

GUIDELINES AND PROCEDURE FOR CONNECTIVITY TO INTRA-STATE TRANSMISSION SYSTEM

1. Background

1.1 Hon'ble BERC has framed Terms and condition of intra-state open access Regulations, 2018 and notified in Bihar Gazette vide Notification No. Case No. BERC/SMP-03/2018-10 dated 17.07.2018.

1.2 This regulation applies to Open Access for use of intra state transmission system and/or distribution systems in the state, including when such system is used in conjunction with inter-state transmission system.

2. Definitions

In these regulations, unless the context otherwise requires:-

(a) "Act" means the Electricity Act, 2003 (36 of 2003);

(b) "Allotted Capacity" means the power transfer in MW between the specified point(s) of injection and point(s) of drawal allowed to a long-term/medium-term customer on the intra-State transmission system and the expression "allotment of capacity" shall be construed accordingly;

(c) "Applicant" means a consumer, trader, distribution licensee or a Generating company who has applied seeking connectivity or open access as the case may be

(d) "Central Commission" means the Central Electricity Regulatory Commission referred to in Section 76 of the Act;

(e) "Commission" or "BERC" means the Bihar Electricity Regulatory Commission;

(f) "Consumer" shall carry the same meaning as in the Act, but shall be restricted to such consumers within the State of Bihar to whom these regulations will apply.

- (g) “Contracted load” or “Contracted demand” means the load in KW/HP/kVA (kilo Watt/Horse Power/kilo Volt Ampere) which the distribution licensee has agreed to supply from time to time subject to the governing terms and conditions;
- (h) “Day” means a day starting at 00.00 hours and ending at 24.00 hours;
- (i) “Distribution licensee” means any person licensed under Part IV of the Act for distribution and retail supply of electricity in the State of Bihar;
- (j) “IEGC” means Indian Electricity Grid Code Specified by Central Electricity Regulatory Commission under clause (h) of subsection (1) of section 79 of the Act, and as amended from time to time;
- (k) “Imbalance” in a time block for a generating station means its total actual generation minus its total scheduled generation and for a consumer or buyer means its total drawl minus its total scheduled drawl.
- (l) “Long-term access” means the right to use the intra-State transmission system or distribution system for a period exceeding seven (7) years.
- (m) “Medium-term open access” means the open access for a period exceeding three months but not exceeding five (5) years.
- (n) “Month” means a calendar month as per the Gregorian calendar;
- (o) "Nodal agency" means the nodal agency defined in Regulation 11 of BERC (terms and conditions of intra-State Open Access) Regulation, 2018.

Application and correspondence shall be addressed to:

Director (Operation)
Bihar State Power Transmission Company Limited
(State Transmission Utility)
4th Floor, Vidyut Bhawan - I
Bailey Road, Patna-800021

Email. Id.- stubsptcl2019@gmail.com

(p) “Open access” means the non discriminatory provision for the use of transmission lines or distribution system or associated facilities with such lines or system by any licensee or consumer or a generating company in accordance with these regulations and includes long term, medium-term and short-term open access.

(q) "Open access customer" means a consumer, buyer, seller trader, distribution licensee or a generating company who has been granted open access under these regulations.

(r) “Reserved Capacity” means the power transfer in MW between the specified point(s) of injection and point(s) of drawal allowed to a short-term customer on the transmission /distribution system depending on availability of transmission/distribution capacity and the expression "reservation of capacity" shall be construed accordingly;

(s) “Short-term open access” means open access for a period up to one month at a time.

(t) “SLDC” means the State Load Despatch Centre established under subsection (1) of section 31 of the Act;

(u) "State Grid Code" means the Bihar Electricity Grid Code specified by the Commission under clause (h) of sub-section (1) of section 86 of the Act,

(v) "State transmission Utility (STU)” means the State Electricity Board or the Government Company notified by the State Government under sub-section (1) of section 39 of the Act;

(w) “Transmission licensee” means any person licensed under Part IV of the Act for transmission of electricity.

(x) “Transmission System Segment” means a part or whole of the transmission system from the point of injection to the point of drawal.

(y) "Wheeling" means the operation whereby the distribution system and associated facilities of a transmission Licensee or distribution Licensee, as the case may be, are used by another person for the conveyance of electricity on payment of charges to be determined under section 62 of the Electricity Act 2003;

(2) Words and expressions used in this procedure and not defined in these regulations but defined under the Electricity Act, 2003 (herein referred as "the Act" or IEGC or Central Electricity Authority (Technical Standard for Connectivity to the Grid) Regulations, 2007 or the BERC (Terms and Condition of intra-state open Access) Regulation, 2018 or the Bihar Grid Code, or the Rules and other Regulations made under the Act, as the case may be, shall have the meaning assigned to them therein.

3. Objective Of The Guidelines

3.1 The objective of the guidelines is to provide a framework for grant of connectivity for long term & Medium term to Intra-State Transmission System. These guidelines aim to enable all eligible generating stations including a captive generating plant, for applying in the form prescribed in the procedure to be laid down by transmission licensee for seeking connectivity.

3.2 The guidelines include relevant information about application form, processing fees/charges payable, eligibility for grid connectivity and permission to commission the project thereof.

4. Outline Of Guideline

4.1 This guidelines will apply to the Applications made for Grant of Connectivity to the lines or associated facilities of the Transmission System received by STU on or after the date notified by the Commission of coming into force of the Guidelines.

4.2 The Applicant intending to seek connectivity to STU shall strictly follow the procedure notified by the STU. In such a case, the Applicant shall approach to STU for connectivity in accordance with the procedure laid down in this guideline.

5. Eligibility for grant of connectivity can be made by :

5.1 A consumer having load of 10 MW and above or a Generating Station having capacity of 10 MW and above shall be eligible to obtain connectivity to the intra-State transmission system, unless already connected.

5.2 A Generating Station already connected to the Transmission System or to whom Connectivity is already granted under an existing arrangement shall not be required to apply for Connectivity for the same capacity however, in case of augmentation of capacity of the Generating Station, a fresh application for modification to the Connectivity provisions shall be required in accordance with the provisions of the Regulations.

Note:- As per regulation 3.2 of Terms and condition of intra-state open access) Regulations, 2018, A Generating Station having installed capacity less than 10 MW shall be eligible to obtain connectivity to the Distribution system and shall apply for connectivity as per the provisions of these regulations, unless already connected, in accordance with the provisions in this chapter.

5.3 The application for connectivity shall contain details such as proposed geographical location of the applicant, quantum of power to be interchanged i.e. the quantum of power to be injected in case of a generating station including a captive generating plant and quantum of power to be drawn in case of consumer with the intra-State transmission system and such other details as may be laid down by the State Transmission Utility in the detailed procedure:

Provided that in cases where once an application has been filed and thereafter there has been any material change in the location of the applicant or change, by more than 10 percent in the quantum of power to be

interchanged with the intra-State transmission system, the applicant shall make a fresh application.

5.4 The Nodal Agency for grant of Connectivity, Long term access and Medium term open access to the intra state Transmission System, shall be STU i.e Bihar state power transmission Company Limited (BSPTCL).

5.5 Applicant granted “Connectivity” will be required to sign “Connection Agreement” with STU prior to the physical inter-connection.

5.6 Grid connectivity is not transferrable and it is applicable only to the applicant.

5.7 The Applicant shall comply with the provisions of the relevant Regulations of the Central Electricity Authority governing the technical standards for Connectivity to the grid/CERC/BERC.

5.8 The applicant shall sign a connection agreement with the State Transmission Utility or intra-State transmission licensee owning the sub-station or pooling station or switchyard or the transmission line as identified by the STU where connectivity is being granted:

Provided that in case connectivity of a generating station, including captive generating plant or consumer is granted to the intra-State transmission system of an intra-State transmission licensee other than the State Transmission Utility, a tripartite agreement as provided in the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 shall be signed between the applicant, the State Transmission Utility and such intra-State transmission licensee. The Applicant and BSPTCL shall enter into a Connection Agreement upon grant of Connectivity in the format provided.

5.9 The grant of connectivity shall not entitle an applicant to interchange any power with the grid unless it obtains long-term access, medium term open

access in accordance with the provisions of BERC (Terms and Condition of Intra State Open Access) Regulations, 2018 and these guidelines.

Provided that a generating station, including captive generating plant which has been granted connectivity to the grid shall be allowed to undertake testing including full load testing by injecting its infirm power into the grid before being put into commercial operation, even before availing any type of open access, after obtaining permission of the State Load Despatch Centre (SLDC), which shall keep grid security in view while granting such permission.

The grant of Connectivity shall not by itself entitle an Applicant to interchange any power through Open Access unless it obtains approval for Open Access in accordance with the provisions of the of BERC (Terms and Condition of Intra State Open Access) Regulations, 2018 and these guidelines.

5.10 All applications received during the month shall be treated to have been made concurrently.

5.11 An incomplete Application, and/or an Application not found to be in conformity with these Procedures, Guidelines and Regulations, shall be rejected.

5.12 STU reserves right to review/revise/modify/amend the terms and conditions of this Procedure/Gidelines as and when considered necessary.

6 APPLICATION FOR CONNECTIVITY

6.1 The application for Grant of Connectivity shall be made as per the application format for connectivity (**FORMAT-2**) on duly notarized affidavit (**FORMAT-1**) etc.

6.2 The application shall be accompanied by a non-refundable application fee and bank guarantee of Rs. 10,000/- (ten thousand) per MW of the total power to be transmitted. The bank guarantee shall be in favour of Bihar State Power Transmission Company Limited. The application for connectivity shall contain details such as proposed geographical location of the applicant, quantum of power to be interchanged i.e. the quantum of power to be injected in case of a consumer with the intra-state transmission system and such other details as may be laid down by the State Transmission Utility in the detailed procedure:

Provided that in cases where once an application has been filed and thereafter there has been any material change in the location of the applicant or change, by more than 10 percent in the quantum of power to be interchanged with the intra-state transmission system, the applicant shall make a fresh application.

The application for Grant of Connectivity should be submitted in a sealed envelope with “Application for Grant of Connectivity” clearly marked on the envelope. The application shall be addressed to:

Director (Operation)

Bihar State Power Transmission Company Limited

(State Transmission Utility)

4th Floor, Vidyut Bhawan - I

Bailey Road, Patna-800001

5.4 The applicant shall have Application fees are to be paid through DD in favour of Senior Manager , BSPTCL or directly credited to BSPTCL Account electronically through RTGS (Real-time gross settlement) as per details given below:

- Payee: Bihar State Power Transmission Company Ltd.
- Name of Bank : Bandhan Bank
- Branch : ...Ashiana Nagar, Patna.....
- IFSC : ...BDBL00001577...

- A/c No. :...50160008875297...

5.5 Proof of payment directly credited to above BSPTCL account must be attached with the application.

6 PROCESSING OF THE APPLICATION AND GRANT OF CONNECTIVITY TO STU

- 6.1** On receipt of the application, the STU shall, in consultation and through coordination with other agencies involved in the intra-State transmission, process the application and carry out the necessary interconnection study as specified in the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 and as per the clause 5 of the BERC (Terms and conditions of intra-state open access) Regulations, 2018 and its amendments from time to time.
- 6.2** After receipt of the technical feasibility report and approval to the same from STU authorities, STU shall issue a Grid Connectivity Letter to the applicant which will be valid for One (1) Year from the date of issue. The Grid Connectivity Letter format shall be as per **FORMAT -3**.
- 6.3** Applicant given intimation for Connectivity to the grid shall have to furnish additional details to STU for signing of “Connection Agreement” as per format given at **FORMAT-4**, These details are to be furnished to, unless otherwise indicated by STU. The Applicants are advised to furnish such details as early as possible for enabling them have lead time for any type of open access.
- 6.4** In order to assess preparedness of applicant making application for the connectivity to the Intra State Transmission System, an applicant is required to submit along with its application, documents in support of having initiated specific actions for project preparatory activities in respect of matters mentioned in (A) to (E) below:

A. Site identification and land acquisition:

The applicant shall inform the total land required for the generation project and submit the copies of Index-II for land acquired and/or Land Lease Deed executed for 20 years or above.

In case of land to be acquired under the Land Acquisition Act 1894, the applicant shall submit copy of notification issued for such land under Section 4 of the Land Acquisition Act 1894, within 06 (Six) months from the date of Intimation Letter. The applicant may also furnish documentary evidence in the form of certificate by concerned and competent revenue / registration authority for the acquisition ownership / vesting of the land.

B. Environmental clearance for the power station:

The applicant shall have to submit the copy of the environmental clearance, received from the concerned administrative authority. In case, the clearance is not received, the applicant may submit the copy of latest correspondence which should be at least at the stage of final approval stage.

C. Forest Clearance (if applicable) for the land for the power station:

The applicant shall have to submit the copy of the forest clearance received from the concerned administrative authority for the land required for erection of EHV Sub-Station. In case forest land diversion is required for development of Wind or Solar Power Projects (for installation of Wind Turbine Generators or Solar PV Panels), the applicant may submit the copies of updated correspondence with competent authorities.

D. Fuel Arrangements:

Details on fuel arrangements shall have to be informed for the quantity of fuel required to generate power from the power station for the total installed capacity intended for connectivity.

E. Water linkage:

The applicant shall inform the status of approval from the concerned state irrigation department or any other relevant authority for the quantity of water required for the power station.

These evidences shall be supported by a sworn in affidavit by the Applicant as per the format given at **FORMAT- 1**.

6.5 While granting connectivity, the STU shall specify the name of the substation or pooling station or switchyard where connectivity is to be granted. In case connectivity is to be granted by looping-in and looping-out of an existing or proposed line, the STU shall specify the point of connection and name of the line at which connectivity is to be granted. The STU shall indicate the broad design features of the dedicated transmission line and the timeframe for completion of the dedicated transmission line.

6.6 An applicant may be required by the State Transmission Utility to construct a dedicated line to the point of connection to enable connectivity to the grid, unless exempted by the Commission for reasons to be recorded in writing.

6.7 The STU shall convey its decision on grant of connectivity or otherwise within a period of 60 days from the date of receipt of application.

6.8 Time frame for disposal of application is 120 days where augmentation of transmission system is not required and 150 days where augmentation of transmission system is required.

7 TIME LIMIT EXTENSION FOR GRID CONNECTIVITY

7.1 If the Evacuation Infrastructure (for generating companies) is not completed within the specified time limit, the application shall have to apply for time extension to STU before 30 (Thirty) days from date of validity date.

7.2 Only two time extensions of Six months each shall be granted for any power project. The non-refundable processing fee shall be of Rs. Two Lakhs per project for the 1st /2nd time extensions. The procedure for application and payment of processing fee shall be as per BERC (Terms and condition of intra-state open access) Regulations, 2018

7.3 To assess the progress of the project, the applicant shall have to submit the following documents:

a. Drawing Approvals:

Applicant shall submit the copies of all the approvals of the SLD (Single Line Diagram), Layout, Tower Schedule, EHV line Profile etc to STU with the application.

b. Supply/Work Orders:

Applicant shall have to submit the copies of Supply orders towards supply of various Sub-Station and EHV line material and the copies of Work Orders placed towards erection of EHV Sub-Station and lines.

c. Work Progress Report:

A Work Progress Report from the STU field officers certifying the current physical progress towards construction of the evacuation infrastructure shall have to be submitted by the applicant.

d. LOI towards supply of Plant Machineries:

Applicant shall submit the copies of LOI placed towards supply of Generator, Turbine and Generating Transformer required for their Power Project. In case of Wind/Solar Power Projects, the applicant shall submit the copies of LOI

placed towards supply of Wind Turbine Generators (WTGs')/Solar PV Modules & Invertors.

- e. Document or agreement imparting the reason for delay in commissioning schedule. This document will be considered only if found genuine by the nodal agency.
- f. Applicant shall have to submit the proof of payment of application fee, Bank Guarantee and PPA (Power Purchase Agreement) or Power Sale – purchase agreement of power.
- g. In case of generating station or consumer not already connected to grid, documentary evidence for completion of the connectivity showing that the same shall be completed before intending date of LTOA.
- h. Any other document supporting progress of the project. This Document will be considered only if found genuine by the nodal agency.
- i. Applicant shall submit the action plan and time schedule for completion of the project.

7.4 For the progressive and/or proposed projects with grid connectivity prior to this procedure, if time extension sought for more than two times, the applicant shall have to pay a processing fee of Rs.Two Lakh per no. of extension along with penalty towards non-completion of the project within time limit of similar amount. All such time extensions if found genuine shall be considered only for Six months from the validity date. However, it is mandatory to complete the project within this extended time frame.

7.5 After scrutinizing the documents, the application of time extension shall be processed and if found genuine, the time extension shall be issued in **FORMAT T1**. Applicant shall complete all the works and commission the project within this extended time frame.

7.6 In spite of availing two extensions, if the project is not completed, the grid connectivity for the project shall be considered as cancelled. In such case, if required, the applicant will have to apply afresh for Grid Connectivity which shall be processed as per the provisions of the Regulations and the applicant shall not have any precedence over other interested applicants seeking grid connectivity at same location.

8 Infirm Power

8.1 The grant of connectivity shall not entitle an applicant to interchange any power with the grid unless it obtains long-term access, medium term open access or short-term open access in accordance with the provisions of these regulations. Provided that a generating station, including captive generating plant which has been granted connectivity to the distribution system shall be allowed to undertake testing including full load testing by injecting its infirm power into the grid before being put into commercial operation, even before availing any type of open access, after obtaining permission of the State Load Despatch Centre (SLDC) and the distribution licensee, who shall keep grid security in view while granting such permission.

8.2 A Generating Station which has been granted Connectivity to the Transmission System shall be permitted by BSPTCL, subject to grid security considerations, to undertake testing, including full-load testing, by injecting infirm power into the grid before its commercial operation and prior to availing Open Access.

8.3 A Generating Station or Unit which has been granted Connectivity to the Transmission System shall be permitted by BSPTCL to inject infirm power into the grid during testing, including full-load testing, before its commercial operation for a period not exceeding six months from the date of its first synchronization.

8.4 BSPTCL may allow extension of the period for testing, including full load test, and consequent injection of infirm power by the Station or Unit, beyond six months in exceptional circumstances on an application made by the Generating Company at least two months before the close of the initial period of six months.

8.5 The generating station shall provide such information as may be required to satisfy STU that the injection of infirm power prior to commercial operation is solely for the purpose of testing and commissioning. As per BERC (Terms and Condition of Intra State Open Access) regulation, 2018, commercial treatment of such infirm power from a generating station or a unit thereof, the tariff of which is determined by the commission, will be governed by the relevant Regulations on Terms and conditions of tariff Notified by the Commission from time to time.

Provided further that the power injected into the grid from other generating stations as a result of such testing, shall be charged at the charges for imbalance determined by the Commission or UI charges where charges of imbalance have not notified by the Commission.

8.6 Before injecting infirm power, the Generating Station shall enter into an Agreement with the Distribution Licensee to supply such power.

8.7 In case the Generating Station does not have an Agreement for sale of power with any Licensee, there shall be no charge for such infirm power injected into the grid, and it shall be credited to BSPTCL.

8.8 STU shall convey its decision on grant of Connectivity within Sixty (60) days from the receipt of Grid Committee decision.

As per BERC (Terms and condition of intra-state open access) Regulations, 2018 The STU shall convey its decision on grant of connectivity or otherwise within a period of 60 days from the date of receipt of application.

9 Terms of Agreement

This Agreement shall commence from the date and time of commencement, as provided in the Agreement and shall continue for such duration as may be agreed between the parties, unless terminated in accordance with clause 10 herein.

10. Dispute resolution

10.1 Each party shall use all reasonable endeavours to resolve any disputes through bilateral mechanisms that may be mutually agreed upon.

10.2 Where any dispute between the Transmission Licensee and the Applicant under this Agreement cannot be bilaterally resolved, it shall be resolved in accordance with the BERC (Terms and condition of intra-state open access) Regulations, 2018, which states:

(1) The complaints regarding all grievances and disputes relating to open access shall be made to the respective nodal agency in writing.

(2) The nodal agency shall investigate and endeavour to resolve the grievance/disputes through mutual agreements.

(3) If the nodal agency is unable to redress the grievance, dispute or the open access customer is aggrieved with the decision of the nodal agency, the matter may be brought before the Hon'ble Bihar Electricity Regulatory Commission by either of the parties.

11 General

11.1 All costs/expenses/charges associated with the application, including demand draft, Affidavits etc. shall be borne by the applicant.

11.2 The applicant shall abide by the provisions of the Electricity Act, 2003, BERC Regulations and Indian Electricity Grid Code and Bihar Grid Code Regulation as amended from time to time.

11.3 This procedure aims at easy and pragmatic disposal of applications made for Connectivity to Intra State Transmission System. However, some teething

problems may still be experienced. The various implications would be known only after practical experience is gained by way of implementing these procedures.

11.4 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.

11.5 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.

11.6 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.

11.7 In order to resolve the same, this procedure shall be reviewed or revised by the Nodal agency.

11.8 All complaints regarding unfair practices, delays, discrimination, lack of information, supply of wrong information or any other matter related to grant of connectivity to ISTS shall be directed to BERC for redressal.

12 Amendments to the Connection Agreement:

In case of modification to point of Connection like re-allocation of bays, up gradation of voltage level etc. by either of the parties, if mutually agreed, an amendment to the Connection Agreement shall be executed between the parties within 30 days of implementing such modification

in witness whereof the Transmission Licensee and the Applicant have caused this Agreement to be executed by duly authorized representative on date above first herein written.

Name & Signature
Applicant

Name & Signature
Transmission Licensee

FORMAT- 1

On Non Judicial Stamp of Rs 10/-

AFFIDAVIT

In the matter of filing application to Bihar State Power Transmission Company Limited (notified as STU), for grant of connectivity under BERC (Terms and Conditions of Intra State Open Access) Regulations, 2018.

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/Board Resolution 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 >
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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)	

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)

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 in Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 have been complied with.

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 Bihar Electricity Regulatory Commission and subsequently will sign BPTA/supplementary BPTA with STU.

Or

In case application for open access not required

I declare the following conditions:

- (i) intention for staying connected or synchronized with the intra-STTS 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 Bihar Electricity Regulatory Commission.

Place:

(Signature)

Date:
applicant

Authorized signatory of the

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-STTS (including detailed description of 'electricity systems') along with single line diagrams (if existing user of Intra-STTS)
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 >
--------------------------	-------------------------------------

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 <i>(in case if applicable)</i>	
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 <i>(in case if applicable)</i>	
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)

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.

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 Bihar Electricity Regulatory 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 Bihar Electricity Regulatory 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-4*] and any other information, within two (2) months (unless otherwise indicated by STU) from the date of 'connection offer', to STU. The submission of information on or with format [*FORMAT-4*] 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-5*] within two (2) months (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-6*] within Six (6) months (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 BERC 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)*

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-4]* and any other information, within two (2) months (unless otherwise indicated by STU) from the date of 'connection offer', to STU. The submission of information on or with format *[FORMAT-4]* by the intra-State transmission license shall be deemed to be the unconditional acceptance of the 'connection offer'.
4. 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-5]* within two (2) months (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.
5. Connection agreement shall be signed in such form and format as provided in format *[FORMAT-6]* within Six (6) months (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 BERC 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-6]*

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.

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 Prime contact person a) Name b) Designation c) Phone no. (with STD code) d) FAX (with STD code) e) E-mail 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_0	
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_{d0}'	
8	Direct axis sub transient open circuit time constant (secs)	T_{d0}''	
9	Quadrature axis transient open circuit time constant (secs)	T_{q0}'	
10	Quadrature axis sub transient open circuit time constant (secs)	T_{q0}''	
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 BSPTCL 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 BSPTCL. 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 BSPTCL shall assume exciter model given at Annexure- III which represents a typical excitation model.

☐

Assume the model given at Annexure-III as our model

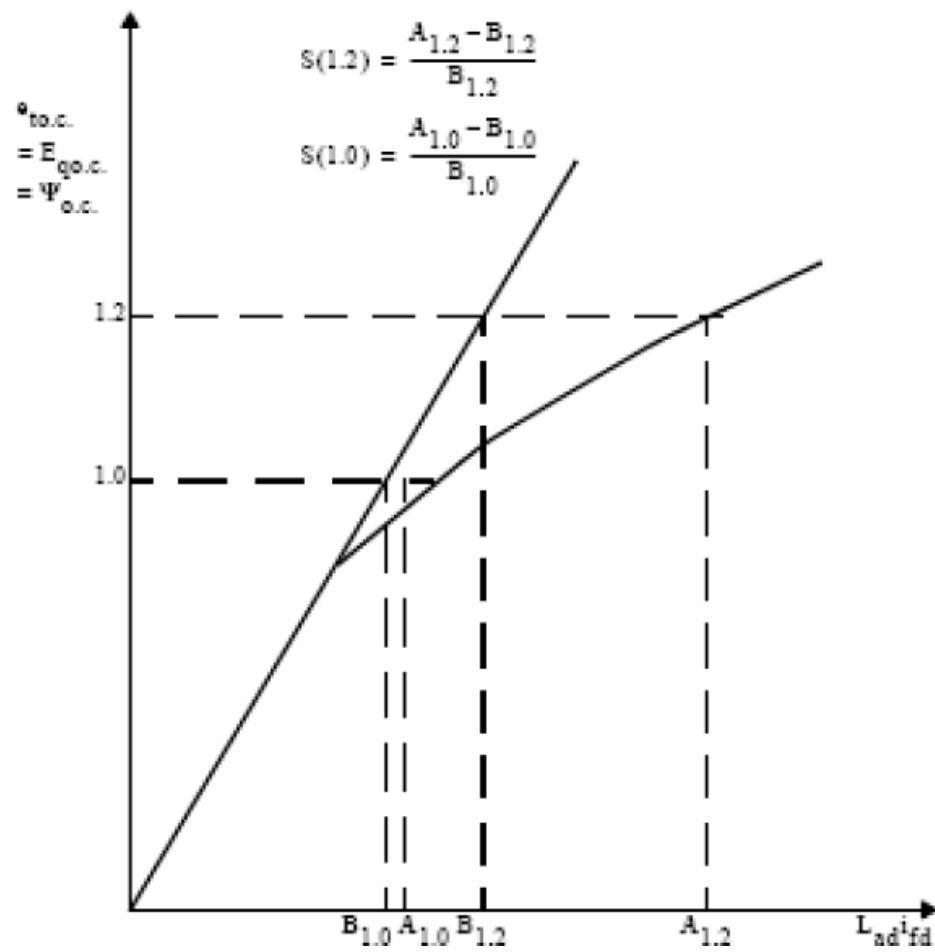
Schedule – VII: Two winding transformer data

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

$S(1.0) =$

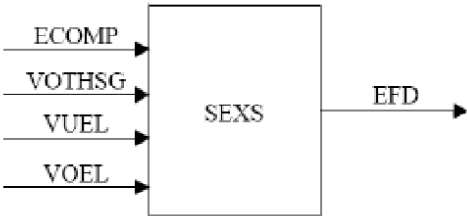
$S(1.2) =$

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 DCI 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

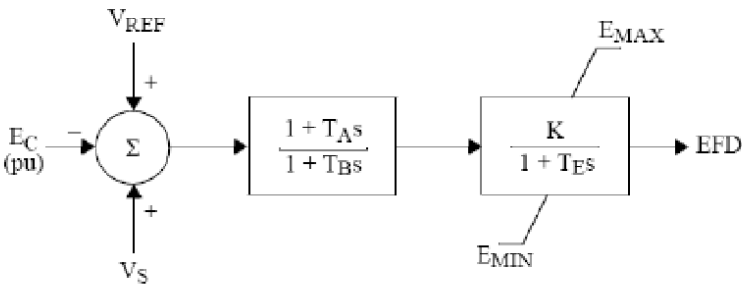
This model is located at system bus #_____ IBUS,
machine #_____ I.
This model uses CONs starting with #_____ J,
and STATEs starting with #_____ K.



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)

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 <div style="text-align: center;">Prime contact person</div> f) Name g) Designation h) Phone no. (with STD code) i) FAX (with STD code) j) E-mail <div style="text-align: center;">Alternate contact person</div> f) Name g) Designation h) Phone no. (with STD code) i) FAX (with STD code) j) E-mail	
5	Status of transmission licensee	
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:
applicant

Authorized signatory of the

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-STTS 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: from [name of substation/switchyard] – to [name of voice communication substation/switchyard]
14. Details of communication equipment up to : [refer Annexure-V] BSPTCL data collection point
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 Patna 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 BERC 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, BERC Connectivity Regulations and Procedure for Grant of Connectivity to intra-STS, BERC Open Access Regulations, BGC 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

SI. No.	Name of equipments	Nos.	Rating s
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 BSPTCL 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 BERC 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:

SI. 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 BGC/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 Patna 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 BSPTCL)

DRAFT
MODEL CONNECTION AGREEMENT

BETWEEN
BIHAR STATE POWER TRANSMISSION COMPANY 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:

Bihar State Power Transmission Company Limited, a company incorporated under the Companies Act, 1956, having its registered office at Vidhyut Bhawan-I, 4th Floor, Bailey Road, Patna (hereinafter called "BSPTCL") 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) BSPTCL has been notified as “State Transmission Utility” (hereinafter referred to as “STU”) by Government of Bihar 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) BSPTCL 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 Bihar Electricity Regulatory Commission (Terms and Conditions for Intra State Open Access) Regulations, 2018 and amendments thereof (hereinafter referred to as “BERC 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 BERC;

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 BERC Connectivity Regulations and the Procedure.

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

ABCD is an intra-State transmission licensee, entering into business of intra-State transmission of electricity under section 63 of the Act and BERC 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 BERC 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 BERC Connectivity Regulations and the Procedure;

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

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

1. General conditions for connectivity:

The parties agree to the following general conditions:

- (a) The parties shall abide by the Bihar Electricity Regulatory Commission (Terms and Conditions for Intra State Open Access) Regulations, 2018, 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, Bihar Electricity Grid Code 2010 (BEGC), amended from time to time 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 BEGC/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.

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

- (h) 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
- (i) Intimation for grant of connectivity (i.e. 'connectivity offer')
- (j) Additional information for signing connection agreement
- (k) Connection details letter

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:

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 Bihar Electricity Regulatory Commission.

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 BERC Connectivity Regulations.

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.

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, Bihar Grid Code, BERC (Terms and Conditions of intra state open access) Regulations, 2018 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:

ABCD shall comply with the provisions made in BERC 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 BERC/CERC, BGC 2007 and IEGC, as amended from time to time.

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.

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.

ABCD shall establish, test, commission and demonstrate voice and data communication facilities with SLDC Patna before test charging. System recording and SCADA equipment shall be compatible to facilitate exchange of data with the system installed in Intra-STTS.

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.

For commissioning of connectivity with Intra-STs, 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

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-STs;
- (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.

Post connectivity events shall be undertaken in accordance with the regulations and codes made by CEA, BERC 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.

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

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.

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 BERC 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 two (2) months 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:-

[BSPTCL 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)

PROFORMA OF BANK GUARANTEE FOR PERFORMANCE

(To be stamped in accordance with Stamp Act)

Ref.

Bank Guarantee No.

Date

To

Bihar State Power Transmission

Company Limited. 4th Floor, Vidhyut

Bhawan, Bailey Road, Patna-800001

Dear Sir,

In consideration of the Bihar State Power Transmission Company Limited, (hereinafter referred to as the "BSPTCL" which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) having signed an agreement

No.....dated.....with CUSTOMER (Name of Customer

..... with its Registered/Head office at

.....(hereinafter referred to as the "CUSTOMER " which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns)

WHEREAS it has been agreed by the customer in the said Agreement that in case of failure /delay to construct the generating station or making an exit or abandonment of its project by CUSTOMER, BSPTCL shall have the right to collect the estimated transmission charges of stranded transmission capacity for dedicated line at the rate mentioned in the Detailed Procedure as approved by the Commission, to compensate such damages.

AND WHEREAS as per the aforesaid agreement customer is required to furnish a Bank Guarantee for a sum of Rs.....(Rupees... ..) as a security for fulfilling its commitments to BSPTCL as stipulated in the said Agreement.

We.....

(Name & Address of the Bank)

having its Head Office at.....(hereinafter referred to as the „Bank“, which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the BSPTCL on demand any and all monies payable by the CUSTOMER to the extent ofas aforesaid at any time upto**(days/month/year) without any demur, reservation, context, recourse or protest and/or without any reference to the CUSTOMER.

Any such demand made by the BSPTCL on the Bank shall be conclusive and binding notwithstanding any difference between the BSPTCL and the CUSTOMER or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the BSPTCL and further agrees that the guarantee herein contained shall continue to be enforceable till the BSPTCL discharges this guarantee.

The BSPTCL shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee, from time to time to extend the time for performance of the obligations under the said agreement by the CUSTOMER. The BSPTCL shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the CUSTOMER, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Agreement between the BSPTCL and the CUSTOMER or any other course or remedy or security available to the BSPTCL. The Bank shall not be released of its obligations under these presents by any exercise by the BSPTCL of its liberty with reference to the matters aforesaid or any of them or by reason of any other act of omission or commission on the part of the BSPTCL or any other indulgences shown by the BSPTCL or by any other matter or thing whatsoever which under law would, but for this provision have the effect of relieving the Bank.

The Bank also agrees that the BSPTCL at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the CUSTOMER and notwithstanding any security or other guarantee the BSPTCL may have in relation to the CUSTOMER's liabilities.

Notwithstanding anything contained hereinabove our liability under this guarantee is restricted toand it shall remain in force upto and including.....and shall be extended from time to time for such period (not exceeding.....year), as may be desired by M/son whose behalf this guarantee has been given.

Dated this.....day of20.....at.....

WITNESS

..... (Signature)
..... (Signature)

..... (Name) (Name)

..... (Official Address)
..... (Designation with Bank Stamp)

Attorney as per Power
of Attorney No.

Date

NOTES:

1. The stamp papers of appropriate value shall be purchased in the name of issuing Bank

FORMAT T1

APPLICATION FORM FOR GRANT OF TIME EXTENSION FOR GRID CONNECTIVITY

1	Name of the applicant	
2	Address for correspondence	
	Details of Wind Power Project:	
	Name of the Site, Taluka & District of the Project	
3	Capacity of the Project (MW)	
	STU's Intimation Letter Number and Date	
	Validity Date (<i>as per STU's Intimation Letter / Time Extension Letter</i>)	
4	Progress as on Date (<i>please specify date</i>)	
5	Detailed Progress of the Project	(Please tick in the appropriate box)
a.	Private Land Acquired (<i>in Hectres, Attach Index-II</i>)	Acquired <input type="checkbox"/> In Progress <input type="checkbox"/> Enclosed <input type="checkbox"/>
b.	Sub-Station land acquisition (<i>attach copies of Index-II, etc.</i>)	Acquired <input type="checkbox"/> In Progress <input type="checkbox"/> Enclosed <input type="checkbox"/>
	Forest Clearance for land diversion (<i>attach copies</i>)	Received <input type="checkbox"/> In Approval Stage <input type="checkbox"/> Enclosed <input type="checkbox"/>
c.	<i>If in approval stage, please specify:</i>	
	<i>Date of submission of application to Forest Authorities</i>	
	<i>Present Status of application</i>	
	<i>Expected date of approval from Forest Authorities</i>	
d.	NOC from Geology and Mining Department (<i>attach copies</i>)	Received <input type="checkbox"/> In Approval Stage <input type="checkbox"/> Enclosed <input type="checkbox"/>
	<i>If in approval stage, please specify:</i>	
	<i>Date of submission of application to Geology & Mining Authorities</i>	

	<i>Present Status of application</i>	
	<i>Expected date of approval from Geology & Mining Authorities</i>	
e.	Line Route, Tower Schedule approval from BSPTCL (attach copies)	Approved <input type="checkbox"/> In Approval Stage <input type="checkbox"/> Not submitted to BSPTCL <input type="checkbox"/>
	<i>If not submitted, please specify the reason</i>	
f.	LOI for supply of S/s. equipments (attach copies)	Placed <input type="checkbox"/> Yet to be placed <input type="checkbox"/> Enclosed <input type="checkbox"/>
	<i>If not placed, please specify the expected date for placing LOI</i>	
g.	LOI for supply for transmission line material (attach copies)	Placed <input type="checkbox"/> Yet to be placed <input type="checkbox"/> Enclosed <input type="checkbox"/>
	<i>If not placed, please specify the expected date for placing LOI</i>	
h.	Execution of MOU/Agreement with Turbine/Boiler/WTG/Solar PV Modules manufacturers (attach copies)	Executed with M/s. _____ on dtd. ____ / ____ / _____.
i.	Execution of MOU/Agreement with Investor (attach copies)	Executed with M/s. _____ on dtd. ____ / ____ / _____.
j.	Progress Report from BSPTCL's Field Office (Attach copy)	
6	Proposed Date of Completion	
7	No. of Time Extensions received from STU	ONE <input type="checkbox"/> TWO <input type="checkbox"/> If more than TWO, please specify: _____
8	Reason for seeking time extension (Please specify the reason for delay in works)	Demand Draft <input type="checkbox"/> NEFT <input type="checkbox"/>
9	Processing Fee Payment Details	
	Processing Fee Amount	Rs. _____
	Demand Draft No. and Date	
	Name of Bank & Branch	
	If payment is made through NEFT, please	Receipt No.: _____ Date: _____

	attach Receipt copy.	

Note: *Filling up of all the columns in the above form are mandatory and for any irrelevant column please specify as "Not Applicable".*

It is hereby certified that the applicant unequivocally confirms to the terms and conditions and has fully understood the guidelines issued by STU for Time Extension of Grid Connectivity on intra-state transmission system. I have verified the above mentioned information & documents attached and are in order. Further, if time extension is granted, I undertake that:

- 1) I shall complete all the works within extended time frame.*
- 2) I shall not request for any further time extension for this Wind Power Project.*
- 3) I shall submit the quarterly Progress Report to the Chief Engineer (STU).*

Encl: Documents as above.

Authorized Signatory

Place:	Name	:
Date:	Designation	:
	Seal	:

FORMAT- 7

(Applicable only if the dedicated transmission system is implemented by STU)

**TRANSMISSION SERVICE AGREEMENT
BETWEEN
BIHAR STATE POWER TRANSMISSION COMPANY LIMITED
AND**

----- (Name of the Applicant for connectivity)

This Transmission Agreement entered into on theday ofTwo thousand between **BIHAR STATE POWER TRANSMISSION COMPANY LIMITED**, a company incorporated under the Companies Act, 1956, having its registered office at 4th Floor, Vidhyut Bhawan, Bailey Road, Patna - 800001 (hereinafter called "**BSPTCL**" which expression shall unless repugnant to the context or meaning thereof include its successors and assigns) as party of the first part;

and

..... (Name) a company incorporated under the companies Act, 1956 having its registered office at _____

(hereinafter referred to as (Name) *which expression shall unless repugnant to the context or meaning thereof include its successors and assigns*) as party of the second part.

A) Whereas(Name) is desirous to avail Connectivity in accordance with Bihar Electricity Regulatory Commission (Terms and Conditions for intra-state open access) regulation 2018 dated 13.07.2018 and Electricity Act 2003 (including their amendments if any) to the Intra- State Transmission System (Intra-STs) as per the details contained in the **Annexure-1. (Format -2)**

B) The transmission system required for Connectivity to the Intra-STs has been finalized in consultation with CEA/BERC, Constituents and (Name) and shall be built, owned, operated and maintained by BSPTCL as indicated at **Annexure-2**.

C) ... (Name) has agreed to bear the applicable transmission charges as decided by Bihar Electricity Regulatory Commission for the transmission system as per Annexure-2 from the date of commercial operation of the transmission system.

AND WHEREAS the parties have agreed that in case any of the asset mentioned at Annexure 2 are executed, owned and operated by any agency(ies) other than BSPTCL, as per the directives of competent authority (for which BSPTCL would immediately inform all the parties) then the tariff of the same would be payable by(Name) directly to the concerned agency(ies) through a separate Agreement to be entered by ... (Name) with the concerned agency(ies).

D) AND WHEREAS it has become incumbent upon ... (Name) and BSPTCL to enter in to Transmission Agreement for payment of above transmission charges.

Now, therefore in consideration of the premises and mutual agreements, covenants and conditions set forth herein, and in the Agreement as contained in the Annexure A attached hereto which shall form an integral part of this Agreement, it is hereby agreed by and between the parties as follows:

1.0 In accordance with Bihar Electricity Regulatory Commission (Terms and Conditions of Intra-State Open Access) Regulations, 2018 dated-13.07.2018 and Electricity Act 2003 (including there amendment if any) and in accordance with the terms mentioned above, BSPTCL agrees to provide connectivity required by (Name) from the date and in the manner mentioned in the Annexure 1 of this agreement.

2.0 (a) ...(Name) its successor/assignee shall pay the transmission charges in accordance with the regulation/tariff order issued by Bihar Electricity Regulatory Commission from time to time of BSPTCL transmission system mentioned at Annexure-2 from the commercial operation of the transmission system.

(b) In addition to opening of Letter of Credit (LC) for 105% of estimated average monthly billing for charges mentioned at 2(a) above, ... (Name) would provide security in the form of irrevocable Bank Guarantee (BG), in favour of BSPTCL, equivalent to two months estimated average monthly billing, three months prior to the scheduled date of connectivity as indicated at Annexure-1. Initially the security mechanism shall be valid for a minimum period of three (3) years and shall be renewed from time to time.

(c) The average transmission charges would be reviewed every six months and accordingly the amount of security would be enhanced/ reduced by ... (Name).

(d) In case (Name) defaults in payment of the monthly charges of BSPTCL bills then, BSPTCL shall be entitled to encash the BG immediately.

(e) In case of encashment of the BG by BSPTCL against non-payment of monthly charges by ... (Name), the same should be immediately replenished/recouped by ... (Name) before the next billing cycle.

(f) The format for bank guarantee is enclosed as **Annexure-X**. The Bank Guarantee shall be issued by

i) A Public Sector Bank or

ii) Scheduled Indian Bank having paid up capital (net of accumulated losses) of Rs.100 crore or above (duly supported by latest annual report) and also satisfying the minimum capital adequacy requirement

or

iii) Any foreign Bank with overall International corporate rating or rating of long term debt not less than A –(A minus) or equivalent by reputed rating agency.

3.0 BSPTCL agrees to provide Connectivity required by ... (Name) as per the details mentioned above and in accordance with the Regulations under the Bihar Electricity Regulatory Commission (Terms and Conditions of Intra-State Open Access) Regulations, 2018 dated- 13.07.2018 and conditions specified by the CERC from time to time.

However, during the tenure of this agreement if any of the covenants and conditions recited in this agreement including agreement at Annexure- A found inconsistent with the provisions of the Electricity Act 2003 and/or applicable notifications/rules/regulations issued either by BERC or by GOB/GOI as per the provisions of the Electricity Act then notwithstanding any thing contained in the agreement referred to above, the said rules and regulations shall prevail.

4.0 Copy of the Agreements entered with Bihar/STU dated ----- shall form part and parcel of this Agreement and accordingly, all terms and conditions of Agreement dated ----- shall mutatis mutandis apply to ... (Name). Any revision, replacement, modification and extension of these Agreement shall also apply to ... (Name).

5.0 (a) The (Name) shall not transfer its rights and obligations specified in the Transmission Agreement. The (Name) may relinquish its rights specified in the Transmission Agreement, subject to payment of compensation in accordance with the Regulations as amended from time to time.

(b) In case ... (Name) fails / delays to utilize the connectivity provided or makes an exit or abandon its project, BSPTCL shall have the right to collect the transmission charges and/ or damages as the case may be in accordance with the notification/regulation issued by BERC/CERC from time to time. (Name) shall furnish a Bank guarantee from a nationalized bank for an amount which shall be equivalent to Rs.5 (five) Lakhs/MW as mentioned in the Detailed Procedure approved by the Commission, to partly compensate such damages. The bank guarantee format is enclosed as **FORMAT -7**. The details and categories of bank

would be in accordance with clause 2 (f) above. The Bank guarantee would be furnished in favour of BSPTCL within 1 (one) month of signing of this Agreement.

(c) This bank guarantee would be initially valid for a period of six months after the expected date of schedule date of commissioning of the Transmission system indicated at Annexure-2. The bank guarantee would be encashed by BSPTCL in case of adverse progress assessed during coordination meeting as per para 6 below. However, the validity should be extended by ... (Name) as per the requirement to be indicated during co-ordination meeting.

(d) In the event of delay in commissioning of the transmission system from its schedule, as indicated at Annexure-2 BSPTCL shall pay transmission charges to ... (Name) proportionate to its capacity ready for connection. Provided further that BSPTCL fails to make alternate arrangement for dispatch of power.

6.0. In order to monitor/ review the progress of connected systems along with connectivity, Joint co-ordination meetings with the representative of ... (Name) and BSPTCL shall be held at regular intervals (preferably quarterly) after signing of this Agreement.

7.0 All differences/ disputes between the parties arising out of or in connection with this Agreement shall be resolved in terms of the Redressal Mechanism provided under Regulation of the BERC (Terms and conditions of intra-state open access) Regulations, 2018 and under Electricity Act 2003.

8.0 The parties shall ensure due compliance with the terms of this Agreement. However, no party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of the Agreement to the extent that such a failure is due to force majeure events such as war, rebellion, mutiny, civil commotion, riot, strike, lock out, fire, flood, forces of nature, major accident, act of God, change of law and any other causes beyond the control of the defaulting party. But any party claiming the benefit of this clause shall satisfy the other party of the existence of such an event and give written notice of 30 days to the other party to this effect. All activities related to connectivity shall be started as soon as practicable by the parties concerned after such eventuality has come to an end or ceased to exist.

9. This Agreement shall be valid from the date of signing of this agreement for a period of 30 years subject to its revision as may be made by the parties to this Agreement provided that this Agreement may be mutually extended, renewed or replaced by another Agreement on such terms and for such further period as the parties may mutually agree. In case ... (Name) continue to get transmission services from the BSPTCL even after expiry of this Agreement without further renewal or formal extension thereof, then all the provisions of this Agreement shall continue to operate till this Agreement is formally renewed, extended or replaced.

In witness whereof both the parties have executed this Agreement through their authorized representative.

Witness

1.

**For and on behalf of
Bihar State Power Transmission Company Limited**

Signature :.....

Signature:.....

Name:.....

Name:.....

Designation.....

Designation.....

2.

For and on behalf of ... (Name)

Signature :.....

Signature:.....

Name:.....

Name:.....

Designation.....

Designation.....

. **Annexure-1**

(As per Format -2)

Transmission system to be implemented by BSPTCL and its schedule of commissioning

Sl. No.	Name of Scheme & Elements	Schedule Commissioning
1.		
2.		
3.		
4.		
.		

Note:

1. The termination of the line as well as location of pooling station is subject to minor changes depending upon final survey and physical constraint, if any.
2. In case of any major development, if there is any change in the transmission system to achieve overall optimization of the system, then above details would be modified on mutual consent.
3. In case, in future, any other Party(ies) is/are granted connectivity through the transmission system detailed above (subject to technical feasibility), he/they would also share the applicable transmission charges

PROFORMA FOR BANK GUARANTEE/LC`
(To be stamped in accordance with stamp Act)

Ref..... Bank Guarantee No..... Dated

To
M/s Bihar State Power Transmission Company Limited

Dear Sirs,

In consideration of the Bihar State Power Transmission Company Limited (hereinafter referred to as the “BSPTCL” which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) agreed to provide its services relates to transmission to (Name) having its registered office at

_____ (hereinafter referred to as the which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) resulting in the Agreement dated. _____ with charges valued at Rs. _____ per month. And whereas the said Agreement has been unequivocally accepted by the and the having agreed to provide a Bank Guarantee in favor of the BSPTCL as payment security guaranteeing to bear the full charges of BSPTCL transmission system amounting to Rs. _____ for a period of 2 months _____.

And whereas _____ Bank, a body incorporated under the _____ law, having its branch office at ----- and its Registered/Head Office at _____ hereinafter referred to as the „Bank“ which expression shall unless repugnant to the context or meaning thereof include its successors, administrators, executors and permitted assigns, do hereby guarantee and undertake to pay the BSPTCL on its first written demand any and all monies payable by the in respect of the said transmission charges without any demur, reservation, contest, recourse or protest and/or without any reference to the.....

Any such demand made by the BSPTCL on the Bank shall be conclusive and binding notwithstanding any difference between the BSPTCL and or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous written consent of the BSPTCL and further agrees that the guarantee herein contained shall continue to be enforceable till the BSPTCL discharges the guarantee. The decision of the BSPTCL declaring the to be payment default as aforesaid shall be final and binding on the Bank.

The BSPTCL shall have the fullest liberty without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which

they might have against the..... and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied between the BSPTCL and theor any other course or remedy or security available to the BSPTCL. The Bank shall not be released of its obligations under these presents by any exercise by BSPTCL or its liberty with reference to the matters aforesaid or any of them or by reason of any other act of omission or commission on the part of the BSPTCL or any other indulgence shown by BSPTCL or by any other matter or thing whatsoever which under law would, but for this provision have the effect of relieving the Bank.

The Bank also agrees that the BSPTCL at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against theand notwithstanding any security or other guarantee the BSPTCL may have in relation to the..... liabilities.

Notwithstanding anything contained herein above the Bank's liability under this guarantee is restricted to Rs._____and it shall remain in force upto and including_____and shall be extended from time to time for such period (not exceeding one year), as may be desired by theon whose behalf this guarantee has been given.

These presents shall be governed by and construed in accordance with Indian Laws.

The Bank hereby declares that it has the power to issue this Guarantee and the undersigned has full power to do so.

Dated this.....day of.....20.. at.....

WITNESS

.....
(Signature)

.....
(Name)

.....
Official Address)

.....
(Signature)

.....
(Name)

.....
(Designation with Bank Stamp)

