type AC1A excitation system model
ESAC2A	1992 IEEE type AC2A excitation system model
ESAC3A	1992 IEEE type AC3A excitation system model
ESAC4A	1992 IEEE type AC4A excitation system model
ESAC5A	1992 IEEE type AC5A excitation system model
ESAC6A	1992 IEEE type AC6A excitation system model
ESAC8B	Basler DECS model
ESDC1A	1992 IEEE type DC1A excitation system model
ESDC2A	1992 IEEE type DC2A excitation system model
ESST1A	1992 IEEE type ST1A excitation system model
ESST2A	1992 IEEE type ST2A excitation system model
ESST3A	1992 IEEE type ST3A excitation system model
EXAC1	1981 IEEE type AC1 excitation system model
EXAC1A	Modified type AC1 excitation system model
EXAC2	1981 IEEE type AC2 excitation system model
EXAC3	1981 IEEE type AC3 excitation system model
EXAC4	1981 IEEE type AC4 excitation system model
EXBAS	Basler static voltage regulator feeding dc or ac rotating exciter model
EXDC2	1981 IEEE type DC2 excitation system model
EXELI	Static PI transformer fed excitation system model
EXPIC1	Proportional/integral excitation system model
EXST1	1981 IEEE type ST1 excitation system model
EXST2	1981 IEEE type ST2 excitation system model
EXST2A	Modified 1981 IEEE type ST2 excitation system model
EXST3	1981 IEEE type ST3 excitation system model
IEEET1	1968 IEEE type 1 excitation system model
IEEET2	1968 IEEE type 2 excitation system model
IEEET3	1968 IEEE type 3 excitation system model
IEEET4	1968 IEEE type 4 excitation system model
IEEET5	Modified 1968 IEEE type 4 excitation system model
IEEEX1	1979 IEEE type 1 excitation system model and 1981 IEEE type DC1 model
IEEEX2	1979 IEEE type 2 excitation system model
IEEEX3	1979 IEEE type 3 excitation system model
IEEEX4	1979 IEEE type 4 excitation system model, 1981 IEEE type DC3 and 1992 IEEE type DC3A models
IEET1A	Modified 1968 IEEE type 1 excitation system model
IEET1B	Modified 1968 IEEE type 1 excitation system model
IEET5A	Modified 1968 IEEE type 4 excitation system model
IEEX2A	1979 IEEE type 2A excitation system model
SCRX	Bus or solid fed SCR bridge excitation system model
SEXS	Simplified excitation system model

SEXS – Simplified Excitation System Model

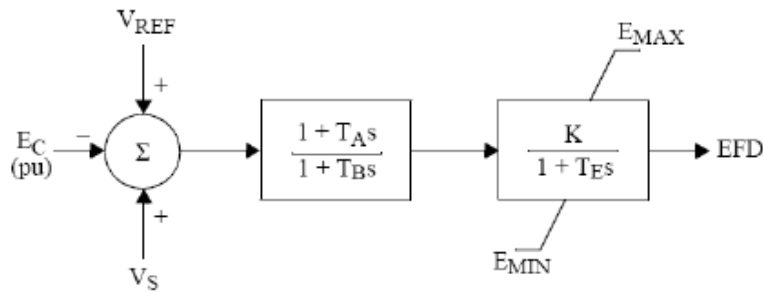
This model is located at system bus # _____ IBUS,
 machine # _____ I.
 This model uses CONs starting with # _____ J,
 and STATEs starting with # _____ K.



CONs	#	Value	Description
J			T_A/T_B
J+1			$T_B (>0)$ (sec)
J+2			K
J+3			T_E (sec)
J+4			E_{MIN} (pu on EFD base)
J+5			E_{MAX} (pu on EFD base)

STATEs	#	Description
K		First integrator
K+1		Second integrator

IBUS, 'SEXS', I, T_A/T_B , T_B , K, T_E , E_{MIN} , E_{MAX}



$$V_S = VOTHSG + VUEL + VOEL$$

(APPLICABLE IN CASE OF GRANT OF CONNECTIVITY TO THE INTRA-STATE TRANSMISSION LICENSEE DESCRIBED UNDER PROVISO TO CLAUSE 2.1 AND CLAUSE 8.3 OF THE PROCEDURE)

ADDITIONAL INFORMATION TO BE FURNISHED FOR SIGNING CONNECTION AGREEMENT
(to be submitted by the intra-State transmission licensee to STU)

A. Details of the applicant

1	Name of the intra-State transmission licensee	
2	Details of grant of connectivity c) Connectivity intimation no. d) Date	
3	Address for correspondence	
4	Contact details 4.1 Prime contact person f) Name g) Designation h) Phone no. (with STD code) i) FAX (with STD code) j) E-mail 4.2 Alternate contact person f) Name g) Designation h) Phone no. (with STD code) i) FAX (with STD code) j) E-mail	
5	Status of transmission licence	
6	Estimated time of completion of the transmission system (enclose PERT chart)	

B. Maps and diagrams

1. **Survey of India topo sheet clearly marking the location of the proposed sites: Schedule – I**
Provide necessary survey of India topo sheet clearly marking the location of the proposed sites.
2. **Site plans in appropriate scale: Schedule – II**
Provide site plans (both hard and soft copy in Auto CAD 2000 and above version) in appropriate scale. The site plan should indicate following details:
 - a. The proposed location of the connection point;
 - b. Lines;
 - c. Sub-stations.
3. **Electrical Single Line Diagram (SLD) of the proposed transmission lines and sub-stations detailing all significant items of project: Schedule – III**
Provide an electrical single line diagram (SLD) of the proposed transmission lines and sub-stations detailing all significant items of project. The plan is to be submitted in both hard and soft copy in AutoCAD 2000 and above version.

C. Details of connection – Intra-State transmission licensee

*[Intra-State transmission licensee to fill in details
based on information provided by STU]*

D. Details of connection – Data and voice communication

[Intra-State transmission licensee to fill in details based on information provided by STU]

E. Any other information as considered necessary by STU

[Intra-State transmission licensee to fill in details based on information provided by STU]

This is to certify that the above data submitted are pertaining to connection sought for the Intra-STS. Further, any additional data sought for processing the connectivity shall be furnished.

Encl: (list of enclosures)

Place:

(Signature)

Date:

Authorized signatory of the applicant

Name:

Designation:

Seal:

DRAFT LETTER

FURNISHING CONNECTION DETAILS FOR CONNECTION TO THE INTRA-STATE TRANSMISSION SYSTEM BY STU
(to be issued by STU to the applicant/intra-State transmission licensee)

Ref. no. with date:

[Name]

[Address of the party]

Subject: Connection details for connection to the intra-State transmission system.

Dear Sir,

This is with reference to your application no. dated seeking connectivity to the intra-State transmission system and/or this office connectivity intimation no. dated and other correspondences in this regard. On examination of the same, you are hereby permitted connectivity to the grid as per the details given below:

1. Name of link(s) (sub-station(s)/line(s)) at :
which connectivity(ies) granted
2. Voltage level(s) : 765/400/200/132/33 kV
3. Type of link(s) :
4. Reactive compensation to be provided : [Specify rating of line reactors/bus reactor/series compensation if any]
5. Maximum import capacity through link(s) :
6. Maximum export capacity through link(s) :
7. Expected date of commercial operation :
8. Bay allocated in the switchyard of : Bay No. [refer enclosed single line diagram at **Annexure-I**]
connectivity (i.e. interconnection facilities)
9. Equipment to be provided in the allocated : [refer **Annexure-II**]
bay meeting the requirement of Central
Electricity Authority (Technical Standards
for Connectivity to the Grid) Regulations,
2007 and the equipment installed at other
end shall be compatible with it.
10. Protection equipment to be provided : [refer **Annexure-II**]
meeting the requirements of Central
Electricity Authority (Technical Standards
for Connectivity to the Grid) Regulations,
2007 and the equipment installed at other
end shall be compatible and matching with it.
11. System recording and SCADA equipment : [refer **Annexure-III**]
meeting the technical standards as per
Central Electricity Authority (Technical
Standard for Connectivity to the Grid)
Regulations, 2007 and shall be compatible
to facilitate exchange of data with the

existing system installed in Intra-STS network.

12. Details of the allocated bay/interconnection: [refer **Annexure-IV** facilities and its estimated construction cost
13. Name of communication link of data and voice communication : from [name of substation/switchyard] – to [name of substation/switchyard]
14. Details of communication equipment up to UPPTCL data collection point : [refer **Annexure-V**]
15. Site responsibility schedule : [as marked in the attached GA (General Arrangement) drawings at **Annexure-VI**]
16. Any other information as considered necessary by STU :

It should be noted that all the equipments and systems to be provided by applicant or intra-State transmission licensee shall have to conform to the technical standards as specified in the Central Electricity Authority (Technical Standard for Connectivity to the Grid) Regulations, 2007 and other requirements given in regulations made by Central Electricity Authority under section 177 read with section 73 of the Act.

The applicant or intra-State transmission licensee will establish, test, commission and demonstrate the voice and data communication facilities with SLDC Lucknow before test charging.

At the point of connectivity with the Intra-STS, construction of interconnection facilities shall be taken-up by STU on deposit of cost for the same as per UPERC Connectivity Regulations.

The applicant or intra-State transmission licensee shall comply the provisions made in connection agreement, Central Electricity Authority (Technical Standard for Connectivity to the Grid) Regulations, 2007, other regulations of Central Electricity Authority, UPERC Connectivity Regulations and Procedure for Grant of Connectivity to intra-STS, UPERC Open Access Regulations, UPEGC 2007/IEGC, as amended from time to time.

Thanking You

Encl: (list of enclosures)

Yours faithfully
(Signature)
Authorized signatory of STU

Name:
Designation:
Seal:

Copy to State Power Committee and State Load Despatch Centre in addition to the persons, considered necessary, for giving effect to the connectivity and signing of connection agreement

Single line diagram of the sub-station/switchyard of STU/any other transmission licensee where connectivity is granted together with details of interconnection facilities

Equipment to be provided meeting the requirement of CEA (Technical Standard for Connectivity to the Grid) Regulations, 2007 and the equipment at other end shall be compatible to the same

Sl. No.	Name of equipments	Nos.	Ratings
1	Circuit breaker		
2	Isolators		
3	Earth switches		
4	CT		
5	CVT		
6	Wave trap		
7	Etc.		
8			
9			

System recording & SCADA equipment meeting the technical standards of CEA (Technical Standard for Connectivity to the Grid) Regulations, 2007

Sl. No.	Name of equipments	Nos.	Ratings
1	Event logger		
2	Disturbance recorder/Fault locator		
3	Data acquisition system		
4	Communication equipment		
5	Etc.		
6			
7			

Details of the allocated bay/interconnection facilities and its estimated construction cost

Details of communication equipment upto UPPTCL data collection point

Site responsibility schedule of STU (at the point of connectivity)

A. Principle & Procedure:

The responsibility of control, operation, maintenance and all matters pertaining to safety of equipments and apparatus of the proposed bay (i.e. interconnection facilities) at the point of connectivity shall lie with the owner of the substation in whose premises such proposed bay/interconnection facilities is located. The ownership of such interconnection facilities shall be deemed to have been vested in STU or any other transmission licensee in accordance with UPERC Connectivity Regulations. For ease of day-to-day operation as a general practice, operation and maintenance is carried out by the owner of the substation and its O & M cost shall be included in the transmission charges in the ARR to be filed by STU or any other transmission licensee.

B. List of equipment and their ownership at the connection point:

Sl. No.	Name of equipments	Ownership
1		
2		
3		
4		
5		
6		
7		

C. Site common drawings:

- a. Site layout
- b. Electrical layout (SLD)
- c. General Arrangement drawings (GA)
- d. Details of protection
- e. Common services drawing

Site responsibility schedule of the applicant or intra- State transmission licensee (at other end)

- A.** All equipments and systems at other end shall be provided by the applicant or intra-State transmission licensee which shall be compatible with the equipments and systems provided by STU, at the point of connectivity as mentioned above, meeting the requirements of regulations made by Central Electricity Authority under section 177 read with section 73 of the Act and UPEGC/IEGC. STU shall satisfy itself that the applicant or intra-State transmission licensee has complied with it before commissioning of connectivity.
- B.** The applicant or intra-State transmission licensee shall provide list of equipments and systems and site common drawings (i.e. site layout, electrical layout (SLD), general arrangement drawings, details of protection, common services drawing etc.)
- C.** The applicant or intra-State transmission licensee will establish, test, commission and demonstrate the voice and data communication facilities with SLDC Lucknow before test charging. System recording and SCADA equipment shall be compatible to facilitate exchange of data with the system installed in Intra-STs.

(APPLICABLE IN CASE OF CONNECTIVITY GRANTED TO THE APPLICANT OR INTRA-STATE TRANSMISSION LICENSEE WITH TRANSMISSION SYSTEM OF UPPTCL)

DRAFT

MODEL CONNECTION AGREEMENT

BETWEEN

UTTAR PRADESH POWER TRANSMISSION CORPORATION LIMITED

AND

.....
[name of the applicant or intra-State transmission licensee]

This **CONNECTION AGREEMENT** (hereinafter referred to as “the Agreement”) is made on the *[mention day]* day of..... *[mention month]* Two Thousand *[mention year]*

Between:

Uttar Pradesh Power Transmission Corporation Limited, a company incorporated under the Companies Act, 1956, having its registered office at Shakti Bhawan, 14, Ashok Marg, Lucknow (hereinafter called "UPPTCL") which expression shall, unless repugnant to the context or meaning thereof, include its successors and assigns as party of the First part;

And

M/s *[name of the applicant or intra-State transmission licensee]* having its registered office at *[address of the applicant or intra-State transmission licensee]* (hereinafter called “ABCD”) which expression shall, unless repugnant to the context or meaning thereof, include its successors and assigns as party of the Second part;

WHEREAS:

- (A) UPPTCL has been notified as “State Transmission Utility” (hereinafter referred to as “STU”) by Government of Uttar Pradesh entrusted functions to undertake transmission of electricity through intra-State transmission system; discharge all functions of planning and co-ordination relating to intra-State transmission system with all concerned and ensure development of an efficient, co-ordinated and economical system for smooth flow of electricity from generating station to the load centres besides other pre-requisites in discharge of its function under the Electricity Act, 2003 (hereinafter referred to as “the Act”);
- (B) UPPTCL is a deemed transmission licensee and shall build, maintain and operate intra-State transmission system (hereinafter referred to as “Intra-STS”);
- (C) ABCD is a *[generating company/distribution licensee/captive user/open access consumer]* and has made an application for connectivity of..... *[generating station/*

electric line connecting sub-station of a distribution licensee or premises (i.e. industrial or commercial establishment) of a captive user or an open access consumer] as detailed in Annexure-A1 to the intra-State transmission system of the party of the First part in accordance with Uttar Pradesh Electricity Regulatory Commission (Grant of Connectivity to Intra-State Transmission System) Regulations, 2010 and amendments thereof (hereinafter referred to as “UPERC Connectivity Regulations”) and Procedure for Grant of Connectivity to Intra-STS (hereinafter referred to as “the Procedure”) made by the party of the First part and approved by UPERC;

Also the party of the First part has finalised connectivity at *[mention details of the interconnection point, name of the sub-station or switchyard, name of the transmission line in case of LILO]* and made a ‘connection offer’ to ABCD on *[enter date]* as detailed in Annexure-A2 and required ABCD to furnish further information for signing of this agreement.

Further ABCD submitted the required information as detailed in Annexure-A3 and submission of such information constitute unconditional acceptance of the ‘connection offer’ by ABCD. On acceptance of the ‘connection offer’ by ABCD and after the connection details furnished to ABCD by the party of First part as detailed in Annexure-A4, this connection agreement is being executed between the parties as per provisions of UPERC Connectivity Regulations and the Procedure.

[applicable in case of connectivity granted to the applicant with transmission system of UPPTCL]

Or

ABCD is an intra-State transmission licensee, entering into business of intra-State transmission of electricity under section 63 of the Act and UPERC has granted a licence on..... *[enter date]* for undertaking transmission of electricity, through such lines and sub-stations as described in the said licence, and he is not require to make an application for grant of connectivity to the Intra-STS owned, operated and maintained by the party of the First part.

Also ABCD has submitted a copy of licence, Transmission Service Agreement and other information to the party of the First part as detailed in Annexure-A1 and as such meet requirements for the purpose of connectivity in accordance with UPERC Connectivity Regulations and the Procedure.

Further the party of the First part has made a ‘connection offer’ to ABCD on *[enter date]* as detailed in Annexure-A2 and required ABCD to furnish further information for signing of this agreement.

Further ABCD submitted the required information as detailed in Annexure-A3 and submission of such information constitute unconditional acceptance of the ‘connection offer’ by ABCD. On acceptance of the ‘connection offer’ by ABCD and after the connection details furnished to ABCD by the party of First part as detailed in Annexure-A4, this connection agreement is being executed between the parties as per provisions of UPERC Connectivity Regulations and the Procedure;

[applicable in case of connectivity granted to intra-State transmission licensee with transmission system of UPPTCL]

NOW, THEREFORE, in consideration of the foregoing premises and mutual agreements, covenants and conditions setforth herein, parties do hereby agree as follows :-

1. General conditions for connectivity:

1.1 The parties agree to the following general conditions:

- (a) The parties shall abide by the Uttar Pradesh Electricity Regulatory Commission (Grant of Connectivity to intra-State Transmission system) Regulations, 2010, in respect of procedure of grant of connectivity to Intra-STS and other connectivity related matters.
- (b) ABCD shall be responsible for planning, design, construction, and safe and reliable operation of its own equipments in accordance with Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007, Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010, Central Electricity Authority (Safety Requirements for Construction, Operation and Maintenance of Electrical Plants and Electric Lines) Regulations, 2011, Central Electricity Authority (Grid Standards) Regulations, 2010, Central Electricity Authority (Measures relating to Safety and Electricity Supply) Regulations, 2010, other regulations of Central Electricity Authority made under section 177 read with section 73 of the Act, IEGC, UP Electricity Grid Code 2007 (UPEGC) and other statutory provisions.
- (c) The parties shall record the terms and conditions upon which the parties will carry out their respective connection works, in addition to construction of interconnection facilities at the point of connectivity.
- (d) The party of the First part shall be required by ABCD to construct interconnection facilities, at the point of connectivity, located in sub-station/switchyard of party of the First part. The party of the First part shall inform the cost for construction of said interconnection facilities, on turnkey basis, together with terms and conditions to ABCD who shall pay the amount within one (1) month to the party of the First part. As agreed by the parties, ownership of such interconnection facilities at the point of connectivity shall be deemed to have been vested in the party of the First part by ABCD. The said interconnection facilities shall be operated and maintained by the party of the First part and its operation and maintenance cost shall be included in the transmission charges in the ARR to be filed by the party of the First part.
- (e) The parties shall separately take up modalities for implementation of the respective connection works on mutually agreed terms and conditions. The scope of works, time schedule for completion of works (including the timelines for the various milestones to be reached for completion of works) shall form an appendix to this agreement, and shall form the basis for evaluating if the works by the parties is being executed in time.
- (f) ABCD shall make arrangements, but not limited to, as applicable, for integration of the controls and tele-metering features of his system into the Automatic Generation Control, Automatic Load Shedding, Special Protection System, Energy Management Systems and Supervisory Control and Data Acquisition System.
- (g) ABCD shall provide necessary facilities for voice and data communication for transfer of real time operational data such as voltage, frequency, real and reactive power flow, energy, status of circuit breaker and isolators positions, transformer taps and other parameters as required by RLDC/SLDC from their station to Data Collection Point (DCP) of the party of the First part as per UPEGC/IEGC.

The party of the First part shall provide access to ABCD's data transfer through communication network in case spare channels are available on mutually agreed terms. The location of DCP of the part of the First part shall be the nearest station connected electrically where wideband communication capacity of the party of the First part is available.

Additional communication system from DCP to State Load Despatch Centre (hereinafter referred to as "SLDC") shall be the responsibility of the party of the First part; however its cost shall be borne by ABCD. The responsibility of data transfer shall be that of ABCD.

1.2 The following documents and their schedules which have been initialed by the parties and annexed herewith shall become an integral part of this Agreement in the order of precedence listed below :-

- (a) Application for grant of connectivity to the Intra-STS or licence, Transmission Service Agreement and other information submitted in case of the intra-State transmission licensee under section 63 of the Act
- (b) Intimation for grant of connectivity (i.e. 'connectivity offer')
- (c) Additional information for signing connection agreement
- (d) Connection details letter

1.3 Availability of statutory/regulatory approval

Notwithstanding anything contrary to the Agreement, ABCD shall be responsible for obtaining the statutory clearances/approval including transmission licence (if required) for carrying out the works requiring connection to the Intra-STS. The party of the First part shall satisfy itself that the necessary approvals/clearances are available with ABCD. In case certain approvals are available or granted after grant of connectivity, the time period for obtaining such approvals/clearances may be specified in consultation with the party of the First part.

2. Payments of charges, expenses and costs:

2.1 Monthly transmission charge including ULDC/SLDC charge

ABCD shall pay or cause to pay monthly transmission charge including ULDC/SLDC charge, for use of Intra-STS, as and when open access is availed in accordance with the relevant regulations of Appropriate Commission.

2.2 Construction cost of interconnection facilities (i.e. bay)

ABCD shall pay cost for construction of interconnection facilities at the point of connectivity with the transmission system of the party of the First part on such terms and conditions as specified by the party of the First part in accordance with UPERC Connectivity Regulations.

2.3 O & M expense of interconnection facilities

The party of the First part shall be responsible for operation and maintenance of interconnection facilities and its O & M expense shall be included in the transmission charges in the ARR to be filed by the party of the First part.

2.4 Damages

ABCD shall pay or make good damages, if any, caused to the property of the party of the First part by ABCD within reasonable time of its occurrence, during the course of control, operation and maintenance of the equipment.

3. Metering:

Installation of meters, its testing, calibration and reading and all matters incidental thereto shall be undertaken in conformity with CEA (Installation and Operation of Meters) Regulations, 2006, UPEGC and Availability Based Tariff, as amended and revised from time to time, and any other additional requirement notified by STU.

4. Conditions precedent to the commissioning of connectivity:

- 4.1 ABCD shall comply with the provisions made in UPERC Connectivity Regulations and the Procedure, the general and specific conditions of connectivity with the grid given in CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007, other relevant regulations of Central Electricity Authority, relevant Regulations of UPERC/CERC, UPEGC 2007 and IEGC, as amended from time to time.
- 4.2 ABCD shall provide all equipments and systems at other end which shall be compatible with the equipments and systems provided by the party of First part, at the point of connectivity as given in connection details letter, meeting the requirements of Central Electricity Authority (Technical Standard for Connectivity to the Grid) Regulations, 2007. The party of the First part shall satisfy itself that ABCD has complied with it before commissioning of connectivity.
- 4.3 ABCD shall intimate the following:
 - (a) time frame for commissioning of works at its end at least three (3) months in advance.
 - (b) time frame for commissioning of dedicated transmission line up to the point of connectivity, if any, at least three (3) months in advance, in case of generating station.
 - (c) date of synchronization (in case of generating station and transmission line) at least one (1) month in advance.
- 4.4 ABCD shall establish, test, commission and demonstrate voice and data communication facilities with SLDC Lucknow before test charging. System recording and SCADA equipment shall be compatible to facilitate exchange of data with the system installed in Intra-STTS.
- 4.5 ABCD shall have to get appropriate "permission/instructions" prior to actually charging of the equipment through the grid. The charging instruction shall be issued only when the party of the First part is satisfied (by acting reasonably) that :
 - (a) the connection works have been completed;
 - (b) ABCD has complied with its all obligation as set out in connection details letter;
 - (c) ABCD has demonstrated the voice and data communication facilities to SLDC;
 - (d) ABCD has obtained necessary approvals from competent authorities;
 - (e) ABCD has complied with general and specific connectivity conditions given under CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007.

4.6 For commissioning of connectivity with Intra-STTS, the party of the First part shall issue at least fifteen (15) days advance notice to SLDC, ABCD and other concerned person(s). Post connectivity event shall be allowed only after formal declaration of the commissioning of such connectivity by the party of the First part.

5. Post connectivity events

5.1 The post connectivity events, in relation to *[mention generating plant and/or sub-station and/or electric line]* of ABCD, shall mean activities, namely:

- (a) interchange of power with Intra-STTS;
- (b) operation and maintenance of such *[mention generating plant and/or sub-station and/or electric line]* by ABCD;
- (c) operation and maintenance of dedicated transmission line by generating station, if any; and
- (d) operation and maintenance of evacuation system associated with plant generating non-firm power, if any.

5.2 Post connectivity events shall be undertaken in accordance with the regulations and codes made by CEA, UPERC and CERC from time to time in general and specifically in respect to scheduling, despatch, energy accounting, UI accounting and settlement of accounts for open access transaction.

5.3 ABCD shall cooperate with Regional Power Committee/State Power Committee and in particular SLDC. Special focus shall be made on protection coordination and setting of its protective relays accordingly, maintenance of meters and communication system keeping them in good condition, participation in contingency operations as per the procedure decided by SLDC, furnish data for system studies or facilitating analysis of tripping or disturbance in power system, carry out modification in his equipment with respect to short circuit level, protection coordination and other technical reasons considered necessary due to operational requirements.

6. Conditions of site access

6.1 Being restricted area the party of the First part may give permission or allow access to the employees and/or agents and/or subcontractors and/or invitees of ABCD in its premises to carry out preliminary site inspections, etc based on a written request by ABCD giving reasonable advance notice. All such actions are to be carried out under the strict supervision of the authorized representative of the party of the First part to safeguard the safety and security requirements of installations of the party of the First part and safety of the representatives of ABCD.

Similarly ABCD may also allow, on prior permission, site access to the employees and/or agents and/or invitees of the party of the First part to carry out preliminary site investigation works, inspections, etc in the other end connection site of ABCD, provided that a written request has been made giving reasonable advance notice.

6.2 Site access for the party of the First part/ABCD shall include the right to bring such vehicles, etc. as shall be reasonably necessary to carry out the functions in respect of which the permission of access is granted. Being a restricted area, any individual to whom access is given under the Agreement shall comply with all reasonable directions given by the party of the First part/ABCD and its duly authorized

employees and agents to safe guard the interest of safety and security requirements of personnel and equipment. All such access shall be exercisable without payment of any kind.

7. Transfer assignment and pledge:

ABCD shall not transfer, assign or pledge its rights and obligations under this connection agreement to any other person.

8. Notice:

All correspondence/notices required or referred to under this Agreement shall be in writing and signed by the respective authorized signatories of the parties mentioned herein, unless otherwise notified. Each such notice shall be deemed to have been duly given if delivered or served by registered mail/speed post of the department of post with an acknowledgment due to other party(ies) as per authorization by parties.

The authorities of the parties who shall responsible for the correspondence notices etc. in connection with this agreement shall be as below:

- a) Person on behalf of the party of the First part -
- b) Person on behalf of ABCD -

9. Settlement of disputes and arbitration:

All differences and/or disputes between the parties arising out of or in connection with these presents shall be settled under UPERC Connectivity Regulations read with the Act.

10. Force Majeure

Force Majeure herein is defined as any clause which is beyond the control of the party of the First part or ABCD, as the case may be, which could not be foreseen or with a reasonable amount of diligence could not have been foreseen and which substantially affects the performance of the agreement. Force Majeure events would include:

- (a) Natural phenomenon including but not limited to floods, droughts, earthquake and epidemics;
- (b) war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy in each case involving or directly affecting India, revolution, riot, insurrection or other civil commotion, act of terrorism or sabotage in each case within India;
- (c) nuclear explosion, radioactive or chemical contamination or ionizing radiation directly affecting the generation station, captive generating plant, distribution system of distribution licensee, intra-State transmission system of the party of the First part or intra-State transmission licensee other than the party of the First part, industrial or commercial establishment of captive user or open access consumer, or any facility or system that is integral to and substantial for the performance of this agreement.
- (d) any event or circumstances of a nature analogues to any events set forth above within India.

Provided either party shall, within fifteen (15) days from the occurrence of such a Force Majeure event, notify the other in writing of such cause(s).

Neither of the parties shall be liable for delays in performing obligations on account of any force majeure causes as referred to and/or defined above.

11. Confidentially:

The parties shall keep in confidence any information obtained under this Connection Agreement and shall not divulge the same to any third party without the prior written consent of the other party, unless such information is

- a) in the public domain,
- b) already in the possession of the receiving party,
- c) required by the Govt. Ministries/Agencies/Court of competent jurisdiction.

The information exchanged herein between the parties shall be used only for the purpose of, and in accordance with, this Agreement and for the purpose stated herein. This clause shall remain in force even after termination of connection agreement.

12. Amendment to the connection agreement:

Any non material change after signing of connection agreement shall be incorporated on the request of ABCD/the party of the First part through an amendment to the connection agreement in such form and manner relevant for compatible absorption of such change in the agreement without altering the intent and basic structure of the connection agreement. Such an amendment shall be executed between the parties within thirty (30) days of implementing such modification.

IN WITNESS WHEREOF the party of the First part and ABCD have caused this Agreement to be executed by duly authorized representative on date above first herein written.

Signed for and on behalf of:-
[UPPTCL Details]

Signed for and on behalf of:-
[ABCD Details]

**Time schedule for completion of works
(including the timelines for the various milestones to be reached for completion of works)**

*(APPLICABLE IN CASE OF CONNECTIVITY GRANTED TO THE APPLICANT WITH
TRANSMISSION SYSTEM OF ANY OTHER TRANSMISSION LICENSEE (OTHER THAN UPPTCL))*

DRAFT

MODEL CONNECTION AGREEMENT

BETWEEN

UTTAR PRADESH POWER TRANSMISSION CORPORATION LIMITED

AND

.....
[name of any other transmission licensee]

AND

.....
[enter name of the applicant]

[To be drafted by STU and submitted for approval of the Commission. The draft shall be made guided by the intent of the Procedure and scheme for grant of connectivity specified by the Commission in UPERC Connectivity Regulations]

CONSTRUCTION PHASE SECURITY IN THE FORM OF BANK GUARANTEE
(to be submitted by the person to STU as per clause 11 of the Procedure)

[To be drafted by STU and submitted for approval of the Commission. The draft shall be made guided by the intent of the Procedure and scheme for grant of connectivity specified by the Commission in UPERC Connectivity Regulations]